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~ US ~ TAXATION of Foreign Income

Gary Clyde Hufbauer
& Ariel Assa

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of Foreign Income

Peterson Institute for International Economics

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& Ariel Assa

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*For Congressman Bill Archer, Chairman
House Ways and Means Committee (1995–2001)
Champion of tax reform*

Contents

Preface	xiii
Acknowledgments	xvii
1 Introduction	1
The US Role in the World Economy: Five Decades of Change	2
Foreign-Owned Assets in the United States	6
Internationalization of the US Economy	10
The Rise of High Technology	13
Headquarters for MNEs	21
2 Corporate Taxation	25
Historical Background	26
Incidence of the Corporate Income Tax	28
Relevance to International Tax Issues	41
3 Traditional Tax Doctrine for Foreign Income	51
Capital Export Neutrality	54
National Neutrality	63
Capital Import Neutrality	65
Capital Export Neutrality and Capital Import Neutrality Theories in Tax Reality	69
Capital Ownership Neutrality	72
Revenue Considerations	73
The Future Debate	77
	vii

4	Residence Taxation for Portfolio Investment Income	79
	The Rise of Portfolio Capital	79
	Applying Capital Export Neutrality Logic to Portfolio Income	81
	Residence-Only Taxation of Portfolio Income	83
	Cooperation Against Tax Avoidance	86
	OECD Project on Harmful Tax Competition	88
	The USA Patriot Act and Anti-Money Laundering Initiatives	92
	Recommendations	94
5	Multinational Firms in the World Economy	99
	Strategic Arguments	101
	A Model of Operating Profits and Headquarters Costs	109
	Restrictive Policies and National Prosperity	114
	Tax Policy Implications	119
6	Agenda for Modest Reform: A Territorial System	123
	The Territorial System	133
	Antiabuse Measures	152
	Tax Treaty Policy	163
	Revenue Implications	166
	Appendix A1	175
	History of US Taxation of Foreign Income of US Corporations (Excluding Merchandise Export Income)	
	Appendix A2	191
	History of US Foreign Tax Credit Limitations	
	Appendix A3	197
	History of US Deferral of Current Taxation of Controlled Foreign Corporations	
	Appendix A4	203
	History of US Taxation of Merchandise Export Income	
	Appendix A5	211
	History of US Taxation of Foreign Corporations Doing Business in the United States	
	Appendix A6	223
	History of Source-of-Income Rules Prior to the Tax Reform Act of 1986	
	Appendix A7	227
	Comparison of Source-of-Income Rules Before and After the Tax Reform Act of 1986	

Appendix A8		233
Allocation-of-Expenses Rules		
Appendix A9		243
History of Rules for Intercompany Pricing Between US and Affiliated Foreign Corporations		
Appendix B		255
Methods for Reducing Corporate Income Taxes		
Appendix C1		261
A Simple Model of World Portfolio Capital Flows		
Appendix C2		265
Temporary Taxes on Portfolio Capital		
Appendix C3		267
Conditions for Reimbursement of the Backup Withholding Tax		
Appendix D		269
The Simple Economics of Imperfect Competition		
Appendix E		275
Electronic Commerce		
Appendix F		295
Revenue on Foreign Investment in the United States		
References		297
Index		309
Tables		
Table 1.1	US, Japanese, and EC/EU shares of world GDP, exports, and foreign direct investment, 1960–2005	3
Table 1.2	United States: Foreign direct investment position, 1960–2005	5
Table 1.3	Headquarter locations of top 100 industrial firms and top 50 commercial banks worldwide, 1960–2005	6
Table 1.4	Foreign-owned assets in the United States, 1985–2005	8
Table 1.5	US-owned assets abroad, 1985–2005	9
Table 1.6	United States: Selected measures of openness to international trade and investment, 1960–2005	11
Table 1.7	US merchandise trade associated with US multinational enterprises, selected years	12

Table 1.8	RD&E spending by the United States, Japan, and Germany, 1961–2004	18
Table 1.9	RD&E expenditures as percent of GDP, selected high-technology countries	19
Table 1.10	The 40 largest US RD&E firms, by outlay, 2004–05	20
Table 2.1	Corporate income tax revenues as shares of GDP and total tax revenues, selected countries, 1965–2005	29
Table 2.2	Consumption tax revenues and public spending, selected countries, 2005	30
Table 2.3	United States: Pretax corporate earnings required to pay (in various forms) individual debt and equity holders \$100 after all federal taxes	37
Table 2.4	Pretax corporate earnings required to pay individual shareholders \$100 of dividends after all central government taxes at statutory rates, selected countries	39
Table 2.5	Federal and subfederal corporate income tax rates, selected countries	45
Table 4.1	US interest and portfolio dividends paid to foreign persons and withholding taxes collected by the Internal Revenue Service, 2005 and 2006	84
Table 4.2	Foreign interest and portfolio dividends paid to US persons, 2005 and 2006	96
Table 5.1	United States: Manufacturing output, RD&E, and employment, 1960–2005	103
Table 5.2	United States: High-technology output, RD&E, and employment, 1960–2005	104
Table 5.3	Operations of foreign affiliates of US firms	106
Table 5.4	RD&E performed in the United States and by foreign affiliates of US firms outside the United States, 1975–2004	107
Table 5.5	Countries with more than 20 firms in Fortune Global 500 in 2004 and metropolitan areas with five or more firms	117
Table 5.6	Industry breakdown of Fortune Global 500, 2004	118
Table 6.1	Comparative plans for international tax reform	124
Table 6.2	Operations of US multinational enterprises in low-tax and tax haven countries as a share of total operations	132
Table 6.3	Comparison of systems for taxing foreign-source income	134
Table 6.4	Employment, capital expenditures, and sales by nonbank US multinational enterprises, 1988–2004	145
Table 6.5	Actual US income from foreign sources, foreign tax credits, and US tax revenue under current system, 2002	149

Table 6.6	Illustrative US corporate tax rates at the federal level (after foreign tax credits) by type of foreign-source income	154
Table 6.7	APA applications filed and executed, 1991–2005	157
Table 6.8	Withholding rates applied by the United States, 1990 and 2005	163
Table 6.9	Hypothetical US income from foreign sources, foreign tax credits, and US tax revenue under territorial system, 2002	168
Table A8.1	Summary of expense apportionment before and after the Tax Reform Act of 1986	240
Table B.1	Dividend tax relief in the OECD countries	259
Table E.1	Total worldwide e-commerce revenues, 2004	276
Table E.2	US online retail sales, 2000–2006	276
Table E.3	E-commerce as share of total turnover, 2003	277
Table E.4	Proposals to implement withholding taxes on cross-border e-commerce transactions	284
Table F.1	US tax revenue on US source income accruing to foreign persons, 2005	296
Figures		
Figure 2.1	Corporate tax as a sales tax	31
Figure 2.2	Corporate tax as a shareholder income tax	35
Figure 5.1a	Economic profits and headquarters costs in a market restrained by government barriers	110
Figure 5.1b	Economic profits and headquarters costs in a market not restrained by government barriers	110
Box		
Box 6.1	Zero-Zero taxation	164

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Preface

In the aftermath of World War II, the United States enjoyed an easy preeminence in the world economy. Neither the US education system, nor the US tax system, nor American savings habits were criticized on grounds of international competitiveness. During the 1980s, however, Americans took notice of their faults as Japan and the European Union both seemed destined to challenge US preeminence. For different reasons neither Japan nor the European Union prospered during the 1990s but the US economy thrived on a technology boom. Thus, at the turn of the century, it seemed that economic challengers were falling behind. American complacency was short-lived, however, as the wheel of fortune soon brought new emerging powers to the fore—notably Brazil, Russia, India, and China (the BRICs)—together with an array of smaller countries such as Finland, Ireland, Korea, and Singapore.

Globalization skeptics now dominate the American political debate and the United States is once again worried about its leadership position. This study starts from the proposition that Americans have reason to worry though the right answer is not to reject globalization. History, geography and institutions all favor the United States but authors Gary Clyde Hufbauer and Ariel Assa argue that US tax policy towards international firms ranks alongside other unfavorable forces that are undermining the US position. Treasury Secretary Henry Paulson apparently agrees. In July 2007, he issued a US Treasury paper expressing concern that the current tax system erodes US business competitiveness in the international marketplace.¹

1. See Background Paper: Treasury Conference on Business Taxation and Global Competitiveness, Department of the Treasury, July 26, 2007.

This study updates and extends an earlier Institute volume by Hufbauer on international taxation published in 1992, *US Taxation of International Income: Blueprint for Reform*. Some of the recommendations made at that time have found their way piecemeal into the US tax system. For example, the American Jobs Creation Act of 2004 (AJCA) marginally moved the US system towards a territorial model. (Under a full territorial system, the United States would tax all income earned at home but it would not tax active business income earned abroad.) In the economic glow of the 1990s, however, the United States grew complacent about its competitive position in the world economy and far-reaching tax reforms were postponed.

In this new study, the authors focus on urgent reforms that should be feasible within the context of the US system for taxing corporate and individual income. Since 1990, US-based multinational enterprises (MNEs)—especially in high-technology industries—have dramatically expanded their business operations abroad and now generate a large portion of their income from activities outside the United States. In fact, household name corporations often earn more than half their profits from overseas sources. Reflecting this trend, Sam Palmisano, CEO of IBM, is now seeking to rebrand his firm as a “globally integrated enterprise.” Jeffrey Immelt, CEO of GE, has expressed a similar aspiration.

There are many positive aspects to these trends, particularly in spreading overhead and R&D costs and bringing economic gains to less advanced countries, but the rebranding effort underscores future challenges for the US economy. The challenges have many dimensions but one aspect that should be squarely addressed is the US system of taxing foreign income. The current system creates a hostile climate for US-based MNEs, while encouraging high-technology production abroad and facilitating tax evasion on portfolio income. The authors emphasize two major defects in the current US tax regime:

- *The US tax system creates unintended incentives for MNEs to locate high-technology production abroad.* This happens because implicit royalty and fee income earned from production in the United States often pays a higher total tax rate than explicit royalties and fees earned from production of the same goods and services outside the United States.
- *The US tax system creates unintended incentives for MNEs to shift their headquarters activities abroad.* The US worldwide tax system extends its reach to foreign production and sales income, unlike the systems of most competitor countries. Moreover, the US system contains unfavorable rules for allocating research, development, and administrative expenses. These features prompt global enterprises to think about placing their headquarters in cities like London, Singapore, or Dubai rather than New York, Chicago, or Los Angeles.

In addition to its competitive defects, the US tax system facilitates tax evasion on foreign portfolio income paid or accrued to US residents. Tax abuse is the natural corollary of underreporting, and the absence of effective international cooperation enables US companies and individuals to conceal their passive portfolio income earned from foreign sources.

Hufbauer and Assa recommend tax policy reforms that would encourage MNEs to locate both headquarters activities and high-technology production in the United States. To achieve these goals, the authors propose that the US tax regime should be shifted toward a territorial system, coupled with favorable expense allocation rules. They suggest a new approach for taxing royalty and fee income earned abroad so that high-technology production in the United States is not penalized by comparison with production abroad. The authors also urge the United States to take the lead in creating a cooperative international system that would discourage underreporting of foreign portfolio income, including by US residents. Perhaps surprisingly, the authors calculate that their proposed reforms might collect more tax revenue than the present system, paving the way for a lower corporate tax rate or other forms of business tax relief.

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The Institute is funded by a highly diversified group of philanthropic foundations, private corporations, and interested individuals. About 30 percent of the Institute's resources in our latest fiscal year were provided by contributors outside the United States, including about 12 percent from Japan. The Smith-Richardson Foundation provided generous support for this particular study.

The Institute's Board of Directors bears overall responsibilities for the Institute and gives general guidance and approval to its research program, including the identification of topics that are likely to become important over the medium run (one to three years) and that should be addressed by the Institute. The director, working closely with the staff and outside Advisory Committee, is responsible for the development of particular projects and makes the final decision to publish an individual study.

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C. FRED BERGSTEN
Director
September 2007

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Introduction

In its essentials, the case for reforming the US system of taxing international business income is a case for meeting the economic challenges of the 21st century. Three major trends capture the evolving position of the United States in the world economy. Together, they promise heightened competition between the United States and other industrial countries, especially emerging powers such as Brazil, Russia, India, and China.

First, the past two decades saw a reversal of fortune between the United States and its industrial peers. During the 1990s and the first half of the 2000s, the United States outperformed every advanced industrial economy in growth, productivity, capital investment, entrepreneurial activity, and fiscal discipline. The challenge ahead, however, is not a resurgent Europe or Japan, but the very rapid ascent of China, India, and other emerging powers.

Second, the United States has now become a prime destination for foreign asset holders—a sharp reversal from its post–World War II status as creditor to the world. At the end of 2005, US ownership of assets abroad amounted to about \$10 trillion, compared with foreign ownership of US assets of about \$12.7 trillion. The stock of inward investment is now approximately equal to annual GDP, and the stock of outward investment is only slightly smaller.

Third, apart from cross-ownership of assets, the US economy has become decidedly more international in other ways. Many more US firms are now exposed to international commerce, and world capital and technology markets are far more closely linked than they were in past decades. Whereas US imports plus exports of goods and services were about 9 percent of GDP in 1960, in 2005 the trade-to-GDP ratio was about 33 percent.

The case for reforming US taxation of international business income is particularly acute in high-technology activities and industries. Those who are content with the US position in the world economy, those who believe that the dominant purpose of tax policy is to raise revenue in a manner that creates the least political stir—or in a manner that is neutral across all forms of economic activity—and those who see only a weak link between tax policy and corporate performance will find little reason to commend this book. Our recommendations are based on the central proposition that the US position in the world economy should be stronger and that, at the margin, tax policy can make a difference. We readily acknowledge that other forces also matter, such as education, workforce skills, innovation, and cultural attitudes. Many of these forces are more important than tax policy, and in combination they have delivered sterling US economic performance since 1990. However, US tax policy was not among the favorable forces, and the defects of international taxation are the focus of our study.

The US Role in the World Economy: Five Decades of Change

The United States emerged from World War II as the world's dominant political and economic power. It took the political and military lead in containing the threat of Soviet expansion, and it took the economic lead through the Marshall Plan and the new international institutions founded at Bretton Woods, rebuilding the world economy along market principles.

During this era the United States was well placed to lead the world economy. In 1960 the US economy accounted for 43 percent of world GDP, 18 percent of world merchandise exports, and about a third or more of world high-technology exports.¹ The United States was also home to most multinational enterprises (MNEs) and accounted for 52 percent of world foreign direct investment (FDI) but hosted only 11 percent of world FDI (table 1.1).

Postwar US reconstruction packages, coupled with the US-led drive toward open markets, enabled Japan and Western Europe to quickly rebuild their economies. Japan saw its real GDP grow at an average annual rate of almost 7 percent between 1960 and 1980. The members of the present-day European Union grew by an average annual rate of 3.5 percent

1. In the 1960s members of the Organization for Economic Cooperation and Development (OECD) contributed the vast majority of the world's industrial output. Hence, our estimate of the US share of high-technology exports in 1960 is based on total OECD exports; due to data limitations, these are defined as Standard International Trade Classifications (SITC) 5, 7, and 8. By contrast, table 1.1 uses a more refined and recent definition of high technology. National shares are estimated relative to world exports of high technology in table 1.1, but the table covers only the period from 1980 to the present.

during the same period. Meanwhile the real GDP of the United States grew at a slightly more modest 3.2 percent annually in real terms (OECD 1977, 1990).

Table 1.1 summarizes the changed US position in the world economy. In 2005 the US economy accounted for 28 percent of world GDP, 13 percent of world merchandise exports, and 16 percent of world high-technology exports. US-based multinationals were responsible for 21 percent of world FDI, and in 2005 the United States hosted an equal share (21 percent) of world FDI.

Approximate constancy in two aggregate economic statistics in the 25 years since 1980—the US share of world GDP and the US share of merchandise exports—suggests that the United States reached a condition of rough economic equality with its two major competitors, Europe and Japan. But the recovery of Russia and the rise of Brazil, China, India, Korea, and a handful of other newcomers may portend a different outcome 25 years from now. Perhaps a leading indicator is that the US share of world high-technology exports has continued to fall, from 30 percent in 1980 to 16 percent in 2005.

Worldwide flows and national FDI positions reflect the strength of large MNEs in generating and applying technology and in organizing the global production and distribution of goods and services.² Table 1.2 shows the altered fortunes of the United States as a supplier and recipient of FDI. This shifting balance mirrors a relative decline in the competitive position of top US firms.³ In 1960 the stock of US direct investment abroad exceeded inward FDI by a factor of almost five to one in market-value terms. By 2005, however, the stock of US outward investment exceeded inward investment by only 25 percent in market-value terms (table 1.2).

Statistics that show the United States' relative decline in high-technology markets and the share of worldwide FDI are reinforced by the changing portrait of the world's top 100 industrial firms (table 1.3). In 1960, 70 US firms filled the ranks of the top 100, followed by the European Community with 27 national champions. Japan had only 2 firms in the top 100. In 2005 only 38 US firms made it to the top 100, while the European Union had 34 firms and Japan 13 firms. Between 1960 and 2000, the number of top 100 firms headquartered outside the traditional "G-3"—the United States, Europe, and Japan—soared from 1 to 15.

2. Hymer (1976) first advanced the idea that considerations of industrial organization, rather than the more efficient distribution of global capital, provides the dominant impetus behind FDI. Industrial organization arguments are the key rationale for some of the tax reforms recommended in this volume. For a review of the early literature on FDI, see Graham and Krugman (1995).

3. Of course, European and Japanese firms emerged from World War II and decolonization with significantly diminished outward FDI stocks. Hence, part of the loss of competitiveness of US firms in the 1960 and 1970s reflects non-US global firms' reestablishment of their prewar positions.

Table 1.1 US, Japanese, and EC/EU shares of world GDP, exports, and foreign direct investment, 1960–2005 (percent of total)

Indicator	1960	1970	1980	1990	2000	2005
GDP						
United States	43	35	25	26	31	28
Japan	4	7	10	14	15	11
EC/EU-15	24	28	32	32	25	30
Merchandise exports ^a						
United States	18	19	14	16	16	13
Japan	3	8	8	12	10	8
EC/EU-15 (extraregional only)	25	18	19	21	17	19
High-technology exports ^b						
United States	n.a.	n.a.	30	23	18	16
Japan	n.a.	n.a.	13	17	10	9
EC/EU (all trade)	n.a.	n.a.	39	37	31	32
Outward stock of FDI						
United States	52	55	38	24	21	21
Japan	1	3	3	11	5	4
EC/EU	35	28	37	45	50	53
Inward stock of FDI						
United States	11	10	16	22	22	21
Japan	n.a.	1	1	1	1	1
EC/EU	14	22	42	43	38	45

EC/EU = European Community/European Union

n.a. = not available

a. Intra-EU trade is excluded from EU exports and world trade.

b. High-technology exports include aerospace; computers and office machinery; communications equipment; pharmaceuticals; and medical, precision, and optical instruments. 2005 data correspond to 2003 data.

Note: Based on indicators measured in current US dollars. EU indicators do not take into account changes to the group but rather are based, for the whole period, on the following 15 members only: Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland, Sweden, and the United Kingdom.

Sources: National Science Foundation (2006); Energy Information Administration, *Annual Energy Review 2001* and *International Energy Annual 2001*; Organization for Economic Cooperation and Development (OECD), *International Trade by Commodity Statistics*, volumes 2002/1–2002/5; OECD, *Main Economic Indicators*, June 2003, 25, 243; International Monetary Fund, *International Financial Statistics*, 2002, 126; UN Conference on Trade and Development, *World Investment Report*, 2002, table I.1, annex tables B.3 and B.4.

Table 1.2 United States: Foreign direct investment position, 1960–2005 (billions of dollars)

Year	Outward direct investment			Inward direct investment			Ratio of outward to inward FDI ^a
	Book value	Market value		Book value	Market value		
		Commerce Department	Eisner and Pieper (1988)		Commerce Department	Eisner and Pieper (1988)	
1960	32	n.a.	51	7	n.a.	11	4.8
1965	49	n.a.	81	7	n.a.	18	4.5
1970	75	n.a.	108	13	n.a.	20	5.4
1975	124	n.a.	149	28	n.a.	27	5.5
1980	215	n.a.	295	83	n.a.	75	3.9
1985	230	n.a.	404	185	228	210	1.9
1990	421	714	n.a.	404	530	n.a.	1.4
1995	880	1,301	n.a.	639	1,019	n.a.	1.4
2000	1,515	2,674	n.a.	1,375	2,766	n.a.	1.1
2005	2,454	3,524	n.a.	1,874	2,797	n.a.	1.3

n.a. = not available

a. Ratio by market value.

Sources: Bureau of Economic Analysis, *Survey of Current Business*, August 2006, International investment position of the United States at year-end 2004 and 2005, table G-1; *Survey of Current Business*, May 2003, International investment position of the United States at year-end 2000 and 2001, table G-1; *Survey of Current Business*, May 1997, International investment position of the United States at year-end 1994–95, table G-1.

Table 1.3 Headquarter locations of top 100 industrial firms and top 50 commercial banks worldwide, 1960–2005

Country/region	1960	1970	1980	1990	2000	2005
Industrial firms ^a						
United States	70	64	45	33	39	38
Japan	2	8	9	16	21	13
EC/EU ^b	27	26	39	38	30	34
Others	1	2	7	13	10	15
Commercial banks ^c						
United States	n.a.	15	7	7	7	10
Japan	n.a.	11	13	13	6	6
EC/EU ^b	n.a.	16	24	24	27	29
Others	n.a.	8	6	6	10	5

n.a. = not available

a. As ranked by sales.

b. Includes all firms headquartered in the present (since mid-1993) 25 EU members.

c. As ranked by assets.

Source: *Fortune* magazine, various issues.

Foreign-Owned Assets in the United States

Large and persistent US current account deficits, popularly labeled as trade deficits, are another cause for concern. Persistent current account deficits are first and foremost a macroeconomic phenomenon that reflects the exchange rate of the dollar, the balance between national savings (public and private) and national investment, and the desire of foreign investors to acquire US assets. As the *2006 Economic Report of the President* (see chapter 6) emphasized, every current account deficit implies a capital account surplus, and an important driver of US current account deficits since 2000 has been world demand for US assets. The level of federal taxation relative to the level of federal spending affects both the current account deficit and the capital account surplus through its effect on national saving.⁴ But the composition of federal taxation—how much is personal taxation, how much is business taxation, whether the tax base is income or consumption—exerts second-order effects at best on the current account deficit and the capital account surplus.

4. A recent model-based study by the research staff of the Federal Reserve Board (Erceg, Guerrieri, and Gust 2005) estimates that a \$100 billion increase in the fiscal deficit causes the trade balance to deteriorate by \$20 billion.

That said, certain second-order effects of business taxation are worth noting. The inevitable counterpart of a current account deficit is a capital account surplus, meaning foreign acquisition of US assets, such as shares, bonds, real estate, and firms. When foreign owners acquire US assets, the United States probably benefits to a greater extent when the assets are in corporate equities or inward direct investment rather than US Treasury securities and other debt instruments.⁵ There are two reasons for this. First, equity holdings are more likely to support entrepreneurship and innovation than are debt securities, and direct investment is far more likely to convey specialized know-how to the US economy than are purely financial investments.⁶ Second, US federal tax collections are far larger on a billion dollars of equity holdings or direct investment than a billion dollars of US Treasury securities or other debt. As chapter 4 emphasizes, US tax collections average less than 2 percent of interest payments to foreign persons. By contrast, US tax collections average nearly 30 percent of US corporate earnings paid out as dividends to parent firms based abroad.

Table 1.4 summarizes the foreign-owned asset position since 1985, distinguishing among three categories: passive assets, mainly debt securities; corporate equities; and inward direct investment. For comparison, table 1.5 contains parallel data for US-owned assets abroad. At this juncture, we do not dwell on US-owned assets abroad since they are the primary focus of our analysis of tax policy in subsequent chapters. However, US portfolio investment abroad—in debt securities and corporate equities—account for about three-quarters of total US-owned assets abroad, while direct investment accounts for about one-quarter of total US-owned assets abroad.

As for inward foreign investment, foreign holdings in all three categories have grown substantially relative to GDP. In 1985 the total was about 30 percent of GDP; now it is above 100 percent. This is the long-term consequence of persistent current account deficits, or put another way, a long-term reflection of foreign eagerness to buy American assets. Passive debt assets, including foreign official assets, remain at nearly 70 percent of the total.

The United States would almost certainly benefit if a greater share of inward foreign investment were in corporate equities rather than debt, and in direct rather than portfolio investment. The burden of US business taxation clearly favors the foreign acquisition of debt securities rather

5. Whether inward or outward, FDI is defined in terms of control by the US parent corporation. In most cases, the parent corporation owns more than 50 percent (and most often 100 percent) of voting shares in the subsidiary firm. However, other definitions of control are used both for statistical purposes and in the tax laws. Foreign investment that has no control element, and therefore is not direct investment, is considered to be portfolio investment.

6. On the benefits of inward direct investment, see Dobson and Hufbauer (2001, chapter 1) and Moran, Graham, and Blomstrom (2005).

Table 1.4 Foreign-owned assets in the United States, 1985–2005

Asset	1985	1990	1995	2000	2005
a. In billions of dollars (percent of GDP in parentheses)					
Passive assets	860.2 (20.4)	1,697.3 (29.2)	2,753.9 (37.2)	4,644.5 (47.3)	8,712.4 (69.9)
Foreign official assets ^a	202.4	373.3	682.9	1,030.7	2,216.1
Other	657.8	1,324.0	2,071.0	3,613.8	6,496.3
Treasury securities	88.0	152.5	327.0	381.6	704.8
Corporate and other bonds	82.3	238.9	459.1	1,068.6	2,275.1
US currency	46.0	85.9	169.5	256.0	352.1
Nonbank liabilities, nes	87.0	213.4	300.4	738.9	563.7
Bank liabilities, nes	354.5	633.3	815.0	1,168.7	2,600.6
Corporate equities	125.6 (3.0)	221.7 (3.8)	510.8 (6.9)	1,554.4 (15.8)	2,115.5 (17.0)
Direct investment	184.6 (4.4)	394.9 (6.8)	535.6 (7.2)	1,256.9 (12.8)	1,874.2 (15.0)
In nontraded sectors ^b	71.9	127.9	201.2	548.9	780.6
In traded sectors ^c	112.7	267.0	334.3	707.9	1,093.6
Total	1,170.4 (27.7)	2,313.9 (39.9)	3,800.2 (51.4)	7,455.9 (75.9)	12,702.1 (102.0)
b. As share of total US-owned assets abroad (percent)					
Passive assets	73.5	73.4	72.5	62.3	68.6
Foreign official assets ^a	17.3	16.1	18.0	13.8	17.4
Other	56.2	57.2	54.5	48.5	51.1
Treasury securities	7.5	6.6	8.6	5.1	5.6
Corporate and other bonds	7.0	10.3	12.1	14.3	17.9
US currency	3.9	3.7	4.5	3.4	2.8
Nonbank liabilities, nes	7.4	9.2	7.9	9.9	4.4
Bank liabilities, nes	30.3	27.4	21.4	15.7	20.5
Corporate equities	10.7	9.6	13.4	20.8	16.7
Direct investment	15.8	17.1	14.1	16.9	14.8
In nontraded sectors ^c	6.1	5.5	5.3	7.4	6.1
In traded sectors ^b	9.6	11.5	8.8	9.5	8.6
Total	100.0	100.0	100.0	100.0	100.0
<i>Memorandum:</i>					
Nominal GDP (billions of dollars)	4,220.3	5,803.1	7,397.7	9,817.0	12,455.8

a. Primarily foreign government holdings of US treasuries.

b. Nontraded sectors include wholesale and retail trade, real estate, holding companies, banking and other finance, health care, accommodation, and food services.

c. Traded sectors include manufacturing, agriculture, mining, construction, information, and services not elsewhere specified (nes).

Note: Direct investment stock is valued at historical cost, as opposed to market value or current cost.

Source: Bureau of Economic Analysis, www.bea.gov.

Table 1.5 US-owned assets abroad, 1985–2005

Asset	1985	1990	1995	2000	2005
a. In billions of dollars (percent of GDP in parentheses)					
Passive assets	872.0 (20.7)	1,364.7 (23.5)	1,810.2 (24.5)	2,846.8 (29.0)	4,468.2 (35.9)
Official reserve assets ^a	117.9	174.7	176.1	128.4	188.0
Other government assets	89.8	84.3	85.1	85.2	77.5
Privately held passive assets	664.3	1,105.7	1,549.0	2,633.2	4,202.7
Foreign bonds (government and corporate)	75.02	144.7	413.3	532.5	987.5
Nonbank liabilities	141.9	265.3	367.6	836.6	784.5
Bank liabilities, nes	447.4	695.7	768.1	1,264.1	2,430.7
Corporate equities	44.4 (1.1)	197.6 (3.4)	790.6 (10.7)	1,852.8 (18.9)	3,086.4 (24.8)
Direct investment	238.4 (5.6)	430.5 (7.4)	699.0 (9.4)	1,316.2 (13.4)	2,453.9 (19.7)
In nontraded sectors ^b	67.9	181.0	333.9	767.5	1,516.6
In traded goods sectors ^c	170.4	249.5	365.1	548.8	937.3
Total	1,154.7 (27.4)	1,992.8 (34.3)	3,299.8 (44.6)	6,015.9 (61.3)	10,008.5 (80.4)
b. As share of total foreign assets (percent)					
Passive assets	75.5	68.5	54.9	47.3	44.6
Official reserve assets ^a	10.2	8.8	5.3	2.1	1.9
Other government assets	7.8	4.2	2.6	1.4	0.8
Privately held passive assets	57.5	55.5	46.9	43.8	42.0
Foreign bonds (government and corporate)	6.5	7.3	12.5	8.9	9.9
Nonbank liabilities	12.3	13.3	11.1	13.9	7.8
Bank liabilities, nes	38.7	34.9	23.3	21.0	24.3
Corporate equities	3.8	9.9	24.0	30.8	30.8
Direct investment	20.6	21.6	21.2	21.9	24.5
In nontraded sectors ^b	5.9	9.1	10.1	12.8	15.2
In traded goods sectors ^c	14.8	12.5	11.1	9.1	9.4
Total	100.0	100.0	100.0	100.0	100.0
<i>Memorandum:</i>					
Nominal GDP (billions of dollars)	4,220.3	5,803.1	7,397.7	9,817.0	12,455.8

a. 59 percent of reserve assets are in gold, 41 percent are claims on international institutions and foreign currencies.

b. Nontraded sectors include wholesale and retail trade, real estate, holding companies, banking, and other finance.

c. Traded sectors include manufacturing, agriculture, mining, construction, information, and services not elsewhere specified (nes).

Note: Direct investment stock is valued at historical cost, as opposed to market value or current cost.

Source: Bureau of Economic Analysis, www.bea.gov.

than corporate equities or inward direct investment, but the taxation of foreigners who acquire US assets is not a topic we explore at length.⁷

Internationalization of the US Economy

The third major postwar trend has been the gradual internationalization of the US economy, to the point that globalization is now an accepted and often condemned descriptor. Two-way investment is a large part of the story, but many other forces play a role. Container ships, cargo aircraft, and other innovations have progressively reduced real transportation costs since the 1950s. Improvements in information and communications technology have tightly linked the US economy to other countries. Compared with the 1960s, the openness of the US economy has increased sharply by several measures (table 1.6). US merchandise exports accounted for less than 4 percent of GNP in 1960 but over 10 percent in 2005; meanwhile US merchandise imports increased from about 3 percent to more than 16 percent of GNP.

US-based MNEs have propelled the growing internationalization of the US economy. In 2004 merchandise exports associated with US MNEs accounted for 52 percent of US merchandise exports and 34 percent of US merchandise imports. Much of the commerce was conducted among affiliates of the same corporate group. In 2004 intrafirm merchandise exports of US multinationals accounted for 20 percent of total US merchandise exports, and intrafirm merchandise imports accounted for 14 percent of US merchandise imports (table 1.7).

Reflecting the internationalization of the US economy was the “who is us?” debate in the United States at the beginning of the 1990s, popularized by Robert B. Reich (1991).⁸ Discussions of the question typically in-

7. Chapter 4 on portfolio investment addresses the question, but our recommendations on inward portfolio investment are aligned with current US practice. Mutti and Grubert (1985) create a model inspired by Arnold Harberger that sheds light on tax reasons for foreign asset holders to favor US debt, whereas US asset holders favor direct investment and corporate equity.

8. In the 1950s the distinction between a US and a foreign MNE was clear. A US-based MNE was managed and had most of its operations in the United States, raised most of its capital in the United States, and derived most of its income from sales in the United States; the same was true for the foreign factors of a foreign-based MNE. In that context it was indeed plausible to state that “what is good for GM [General Motors] is good for America.” Today it is harder to distinguish US-based and foreign-based MNEs on the basis of where their capital is raised (both issue shares and borrow at home and overseas), where their production operations are (all over the world), and where their customers are located (frequently overseas) (see Avi-Yonah 2002b). Moreover, General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO) rules and bilateral investment treaties (BITs) somewhat constrain policymaking that discriminates between domestic and foreign firms.

Table 1.6 United States: Selected measures of openness to international trade and investment, 1960–2005 (percent of GNP)

Measure	1960	1970	1980	1990	2000	2005
Merchandise						
Exports	3.8	4.2	8.2	7.1	11.2	10.7
Imports	2.9	3.9	9.1	9.0	14.9	16.4
Services						
Exports	1.2	1.4	1.7	2.5	3.0	3.1
Imports	1.5	1.4	1.5	2.0	2.3	2.5
US assets abroad ^a						
Direct investment ^a	6.2	7.4	7.4	8.6	15.5	22.0
Portfolio investment ^b	1.9	2.1	1.2	4.8	24.6	36.5
Other ^c	n.a.	2.2	4.6	13.4	21.0	28.8
Total	8.1	11.7	13.2	26.8	61.1	87.3
Foreign assets in the United States ^a						
Direct investment ^a	1.3	1.3	2.4	7.1	14.4	16.8
Portfolio investment ^b	1.9	3.6	1.7	8.6	30.5	45.6
Other ^c	n.a.	3.2	3.4	13.0	22.0	31.5
Total	3.2	8.1	7.5	28.7	66.9	93.9

n.a. = not available

a. At book value.

b. US (foreign) private-owned foreign (US) securities including stocks and bonds. US (foreign) government-owned assets abroad (in the United States) are excluded.

c. Includes claims reported by banks and other nonbanking concerns not included elsewhere (including US currency).

Sources: Bureau of Economic Analysis (BEA), *Survey of Current Business*, May 2003, tables G.1, F.1, and 1.9; May 2002, tables F.1 and 1.9; and interactive tables on the BEA website, www.bea.gov.

voke the concept of the stateless MNE.⁹ Those who see stateless firms roaming the world are not far off regarding traditional production activities. Many firms are busy rationalizing their production activities to slice up the value-added chain and minimize the cost of inputs and transportation between various markets.¹⁰ General Electric (GE) announced its intention to raise the proportion of its overseas production from 41 to

9. See Avi-Yonah (2002b); *Business Week*, November 20, 2000, 68 (with respect to “stateless startups”); *Business Week*, May 14, 1990, 98–104.

10. The World Bank (2003) reports that globalization among developing countries has progressed to the extent that it can be difficult to identify a unique nationality for some products.

Table 1.7 US merchandise trade associated with US multinational enterprises (MNEs), selected years

Year	Total MNE-associated merchandise trade		Intra-MNE trade ^a	
	Billions of US dollars	Percent of total US merchandise exports/imports	Billions of US dollars	Percent of total US merchandise exports/imports
MNE-associated US exports				
1966	18	61	6	22
1977	94	77	32	27
1982	151	71	44	21
1989	228	63	86	24
2000	421	55	182	24
2004	429	52	165	20
MNE-associated US imports				
1966	9	36	4	15
1977	78	51	33	21
1982	108	44	39	16
1989	175	37	72	15
2000	412	34	191	16
2004	503	34	209	14

a. Intra-MNE trade consists of all trade between US parent companies and their foreign affiliates.

Note: US merchandise trade associated with US MNEs consists of all trade involving US parent companies or their foreign affiliates.

Sources: Bureau of Economic Analysis (BEA), US Direct Investment Abroad, 2002, tables II.T.1. and II.T.4.; BEA, *Survey of Current Business*, May 2002, tables G.3, F.1; *Survey of Current Business*, November 2006, table 11, p. 53.

over 50 percent by 2009.¹¹ Yet according to recent statistics, though US-headquartered MNEs operate in a record number of countries worldwide, the bulk of their revenue, investment, and employment is still located in the United States. Similarly, though a slow decline is evident in the US share, in 2004 US parent companies still accounted for more than two-thirds of US-based MNEs' sales, capital expenditure, and employment.¹² For the

11. GE executives cited the high cost and limited availability of US engineers compared with their counterparts in China and India as a key factor in their decision ("GE to Shift Output from US," *Financial Times*, July 27, 2006, 15).

12. Home bias varies considerably across industries. The share of the domestic market in total revenues for industries producing highly tradable products (e.g., pharmaceuticals,

top 100 European MNEs, the EU-wide bias is similar to the US home bias of US firms in terms of revenues and employment (Véron 2006). However, the rising importance of global markets is striking in locating corporate profits: In 1970 profits from “receipts from the rest of the world” were only 10 percent of total US corporate profits; by 2005 the figure had risen to about 25 percent.¹³

The Rise of High Technology

In the arena of global competition, the high-technology sector attracts the most attention, as it lies at the intersection of several hot-button issues, from national security and export controls to the increasing power and reach of multinational firms.¹⁴ During the information technology (IT) revolution of the 1990s, the commercial Internet emerged, computers became increasingly powerful, communications networks became far faster and cheaper, and firms developed the organizational capability to translate new technologies into performance gains.¹⁵ This made it easier for business firms everywhere to go global by reducing the cost of establishing

chemicals, and consumer products) is below the US average, though the opposite is observed for more regulated firms, such as utilities, insurance, telecommunications, and retail and logistics (Véron 2006).

13. US Department of Commerce, Bureau of Economic Analysis, national income and product account tables 6.16 B, C, and D, available at www.bea.gov.

14. For years before 1997, this study adopts the US Department of Commerce definition of high technology, which includes all products that have a significantly higher ratio of direct and indirect research, development, and experimentation (RD&E) expenditures to shipments than other products. By Standard Industrial Classification (SIC) category, such products include guided missiles and spacecraft (SIC 376); communication equipment and electronic components (SICs 365–367); aircraft and parts (SIC 372); office, computing, and accounting machines (SIC 357); ordnance and accessories (SIC 348); drugs and medicines (SIC 283); industrial inorganic chemicals (SIC 28 excluding 2825); engines, turbines, and parts (SIC 351); and plastic materials and synthetic resins, rubber, and fibers (SIC 282).

15. One of the more dramatic illustrations comes from successive generations of dynamic random access memories (DRAMs), an important component of many computers. DRAMs became commercially available during the 1970s and 1980s at a startlingly rapid pace: The first 4K DRAMs were introduced in 1973; these were followed by 16K DRAMs in 1975, 64K DRAMs in 1978, 256K DRAMs in 1982, 1-megabyte DRAMs in 1986, 4-megabyte DRAMs in 1989, 16-megabyte DRAMs in 1992; and the 512-megabyte DRAM introduced in 2000. The DRAM story is the classic illustration of Moore’s Law, which dictates a doubling of capacity every 18 months; *The Economist*, February 23, 1991, 64–66; *Taipei Times*, online edition, April 28, 2001). Likewise, since 1980 the speed of microprocessors used in personal computers has increased more than a hundredfold, and the cost of performing 1 million instructions per second (mips) fell from over 100 dollars in 1980 to less than 20 cents in 2001 (*2001 Economic Report of the President*).

an international presence.¹⁶ The same developments enlarged the number of competitors in individual markets, compelling US firms and others to improve their productive efficiency. It is also worth noting that the rise of high technology has fostered rapid growth in “electronic commerce” (or e-commerce): The world internet economy reached almost \$7 trillion in sales in 2004. Due to the nature of borderless transactions, e-commerce has generated complicated tax issues, involving income sourcing, income characterization, and the permanent establishment (PE) concept, summarized in appendix E.

The high-technology sector has several special characteristics. Compared with other economic activities, high-technology industries create interesting and well-paid professional and technical jobs (National Science Foundation 2002). Almost by definition, high-technology firms are associated with innovation, and firms that innovate tend to gain market share at home and abroad, create new products, and spin off subsidiary firms that compete with their parents and invent altogether different products (National Research Council 1996). Technological change is estimated to be directly or indirectly responsible for two-thirds to four-fifths of US productivity growth since the Great Depression.¹⁷ The United States has

16. The World Bank (2003) reports that technological progress in transport, communications, and data processing in the past two decades fueled the growth of cross-border production networks. In these networks, MNEs break down the production process leading to final goods into multiple stages that vary in the intensity of capital, skilled labor, unskilled labor, and other input requirements. Multinationals try to produce each stage where it can be done at the lowest cost. The decline in sea freight costs by nearly 70 percent between the early 1980s and the mid-1990s and the increased use of air shipments both facilitated the shipment of components between locations. In addition, the low cost of long-distance telephone rates and the advent of the Internet made it easier for multinationals to closely coordinate production at dispersed locations. Electronic data interchange (EDI) greatly reduced the costs of procurement and improved the coordination of production across dispersed factories (Chen 1996). According to a detailed study of US firms operating in Canada, most of the expansion of intrafirm trade between 1983 and 1996 can be attributed to just-in-time (JIT) manufacturing techniques adopted from Japan, rather than lower tariffs resulting from the Canada-US Free Trade Agreement (implemented in 1989).

17. See “Effectiveness of the Research and Experimentation Tax Credit,” testimony by Laura P. Allbritten before the Committee on Science, United States House of Representatives, July 1, 1999; and Council on Competitiveness (1998). The President’s Council of Advisers on Science and Technology (2002) reports that about two-thirds of the 80 percent gain in economic productivity since 1995 can be attributed to information technology. The National Institute of Economic Review (2003) notes that productivity growth in the United States, measured as GDP per hour worked, accelerated from 1.3 percent during the 1980s and the first half of the 1990s to 1.9 percent during the second half of the decade, suggesting that most US productivity growth can be traced to industries that either produce or use information and communication technology. Since 2000, US private-sector productivity growth has been high, averaging 3 percent annually. See US Department of Labor, Bureau of Labor Statistics, Major Sector Productivity and Costs Index: Business Output per Hour, available at www.bls.gov (accessed on February 7, 2007).

relied increasingly on technology-based production in the fast-growing elements of the service sector, and the share of value added derived from high technology-dependent services, such as telecommunications, finance, insurance, real estate, and business services, has risen from 20 percent of GDP in 1990 to almost 25 percent in 2003 (OECD STAN database).¹⁸

Turning to trade statistics, in 2003 high- and medium high-technology products accounted for 67 percent of US merchandise exports and 52 percent of US merchandise imports (OECD STAN database). The rapid productivity growth associated with high-technology industries is closely related to their large investments in research, development, and experimentation (RD&E), the benefits of which fall into two broad categories. First, productivity generally rises in firms and industries that perform the research and related activity. Second, the widespread application of IT, together with a surge of related innovations during the second half of the 1990s, stimulated remarkable improvements in production processes throughout the manufacturing sector, which translated into rapid productivity growth.

There is strong consensus that RD&E expenditures abet productivity growth, but researchers disagree about the extent of the contribution. A literature review by the Congressional Budget Office (CBO 2005a) reports central estimates, from cross-sectional studies at the industry level, that a 10 percent increase in RD&E expenditure correlates with a 1 or 2 percent increase in productivity growth.¹⁹ RD&E often benefits sponsoring firms handsomely—Microsoft, Genentech, and Google being contemporary examples—and the benefits usually extend to society as a whole. Innovations enhance the productivity of industries downstream that use the innovations in their production processes. Beneficiaries include users of telecommunications, computers, advanced ceramics, and medical instruments.

As a rough illustration, the annual growth of labor productivity in the US manufacturing sector from 1988 to 1994 was around 2.5 percent; the figure rose to 4.4 percent for 1995 to 2005. Most of the economywide productivity gains reflect the scope and speed of the diffusion of key discoveries rather than gains in the sectors responsible for the discovery, a point highlighted by Ben Bernanke, the chairman of the board of the

18. During this period, the share of value added derived from high- and medium high-technology manufactures (e.g., pharmaceuticals, office machinery, communication equipment, aircraft, chemicals, and transportation equipment) fell from 8.0 percent of GDP in 1991 to 6.0 percent in 2003. This trend is in line with the overall decline in manufacturing from 17.4 percent of GDP in 1991 to 13.8 percent in 2003 (OECD 2004b, table 31).

19. The CBO reports, however, that other studies based on time-series or economy-wide data either show a lower elasticity or lack statistical significance. Also see Baily and Lawrence (1987).

Federal Reserve.²⁰ Because RD&E benefits accrue to downstream firms that did not pay for the research, RD&E has a social return not captured by traditional financial measures.²¹

At one time it was claimed that the United States held a comparative advantage in high-technology industries because of the exceptional creativity of US scientists and engineers. This notion was always suspect, both because of Europe's demonstrated technical leadership before World War II and because many leading scientists and engineers working in US laboratories were born and educated abroad. At the beginning of the 21st century, however, the United States finds itself in a rapidly changing environment that threatens its traditional leadership position in goods and services innovation (Destler 2005). The challenge is posed not only by the traditional industrial creativity of Japanese and European firms but also by the emergence of new competitors in Asia, especially China, India, and Korea, that take advantage of significantly lower labor costs to attract manufacturing firms, together with supply chains and ultimately their RD&E centers.²²

A country's technological position is often measured by its exports of high-technology goods. In 1980 the United States accounted for 30 percent of OECD high-technology exports, the 15 members of the European Union accounted for 39 percent, and Japan for 13 percent. By 2003 the US share had dropped to 16 percent, the EU-15 share had fallen to 32 percent, and the Japanese share had declined to 9 percent (table 1.1).²³ As recently as 1980 the United States enjoyed a two-to-one trade surplus in

20. Bernanke (2005) traced the gap between the United States and Europe in economywide productivity gains after 1995 to slower rates of IT appropriation by IT-using sectors in Europe rather than a lag by European IT-producing sectors.

21. Moreover, RD&E has long played a major role in national security, which explains why the Department of Defense is a leading sponsor. Since September 11, 2001, RD&E has been perceived as a vital tool to combat terrorism.

22. See the House of Representatives' panel held by the Committee of Science regarding RD&E and the future of the manufacturing sector, June 5, 2003 (Serial No. 108-11, 108th Congress, available at <http://frwebgate.access.gpo.gov>). Chairman Vernon Ehlers (R-MI) of the Environment, Technology, and Standards Subcommittee noted that "The global challenge to US manufacturing has come partly as a result of other nations achieving technological parity with the US; they have been investing specifically to build themselves into manufacturing powerhouses and sell their products here. We are in a potentially worrisome situation today, with the prospect of losing many different industries to foreign competition, together with their supply chains, and ultimately, our RD&E." Participants in the panel cautioned that the United States would not be able to compete with the wage levels being set by other countries. Instead, the United States needed to focus on innovation, efficiency, and quality. Participants also agreed with committee members that, while US support for RD&E is high in general, neither companies nor the federal government spend nearly enough on RD&E. As if to reinforce the worried tone of the committee's hearing, in 2006, Samuel Palmisano (2006), chief executive officer of IBM, essentially declared that IBM would locate much of its RD&E activity outside the United States in the future.

23. Intraregional trade of EU members is counted in calculating these estimates.

high-technology goods, with exports of \$54 billion against imports of \$27 billion. By 2003 the United States faced a high-technology trade deficit of about \$35 billion, out of a total trade deficit of \$437 billion in harmonized system (HS) chapters 28–97.²⁴ In that year, US high-technology exports were about \$201 billion and imports were about \$238 billion.

Two other measures of high-technology leadership are the number of patents filed and royalties and fees paid to and received from unaffiliated firms. From 1980 to 2003, the share of US patents granted to US firms and inventors dropped from 65 percent to 52 percent; conversely, the share granted to foreign firms and inventors rose from 35 percent to 48 percent. From 1987 to 2003, US payments of royalties and fees to unaffiliated firms abroad increased by more than sixfold, from \$0.6 billion to \$3.3 billion. Over the same period, US receipts of royalties and fees from unrelated firms increased fivefold, from \$2.3 billion to \$12.3 billion.²⁵ By these figures, the United States has lost some ground, but not much.

In recent testimony, however, Lawrence Summers (2007), former secretary of the Treasury and president of Harvard University, sounded this alarm:

[O]ur investments in research and development, after increasing rapidly since the nineteen-nineties, have lagged. In a time when the world stands on the brink of revolutionary progress in the life sciences, it cannot be rational for the NIH [National Institutes of Health] budget to decline as it did in this past year for the first time in nearly forty years. If one looks at funding levels adjusted for inflation the decline in our national commitment to basic research is even more remarkable.

Leadership in high technology requires large doses of creativity and an enabling environment, including appropriate policies and, in some instances, vast amounts of money. In 2003 the United States still spent more than any other country on RD&E in absolute terms, but Japan had outpaced the United States in RD&E spending as a proportion of GNP: Japan spent 3.1 percent of GNP on RD&E, the United States spent 2.6 percent, and Germany spent 2.5 percent.²⁶ US federal RD&E funding as a share of GDP continues to decline.²⁷ Moreover, US public funding has traditionally focused on military rather than commercial RD&E. In 2004 the United

24. The referenced HS chapters exclude oil, minerals, agricultural commodities, and food, but they include base metals in an unprocessed state and all other manufactured products.

25. These comparisons come from the National Science Foundation, (2006, table 6.12).

26. National Science Foundation (2006, appendix table 4-40).

27. During the late 1970s, federal government funding for RD&E exceeded that of private industry, but the reverse is true today. RD&E investment by the federal government fell from 1.75 percent of GDP in 1965 to about 0.75 percent of GDP in 2004 (CBO 2005a). In his 2006 state of the union address, President Bush proposed to increase federal RD&E spending to \$137 billion in 2007, about 1 percent of 2006 GDP.

Table 1.8 RD&E spending by the United States, Japan, and Germany, 1961–2004 (percent of GDP)

Year	United States		Japan		Germany	
	Total	Nondefense	Total	Nondefense	Total	Nondefense
1961	2.7	n.a.	1.3	n.a.	0.9	n.a.
1965	2.8	n.a.	1.6	n.a.	1.7	n.a.
1970	2.6	1.7	1.9	1.9	2.1	2.0
1975	2.2	1.6	2.0	2.0	2.2	2.1
1980	2.3	1.7	2.2	2.2	2.4	2.3
1985	2.8	2.0	2.8	2.8	2.8	2.7
1990	2.6	2.0	2.9	2.8	2.8	2.6
1995	2.5	2.0	2.8	2.7	2.3	2.2
2000	2.7	2.4	3.0	3.0	2.5	2.4
2003	2.6	2.2	3.1	3.1	2.5	2.5
2004	2.7	n.a.	n.a.	n.a.	2.5	n.a.

n.a. = not available

RD&E = research, development, and experimentation

Source: National Science Foundation (2006, appendix tables 4-42 and 4-43).

States appropriated 55.8 percent of its public RD&E budget to defense, compared with 6.1 percent by Germany and 4.5 percent by Japan (National Science Foundation 2006, appendix table 4-47).²⁸ All told, in 2003 the United States spent only about 2.2 percent of its GNP on commercial RD&E, while Germany spent 2.5 percent and Japan about 3.1 percent (table 1.8). There is also public support for RD&E at the state and local level within the United States, but it usually takes the form of local tax relief, university support, and infrastructure subsidies, rather than continuing grants for RD&E personnel and equipment.

More broadly, as table 1.9 illustrates, traditional world leaders in RD&E—the United States, the European Union, and Japan—have seen their expenditures on RD&E as a share of GDP remain constant over the past 20 years. By contrast, newcomers such as Finland, Sweden, Korea, and China have increased the percentage of GDP devoted to RD&E expenditures substantially over the same period.

In 2000, US firms with more than 500 employees were responsible for more than 82 percent of the total RD&E expenditure spent by US firms,

28. In 2004 the US public RD&E budget for defense was 4.5 times larger than the combined public RD&E budgets for defense of Japan, Germany, France, the United Kingdom, Russia, South Korea, Italy, and Canada. By contrast the total US public RD&E budget was only 18 percent larger than the combined total public RD&E budgets of those countries.

Table 1.9 RD&E expenditures as percent of GDP, selected high-technology countries

Country/region	1985	1990	1995	2000	2004	2005
Traditional RD&E leaders						
United States	2.8	2.7	2.5	2.7	2.6	2.6
Japan	2.8	3.0	2.9	3.0	3.2	3.3
Germany	2.6	2.6	2.2	2.5	2.5	2.5
France	2.2	2.3	2.3	2.2	2.1	2.1
Switzerland	2.8	2.7	2.7	2.6	2.9	n.a.
Total OECD	2.2	2.3	2.1	2.2	2.3	2.3
EU-27	1.8	1.9	1.7	1.8	1.7	1.7
Newcomers in RD&E						
Finland	1.5	1.8	2.3	3.3	3.5	3.5
Sweden	2.8	2.7	3.3	4.3	3.7	3.9
Korea	n.a.	1.8	2.4	2.4	2.9	3.0
China	n.a.	0.7	0.6	0.9	1.2	1.3
Singapore	n.a.	n.a.	1.2	1.9	2.3	2.4
Israel	n.a.	2.4	2.6	4.5	4.4	3.7

n.a. = not available

Source: OECD, *Main Science and Technology Indicators*, 2006 and 2007.

reflecting an average annual RD&E expenditure of \$51.5 million per company, which in turn reflects a research budget of 3 percent of sales (National Science Foundation 2002, appendix tables 6-13 and 6-15). RD&E expenditures may be a mediocre proxy for RD&E achievements, but they indicate nonetheless the commitment that individual firms make to technological leadership.²⁹

The entire RD&E process today may be moving toward a decentralized model involving more small-firm RD&E and increasing collaboration between firms (2001 *Economic Report of the President*, pp. 37 and 110). Nevertheless, the role of large firms remains decisive. In 2000 the 20 largest RD&E spenders accounted for 34 percent of US industrial RD&E spending, and the 100 largest RD&E spenders accounted for 58 percent (table 1.10). With RD&E spending thus apparently dependent on firm size, and with foreign firms increasingly occupying the lists of the largest 100 firms worldwide (table 1.3), the ability to spend on RD&E seems to be shifting abroad.

29. The RD&E cost of developing a completely new medicine is now estimated at nearly \$900 million, compared with \$230 million in 1991 and only \$60 million in 1976. See *Boston Business Journal*, May 13, 2003, based on a report released by the Tufts Center for the Study of Drug Development; Afonsky and Shannon (1991, figure 1).

Table 1.10 The 40 largest US RD&E firms, by outlay, 2004–05

Grouping/company	Global RD&E rank in 2004–05	Billions of dollars	Percent of total
Total industry RD&E outlays ^a	—	195.7	100.0
Top 20	—	73.8	37.7
Total top 40	—	95.3	48.7
Total top 100	—	119.9	61.3
All firms (RD&E > \$100 million)	—	138.7	70.9
Pfizer	2	7.3	3.7
Ford Motor	3	7.0	3.6
General Motors	6	6.2	3.1
Microsoft	7	5.9	3.0
IBM	9	5.4	2.7
Johnson & Johnson	14	4.9	2.5
Intel	16	4.5	2.3
Merck	21	3.8	1.9
Hewlett-Packard	26	3.3	1.7
Cisco Systems	32	3.0	1.5
General Electric	35	2.9	1.5
Motorola	36	2.9	1.5
Eli Lilly	38	2.6	1.3
Bristol-Myers Squibb	42	2.4	1.2
Wyeth	44	2.3	1.2
Delphi	48	2.0	1.0
Amgen	50	1.9	1.0
Texas Instruments	51	1.9	1.0
Sun Microsystems	54	1.8	0.9
Boeing	55	1.8	0.9
Procter & Gamble	57	1.7	0.9
Abbott Laboratories	58	1.6	0.8
Schering-Plough	62	1.5	0.8
Oracle	64	1.4	0.7
El du Pont de Nemours	72	1.3	0.6
Lucent Technologies	73	1.2	0.6
United Technologies	76	1.2	0.6
Dow Chemical	85	1.0	0.5
EMC	86	1.0	0.5
Applied Materials	87	0.9	0.5
Freescall Semiconductor	89	0.9	0.5
Lockheed Martin	90	0.9	0.5
Medtronic	91	0.9	0.5
Advanced Micro Devices	92	0.9	0.5
Agilent Technologies	93	0.9	0.5

(table continues next page)

Table 1.10 *(continued)*

Grouping/company	Global RD&E rank in 2004–05	Billions of dollars	Percent of total
Caterpillar	94	0.9	0.4
Honeywell	95	0.9	0.4
Visteon	97	0.8	0.4
Eastman Kodak	102	0.8	0.4
Altria	105	0.8	0.4

a. Data on industry RD&E outlays are listed in US dollars by original source (National Science Foundation). All other data were listed in British pounds and were converted into US dollars at annual exchange rate listed by the Federal Reserve for 2005.

Sources: UK Department for Business Enterprise and Regulatory Reform, www.innovation.gov.uk; National Science Foundation (2006).

Overall, US firms are still competitive in high technology, but they are no longer leagues ahead of European and Japanese firms. Moreover, China appears determined to eventually join the club of high-technology producers and exporters and is willing to devote relatively large amounts to RD&E for a country with a low per capita income level.³⁰ Several years ago, the Council on Competitiveness (1998, 9) noted that

sustaining our economic growth and technological edge in a new world and a new century is vital to our democracy—and to our national security. Now, more than at any time in recent history, we must identify, cultivate, and support innovation in all levels of our economy...the United States remains the world's innovation powerhouse, bringing a unique combination of strengths to the table: the excellence of its RD&E enterprise, a risk-taking entrepreneurial culture, efficient capital networks, and strong consumer demand for new products and services. Yet, globalization is leveling the playing field, changing the rules of international competitiveness, and collapsing the margins of technological leadership. Our members are not convinced that the United States is preparing for success in a world in which many more countries will acquire a capacity to innovate.

Headquarters for MNEs

Where a firm places its headquarters influences how much a country benefits from the firm's domestic and international operations, and the headquarters activities of an MNE—its corporate policymaking, financial

30. In 2005 the share of RD&E expenditure in China's GDP stood at 1.3 percent, approaching the analogous figure for EU-27 (see table 1.9). The Index of Technological Competitiveness, estimated by the National Science Foundation, shows that a few East Asian countries, particularly China, are rapidly catching up with the levels of technological competitiveness prevailing in many OECD countries, including France, the Netherlands, Canada, and Australia (National Science Foundation 2006).

operations, RD&E, and the like—are still closely identified with the home country. The practice known as “corporate inversion” is still uncommon: Some US-based corporations, such as Tyco International and Ingersoll-Rand, have shifted their nominal headquarters to tax-haven countries (usually Bermuda) to minimize federal income taxes, but so far there has been no stampede.³¹ Even in cases of corporate inversion, nearly all headquarters employees and functions have remained in the United States. Some activities traditionally associated with the headquarters will be outsourced over the next decade, but close identification of MNEs with their home country seems likely to persist. Maintaining this identification, rather than taking it for granted, crucially underlies many of the tax-reform recommendations proposed in this study.

Global communications today are sophisticated enough to allow a far-flung enterprise to be managed from a single location, and home-country nationals almost always dominate senior management.³² Nearly all US MNEs are headquartered in New York, Los Angeles, or other major US cities, and their directors, top managers, skilled engineers, and research personnel are predominantly US citizens. The nationality-neutral global firm is a vision for the mid-21st century, not a reality today.

What is the link between headquarters location and RD&E expenditures? From a US vantage point, the question has become more relevant in light of the dominant role of MNEs in funding private RD&E.³³ The record indicates that RD&E spending of OECD-based MNEs is becoming more international.³⁴ However, outlays by US MNEs for RD&E per-

31. Inversions typically involve only a change of form with no significant change in the operational or managerial functions of the inverted group. See appendix A5 and Hufbauer and Assa (2003).

32. The nomination of three foreigners to the board of Samsung Electronics in 2002 was “mainly to imply an acceptance of international financial standards and practices and to make itself look and operate like a Western-style multinational” (*Fortune*, April 1, 2002, 89–92). See also *Los Angeles Times*, June 2, 1994, 1, reporting that only a handful of Japanese companies then had foreigners on their management committees. Sony had Americans, but NEC, Matsushita, Toyota, and dozens of other Japanese companies that depend on the US marketplace made it clear to their foreign nationals in the 1990s that a glass ceiling limited their advancement to top slots. This attitude is gradually changing; for example, Carlos Ghosn, a French-educated Brazilian born to Lebanese parents, has headed Nissan since 2001.

33. In the 1960s and early 1970s, the US federal government funded between three-fifths and two-thirds of RD&E spending in the United States. Private RD&E spending exceeded federal spending around 1979 and now constitutes about two-thirds of total RD&E spending in the United States.

34. RD&E is still highly concentrated geographically in large countries with high levels of per-capita income and a deep reservoir of technological competence, such as the United States, the United Kingdom, France, and Japan. China and India are exceptions among developing countries. The United States is the leading destination for off-shore RD&E, and as

formed abroad are only 3.5 percentage points higher than their share in 1975 (table 5.4). The so-called outsourcing of RD&E is also far less impressive than the increase in RD&E performed in the United States by US affiliates of foreign firms: In 2004, US MNEs devoted about \$27.5 billion to RD&E expenditures abroad, but US affiliates of foreign parents managed a \$33 billion budget for RD&E expenses in the United States, almost 15 percent of total US private RD&E expenditures conducted within the United States and abroad.

Firms that outsource RD&E often face a trade-off between lower costs and better relations with foreign governments on one hand and greater concern over the protection of intellectual property on the other. Consequently, many managers take a selective approach to RD&E outsourcing to keep sensitive areas of RD&E at home.³⁵ The global spread of RD&E facilities may gather steam, as suggested by UNCTAD (2005), but right now it seems like a slow evolution.³⁶ Sustaining US leadership in RD&E over the long term, however, requires efforts to prop up enrollments in graduate science and engineering programs, plus ample visas for foreign scientists and engineers to enter the United States and easy green cards for them to stay. It also requires, we think, a more friendly tax climate in the United States for RD&E—a core concern of this book.

a result it has emerged as a net recipient of RD&E expenditure performed abroad by all MNEs. In 1987 RD&E performed by US affiliates of foreign firms accounted for about 7 percent of all RD&E financed and performed in the United States; in 2004 that figure had increased to almost 15 percent (see chapter 5, table 5.4).

35. The pharmaceutical industry illustrates the dynamics of RD&E outsourcing in an industry sensitive to intellectual property rights. Leading firms have already established RD&E centers in China and India, but these centers are often engaged in routine activities rather than path-breaking science.

36. UNCTAD (2005) notes that RD&E activity abroad is moving beyond mere adaptation of products for the local market to more challenging quests.

Corporate Taxation

Unlike in Europe and elsewhere, in the United States, both the taxation of international business income and the international implications of taxing domestic business income have traditionally derived from the corporate income tax. Whereas other industrial countries customarily pay careful attention to the international consequences of business taxation (see Tanzi and Bovenberg 1990), the United States has historically regarded such consequences as an afterthought. If the corporate tax is the dog, the international consequences are the tail. In US tax battles, the main contest has been waged between two domestic objectives—growth versus fairness. President John F. Kennedy’s Tax Act of 1962 and President Ronald Reagan’s Economic Recovery Tax Act of 1981 may be characterized as growth oriented, whereas the tax reforms of 1976 and 1986 were fairness oriented. In all four episodes of legislation, international questions were a tertiary concern. Similarly, President George W. Bush’s signature tax bills, the Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 and the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003, were hailed by the president as pro-growth and derided by congressional Democrats as giveaways to the rich; the international implications of the bills were not a major part of the debate.

Despite US tax history, the linear tussle between growth and fairness could still morph into a triangle with international competitiveness as a third point. In recent years, popular concern about the US position in the international marketplace has grown substantially, as US citizens worry about the long-term loss of manufacturing jobs and intense competition from Mexico, China, India, and other emerging countries.

The international dimension played a leading role in the latest episode of corporate tax legislation; to comply with World Trade Organization (WTO) rulings, Congress passed and the president signed the American Jobs Creation Act of 2004 (AJCA). The act repealed the Foreign Sales Corporation (FSC) Act and the Extraterritorial Income (ETI) Exclusion Act, both of which the WTO characterized as prohibited export subsidies (roughly \$5 billion per year), and instead compensated manufacturing firms—broadly defined—by reducing their statutory corporate tax rate. The rate fell from 35 to 34 percent beginning in 2005, and ultimately fell to 32 percent in 2010. The act also provided a tax holiday during calendar year 2005, when firms were allowed to repatriate earnings held overseas in controlled foreign corporations (CFCs) at a special tax rate of 5.25 percent.¹

Historical Background

Federal taxation of corporate income debuted in the United States with the Revenue Act of 1894. In the following year, however, in the landmark decision *Pollack v. Farmers Loan and Trust Co.*, the Supreme Court declared the 1894 act unconstitutional. The corporate income tax then lay dormant until the Revenue Act of 1909, when it was revived as a legally permissible excise tax on gross receipts. When the 16th Amendment was ratified in 1913, net income taxes could be levied on all persons and firms, which the Revenue Act of 1913 proceeded to do at the “confiscatory” rate of 1 percent.

Almost since its inception, the tax on corporate income has been criticized as an inefficient, inherently complex, and deceptive vehicle for raising public revenue.² Its endurance in the face of overwhelming economic opinion that its purposes could be better served by other taxes attests to five facts in the political economy of revenue collection:

- The corporate income tax is widely perceived as a way of taxing the rich. Whatever its flaws, for this reason alone the corporate tax has enjoyed popular support for almost a century.
- The corporate income tax disguises who is paying. This may be a vice to economists, but it is a virtue to Congress. Moreover, it is far less

1. At the time of enactment, analysts estimated that between \$300 and \$350 billion would be repatriated during 2005, much of it by pharmaceutical companies (*Wall Street Journal*, January 27, 2005, C1). However, based on the Federal Reserve’s flow of funds account, extra repatriations in 2005 (above the 2004 level) were about \$182 billion. According to some tax experts, the Federal Reserve data missed a substantial amount of extra repatriations.

2. See, for example, Pechman (1987) and Edwards (2003b).

intrusive to collect a given amount of revenue by taxing firms than by taxing individuals directly.³

- Without a corporate income tax, retained corporate income would have to be constructively distributed to individual shareholders as deemed distributions. Otherwise, wealthy individuals would simply establish incorporated pocketbooks to avoid individual income taxes.
- The corporate income tax makes the corporation, from the viewpoint of the Internal Revenue Service (IRS), a most welcome associate tax collector, determining and paying its own corporate tax liability as well as withholding personal income tax for its employees and collecting Social Security and various excise taxes. From an efficiency standpoint, it is much easier to collect a given amount of tax from corporations than households.
- Finally, and more subtly, the corporate tax is almost the only way for the federal government to collect revenue from the vast endowments and annual earnings of tax-exempt organizations.⁴

Given the appeal of these arguments, it is surprising not that the corporate tax endures but that it does not supply an even larger share of public revenue. On the contrary, since 1960 the corporate tax has accounted for a stable or diminishing fraction of central government revenues, not only in the United States, but in many other industrial countries. Between 1965 and 2005 the share of US corporate taxes, both federal and subfederal, dropped from just over 16.4 percent to 10.9 percent of total tax revenue. Canada has seen a similar decline in the contribution of corporate taxes. By contrast, corporate taxes continue to contribute over 20 percent of total revenue in Japan and over 15 percent in Australia, with no apparent trend. The share of corporate taxes has

3. It is no accident that Proposition 13 in California and the Economic Recovery Tax Act of 1981 (the Kemp-Roth federal tax cuts) crystallized around cuts in the property tax and the personal income tax, respectively—taxes that visibly reach into the pockets of ordinary people. The same spirit animated President Bush's personal tax cuts in 2001—the EGTRRA—and the California revolt against the automobile license fee, which helped vote Governor Gray Davis out of office in 2003. The corporate income tax furnishes the paramount illustration of Senator Russell Long's (D-LA) famous aphorism about the definition of tax reform: "Don't tax you, don't tax me. Tax that fellow behind the tree."

4. According to the IRS, nonprofit organizations (excluding private foundations, most churches, and certain types of religious organizations) with tax exempt status under code section 501(c)(3) reported about \$1.9 trillion in total assets and \$1.1 trillion in revenue for the year 2003. Organizations under section 501(c)(3) include religious, educational, charitable, scientific, and literacy organizations. Other tax-exempt organizations under sections 501(c)(4) through 501(c)(9) reported about \$393 billion in total assets and \$273 billion in total revenue for the year 2003.

likewise remained stable in the major European nations, within a range from 5 percent (France) to almost 10 percent (United Kingdom) of total revenues (table 2.1).

The flat or declining trend of corporate taxation in most industrialized countries reflects pro-business attitudes and an awareness of the realities of international tax competition. More often today than in the past, countries wishing to maintain their entitlement programs—mainly health care and retirement pensions—are turning to broad consumption taxes rather than higher taxes on business income.⁵ Since 1957, when the value added tax (VAT) was first applied in France, over 100 countries have adopted VATs. The European Union, Japan, and Canada have embraced either the VAT or a similar broad-based consumption tax. The United States remains the only country of the 30 members of the Organization for Economic Cooperation and Development (OECD) that does not have a national VAT.⁶ Moreover, general consumption taxes of all types (VAT, retail sales, and excise) account for a very low percentage of GDP and total tax revenue in the United States (table 2.2).

Incidence of the Corporate Income Tax

Arnold Harberger (1962) pioneered the modern general equilibrium theory of corporate tax incidence. Starting with a closed-economy model—that is, no trade in goods, services, or capital—Harberger (1983) subsequently extended his framework to an open economy. One way to understand Harberger's analysis is to portray the corporate income tax as a sales tax on corporate output.

The argument that the corporate income tax works like a sales tax goes as follows. In the long run, plant and equipment expenditures become variable costs, just like labor, materials, and energy. When a firm raises equity capital to finance new plants and equipment, it does so

5. The term "consumption tax" is a generic description for systems that tax purchases for current use. The term encompasses value added taxes, goods and services taxes, and retail sales taxes.

6. See Merrill (2002) and Hufbauer and Grieco (2005). Several proposals for fundamental tax reform have been put forward in recent years. Some proposals would replace the federal income tax with a consumption tax collected from business firms, such as the retail sales tax or the VAT. So far, Congress remains skeptical of all of the proposals. Among other leading journals, the editorial pages of the *Wall Street Journal* regularly denounce the VAT as a European-style tax, a French tax, or a money machine. As table 2.2 shows, countries with higher consumption tax revenues tend to devote a larger percentage of GDP to the public sector. But it is wrong, we think, to ascribe causation to the correlation between consumption taxes and public spending. In our view, insistent demands for the government to undertake social obligations lead to consumption taxation, rather than the other way around.

Table 2.1 Corporate income tax revenues as shares of GDP and total tax revenues, selected countries, 1965–2005 (percent)

Country	1965		1970		1980		1990		2000		2005	
	As share of: GDP	Total taxes	As share of: GDP	Total taxes	As share of: GDP	Total taxes	As share of: GDP	Total taxes	As share of: GDP	Total taxes	As share of: GDP	Total taxes
North America												
United States	4.0	16.4	3.6	13.2	2.8	10.8	2.4	8.9	2.6	8.7	2.9	10.9
Canada	3.8	14.9	3.5	13.6	3.6	11.6	2.5	7.0	4.3	12.2	3.5	10.5
Europe												
France	1.8	5.3	2.1	6.3	2.1	5.1	2.2	5.3	3.1	6.9	2.8	6.3
Germany	2.5	7.8	1.8	5.7	2.0	5.5	1.7	4.8	1.8	4.8	1.8	5.2
Italy	1.8	6.9	1.7	6.5	2.3	7.8	3.8	10.0	2.9	6.8	2.8	6.9
Netherlands	2.6	8.1	2.3	6.7	2.8	6.6	3.1	7.5	4.0	10.1	3.9	9.8
Spain	1.4	9.2	1.3	8.2	1.1	5.1	2.9	8.8	3.1	8.6	3.9	10.8
United Kingdom	1.3	4.4	3.2	8.7	2.9	8.4	3.6	9.8	3.6	9.7	3.4	9.2
Asia and Pacific												
Japan	4.0	22.2	5.2	26.3	5.5	21.8	6.5	21.6	3.7	13.5	4.1	24.4
Australia	3.4	16.3	3.6	17.0	3.2	12.2	4.0	14.1	6.3	20.3	5.7 ^a	18.2 ^a

a. 2005 data unavailable. Substituted with 2004 data.

Note: The figures in the table include federal, state, and provincial taxes on corporate income.

Sources: OECD (2006a, 2006b).

Table 2.2 Consumption tax revenues and public spending, selected countries, 2005 (percent)

Country	General consumption taxes		Total government expenditures as share of GDP
	As share of GDP	As share of total taxes	
North America			
United States	4.6	17.2	36.4 ^a
Canada	8.5	25.9	40.5 ^a
Europe			
France	11.3	25.5	53.8
Germany	10.1	29.0	46.7
Italy	10.1	26.4	48.2
Netherlands	12.5	31.7	45.7
Spain	9.9	27.5	38.2
United Kingdom	11.2	30.3	45.5
Asia and Pacific			
Japan	5.3	31.3	37.3 ^a
Australia ^a	8.9	28.5	35.0

a. 2004 data.

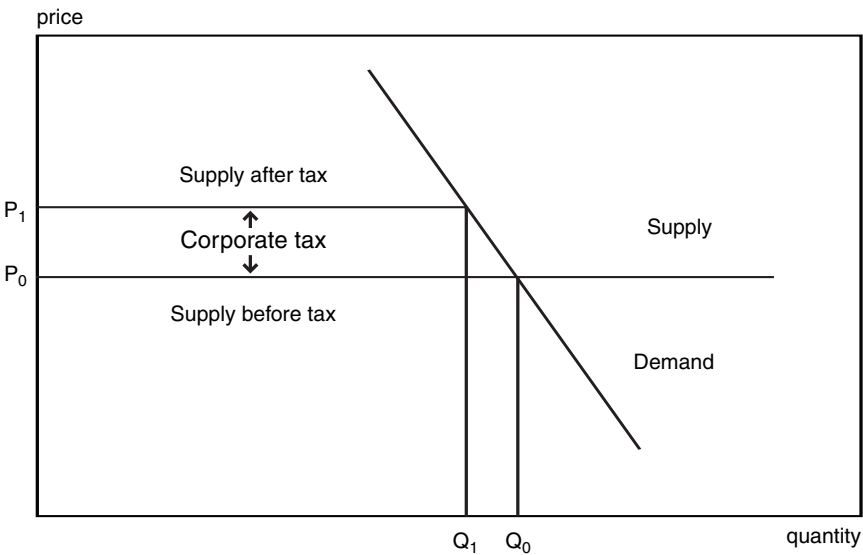
Note: The figures in the table include all taxes and spending at the federal, state, and provincial levels of government.

Sources: OECD (2006a, 2006b, 2006c).

anticipating that the project will earn a profit; in other words, it plans on paying both the corporate income tax and dividends on newly issued shares.⁷ Hence each firm’s long-run supply schedule is shifted upward by the amount of the tax, because each firm must earn the amount of the tax as income before it is taxed in order to realize the same after-tax return on equity capital. If the industry is competitive, if all firms in the industry rely on equity to the same extent, and if they all face the same rate of corporate income tax, the long-run supply schedule for the industry as a whole will be shifted upward to reflect the tax cost of attracting equity capital (see figure 2.1).

7. The same story could be told if the firm mixed debt and equity capital in constant proportions; however, in that case only the equity portion of finance would be burdened by the corporate income tax. On the other hand, if the corporation could rely solely on debt capital to finance new plants and equipment, the corporate income tax would not be a factor because interest payments are deducted in calculating taxable corporate income.

Figure 2.1 Corporate tax as a sales tax



Usually, it is further assumed that the long-run supply curve of corporate output is rather elastic. This reflects a presumption that the corporate sector can readily attract capital, labor, materials, and energy from other sectors of the economy or that such factors can be expelled from the corporate sector to other sectors. It also reflects an important implication about the supply of equity capital to the corporate sector in a closed economy: When corporate equity offers slightly higher returns, it can readily draw large amounts of capital from other sectors, notably real estate.

The story as developed by Harberger (1962) leads to two interesting conclusions about the incidence of the corporate tax. In a closed economy, the burden is felt by all capital, both in the corporate and noncorporate sectors. Through the workings of the price system, the corporate tax pushes up the price of capital-intensive goods more than it does the price of labor-intensive goods; production of capital-intensive goods declines relative to labor-intensive goods; so-called unemployed capital then seeks work elsewhere in the economy, depressing its relative return.

In a closed economy the corporate income tax is inefficient: It is unevenly applied across business sectors, distorting the pattern of production. Too much production occurs in sectors with low taxes and too little in sectors with high taxes. Uneven application of the corporate tax comes about in two main ways. First, the capital intensity of production varies widely from sector to sector; hence sectors with more capital per unit of output usually pay more tax for each dollar of sales. Second, the taxes

actually paid—the effective rate—are different across sectors because of varying tax-rate depreciation schedules, tax credits, and other factors.

In his original analysis, Harberger (1962) suggested that the inefficiency cost of the corporate income tax could be as much as 0.5 percent of GNP annually, a figure that translates to about \$62 billion in 2005.⁸ Later Shoven (1976) estimated that the inefficiency cost is 12 percent of the amount of corporate tax collected, a figure that translates to about \$44 billion in 2005. Jorgenson and Yun (2001, table 6.10) estimated an average cost of 24 cents per dollar collected, equivalent to \$88 billion in 2005. Feldstein (2006) argued that the deadweight loss of taxes on investment income for both personal and corporate taxes is as high as 76 percent of revenue tax collected. Whatever the precise inefficiency cost—and the estimates offered by respected scholars have progressively increased—the logical conclusion is that the corporate income tax should be replaced in a revenue-neutral fashion by more efficient forms of taxation.⁹

In the 1970s Harberger began to examine the incidence of the corporate tax in an economy open to both international trade and capital flows. Later Harberger (1983) presented the results of his open-economy model as Mutti and Grubert (1985) developed a similar model that distinguished between personal and corporate taxes on investment income. The striking result from the family of open-economy models is that, when nations determine their tax policies independent of one another, the incidence of any one country's tax on investment income falls far more heavily on labor than on capital. In extreme versions, capital income is not affected at all, but labor income drops by 100 percent or more of the revenue collected. This finding exactly reverses the outcome of a closed-economy model, in which capital bears the entire burden of the tax. The reason, of course, is that the corporate income tax shrinks the national capital stock, so that fewer tangible and intangible assets are available to assist each employee in his daily work.

8. In 1962 Harberger argued that the corporate tax is entirely borne by capital, in both the incorporated and unincorporated sectors of the economy. By distorting capital allocation between the two sectors, the corporate tax works like a sales tax on the corporate sector and imposes an efficiency cost on the economy. In a later article, Harberger (1983) argued that, in an open international economy, the corporate tax would be shifted to the immobile factors of production—land and labor—rather than depressing the income of capital. We assume that the later model is more accurate, and in this case, the cost to the economy of the corporate tax is the inefficient allocation of land and labor between low-taxed and high-taxed sectors and the overall reduction in the capital stock.

9. Other taxes entail their own efficiency costs, but they could be much smaller. Using data from simulations in Jorgenson and Yun (2001, table 8.12a), Hufbauer and Grieco (2005) estimate that the average efficiency cost of a consumption tax large enough to replace the corporate income tax would be 5.5 cents per dollar. Under this assumption, replacing the corporate income tax would save 18.7 cents per dollar of tax revenue (24.2 cents minus 5.5 cents), a savings of \$68 billion in 2005.

Randolph (2006, 44–45) nicely summarized the outcome of Harberger's open-economy model:

[The] distribution of burdens is quite different from the predictions of Harberger's (1962) closed-economy analysis, which implies that domestic capital owners bear the entire burden of the U.S. corporate income tax in the long run. These closed-economy predictions still apply to the world as a whole. But in an open economy, the tax causes income to be redistributed internationally between foreign and domestic owners of capital, and internationally between the labor and capital owners resident within each country. Foreign owners of capital bear the domestic corporate income tax roughly in proportion to their ownership of the world capital stock. Foreign labor benefits by about that same amount.

In a recent paper, Harberger (2006) summarized four decades of his own thinking about the incidence of the corporate tax in closed and open economies. His most recent open-economy model has four sectors: manufactures, agriculture, public utilities and transportation services, and other services, including real estate. The economy's three factors are capital, labor, and landowners. Manufactures and agriculture are traded internationally; public utilities, transportation, and other services are not traded. Unlike agricultural goods, US domestic and foreign manufactures are not perfect substitutes. To keep the model simple, manufactures, public utilities, and transportation are produced entirely in the corporate sector, whereas agriculture and other services are produced entirely in the noncorporate sector.

Applying his model to stylized parameters of the US economy, Harberger (2006) calculated the following illustrative results. About 25 percent of corporate tax receipts are reflected in lower returns to US capital, whereas about 125 percent of corporate tax receipts are reflected in lower returns to US labor. However, US consumers benefit through lower prices of noncorporate services, to the extent of about 42 percent of corporate tax receipts.

To paraphrase, the US corporate income tax hurts US labor, helps foreign labor, and drives capital abroad. As surprising as these results seem, they rest on simple assumptions. In an open economy, both foreign and US asset owners can react to higher taxes on investment income by moving their capital to other parts of the world. Because the US economy loses capital, average capital intensity per worker falls and US wages correspondingly drop. However, because the US economy is a large part of the world economy, the US corporate tax depresses the global return to capital, and US asset owners feel part of that burden.

What about the impact on consumers? The average price that US consumers pay for agriculture does not rise because foreign goods are perfect substitutes. However, the average price for manufactures rises somewhat, because US and foreign manufactures are not perfect substitutes. The average prices that US consumers pay for public utilities and

transport services rise because, in these nontraded, capital-intensive corporate sectors, part of the corporate tax gets passed on in higher prices. However, the average price that US consumers pay for other services declines—both because other services are produced by noncorporate firms (e.g., real estate) that benefit from lower borrowing costs, thanks to the corporate tax's effect on global capital returns, and because the corporate tax depresses US wages. In Harberger's stylized model, the decline in the average price of other services substantially outweighs the rise in the average prices of manufactured goods and public utilities and transport services, leading to net consumer benefits.

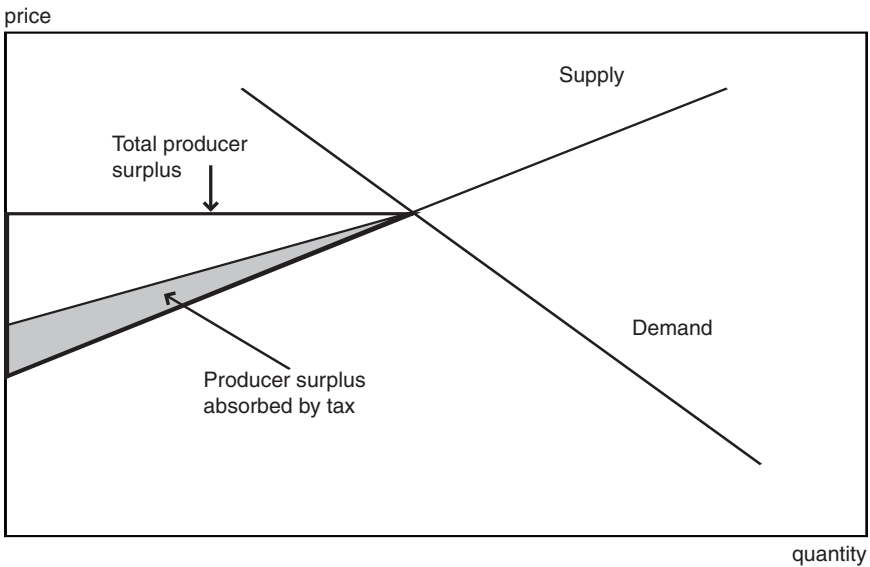
Few US citizens think of the corporate tax as a device to lower the average price level to favor consumers. Even fewer think of it as a means to lower US wages and raise foreign wages. Like most voters, most congressmen strongly believe that the incidence of the corporate tax falls heavily on owners of corporate shares, not on US workers. The popular view rests on the belief that the corporate tax has little if any effect on corporate output, but instead simply claims income that would otherwise accrue to shareholders, either as dividends or retained earnings. Among respected economists, one proponent of this view is Auerbach (2005). In a review article, while acknowledging Harberger's insights, Auerbach concludes:

Our journey beyond the Harberger model through the more recent literature takes us both forward and backward: forward in considering issues not previously studied, but backward in reestablishing the relevance of the shareholder incidence approach. For a variety of reasons, shareholders may bear a certain portion of the corporate tax burden. They may be unable to shift taxes attributable to a discount on "old" capital, taxes on rents, or taxes that simply reduce the advantages of corporate ownership. In the short run, they may also be unable to shift taxes on corporate capital. (Auerbach 2005, 40)

The Corporate Tax as a Shareholder Income Tax

The older view of the corporate income tax, echoed by Auerbach (2005), holds that the burden is not passed along to consumers as higher prices on corporate output but instead falls on shareholder income. This argument combines two propositions. The first is that a large fraction of corporate income is earned not in competitive markets but in quasi-monopoly niches. By conventional analysis, corporate behavior in quasi-monopoly niches is not affected by a tax on profits because the tax does not affect the profit-maximizing intersection of marginal revenue and marginal cost. The second proposition is that, at the equilibrium price at which the industry supply schedule intersects with the industry demand schedule, firms that pay little or no corporate tax on their own marginal output disproportionately supply the industry's marginal output, for several reasons: because they are high-cost firms, because they enjoy rapid

Figure 2.2 Corporate tax as a shareholder income tax



depreciation allowances on newly installed equipment, because they rely largely on debt to finance additional output, or because they import intermediate inputs that are free from corporate tax in the country of production.

Together the two arguments suggest that the impact of the corporate tax might be depicted as in figure 2.2. The tax absorbs a large wedge of so-called producer surplus on early, high-profit units of output—those made by firms with superior manufacturing or distribution techniques—but very little producer surplus on later, low-profit units of output.¹⁰ Accordingly, the tax little affects the market-clearing price of goods and services produced by the corporate sector. The tax claims a part of corporate earnings that would either have been distributed as dividends or retained to build up corporate equity, but it has little effect on product markets.

Defects of a Shareholder Tax

If the corporate tax does indeed work as a tax on shareholder income, it has one main defect in the international context: It taxes success, penalizing firms that earn large returns by both creating new goods and

10. Producer surplus is defined as the difference between the single equilibrium price and the rising cost of production for each unit of output, added up across all units sold.

services and producing them cheaply.¹¹ Such firms make a disproportionate contribution to economic growth, and the corporate income tax deprives them of resources to finance the next generation of products and future expansion.

Double Taxation of Equity Earnings

Under the US system, profits on corporate equity are taxed twice, first at the corporate level and again at the individual shareholder level, when earnings are paid out as dividends or when they are realized as capital gains upon the sale of shares. The classical system of double taxation has been a feature of the US federal income tax system since its inception. Since 1980, however, the United States has lessened the double taxation of equity earnings in several pieces of legislation.

The Economic Recovery Act of 1981, the Tax Reform Act of 1986, the EGTRRA of 2001, and the JGTRRA of 2003 all enhanced the attractions of equity capital by reducing the corporate income tax rate and lowering the highest marginal tax rate on dividend income from 70 percent in 1970, when dividends were taxed as ordinary personal income, to 15 percent, putting dividend-income taxation on the same footing as capital gains taxes for the years 2003 to 2010. With the JGTRRA, the United States has partially and temporarily merged corporate and individual taxation, as in the integrated systems implemented in most OECD countries. One consequence is to improve the tax competitiveness of US firms compared with their industrial-country competitors.¹² Moreover, for firms that meet the broad definition of manufacturing under the AJCA, the corporate rate will be reduced to 32 percent in 2010.

Despite reforms, however, the US tax system still maintains its historical bias for debt over equity capital, though the JGTRRA has almost eliminated the tax preference for capital gains over dividend income.¹³ These features are illustrated in table 2.3, which shows the amount of income

11. The corporate tax has other defects, such as the distortion between consumption now and consumption later, but these defects are more important in the domestic context. See Boskin (1988a).

12. The JGTRRA's preferential tax rates, which apply to dividends from domestic or qualified foreign corporations, were initially set to expire at the end of 2008. The Tax Increase Prevention and Reconciliation Act (TIPRA) of 2005 extended the JGTRRA's preferential rate to the end of 2010. Like almost all other countries, the United States provides for relief against double taxation of intercorporate dividends: Within an affiliated group, a 100 percent deduction is allowed for dividends received from another group member, and for other intercompany dividends, the deduction is either 80 or 70 percent. Investment companies (mutual funds and real estate investment trusts) are not taxed on dividends received from other corporations, provided that the dividends are paid out to their shareholders.

13. Capital gains are taxed only when realized; thus, if assets are held more than a year, they enjoy the benefit of deferred taxation compared with dividends.

Table 2.3 United States: Pretax corporate earnings required to pay (in various forms) individual debt and equity holders \$100 after all federal taxes (dollars and percent)

	Interest (after JGTRRA)	Dividend		Sale of shares ^a	
		Before JGTRRA ^b	After JGTRRA ^b	Before JGTRRA ^b	After JGTRRA ^b
Required corporate earnings before corporate tax	154	250	174	188	165
Corporate tax of 35/32 percent ^b		87	56	66	53
Income received by a top-bracket taxpayer before personal tax	154	163	118	122	112
Personal tax of 35 percent on interest (after JGTRRA)	54				
Personal tax of 38.6 percent on dividends and 20 percent on capital gains (before JGTRRA)		63		22 ^a	
Personal tax of 15 percent on capital gains and dividends (after JGTRRA)			18		12 ^a
Income received by a top-bracket taxpayer after corporate and personal taxes	100	100	100	100	100
Overall tax rate (corporate and shareholder)	35	60	43	47	39

JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003

a. This calculation assumes that retained earnings are entirely reflected in share prices, that shares are held roughly five years, and that the relevant discount rate is about 5 percent. Under these assumptions, the pre-JGTRRA 20 percent tax on realized gains had about the same impact as an 18 percent tax on earnings that are distributed year-by-year as dividends. Likewise, the 15 percent tax on realized gains under the JGTRRA has about the same impact as an 11 percent tax on earnings distributed year-by-year. These calculations ignore tax on that part of capital gains that are purely attributable to inflation. The “inflation tax” adds to the tax burden on capital gains.

b. Before the enactment of the JGTRRA, the top tax rate bracket for dividend and interest income for an individual was 38.6 percent and 20 percent for capital gains. After the JGTRRA, the top-bracket rates for dividends and capital gains were both 15 percent. The top-bracket individual rate on interest dropped to 35 percent after the JGTRRA. The JGTRRA also prospectively lowered the corporate rate for “manufacturing” firms to 32 percent in 2010.

Note: State and local income taxes are not reflected in these calculations.

Source: Authors’ calculations.

that a corporation must earn to pay, in various forms, \$100 of after-tax income to the individual investor. Provided that the corporation and individual pay tax at the highest statutory rate, the rates describe the position at the margin, even though average rates are usually lower. Table 2.3 reflects tax rates before and after the JGTRRA of 2003. Before the JGTRRA, the relevant highest rate was 38.6 percent on individual income (including dividend income) and 20 percent on capital gains. At that time, to pay \$100 after all taxes in the form of dividends, the corporation had to earn \$250, a tax burden of 60 percent.

After the JGTRRA, the highest rates initially became 35 percent on corporate income and individual salaries, but 15 percent on capital gains and dividends. By 2010 the highest rate on manufacturing firms, as defined in the AJCA of 2004, will drop to 32 percent. We assumed that, on average, retaining \$100 of corporate earnings increases the value of shares by \$100. Thus under present law, to pay out \$100 after all taxes in the form of interest, the corporation must earn \$154; to pay \$100 in either dividends or capital gains, it must earn \$174 or \$165, respectively.¹⁴

Table 2.4 summarizes the position of US firms versus their major competitors before and after the JGTRRA was enacted in 2003 and the AJCA in 2004. Accounting for federal but not state and local taxes, since the enactment of the JGTRRA and the AJCA, US manufacturing firms have had to earn \$174 in gross income to pay out net income of \$100 to the individual shareholder. That is significantly less than the amount a US firm was required to earn under the previous law (\$250). Still, among OECD countries, only Japanese and UK firms are worse off in this respect than their US counterparts: They must earn \$196 and \$184, respectively, to pay a net income of \$100 to the individual shareholder.¹⁵ German and French firms must earn \$174 and \$154, respectively. These calculations apply only at the margin because even in OECD countries, most corporations pay average tax rates well below the statutory maximum. To be sure, the advertised tax rates in several emerging countries are higher, as table 2.4 shows, but through special tax holidays and other incentives the advertised rates are rarely collected, even at the margin.

14. To illustrate the calculations in tables 2.3 and 2.4, the JGTRRA (as extended by TIPRA) reduced the highest individual tax rate from 38.6 percent in 2002 to 35 percent for 2003 to 2010 and to 15 percent for dividends. Hence, total tax on corporate earnings paid out as dividends in 2003 can be calculated as follows. Before-tax corporate income of \$100 is taxed at 35 percent for a tax of \$35, leaving after-tax corporate income of \$65. If this \$65 was distributed as dividends, the highest-bracket shareholder in 2003 paid personal tax of 15 percent, or \$9.75. The total tax was \$44.75 (\$35.00 plus \$9.75), and the after-corporate-tax, after-personal-tax income to the shareholder was \$55.25.

15. However, unlike US corporations, UK corporations are subject to tax only on the national level (see table 2.5).

Table 2.4 Pretax corporate earnings required to pay individual shareholders \$100 of dividends after all central government taxes at statutory rates, selected countries (dollars and percent)

	United States ^a		Japan ^b	United Kingdom ^c	Germany ^d	France ^e	Brazil ^f	China ^g	India ^h	Mexico ⁱ
	Before JGTRRA	After JGTRRA								
Required corporate earnings before tax	250	174	196	184	174	154	184	260	223	216
Corporate taxes	88	56	59	55	44	51	46	78	80	69
Income received by a top-bracket taxpayer before personal taxes	163	118	137	129	131	103	138	182	143	147
Personal taxes on dividend income	63	18	51	42	31	54	38	82	43	47
Relief from double taxation	0	0	14	13	0	51	0	0	0	0
Income received by a top-bracket taxpayer after corporate and personal taxes	100	100	100	100	100	100	100	100	100	100
Overall tax rate (corporate and shareholder)	60	43	49	46	43	35	46	62	55	54

(notes and sources next page)

Notes to table 2.4

AJCA = American Jobs Creation Act of 2004

JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003

- a. The US federal statutory corporate tax rate is assumed to be 35 percent before the JGTRRA and 32 percent after the JGTRRA and AJCA (the 2010 rate for “manufacturing” firms). The individual tax rate on dividends is assumed to be 38.6 percent before the enactment of the JGTRRA and 15 percent after.
- b. The national statutory corporate tax rate is assumed to be 30 percent; the individual tax rate on dividends is assumed to be 37 percent. The dividend relief is 10 percent of dividends received.
- c. The national statutory corporate tax rate is assumed to be 30 percent; the individual tax rate is assumed to be 32.5 percent. The dividend relief is 10 percent of the dividend received.
- d. The federal statutory corporate tax rate is assumed to be 25 percent. Starting in 2002, dividends are taxed at the shareholder level at a rate of 50 percent of the individual tax rate (i.e., 23.5 percent). No other relief is available.
- e. The national statutory corporate tax rate is assumed to be 33.3 percent; the individual tax rate is assumed to be 52.5 percent (in 2003). The dividend relief is assumed to be 50 percent of dividends received.
- f. The federal statutory corporate tax rate is assumed to be 25 percent (including a surcharge of 10 percent on income in excess of \$85,000); the individual tax rate on dividends is assumed to be 27.5 percent.
- g. The national statutory corporate tax rate is assumed to be 30 percent; the individual tax rate is assumed to be 45 percent.
- h. The federal statutory corporate tax rate is assumed to be 35.875 percent. This rate is applicable to Indian companies. The rate for foreign companies is 41 percent. The individual tax rate on dividends is assumed to be 30 percent. A surcharge of 10 percent of the tax liability applies to taxable income exceeding Rs.850,000.
- i. The national statutory corporate tax rate and the individual tax rate on dividends are assumed to be 32 percent (since 2005).

Note: Central government taxes are those imposed by the federal or national government. State and local taxes are not reflected in these calculations. Individual taxes are calculated at the top marginal rates.

Sources: Authors’ calculations based on data obtained from Keidanren USA (www.kkc-usa.org); Bond and Chennels (2000); Avi-Yonah (2002a); PricewaterhouseCoopers (2004); KPMG (2006).

To summarize, when the AJCA rate of 32 percent on manufacturing profits takes effect in 2010, the tax position of this large subset of US firms will be improved relative to foreign competitors, unless foreign countries reduce their own rates in the meantime. Based on recent experience and proposals under debate in Germany, the United Kingdom, and elsewhere, it seems unlikely that major US competitors will freeze their corporate tax rates. Unlike the United States, nearly all European countries lowered their average corporate tax rates between 2000 and 2006.¹⁶ The same is probably true of emerging countries.

Appeal of the Corporate Income Tax

Set against the corporate tax's inefficiency are several politically powerful arguments that support that, the most important being the argument that the corporate tax effectively reaches the rich. Without the corporate income tax, it is widely believed that affluent families would enjoy an even more luxurious lifestyle at the expense of middle- and low-income families. This argument, convincing to successive Congresses and presidents throughout the 20th century, has acquired greater salience thanks to the huge gains that the wealthiest Americans have enjoyed since the 1990s.¹⁷

In an era of foreseeable budget stress, when Congress will be faced with the unpleasant task of capping entitlement programs and raising tax revenue, the prospect of abolishing the corporate tax or sharply lowering its rate seems remote. Given such realities, this book takes the corporate income tax as a bedrock feature of US political economy for at least the next decade and explores possible reforms in its application to taxing foreign income.

Relevance to International Tax Issues

In the domestic context, the main concern of incidence theory is who pays the tax. By contrast, in the international context, the analysis of incidence raises three quite different concerns:

- How much is the nation's capital stock reduced on account of corporate income tax?

16. See Marcus Walker, "Europe Competes for Investment with Lower Corporate Tax Rates," *The Wall Street Journal*, April 17, 2007, A12.

17. To cite just one study, Dew-Becker and Gordon (2005, figure 8) calculate that the top 0.1 percent of families garnered 7.7 percent of total productivity gains in the four years between 1997 and 2001. This top 0.1 percent—some 130,000 individual tax returns—is studied with CEOs, entertainment and athletic stars, and beneficiaries of inherited wealth. To cite another study, Piketty and Saez (2006) calculate that the average federal tax rate on the top 0.01 percent of American families fell from over 70 percent in 1960 to about 35 percent in 2005.

- What effect does the corporate tax exert on US firms operating in global markets?
- What is the effect of the global system on corporate taxation?

We do not attempt to measure the reduction in the US capital stock that can be attributed to the US corporate income tax. Whatever the adverse impact of the US tax system on the capital stock, in recent times it has been more than offset by other forces in the world economy, as the United States has run a huge capital account surplus for the past five years. We focus instead on the adverse effects of US taxation on US-based multinational enterprises (MNEs) and the systemic consequence of international tax competition.

Impact on US Firms Operating in Global Markets

Consider first the impact on US-based MNEs. To the extent that the corporate tax raises the prices of goods and services produced by the US corporate sector, it has two adverse effects:

- When the US corporate tax is imposed on income earned abroad through US subsidiaries or branches, the foreign operations of US firms will shrink relative to competitors who do not pay such a tax. Holding all other factors constant, higher tax costs translate into higher prices and smaller market shares.
- When the US corporate tax is levied on income derived from exports, it renders US firms less competitive in third-country markets than competing foreign firms that pay lower tax rates on their exports.

Because most countries tax their corporations, what matters is the comparison between tax burdens abroad and tax burdens in the United States. That comparison leads to the specter of tax competition in a competitive global economy.

Corporate Tax Rates and Tax Competition

Tax competition can start when one country lowers its tax rates to attract outside investment,¹⁸ but also when one country seeks to make its domestic firms more competitive in import and export markets. If other

18. Ireland slashed its corporate tax rate over the past two decades, reaching a record low of 12.5 percent in 2003. Low Irish corporate tax rates are credited as a driving force in attracting inward FDI—especially in knowledge-intensive industries—and generating strong economic growth. Ireland's GNP grew 62 percent in real terms between 1993 and 1999. Unemployment fell from more than 14 percent to just 5.5 percent during the same period. Ireland accounts for

countries lower their rates in turn, the tax battle is on. Supporting this story, empirical evidence suggests that countries tend to lower their corporate tax rates when they exceed the average of comparable countries (Devereux, Lockwood, and Redoano 2002).

Before turning to the policy dimensions of tax competition, it is worth commenting on the evidence concerning the effects of corporate taxation on direct investment flows.¹⁹ Gorter and Parikh (2003) examined the sensitivity of foreign direct investment (FDI) to differences in corporate income taxation within the European Union. The study argues that investors from EU member state A will increase their FDI position in EU member state B by approximately 4 percent if state B decreases its effective corporate income tax rate by one percentage point relative to the European mean. Gropp and Kostial (2001) compared a group of countries with the lowest tax rates ("low-tax group") to a group of countries with the highest tax rates ("high-tax group") from 1988 to 1997. The study found that countries in the low-tax group experienced half the FDI net outflows that countries in the high-tax group did.

An earlier study conducted by Slemrod (1989) found, for the period 1956-84, an elasticity of 1.16 for inward FDI with respect to the US marginal effective tax rate on corporate investment. This elasticity can be interpreted as follows. If the base flow of inward investment in a particular year is \$50 billion, a cut in the effective marginal tax rate from 46 percent to 34 percent (a 26 percent reduction) would stimulate an additional \$15 billion (30 percent) in inward direct investment ($1.16 \times 26 \text{ percent} = 30 \text{ percent}$; $30 \text{ percent} \times \$50 \text{ billion} = \$15 \text{ billion}$) over a period of several years. Further, Slemrod found that the impact was concentrated on FDI financed by the transfer of funds (debt and equity) rather than retained earnings.

In a more recent study, Mutti (2003) concluded that corporate income taxes are an important determinant of the production of US MNEs' foreign affiliates and the parent firm's decision about where to locate an affiliate. Mutti found that a tax policy change that reduces the before-tax cost of capital by 1 percent is associated with an increase of MNE foreign affiliates' production by 0.6 percent. Mutti also pointed out that a 1 percent decline in the cost of capital due to a tax reduction increases the probability that a location will be chosen by 0.12 percent.

just 1 percent of the European Union's total GDP, but it accounts for 6 percent of Europe's inward FDI flows. Even more impressive, exports have grown at an average rate of 17 percent for each year since 1994, with US firms accounting for 70 percent of Irish industrial exports. Ireland's tax regime has attracted fire from other EU members, which claim that the low Irish tax rate unfairly competes with their higher tax rates. See Hodge (2001).

19. In addition to its impact on FDI flows, tax policy may affect portfolio flows by altering the yield on financial investments (see chapter 4).

Analyzing French FDI, Mayer, Méjean, and Nefussi (2007) likewise found a strong and statistically negative effect of the average effective tax rate. Such findings lend credibility to the proposition that corporate taxation can affect FDI flows.²⁰ The inevitable result is tax competition between jurisdictions.

Corporate taxes in the United States fell in the mid-1980s with the Reagan tax cuts, particularly after the enactment of the US Tax Reform Act, which cut the federal corporate tax rate from 46 percent to 34 percent in 1986. Industrial competitors subsequently emulated the US lead and cut their own corporate tax rates in the late 1980s and again in the late 1990s.²¹ However, the United States raised its corporate tax rate from 34 percent to 35 percent in 1993, and on balance, states have not cut their corporate taxes in the past 15 years. By 2003 the US statutory corporate tax rate—federal and state—was the second-highest among 30 major industrial countries. As of 2006 the combined US federal and state corporate income tax was about 40 percent, almost 12 percentage points higher than the average OECD combined national and local corporate tax rate (see table 2.5).²² Among OECD members, only Japan has higher combined national and local corporate tax rates than the United States does (KPMG 2006).

20. In theory, exchange rate changes offset tax differentials so that lower corporate taxes do not improve the domestic industry's global competitive position. Because exchange rates are highly unpredictable and reflect many forces in the global economy, however, corporations that are heavily taxed find little solace in the exchange rate offset story, described in more detail below.

21. In the past 15 years, many countries in Europe and elsewhere have cut their corporate rates. This was true of the United Kingdom, France, Ireland, Germany, Poland, Portugal, Denmark, Japan, and Australia. Japan reduced its national income tax rate from 43.3 percent in 1987 to 30 percent in 1999. Germany reduced its federal corporate tax on retained profits from 56 percent to 50 percent in 1990, from 50 percent to 45 percent in 1994, and from 45 percent to 25 percent in 2001. France reduced its corporate income tax rate from 50 percent to 33.3 percent between 1985 and 1993 and gradually eliminated the surtax on corporations, from 10 percent to 6 percent in 2001 and to zero percent in 2003. The United Kingdom reduced its tax rate from 52 percent to 35 percent between 1982 and 1986; it reduced it again to 33 percent in 1997 and to 30 percent in 1999.

22. In the United States the highest corporate federal tax was 35 percent in 2001. State corporate tax rates vary from zero to 12 percent and are deductible when calculating the federal corporate taxes. Thus the statutory state corporate tax, net of the federal deduction, varies from zero to 8 percent. Accounting for both the federal and state statutory tax rates, the total statutory corporate income tax rate in 2002 varied from 35 to 43 percent. The unweighted average was 39 percent (see Engen and Hassett 2002) but accounting for the economic importance of high-tax states, the weighted average was 40 percent (see PricewaterhouseCoopers 2002). Although the AJCA will cut the corporate rate for manufacturing firms to 32 percent in 2010, the figures reported in the text are based on the current standard rate of 35 percent.

Table 2.5 Federal and subfederal corporate income tax rates, selected countries (percent)

Country	National statutory rates			National plus state and local statutory rates		Effective average corporate tax rates ^a	
	1977	1990	2006	1990	2006	1990	2002
North America							
United States	48	34	35	38	40	32	29
Canada	46	28	22	37	36	n.a.	29
European Union							
France	50	34	33	37	33	30	27
Germany	56	50	30 ^b	58	38	50	32
Italy	25	36	33	46	37	40	34
Netherlands	48	35	29 ^c	35	29 ^c	30	26
Spain	36	34	35	35	35	31	32
United Kingdom	52	34	30	34	30	29	24
Asia and Pacific							
Japan	40	38	30	51	41	n.a.	36
Australia	50	39	30	39	30	n.a.	22
Average OECD	n.a.	35	25 ^c	n.a.	28	n.a.	n.a.
Average EU	n.a.	36	25 ^c	40	25	33	25

n.a. = not available

a. These figures are effective average corporate tax rates in the manufacturing sector. They include both federal and subfederal (state and local) taxes and corporate surcharges.

b. Including the corporate surcharge of 5.5 percent.

c. Authors' calculations.

Sources: KPMG (2006), PricewaterhouseCoopers (2004), Engen and Hassett (2002).

The figures cited are statutory rates and can be interpreted properly as the marginal rates applicable to future earnings. As table 2.5 illustrates, the effective average corporate income tax rate in the United States in 1990 was 32 percent, one percentage point less than the EU average. In 2002, however, the effective average corporate income tax rate was 29 percent, four percentage points above the EU average.²³ Thus the United

23. The effective average tax rate expresses the ratio of corporate tax paid to pretax profits. It reflects both the corporate tax rate and the corporate tax base (e.g., accounting for amortization and depreciation allowances). By contrast, the statutory corporate tax rate may come closer to reflecting the anticipated marginal rate on future profits. In making investment-location decisions, firms probably consider both the average effective rate and marginal statutory rate. See Devereux, Griffith, and Klemm (2002) and Engen and Hassett (2002).

States has become a relatively high-tax country in both statutory and effective rates.²⁴

The traditional economist's answer to the specter of tax competition is a simple one: Different national regimes of corporate taxation can coexist, notwithstanding the political logic of tax wars, because compensating exchange rate adjustments ensure the survival of export- and import-competing activities in high-tax countries. Put bluntly, some traditional economists characterize tax competition as an uninformed response to an imaginary problem. In their view, a small depreciation of the currency automatically offsets the burden of higher corporate taxation.²⁵ Thus no country should have to engage in tax competition for its industrial self-preservation.

The economists' answer plays better in academic circles than among policymakers. Currency depreciation is linked in the public mind to inflation and the loss of real wealth, making it hard for public officials to recommend depreciation to solve burdensome national tax rules. Moreover, exchange rate movements are often disconnected from the fortunes of export- and import-competing activities because capital flows more often than not drive the foreign exchange markets. Also, exchange rates frequently move opposite to the direction that would push the trade balance toward zero, making it harder to argue that burdensome tax rules are necessarily offset by compensatory changes in the exchange rate. Finally, when the exchange rate redresses the trade imbalance, it exerts an uneven effect across sectors. Export sectors that depend on imported inputs are affected by exchange rate changes to a lesser extent²⁶ and a deeper depreciation is required to compensate these sectors for an adverse corporate tax rate.

Convergence of Corporate Taxation?

For all of the above reasons, the exchange rate adjustment answer has become less than satisfactory as a political answer to the competitive problems created by disparate national systems. This is true whether the

24. The same point is made by the Congressional Budget Office (CBO 2005b), Sullivan (2006), and Graetz (2007)

25. An example illustrates this proposition. On average, in 2002, US corporate profits before federal taxes were about 5.3 percent of sales. If the corporate income tax were raised from 35 percent to 50 percent, then corporate profits would have to rise to 6.9 percent of sales to ensure the same amount of after-tax profit. If a 1.0 percent depreciation of the dollar translates into a 0.5 percent rise in dollar prices relative to dollar wages, for both home and export markets, then a 3.2 percent depreciation would, on average, supposedly compensate for the tax increase (calculated as $[6.9 - 5.3] \times 2$).

26. Thus, an assembly operation that imports 80 percent of its cost structure through purchased components and relies only on the local supply of nontraded inputs for 20 percent of its cost structure will not be much affected by a 5 percent change in the exchange rate. The induced change in its international competitive position will be only 1 percent (20 percent of 5 percent).

system in question is that of environmental regulation, social security taxes, health benefits, or corporate taxation. As a result, political pressure has shifted to another arena, namely, convergence of national systems and business taxation. There are two roads to convergence, or approximation, to use the European term that suggests an alignment that stops short of making the systems identical. One is competitive approximation; the other is planned approximation.²⁷

In a system of competitive approximation, each country simply cuts its corporate tax rate or enlarges its deductions unilaterally, to both make its own firms more competitive and attract firms from other countries. OECD countries have been harmonizing their corporate tax regimes through a process of competitive approximation since the mid-1980s, as evidenced by the reduction and convergence in statutory corporate tax rates.²⁸ Proponents of competitive approximation sometimes argue that reducing corporate tax rates is a boon to the world economy, promoting capital formation and supply-side growth.

Others—including the authors—are not so sure. Tax competition need not be confined to a simple reduction in the statutory rate, but can spill over into subsidy schemes and special preferences.²⁹ Unbridled tax competition provides MNEs greater opportunities to exploit differences between tax rules and rates to reduce their tax bills.³⁰ That said, for the

27. Approximation pressure is particularly noticeable in the European Union. The drama between competitive approximation and planned approximation is playing out not only in taxation but also in environmental policy, product standards, antitrust policy, bank regulation, and a variety of other public systems.

28. Appendix B summarizes features of US corporate taxation that have led to lower effective tax rates and might be characterized as contributing to competitive approximation. Between 1988 and 2006, the OECD average statutory corporate tax rate declined from 44 percent to about 28 percent. Countries have converged to this rate, as the dispersion around the average, measured by the standard deviation, also declined during the same period. The reduction in statutory rates, with a concurrent reduction in the standard deviation, suggests that governments redesigned their tax policies at least in part to counter the threat of FDI outflows and to attract FDI inflows.

29. In 2004 public subsidies to industrial firms in the European Union amounted to 3.5 percent of GDP (European Commission 2005), whereas corporate tax collections averaged 3.2 percent of GDP for the European Union at 15 members (OECD 2005).

30. Two simple examples can be cited: manipulated transfer prices for transactions between affiliated companies, with the effect of shifting profits from high-tax to low-tax jurisdictions; and intragroup borrowing and lending, with the effect that interest payments are deducted against corporate income in a high-tax country and interest receipts are lodged in a low-tax country. These practices can result in a redistribution of the tax burden from mobile capital onto less mobile factors or from large multinational groups to small national firms (Gropp and Kostial 2001). Moreover, to the extent that investment is attracted by the promise of low taxes rather than low production costs, location decisions will be less efficient (Bond and Chennells 2000, Bond et al. 2000).

foreseeable future, tax competition rather than planned approximation will be the route to any corporate tax convergence witnessed in the world economy.

Nevertheless, a brief review of the planned approximation route to convergence is in order. Under such an approach, major trading countries would agree on comparable definitions of corporate income, and each country would levy its corporate tax within a range of upper and lower bound rates. This approach finds its greatest support in the European Union. Two major attempts to coordinate corporate income taxation in Europe—the first in 1975 and the second in 1992—failed because the EU Council did not approve them unanimously.³¹ In the most recent attempt in February 2004, Frits Bolkestein, EU tax commissioner, suggested that interested member states should harmonize their tax base definitions under the new “enhanced cooperation” mechanism, which allows a group of core countries to forge ahead with harmonizing policies. Under this arrangement, he predicted, tax rates would naturally converge due to competition between equivalent bases.³² Bolkestein’s proposal met resistance from Ireland, the United Kingdom, the 10 new member states, and members of the newly appointed European Commission.

Thus in 2006 the call for planned approximation seems utopian even in the European Union. The Commission’s ambition is now limited to seeking a common corporate tax base in five years, not a common tax rate.³³

31. The second attempt at EU coordination was done by the Ruding Committee, which delivered a comprehensive report (European Commission 1992) identifying a number of distortions and proposing a common EU corporate tax system as a long-term target, to be approached in three stages. Primary targets in the first two stages were extending the nondiscrimination directives (adopted in 1990) to all enterprises, harmonizing national corporate income tax bases, and aligning statutory tax rates within a range of 30 percent to 40 percent. The design of a common corporate tax system was to be postponed to the third and final stage. In response to the Ruding report, the European Commission took up only two relatively minor proposals aimed at exempting cross-border income flows within multinationals from source taxation. The Commission denied that further harmonization was needed.

32. See *Financial Times*, February 21, 2004, 4.

33. See “Common Cross-Border Tax Base in ‘Five Years,’” *Financial Times*, November 27, 2006, 4. For a detailed survey of the corporate tax harmonization movement in Europe, see Bond et al. (2000). This history does not mean that EU members ignore the challenge of tax competition. All members have adjusted their corporation tax systems, but they refuse to have their room for maneuver restricted by Community law. See Genser (2001). At the January 2005 World Economic Forum in Davos, Switzerland, José Manuel Barroso again rejected the call to harmonize European corporate tax rates: “Some member countries would like to use tax harmonization to raise taxes in other countries to the high-tax levels in their own countries. We do not accept that. And member states will not accept it” (*Wall Street Journal*, January 31, 2005, A17).

Meanwhile, serious academic doubts have been raised about the welfare consequences of eliminating tax competition.³⁴

Up to now there has been little planned approximation of corporate tax systems anywhere in the world, even within the European Union. Instead, mindful of the competitive pressures of the global economy, yet well aware of the political popularity of taxing large firms, many countries, including countries in Europe, have responded with competitive tax measures that recall the Cheshire Cat of *Alice in Wonderland*: As the cat vanished, he left behind a grin. In much the same spirit, alternative paths to competitive taxation are getting heavy use in do-it-yourself tax reduction; integration of corporate and shareholder taxation is especially popular. In appendix B we discuss these paths in greater detail. We conclude this chapter with the observation that tax competition, rather than planned approximation, is the order of the day.

34. Conconi (2006) argues that global tax harmonization leading to the complete elimination of tax competition is a bad idea because it would prompt the adoption of higher-than-optimal capital taxes. According to Conconi's theoretical analysis, partial harmonization is preferable to global harmonization.

Traditional Tax Doctrine for Foreign Income

The previous chapter stressed that US taxation of international business income is an offshoot of the taxation of domestic business income. But it is a hardy offshoot. Beginning with the Revenue Act of 1962,¹ the US system of taxing international income has grown enormously complex, a rich vineyard in which tax accountants and attorneys labor over intricate regulations, debate complex fact patterns, and draw on sophisticated computer analysis to structure single transactions, whole operations, and entire corporate groups. We do not wish to lay out and critique the mind-numbing details of current tax law (see appendices A1 to A8 for a primer); rather, this chapter concentrates on the landmarks of US tax doctrine as they apply to international business income.² Most tax experts are familiar with these landmarks, and they should skip immediately to chapter 4, in which we propose a new regime for taxing portfolio investment income.

Despite sea changes in the world economy, the intellectual underpinnings of the US approach to taxing international business income have changed little in eight decades. The complexity of present US law reflects not new architecture but rather an extensive patchwork to repair a

1. This act introduced subpart F, a complex set of revisions designed to tax currently the undistributed earnings of subsidiaries incorporated in tax haven countries.

2. This chapter and chapters 4 and 5 rely heavily on work done by Daniel J. Frisch when he was a senior fellow at the Peterson Institute for International Economics (1989–90). His work is paraphrased in this chapter by his permission and that of *Tax Notes*. See Frisch (1990).

succession of leaks. Thus the US Treasury, in laying out reform proposals in 1985, adhered to the same rationale that has guided US taxation of international income for the entire century. Because it illuminates the stolid quality of official thought, the Treasury discussion is worth quoting at length:

The Administration proposals retain the basic structure for taxing foreign income of US taxpayers that has evolved since 1913. This structure is intended to cause foreign income to bear a fair share of US tax in a manner that does not distort investment decisions; at the same time, special measures reflect concern for the international competitiveness of US business. Thus, the general rule is that US taxpayers are subject to US tax on their worldwide income. A credit is allowed against US tax for foreign income taxes paid in order to avoid double taxation of foreign income which has been taxed by the country where the income is earned. The special measures include the deferral of US tax on income earned by US-controlled foreign corporations until that income is remitted to US shareholders. (Certain tax haven income is, however, taxed to the US currently even though not repatriated.) . . .

In reaching the decision to continue the worldwide taxation of US taxpayers with allowance for foreign tax credits, the Administration considered and rejected the alternatives of exempting foreign-source income from US tax, or taxing foreign-source income but only allowing a deduction for foreign taxes. While an exemption approach would in some circumstances facilitate overseas competition by US business with competitors from countries that tax foreign income on a favored basis, such an approach also would favor foreign over US investment in any case where the foreign country's effective tax rate was less than that of the United States. Moreover, there would be a strong incentive to engage in offshore tax haven activity. The longstanding position of the United States that, as the country of residence, it has the right to tax worldwide income is considered appropriate to promote tax neutrality in investment decisions. Exempting foreign income from tax would favor foreign investment at the expense of US investment. The other alternative, to allow only a deduction for foreign taxes, would not satisfy the objective of avoiding double taxation. Nor would it promote tax neutrality; it would be a serious disincentive to make foreign investments in countries where there is any foreign income tax. (*The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity*, 1985, Washington: Government Printing Office, A383)

As the quote reveals, policymakers have historically considered three broad frameworks for tax policy toward the foreign income of US taxpayers: taxation with a credit for foreign taxes, taxation with a deduction, and exemption of foreign income. Under a credit system, foreign taxes paid on business income earned abroad are credited dollar for dollar against US tax liability on that same income. Under a deduction system, foreign taxes are deducted from business income earned abroad, and US tax liability is calculated on the after-foreign-tax income. Under an exemption system, business income earned abroad simply is not taxed domestically.

The United States historically has chosen the first of these alternatives, taxation with credit for foreign taxes, though a landmark shift in of-

ficial thinking occurred in the President's Advisory Panel on Federal Tax Reform (2005). The panel, which was staffed by the Treasury Department, recommended a territorial system for "active" business income earned abroad. This recommendation echoes the reform advocated in the first edition of this book (Hufbauer 1992).

Returning to the historical thread, as late as 1985, it was taken for granted that income earned by foreign corporations raised no special issues and should be taxed in the same way as US income earned by US corporations operating domestically. It was also taken for granted that measuring corporate income earned within the United States, though tedious and complex, was basically a technical issue, not a policy question. The policy debate, up through passage of the Tax Reform Act of 1986, thus focused on the foreign income of US corporate taxpayers.

The three options for taxing US taxpayers on their foreign income correspond to three distinct schools of thought on taxation, each of which considers its doctrine to be the proper basis for policy. Historically, the three competing doctrines were capital export neutrality (CEN), national neutrality (NN), and capital import neutrality (CIN).³ To this familiar trio, Desai and Hines (2004) have recently added two new benchmarks: capital ownership neutrality (CON) and national ownership neutrality (NON). We discuss these newer benchmarks after reviewing the older and more familiar concepts.

Three issues are at stake in the policy debate among the advocates of the CEN, NN, and CIN approaches.⁴ The first is the worldwide efficiency question: Which tax regime, jointly operated by two or more sovereign jurisdictions, does the least harm to the efficient workings of the international economy? The second is the national prosperity question: How does a tax regime affect economic activity in each country? The third is the division-of-revenue question: How much tax should each government collect?

3. The concepts of CEN and CIN were first clearly articulated by Richard Musgrave (1960), but they were implicit in international tax circles much earlier. Peggy Richman (1963) laid out the concept of NN. The history of the different concepts is summarized in Bergsten, Horst, and Moran (1978); see also Caves (1982).

4. CEN takes its name from the proposition that business income should be taxed to the same extent whether the firm's capital is used to make goods and services at home or exported and used to make goods and services abroad. CIN reflects the proposition that capital originating in a foreign country should be taxed in the same manner as home-grown capital. NN is named for the proposition that capital-exporting countries should derive the same income from capital—private returns plus public tax revenue—whether it is employed at home or abroad.

Capital Export Neutrality

In the United States, unlike in other industrialized countries, CEN has traditionally prevailed at a conceptual level over competing tax doctrines, though not decisively so. The paramount goal of CEN is to prevent tax considerations from distorting the choices made by multinational enterprises (MNEs) when they decide to locate production or headquarters activity in one country or another. Scarce capital is thereby allocated efficiently on a worldwide basis, and national prosperity supposedly follows. In academic expositions of CEN, the division-of-revenue question is distinctly secondary; nevertheless, the prospect of gaining more revenue for the US Treasury has been a driving force in legislative episodes of trying to implement CEN doctrine.

The CEN ideal as conceived in the United States entails a set of tax rules designed so that managers of US-based MNEs can ignore income tax considerations when deciding whether to locate a plant in the United States or abroad. The goal is achieved if US firms pay the same tax rate on corporate profits, and if those profits were measured the same way, no matter where the firms put their investments. The CEN school believes that such a system can lead to the most efficient possible allocation of capital around the world, and thus to the most productive world economy.

Before descending into the details of CEN, it is worth pointing out that the CEN school assesses tax policy in isolation from a variety of other policies that might distort the location of investment. For example, protective tariffs, buy-national public procurement, and capital grants to firms can all tilt plant location decisions, but according to the CEN school, these other policies should be corrected on their own turf; the tax code is not the place to offset the great variety of distortions that governments inflict on the international economy.

In principle, CEN is achieved by using the same rules to measure both foreign and US income, taxing income earned abroad at the US corporate rate as it is earned, allowing the same investment tax credits and accelerated depreciation for foreign investment as for domestic investment, and granting a credit for foreign income taxes paid.⁵ Suppose a US-based MNE could earn a before-tax return of 25 percent, either in Belgium or in the United States, on a plant addition costing \$40 million. In either case the annual before-tax return would be \$10 million. Suppose the Belgian corporate tax rate, after special depreciation allowances, works out to 20 percent versus the US rate of 35 percent. Under a CEN system, the US tax on Belgian profits would be \$3.5 million ($\$10 \text{ million} \times 35 \text{ per-}$

5. This menu was recommended by Bergsten, Horst, and Moran (1978, 461–62). They also suggested extending the investment tax credit to foreign investment; that proposal is now moot, as the investment tax credit was repealed by the Tax Reform Act of 1986.

cent); the United States would allow a foreign tax credit of \$2.0 million ($\$10 \text{ million} \times \text{the Belgian tax of 20 percent}$); and the net US tax after credit would be \$1.5 million ($\$3.5 \text{ million} - \2.0 million). The firm's after-tax return would then be the same (\$6.6 million) whether it located the plant addition in the United States ($\$10 \text{ million income} - \$3.5 \text{ million in US tax}$) or in Belgium ($\$10 \text{ million income} - \$2.0 \text{ million in Belgian tax} - \$1.5 \text{ million in US tax}$). In short, under a CEN system, when before-tax returns are the same in two locations, the after-tax returns are also the same. The tax regime does not prejudice the plant location decision; in this case, the firm could simply toss a coin.

Similarly, if the US before-tax return were greater, so would be the after-tax return, and the firm would build the plant addition in the United States. Extending the case above, if the MNE could earn \$12 million before tax by making its \$40 million plant addition in the United States, but only \$10 million in Belgium, it would invest in the United States because its after-tax return would be higher (\$7.8 million versus \$6.5 million). If the facts were reversed, it would invest in Belgium. From the CEN standpoint, these would be correct decisions. Worldwide efficiency is maximized when the tax rules encourage firms pursuing their financial self-interest to place their capital where it earns the highest before-tax return. To achieve this, the combined domestic and foreign tax rate must be the same no matter where the domestically based firm puts its capital.

In contrast, if the domestic authorities do not tax foreign income at all—as the CIN school urges—then domestically based firms have an incentive to move their capital to low-tax or zero-tax countries. The effect is the same whether low or zero effective taxation is achieved by a low or zero nominal rate or by special incentives, such as generous depreciation allowances: Too much capital flows to these locations, and that capital is less productively engaged, at the margin, than capital placed in the United States.

Returning to the previous example, suppose that the United States did not tax the profits of the MNE's Belgian subsidiary. The MNE would then prefer an investment in Belgium that earned \$10 million before tax even if the same investment in the United States earned \$12 million before tax: The firm's after-tax return would be \$8.0 million on the Belgian investment after the Belgian tax of 20 percent, but only \$7.8 million on the US investment after the US tax of 35 percent. The tax regime thus would prompt US-based MNEs to allocate their capital inefficiently from a global perspective—too much in Belgium, too little in the United States.

However, if the United States allowed a deduction but no credit for foreign taxes—as the NN school urges—then US MNEs would pay tax twice on income from capital located abroad. The opposite incentive would be created: Too little capital would be used abroad, and that capital would be more productive, at the margin, than capital used in

the United States. Again, the efficiency of the world economy would be impaired. Applying the rule of deduction but no credit to the previous example, the after-Belgian-tax, after-US-tax income from a Belgian investment that earned \$10 million before tax would be only \$5.2 million (\$10 million – the deduction for the 20 percent Belgian tax = \$8 million to be taxed by the United States; \$8.0 million taxed at 35 percent leaves \$5.2 million for the corporation). In contrast, even if the same project located in the United States earned only \$9 million before tax, it would show a higher after-tax return (\$9.0 million taxed at 35 percent leaves \$5.9 million). The tax system would encourage the US investment, even though it was less productive than the Belgian investment.

Hence the CEN prescription to tax foreign income on a current basis, but allow foreign taxes paid to offset the domestic tax dollar for dollar, so that domestic tax on foreign income is paid only when the income is taxed abroad at a lower rate. This way, the combined total foreign and domestic tax on the foreign income of domestic firms equals the domestic tax on income earned at home.⁶

Even in the halcyon days of the 1950s and 1960s when US firms dominated global business and the United States took a benign view of international capital flows—seeing no inconsistency between world efficiency and national prosperity—there was acute practical concern about the third goal of international tax policy, the division of revenue between US and foreign governments. For this reason, no one in Treasury or Congress was prepared to carry the foreign tax credit component of CEN doctrine to its ultimate conclusion, namely, crediting US MNEs for taxes paid abroad in excess of their US tax liability on the foreign income.⁷ As early as 1921 the foreign tax credit was limited to the US tax that would otherwise be due on foreign income (see appendix A1).

Limiting the foreign tax credit, however, might impede the CEN school's goal of worldwide efficiency. Consider a US-based MNE with foreign income that is, on average, taxed more heavily abroad than it would be in the United States. Under the US foreign tax credit system, no additional US tax is due on this income, but the excess foreign tax is neither refunded nor allowed as a credit against US tax on US income. Instead, the so-called excess credits are disallowed entirely if they cannot be used during carry-back or carry-forward periods. Thus US-based MNEs might avoid investing in countries with heavier taxation than the United States, and consequently too little capital for worldwide efficiency

6. To carry out this prescription, the same accounting rules and depreciation allowances should apply to foreign and domestic income, and any domestic tax incentives should be extended to foreign investment.

7. Likewise, in the years when the investment tax credit was allowed, it was not extended to foreign investment.

might end up in these high-tax countries.⁸ In practice, however, the overall limitation is an important offset: US-based MNEs can usually blend their high-foreign-tax income with their low-foreign-tax income and enjoy the benefit of the foreign tax credit for taxes paid to high-tax countries.⁹

Although the CEN school recognized early the possible problem of a self-inflicted capital shortage in high-tax countries, even its academic proponents never seriously suggested removing the limitation on the foreign tax credit. Allowing the overall limitation was concession enough, as division-of-revenue concerns trumped worldwide efficiency concerns. The absence of a foreign tax credit limit would provide a strong temptation for foreign governments to encroach on the US tax base. With no limit on the credit, foreign governments would feel rather free to tax US firms more heavily than the US corporate tax rate does, as the extra burden would fall not on the firms, thereby encouraging them to leave, but on the US Treasury.

Another practical reason for the foreign tax credit limit became apparent in the mid-1970s. If a sovereign government owns natural resources, imposes a corporate tax, and leases the extraction rights to a private company—a very common practice in the petroleum industry—it may be hard to distinguish between the tax on corporate income and the royalty paid for resource rights, particularly when the tax and royalty systems are designed with the assistance of capable US legal counsel. In such circumstances, the foreign tax credit limit at least restricts the amount of resource royalties that can be disguised as a corporate tax.

Apart from the limit on the foreign tax credit, there is another large departure in the US tax rules from the CEN prescription that the combination of domestic and foreign taxes on corporate income be the same wherever the income is earned. The worldwide income of US firms is not

8. As discussed in chapter 2, according to traditional analysis an appropriate degree of currency depreciation can preserve economic activity in the high-tax country. However, currency depreciation works (if at all) by raising the before-tax return to capital, so that even if economic activity is preserved, there remains the distortion between jurisdictions in before-tax rates of return. Capital remains too scarce in the high-tax jurisdiction and too plentiful in the low-tax jurisdiction.

9. The United States historically permitted an overall limit on the foreign tax credit rather than requiring a per-country limit. The overall limit allowed MNEs to blend income from low-tax foreign jurisdictions with income from high-tax foreign jurisdictions, thereby claiming a larger credit for foreign taxes imposed by high-tax countries. This feature mitigated the disincentive to invest in high-tax jurisdictions. However, with the separate baskets-of-income approach to the foreign tax credit introduced by the Tax Reform Act of 1986 (see appendix A1), the blending possible under the overall limit found somewhat less scope for investments in high-tax jurisdictions. The American Jobs Creation Act of 2004 (see appendix A1) slashed the number of baskets from nine to two (passive-category income and general-category income), starting in 2007, thereby restoring the scope for blending high-tax and low-tax income.

taxed in the current year if it is earned by locally incorporated subsidiaries engaged abroad in a so-called active trade or business. Instead, US tax on the business profits of these subsidiaries is deferred until the profits are repatriated to the US parent company as dividends, or until the subsidiary is sold; in the latter case, the subsidiary's retained earnings are taxed as ordinary income up to the amount of retained earnings realized as profits by the sale, and profits beyond the amount of retained earnings are taxed as a capital gain. Foreign income derived from so-called passive sources is taxed currently.¹⁰ This exception to deferral was first introduced in the Revenue Act of 1962, and since then, the definition of passive income has been progressively expanded.

Assuming that before-tax earnings would be the same in the United States as in a low-tax location, the present value of the expected stream of combined US and foreign taxes on foreign income can be significantly lower when US taxation is deferred. In present-value arithmetic, a delayed tax is a smaller tax. Suppose the MNE in the above case expected to earn \$10 million annually on an investment in the United States and pay a tax of 35 percent at the end of each year over the next 10 years. The present value, at the beginning of the first year, of the expected stream of future US taxes, discounted at 10 percent annually, would be \$21.5 million.¹¹ However, suppose the MNE expected to earn \$10 million annually in Belgium, pay a Belgian tax of 20 percent over the next 10 years, sell the investment in the 10th year, and only then pay US tax on the retained earnings with a credit for prior Belgian taxes. In that case, the present value of the expected stream of Belgian and US taxes, again discounted at 10 percent annually, would be \$18.1 million.¹² The before-tax returns are identical on the two investments (\$10 million per year) and the tax burdens without a deferral would be the same (\$35 million over 10 years), but the practice of deferral, coupled with the workings of compound interest, makes the Belgian investment decidedly more attractive.

10. Broadly speaking, active income is derived from mining, manufacturing, and performance of business services such as accounting; passive income is derived from collecting dividends, interest, rents, and royalties. Perennial gray areas between active and passive income include trading, banking, insurance, and leasing, businesses with a fuzzy line between mobile and immobile sources of income.

11. In this case, the present value (PV) of the future tax stream is calculated as $PV = \$3.5 \text{ million}/(1.10) + \$3.5 \text{ million}/(1.10)^2 + \dots + \$3.5 \text{ million}/(1.10)^{10}$.

12. Calculated as $PV = \$2.0 \text{ million}/(1.10) + \$2.0 \text{ million}/(1.10)^2 + \dots + \$2.0 \text{ million}/(1.10)^{10} + \$15 \text{ million}/(1.10)^{10}$. The figure of \$15 million in the last term represents the cumulative difference over 10 years between US tax on undistributed earnings (\$3.5 million per year) and the foreign tax credit attributable to Belgian tax (\$2.0 million per year). When the investment is sold, the United States will finally collect its \$1.5 million per year of tax, or \$15 million total.

The above arithmetic gives US firms an incentive to operate in low-tax countries. Studying the effects of foreign tax havens on American business, Hines and Rice (1990, 36) concluded that “it is undoubtedly true that some American business operations are drawn away from the mainland US by the lure of low tax rates in tax havens.” Subsequent empirical research confirms that the US international tax system does not neutralize host-country tax advantages that affect US-based MNEs when choosing among competing foreign locations.¹³ In other words, US-based MNEs are sensitive to host-country tax rates in their outbound operations. Given the multiple holes in the current quasi-CEN system, Altshuler and Grubert (2001, 36) concluded that location decisions as between competing foreign countries would not be significantly affected if the United States adopted a dividend exemption system (i.e., a quasi-territorial system). Taken as a body, the empirical evidence has led economists to state that, in the current tax climate, US-based MNEs behave as if they were subject to a territorial tax system, at least with regard to investment choices across foreign locations.¹⁴

From a CEN standpoint, the theoretical solution to the problem of tax competition is to repeal deferral across the board so that all foreign earnings of US subsidiaries are taxed currently after allowing for the foreign tax credit, whether or not the earnings are currently repatriated as dividends.¹⁵ CEN proponents claim that the changes will not only improve worldwide economic efficiency, but also help to curb the spread of so-called harmful tax competition,¹⁶ the invocation of which became a rallying cry in the 1990s. According to the argument, some countries take undue advantage of globalization—that is, the mobility of capital and

13. See Mutti (2003); Altshuler, Grubert, and Newlon (2001); Grubert and Mutti (1998, 1999); and Hines and Rice (1994). These papers focus on investment choices across foreign locations and not between domestic and foreign jurisdictions.

14. See Altshuler (2000) and Altshuler and Grubert (2001). Analyzing empirical work, Altshuler and Grubert (2001) conclude that “the current system provides similar tax incentives to the ones we would expect under a system in which dividends are exempt from home country taxation.” However, they note that one critique of this interpretation of the literature is that “the empirical tests do not explicitly test the impact of residual home country taxes on location behavior.”

15. In the 1970s some observers regarded the denial of investment tax credits and accelerated depreciation to foreign investments as offsets to deferral, and thus saw the repeal of deferral as less urgent from the standpoint of CEN doctrine (Bergsten, Horst, and Moran 1978; Hufbauer and Foster 1976). Both the investment tax credit and the most favorable elements of accelerated depreciation were repealed in 1986, so the CEN case for ending deferral is stronger today.

16. The Organization for Economic Cooperation and Development (OECD 1998) has adopted initiatives to cope with harmful tax competition. The initiatives are designed to curb tax havens and preferential tax regimes that are thought to erode the tax base of OECD members, thereby reducing the tax that would otherwise be collected.

skilled personnel, sophisticated financial services, and weak international tax coordination—and deliberately slash their corporate taxes to attract direct investment from MNEs. Other countries are forced to respond in kind. The result is to erode the tax base all around and distort location decisions. For the CEN school, the solution is to strike at the root: repeal deferral and impose a strict per country (or even per subsidiary) limit on the foreign tax credit, so as to curb the effect that tax differentials have on MNE decisions about where to invest. Supposedly such measures deter countries from engaging in harmful tax competition.

However, the CEN line of analysis raises the question of whether the United States should be concerned about the efficiency of capital allocation among foreign countries and even among lines of business in those countries. If the United States were concerned about this sort of micro-efficiency, it would impose per country, per subsidiary, and even per type-of-income limits on the foreign tax credit, as well as repealing deferral. Particularized limits on the foreign tax credit would be required to prevent the income earned in low-tax countries, or from low-tax activities, from being sheltered against US taxation through excess credits generated by high-tax sources of foreign income. If the Singapore tax rate on a new biotech plant is only 10 percent thanks to a tax holiday, but if the returns from the biotech investment could be sheltered from further US tax through excess credits stemming from a 40 percent tax rate on the US-based MNE's income earned in Germany,¹⁷ the MNE would have every reason to pursue the Singapore investment. Under the Tax Reform Act of 1986, the United States imposed such quasi-per-type-of-income limits on the foreign tax credit through a complex system of baskets of income, but this change was inspired more by revenue considerations than by micro-efficiency concerns. Consequently, considerable latitude remained for micro-inefficiency after the 1986 act.

The American Jobs Creation Act of 2004 (AJCA, PL 108-357) consolidated the baskets of income from nine to two, a passive category and a general category. The passive income basket was expanded to absorb three other baskets: dividends from a domestic international sales corporation (DISC), distributions from a foreign sales corporation (FSC), and foreign trade income. The remaining five baskets were combined into the general category basket.¹⁸ These changes greatly simplified the foreign tax credit system but also increased room for micro-inefficiency.¹⁹

17. Under the 1989 US-German tax treaty, the tax on distributed earnings of a German subsidiary was 36 percent plus a withholding tax of 5 percent.

18. For an analysis of the changes to the foreign tax credit limitations and other provisions of the AJCA, see Tuerff et al. (2004).

19. Consolidating the number of baskets of income increases the opportunity for cross crediting. Subdividing categories of income into smaller baskets has the opposite effect. Allowing for cross crediting can move the tax system closer or farther from CEN, depending on

All in all, it is fair to conclude that the present structure of US taxation of foreign income—the foreign tax credit with basket-of-income limits, coupled with deferral for so-called active income and current taxation for so-called passive income—reflects a pragmatic compromise between CIN and CEN, and thus between business firms and the US Treasury. Businesses are concerned about maintaining international competitiveness, or at least that is the proclaimed rationale for deferring taxes on active foreign income. The Treasury is concerned about defending US tax revenues, the real if unproclaimed rationale for basket-of-income limits on the foreign tax credit and current taxation of passive foreign income.

Historically, the step-by-step implementation of CEN logic (see appendix A1) meant higher taxes on the foreign income of US business.²⁰ Hence the Treasury historically advocated CEN doctrine while business espoused CIN theory.

However, as we will see shortly, recent empirical research indicates that further moves toward CIN might actually increase tax revenues depending on the specific features of the territorial tax system adopted. As a result, it is not surprising that Treasury is gradually losing its historic affection for pure CEN doctrine, as revealed in the recommendations of the president's tax reform panel (see appendix A3). For symmetrical reasons the business community could support certain CEN arguments. Signs of this historic reversal were first observed a few years ago in both Treasury and the private business sector. In 2002 the Treasury Department called for an examination of the merits of an exemption-based (territorial) tax system.²¹ In the same year,

the foreign tax credit position of the US-based MNE involved. If deferral were repealed, US-based firms in an excess limitation position (i.e., foreign tax credit limits in excess of foreign taxes paid) would be indifferent between investments that earned the same income in the United States and in low-tax countries abroad because they would face the same combined tax rate on foreign income. For these firms, the system would be closer to CEN. Meanwhile, US-based MNEs in excess credit positions would prefer investments in low-tax countries over investments in the United States or other high-tax countries; as with cross crediting, taxes paid to high-tax jurisdictions would eliminate any residual tax owed to the Internal Revenue Service (IRS) on income from low-tax jurisdictions. For these firms, the consolidated basket-of-income approach moves the system farther from CEN and closer to CIN.

20. The AJCA retreated from CEN logic by consolidating baskets of income, reforming Subpart F to exclude certain types of base company sales and service income, and providing a one-year low-rate "tax holiday" for repatriating foreign earnings. These changes were advocated by Chairman Bill Thomas (R-CA) of the House Ways and Means Committee, even though Treasury opposed them.

21. See the Treasury Report on Inversion Transactions, 2002 (appendix A5). In a 1977 study on tax reform, Treasury advocated CEN in the context of residence-based taxation. In 1999 the Treasury reiterated its support for CEN connected to a comprehensive study of deferral. By contemplating the CIN framework, the 2002 report departed from past Treasury doctrine. The departure was underscored by the territorial system endorsed in the 2005 report of the president's tax reform panel.

the National Foreign Trade Council (NFTC) argued against replacing the current tax system with a territorial system.²²

The most significant legislative step away from CEN logic was the AJCA (HR 2896), introduced by William M. Thomas (R-CA), chairman of the House Ways and Means Committee, on July 25, 2003. It was eventually passed as HR 4250 and signed into law on October 22, 2004 (see appendix A5). Two central purposes of the bill were to replace the FSC and extraterritorial income exclusion (ETI) regimes—both found to be illegal export subsidies by World Trade Organization (WTO) rulings²³—and to discourage corporate inversions. To compensate US exporters for the repeal of the FSC/ETI regimes, the bill contained several provisions designed to make US firms more competitive internationally. Features in the bill that generally followed CIN logic included a low-rate, one-year (2005) tax holiday for accumulated earnings held by foreign subsidiaries, known as the Homeland Investment Act; a reduction in the number of foreign tax credit baskets from nine to two, permitting more cross crediting of taxes; changes in foreign base company sales and service rules, making them less unfriendly to the foreign activities of US-based multinationals; a reform in interest allocation rules to reflect foreign borrowing by subsidiary corporations; extension of the five-year foreign tax credit carry-over period to ten years; and the addition of a one-year carry-back provision.

Prior to the introduction of the AJCA, the adoption of the entity classification regulations under Section 7701 of the Internal Revenue Code (the so-called check-the-box regulations) in 1997 also contributed to a de facto shift of the US international tax system towards CIN logic.²⁴

22. In 2002 the NFTC—an association of businesses with some 550 members, devoted to international trade and investment issues—launched an international tax-policy review project designed to consider US international tax reform in the form of a territorial tax exemption system associated with CIN. The NFTC argued that legislative efforts to improve current international tax rules were better spent on reforming the current deferral and foreign tax credit system than on adopting a territorial exemption. The NFTC concluded that “while it is true that a territorial system could improve competitiveness and simplicity for some US-based companies with substantial operations abroad, the accompanying reduction in foreign tax credits attributable to exempt income could more than offset that benefit for other such companies. Moreover, the benefit for any significant group of companies would be dependent on the adoption of a broad exemption, a cutback on the existing Subpart F rules, and reform of the current expense allocation rules” (NFTC 2002a).

23. See Hufbauer (2002) for a detailed discussion.

24. From 1960 through the end of 1996, classification of a business organization as either a “partnership” or as a “corporation” was accomplished by reference to the so-called Kintner Regulations issued under IRC Section 7701. The Kintner Regulations based the classification determination on the presence or absence of four factors and generally weighted the classification test in favor of partnership classification. The check-the-box regulations, which became effective on January 1, 1997, replaced the four-factor Kintner classification test for

Although the check-the-box rules were never intended to circumvent the US antideferral rules, check-the-box planning to avoid subpart F has become the norm for US-based MNEs. This was achieved by various techniques. One of the most popular is to consolidate all the overseas operations of a US-based MNE under a single offshore holding entity and then file a check-the-box election to treat this first-tier foreign holding company as a “corporation” for US tax purposes. As a result of the election, payments that are deductible locally (such as interest, royalties, rents, etc.), made amongst the various foreign subsidiaries or between the subsidiaries and the first-tier foreign holding company, that might previously have been subject to current US taxation under subpart F, effectively circumvented the subpart F regime (Sicular 2007).

The enactment of section 954(c)(6) in 2006 (see appendix A3) constituted a further step away from CEN logic. Section 954(c)(6)—which, as of July 2007, is scheduled to sunset in 2009—provides for look-through treatment for dividends, interest, rents, and royalties received or accrued by a CFC from a related CFC attributable to non-subpart F income of the payer CFC, thereby effectively permitting deferral for most active earnings of a CFC.²⁵

National Neutrality

Unlike the CEN school, the NN camp is not particularly interested in maximizing the efficiency of the world economy by allocating capital to locations where it earns the highest before-tax return. The NN school, which has never prevailed in the public policy debate, would prefer to orient US tax policy to maximize US gains from the use of US-owned capital. National prosperity is thus the paramount goal of the NN school, and its proponents—a very small band—seek to achieve it by dramatically boosting the US tax take on foreign investment, thereby discouraging US-based MNEs from production abroad.

classifying business organizations as either partnerships or corporations. The regulations allow certain business entities to choose their classification for US tax purposes under an elective regime, including providing an election to classify certain foreign entities as “partnerships”, “corporations” or “disregarded entities” for US tax purposes if certain conditions are met, regardless of the classification of such entities from a local corporate law perspective.

25. Sicular (2007) states that “[o]n the surface Section 954(c)(6) looks like a narrow technical rule.” In fact, it is much more than that. If it becomes permanent, section 954(c)(6) will have, without fanfare, effectively repealed antideferral rules for much of what subpart F was originally intended to reach—payments of “passive” income between controlled foreign corporation (CFCs).

Consider the decision by a US-based MNE concerning an investment that promises to yield a profit of 20 percent annually in either of two locations: in the United States or in a foreign country that will tax the income at the same 35 percent US corporate rate. Worldwide efficiency is unaffected by the choice of location, as in either case, the before-tax return on capital is 20 percent. But the choice matters to the United States, according to the NN school.

One reason why it should matter is very simple: In one case the United States collects the tax revenue, whereas in the other case a foreign government collects the revenue. Moreover, to add a modern twist, in one case the United States enjoys the spillover benefits of new investment, such as externalities and particularly technological spillovers, whereas in the other case those benefits are enjoyed abroad. Thus instead of treating foreign taxes as an offset to US taxes, NN doctrine considers them as a cost of employing US capital abroad. Like other costs of doing business, NN would allow these costs to be deducted from taxable income, but they could not be credited against US federal taxes.²⁶

The change from a credit to a deduction would prompt US MNEs to alter the international disposition of their assets until they earned the same before-US-tax (but after-foreign-tax) rate of return, whether investing in the United States or abroad. For example, if an investment earned 28.6 percent before tax and was taxed at 30 percent by France, the before-US-tax return would be 20 percent (70 percent of the initial 28.6 percent return). Under NN rules, the French investment would be equally attractive to the US MNE as a US investment with a before-tax return of 20 percent. In both cases the United States would tax the 20 percent before-US-tax return at its own 35 percent rate, and the after-US-tax return would be 13.2 percent. Either way, the US economy—that is, the US MNE and the Treasury—would earn a total return of 20 percent on US capital.

To carry the story further, the NN school would accept US-based multinational investment in France if it could earn the 35 percent pre-French tax, for then the return on capital available to the US economy would be 24.5 percent, an improvement on the 20 percent that could be earned at home (this calculation ignores any technological spillovers). But the NN school would not want the MNE to invest abroad if it could earn only the 25 percent pre-French tax, for then the return available to the US economy would be only 17.5 percent.

26. State and local taxes on corporate income are allowed as a deduction, not a credit, against US federal income tax. But the rationale for the deduction of state and local taxes differs from the rationale urged by the NN school for the deduction of foreign taxes. If state and local taxes were creditable and not just deductible, the temptation would be overwhelming for state and local governments to raise their corporate tax take at the expense of the federal government. With important exceptions, foreign governments do not tailor their tax systems with the principle aim of capturing tax revenue from the US Treasury.

The NN view leads to a drastic recommendation for changing US tax law. Like the CEN school, the NN camp would tax the worldwide income of US MNEs currently and without deferral, but NN would replace the foreign tax credit with a deduction for foreign taxes.²⁷ This idea was the basis of the tax sections of the Burke-Hartke bill, sponsored by the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) in the early 1970s (see appendix A1). Since then, the NN star has faded, and it is rarely suggested as a serious alternative today, even though US concerns about US manufacturing in the face of international competition are as pressing today as they were in 1970. In 2006 the US trade deficit in manufactured goods was over \$574 billion, or about 36 percent of US value added by the manufacturing sector.²⁸

The NN analysis has been criticized by economists and rejected by politicians for many reasons. An old favorite with new relevance is that NN is a shortsighted way to advance national prosperity. As with other beggar-thy-neighbor policies, if the United States adopted NN as its guiding philosophy, foreign governments might retaliate by taxing their own firms doing business in the United States on the same NN basis. More likely, as US-based MNEs gradually sold their foreign assets and reinvested in the United States, foreign-based MNEs would withdraw resources from the US economy and acquire the assets on sale abroad. After such a round of asset reallocation, it is unlikely that there would be a substantial net addition to the pool of capital productively employed in the United States. Meanwhile US-based MNEs would suffer a drastic blow to their international competitive strength. All countries, including the United States, could lose as multilateral investment collapsed. As multilateral investment shrank, system-wide advantages, in the form of benefits from both the worldwide application of proprietary technology and head-to-head competition between corporate giants, would be sacrificed. Also sacrificed would be the division of production activities into slices, each corresponding to the comparative advantage of a particular country.

Capital Import Neutrality

The CIN school considers its rivals to be flawed for several reasons. Traditionally, CIN supporters claim that CEN and NN would place US-based MNEs at a significant competitive disadvantage in many circumstances.

27. Because of its draconian implications, the NN prescription was labeled the “international double taxation” method by Horst (1980, 793–98).

28. For 2006 total value added by the manufacturing sector was about \$1.601 trillion according to the Bureau of Economic Analysis (www.bea.gov), and the total trade deficit in manufactured goods, by Standard International Trade Classification (SITC) 5–9, was about \$574 billion (UN Comtrade database, available at www.comtrade.un.org).

Consider possible investment in a low-tax location. If, under CEN logic, a US firm had to pay tax currently (without deferral) at a higher US rate on the resulting income, it would be unable to compete with either a local firm or, just as important, with a subsidiary of a foreign MNE based in a country that did not tax overseas income.

Many industrial countries effectively exempt the active business profits of foreign subsidiaries and branch operations from domestic tax. Countries that fully or partially take this approach—often called the territorial approach—include Germany, France, the Netherlands, and Canada. To achieve tax parity with multinationals based in such countries, the CIN school recommends that the United States refrain from taxing its MNEs on their active foreign income, and at a minimum, reverse the inroads on deferral made by the Tax Reform Act of 1986 (see appendix A3), as deferral has much the same effect as exemption as long as the earnings of the low-tax subsidiary are reinvested abroad, as they may be for a very long time.

Reflecting such arguments, the American Jobs Creation Act of 2004 did two things: It provided a one-year, low-rate “tax holiday” on repatriated earnings (the Homeland Investment Act provisions),²⁹ and it consolidated and simplified antideferral rules that repeal separate regimes for foreign personal holding companies and foreign investment companies. Subpart F rules were also relaxed, allowing profits from aircraft leasing and shipping income as well as commodity sales and hedging transactions to avoid being counted as subpart F income (which would disallow deferral) provided that they were directly related to the firm’s active business pursuits (Tuerff et al. 2004).

In recent years, the CIN school and sympathetic scholars have also argued that the concept of worldwide economic efficiency that CEN proponents pursue is outdated and should no longer be the core principle of US international tax policy. Among the reasons cited, the following are worth mentioning. First, for worldwide economic efficiency to be achieved, other major countries that serve as the home base for MNEs, as well as the United States, would have to endorse the CEN concept. The CIN school points out that worldwide economic efficiency cannot be achieved unilaterally by the United States, inasmuch as the relative role of the United States in the world economy had declined substantially during the last 40 years. In the 1960s the United States completely dominated the global economy, accounting for over 50 percent of worldwide cross-border direct investment and 40 percent of world GDP. In 1960, of the world’s 20 largest corporations (ranked by sales), 18 were headquar-

29. A special dividends-received deduction was allowed equal to 85 percent of exceptional dividends repatriated in 2005. The resulting tax rate works out to about 5.25 percent, assuming that the repatriated dividends would be taxed at 35 percent otherwise.

tered in the United States.³⁰ Four decades later, the United States confronts much greater competition in global markets. As of 2005 the United States accounted for about 21 percent of the world's foreign direct investment (FDI) stock and 28 percent of the world's GDP (table 1.1), and 11 of the world's 20 largest corporations were headquartered in the United States (ranked by total revenue).³¹

Second, the tax reality according to the NFTC (1999) is that half of the OECD countries generally exempt foreign-source active business income from domestic taxation. Important emerging countries, such as China, also follow the exemption model in practice if not in legal form. As is discussed further below, in a world where portfolio investment can be quantitatively more important than FDI, imposing CEN only on direct investment may not improve international capital allocation.³² Third, focusing on economic efficiency as a guiding light excludes other important values from consideration, for example, the pace of economic growth in developing countries and the foreign policy ramifications of overseas investments.³³ Fourth, strict adherence to the concept of worldwide economic efficiency, if achieved, may enhance world well being at the expense of national well being.³⁴ Fifth, not all tax competition is equally harmful; Conconi (2006) argues that some tax competition is essential to avoid excessively high taxation of capital income (see also Avi-Yonah 2000). What about the CEN argument that if foreign earnings are not taxed at the US rate, an inefficiently large amount of capital will be invested in low-tax locations instead of in the United States? CIN proponents counter that sources and

30. See Peter R. Merrill, Director, National Economic Consulting, testimony before the House Committee on Ways and Means, Hearing on Impact of US Tax Rules on International Competitiveness, June 30, 1999 (Serial no. 106-92, 106th Congress, available at www.worldcatlibraries.org).

31. The 11 are Exxon Mobil, Wal-Mart, General Motors, Chevron, DaimlerChrysler, Ford, ConocoPhillips, General Electric, Citigroup, AXA, and American International Group. See Fortune Global 500, 2006, available at <http://money.cnn.com> (accessed July 18, 2007).

32. For a contrary view, see Grubert and Mutti (1999).

33. Graetz (2001) claims that evaluating US international tax policy by the metric of worldwide economic efficiency, which looks only to rates of return and tax dollars collected, fails to account properly for the political benefits and burdens of foreign investments. Graetz observes that while economists tend to agree that free trade improves worldwide efficiency, the same consensus does not exist with respect to flows of capital. The International Monetary Fund (IMF) has voiced similar skepticism over the efficiency benefits of capital flows (Kose et al. 2006), but the skepticism is centered more on financial flows and portfolio investment than direct investment.

34. See Graetz (2001) and NFTC (1999). A common example is the controversy over the Treasury's hybrid-branch regulations issued in 1999. These regulations attack corporate structures with the effect only of reducing foreign rather than US tax. See the discussion in footnotes 39 and 40.

uses of world capital are interconnected through a vast global pool. If one country makes itself more attractive for investment, it draws capital from the global pool regardless of whether US or foreign firms are the identifiable investors. CIN proponents do not agree that foreign economic activity, even in low-tax locations, takes place at the expense of domestic activity. They cite empirical evidence that the reverse seems to be true, and that the foreign activity causes MNEs to expand their exports.³⁵ They conclude that it is a mistake to worry about an adverse trade-off between the domestic and foreign activities of US firms

According to CIN proponents, the United States should pragmatically recognize that, if an economic activity can most profitably be done in a low-tax location, a firm will exploit the opportunity. Directly or indirectly, capital flows from high-tax nations to low-tax nations. The real trade-off is whether the activity is done by foreign-based firms or US-based MNEs.

It is interesting to mention two recent proposals that address the policy concerns of CEN proponents, but from two different perspectives. Rosenbloom (2001) recommends a hybrid regime that includes elements of CEN and CIN. Under it, the US outbound tax system would distinguish between jurisdictions that have comprehensive rules designed to collect a significant amount of corporate income tax and jurisdictions that can be characterized as tax havens. Under Rosenbloom's proposal, foreign business income earned by controlled foreign corporations (CFCs) in the former jurisdictions would be exempt from US tax. But income earned by CFCs in tax haven jurisdictions would be fully taxed in the United States without deferral. In a similar vein, Avi-Yonah (1998b) suggests enacting "low-tax kick-in" rules that would subject active income to subpart F if not taxed elsewhere. In other words, Avi-Yonah would abolish deferral for all income that is not subject to significant taxation by the host country. By contrast, the NFTC objects to any system that differentiates between host jurisdictions based on their minimum effective tax rates. Among other objections, the NFTC cites the uncertainty and complexity that would be created for both tax administrations and taxpayers.³⁶

To the CIN school, it is self-evident that US prosperity is advanced if US-based MNEs capture the activity. US firms can then spread fixed overhead costs³⁷ on a global basis, benefit from the challenge of operating in a new environment, and position themselves to introduce the next genera-

35. Authoritative studies include Lipsey (2002) and Graham (2000).

36. See NFTC (2002a). The NFTC also notes that if the benefits of an exemption system were limited to tax treaty countries, the US tax treaty network would have to be expanded substantially.

37. Notably, research, development, and experimentation (RD&E) and general and administration (G&A) expenses.

tion of winning products. In short, as the NN school seeks to advance US prosperity by keeping US firms at home and the CEN school is indifferent to the location of MNE activity, the CIN school seeks to enhance US welfare by encouraging US MNEs to extend their reach. In large part, the CIN goal is accomplished by exempting the foreign corporate profits of active business firms from US taxation.

Another possible argument for CIN comes from recent literature on international trade. Strategic trade theory abandons the traditional assumption of perfect competition and provides a framework for maximizing national economic welfare in monopolistic markets. According to much strategic trade theory, and contrary to the traditional theory of free trade, it may be in the national interest to subsidize certain industries if firms in such industries will ultimately exercise market power. Intangible capital developed through RD&E expenditures or the creation of brand names may create monopolistic advantages in worldwide markets. In this case, subsidies can hasten the development of domestic industry, which can, in turn, block foreign competition. A CIN tax system can be rationalized as one method to promote frontier firms with a US base (JCT 1999).

Although CIN arguments have been made for many years, the CIN framework has yet to become official US policy. At most, the territorial approach was recommended in 2005 by the President's Advisory Panel on Federal Tax Reform (see appendix A3), but the report was not officially embraced either by the Treasury or the White House. In effect, the CIN call for territorial taxation implies that foreign investment is good for the US economy and therefore should not be taxed by the United States. But Treasury and the Joint Committee on Taxation (JCT) hear this argument about many activities, ranging from home building to oil drilling to venture capital. They are reluctant to start down the slippery slope of exempting activities from taxation, both out of concern for tax fairness and because it is difficult to delineate where tax preferences should stop. If NN doctrine can be characterized as beggar-thy-neighbor, CIN might prove to be beggar-my-government.

Yet while the CIN framework has not been adopted officially, many of its elements are already reflected in the day-to-day operation of the US tax system.

Capital Export Neutrality and Capital Import Neutrality Theories in Tax Reality

Two international tax policy issues debated during the 1990s illustrate the sharp contest between the CEN and CIN schools. The so-called runaway plant proposal was designed to repeal deferral of corporate income taxation for US subsidiaries abroad that produce for export back into the US

market.³⁸ The proposal came straight from the CEN textbook, putting production for the US market on the same tax footing whether the goods were made in the United States or abroad. But, as CIN advocates pointed out, foreign firms also produced for the US market, and they were not taxed currently—or possibly at all—if they exported to the United States from a low-tax or zero-tax location. Hence the CIN school argued that low-tax operations of US subsidiaries should not be taxed at the US corporate rate, because they would then be put at a competitive disadvantage to foreign firms.

The problem raised by CIN logic, of course, was that purely domestic US companies also competed with lightly taxed foreign producers that exported into the US market. Further, other US companies were exporters and competed with the same lightly taxed foreign firms in global markets. Where could the line be drawn? Did CIN ultimately require tax exemption for all export and import-competing activities in the United States, as well as foreign investment? In short, was CIN logic the first step on the road to abolishing the corporate tax? Many CIN proponents would welcome this outcome: They argued that reducing corporate tax rates brought about by competition to attract investment was not a danger but a blessing, promoting capital formation and leading to supply-side growth.

One of the tax battles that focused attention on CEN and CIN theories—and which continues today—involved the so-called hybrid-branch proposed regulations issued in 1999.³⁹ The regulations were designed to limit cross-border payments by foreign subsidiaries of US-based MNEs that would shift foreign-source income from high-tax into low-tax jurisdictions, reducing foreign taxes while retaining deferral of US taxation of the income.⁴⁰

38. In the last days of the 106th Congress (1999), Senator Byron Dorgan (D-ND) attempted to have a runaway plant legislative proposal (S 1597) attached to the funding bills then being considered in Congress. Dorgan's proposal would have eliminated deferral for the profits of CFCs attributable to the manufacture abroad and import of products into the US market. The Senate voted down his proposal. Previously, a similar proposal was presented to the US Congress by the Joint Committee on Taxation (JCT) and was criticized by the American Bar Association (1989).

39. See Proposed Regulation section 1.954-2(a)(5) NPRM REG-113909-98, July 13, 1999, issued pursuant to Notice 98-11. The proposed regulations provide a moratorium on their application until five years after they are finalized, and they replace temporary regulations that were issued on March 23, 1998 in TD 8767 (63 FR 14669 (March 26, 1998)). As of July 2007, the proposed regulations were still pending. See Holland (2005).

40. The typical situation addressed by the proposed regulations involves a CFC that carries on business activity in high-tax foreign jurisdiction A and maintains a branch in zero-tax foreign jurisdiction B. Under section 301.7701 regulations (the so-called check-the-box regulations), the branch located in jurisdiction B is classified as a fiscally transparent entity for

To the Treasury Department, hybrid-branch arrangements tilted the balance struck by the Revenue Act of 1962 against CEN. Under this balance, Congress asserted CEN rules—that is, to end deferral entirely—for passive (or mobile) income that could be shifted easily among tax jurisdictions.

On the other hand, Congress was not ready to end deferral for active income, which is not easily shifted. Congress agreed that location decisions regarding active income were driven mainly by nontax business considerations, and it recognized the need to maintain active US business operations abroad on an equal tax footing with other firms doing businesses in the same country. In other words, it sought to maintain CIN with respect to such income. The proposed regulations aimed to curb the hybrid-branch arrangements as a mechanism for moving active business income from a high-tax foreign jurisdiction to a low-tax foreign jurisdiction through cross-border payments and thus upset the equilibrium achieved by the Revenue Act of 1962.⁴¹

Opposing the proposed regulations, the CIN school argued that using hybrid branches and other mechanisms to avoid foreign taxation did not justify current taxation of foreign income earned by US-based MNEs because foreign-based MNEs used similar techniques to reduce their own tax burden. In other words, the proposed regulations would hamper the ability of US-based MNEs to compete with their foreign-based rivals. Further, the CIN school invoked US revenue interests: CEN theory hardly justified forcing US taxpayers to pay more foreign taxes and thus claim more foreign tax credits at the expense of the US Treasury. Finally, the CIN school argued, once Congress had chosen to retain deferral for a jurisdiction that imposed a low tax on active business income, it should be indifferent as to how the active business income is earned.

For the time being, the CIN school has succeeded in delaying final regulations, but the debate has not ended. The CEN school contends that the hybrid-branch arrangements operate as a tax subsidy that encourages US-based MNEs to shift income into low-tax jurisdictions more than ever

US federal tax purposes, though it is characterized as a separate entity for foreign tax purposes. The branch office in jurisdiction B lends funds to the CFC in jurisdiction A, and the interest payments paid by the CFC to the branch reduces the taxable income of the CFC in jurisdiction A for foreign-tax purposes. However, the interest payments do not attract tax in jurisdiction B. From a US federal tax perspective, under current law, the cross-border loan from jurisdiction B to jurisdiction A does not subject the branch in jurisdiction B to US tax, as the interest payments from the CFC in jurisdiction A to the branch in jurisdiction B are characterized as an interbranch fund remittance for US federal tax purposes, not as passive income.

41. The proposed regulations provide that the branch and the CFC would be treated as separate corporations for subpart F purposes, with the result that the regulations would treat certain payments made between a hybrid branch and a CFC as subpart F income, and thus currently taxed by the United States without the benefit of deferral.

through paper transactions designed purely for tax reasons. Indirectly such arrangements encourage capital to leave the United States for equally high-tax jurisdictions that also condone a hybrid-branch strategy. For the CEN school, any tax-induced shift in the allocation of resources is bad from an efficiency standpoint, whether the culprit is US or foreign taxes.⁴²

Capital Ownership Neutrality

In contrast to the three classic schools, which focus on allocating capital among alternative locations, Desai and Hines (2004) advocate a new concept, “ownership neutrality,” which focuses on global patterns of control by competing firms. Desai and Hines observe that different corporate control groups can extract different levels of productivity and profitability from the same amount of labor and physical capital, owing to differences in intangible assets such as management, engineering and distribution skills, trade names, copyrights, and patents. In an ideal world, national tax policies should not prevent the most adept firm from controlling a given bundle of labor and capital. In practice, however, national tax policies interfere with global efficiency.

Desai and Hines derive two tax policy implications from their work. One scenario, called capital ownership neutrality (CON), would result if all major home countries subjected their MNEs to the same tax on foreign investment. This is a radical prescription, calling for worldwide uniformity in business tax systems with respect to foreign-source income.⁴³

The alternative scenario—labeled national ownership neutrality (NON)—would result if US-based MNEs, upon establishing or acquiring a foreign subsidiary, faced the same tax burden as MNEs based in the most tax-friendly home country. The NON scenario could be achieved through unilateral US reform simply by adopting a territorial system no matter what other countries do. As a companion feature, the US tax code then would need to define exempt foreign-source income in a manner similar to that of tax-friendly countries, such as the Netherlands. Whereas CON is a version of CEN modified to emphasize owner-

42. According to the CIN school, the United States should be indifferent to avoiding foreign taxes due to a shift in resources from one foreign country to another (see Graetz 2001).

43. The worldwide uniform approach should apply the same tax rate to corporate income earned abroad, define foreign-source income the same way no matter which country serves as the home base, and offer the same method for avoiding double taxation—either the foreign tax credit approach or the exemption (territorial) approach.

ship rather than investment flows, NON is a territorial system, akin to the CIN doctrine.⁴⁴

Grubert (2005) criticizes the CON/NON analysis. Desai and Hines contend that investment abroad does not necessarily reduce investment at home; Grubert argues that they push this point too far, failing to account for the likelihood that a firm's location decisions affect its own future choices and the choices of other firms. With the growing importance of mobile intangible assets, firms today can take better advantage of internal economies of scale by locating production in a limited number of countries to service markets worldwide. Hence, when firm A locates a plant, say, in Ireland, it is more likely that firm A will locate future plants (or expand existing plants) in Ireland. External economies of scale may attract firms B and C to Ireland as well.

Grubert argues further that either CON or NON would give US firms a strong incentive to deploy their intangible assets overseas. This would happen because royalty payments from the foreign use of US technology would be deductible against income earned abroad but would pay US tax at a low or zero rate if the United States maintained its current source rules and either exempted royalty receipts from US taxation (as does a tax-friendly country, such as the Netherlands) or allowed excess foreign tax credits to shield royalty receipts from US taxation (the general outcome under current US tax law). Contrary to the calculations of Desai and Hines, NON would not necessarily enhance US welfare if the transfer of intangible assets abroad reduced their use domestically. For Grubert, the consequence could be a substantial drain of technology and tax revenue from the United States.⁴⁵

Revenue Considerations

The link between CIN doctrine and lower US tax revenues is not as certain as the business community might wish or the Treasury might fear, and it should not be surprising that advocacy of either CEN or CIN doctrine is strongly influenced by revenue considerations. Large business firms obviously favor lower tax payments and usually but not always the Treasury favors higher tax payments. Hence neither business advocates nor Treasury spokesmen are steadfast in favoring one doctrine over the other. The Gordian knot tying the worldwide tax system advocated by CEN

44. When ownership and control is the prime motivation for outbound capital flows, Desai and Hines (2004) conclude that outbound investment need not reduce domestic investment. In these circumstances, the NON approach, exempting foreign income from domestic taxation, enhances the income of US citizens by facilitating global application of American expertise and know-how.

45. Desai and Hines (2004) estimate that the current corporate tax system resulted in \$50 billion in lost profits in 1999, though Grubert (2005) strongly disputes this number.

doctrine to higher US tax revenue has been loosened, and so has the connection between CIN theory and lower US tax revenue.⁴⁶ This is unsettling because, whatever they may proclaim, business groups, the Treasury, and the Joint Tax Committee are typically more concerned about immediate revenue consequences than their allegiance to tax doctrine.⁴⁷

Grubert (2001) concluded that switching from the current worldwide foreign tax credit system to a dividend exemption (i.e., territorial) system—in other words, moving toward CIN doctrine—would actually raise US tax revenues. The magnitude of additional revenues would depend on the specific features of the new system.⁴⁸ Grubert assumes the following features of an exemption system in his analysis:⁴⁹

- Active foreign income would be exempt from US taxation, and the foreign tax credit associated with that income would be eliminated.
- Royalties and interest paid to the US parent company would be taxed, allowing for deductible expenses in the host country.
- Passive income of CFCs would be taxed on a current basis.
- A portion of the parent company's overhead expenses, such as interest, would be allocated to exempt foreign income and disallowed as a deduction from US income.
- RD&E expenses would remain fully deductible in the United States.

46. To be sure, the Holy Grail of CEN advocates is to eliminate deferral, but for reasons spelled out in chapters 5 and 6, this is neither a wise objective for the United States nor is it politically feasible. Eliminating deferral would, for a time, increase US tax collected on the future earnings of foreign corporate subsidiaries, but within a decade corporate structures would be reshaped to reduce the tax impact (a massive Laffer curve effect). Moreover, it is unlikely that repealing deferral on future earnings would be legislated in a way that also taxed past accumulated offshore income. In an important precedent, when the DISC was repealed in 1985, deferred taxes were permanently forgiven. Likewise, the Homeland Investment Act (HR 767), enacted as part of the AJCA, allowed a partial tax holiday for 2005 on repatriation of accumulated offshore income. In light of such precedents, the possible taxation of past offshore income seems remote.

47. Earlier commentators saw the debate as inherently political, associating CEN theory with the Democratic Party and prolabor forces and CIN theory with the Republican Party and probusiness groups (Hariton 2001). Obviously the ties between tax doctrine and party affiliation are much weaker today.

48. Moreover, Grubert (2001) characterized his calculation as a static revenue estimate, as opposed to an estimate that reflects behavioral change. His territorial system echoes a proposal offered in the first edition of this study (Hufbauer 1992).

49. The features of Grubert's baseline exemption system reflect the foreign tax systems of Germany and Canada. Technically, Germany grants its companies a participation exemption for operations in most countries. Dividends from foreign subsidiaries and the earnings of overseas branch operations are exempt from German tax; at the same time, foreign tax credits are not permitted for foreign taxes paid on this income.

- Active foreign losses would not offset domestic taxable income.
- Income from US exports would be fully taxable (we find this feature to be least appealing).

Grubert's analysis suggests that an exemption system that includes all of the features listed above would raise US corporate income tax revenues by up to \$9 billion annually. Grubert attributes the revenue increase to two main aspects:

- *Elimination of cross crediting that currently shields royalties, export income, and interest income from US tax.*⁵⁰ This revenue increase is expected because many US companies are now in an excess credit position for dividends received from foreign subsidiaries and branch earnings.⁵¹ In an excess credit situation, companies pay more than enough foreign tax to offset all US tax on all foreign dividends and branch earnings. These corporations do not pay US tax on such income under current law or the proposed exemption system. Granting an exemption on all of this income therefore does not cost the US government any revenue or save the multinationals any tax.

However, granting an exemption on dividends and branch earnings alone would raise US tax revenues: Other international income streams—royalties, interest, and export earnings—are often not highly taxed abroad, thanks to provisions in bilateral tax treaties. Under current rules, US companies in an excess-credit position do not pay US tax on this income because foreign tax credits from highly taxed dividends and branch earnings are available to satisfy the US tax liability on royalties, interest, and export earnings through “cross crediting.” The proposed exemption system would eliminate most of the foreign tax credits,⁵² and parent companies would end up paying

50. Eliminating cross crediting applies only to foreign income in the general-limitation income basket (see appendix A2), a category that corresponds closely to active income. It assumes that, as in Germany, other categories of foreign income are not eligible for the exemption and hence are eligible for the foreign tax credit for both direct and indirect taxes (i.e., withholding taxes and deemed-paid taxes).

51. MNEs base their calculations of foreign tax credits and limits on the combined repatriated income of all of the foreign operations in a basket. The calculations may place a corporation in either an excess-credit or excess-limit position. Companies in excess credit—those with creditable foreign taxes in excess of their limitation—pay no residual US tax. Under current law, MNEs may use these excess credits to offset US taxes on interest and royalty income from abroad and on income from export sales (half of export profit can be classified as foreign-source income). Companies in an excess-limit position—those with fewer foreign taxes to credit than the tentative US tax on the foreign income—must pay a residual US tax.

52. Under the German system, a foreign tax credit is allowed for withholding taxes on royalties, interest, and service fees only. The same rule would apply in Grubert's baseline system.

US tax on these other forms of foreign income unless they too were exempt from US taxation.⁵³

- *Allocation of overhead deductions to exempt foreign income will increase the US tax liabilities of all parent corporations, regardless of their foreign tax credit position.* Allocation of overhead expenses is important under both the current system and the proposed exemption system. The nature of the allocation issue differs somewhat between the systems. Under current law, allocating overhead expenses affects US tax liability only through the foreign tax credit limitation. US-based MNEs that have large excess-limit positions (and thus pay residual US tax on their foreign-source income) are not affected by a marginally greater allocation of expenses to foreign income.⁵⁴

However, for US-based MNEs that are near the line between an excess-limit and an excess-credit position, the allocation of expenses can matter. A greater allocation of expense to foreign-source income can push the firm into an excess-credit position, thereby denying the benefit of a portion of the firm's foreign tax payments.⁵⁵

Under Grubert's exemption system, US-based MNEs in an excess-limit position would be affected because a larger allocation of overhead expenses to foreign-dividend income will reduce the expenses that could be claimed as a current US deduction. As a general rule, the US tax system does not allow deductions for expenses attributed to exempt income, such as interest on municipal bonds.⁵⁶

53. One may ask whether US corporations, working under these rules, would order their subsidiaries to stop paying royalties back to the United States in this situation. Under transfer pricing regulations, US corporations are required to record royalty income if they allow a subsidiary to use an intangible asset, such as a trademark or patent. The practical question is how to devise methods for determining the right transfer price. This is difficult in any case because of the practical difficulties in finding comparable transactions between unrelated parties in intangible assets, but a dividend exemption system would require more surveillance of corporate transfer pricing practices, as royalty income not paid, and therefore not remitted to the United States, would escape US taxation altogether. Germany has faced the same problem, as it does not exempt foreign royalties and fees from German taxation. Possibly US authorities could learn from German enforcement techniques.

54. Allocating expenses to foreign-source income does not affect their deductibility in calculating US tax liability. However, it affects the applicable foreign tax credit limit (i.e., the maximum amount of foreign tax that can be credited against US tax).

55. See the discussion of this issue in JCT (2003a).

56. The relevant law is IRC section 265. The disallowed expense can, however, be capitalized and claimed as an expense in the future if the exempt asset is sold and the capital gain is subject to US taxation.

The Future Debate

Apart from strict revenue considerations, recent developments have stimulated fresh debate over the merits of territorial exemption. One development flows from the WTO decision to reject the FSC in 1997 and the successor ETI in 2001. The WTO Appellate Body held that the FSC/ETI regimes amounted to prohibited export subsidies and had to be repealed (see appendix A4).⁵⁷ These adverse WTO decisions inspired legislative efforts to offset the additional tax burden (Hufbauer 2002).⁵⁸ The end result was the American Jobs Creation Act of 2004, which phases out the FSC/ETI regimes by 2007.⁵⁹ In return, the bill gradually lowered the corporate tax rate on “manufacturing” firms (broadly defined) from 35 to 32 percent (in 2010), allowed a one-year partial tax holiday for the repatriation of dividends from foreign subsidiaries, and made other probusiness changes with a CIN flavor. The one-year partial tax holiday stimulated some debate over the merits of a permanent territorial system for “active” foreign income.

Another recent development relates to tax-driven expatriation of US corporations (so-called corporate inversion). Under an inversion, a new foreign corporation, typically located in a low-tax or no-tax country, is created to replace the existing US parent corporation of an MNE (see appendix A5); see Hufbauer and Assa (2003). The AJCA penalized inversion transactions that occurred after March 2003 (Tuerff et al. 2004). Meanwhile, the inversion phenomenon spurred calls to adopt a territorial system to reduce the incentive for inversion transactions.

As a third development, evidence accumulated during the 1990s showed that the actual US tax system, with its combination of deferral and cross crediting of foreign taxes, is very similar in bottom-line tax collections to an exemption system. The effective tax rate on foreign-source

57. Even with the FSC, the US tax system placed a heavier burden on the traded goods and services sector of the US economy compared with the tax systems in most other major trading nations. Tax systems elsewhere emphasize value added taxes and similar broad-based consumption taxes (such as the Canadian goods and services tax) that are adjusted at the border (i.e., imposed on imports and exempted or rebated on exports).

58. Other features of the US tax system still work as export incentives. Most important is the export source rule (see appendix A4) that allows US firms to attribute roughly half of their export profits to foreign sources of income and thereby take advantage of any excess foreign tax credits generated by other business activity abroad. The WTO did not challenge the export source rule.

59. The official estimate claims the AJCA raises revenue after 2007 to make the bill revenue neutral over the 10-year period 2005 to 2014 (JCT 2004). According to George Yin (2004), chief of staff for the Joint Committee on Taxation, repeal of the FSC/ETI regime will raise \$50 billion of revenue over 10 years, other revenue raising provisions will yield \$70 billion, while the tax relief provisions will cost about \$120 billion over 10 years.

nonfinancial business income of US multinationals is extremely low—only a few percentage points compared with the zero-tax rate of an exemption system. Thus the current US tax system, though commonly associated with CEN, is in reality very similar in its revenue effects to a tax system based on CIN or NON theory. However, the current US system contains perverse incentives, discussed elsewhere in this book, and is significantly more complex and harder to administer than the territorial systems that other countries use.⁶⁰

A fourth and final development is that international flows of portfolio capital have drained the traditional CEN prescription for worldwide efficiency of its relevance to FDI. To a large extent, portfolio managers and not MNEs now decide how capital is allocated among national economies.

Starting with the above propositions, chapter 4 takes up the taxation of portfolio income. Chapter 5 analyzes the place of multinationals in the world economy, emphasizing the advantages to the United States of being the home base for global corporate groups. In chapter 6, we advocate our own version of a territorial approach, assuming that the United States retains the corporate income tax.

60. Grubert and Mutti (2001, 3) contend that shifting to a territorial system would realize efficiency gains because “US multinational corporations would not have to devise elaborate schemes for restricting dividend repatriations to minimize their US tax. Nor would US multinationals have to forego investment opportunities in the United States for the sake of tax avoidance. In addition, by dispensing with the need for credits for taxes paid to foreign host governments, a dividend exemption system would eliminate the complex calculations companies must take in claiming those credits against US tax on repatriated dividends. A dividend exemption system would also simplify and rationalize the taxation of US exports, as well as royalties received from abroad.”

Residence Taxation for Portfolio Investment Income

The old capital export neutrality (CEN) view surmised that the most important role for US multinational enterprises (MNEs) in the world economy was to allocate capital among national economies (see chapter 3). This premise may have been correct in the decades immediately after World War II, when barriers to capital mobility were so severe that only large US companies could surmount them. But international capital markets are now both huge and efficient. US investors can earn capital income overseas easily, and foreign investors readily earn capital income in the United States, without MNEs' assistance.

The Rise of Portfolio Capital

In 1970 US direct investment income accounted for three-quarters of total US private receipts from investments abroad. By 2005, however, reported portfolio income was about the same as direct investment income, \$218 billion versus \$251 billion.¹ Those numbers reflect worldwide trends in

1. Bureau of Economic Analysis, *Survey of Current Business*, August 2006, US International Transactions, table E.2, D-3, available at www.bea.gov. Foreign portfolio investment is defined as all private foreign investment other than FDI. FDI in the United States is defined by the Bureau of Economic Analysis as occurring whenever a single foreign business, person, or associated group of persons owns 10 percent or more of a US business enterprise. Portfolio investment income flows may be underestimated owing to underreporting. Moreover, in 2005 direct investment dividends enjoyed a one-time boost on account of the partial tax holiday under the American Jobs Creation Act (AJCA) of 2004.

the flow of new investment: World portfolio investment flows amounted to \$2.3 trillion in 2005, while direct investment flows amounted to \$0.7 trillion in that year, according to the International Monetary Fund (IMF 2006).² The rising importance of portfolio income does not, however, mean that earnings on direct investment are becoming less important to US corporations. On the contrary, whereas in 1970 earnings on direct investment amounted to 11 percent of US corporate profits, in 2005 their share was 19 percent.³

At the end of 2005 the stock of US portfolio investment abroad was \$7,289 billion, while the stock of foreign portfolio investment in the United States was \$8,612 billion. Comparable figures for the stock of foreign direct investment (FDI) at market value were \$3,524 billion and \$2,800 billion, respectively.⁴ Thus, by the mid-2000s, the stock of US portfolio investment abroad and foreign portfolio investment in the United States both exceeded their counterparts' direct-investment magnitudes by factors of around two to one—as opposed to the early 1960s, when US direct investment abroad exceeded portfolio investment by more than six to one. When the US international tax system was designed, portfolio investment was a relatively small phenomenon compared to FDI. Today portfolio investment has become more important than FDI in shifting savings around the world.

The existence of large international portfolio flows implies that investors can allocate capital efficiently on a global scale without the aid of MNEs.⁵ The logical corollary seems straightforward: If policymakers want the tax system to influence the global allocation of capital, they should look first to taxes that affect comparative financial yields, not to taxes on earnings of foreign subsidiaries and branches.

2. Eight countries are not covered by the reported figures: Australia, Cyprus, Denmark, Iceland, New Zealand, Norway, Sweden, and Switzerland.

3. Bureau of Economic Analysis, *Survey of Current Business*, August 2006, US International Transactions, tables 1.14 and E.2, D-3.

4. Bureau of Economic Analysis, *Survey of Current Business*, August 2006, US International Transactions, table F.1. Portfolio investment for this purpose includes corporate bonds, corporate stock (holdings of less than 10 percent), and US claims on unaffiliated foreigners (or US liabilities to unaffiliated foreigners).

5. The National Foreign Trade Council (NFTC 1999, paragraphs 43, 46) drew a similar conclusion, noting that: "In the current economic environment, however, it is far from clear that imposing current U.S. tax on U.S. CFCs [controlled foreign corporations] is necessary or sufficient to achieve an efficient worldwide allocation of investment. If foreign subsidiaries fund incremental investment through securities sold to portfolio investors, then efficiency in the allocation of capital rests on the taxation of portfolio investment . . . the eclipsing of foreign direct investment by portfolio investment calls into question the importance of tax policy focused on foreign direct investment for purposes of achieving an efficient global allocation of capital."

Applying Capital Export Neutrality Logic to Portfolio Income

Apart from the temporary use of withholding taxes as a means of regulating international capital flows to promote financial stability (discussed below), from the point of view of worldwide efficiency, there is no reason for taxes to distort the decisions of portfolio investors. If equity or debt investments abroad offer higher returns or better diversification than do investments at home, the money should be used abroad. The best tax regime on a global basis taxes investors the same whether they choose foreign or domestic securities. Hence, the CEN approach is a solid foundation for taxing income from portfolio investments.

What are the implications of CEN for taxing portfolio income?⁶ The basic recommendation is that a country should tax its residents on their income from foreign portfolio investments the same as it taxes their income from domestic portfolio investments. The recommendation that follows is more surprising: To advance its own welfare, the foreign country in which the portfolio capital is invested should not tax the interest income paid to nonresidents.⁷

An extended example illustrates the two recommendations. Suppose the world interest rate on dollar-denominated triple-A 10-year bonds is 5 percent. A country that wishes to tax the interest income of its residents might impose a tax of 20 percent on it, whether it is received from investments at home or abroad. The tax does not cause residents to shift their portfolios to raise domestic interest rates: Wherever they put their money, their after-tax return is now 4 percent rather than 5 percent. Hence the tax exerts the least possible distortion on domestic activity. But like any tax

6. Appendix C2 examines the taxation of world portfolio capital in more detail. The argument in this chapter applies generally to all types of portfolio income for which the investor has no control over the operation of the property—interest, dividends, rents, and royalties—even though the examples offered are cast in terms of interest income, as interest payments are by far the dominant form of international portfolio income.

7. In support, see Reich (1998, paragraph 19): “One important policy consideration would seem to favor having the source country forgo the taxation of passive income, particularly portfolio investment income. Investment capital is highly mobile, and investors often can choose from among alternative investment opportunities around the world. The ease with which capital can be invested in the international capital markets and the volume of such cross-border investments have increased dramatically in recent years. Taxation of portfolio investments by the source country is a disincentive to [inward] foreign investment and may induce investors to seek comparable returns from countries with more hospitable tax rules. Thus, in today’s global capital markets, countries seeking to attract foreign capital investments have an incentive to forgo the taxation of portfolio investment income earned by foreign investors.” Brean, Bird, and Krauss (1991) likewise favor CEN for taxing portfolio investment. However, they rely on the foreign tax credit to achieve CEN objectives, and unlike us, do not reject source-based taxation.

on capital income, it distorts the long-run choice between present consumption and future consumption and thus might well discourage domestic saving (Boskin 1988b, Muten 1994), but it will not deter domestic investment because, in short, the interest rate remains at 5 percent.

It would be a mistake, however, to apply the same 20 percent tax on interest paid to foreigners. Many important foreign investors—pension funds, life insurance companies, and firms with net operating loss carryovers—legitimately pay little or no tax to their home governments, even on their domestic income. In the United States, for example, life insurance companies pay no tax on investment income allocated to policyholders; they pay the regular corporate tax on the remaining investment income. Some countries exempt their investors from taxation on portfolio income received from abroad. These various legitimate investors, together with those who simply evade their home-country tax, have little or no use for foreign tax credits and will not accept the lower net rate of return brought about by a source-country tax because they can place their portfolio investments elsewhere. A tax on interest paid to foreigners will prompt such tax-sensitive investors to withdraw funds until market forces push the domestic interest rate up by enough to offset the tax. The end result is a loss for the capital-importing country because profitable investment opportunities are forgone.

To illustrate, if the 20 percent tax were imposed on interest paid to foreigners, and if an important segment of foreign investors had no use for the foreign tax credit, the domestic interest rate would need to rise to 6.25 percent on all triple-A 10-year bonds, as financial assets are highly fungible. The net return to foreign investors would then remain at 5 percent, while the other 1.25 percent would be paid as tax (20 percent tax rate \times a 6.25 percent yield = 1.25 percent). Foreign portfolio investors would be no better off and no worse off.⁸ But all domestic investments that would have been profitable at interest rates between 5 percent and 6.25 percent would simply not be made.⁹

8. Domestic portfolio investors would earn higher returns on their new savings, but that benefit is more than offset by the associated penalty on new domestic capital formation.

9. Corden (1974, 335–47), Gersovitz (1987, 616–17), and Slemrod (1988, 121) discuss this result in more detail. If the capital-importing country is very large, so that foreign investors do not have unlimited investment opportunities elsewhere, the borrowing country can derive some benefit from a tax on foreign investment income. The reasoning is akin to optimum tariff analysis in trade theory. In the text example, the interest rate might only rise to 6 percent rather than 6.25 percent, and the after-tax yield to foreign investors might be cut to 4.8 percent rather than remain at 5 percent. By itself, the drop in after-tax yield to foreign investors helps the taxing country. However, it is difficult to know exactly which tax rate produces an overall gain when the reduction in domestic investment because of higher interest rates is also taken into account. Choosing the wrong tax rate could easily harm the borrowing country. Readers familiar with trade theory will note the parallels to the practical problems encountered in setting an optimal tariff.

Residence-Only Taxation of Portfolio Income

In short, if countries are going to tax portfolio income at all, there are strong reasons for them to fully tax the income received by their own residents from international portfolio investments. At the same time, they should not tax interest income paid to foreign investors. Only combining the two tax rules exerts the least possible effect on local interest rates.¹⁰

Industrial countries appear to have absorbed this lesson, as taxation of portfolio interest income solely by the resident country has come to be the generally accepted approach.¹¹ Such countries tax their residents fully on portfolio interest income without deferral or exemption and often tax portfolio interest income paid out to foreign investors at zero or low rates. The United States repealed its withholding tax on interest from debt obligations, including Treasury debt, issued to foreign persons after July 18, 1984,¹² and on all interest paid by banks and insurance firms.¹³

The changes to the tax code and the many treaties that exempt residents of signatory countries from US tax on all interest income—except interest income attributable to US permanent establishments—means that the effective tax that foreigners pay on US-source interest income has been almost eliminated in the past two decades. As table 4.1 shows, in 2006 US entities paid approximately \$457 billion of interest to foreign persons, including corporations, partnerships, trusts, governments, and individuals. Of this amount, about \$145 billion was paid on US Treasury debt free of US withholding tax, and about \$311 billion was paid to foreign persons by various private entities, including tax-free interest paid by banks and insurance companies. Out of the total \$457 billion interest

10. If a country wishes to use tax policy to promote domestic saving by ensuring high after-tax interest rates, the straightforward approach is to simply not tax interest income at all. The taxation of domestic interest income paid to foreigners is a backdoor method to achieve the same policy result, but with an associated penalty on real investment, as the before-tax interest rate must rise when this backdoor method is used.

11. Other countries, especially in Latin America, have historically followed the source principle, so that income that their residents earn from foreign investments is exempt from tax while foreign investors are taxed on portfolio income earned locally. Williamson and Lessard (1987, 40–43) discuss the troublesome role taxation has played in the problem of capital flight from Latin America and other developing countries. They conclude that the source principle has not served the countries well, and that they should move to a residence approach. See also McLure (1988).

12. See Internal Revenue Code (IRC) sections 871(h), 881(c); Reg. Section 1.871-14(a). This exemption, commonly called the portfolio interest exemption, generally applies to interest (or original issue discount) on obligations in registered or bearer forms, excepting interest received from related persons and banks.

13. Interest income on bank deposits, deposits with domestic savings and loan associations, and “amounts held by an insurance company under an agreement to pay interest thereon” are exempt from the withholding tax; IRC sections 871(i)(2)(A), 871(i)(3), 881(d).

Table 4.1 US interest and portfolio dividends paid to foreign persons and withholding taxes collected by the Internal Revenue Service, 2005 and 2006 (billions of dollars)

Type of interest payment	2005	2006
FDI-related interest payments		
Paid by US parent firms to their foreign affiliates	3.4	4.0
Paid by US subsidiary firms to their foreign parents	18.2	22.6
Other private interest payments		
Bond interest payments	81.0	109.4
Bank interest payments	62.0	109.9
Interest paid by nonbank financial firms	42.5	65.5
US government interest payments	113.6	145.1
Portfolio dividend payments to foreign persons	38.1	44.4
Royalties and license fees	4.1	5.4
Total payments	362.9	506.3
Total interest paid	320.7	456.5
Total interest payments reported for US withholding tax purposes ^a	134.1	190.9
Total US withholding tax collected on interest payments ^b	2.1	3.1
Effective withholding tax rates (percent)		
On reported interest	1.6	1.6
On total interest	0.6	0.6

a. Based on the ratio between total interest payments in 2000 and the interest reported for withholding tax purposes in 2000.

b. Based on withholding tax rate in 2000 and total interest reported for withholding tax in 2005 and 2006.

Notes: The term "person" includes corporations, partnerships, governments, trusts, as well as individuals. All withholding taxes collected are attributed to interest payments (i.e., no withholding tax is attributed to dividends, rents, or royalties). Hence on reported interest, the effective rate represents an upper bound. The effective rate of withholding tax on all reported US-source portfolio dividends, interest, Social Security, rents and royalties, and other payments to foreigners was 1.6 percent in 2000.

Sources: Bureau of Economic Analysis, *Survey of Current Business*, April 2007 and April 2001, 41–57; Internal Revenue Service, *Statistics of Income*, Summer 2003, 183.

paid to foreign persons, only \$191 billion was reported to the Internal Revenue Service (IRS). On this amount, \$3.1 billion was paid in US withholding taxes. Hence the effective US tax rate on reported interest paid to foreigners was 1.6 percent in 2006. The effective US tax rate on total interest paid to foreigners was less than half that level, 0.6 percent. In other words, more than half of US interest payments to foreign persons are legally exempt from US withholding tax. The United States taxes the other half at the low effective rate of 1.6 percent.

The European Union has taken the US residence-only approach a step further, adding a mechanism to combat tax evasion. In June 2003 the European Union adopted Directive 2003/48/EC on taxation of savings income in the form of interest payments, or the Savings Directive, which entered into force on July 1, 2005.¹⁴ The ultimate aim of the Savings Directive is to ensure that interest payments made by one member state to individual residents in another member state are subject to effective taxation according to the laws of the second member state. Under the terms of the Directive, member states have agreed to automatically exchange information on interest payments made by paying agents established in their own territory to individual residents located in other member states. In return, interest income that agents located in another member state pay to individual EU residents is not subject to withholding tax by the source country. Instead the payments are taxed only in the investor's member state of residence.¹⁵ The European Union has adopted a similar proposal regarding portfolio interest and royalty payments for companies based in EU member states.¹⁶

It can be argued that, as a matter of international tax equity, residence countries should share their revenue on portfolio income with the countries where the income was paid (the source countries), or put another

14. Within the framework of the directive, EU member states have entered into bilateral agreements with certain tax havens, offshore financial centers, and other jurisdictions that maintain bank secrecy. The agreements contain provisions broadly equivalent to those laid down in the directive. See Council Directive 2003/48/EC on Taxation of Savings Income in the Form of Interest Payments, as draft published by the Council at its meeting of June 3, 2003, available at <http://eur-lex.europa.eu>.

15. The original 1998 proposal was based on a compromise solution known as the coexistence model, which would have allowed each member state to choose between applying a withholding tax of at least 20 percent on interest payments made by paying agents within its territory to individual beneficial owners residing within the European Union, or providing information to the investor's member state of residence. The ultimate language of the directive, which eliminates the withholding tax choice completely, permits a seven-year transition period for three member states—Belgium, Luxembourg, and Austria—during which time they can continue to apply their withholding tax systems. The transition period will end if, among other things, the United States commits to exchange of information upon request, under the provisions of the 2002 Organization for Economic Cooperation and Development (OECD) Model Agreement.

16. See Proposal for a European Directive Concerning a Common Tax System Applicable to Interest and Royalty Payments Made Between Associated Companies of Different Member States, March 6, 1998. The proposal, last amended on March 19, 2003, exempts from withholding tax both royalty and interest payments made between associated companies of member states. The exemption applies mainly to payments made by a subsidiary company to its parent company when the parent holds not less than 25 percent of the subsidiary's capital. It also applies to payments made by a parent company to its subsidiary, again with a 25 percent ownership requirement.

way, that a tax should be imposed at residence-country rates, but that some part of the revenue should be paid over to (or collected by) the source country. We disagree with this suggestion. The only role we see for source-country collection is to help defeat tax avoidance, a point discussed later and drawing on EU experience. In our view, a residence country that establishes an economic climate favorable to portfolio capital creation by combining public fiscal virtue with private thrift should be rewarded for its contribution to the world economic system by garnering the tax revenue. The source country derives ample benefit simply from using capital from abroad to finance investments that pay a higher return than the interest cost.

On the grounds of both self-interest (source countries stand to benefit from more investment) and tax equity (residence countries deserve to benefit from more tax revenue), the rule of residence-only taxation of interest income should become the international norm. This can be accomplished if important countries, such as the United States, eventually deny a foreign tax credit for foreign withholding taxes on interest income. To be consistent with existing treaties, the new policy could be phased in gradually, giving long termination notices for treaty credits on foreign withholding taxes on portfolio interest and other forms of portfolio income. In the credits' place, the United States and other countries should apply the national neutrality (NN) prescription to portfolio interest, allowing a deduction only for foreign withholding taxes.

Retaliation against such a move is certainly possible, but it would be welcomed, not feared. As no investor could claim the benefit of a foreign tax credit, all investors would be prompted to withdraw funds from countries that imposed withholding taxes on interest income. Local interest rates would rise in those jurisdictions, and eventually political pressures would work to repeal their withholding taxes. Over time, withholding taxes on portfolio income would disappear from the fiscal landscape.

Cooperation Against Tax Avoidance

As the EU Savings Directive demonstrates, the real issue with residence-only taxation is the need for international cooperation in administering the tax system. The residence-only approach is vulnerable to abuse: If investors can evade their own home-country taxes on foreign interest income, the income is not taxed anywhere,¹⁷ and when such evasion is

17. Without international cooperation, the other side of the coin is greater potential for double taxation. If the United States taxes portfolio interest based exclusively on residence while other countries practice source taxation, double taxation is inevitable unless a treaty solution is available. If the United States adopts a residence-based approach for taxing portfolio income, as we recommend, the US treaty network must be modified accordingly.

possible, residents shift their capital to untaxed foreign investments (Reich 1998). Domestic interest rates then tend to rise until they equal the world interest rate plus the domestic tax rate, which in turn prompts some investors to invest in their home-country securities covertly, through foreign intermediaries. For example, US investors might invest in US Treasury bonds through numbered accounts in Macau banks.¹⁸ Such a prospect prompted the United States, under its old withholding regulations, effective until 2000, to require a negative certification by foreign institutional investors that they were not acting on behalf of US residents when they held US securities.

IRS and industry participants acknowledged that the old withholding regulations were unworkably complex, resulting in poor compliance from US and foreign financial intermediaries (Reich 1998). The certification system was porous to tax abuse, especially in identifying sophisticated US investors who acquired either US securities through shell corporations organized in tax haven jurisdictions or non-US securities through accounts with offshore branches of non-US financial institutions. The absence of a universal taxpayer identification number (UTIN), together with financial institutions' haphazard disclosure of customer information to tax authorities, greatly facilitated tax avoidance.¹⁹ However, new measures enacted since the terrorist attacks of September 11, 2001 to combat money laundering and terrorist financing could be adapted to sharply reduce tax avoidance.

Prior to legislation in the wake of September 11, US withholding-tax regulations were drawn up in 1997 and effective in 2001 (see appendix A5). They tried to deal with abuse by identifying the ultimate beneficiary owner through the establishment of a special qualified intermediary (QI) regime.²⁰ Under this regime, the burden of certifying residence information from

18. Liberalization of financial markets during the last decade has given investors access, at little or no cost, to banking systems around the globe through which they may conduct both legitimate and illegitimate transactions. This freedom has made it easier for investors to place money in jurisdictions that limit tax authorities' access to bank information. It also makes it harder for tax administrations to detect noncompliance, unless they have robust exchange of information systems with the relevant jurisdictions; see OECD (2000a, 22–23).

19. Because there is no world-wide system of tax identification numbers, most tax administrations are unable to match the information received from their treaty partners with domestic taxpayers (Avi-Yonah 1998a, 1821).

20. The QI status typically extends to a foreign financial institution (or a US financial institution with respect to its foreign branches) that enters into an agreement with the IRS. An institution that does not sign an agreement with the IRS remains a nonqualified intermediary (non-QI) with regard to securities it holds on behalf of customers. The main difference between a QI and a non-QI is that the QI makes deposits of withholding tax directly to the US Treasury Department whereas a non-QI will use a US withholding agent to perform this role (McGill 2000, 2823).

investors fell explicitly on the QI, which had to cooperate with the IRS and adhere to so-called know-your-customer rules regarding its account holders. In return, the QI generally was permitted to certify the status of its customers without having to disclose their identities to US tax authorities.²¹ However, the 1997 withholding regulations are at best a halfway solution, without a satisfactory answer to the problem of cooperative tax administration. In particular, they do not enable tax authorities to match interest payments with individual tax returns.

The basic point is that countries where interest is earned—the source countries—have much better access to information about who is receiving interest income because the corporate payers are located in the source country. Under a residence-only system, however, the source countries are not directly concerned with making sure that foreign receivers of interest income pay taxes on it. Indeed, countries that borrow large amounts of foreign money are tempted to go easy on tax enforcement where foreign investors are concerned: By so doing, their banks, industrial firms, and finance ministries all enjoy continued access to the world pool of capital at the lowest possible interest rates, which reflect zero tax whether or not such tax is due legitimately in the resident country.

OECD Project on Harmful Tax Competition

After an awkward, “one step forward, two steps back” attempt at dealing with harmful tax competition at the end of the 1980s, EU officials have concluded, correctly, that nothing should be attempted short of full international cooperation, involving the United States, Canada, Japan, and countries in the European Free Trade Association as well as the European Union itself.²² Local financial intermediaries, especially banks, lose sig-

21. Under the old withholding regulations, there was no practical way for a US withholding agent to collect documentation from a foreign beneficial recipient of income who held securities through a foreign financial institution. The new withholding regulations address this problem by placing the burden of establishing beneficial ownership on foreign financial institutions rather than on US custodians and by specifying the obligation to withhold tax in the absence of documentation (Shay, Fleming, and Peroni 2002, 124).

22. Germany instituted a withholding tax on interest in January 1989, partly to ensure that foreign depositors would not avoid their home-country tax; the tax was repealed three months later after objections from domestic bankers, who experienced a massive departure of foreign capital as investors scurried to friendlier tax climates in Luxembourg and Switzerland. This failure scuttled the European Commission’s proposal that all EC countries adopt a uniform withholding tax upon the full opening of European capital markets in June 1990 (*Financial Times*, May 22, 1989, 4). In 1992 Germany reintroduced the withholding tax after a decision by the German Federal Constitutional Court in 1991. The court concluded that withholding taxes on wages and not on interest violated the constitutional obligation to

nificant business if only one country helps resident countries collect their tax on interest payments.²³ Thus despite the hesitation, the last decade has seen significant cooperation against tax avoidance, including improvements in the exchange of information. These developments open new opportunities to implement our proposal to shift toward a residence-only system of taxing for portfolio capital flows.

The first coordinated international effort to cooperate effectively against tax avoidance was the Convention on Mutual Assistance in Tax Matters, developed jointly by the OECD and the Council of Europe,²⁴ signed in 1988, and entered into force in 1995.²⁵ Not until May 1996, however, was an active approach to deal with harmful tax competition endorsed, as national ministers instructed the OECD to “develop measures to counter the distorting effects of Harmful Tax Competition on investment and financing decisions and the consequences of national bases” (OECD 1998, paragraph 1). This resulted in the 1998 report entitled *Harmful Tax Competition, An Emerging Global Issue* (OECD 1998)—with Luxembourg and Switzerland abstaining—authorizing further work on 19

make taxation just and equitable. However, this time nonresident recipients of interest income were excluded, and even for resident taxpayers, an extremely high threshold was used to ensure that only a small number of wealthy investors would be affected (see Muten 1994).

23. In 2001 the US Treasury Department issued proposed regulations (REG 126100-00, 66 Federal Regulations (FR) 3925) to impose reporting requirements on US banks for interest paid on US bank deposits to all nonresident alien individuals and require the sharing of the information with other countries. The Treasury defended the regulations “because of the importance that the United States attaches to exchanging tax information as a way of encouraging voluntary compliance and furthering transparency” (66 FR 3925). However, the financial industry severely criticized the proposed regulations, contending that they would trigger massive withdrawals of foreign deposits from US banks, particularly from US banks with a deposit base that included a significant number of nonresident alien individuals living in jurisdictions that maintain stricter privacy standards (see, e.g., Mastromarco and Hunter 2003). Ultimately, the proposed regulations were replaced by another set of proposed regulations (see REG-133254-02, 67 FR 50386, July 30, 2002 not yet finalized as of July 2007) that limited the reporting requirements from US banks to cover nonresident alien individuals that reside in 15 designated treaty countries. Lawmakers also inveighed against the proposed regulations. For example, in a letter dated September 20, 2004, sent by House Ways and Means Committee member E. Clay Shaw (R-FL) to Treasury Secretary John Snow, Shaw urged Snow to withdraw the regulations, noting that they were “contrary to America’s national interests” and could cause the flight of \$87 billion of capital from the US economy.

24. The European Union has attempted to reduce tax regime differences among member states that potentially divert employment from one member state to another (Liebman 2002).

25. Article 4 of the convention states that the parties are obliged to exchange information that is foreseeably relevant assessing and recovering taxes correctly. Although the convention seeks to promote international cooperation for the better operation of national tax laws while respecting the fundamental rights of taxpayers, its effect is so far limited because only a few countries have ratified the convention (Belgium, Denmark, Finland, Iceland, the Netherlands, Norway, Poland, Sweden, and the United States).

recommendations for actions against “harmful tax practices,” including a timetable to identify and eliminate them.

A progress report tabled in June 2000 observed that “harmful tax competition is by its very nature a global phenomenon and therefore its solution requires a global endorsement and global participation” (OECD 2000b, 22). Follow-up progress reports were published in 2001 (OECD 2001c) and 2004 (OECD 2004c). The 1998 report states that a country maintains a harmful tax practice if the country (1) has low or zero income taxes; (2) allows foreigners investing in the country to do so at favorable rates; and (3) affords financial privacy to its investors or citizens. The report finds harmful tax practices in both island tax havens and the preferential tax regimes of other countries.

We are skeptical about the harmful tax competition project insofar as its goal is to harmonize corporate income taxes upward to the highest prevailing rate.²⁶ However, the OECD’s project could be useful in furthering residence-only taxation of portfolio income. Information exchange is widely recognized as the most effective way to combat international tax evasion (OECD 2002c), and the OECD initiative provides a framework to exchange tax information effectively.

First, the OECD 1998 report enumerates factors to identify tax havens and harmful preferential tax regimes.” Among those factors, the report identifies the absence of effective information exchange as a key feature.²⁷ A later OECD report (OECD 2000b) identified a number of harmful tax practices and offending jurisdictions,²⁸ including countries that granted businesses and individuals strict secrecy and other protections from tax authorities’ scrutiny, as the OECD has worked to ensure that member states impose sanctions on blacklisted countries.²⁹ In 2004 the OECD unveiled a new study on harmful tax regimes (OECD 2004c), detailing significant progress in eliminating harmful preferential tax regimes in OECD member states and improving information exchange with tax havens.

26. See Conconi (2006), who argues that global tax harmonization leading to the complete elimination of tax competition is undesirable because it would prompt the adoption of higher than optimal capital taxes.

27. The OECD (1998, 29) noted that “the ability or willingness of a country to provide information to other countries is a key factor in deciding upon whether the effect of a regime operated by that country has the potential to cause harmful effects.”

28. The OECD (2000b) identified 47 potentially harmful tax practices by member countries and listed 35 tax havens. The 2000 report excluded from its list those tax havens that made “a public political commitment at the highest level to eliminate their harmful tax practices and to comply with the principles of the 1998 Report” (OECD 2000b).

29. Sanctions proposed by the OECD for targeted countries include terminating tax treaties, denying income tax deductions for purchases made from firms in those countries, imposing withholding taxes on payments to residents of targeted countries, and denying foreign tax credit for taxes paid to the targeted government. See Prosperity Institute (2002).

During the period 2001–04 the number of countries and jurisdictions outside the OECD that committed to the principles of effective exchange of information and transparency increased from 11 to 33.

The second avenue for improving information exchange stems from the 1998 Agreement on Exchange of Information on Tax Matters, released by the OECD Global Working Group on Effective Exchange of Information.³⁰ Although the agreement is not a binding convention, it sets standards on tax information exchanges for financial centers worldwide to deter the shift of business activity to noncooperative jurisdictions.³¹ In July 2004 the OECD's Committee on Fiscal Affairs revised Article 26 of the OECD's Model Tax Convention, which covers information exchange on tax matters between national tax authorities as part of a drive toward improved cooperation in administering domestic tax laws and international tax treaties.

A model agreement is particularly important due to the fundamental weaknesses inherent in the information exchange mechanisms contained in most bilateral income-tax treaties. Tax treaties frequently allow contracting states to refuse to provide information in certain cases: if the countries do not collect the information for their own tax enforcement, or if the requesting state itself is unable to provide similar information. These exceptions mean that certain countries cannot exchange information on interest payments and that other countries are not required to provide information to these countries. In addition, tax treaties do not include common rules concerning the information to be reported, the format and frequency of information exchanges, or the mechanisms to carry out the information exchange. As a result, even when information is exchanged, it is not always usable (OECD 2000a).

Third, the OECD recommends that countries adopt common rules to identify taxpayers (e.g., through UTINs). Nonresident recipients of income would be required to disclose their UTINs.

Fourth, the OECD recommends that countries review their laws, regulations, and practices that govern access to banking information with a view to removing impediments that obstruct tax authorities. In 2000 the OECD released a report entitled *Improving Access to Bank Information for Tax Purposes* (OECD 2000a) that proposes better tax-administration access to bank information. The report, which was unanimously approved, calls

30. The working group consisted of representatives from OECD member countries and delegates from Aruba, Bermuda, Bahrain, Cayman Islands, Cyprus, Isle of Man, Malta, Mauritius, the Netherlands Antilles, the Seychelles, and San Marino.

31. The agreement is presented as both a multilateral instrument and a model for bilateral treaties. However, the multilateral instrument is not a multilateral agreement in the traditional sense. Instead, it provides a framework for an integrated bundle of bilateral treaties. A party to the multilateral agreement would only be bound with respect to specifically enumerated parties with which it agrees to be bound.

for ending confidential bank accounts and requiring identification for bank customers and beneficial owners of accounts. A follow-up report (OECD 2003) noted positive developments in implementing the measures outlined in the OECD (2000a) report between the first and the second reports. Anonymous accounts can no longer be opened in any OECD country, customer identification numbers have been established in all OECD countries, and the requesting country's taxation of interest income is no longer a precondition to a treaty partner's providing information.³²

A recent report released by the OECD Global Forum on Taxation (OECD 2006d) presents a survey of 82 OECD and non-OECD countries and jurisdictions, noting that in the past few years many of these economies have become more transparent. Most have entered into double taxation conventions and tax information exchange agreements, and many more are negotiating such agreements. Moreover, as the report points out, no OECD economy and few non-OECD countries currently require the prospect of domestic tax collections as a condition for responding to a treaty partner's request for information on a specific taxpayer. However, the report also notes that a few economies still constrain international cooperation in criminal tax cases, and a number continue to impose strict limits on access to bank information in civil tax cases.

The USA Patriot Act and Anti-Money Laundering Initiatives

Exchange of information systems came under a stronger spotlight after September 11, 2001 and associated anti-money laundering (AML) initiatives. As a side benefit, the new spotlight could facilitate residence-only taxation of portfolio income. Immediately after the September 11 attacks, the US Treasury and Interpol announced the creation of a partnership to establish an international terrorist-financing database.³³ On October 26, 2001 President George W. Bush signed into law a comprehensive set of antiterrorism and AML laws known as the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA Patriot) Act (PL 107-56), which paralleled a

32. The OECD (2003) report notes, however, that little progress has occurred in a few key areas. For example, the 30 OECD member countries have not agreed on a common definition of tax fraud, and few changes have been made to accessing bank information for civil tax purposes.

33. The Interpol database is designed to consolidate national and international lists of terrorist financiers and make the information available to police around the world to assist in criminal investigations. Participants are intended to include all 179 members of Interpol (Prosperity Institute 2002, 718).

growing international campaign to combat money laundering led by the Paris-based Financial Action Task Force (FATF).³⁴

Encompassed under title III of the USA Patriot Act is the International Money Laundering Abatement and Anti-Terrorism Financing Act of 2001 (Implafa). Title III is the product not only of September 11, but also of an earlier congressional investigation into correspondent banks and their ties to international money laundering.³⁵ Implafa heightens the responsibility of US financial institutions to detect money laundering,³⁶ as financial institutions must comply with extensive requirements when creating new accounts and conducting transactions. The act mandates US-based financial institutions to determine whether potential foreign bank clients are involved in any law enforcement or regulatory actions related to money laundering, fraud, tax evasion, or drug trafficking.³⁷ Institutions must report suspicious activity to the US Treasury Department, cash transactions to the IRS, and the international transportation of monetary instruments to the Customs Service (Reuter and Truman 2004).³⁸

The mechanisms in the USA Patriot Act readily lend themselves to enforcement of a residence-only system for portfolio capital flows. Due diligence requirements designed to combat money laundering and terrorist financing can be adapted to the universal reporting system needed to ensure that countries can collect taxes due on their residents' foreign portfolio investments. The G-7 argues that international action in this area would strengthen existing AML systems and increase the effectiveness of tax information exchange arrangements (OECD 2002a).

34. In May 1989 the G-7 finance ministers endorsed international action to enhance AML systems to combat tax-related crimes. The FATF was subsequently established in 1989 by 33 countries. However, the FATF parties stated that the new forum would not address tax issues; its primary role was to combat money laundering through name-and-shame tactics (Reuter and Truman 2004).

35. In February 2001 the US Senate Permanent Subcommittee on Investigations released a comprehensive report on money laundering and tax evasion abetted by the US banking system through correspondent accounts with high-risk foreign banks (Report on Correspondent Banking: A Gateway for Money Laundering, available at www.senate.gov). The report accused US banks of not enforcing AML safeguards and thereby acting as conduits for criminal proceeds. It called on US banks to shut their doors to high-risk foreign banks and eliminate abuses of the US correspondent banking system.

36. See section 312 of Implafa, which adds a new section, 5318(i), to title 31 USC.

37. See Fernando L. Aenlle-Rocha, "Correspondent Banking After September 11," *Los Angeles Lawyer Financial Times*, September 27, 2002.

38. Core financial institutions, such as banks, security firms, and insurance companies, are subject to the most stringent audit requirements. Less rigid rules apply to other financial institutions and nonfinancial businesses (Reuter and Truman 2004).

Recommendations

At the beginning of 2005 the OECD identified at least five jurisdictions that had not yet committed to transparency and effective exchange of information.³⁹ As the OECD 2000 report indicates, “there is a significant risk that a failure to address these practices in parallel with the work in relation to Member countries will cause a shift of the targeted activities to economies outside the OECD area, giving them an unwarranted competitive advantage and limiting the effectiveness of the whole exercise” (OECD 2000b, 22).

In light of the competitive realities, some commentators have suggested that the current exemption for portfolio interest be limited to registered obligations and allowed only for residents of countries that exchange tax information with the United States.⁴⁰ Alternatively, the commentators suggest that the statutory withholding tax exemptions for portfolio interest and bank deposit interest be repealed—thereby reverting to a 30 percent withholding rate—and that exemptions should be provided only through bilateral tax treaties.

We do not agree with these suggestions. In our view, at the same time, they do too much and too little. On one hand, they deny the United States the benefits of inward investment flows attracted by unilateral relief from US withholding tax for law-abiding, taxpaying residents of non-treaty partner countries. On the other hand, they assume that all residents of treaty partner countries are law-abiding taxpayers. Further, we believe that the climate created by the OECD harmful tax competition project and the EU Savings Directive present a golden opportunity for the United States to cooperate with its closest partners in adopting a much stronger residence-only system of taxing portfolio income flows, without risking retaliation from key financial countries or facing significant withdrawals of foreign funds. The USA Patriot Act’s groundbreaking due diligence requirements could be an important building block for a residence-only tax system.

From the narrow but important standpoint of US tax revenue, the central purpose of our recommendation is not to increase US tax collec-

39. The jurisdictions are Andorra, the Principality of Liechtenstein, Liberia, the Principality of Monaco, and the Republic of the Marshall Islands, which all appear on the OECD’s list of uncooperative tax havens. In February 2005, however, Andorra accepted an OECD invitation to participate in the next meeting of the OECD Global Forum on Taxation.

40. These countries would consist of all of the current US treaty partners that cooperate in information exchange, regardless of the treaty withholding tax rate on interest payments, as well as countries party to tax information exchange agreements. See Shay, Fleming, and Peroni (2002, 145). The limitation to registered securities implies that tax would be withheld at source on bearer bonds.

tion on outward flows of interest to foreign persons but rather to ensure that US taxpayers report all of their portfolio income to the IRS and pay whatever tax is owed to the US Treasury. To illustrate one example of massive tax avoidance, many tax-exempt US institutions such as pension plans, hospitals, and universities choose tax haven countries as a destination for their portfolio investments. A leading reason is to avoid US taxes that would otherwise be payable on unrelated business income. The Cayman Islands are particularly popular as a home for such investments, often made through hedge funds. According to an estimate by the Cayman Islands Monetary Authority, the Caymans are the corporate home for about three out of four of the world's hedge funds, owing to very low local taxes, light regulation, a cadre of legal and accounting professionals, and a reputation for honest governance.⁴¹

Given the nature of tax evasion, it is impossible to know how much additional revenue might be collected if our proposals were enacted. However, the reported stock of US outward private portfolio investment in 2005 was about \$7.6 trillion in 2005, and the estimated inward flows of interest, plus inward portfolio flows of dividends, were \$234 billion to private US persons. Hence the implied yield was only 3.2 percent (see table 4.2).⁴² With these magnitudes we speculate that underreporting of income flows to US taxpayers is at least 15 percent of reported flows, or about \$35 billion annually. In a properly functioning global system, the tax due on these income flows could amount to 10 percent of the underreported interest and dividends, or as much as \$3.5 billion annually.⁴³

To start the ball rolling on effective global taxation of portfolio income, we recommend that the United States adopt a backup withholding tax at source on cross-border portfolio income payments, coupled with a reimbursement system under which tax withheld at the source would be credited or refunded to the taxpayer by his resident country, once the resident country's tax was paid. If, as anticipated, other countries followed the US lead and adopted their own backup withholding systems, an international clearinghouse mechanism should then be established to sort out each resident country's claims against source-country backup withholding taxes.

41. For more details, see Lynnley Browning, "Tax Breaks Lure Money Managers to the Caymans," *International Herald Tribune*, July 3, 2007.

42. Private portfolio-investment stock abroad is defined as total private holdings of foreign passive assets (bonds and bank and nonblank claims) and foreign corporate equities (see table 1.5). The figure cited in the text for private inward interest and portfolio dividends excludes payments of interest to the US government by foreign entities (see table 4.2).

43. In other words, we assume that a more reasonable return was at least 3.7 percent on the stock of portfolio investment. It is also possible that the portfolio investment stock was underreported.

Table 4.2 Foreign interest and portfolio dividends paid to US persons, 2005 and 2006 (billions of dollars)

Type of interest payment	2005	2006
FDI-related interest payments		
Paid to US parent firms from their foreign affiliates	9.7	10.0
Paid to US subsidiary firm from their foreign parents	3.9	5.2
Other private interest payments		
Bond interest payments	44.2	53.4
Bank interest payments	62.5	107.9
Interest paid by nonbank financial firms	47.3	79.7
US government interest receipts ^a	2.7	2.4
Private portfolio dividends	63.7	79.9
Total receipts	234.0	338.5

a. Total income receipts less receipts from debt forgiveness and debt rescheduling.

Note: The term "person" includes corporations, partnerships, governments, trusts, as well as individuals.

Source: Bureau of Economic Analysis, *Survey of Current Business*, April 2007.

Backup withholding would require host countries to share tax information with home countries and to end the issuance of bearer bonds and other anonymous securities.⁴⁴ Fortunately, the OECD's Agreement on Exchange of Information on Tax Matters has already envisaged an excellent framework for exchanging tax information between tax authorities.⁴⁵

The United States could begin the cooperative process by enacting legislation along the following lines:

- All US residents paying interest income to nonqualifying foreigners would be required to withhold a backup tax of 10 percent and pay that amount to the US Treasury. The IRS would issue a certificate of tax paid to the US payer, who would forward the certificate to the

44. A blank endorsement on a negotiable instrument can create a bearer instrument. Thus, the prohibition against banks and corporations from issuing instruments represents only the first step—but an important one—in a full-scale system of title registration of securities.

45. The OECD (1998) recommends using standard magnetic format for automatic information exchange to match information more efficiently and simplify conversion of the magnetic format into a standard for electronic exchange of tax information. Under the information exchange system proposed by the EU Savings Directive, the communication of information between member states is automatic and takes place at least once a year, within six months following the end of the tax year of the member state of the paying agent, for all interest payments made during that year to individual beneficial owners residing in every other member state.

nonqualifying foreign recipient. No backup tax would be withheld on interest paid to “qualifying” foreign residents.

- Nonqualifying foreigners would include all foreigners other than those who could establish to IRS satisfaction that they had a history of reporting all interest income to their home tax authority, did not act as a financial conduit for anonymous beneficial recipients, and did not deal in anonymous securities.⁴⁶
- Nonqualifying foreign recipients would present certificates of taxes paid to their own taxing authorities. The authorities in turn could present certificates to the IRS for reimbursement of the backup withholding tax. If the foreign taxing authority did not meet several conditions (see appendix C3), the United States would retain the backup withholding tax on interest paid to residents of those countries.
- The United States should open discussions with the European Union to expand the scope of the EU Savings Directive to non-EU members of the OECD and other key financial-center countries and apply the directive not only to interest payments but also to other portfolio payments.⁴⁷

Enacting such legislation could prompt key financial countries to hostility rather than cooperation. However, if the United States coordinates its legislation with the European Union and other countries, the chances for a backlash are slim. In the worst case, the withdrawal of foreign portfolio capital in anticipation of backup withholding would cause US interest rates to rise by the full 10 percent backup tax—say, from 5.0 to 5.5 percent on US Treasury bonds. Because this extreme possibility cannot be ruled out, it seems wise to start with a low backup withholding rate—the 10 percent figure mentioned—rather than a rate closer to what a normal taxpaying recipient might pay, such as 20 percent or higher.⁴⁸

46. Normally, foreign affiliates of US subsidiaries including financial-sector firms, would be characterized as qualifying foreigners. Likewise, the foreign subsidiaries of US MNEs should normally qualify for exemption from mirror backup withholding taxes imposed by foreign jurisdictions.

47. In fact, the European Council has already started parallel discussions with the United States and other key countries (Switzerland, Andorra, Monaco, Lichtenstein, San Marino, and the dependent and associated territories of the United Kingdom and the Netherlands) with the aim of encouraging these countries and territories to adopt similar measures. Those discussions were stimulated by the European Union’s concerns that the Savings Directive proposal would incite paying agent operations to relocate outside the European Union. See EU Memo/01/266 (available at <http://europa.eu>).

48. EC Commissioner Christiane Scrivener proposed a 15 percent withholding rate for portfolio flows between Europe and the United States, whereas the US Foreign Investment in Real Property Tax Act (FIRPTA) legislation imposes a 10 percent rate.

Skilled financial diplomacy and the self-interest of tax collectors should prompt most industrial countries to enter into information exchange systems with the United States. The United States has already signed agreements for information exchange with 30 countries, most of them countries with which the United States has not entered into a comprehensive income tax treaty.⁴⁹ In addition, most US income tax treaties contain articles providing for the exchange of information.

In the end, only countries that choose to serve as havens for tax evasion and avoidance, or that administer their tax laws irregularly, would remain outside the net. For an indefinite period, interest payments to entities in these countries could simply remain subject to the new 10 percent backup tax. Presumably these countries would constitute a relatively small part of the world capital market, and yields there would simply drop to 90 percent of the yields available in the industrial world. Tax evasion would still flourish, but evaders would indirectly pay some tax, whereas now they pay none.⁵⁰ Meanwhile, to the extent that other countries emulate the US initiative, considerably more foreign interest and dividends should be reported to the IRS, and US Treasury collections might increase as much as \$3.4 billion annually.

49. See Federal Tax Coordinator 2d (RIA) T-1006, 2005, and the US Department of the Treasury web press room, available at www.treas.gov (accessed on July 8, 2007).

50. To discourage the creation of holding companies in these jurisdictions, special look-through rules would require the deemed distribution of all portfolio income to beneficial recipients who are US residents. Stiff penalties would apply to concealed income.

Multinational Firms in the World Economy

Multinational enterprises (MNEs) continue to grow in importance in the world economy, not because they bridge different capital markets but for the industrial-organization reasons first identified by Hymer (1976).¹ Estimates from the United Nations Conference on Trade and Development (UNCTAD 2005, 19) suggest that there were about 70,000 MNEs in 2004 with about 690,000 foreign affiliates across the globe. MNEs are now responsible for two-thirds of world trade, one-third of which is intrafirm trade. Firm-specific assets—which are often intangibles that do not show up on the balance sheet, such as trade names, know-how, and government permits—enable an MNE to prosper in its specific product lines. These assets can be highly valuable in a foreign market but difficult to license at a remunerative fee.² Instead, to best exploit its potential advantage, an MNE must invest overseas.³ Economists who study MNEs have

1. More recently, Graham and Krugman (1991, chapter 2 and appendix B) likewise conclude that industrial-organization explanations of FDI in the United States are much superior to cost-of-capital explanations.

2. Markusen (2000) points out that the property of knowledge that makes it easy to transfer to foreign locations makes it easily dissipated. Licensees can easily absorb knowledge capital and then defect from the supplying firm or ruin the firm's reputation for short-run profit. To maintain the value of assets and prevent asset dissipation, most firms only transfer knowledge internally.

3. Dunning (1988, 1993) stresses the role of imperfect markets in intangible assets as a core reason why MNEs flourish. Morck and Yeung (1991) support the argument that an imperfect market in intangible assets is necessary to justify FDI.

long accepted industrial-organization reasons as the most important explanation for MNE growth.⁴

Recognition of this proposition is the starting point for designing tax policy toward direct investment income, even though tax policy for MNEs was historically driven by capital allocation analysis. Today US tax policy toward foreign direct investment (FDI) is rightly, if slowly, changing its focus from capital allocation and instead asking how the United States wishes to shape MNE activities.⁵ The starting question is whether the goals of world efficiency and national prosperity are inseparably linked in such activities, or whether they diverge.⁶ This crucial question brings us to the domain of strategic tax policy, which may be seen as a companion to the strategic trade policy debate of the 1980s.⁷

Large corporations, each exercising significant market power, are a fact of life in the world economy, and imperfect competition is the rule rather than the exception in global markets. There are good reasons for large firms to exist and prosper in this setting. Some products can only be manufactured efficiently in very big plants. More important, many lines

4. The connection between a firm's specific assets and its decision to invest overseas was highlighted by Dunning (1988, 1993). His so-called OLI paradigm explains activities of multinational corporations in terms of ownership (O), location advantage (L), and internalization advantage (I). When selling its products abroad, a firm is initially disadvantaged relative to local producers. To compete effectively with local rivals, a foreign producer must possess some ownership advantages, which can be trademarks, patents, reputation, or other assets. Location advantage can be due to trade barriers, transport costs, customer access, or low factor prices; they explain why a foreign presence should be established through production rather than exports. The last advantage, internalization, explains why foreign firm prefers to retain full control over the production process instead of licensing intangible assets to local firms. The decision to retain full control reflects the difficulty of regulating and enforcing licensing contracts.

5. Caves (1982) offers an old but fascinating example of the schizophrenia that characterized tax policy discussions two decades ago. Using different terms, he strongly endorses the industrial-organization thesis in chapter 2: "For all these reasons it is fair to conclude that the capital arbitrage hypothesis has been swept from the field by the transactional hypothesis." However, when it comes time to analyze tax policy toward multinationals in chapter 8, Caves completely forgets this conclusion; the entire discussion concerns the effect of taxation on the allocation of capital.

6. Dunning (1993) reviews the interaction between the global strategies of MNEs designed to advance the profitability and growth of the firm and the national strategies of governments designed to enhance the economic and social welfare of its citizens.

7. Strategic trade policy focuses on hard-to-reverse locational decisions and first-mover advantages in oligopolistic industries. Surveys of strategic trade policy include Deardorff and Stern (1987), Helpman and Krugman (1985, 1989), Krugman (1994), and Brander (1995). The literature applying these theories to trade policy is a large one, but little work has been done on the implications for tax policy. Markusen (1988) is an important exception; see also Bond and Samuelson (1989).

of business require substantial overhead investments in the software of running a firm, and these investments are usually in fixed costs: extensive research, development, and experimentation (RD&E) efforts; engineering skills sufficient to build a state-of-the-art plant at low cost; branding of a trade name in the public mind; and developing effective distribution systems. These overhead investments may be so large that there is room in the world economy for only a few companies in a given industry to operate profitably. The result of these assorted barriers to entry is usually an oligopolistic market structure, with its well-known implication for less-than-perfect efficiency, as prices are kept substantially above the marginal costs of production, possibly for many years.

Such considerations from the theory of imperfect competition do not invalidate the traditional conclusion that free trade and open investment are best for the world economy. But they do suggest that a country may enhance its own national prosperity by attracting certain components of MNE activity.⁸

Strategic Arguments

Historically, FDI and exports were treated as mutually exclusive substitutes. However, because intrafirm trade is at least as important as arm's length trade, impediments to FDI (via industrial policy) are equivalent to trade barriers (Dunning 1993, UNCTAD 1995). Hence strategic trade and investment policies need to be seen as two possible pillars of state support for domestic firms in the global economy (Hart and Prakash 1997).

The strategic arguments for intervention are easy to sketch out. Consider an emerging technology that is likely to result in an oligopolistic market structure, such as genetic technology for treating multiple sclerosis (MS). If oligopolists dominate the world market in any case, it would seem worthwhile for the United States to encourage its own contenders to be among the world leaders, as the United States then can capture some of the oligopoly profit that the new MS technology is bound to create. Moreover, if spillover benefits occur—say, leading to genetic breakthroughs on Parkinson's or Alzheimer's disease—then they are more likely to occur in the United States. Interventionist policies, including

8. Before delving into details, it is worth summarizing the conclusions of some of the pioneers of strategic trade theory regarding its implications for free trade. Helpman and Krugman (1989, 186): "A key question about the new trade theory is whether it gives rise to any systematic new reason to reject free trade. The answer appears to be no." Deardorff and Stern (1987, 50): "Clearly these contributions to the trade literature . . . have broadened our understanding in useful ways. But have they added to the arsenal of reasons for trade intervention in ways that should alter the trade theorists' bias in favor of nonintervention? We think not."

tariffs, RD&E subsidies, buy-national public procurement, unique technical standards, and even special corporate tax breaks, would seem desirable if the United States can thereby assist its own firms to gain greater prominence in the circle of world oligopolists. Careful studies have demonstrated that such a result can be obtained in a theoretical model.⁹ Building on this insight, some of the work on international trade provides a valuable basis for analyzing MNE taxation.¹⁰ The starting point is to recognize that MNEs engage in two distinct activities: headquarters services and traditional production and distribution activities.

Providing headquarters services entails investing in firm-specific intangible assets, such as management techniques, engineering skills, advances in technology, and establishing trade names.¹¹ In addition, headquarters costs may be defined to include the extra costs of overcoming barriers to entry in particular national markets, such as unique technical standards, administrative obstacles, and licensing requirements. Like the setup costs of a complex distribution system, these administratively imposed costs are essential to market access.

Tables 5.1 and 5.2 roughly illustrate the role of headquarters costs in US manufacturing industry over an extended period of time. As table 5.1 shows, between 1960 and 2005 total manufacturing employment was for the most part flat but contracted sharply during the 2001 recession. Meanwhile, the share of administrative personnel to all employees has been roughly constant since the mid-1970s, but administrative employees have accounted for a greater share of payroll than has the share of workers. This reflects the fact that administrative positions absorb large numbers of professionally trained individuals at higher salaries.

9. Deardorff and Stern (1987) credit Brander and Spencer (1981) and Spencer and Brander (1983) for the first careful studies. However, the Brander-Spencer analysis does not rely on learning-curve or scale-economy phenomena. Rather, production is characterized by flat or rising marginal and average costs. The question is how government intervention affects the ability of firms to bear the fixed costs of entry and hence the subsequent division of the global pie of economic rent. Krugman (1994) gives a hypothetical example. Imagine that a good could be developed by either a US or European firm. If either firm developed the product alone, it could earn large profits; however, the development costs are large enough so that if both firms try to enter the market, both will lose money. If European governments subsidize their firms, they may deter the US firm and thereby ensure that Europe, not the United States, gets the monopoly profits.

10. This discussion draws on Helpman and Krugman (1985, chapters 12 and 13).

11. Engineering skills are sometimes acquired in the process of building a costly plant. For example, it is said that General Motors paid nearly twice as much for its Saturn automobile plant in Spring Hill, Tennessee as Honda US did for a similar expansion of its Accord plant in Marysville, Ohio. Contrary to traditional cost accounting, the extra \$1 billion or so General Motors paid can be chalked up to the cost of acquiring engineering skills.

Table 5.1 United States: Manufacturing output, RD&E, and employment, 1960–2005

Year	Billions of dollars			RD&E as share of valued added (percent)	Total employment		Administrative employment (percent)	
	Value of shipments	Value added	Private RD&E spending ^a		Millions of workers	Payroll (billions)	As share of work force	As share of payroll
1960	369	164	4	2.5	16.7	88	26.9	36.4
1965	492	227	6	2.7	18.0	114	27.2	37.7
1970	634	300	10	3.2	19.2	153	29.7	39.9
1975	1,039	442	15	3.4	18.3	210	31.1	42.4
1980	1,853	774	29	3.7	19.3	316	28.0	41.9
1985	2,280	1,000	52	5.2	17.5	397	30.5	40.5
1990	2,912	1,347	65	4.8	17.6	472	30.4	41.8
1995	3,594	1,711	81	4.7	17.4	545	29.7	41.7
2000	4,209	1,974	113	5.7	16.6	617	28.3	41.1
2005	4,735	2,204	119 ^b	5.4	13.1	580	29.9	41.8

RD&E = research, development, and experimentation

a. Data for private RD&E spending for manufacturing for 1960 to 1985 was derived from total industry private RD&E spending, reflecting the approximate shares of 1986, which was roughly 92 percent. The data for 2004 are projected from the share in 2003.

b. For 2004.

Sources: After 1980, US Department of Commerce, Bureau of the Census, *Annual Survey of Manufactures*, various years, table 1; National Science Foundation, *Science and Engineering Indicators*, various years, appendix table 4-3. Prior to 1980, US Department of Commerce, Bureau of the Census, *Annual Survey of Manufactures 1996*, table 1a; National Science Foundation (2006, appendix table 4-3).

Table 5.2. United States: High-technology output, RD&E, and employment, 1960–2005

Year	Billions of dollars			RD&E as share of valued added (percent)	Total employment		Administrative employment (percent)	
	Value of shipments	Value added	Private RD&E spending ^a		Millions of workers	Payroll (billions)	As share of work force	As share of payroll
1960	50	31	2	7	3	16	36	47
1965	71	45	3	8	3	21	36	48
1970	108	63	6	9	3	30	40	50
1975	129	79	9	11	3	36	41	52
1980	284	162	18	11	3	66	42	53
1985	418	244	36	15	4	99	47	58
1990	468	245	43	18	3	116	48	60
1995	699	400	53	13	2	114	46	60
2005	799	485	64 ^b	13	2	126	50	64

a. Data for private RD&E spending for manufacturing for 1960 to 1985 was derived from total industry private RD&E spending, reflecting the approximate shares of 1986, which was roughly 92 percent. The data for 2004 are projected from the share in 2003.

b. For 2004.

Note: High-technology industry is defined (under the old classification system applicable until 1997) as Standard Industry Classification (SIC) 281–83, 348, 351, 357, 365–67, 375 and 38 (less 385). Data for 2004 are based on the North American Industry Classification System (NAICS). Since there is not yet an official definition of “high-technology” under NAICS, we use the following to approximate the old SIC definition: 3254, 3332, 3339, 3341-2, 3344-5, 3353, 3364.

Sources: For 2005, US Department of Commerce, Bureau of the Census, *Annual Survey of Manufactures 2006*, table 2; National Science Foundation, *Research and Development in Industry*, 2004. For 1995 and prior years, US Department of Commerce, Bureau of the Census, *Annual Survey of Manufactures*, 1996, table 1a; National Science Foundation, *Research and Development in Industry*, 1997, table A-7, and *Science and Engineering Indicators*, 1991, appendix table 6-16.

Accounting for the entire period from 1960 to 2005 and focusing only on high-technology manufacturing (table 5.2), we see a clear pattern of greater reliance on administrative workers, both in share of employment (rising from 36 to 50 percent) and share of payroll (rising from 47 to 64 percent). To be sure, a great many administrative employees are not engaged in headquarters activity as we have defined the term, but the data in table 5.2 reflect salient trends. In 2005 the average payroll cost per administrative employee in high-technology industry was \$75,000, compared with an average of \$43,600 for production workers (based on the raw data underlying table 5.2). Expenditure on RD&E as a percentage of value added in high-technology manufactures approximately doubled between 1960 and 2005.¹² As table 5.2 indicates, the role of headquarters activity and the cost of RD&E are much larger for high-technology industries than for all manufacturing.

The various headquarters services have special characteristics that together explain why companies become MNEs. In the first place, once headquarters services are created, most can be used throughout the firm. Like a trademark, patent, or just-in-time inventory system, using headquarters services in one plant does not diminish their usefulness to other plants, though some headquarters services, such as those that surmount regulatory barriers, may only be useful in particular markets. Moreover, a given quantity of headquarters services cannot sustain an indefinite amount of production. But these qualifications simply mean that, though the need for additional headquarters services increases somewhat with production, the increase occurs at a sharply attenuated rate. For example, a doubling of sales may require an increase of only 25 percent in headquarters services.

A second special characteristic is that headquarters services cannot be licensed easily to unrelated firms on a profitable basis. Put another way, a firm can usually earn substantially more by applying its headquarters services to its own production efforts than by licensing those headquarters services to an unrelated firm. Often the only way one firm can convince an unrelated firm of the value of a new process or system is to reveal so much information that the other firm obtains most of the knowledge for free. Further, once a firm conveys its know-how, it begins to lose control over the development of subsequent inventions. When reputation is conveyed by trademark, the firm might find that an unrelated licensee with little ownership stake carelessly damages the mark through inadequate quality control. Yet another example is that regulatory permits may not be transferable by any means short of selling the firm. Such pitfalls prompt firms to set up their own production facilities

12. Figures in tables 5.1 and 5.2 exclude RD&E expenditure in industry by the federal government.

Table 5.3 Operations of foreign affiliates of US firms
(percent of US parent totals)

Year	Assets	Sales	Net income	Number of employees
1966	18	30	23	30
1977	24	38	26	43
1982	21	32	26	28
1989	22	32	44	27
1999	26	27	29	29
2004	36	35	47	32

n.a. = not available

Note: Majority-owned nonbank affiliates of nonbank US parents.

Sources: Bureau of Economic Analysis, *Survey of Current Business*, November 2006, 61–62; Bureau of Economic Analysis, US Direct Investment Abroad, various years, www.bea.gov (accessed March 21, 2005).

around the world even when they do not have a competitive advantage in manufacturing the product abroad.

There is a third special characteristic: Many headquarters services are efficiently produced at a single location or in very few locations. For example, spreading RD&E activity over many sites is often less efficient than concentrating the work in a few laboratories. Likewise, operating a system of computer-controlled warehousing, managing corporate cash flows, or staffing the legal department is best done at a single center.

Official statistics on US outward FDI reflect MNEs' tendency to keep RD&E at home even as their overseas operations expand. In 1966 foreign affiliates of US firms accounted for about 30 percent of sales and about 8 percent of RD&E. In 2004 foreign affiliates of US firms accounted for 35 percent of sales and about 12 percent of RD&E (see tables 5.3 and 5.4). Meanwhile, foreign firms have sharply expanded the amount of RD&E they undertake in the United States, from \$1.5 billion in 1980 to \$33 billion in 2004. In 2004 some 17 percent of all private-industry RD&E expenditure carried out within the United States was in fact conducted by US affiliates of foreign MNEs.

Once a firm has successfully invested in headquarters services, it acquires a technological or marketing advantage that it can use to carry out production and distribution at the most advantageous sites in the world economy. But this does not mean that the successful MNE can extract juicy monopolistic profits from consumers around the world. Instead, as

Table 5.4 RD&E performed in the United States and by foreign affiliates of US firms outside the United States, 1975–2004

Year	Private RD&E expenditures within the United States (billions of dollars)	RD&E performed by foreign affiliates of US parents outside the United States		RD&E performed by US affiliates of foreign parents in the United States	
		Billions of dollars	Percent of total US private RD&E expenditure ^a	Billions of dollars	Percent of total US private RD&E expenditure ^a
1975	15.6	1.5	8.8	n.a.	n.a.
1976	17.4	1.7	8.9	n.a.	n.a.
1977	19.3	1.9	9.0	n.a.	n.a.
1978	22.1	2.2	9.1	n.a.	n.a.
1979	25.7	2.8	9.8	n.a.	n.a.
1980	30.5	3.2	9.5	1.5	4.5
1981	35.4	3.4	8.8	n.a.	n.a.
1982	40.1	3.1	7.2	n.a.	n.a.
1983	44.6	3.3	6.9	n.a.	n.a.
1984	51.4	3.6	6.5	n.a.	n.a.
1985	57.0	3.7	6.1	n.a.	n.a.
1986	59.9	4.6	7.1	n.a.	n.a.
1987	61.4	5.2	7.8	4.5	6.8
1988	66.6	6.2	8.5	5.5	7.5
1989	73.5	6.7	8.4	6.7	8.4
1990	81.6	8.0	8.9	8.5	9.5
1991	90.6	9.1	9.1	9.1	9.2
1992	94.4	10.1	9.7	10.7	10.3
1993	94.6	9.6	9.2	11.3	10.8
1994	97.1	9.4	8.8	12.7	11.9
1995	108.7	13.1	10.8	14.8	12.2
1996	121.0	14.1	10.4	15.6	11.6
1997	133.6	13.1	8.9	19.4	13.2
1998	146.3	16.0	9.9	25.4	15.6
1999	161.6	16.8	9.5	26.9	15.1
2000	182.8	17.6	9.0	29.3	14.6
2001	185.1	19.7	9.6	29.2	14.3
2002	177.5	21.2	10.7	30.2	15.2
2003	183.3	22.3	10.8	32.7	15.9
2004	195.7	27.5	12.3	33.1	14.8

n.a. = not available

a. Includes RD&E expenditure within the United States and overseas.

Sources: US Department of the Treasury, *The Impact of Section 861-8 Regulation on US R&D*, June 1983, table 1; National Science Foundation (2006, tables 4-3, 4-46, and 4-49); Bureau of Economic Analysis, International Economic Accounts: Direct Investment, annual series, www.bea.gov (accessed March 21, 2005 and June 13, 2006).

long as competing firms can move freely from country to country and ship components and finished products among their affiliates, it is likely that several large firms, each with its own technology and reputation, will emerge to compete with one another. The result is that, on average, the profits that a typical MNE earns over its direct production costs and a

normal return on fixed assets will just pay for its prior investment in headquarters services.¹³

The other principal activity of MNEs, apart from turning out headquarters services, is the production and distribution of goods and services. These activities have their own special features. In the first place, although there may be some economies of scale, they are usually not as extensive as they are for headquarters services. Typically, there is a minimum practical threshold for plant size (say, 100,000 automobiles or 10 million chips assembled) or distribution lots (one cargo plane), but beyond that point a doubling of output requires a doubling of inputs. The absence of decisive scale economies enables production to be located in response to other considerations.¹⁴

Traditional production is highly sensitive to the cost and incentive conditions of different environments. When free to do so, MNEs locate production activity according to the availability of labor, natural resources, and a favorable tax climate,¹⁵ or in an effort to get close to the market, or to garner government incentives. For example, labor-intensive assembly operations tend to be located in countries with cheap, semi-skilled labor, such as East Asia or Mexico.¹⁶ Oil drilling obviously takes place where geological conditions are favorable. Sophisticated machinery tends to be manufactured in the midwestern United States or Germany,

13. Technically, the models assume that the competing MNEs earn zero economic profit—that is, no profit above the prevailing return on debt and equity capital, accounting for the riskiness of the enterprise.

14. There are important exceptions. According to an estimate prepared by the US Department of Commerce in cooperation with McDonnell Douglas Corporation, the production cost per copy of a 150-seat civilian airliner drops by about 70 percent after 250 planes are made and then levels off. See Baldwin and Krugman (1988).

15. Analyzing empirical evidence, Mutti (2003) finds that the influence of taxes on affiliate production appears to be significant, an effect that is especially relevant when production occurs in countries with open trade policies and the output is destined for export markets. Mutti notes that the effect also has become more important over time and that a greater role for taxation appears most relevant outside of the high-income Organization for Economic Cooperation and Development (OECD) countries. For high-income countries, the estimates suggest that taxes alone are less likely to affect MNE activity within their borders, indicating that they have less to gain from tax competition. Mutti also emphasizes that, without complementary policies such as an open trade regime, tax reductions alone are not particularly successful.

16. Kravis and Lipsey (1988) provide evidence that US MNEs tailor the location of production to labor cost conditions, finding that the greater a firm's foreign production, the greater its ability to locate less skill-intensive work outside the United States. This ability to subdivide production is more pronounced among manufacturing firms than among service firms. Lipsey (2002, 57), surveying the body of empirical evidence, concludes that "there are some indications that MNE operations have led to a shift toward more capital-intensive and skill-intensive production in the United States, as labor-intensive, and particularly unskilled labor-intensive production has been allocated to affiliates in developing countries."

owing to the network of suppliers and highly skilled workers in those places.

For other kinds of production, rapid feedback from household or industrial consumers is crucial. This is true not only of fashion apparel and retail groceries but also of many high-technology items. IBM executives tell the story of a major mistake the company made in trying to sell stand-up automatic teller machines (ATMs) of the American variety in the French market. The French style of banking is to sit down while doing business, requiring an entirely different ATM design. This simple point surely would have been grasped if the entire project had been carried out by IBM Europe rather than in the United States. For other types of production, national incentives can be important. To take only one example, the European Community has made it clear that massive imports of Japanese automobiles from Tokyo plants are politically unacceptable. Consequently, Japanese automobile firms have erected transplant factories in the United Kingdom. Much the same story can be told about Japanese transplants in the United States.

Another important aspect for an MNE's vitality is its ability to buy and sell components and business services among group members to achieve the lowest possible cost to the group as a whole and supply members with unique goods and services that are not readily available from unrelated suppliers. The importance of intragroup transactions is illustrated by US statistics. In 2003 total US intra-MNE merchandise trade, including imports plus exports between both US parents and their foreign affiliates, and between US affiliates and their foreign parents, represented about 45 percent of total US merchandise trade (imports plus exports).¹⁷

A Model of Operating Profits and Headquarters Costs

The simple model depicted in figures 5.1a and 5.1b illustrates the implications of the above analysis. Figure 5.1a portrays MNE behavior in a world economy with significant restraints on trade and investment; 5.1b shows their behavior in an open world economy. There are two major components of the model: the cost of headquarters services associated with the introduction and continuing management of the new product, process, or system; and the operating profits generated on a global scale by applying the new technology.¹⁸

17. US Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, May 2006, tables F.3, F.5; *Survey of Current Business*, May 2005, available at www.bea.gov.

18. Operating profits are defined as receipts minus the variable costs of production and distribution.

Figure 5.1a Economic profits and headquarters costs in a market restrained by government barriers

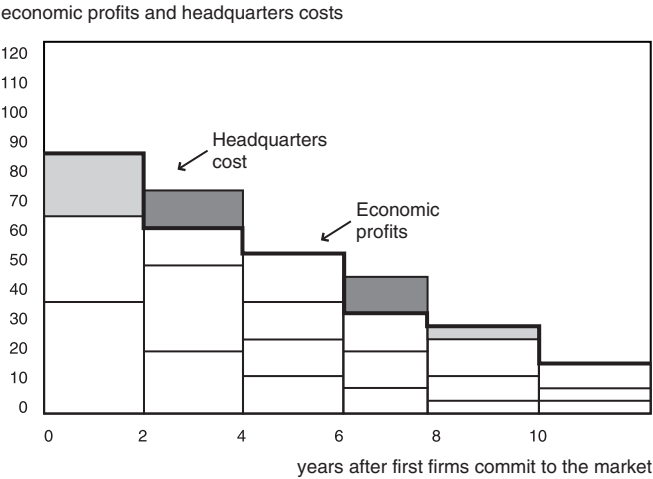
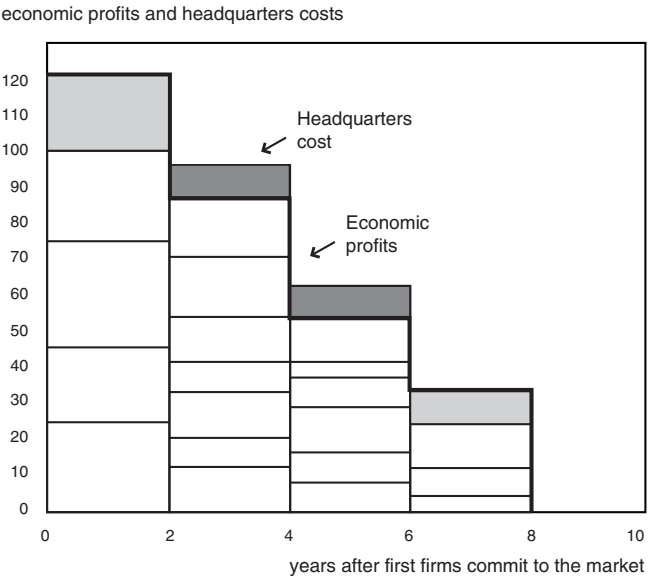


Figure 5.1b Economic profits and headquarters costs in a market not restrained by government barriers



Note: In both figures, the vertical axis represents the discounted economic profits and the discounted headquarters costs for the cohort of firms entering the market in successive biennial periods. Each rectangle indicates the headquarters costs incurred by a single firm. A lightly shaded area indicates that the total economic profits for the cohort of entering firms exceed the total headquarters costs for those firms; a darker gray area indicates headquarters costs in excess of economic profits.

Providing headquarters services requires a mixture of up-front outlays and ongoing administrative costs. To keep the model simple, we include costs of debt service and normal returns to equity capital among headquarters costs. To abstract from the time dimension, in figures 5.1a and 5.1b all headquarters costs are expressed in terms of present value. To ensure comparability among firms that embark on headquarters investments in successive periods, all outlays are discounted at an appropriate interest rate to the beginning of the first biennial period. Likewise, operating profits are expressed in present-value terms, and all operating profits over the life of the product or process are discounted to the beginning of the first biennial period, in the same manner as headquarters costs.

Headquarters costs are depicted as rectangular blocks for MNEs that join the market in successive two-year periods, starting with the first prospect of a profitable product or process (the choice of a two-year interval is arbitrary). The number of stacked blocks indicates the number of firms entering the market in each biennial period: For example, in figure 5.1a, two firms enter the market in the first period, three firms enter the market in the second period, and so forth.

The combined height of the blocks in any biennial period indicates the total of discounted headquarters costs incurred by all new entrants in that period; the sum may be less than, equal to, or greater than the total of discounted operating profits expected by that same cohort of entering firms, depicted by the heavy line (to simplify the picture, each individual firm's expected operating profits are not shown). Although there is considerable variance among firms, headquarters costs for new entrants progressively decline in successive biennial periods as the technology becomes more widely known and as a larger pool of knowledgeable engineers and managers becomes available for hire by new entrant firms.

In both figures 5.1a and 5.1b, discounted operating profits are also shown as progressing downward in a stair-step schedule over time, for three reasons. First, as new firms crowd the market, they drive prices down closer to production costs, thereby squeezing out operating profits per unit of output (see appendix D for a technical analysis). Second, as more firms join the new industry or use the new process, the total available pool of operating profits must be divided among more firms, including previous entrants, leaving less for the cohort of new entrants (the only entrants depicted for each biennial period). Finally, improved products eventually capture market share from the product depicted in figures 5.1a and 5.1b. In any given period, on average, enough new entrants join the market so that the total discounted operating profits that the new firms expect to earn over the remaining life of the product are approximately matched by total discounted headquarters costs that the new firms expect to incur.

The amount of operating profits claimed by some firms will, of course, far exceed their headquarters costs; while other firms never

recoup their costs. Likewise, for some cohorts of entering firms, total operating profits exceed total headquarters costs, whereas for other cohorts the reverse is true (see the light and dark shaded areas in figures 5.1a and 5.1b). But a central assumption of the model is that there are enough large firms with the capability to enter any new market that, all in all, no cohort of firms can anticipate operating profits greatly in excess of headquarters costs. Put another way, firms spend enough on headquarters costs in the chase for operating profits to ensure that, by and large, the profits are totally consumed by costs. In figures 5.1a and 5.1b, this feature is captured by the rough match between total headquarters costs and total operating profits for each cohort of firms.

Restrictions on trade and investment imposed on the firms in figure 5.1a hamper the firms' ability to export to some markets, create difficulties in establishing plants in some countries, and incur excessive capital costs in others. Headquarters costs are on average higher because firms must pay the costs of bureaucratic impediments, such as meeting unique technical requirements, gaining acceptance for public procurement, obtaining required licenses, and so forth. Not only are headquarters costs driven up by such impediments, but the available pool of operating profits for the cohorts of early entrants is driven down, for example, by paying tariffs on imports, higher costs of local production (including the excess capital cost of inefficient capacity), or artificial limitations on the size of the local market. A pharmaceutical company might not be permitted to market a drug, or a cellular telephone system might not meet local technical standards. The systemic result is that fewer firms enter the market in early periods because the prospective operating profits do not justify the headquarters costs of additional firms. Consequently, the rate of decline of operating profits is slower—contrast the flatter slope of the stair-step schedule in figure 5.1a with the steeper slope in figure 5.1b—both because there are fewer firms competing in the world market and because the various barriers restrain head-to-head competition.

Figure 5.1b depicts the introduction of the same new product or process into an international market that has no serious barriers to trade or investment. Headquarters costs are lower because each MNE can exploit its technology on a global scale without making additional outlays to hurdle an array of artificial barriers. In addition, the initial prospects for operating profits are greater, as the scope of the market is not limited by government barriers and firms are not compelled to pay tariffs or locate plants in high-cost countries. Because headquarters costs for each firm are lower and global operating profits are larger, more firms enter the market early. There are two systemic consequences: Operating profits are front-loaded in the product cycle, and operating profits for successive cohorts of firms decline at a faster pace.

Figure 5.1b is arbitrarily drawn so that the difference between global operating profits and headquarters costs for the last cohort of entrants

approaches zero after 20 firms have joined the world market. In this figure, elimination of operating profits is assumed to occur strictly as a result of competition between the firms; however, the excess of operating profits over headquarters costs could be terminated sooner by introducing a new product, process, or system. In an open world economy, 20 firms is an arbitrary but plausible number to establish energetic competition. In contrast, when the world market is fragmented by barriers, excess profits for cohorts of new entrants could well remain positive even after 20 firms have commenced production (see figure 5.1a) because many markets are partly protected from world competition.

This simple model yields several useful insights. First, it is clear that imperfect competition significantly increases the benefits of free trade and open investment policies by promoting world efficiency.¹⁹ More MNEs enter the market in early periods, attracted by a larger front-loaded global pool of excess profits. Indeed, a larger global pool means that some projects with very high initial headquarters costs will be undertaken much sooner than otherwise: Civilian aircraft, satellite, and pharmaceutical markets come to mind. In other markets, more firms will leap on an accelerated timetable, as in the personal computer market with Dell, Hewlett-Packard, and the Chinese firm Lenovo. Whereas national markets may be large enough to support only one or two firms, the global market may support many firms. The general result is that industrial users and household consumers benefit from the latest technology at the earliest possible date with the smallest oligopolistic price markup on the cost of production.

In an open world economy, Lenovo's laptop computers compete with Dell's and Posco competes with US Steel, to the benefit of buyers in all countries. The quicker capture of a larger pool of excess profit means that the world's resources are channeled wisely into highly productive activities. It also means a shorter period of economic distortion, as prices fall more quickly toward the level of production costs. In turn, rapidly falling prices may inspire another round of innovation based on the use of "old" technology as a low-cost input. The world of information technology, based on semiconductors, integrated circuits, and microprocessors, illustrates the new vistas opened up by lowering input costs. Finally, in the open world economy, total headquarters costs are smaller, both because the costs of overcoming administrative barriers are averted and because fewer firms need to enter the market to drive excess profits toward zero.

These theoretical results, suggested by a simple model, are plausible in the real world. Carefully studying the Europe 1992 program, Smith and Venables (2002) concluded that in 9 out of 10 industries, the EC-wide benefits of market integration in a Europe of imperfect competition would

19. The generality of this proposition was first emphasized by Richardson (1989).

exceed those in a Europe of perfect competition. Surveying the body of empirical literature, Richardson (1989) cites other scholars who reached similar conclusions. It is fair to conclude that the world efficiency case for free trade established by Adam Smith and David Ricardo is buttressed by the realities of imperfect competition.

Restrictive Policies and National Prosperity

The next and more interesting question is whether, in a world of imperfect competition and high technology, a strong case can be made for restrictive policies on behalf of national prosperity, even though the policies erode world efficiency. The short answer is that it depends. The long answer must start with some preliminary observations.

To begin, the familiar arguments for restrictive policies—the terms of trade argument, the infant-industry argument, and the national security argument—were traditionally regarded as footnotes in the classical case for free trade.²⁰ Do the footnotes become more important in a world of imperfect competition and high technology? Or does the standard case for free trade and investment gain ground as the best prescription for national well being? There are three reasons why the standard open-market case is reinforced (see Richardson 1989, 14):²¹

- Free international markets reduce the price distortions inherent in a setting of imperfect competition, as every domestic firm is forced to compete with its foreign rivals. This is important not only to consumers but also to downstream industrial users, who often pay the penalty of protection (through the higher price or lower quality of inputs) and are thereby rendered less competitive on world markets.
- World competition rationalizes the domestic industry by both discouraging the entry of new firms that would otherwise add to the national burden of headquarters costs and weeding out established but less efficient firms.
- World competition reduces the economic rent that is transferred from the domestic economy to foreign firms that have already accessed the protected local market.

20. For example, Gottfried Haberler (1936, chapter 17) regarded all three arguments with skepticism. However, in a recent and influential article, Harberler's most famous student, Paul Samuelson (2004), resurrected the terms-of-trade argument as a valid reason for US concern about the rise of China and India in high-technology industries.

21. Richardson revisits the case in his forthcoming book; see Richardson (2008).

On the other hand, there are three reasons that a setting of imperfect competition could bolster the traditional exceptions to the case for free markets.

First, if interventionist policies enable one country to host a larger number of MNEs and deter some foreign countries from spawning competitors, that country might capture a bigger slice of the global pie of excess profits. The ensuing gains would be analogous to the terms of trade advantage that might be captured by tariffs in the sense that the gains are garnered at the expense of other countries.²² But in this case the MNEs themselves would act as agents of beggar-thy-neighbor policies. In a numerical study of several European industries under oligopolistic conditions, Venables (1990) found that protecting the home market could improve national welfare by up to 2 percent of consumption.²³

Second, intervention may nourish some MNEs that were weak at first but are able to acquire world-class competitive skills with the assistance of restrictive policies. The infant-industry argument is an old story, dating back to Alexander Hamilton and Friedrich List in the 19th century. Its dangers are well known: Favored producers may grow lazy rather than robust, and even when they succeed, their costs may never justify the penalty imposed on the rest of the economy.

However, in the context of our model, the infant-industry argument may play an important role in the location of headquarters services. Once a firm has provided headquarters services for one type of product, it is

22. Some scholars partly attribute the rapid industrialization of Japan and other East Asian nations to an interventionist approach by central governments. Weber and Zysman (1992) suggest that Japan followed a deliberately phased process of industrialized development. During the first phase, Japanese firms were disadvantaged in both development and production costs. To shelter the firms against international competition, the domestic market was closed with a combination of import barriers and inward investment restrictions. Without inward investment restrictions, foreign firms would have been tempted to jump import barriers by establishing local subsidiaries. In the second phase, Japanese and other Asian firms borrowed technology from abroad to bridge the technology gap. The state thus relaxed import restrictions while maintaining inward investment restrictions. The state also encouraged firms to export by linking state support, such as import-duty exemptions and special depreciation allowances, to export performance (Noland and Pack 2003). Finally, Asian producers began to build world market positions without fearing foreign competition in the home market. They tapped foreign markets through exports as well as through FDI (Hart and Prakash 1997).

23. See Venables (1990) and Richardson (1989, table 2). Noting that 2 percent is not a very large gain, Venables stated, "But the conclusion which emerges from the simulation is that trade models of this type provide a rather weak case for policy intervention. This is not because results are so sensitive to market structure that anything is possible; but rather because even if government gets the policy right, the maximum gains it can expect from it are rather small."

often easier to fulfill the same function for related products. In technical terms, headquarters services are probably subject to long-run falling cost curves. A successful headquarters experience for one family of products improves the firm's chances for the next. From a national perspective, headquarters activities are highly desirable in that they create interesting, well-paying jobs. Moreover, headquarters services are an incubator of human capital, and human capital is highly mobile, so the spillover effects are potentially large, as key employees acquire the knowledge to start new firms and energize old firms.

It is striking that the world's most affluent metropolitan areas are headquarters to a disproportionate number of the world's largest corporations (see table 5.5). Of the 500 largest firms in the world measured by revenue, 189 are based in the United States, and of these, some 13 percent are located in or around New York, while five other metropolitan areas are collectively home to another 23 percent.²⁴ In Japan 70 percent of the 89 firms that make the list are headquartered in Tokyo, and most of the rest are in Japan's second largest city, Osaka. In France 78 percent of the largest firms are located in or around Paris. Some 65 percent of the British firms on the list are headquartered in London. However history and federalism have dampened the rise of a single center in Germany, the Ruhr area has 29 percent of the German corporations on the list, and Munich has 21 percent.

The tendency toward conglomeration of headquarters is even stronger when we consider financial firms alone. Of the 500 firms above, 130 are financial—roughly one-quarter of the firms on the list—and financial firms hold more than three-quarters of the assets of the listed firms (see table 5.6). In the United States 50 percent of the financial firms on the *Fortune* list are based in the New York area. Some 79 percent of Japanese financials are based in Tokyo, with the remainder in Osaka. All French financials on the list are in Paris, while three-fourths of British financials are in London; the final one-fourth are all headquartered in Edinburgh. Germany has two financial centers, with 45 percent of the 11 financial firms located in Frankfurt and 36 percent in Munich.

The third traditional argument for restricting trade and investment, the national security argument, asserts that protecting domestic industry in certain goods is necessary to ensure the availability of essential war materials in time of hostility. The argument acquires new life when imperfect competition is combined with high technology and has two new twists. If the industry is dominated by imperfect competition, the startup time is

24. Metropolitan areas with several firms on the Fortune Global 500 list tend to benefit from industry-level conglomeration. For example, six of the eight firms headquartered in Houston, Texas are related to the energy industry; four of the eight San Francisco, California Bay Area firms are technology companies.

Table 5.5 Countries with more than 20 firms in Fortune Global 500 in 2004 and metropolitan areas with five or more firms

Country/ major city or region	Total number of companies	Industrial companies	Financial companies	Revenue, 2003 (billions of dollars)	Profits, 2003 (billions of dollars)	Assets, 2003 (billions of dollars)	Stockholders' equity, 2003 (billions of dollars)	Employees, 2003 (thousands)
United States	189	151	38	5,841.4	383.6	17,600.6	2,594.9	17,778.2
New York/Newark	25	11	14	828.9	82.1	6,603.2	677.1	1,844.7
Chicago ^a	10	8	2	272.3	14.5	690.7	96.1	1,031.6
Los Angeles ^b	9	8	1	161.4	7.4	256.2	69.0	422.3
Atlanta	8	8	0	204.1	17.1	251.9	89.8	1,011.1
Houston	8	8	0	227.5	1.9	203.1	62.6	284.7
Bay Area ^c	8	7	1	261.9	16.6	616.5	158.7	630.0
Japan	82	63	19	2,180.6	62.9	8,277.2	904.4	4,853.4
Tokyo	58	43	15	1,509.8	45.5	6,030.3	613.4	3,317.9
Osaka	10	6	4	288.9	1.0	1,622.1	99.1	436.0
France	37	30	7	1,245.8	33.1	5,537.1	435.3	4,745.3
Paris/Roissy	29	22	7	964.4	16.7	5,229.1	339.3	3,658.6
United Kingdom	37	25	12	1,329.5	64.8	6,530.9	758.6	3,288.7
London	24	15	9	780.5	45.6	4,241.7	351.8	1,966.1
Germany	34	23	11	1,363.5	16.2	7,010.0	479.0	4,213.7
Ruhr district ^d	10	10	0	368.4	9.3	744.1	115.9	1,519.8
Munich	7	3	4	362.2	3.5	2,625.2	135.6	870.0
Frankfurt	5	0	5	120.4	−0.3	2,595.9	67.9	131.5

a. Includes immediate environs (Elk Grove, Abbott Park, etc.)

b. Includes immediate environs (Burbank, Thousand Oaks, etc.)

c. San Francisco, San Jose, Santa Clara, and Palo Alto.

d. Essen, Dusseldorf, Bonn, and Cologne.

Source: Fortune Global 500 dataset, available by subscription at www.fortune.com (accessed on April 25, 2005).

Table 5.6 Industry breakdown of Fortune Global 500, 2004

Category	Number of companies	Revenue, 2003 (billions of dollars)	Profits, 2003 (billions of dollars)	Assets, 2003 (billions of dollars)	Stockholders' equity, 2003 (billions of dollars)	Employees, 2003 (thousands)
Industrial	370	11,070.1	468.2	14,401.1	4,388.8	38,136.0
Motor vehicles and parts	32	1,538.3	34.9	2,181.6	405.3	4,222.2
Petroleum refining	32	1,675.0	116.6	1,574.8	666.6	3,120.7
Telecommunications	24	772.0	62.2	1,831.9	669.5	2,546.0
Food and drug stores	23	720.6	13.6	457.3	144.1	3,426.3
Utilities	23	499.7	20.9	1,312.6	301.8	1,085.2
Electronics, electrical equipment	18	686.0	14.4	757.9	229.4	2,728.8
Specialty retailers	13	290.2	12.0	153.8	77.9	1,220.1
General merchandisers	12	540.8	16.0	314.4	95.2	3,068.9
Health care	12	223.2	6.4	238.3	50.8	439.3
Pharmaceuticals	12	301.4	48.2	512.1	239.4	892.8
Other	169	3,822.8	123.0	5,066.4	1,508.7	15,385.8
Financial	130	3,803.0	262.9	46,413.5	2,393.5	7,772.7
Banks: Commercial and savings	58	1,534.8	148.9	30,399.8	1,323.3	4,852.6
Insurance	52	1,689.6	58.8	11,005.0	738.9	1,972.9
Securities	4	103.6	12.5	1,813.2	87.3	135.0
Diversified financials ^a	6	275.9	34.7	2,748.5	162.0	486.9
Trading ^b	10	199.1	8.1	447.1	82.0	325.4

a. All six are US conglomerates with significant financial business (includes General Electric, Fannie Mae, and American Express).

b. Asian and European conglomerates with significant financial business (includes E.ON, Mitsui, Sinochem, Mitsubishi, and Samsung).

Source: Fortune Global 500 dataset, available by subscription at www.fortune.com (accessed on April 25, 2005).

longer if foreign supplies are cut off.²⁵ In addition, the command of sophisticated technology can give a country leverage in a variety of situations short of hostility; put another way, high technology can contribute to diplomatic or military clout. For example, European satellite technology appears to be a useful bargaining chip in its relations with China. For civilian and possibly military reasons, China is eager to acquire access to Galileo, the European constellation of navigation satellites and a competitor to the US global positioning system (GPS) (*Financial Times*, February 24, 2005, 16).

To summarize, in a world of imperfect markets, a strong case can be made that government barriers that protect the domestic market are doubly harmful to the national economy. But a case can also be made that the traditional exceptions to the argument for free trade—the terms-of-trade argument, the infant-industry argument, and the national security argument—acquire greater force (see, for example, Tyson 1992). On balance, the arguments against intervention tell most heavily for production activity, whereas the arguments for intervention have greatest weight in the realm of headquarters services.

Tax Policy Implications

We draw four conclusions for tax policy. First, the United States should tilt its own tax policy to favor the domestic location of headquarters activity.²⁶ In corporate income taxation, the three largest elements of the tilt deserve mention: The United States should adopt a territorial system for taxing active foreign corporate income; it should severely restrict the foreign tax credit; and it should encourage RD&E.

25. Moran (1989) has argued that imperfect competition considerations should prompt the United States to monitor carefully the concentration of sources of supply of militarily important items, in terms of both countries and companies. In his view, the United States should not necessarily insist that all of these items be produced in the United States, but it should insist on diversity of supply. Specifically, he has suggested that the United States take action if fewer than four firms in fewer than four countries control more than 50 percent of the world market. Graham and Krugman (1991) also call for a focus on diversity of supply rather than domestic supply, arguing that the United States should actively encourage inward foreign investment (or compulsory licensing) to avoid dependence on a single supplier, foreign or domestic.

26. In 1991, Peter F. Drucker commented with approval on the Japanese strategy of concentrating production activities abroad and headquarters activities in Japan. According to Drucker, Japanese MNEs were focusing their competitive efforts on accumulating knowledge, primarily through their own research facilities located in Japan. Drucker cites an elder of the Mitsubishi Group as saying, "In another 20 years the entire Mitsubishi Group will be organized around this research institute" (*Wall Street Journal*, October 2, 1991, A12).

As for production work, we conclude that the United States should end the incentive that the current tax system unwittingly provides for MNEs to locate high-technology production abroad rather than in the United States. This incentive arises because the cross crediting of foreign tax credits, under current law effectively exempts foreign royalty and fee income from US tax. At the same time, this income is taxed abroad at very low rates, typically 5 percent withholding taxes. By contrast, analogous technology income earned in the United States pays federal corporate income tax at a marginal rate of 35 percent (perhaps 40 percent of state corporate taxes are counted).

These prescriptions (developed in chapter 6) build on the present reality of an identification between MNEs and their home countries. They also reflect two emerging realities that are weakening this sense of identification: rising global tax competition and so-called stateless corporations.²⁷ Both forces have stimulated the outsourcing of headquarters activities. The new realities indicate that, for corporate managers, considerations of patriotism often take a back seat to considerations of competitiveness.²⁸ Writing in the *Financial Times* (June 12, 2006, 15) and *Foreign Affairs*, Samuel Palmisano (2006), chief executive officer of IBM, advocated a shift in terminology to describe firms such as IBM, calling them “globally integrated enterprises” rather than MNEs. Behind Palmisano’s proposed change in nomenclature lay a deeper purpose: to condition US citizens and their congressional representatives to accept quietly the dispersion of headquarters functions throughout the globe. Such a transformation would serve IBM’s corporate interests and no doubt would be welcomed by countries on the receiving end of RD&E facilities. More

27. UNCTAD (1998) indicates that among the top 100 multinational firms, it is commonplace for more than half of sales, assets, and employees to be located outside the home country. Bearing such trends in mind, more than 15 years ago, Robert B. Reich (1991) advocated a US industrial policy that championed US workers rather than US corporations on the grounds that stateless corporations would soon dominate the economic landscape.

28. In March 1999 the former tax vice president of Intel opined at a Senate hearing that international tax rules are putting US-headquartered MNEs at a competitive disadvantage, testifying, “If I had known at Intel’s founding (over 30 years ago) what I know today. . . . I would have advised the parent company be established outside the US. . . . The degree to which our tax code intrudes upon business decision-making is unparalleled in the world.” That testimony was criticized harshly by then-Senator Daniel Patrick Moynihan (D-NY), who roundly chastised Intel’s testimony on patriotic grounds. According to Martin Sullivan (2003, 419), “there is an increased ability and willingness of US businesses to loosen their legal ties with the United States and not just move operations but also their headquarters offshore. This can happen in any of three ways: First, US businesses may expatriate by inverting their corporate structure and placing US headquarters under a holding company located offshore, preferably in a tax haven like Bermuda or Bahamas. Second, as in the case of Daimler-Chrysler, they may merge with a foreign corporation and choose to locate the new corporate headquarters in the country of the foreign partner. Third, new start-ups or spin-offs, like Accenture, may simply set up their headquarters in low-tax jurisdiction.”

doubtful is whether relocating RD&E and other headquarters functions from the United States to foreign locations would improve the quality of US jobs and the pace of US productivity gains.

These concerns, from a US perspective, are not merely theoretical. Huizinga and Vogel (2006) examined a large panel of some 33,000 M&A events involving European, Japanese, and US companies between 1985 and 2004. The authors found that, for a merger of equals, a decrease of 1 percent in the double tax rate imposed by one country on dividends received from the partner country increased its probability of being the acquiring country by 7.7 percent. In a simulation, the authors found that, by switching from the current foreign tax credit system to a dividend exemption system (territorial system), the United States would have increased the probability of its firms becoming the acquiring companies from 53 percent to 56 percent.

As a corollary of the new global environment, the United States should seek to attract corporate headquarters activity, whether performed by a distinctly Japanese, European, or name-brand US firm. Because of continuing strong links between the historic nationality of firms and the location of their headquarters services, it is usually easier to retain the headquarters activities of established US MNEs than to attract the headquarters activities of foreign MNEs. Nevertheless, US tax law should be designed with the stateless corporation in mind.²⁹

The United States should also seek a regime of technological export neutrality for the use of technical know-how and managerial expertise. Royalties and fees should be taxed the same whether the technology and expertise are used at home or abroad. Current US tax law actually favors using intellectual know-how abroad. There is no good reason to bias the tax system against production within the United States, even though we are more concerned with the strategic advantages of retaining and augmenting headquarters activity than production activity.

According to Corrado, Hulten, and Sichel (2006), the pace of intangible investment in the late 1990s was around \$1 trillion a year, and the stock of US intangible capital was around \$3.6 trillion. Nearly all of this investment outlay is deducted immediately for tax purposes—the correct approach, we think. Our objection centers on the tax-preferred use of

29. One example of head office jobs that have migrated for tax reasons arises in the construction services field. The United States characterizes the source of income as the place where services are rendered, but most territorial jurisdictions, including many developing countries, attempt to tax the architectural, engineering, legal, accounting, and other professional work product based on where it is used (e.g., in the country where a plant is erected). The resulting double taxation may not be offset by the US foreign tax credit, as the construction services firm does not have foreign-source income as measured by US source rules. Hence the best way for the US firm to minimize its taxes may be to move its professional staff to the project site or to a third country.

intangible capital to produce goods and services abroad rather than in the United States. In our view, the home country should be entitled to all tax revenues resulting from applying the stock of know-how generated as a tax-deductible expense, and these revenues should be collected at the same tax rate wherever production takes place. The reasons for rewarding public policy virtue are as compelling for know-how capital as for portfolio capital. Based on this precept, only the residence country should tax royalties and management fees.³⁰ Moreover, the residence country should apply the same tax rate whether the technology is applied to produce goods and services at home or abroad.

Ensuring that the United States obtains tax revenues from royalties and fees, however, will require a strong effort to monitor intrafirm pricing and enforce the arms-length pricing standard, as our recommendation may create further incentives for firms to arbitrage differences in tax rates.³¹ Research on transfer price manipulation indicates that MNEs are sensitive to tax differentials, particularly in markets for differentiated and high-technology products (Bernard, Jensen, and Schott 2006; Eden 2003). In such cases, opportunities for manipulation arise due to the absence of independent price quotations and the market power of the parent firm. Therefore, our third conclusion is that the United States should redouble its efforts to control transfer-pricing abuse.

Fourth, the United States should ensure that its tax policy remains broadly favorable to US exports. The attractiveness of the United States as a production location depends on not only access to foreign markets but also a competitive domestic tax climate. Now that the foreign sales corporation and extraterritorial income exclusion regimes have been repealed (see appendix A4), it is important that US taxation of export earnings be placed on a similar footing with the tax systems of other major exporting countries. Two ways to accomplish this involve the technical details of international taxation (discussed more fully in chapter 6): exempting from taxation the foreign-source portion of export earnings (roughly 50 percent under the so-called export-source rule (see appendix A4) and excluding from subpart F of the Internal Revenue Code the so-called base-company income earned by selling US exports to third countries.

30. For a similar approach, see Grubert (2003), who concludes that “royalties and license fees paid by users of intangible assets in one country to developers of the patents, trademarks, etc., in another should be taxed in the developers’ country. This will lead to a more efficient choice of the location in which the intangible asset is exploited.”

31. Transfer pricing abuse occurs when an MNE artificially alters the price charged to or paid by a foreign subsidiary, for product supplies or technology, to minimize its global tax burden.

Agenda for Modest Reform: A Territorial System

The road to sweeping tax reform is long and arduous, as beneficiaries of the existing system can be counted on to vigorously oppose change. Bearing the political reality in mind, in this chapter we propose moderate reforms confined to US taxation of foreign-source income. In fact, several of our international tax policy goals can be achieved without disturbing the current US system for taxing domestic business income. We recommend changes that would strengthen the United States as a base for multinational enterprises (MNEs). These changes would go a long way toward addressing the challenges of the global economy. However, the US corporate tax rate would not be altered, US rules governing the taxation of foreign MNEs doing business in the United States would be unchanged, and there would be no adjustment of federal taxes for traded goods and services at the US border.

Nearly all commentators agree that US taxation of foreign operations needs reform, but they disagree about the shape that a new system should take. Table 6.1 sketches competing plans and compares them with the existing system. Commentators agree on maintaining the existing system of taxation for international portfolio income—essentially passive income—and income from kindred mobile sources, such as royalties and fees.¹ Taxing these income flows on a current basis without deferral is needed to limit abuse by creative lawyers and their rich clients. Otherwise vast

1. The label of “mobile income” was adopted by the President’s Advisory Panel on Federal Tax Reform (2005) for portfolio interest and dividends, all royalties and fees, and leasing income. Rosenbloom (2001) was among the first advocates of this distinction.

Table 6.1 Comparative plans for international tax reform

Item	Post-AJCA US system^a	President's tax reform panel^b	Grubert and Altshuler: Worldwide taxation	Rosenbloom: Bottom- up taxation	Desai and Hines: Capital ownership neutrality
Income					
Active business profits earned abroad	Taxed at corporate rate once repatriated to the United States as dividends; indefinite deferral allowed	Exempted from US corporate tax	Taxed at corporate rate; no deferral allowed. However, extra revenue would be used to lower the average US corporate rate	Exemption of active business profits earned in a "normal" tax jurisdiction (no exemption for low-tax jurisdictions)	Exempted from US corporate tax
US export profits	Half of export profits can be characterized as foreign-source income and take advantage of the foreign tax credit	Not considered	All export profits characterized as US-source income	Taxed currently	Not considered
FDI interest and royalties, portfolio dividends and interest	Taxed at corporate rate; no deferral allowed; subpart F ensures current taxation of foreign holding companies	These receipts are termed "mobile income" and taxed at corporate rate; no deferral allowed	Taxed at corporate rate; no deferral allowed	Current taxation of passive income not constituting active business profits	"Truly passive income," a subset of subpart F income, taxed at US corporate rate; no deferral allowed

Expense allocation in general	US expenses are deductible from US corporate income, even when allocated to foreign-source income. However, expenses allocated to foreign income reduce the foreign tax credit limit	US deductions disallowed for expenses allocated to exempt foreign income	Expense allocation rules are largely unnecessary: Since all business income is taxed at the same rate, firms have less tax motivation to distort expense allocation for tax reasons	Expenses allocated to exempt income would not be deductible	Not considered
Interest expense	Corporations can elect to use "world-wide fungibility" interest allocation. Under this provision, worldwide interest expense is allocated based on foreign-to-domestic asset ratio of world-wide affiliated group. Otherwise US interest expense is apportioned on the basis of gross income from domestic and foreign sources	Determined by US debt-to-asset ratio versus world-wide group debt-to-asset ratio			

(table continues next page)

Table 6.1 Comparative plans for international tax reform (*continued*)

Item	Post-AJCA US system ^a	President's tax reform panel ^b	Grubert and Altshuler: Worldwide taxation	Rosenbloom: Bottom- up taxation	Desai and Hines: Capital ownership neutrality
Administrative/ headquarters expense	Expenses directly related to a basket of gross income must be allocated to that basket. Expenses not directly related to any basket are apportioned on the basis of gross income in each basket	Divided between domestic income, exempt foreign income, and non-exempt foreign income. Expenses allocated to exempt foreign income may not be deducted. Expenses allocated to nonexempt foreign income may be deducted but also reduce the foreign tax credit (FTC) limit	All administrative and headquarter expense incurred in the United States is allocated to US income		
Research, development, and experimentation (RD&E) expenses	Expenses directly related to a basket of gross income must be allocated to that basket. Expenses	All RD&E expense may be deducted. For FTC purposes, expenses are allocated between	All RD&E expense incurred in the United States is allocated to US income		

	not directly related to any basket are apportioned on the basis of gross income in each basket	domestic and foreign income. Expenses allocated to foreign income reduce the FTC limit for "mobile income"			
Foreign tax credit	Allowed but limited by potential US tax liability for each basket of income	FTC allowed for foreign taxes on "mobile income." Active "foreign business income" does not carry credits since the income is exempt from US tax	Allowed, subject to FTC limit equal to overall US tax liability on the foreign income	Foreign taxes on exempt income would not be allowed as a credit, but a credit would be allowed for taxes on nonexempt income	Not considered
Income categories	Income divided into active income (dividends and royalties) and passive income. Income from all countries aggregate into one basket or the other for FTC limit purposes	Single, overall basket for "mobile income"	All income considered part of a single basket with a single FTC limit	Rules similar to those that govern transfer pricing would determine classification of income	Not considered

(table continues next page)

Table 6.1 Comparative plans for international tax reform (*continued*)

Item	Post-AJCA US system^a	President's tax reform panel^b	Grubert and Altshuler: Worldwide taxation	Rosenbloom: Bottom- up taxation	Desai and Hines: Capital ownership neutrality
Carry-forward/ carry-back	Excess credits can be applied one year back, 10 years forward	Not considered	Not considered	Not considered	Not considered
Financial entities	Special rules permit financial service companies to defer financial income, even though this in- come would be cur- rently taxed if earned by a non-financial company	Special rules allow financial institu- tions to exempt income "earned though active busi- ness operations abroad," even though this income would be currently taxed if earned by a nonfinancial company	Not considered	Not considered	Not considered
Corporate tax rate	35 percent	31.5 percent	28 percent	Not considered	Not considered

a. The American Jobs Creation Act (AJCA) will be fully phased in by 2009.

b. The tax advisory panel considers restructuring of the entire US tax system; we concentrate on the changes relevant to international business taxation.

Sources: AJCA, available at <http://thomas.loc.gov>; Grubert and Altshuler (2006); President's Advisory Panel on Federal Tax Reform (2005); Desai and Hines (2004); Rosenbloom (2001).

avenues would be opened for wealthy US taxpayers to avoid the individual income tax. If portfolio income flows could escape US taxation on a current basis, interest and dividends, fees paid to entertainers and sports figures, and even options for chief executive officers would be lodged in foreign corporate shells, to be taxed by the United States, if at all, only when remitted to the beneficial owners. In short, to preserve the integrity of the individual income tax system, mobile income of various kinds must be taxed currently. This much is agreed and was reflected in the recommendations we offered in chapter 4.

With respect to the taxation of “active” business profits from overseas sources, however, the competing plans move in opposite directions. The President’s Advisory Panel on Federal Tax Reform (2005) released a plan that would exempt active foreign business income from US taxation altogether, while maintaining current taxation of “mobile income.” The panel argued that its plan would improve the competitiveness of US firms operating abroad and remove the bias against repatriation of overseas income.² Like any territorial system, the panel’s plan would create incentives to shift income to low-tax jurisdictions and would thus need vigorous enforcement of transfer pricing rules and other antiabuse measures.

By contrast with the President’s Advisory Panel, Grubert and Altshuler (2006) recommend moving the United States firmly toward current worldwide taxation for all foreign-source income by eliminating deferral for active business profits earned abroad. According to Grubert and Altshuler, because all income that US-based MNEs earned would be taxed at the same rate, their plan would greatly reduce tax-planning incentives and the complex administrative measures needed to police transfer pricing, interest stripping, and other income-shifting schemes. Their argument is largely but not entirely correct. It assumes that foreign tax authorities would recognize all expenses allocated by the Internal Revenue Service (IRS) to foreign income as a legitimate business deduction. In the past, however, this has not been the case. When foreign authorities deny a deduction for an expense allocated by the United States, the expense is stranded and may have no value for reducing corporate income taxes in any jurisdiction. Moreover, because the foreign tax-credit limit remains a feature of the Grubert and Altshuler plan, income shifting would still appeal to firms in an excess-credit position.³

2. The panel’s plan is similar to that proposed by the Joint Committee on Taxation (JCT 2005), summarized in appendix A3. Grubert and Altshuler (2006) review the panel’s plan and pronounce it preferable to the current system, though it differs sharply from the worldwide taxation concept that they finally endorse.

3. Grubert and Altshuler (2006) estimate that 30 percent of total foreign-source income would be in an excess-credit position. Oil and gas corporations dominate the likely list of excess-credit companies.

David Rosenbloom (2001) takes a different tack. He would divide the world between normal and low-tax jurisdictions and distinguish between “active” and “passive” income. “Passive” or “mobile” income, wherever earned, would be taxed currently by the United States, allowing foreign tax credits for both direct and indirect (“deemed-paid”) foreign taxes. However, in Rosenbloom’s plan, “active” business profits earned by US affiliates operating in normal jurisdictions would be exempt from US taxation. US expenses allocated to the exempted income could not be deducted from US income, and no foreign tax credits would be allowed on such income. On the other hand, all business profits, “active” or “passive,” earned in low-tax jurisdictions—not only classic tax havens but also countries such as Ireland and Singapore—would be taxed currently by the United States, and foreign tax credits would be allowed on this income.

Martin Sullivan (2006) embraces Rosenbloom’s approach. He observes that in 2004, US affiliates in low-tax jurisdictions—those with statutory tax rates 20 percentage points or more below the US rate—reported 30 percent of before-tax profits of all US affiliates, though they had only 13 percent of property, plant, and equipment and only 15 percent of employment. To Sullivan, the contrast is ample evidence of tax avoidance, harmful not only to US fiscal revenues but also to production and employment in the United States.

Based on one version of their capital ownership neutrality paradigm (the NON variant), Desai and Hines (2004) argue that the United States should eliminate its taxation of active business income earned abroad, whether it is earned in normal or low-tax jurisdictions. The goal of capital ownership neutrality is to ensure that no MNE, whatever its home base, is disadvantaged by home-country taxation when it acquires a subsidiary abroad. This prescription suggests a territorial system as a solution; otherwise, a US MNE would be disadvantaged as a potential bidder for a subsidiary firm abroad if it faced competition from a foreign MNE from an exemption country. Because the capital ownership neutrality paradigm is drawn broadly, Desai and Hines do not delve into the details of allocating expenses or avoiding abuse.

Grubert and Altshuler (2006), Rosenbloom (2001), Sullivan (2006), and kindred scholars make a strong case, but in our view, it rests on a fundamental flaw, namely, that a desirable state of worldwide tax affairs would include corporate taxation modeled along the lines of Organization for Economic Cooperation and Development (OECD) experience.

For reasons spelled out in earlier chapters, we are not enamored of corporate income taxation, nor do we believe that the United States can persuade emerging countries to adopt the OECD tax model simply by imposing the US tax on corporate income earned in low-tax jurisdictions. Instead, we urge the United States to adopt a tax system that advances US interests rather than curtailing the presence of US affiliates in low-tax countries.

In short, we sympathize with the goals of the paradigm advocated by Desai and Hines but perhaps not with the particulars of their approach. We believe that US tax policy should foremost seek to retain and capture headquarters activity. This goal implies not only a shift toward a territorial system but also favorable expense allocation rules. At stake are interesting and well-paying jobs, externalities in human capital formation, opportunities to project cultural values around the world, and the national security advantages of being a nerve-center country.

The current US tax regime contains three features that create an inhospitable tax environment for headquarters activities of US-based MNEs: (1) an incentive to locate high-technology production abroad; (2) unfavorable expense allocation rules; and (3) an unfavorable tax climate for production and sales income earned abroad. A territorial system of taxation addresses all three of these defects.

Critics fear that under a territorial system, low foreign tax rates would induce US firms to shift production activity overseas at the cost of domestic investment and employment. Of particular concern are the low-tax and tax-haven countries identified in table 6.2. In an important dimension we agree with this concern: The current system provides an unintended but very strong incentive for US-based MNEs to locate high-technology production outside the United States, as royalties and fees earned from production in tax-preferred locations abroad pay a much lower total tax rate—foreign plus US—than do royalties and fees earned from production in the United States. Retaining the present US tax system involves another danger as well, namely, that an unfavorable climate will drive headquarters activity to foreign locations. Underlying forces—rapid growth and cost advantages—are leading inevitably to a larger share of MNE production activity in China, India, Brazil, and other emerging countries, even if the US tax bias that favors high-technology production abroad is eliminated.⁴ On top of this natural shift, an unfavorable US tax climate for far-flung production and sales activity could prompt US MNEs to shift their headquarters activities to sites abroad as well, encouraging nascent firms to incorporate outside the United States. In other words, as we see the world, the central policy question is whether the United States is adding a tax push to the growth pull of foreign locations. The possibility that a tax push might accelerate the loss of MNE headquarters operations in US cities cannot be lightly dismissed.

4. General Electric, for example, announced its intention to raise the proportion of its overseas production from 41 to over 50 percent by 2009. GE executives cited the relative cost and availability of US engineers versus their counterparts in high-growth, low-cost countries such as China and India as a key factor in their decision (“GE to Shift Output from US,” *Financial Times*, July 27, 2006, 15).

Table 6.2 Operations of US multinational enterprises in low-tax and tax haven countries as a share of total operations (percent)

Country	Total assets	Net property, plant, and equipment	Sales	Net income	Compensation of employees	Employees
All low-tax and tax haven countries ^a						
1982	22.1	4.8	11.9	27.1	3.4	3.7
2004	26.0	6.3	16.8	33.5	5.7	5.0
Major low-tax countries, 2004 ^b	10.5	4.8	13.7	18.5	5.2	4.7
Hong Kong	1.8	0.7	1.9	2.1	1.1	1.4
Ireland	3.4	1.7	3.7	7.6	1.3	1.0
Panama	0.1	0.2	0.1	0.1	0.1	0.2
Singapore	1.6	1.3	3.8	3.6	1.1	1.3
Switzerland	3.6	0.9	4.2	5.1	1.6	0.8
Selected tax haven countries, 2004 ^b	15.3	1.4	2.9	14.8	0.4	0.3
Bahamas	0.2	0.1	0.1	0.1	0.0	0.0
Barbados	0.2	0.0	0.1	0.6	0.0	0.0
Bermuda	5.3	0.6	1.5	6.1	0.1	0.0
Liberia	0.0	0.1	0.1	0.1	0.0	0.1
Luxembourg	5.9	0.2	0.3	4.7	0.2	0.1
Netherlands	0.6	0.0	0.0	0.7	0.0	0.0
Antilles						
UK Caribbean Islands	3.1	0.4	0.8	2.5	0.1	0.1

a. Total 1982 and 2004 values for tax havens include information for Andorra, Anguilla, Antigua, the Bahamas, Bahrain, Barbados, Belize, Bermuda, Cyprus, Dominica, Gibraltar, Grenada, Hong Kong, Ireland, Jordan, Lebanon, Liberia, Liechtenstein, Luxembourg, Macau, Malta, the Netherlands Antilles, Panama, Singapore, St. Kitts, St. Lucia, St. Vincent and the Grenadines, Switzerland, the UK Caribbean Islands, and Vanuatu.

b. Totals may differ from the sum of country entries due to rounding.

Sources: For 2004, Bureau of Economic Analysis, US Direct Investment Abroad: Financial and Operating Data for US Multinational Companies, available at www.bea.gov; for 1982, Hines (2004).

Table 6.3 outlines major differences between US taxation of international income and the systems of several competitors. The United States already embraces many territorial elements under the nominal umbrella of worldwide taxation, but other countries have moved even closer to a territorial system. The United States defines passive income (subpart F of the Internal Revenue Code) more broadly than do Japan, Germany, and France; the United States does not allow a tax-sparing credit to its MNEs, unlike Japan, Germany, the Netherlands, France, and many other OECD countries (Hines 1998);⁵ and the United States requires its MNEs to attribute a greater proportion of their research, development, and experimentation (RD&E) and administrative costs to overseas operations. In practice if not in form, the tax systems of Brazil, China, India, and other emerging industrial powers are probably as lenient as the Netherlands toward foreign income earned by their MNEs.

The Territorial System

Under a territorial system, the United States would tax business income earned from production and sales in the United States but not business income earned by US firms from production and sales in foreign countries.⁶ This step would put US MNEs on a competitive tax footing with their European and Asian counterparts in terms of production in third countries.⁷

Explicit US adoption of a territorial system would undoubtedly trigger repercussions in other countries. No longer could nations justify their

5. A tax-sparing credit is a credit for taxes waived by the host country, ordinarily as part of an industrial development program. If the United States entered into tax-sparing treaties, US MNEs could compete in countries such as Brazil on equal tax terms with Japanese or German multinationals. Hines (1998) studied the effect of tax-sparing on the location and performance of foreign direct investment (FDI) and found that Japanese firms are subject to significantly lower tax rates than are American counterparts in countries with which Japan has tax-sparing agreements.

6. The distinction for tax purposes between incorporated subsidiaries and unincorporated branches would be eliminated, as the parent firm would choose between them under the current section 7701 regulations (the so-called check-the-box regulations).

7. A territorial system would also reduce tensions in the day-to-day business operations of joint ventures because important cash management and investment decisions would no longer raise subpart F issues for the US venturer. Also, the disposition of jointly held businesses would create fewer tax problems. According to the New York State Bar Association (NYSBA 2002), the venturer based in a territorial system could realize its proceeds from the sale of a business without home country tax, while the US MNE, under the current tax system, could not. Differences of this type have killed transactions that otherwise made nontax economic sense.

Table 6.3 Comparison of systems for taxing foreign-source income

Item	United States	Japan	Germany	France	Netherlands	Brazil	China	India	Singapore
Tax jurisdiction	Global	Global	Partially territorial	Territorial	Territorial	Global in form	Partially territorial	Global in form	Territorial
Exemption of foreign-source income	No	No	Yes ^a	Yes ^b	Yes ^c	No	No	No	Yes
Deferral of foreign-source income	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
Current taxation of tainted income	Yes, under subpart F, foreign investment Company or the personal holding company regime	Yes	Yes ^d	Yes, for "privileged tax system" countries; test is "business conducted abroad"	Yes ^e	Yes	Yes	Yes	Yes, except for dividends, branch profits, and service income from countries with less than 15 percent rate, upon repatriation
Foreign tax credit ^f	Against only federal tax	Against both federal and local tax ^g	Against only federal tax	Against only federal tax ^h	Against only federal tax	Yes	Yes	Yes	Yes

Foreign tax credit limitation	Overall; basket-of-income limitations	Overall ⁱ	Varies by country	n.a.	Overall	Overall; excess credits offset social contribution on profits	Overall	Overall	Overall
Carry-forward of excess credit	10 years	3 years	None	n.a.	None	None	None	None	None
Carry-back of excess credit	1 year	3 years	None	n.a.	None	None	None	None	None
Foreign subsidiary investment in home country, including loans to the parent	Generally taxed as a deemed dividend (Sec. 956)	Not taxed	Not taxed	Not taxed	Not taxed	Not taxed	Not taxed	Not taxed	Not taxed
Tax-sparing credits	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Allocations of deductions to foreign-source income for purposes of determining the foreign tax credit	Yes (see appendix A8)	Yes ^j	No specific rules	n.a.	No specific rules	No specific rules	No specific rules	No specific rules	No specific rules

(notes and sources next page)

Notes to table 6.3

n.a. = not available

- a. Exemption method de facto applies under domestic German law for dividends (95 percent exemption) and by treaty for branch and dividend income (full exemption).
- b. Foreign dividends are taxable, or 95 percent exempt if an election for participation exemption is filed; foreign-branch income is generally fully exempt (there are four limited exceptions to this rule, including branches of French companies organized in tax havens).
- c. Foreign dividends are exempt under the “participation exemption” regime except for dividends received from “low-taxed passive subsidiaries” (generally, subsidiaries where more than 50 percent of their profits consist of portfolio type investments and their tax burden does not amount to at least 10 percent of their profits). Branch income earned by a Dutch resident company is subject to Dutch corporate tax, but such tax is effectively avoided by reducing the worldwide Dutch tax imposed on the company by the ratio of foreign income (subject to foreign income tax) to total worldwide income.
- d. Taxation of low-taxed “base-company income” of a controlled foreign corporation (CFC) is current. “Low tax” is defined as an effective tax rate of less than 25 percent; base-company income is generally defined as passive income; and a CFC is defined as 50 percent (vote or value) or more ownership by German residents.
- e. Foreign dividends (if not exempt under the “participation exemption” regime), interest, and royalties are taxable but relieved by Dutch tax treaties or unilaterally if the payer of the income is a resident of a designated developing country.
- f. All global systems limit the foreign tax credit in terms of the ratio that foreign-source income bears to total income times the precredit tax liability on total income.
- g. The credit against the local tax is limited to 5 percent (in the case of the prefectural inhabitants tax) or 12.3 percent (in the case of the municipal inhabitants tax) of the federal tax credit statutory limit.
- h. Individuals are allowed a deduction for qualifying foreign taxes paid. In practice, French companies are rarely subjected to French tax on overseas income unless operating in a “privileged tax system” where foreign tax paid is very small.
- i. Credit is limited to 90 percent of tax liability on worldwide income.
- j. In computing foreign-source income, specifically allocable expenses are deducted from foreign-source gross income. General and administrative costs and other common expenses are apportioned on a reasonable basis. Interest expense is apportioned on the basis of foreign assets to total assets.

Sources: BNA Tax Management’s Tax Management Portfolio 962-2, Business operation in Germany, 2007; Tax Management Portfolio 973-2, Business operation in the Netherlands, 2007; Tax Management Portfolio 969, Business operation in Japan, 2005; Tax Management Portfolio 961-2, Business operation in France, 2007; Tax Management Portfolio 966-3, Business operation in India, 2006; Tax Management Portfolio 957-2, Business operation in the People’s Republic of China, 2006; Tax Management Portfolio 954-3, Business operation in Brazil, 2006; Tax Management Portfolio 983-3, Business operation in Singapore, 2007; www.fei.org (accessed September 4, 2005); Billings (1990); Joint Committee on Taxation (JCT 2006).

corporate taxes by arguing that revenue was simply being transferred from the US Treasury and not from corporate coffers. Grubert and Altshuler (2006) contend that, as the leading economic power, the United States has an obligation to hold an umbrella over foreign tax systems, in essence sheltering them from competition. We disagree. Given the rise of MNEs based outside the United States, we think that the US umbrella has too many holes to provide effective shelter, and we do not think creating a new umbrella from OECD fabric is feasible.

We acknowledge that a US move toward territoriality would exert a downward force on corporate income taxation worldwide (Mullins 2006). In our view this would be a good outcome, as it could relieve the excessive taxation of capital that now characterizes many fiscal systems. Meanwhile, so long as it remains in place, the tattered US tax umbrella disadvantages the United States as a location for corporate headquarters and preferentially encourages high-technology production abroad. Our specific recommendations for shifting toward a territorial system entail the following changes:⁸

- Dividends and interest received by a US parent corporation owning more than 50 percent of the voting shares of an active foreign corporate subsidiary would be exempt from US taxation. The same rule would apply to unincorporated branch profits and capital gains from selling such branches and affiliates. No foreign tax credits would arise from the enumerated income streams.⁹ For US tax purposes, neither the foreign operating losses of these affiliates nor foreign capital losses incurred in selling shares or assets would be recognized.
- If a foreign affiliate did not meet a stringent active business test, the United States would currently tax all of its income, whether it was distributed as dividends, interest, or repatriated branch earnings. The reason for enunciating a bright line distinction between active and passive foreign operations is to discourage firms from sheltering portfolio income earned abroad from residence taxation in the United States.

8. Our proposal is similar in several respects to the international business tax proposal laid out in chapter 6, “Simplified Income Tax Plan,” of the final report of the President’s Advisory Panel on Federal Tax Reform (2005). See appendix A3.

9. There are two reasons not to include controlled foreign corporations (CFCs) owned 10 to 50 percent by a US parent corporation in the exemption system. Doing so would open the door for passive investors holding, say, 25 percent of the shares, to take advantage of the territorial exemption. And it is more likely that a US parent corporation with a majority stake would carry on significant headquarters operations in the United States.

- When the United States taxed the passive earnings of foreign affiliates currently, a foreign tax credit would only be allowed for foreign withholding taxes actually paid on remitted dividends, interest, and branch earnings. Unlike current law, no indirect (or deemed-paid) foreign tax credit would be allowed for underlying taxes imposed by the host country on corporate earnings. The rationale for ensuring current US taxation of passive operations, and for disallowing the indirect foreign tax credit, is that the US parent corporation could have chosen to receive the income streams directly without channeling them through another country. Hence there is no reason for the United States to share its tax revenue with a host country through the indirect foreign tax credit. Moreover, the foreign tax credit for any foreign withholding tax on repatriated income should be capped at 10 percent and eventually phased out (see chapter 4). The parent company receiving passive income could still deduct foreign withholding taxes.
- A low threshold of tainted income would cause a foreign affiliate to fail the active business test. Tainted income would include net interest income (interest receipts minus interest payments); dividends from unrelated companies; lease income on moveable equipment, such as airplanes, ships, and drilling rigs; and royalty and fee income payable for the use of intellectual property rights.
- Capital gains on the sale of an active foreign affiliate owned more than 50 percent (or from the sale of a foreign branch) by US parent firms would be exempt from US taxation, and no foreign tax credit would be permitted for such capital gains. Capital gains realized on the sale of other foreign assets would be fully taxed in the United States, but a foreign tax credit for the source-country withholding tax would be allowed, capped at 10 percent. As with passive dividends and interest, the foreign tax credit for withholding taxes on capital gains should eventually be phased out (though a deduction would be allowed). The United States would not recognize capital losses incurred by selling an active business subsidiary or branch. However, capital losses incurred on the disposition of other foreign assets could be used (as under current law) to offset capital gains.
- All RD&E incurred in the United States would be deductible against US business income, provided the firm claiming the deduction owns the resulting intellectual property. After a reasonable period of experience with the new system, the Treasury would assess the net US income or loss, and thus US tax revenue collected or foregone, from licensing or selling intellectual property to foreign firms. Armed with this information, Congress could periodically evaluate the merits of the approach we have advocated.

- General and administrative expenses (G&A) incurred in the United States (management, legal, financial, and accounting) would be fully deductible against US business income. This would encourage locating headquarters activities in the United States. As with RD&E, Treasury and Congress would evaluate the consequences of allocating G&A solely to US business income after a period of experience with the new system.
- Foreign royalties and fees paid to a US company and foreign purchases of intellectual property rights would be taxed by the United States, but a foreign tax credit would be allowed for source-country withholding taxes, capped at 10 percent.¹⁰ Because market prices seldom exist to use or sell intellectual property rights or administrative services, and because US parent firms will be tempted to characterize taxable royalties and fees as exempt dividends and interest, the IRS should continue to support a well-staffed antiabuse unit to monitor such income flows.
- There are two reasons to allow a permanent foreign tax credit, capped at 10 percent, for withholding taxes on royalties, fees, and the sale of associated intellectual property rights but not for passive interest and dividends. First, the claim of the source country regarding creating a profitable market for applying intellectual know-how seems stronger in the case of royalties and fees. Second, imbalances between the United States and developing countries regarding flows of intellectual property income are extreme, making some concession to source-country taxation politically necessary.
- Interest expenses incurred by US parent firms would be allocated in part to exempt dividend and interest income received from active foreign affiliates. The amount so allocated would be disallowed as a deduction from US business income. Unlike RD&E and G&A expenses, we see no benefit to the United States in encouraging US parent firms to act as bankers for their active foreign affiliates, as the return-income flows of dividends and interest would be exempt under a territorial system.
- To ensure the global competitiveness of US banks, insurance companies, and kindred companies, bona fide financial institutions would qualify for safe-haven rules as if they were conducting an active business through their foreign affiliates, even though they earn

10. As necessary, US tax treaties would be renegotiated to reflect the 10 percent cap on creditable withholding taxes.

otherwise tainted income.¹¹ Stringent rules would identify eligible financial institutions.¹²

- The foreign-source portion of export earnings would be exempt from US taxation. Foreign base company sales income and foreign base company service income, now subject to US taxation under the provisions of subpart F, would no longer be regarded as tainted income.
- This study does not address the taxation of wage and salary income earned abroad. However, we suggest that the foreign tax credit continue to be available to individuals, so long as the United States maintains its historic posture of taxing the worldwide income of US citizens and residents. Of course, all US citizens and residents should be subject to current US taxation of their portfolio income, including capital gains, whether earned from US or foreign sources.

Adopting a territorial system with such features would place US-based MNEs in the same position as most of their foreign competitors. At the same time, it would greatly simplify taxation of international income. In the next few sections we highlight advantages of the proposed reforms.

Tax Bias Against RD&E and G&A Activity

Over the years, the United States has tinkered frequently with its tax treatment of RD&E expenses incurred in the United States, typically by changing the percentage allocable to foreign-source income. Under the current system, any RD&E expense allocated to foreign-source income reduces the foreign tax credit limit, thus working as a penalty on companies in an excess-credit position. Seldom does a company enjoy compensating tax

11. Section 954(h), added by the Tax Relief Act of 1997 on a temporary basis, generally excludes from taxation under subpart F foreign income derived by a financial institution in the active conduct of its business. This provision was the center of controversy at the time it was enacted. President Bill Clinton thought that the exemption was too broad and decided to use the line-item veto to eliminate the active financing income provision contained in the Taxpayer Relief Act of 1997. However, the Supreme Court held the line-item veto to be unconstitutional (*Clinton v. City of New York*, 118 S. Ct. 2091). Congress modified and extended the active financing exception as part of the Tax and Trade Relief Extension Act of 1998 (PL 105-277), but applied the provision only to tax years beginning in 1999. The Ticket to Work and Work Incentives Improvement Act of 1999 (PL 106-170) provided another two years of relief. On March 9, 2002, President George W. Bush signed the Job Creation and Worker Assistance Act of 2002 (PL 107-147), which extended the active financing exception through December 31, 2006. The Tax Increase Prevention and Reconciliation Act of 2005 (PL 109-222) extended this exception through January 1, 2009.

12. One rule worth considering is that a US corporate group should pay at least 80 percent of its distributed interest and dividends to unrelated parties to be considered a bona fide financial institution. That way, a bona fide financial institution could not be nested within a larger MNE corporate group, functioning as a clearing house for loans between group members.

relief abroad: Foreign jurisdictions rarely recognize the allocated expense as a legitimate business deduction, as the RD&E activity took place in the United States.

By contrast with the US approach, other industrial countries typically allow 100 percent of RD&E expenses incurred domestically to be allocated to domestic income (PricewaterhouseCoopers 1991, 118). Between 1981 and 1985 Congress mandated a similar 100 percent allocation rule. In the same spirit, we propose that 100 percent of RD&E expense incurred domestically be allowed as a deduction against US business income. In our view, the revenue losses incurred when RD&E expenditures take place on US soil will ordinarily be recouped when foreign royalties and fees are paid to US parent firms. We may be too optimistic, and if so the tax rule could be revised after a reasonable period for evaluation. Meanwhile, disallowed deductions for RD&E expense will not be a cause for MNEs to relocate their research activities to offshore locations.

Similar arguments apply for a rule that allows the deduction of 100 percent of G&A expenses, which include compensation for top executives plus outlays for departments devoted to finance, accounting, engineering, legal, and similar activities. Currently G&A expenses are divided between US- and foreign-source income, even though, as with RD&E expenses, foreign jurisdictions seldom recognize the part allocated against foreign income as a deduction because the activity took place in the United States. Hence, under current rules, MNEs may incur a slight tax disadvantage by carrying out headquarters functions in the United States. In our view, all G&A expense for activity conducted in the United States should be deductible against taxable corporate income. This will encourage the siting of headquarters activity in the United States. Again, as with RD&E, the Treasury should monitor the relationship between G&A expenses incurred and fees collected by the parent company. As necessary, the tax rule could be revised after a reasonable period for evaluation.

Tax Bias Against US Production

Under the current foreign tax credit system, excess credits on foreign corporate earnings can be used to shield technology income from US taxation through a process known as cross crediting.¹³ Royalties and management

13. Cross crediting is largely a feature of the overall limit on the foreign tax credit, as opposed to the per-country limit (Hufbauer 1992). Bergsten, Horst, and Moran (1978, chapter 6) joined other commentators in recommending a per-country rather than an overall limit on the foreign tax credit. From the standpoint of tax neutrality, the argument runs that it makes no sense to shelter production and profits in low-tax country B from US corporate taxation by way of foreign tax credits derived from production and profits in high-tax country A. The Tax Reform Act of 1986, with its baskets-of-income approach, moved toward Bergsten, Horst, and Moran's recommendations, but the AJCA of 2004 returned almost completely to the previous system.

fees are often subject to little or no tax in the foreign country in which the license or service is used. Under the network of US tax treaties, withholding rates are usually set at zero or 5 percent. However, under current law, because royalty and fee income streams are grouped in the general limitation basket, they can absorb excess foreign tax credits generated by other high-taxed general limitation income. The result is that the United States collects almost no tax on foreign royalties and fees.

Because of these interactive tax features, royalties and fees earned abroad are often taxed at a lower rate than comparable technology income earned in the United States. This creates a perverse incentive to exploit intellectual property overseas rather than in the United States. Consolidating the number of foreign tax credit baskets from nine to two, beginning in 2007 under the American Jobs Creation Act (AJCA), increases the opportunities for cross crediting, giving further incentive to exploit technology abroad rather than in the United States.

To illustrate, royalties and fees paid by a Japanese subsidiary to a US parent corporation would be fully deductible from the Japanese firm's corporate income (taxed at a 40.7 percent tax rate in 2005) and would not be taxed by Japan when paid to the US parent firm.¹⁴ If the US parent were in an excess foreign tax-credit position from foreign taxes incurred on dividend income from Japan, Germany, or elsewhere, the royalty and fee income would then garner a zero US federal tax.¹⁵ In contrast, technology income earned from producing the same item in the United States would be taxed, like other corporate income, at a 35 percent federal rate—about 40 percent in total, including state corporate income taxation.

The rising commercial importance of intangible assets, along with royalty and fee income, makes the tax policy toward them an important issue.¹⁶ During the 10-year period between 1996 and 2005, US MNEs increased their receipts from exports of goods and services by 50 percent, but increased their receipts from exports of technology—namely,

14. Article 12 of the 2004 US-Japan tax treaty establishes a zero withholding rate.

15. Moreover, the US parent corporation can usually arrange its affairs to receive technology income from abroad through a US subsidiary incorporated in a state (such as Delaware) that does not tax such income.

16. Like ourselves (see Hufbauer 1992), Fleming and Peroni (2004) regard the ability of US MNEs to lower their effective US tax rate of foreign royalty and fee income through cross crediting as fundamentally inconsistent with the core purpose of the foreign tax credit provisions. Grubert and Mutti (2001, 35) similarly conclude that “the taxation of this royalty stream from abroad will affect the advantage of foreign investment compared with exploiting the intangible or making some other investment in the United States, where the return would be fully taxable.”

royalties and license fees—by 73 percent.¹⁷ The use abroad of US technology is generally good for both US firms and the world economy, but we see no sense in a tax bias that encourages high-technology production abroad at the expense of high-technology production in the United States.

Tax Bias Against Repatriation

By shifting to a territorial system, US MNEs would no longer need to calibrate dividend repatriations to minimize their US tax liability or use hybrid entities to avoid subpart F rules. More important, US MNEs would not forgo investment opportunities in the United States for the sake of avoiding taxes (Grubert and Mutti 2001).

Under the current system, parent corporations can defer paying US tax on foreign-source income by a simple device: not repatriate dividends from their foreign affiliates. This creates a tax incentive for US companies to hold income overseas, even though it could earn better returns if repatriated and invested in the United States. A recent “experiment” suggests that the bias against repatriation could be substantial. As part of the AJCA, the tax on dividend repatriations was temporarily lowered to 5.25 percent for calendar year 2005, and Federal Reserve data indicate a very strong response: Repatriated foreign profits shot up from \$35 billion in 2004 to \$217 billion during the tax holiday in 2005, a spike of more than 600 percent.¹⁸

If the policy were made permanent, the huge increase seen in 2005 would not be maintained, as repatriated earnings in 2005 represent both pent-up unrepatriated profits from past years and tax planning for future years. However, the spike confirms that current US tax policy suppresses the repatriation of income to the United States. Since a territorial system would no longer tax repatriated dividends, the incentive to keep funds overseas for tax planning purposes would be removed, possibly increasing the long-term flow of investment dollars to the United States. Moreover, as stated above, shifting toward a

17. Total exports of goods and services from the United States were \$1,275 billion in 2005 compared with \$851 billion in 1996. Total receipts of royalties and license fees amounted to \$57 billion in 2005 compared with \$33 billion in 1996. See Bureau of Economic Analysis, *Survey of Current Business*, International Data, Table E.1 (December 2006) and Table F.1 (December 1998), available at www.bea.gov.

18. Experienced tax practitioners believe that the Federal Reserve Data flow of funds data substantially understates the actual spike in repatriations. See Federal Reserve Flow of Funds, table F7, 2006, available at www.federalreserve.gov.

territorial system would simplify the complex US system of taxing international income.¹⁹

The “Runaway Plant” Specter

An old argument against territorial taxation, advanced in the Burke-Hartke debate of the 1970s (see appendix A1) and echoed today when Lou Dobbs denounces offshore outsourcing, is the specter of “runaway plants.” Instead of making goods and services in the United States and selling them abroad, so it is said, “disloyal” and “greedy” US corporations make products abroad for sale into the US market, and they would do more of the same under a territorial tax system (JCT 2003b) because the shelter from US taxation of overseas income would become more secure.

Such fears are exaggerated. Four aspects of the international economy must be considered to evaluate the true dimensions of the specter of the “runaway plant”: the “home bias” of US-based MNEs, the export consequences when US firms produce abroad, the impact of tax changes on US investment, and the potential competition between US-based MNEs and foreign firms in serving the US market.

“Home Bias” and US Employment

Despite globalization, US-based MNEs still exhibit a strong home bias, conducting the bulk of their activities and hiring most of their workforce in the United States.²⁰ As described in table 6.4, in 2004 US parent firms accounted for 68 percent of sales by the MNE corporate group and 71 percent of its capital expenditures, and US-based MNEs employed 72 percent of their worldwide workforce in the United States. All of these ratios have slowly declined over the past two decades (again see table 6.4)

19. In February 2005 Thomas Neubig, national director of quantitative economics and statistics for Ernst & Young LLP, Washington, unveiled a survey of 41 large US MNEs, 25 of which are Fortune 100 companies. The survey showed that transfer pricing, the foreign tax credit, and subpart F issues are among the greatest challenges for compliance. Nearly 70 percent of the companies said that the United States has the highest income tax and compliance costs, followed by the United Kingdom, France, Brazil, and Germany. According to the survey, Singapore, Ireland, Hong Kong, Japan, and Switzerland were listed as having the lowest costs. See “Experts, Practitioners Call for Changes to Liberalize US International Tax Rules,” *Daily Tax Report*, February 11, 2005, available at www.bna.com. However, even with the reforms we recommend, the international dimension of the US tax system would remain a far cry from the simplicity claimed by flat-tax advocates.

20. By contrast, among the top 100 MNEs worldwide, it is commonplace for more than half of sales, assets, and employees to be located outside the home country. See table II.1 in United Nations Conference on Trade and Development, *World Investment Report 1998* (UNCTAD 1998).

Table 6.4 Employment, capital expenditure, and sales by nonbank US multinational enterprises (MNEs), 1988–2004

Year	Employees				Capital expenditure				Sales ^a			
	US MNEs total	US parents	Foreign affiliates	Share of employees by US parents	US MNEs total	US parents	Foreign affiliates	Share of expenditure by US parents	US MNEs total	US parents	Foreign affiliates	Share of sales by US parents
	(thousands)			(percent)	(billions of dollars)			(percent)	(billions of dollars)			(percent)
1988	22.5	17.7	4.8	79	223.8	177.2	46.6	79	3,756.1	2,828.2	927.9	75
1990	23.8	18.4	5.4	77	274.6	213.1	61.5	78	4,452.0	3,243.7	1,208.3	73
1992	22.8	17.5	5.3	77	272.0	208.8	63.2	77	4,622.5	3,330.9	1,291.6	72
1994	24.3	18.6	5.7	77	303.4	231.9	71.4	76	5,425.9	3,990.0	1,435.9	74
1996	24.9	18.8	6.1	76	340.5	260.0	80.5	76	6,347.6	4,479.0	1,868.6	71
1998	26.6	19.8	6.8	74	411.2	317.2	94.0	77	6,942.0	4,970.1	1,971.9	72
2000	32.1	23.9	8.2	74	506.9	396.3	110.6	78	9,202.6	6,695.2	2,507.4	73
2002	30.4	22.1	8.3	73	443.4	333.1	110.3	75	8,853.4	6,337.8	2,515.6	72
2004	29.6	21.3	8.3	72	438.2	310.9	127.3	71	10,148.6	6,866.1	3,282.5	68

a. Total MNE sales figure double counts sales between affiliates and their parents.

Source: Bureau of Economic Analysis, news release, April 20, 2006, Summary Estimates for Multinational Companies: Employment, Sales, and Capital Expenditures for 2004, available at www.bea.gov (accessed December 1, 2006).

because many foreign countries, especially in Asia, are growing faster than the United States. But it cannot be argued that the predominance of US activity and employment in the global MNE picture reflects the discipline of a capital export neutrality (CEN) tax system because, as we have seen, US tax collections on overseas income are very small.

Considering only taxes, the feared “runaway-plant” outcome of a territorial system is possible. But so far, if the phenomenon exists, it is barely apparent. In its crudest form, the “runaway plant” argument suggests a one-for-one trade-off: One job gained in an MNE abroad translates into one job lost in the United States. Individual instances may be cited of this outcome, but aggregate statistics fail to reveal a wholesale relocation of jobs to foreign production plants. As table 6.4 shows, US affiliates abroad increased the number of foreign employees from 4.8 million in 1988 to 8.3 million in 2004, a gain of 3.5 million workers. Meanwhile, their US parent firms increased their number of US employees from 17.7 million to 21.3 million, a gain of 3.6 million workers. The rate of job expansion abroad was clearly faster than at home, and consequently, the share of total MNE employment accounted for by US parent firms dropped from 79 percent in 1988 to 72 percent in 2004. But there was no one-for-one trade-off between jobs abroad and jobs in the United States.

To be sure, the US share of global MNE employment has declined, if slowly. The main concern flagged by the employment data in table 6.4, however, is not the slow decline in the US parent share of total MNE employment. That can be explained by rapid economic growth in emerging countries. The more troublesome feature is that, since 2000, US parent firm employment has barely increased. But it needs to be pointed out that, between 2000 and 2004 total US employment in the private sector—full time and part time—dropped slightly, from 116.0 million to 115.1 million.²¹ Relative to total private sector employment, US parent firms are holding their own.

Feinberg and Keane (2006) studied the relation between employment by US parent firms and their affiliates, calculating that reducing the Canadian wage rate by 1 percent would increase both Canadian affiliate employment (by 4.2 percent) and US parent employment (by a tiny 0.08 percent). The explanation: A lower Canadian wage reduces MNEs’ total production costs, enabling the enterprises to increase the scale of their operations and thereby slightly increase the demand for US labor. If the

21. This set of comparisons extends the analysis reported by Slaughter (2004). Private employment data comes from the Bureau of Economic Analysis, National Income and Product Accounts, Table 6.4D (August 2006) (available at www.bea.gov). The decline in full-time employment from 105.6 million to 104.5 million accounts for most of the decline in total private employment.

same analysis applies to lower corporate tax costs abroad, it would help to explain why the extreme form of the runaway plant story, a one-for-one trade-off between jobs abroad and jobs at home, has little traction. The bottom line is that lower corporate taxes abroad are not adverse to US employment by US-based MNEs.

Export Consequences

Empirical studies indicate that expanded activity of some US-based MNEs abroad may actually stimulate US merchandise exports; at worst, expanded activity abroad, on average, probably does not undercut US merchandise exports.²²

To cite one prominent study of merchandise export consequences, Graham (2000) found that foreign direct investment (FDI) in US outbound manufacturing is associated with greater US exports and has no significant impact on US imports. They concluded that US outbound FDI in the manufacturing sector does not transfer US production abroad. In an earlier study, Lipsey (1995) surveyed empirical literature and reported that one dollar of overseas production by US affiliates generates \$0.16 of exports from the United States. In a later study, however, Lipsey (2002) reported that no consistent relation could be found between production abroad by a firm and exports either by the investing firm, its industry, or the country as a whole.

Sullivan (2006) examines the trade data under a different lens. He focuses on intracorporate merchandise trade, which in 2004 accounted for \$416 billion (some 18 percent) of US two-way merchandise trade with the world. The total US merchandise trade deficit with foreign affiliates was \$47 billion. Ignoring Canada and Mexico because of their special relationship with the United States,²³ the next eight countries with which the United States had the largest intracorporate bilateral trade deficit, collectively at \$32 billion, had an average effective corporate tax rate of 12 percent. By contrast, the 10 countries with which the United States had the largest intracorporate bilateral trade surplus, collectively at \$26 billion, had an average effective corporate tax rate of 28 percent. Sullivan's quantitative analysis is far from sophisticated, but it suggests that tax considerations bear on intracorporate trade balances and that MNEs

22. Empirical studies have not yet evaluated the impact of expanded MNE production abroad on US exports of services, mainly for lack of data.

23. The United States had a combined intracorporate merchandise trade deficit of \$37 billion with its two North American Free Trade Agreement partners in 2004. However, their average corporate tax rates are similar to those of the United States: a rate of around 31.5 percent for Canada and 33.9 percent for Mexico (Sullivan 2006).

may source a disproportionate part of their US imports from low-tax countries.²⁴

That said, Sullivan's study and others reflect the existing US tax system, which collects around 3 percent of the earnings of all US affiliates operating abroad (see table 6.5). Under a territorial system, the tax burden on active affiliates would be zero—lower but not a lot lower.

Conceivably, the sort of tax system advocated by Grubert and Altshuler (2006), Rosenbloom (2001), and Sullivan (2006) would prompt US-based MNEs to relocate production from low-tax jurisdictions back to the United States because of the sharply higher tax rate that would now be paid on economic activity abroad. However, we think it is more likely that production in low-tax jurisdictions for export to the US market would continue at the same pace as before, but under the umbrella of MNEs based in the United Kingdom, Netherlands, Japan, China, and a number of other countries. In other words, the most relevant comparison is not between taxes paid by a US MNE on production in the United States and production in a low-tax jurisdiction, but rather the tax paid by any MNE on production in a low-tax jurisdiction compared with production in the United States.

In fact, this point can be generalized: If production in a low-tax jurisdiction is an attractive proposition, then economic activity in such locations will not be confined to production for the US market. Companies will gravitate to these jurisdictions to produce goods and services for the entire world market.

Investment Impact

It is perhaps surprising that there is less academic debate over the investment impact of a territorial system than the export impact. Altshuler and Grubert (2001) examined how a dividend exemption system, a form of territorial taxation, would affect the location incentives of US corporations, using two different approaches. Their first approach compared FDI patterns in low-tax with those in high-tax jurisdictions and US-based MNEs with MNEs in two exemption countries, Germany and Canada. Their second approach analyzed the extent to which residual US taxes on low-tax foreign earnings affect the location decisions of US corporations, using microdata from US corporate tax returns. Neither approach

24. In a rigorous study, Feinberg and Keane (2006) showed that adoption of just-in-time (JIT) inventory management systems by US firms helps explain the very rapid growth of intrafirm trade between Canada and the United States in the 1980s and 1990s. In fact, JIT was probably more important than bilateral tariff reductions under the Canada-US free trade agreement as a cause of intrafirm trade growth. Studies such as Feinberg and Keane (2006) caution against attributing excessive influence to tax or tariff regimes to explain trade and investment patterns.

Table 6.5 Actual US income from foreign sources, foreign tax credits, and US tax revenue under current system, 2002^a
(billions of dollars)

Category/type	Foreign gross income flows before allocated deductions	US deductions allocated to foreign income	US taxable income after deductions	Foreign withholding taxes paid or corporate taxes deemed paid		Tentative US tax liability at 35 percent	Foreign tax credit claimed ^b	US tax revenue
				Rate	Amount			
Total repatriated foreign income received by US taxpayers	330.8	185.0	145.8	12.5	41.5	51.0	42.4	8.6
Dividends, including taxes deemed paid	88.3			29.1	25.7			
Dividends	64.1				1.5			
Foreign taxes deemed paid (gross-up)	24.2				24.2			
Interest	44.5			1.3	0.6			
Rents, royalties, and license fees	57.3			4.0	2.3			
Services income	17.1			2.9	0.5			
Other income (including export profits)	123.7			6.3	7.8			
Foreign-branch income ^c	65.8			6.8	4.5			
General limitation repa- triated income (active income)	225.5	111.9	113.6	14.3	32.3	39.8	33.2 ^d	6.6 ^d

(table continues next page)

Table 6.5 Actual US income from foreign sources, foreign tax credits, and US tax revenue under current system, 2002^a
(billions of dollars) (*continued*)

Category/type	Foreign gross income flows before allocated deductions	US deductions allocated to foreign income	US taxable income after deductions	Foreign withholding taxes paid or corporate taxes deemed paid		Tentative US tax liability at 35 percent	Foreign tax credit claimed ^b	US tax revenue
				Rate	Amount			
Dividends, including taxes deemed paid	67.3			30.3	20.4			
Dividends	47.9				1.0			
Foreign taxes deemed paid (gross-up)	19.4				19.4			
Interest	5.7			1.8	0.1			
Rents, royalties, and license fees	51.6			4.5	2.3			
Services income	15.0			2.0	0.3			
Other income (including export profits)	86.0			7.9	6.8			
Foreign-branch income ^c	33.7			7.1	2.4			
Financial services repatri- ated income (active and passive income) ^d	85.0	64.1	20.9	7.9	6.7	7.3	6.7 ^d	0.6
Dividends, including taxes deemed paid	11.3			30.1	3.4			
Dividends	8.3				0.4			
Foreign taxes deemed paid (gross-up)	3.0				3.0			

Interest	34.9			0.6	0.2			
Rents, royalties, and license fees	4.2			0.0	0.0			
Services income	2.0			10.0	0.2			
Other income	32.6			2.5	0.8			
Foreign-branch income ^c	30.5			6.9	2.1			
Other passive repatriated income	20.3	9.0	11.3	12.3	2.5	4.0	2.5 ^d	1.5 ^d
Dividends, including taxes deemed paid	9.7			19.6	1.9			
Dividends	7.9				0.1			
Foreign taxes deemed paid (gross-up)	1.8				1.8			
Interest	4.0			7.5	0.3			
Rents, royalties, and license fees	1.4			0.0	0.0			
Services income	0.0			0.0	0.0			
Other income	5.2			3.8	0.2			
Foreign-branch income ^c	1.6			0.0	0.0			

a. Repatriated foreign income includes earnings of foreign affiliates that are repatriated to US taxpayers as dividends, interest, rents, royalties, fees, etc. (or deemed repatriated under subpart F). It does not include retained earnings.

b. In all, some \$57 billion foreign tax credits were available in 2002. However, about \$15 billion of the available amount could not be claimed because parent firms were in an excess foreign tax credit position. Importantly, foreign tax credits related to \$16.3 billion in general limitation income arising from oil and gas extraction are subject to special limitations under IRC section 907.

c. Foreign-branch income is counted in the preceding income sources. Therefore, it is not included in the totals to avoid double-counting. However, foreign tax credits arising from foreign-branch income are not included with other sources and instead are counted separately.

d. Foreign tax credit claimed and US tax revenue are both estimated by the authors. In the case of "general limitation" income, we assume that \$0.9 billion of prior year foreign tax credits were carried over and applied in 2002.

Source: Internal Revenue Service, Statistics of Income, Fall 2005, statistical tables for US corporate returns with a foreign tax credit, available at www.irs.gov (accessed on January 8, 2007).

suggests that location decisions would significantly change if the United States adopted a territorial system with respect to dividends from active foreign affiliates.

In another study, Desai, Foley, and Hines (2005) examined the impact of outward FDI on domestic US investment rates using data covering a broad set of high-income countries during the 1980s and 1990s. The authors found that “an additional dollar of foreign investment capital expenditure is associated with 3.5 dollars of domestic capital expenditures by the same group of multinational firms, strongly suggesting a complementary relationship between foreign and domestic investment” (p. 7). Based on these studies, under the current tax system, foreign investment appears to complement domestic investment. A shift to territorial taxation would change incentives little, if at all.

Competition Between MNEs

The United States could tax the active income that US-based MNEs earn overseas, but it could not extend its corporate tax system to embrace the overseas income of German-, Japanese-, or Chinese-based MNEs. The logical consequences are powerful. As long as the United States relies on corporate income taxation, it cannot level the tax field between production abroad and production at home. The fundamental reason is that the United States cannot tax the overseas income of MNEs or purely national firms that are based abroad, even when they sell in the US market. If US-based Microsoft, for example, does not take advantage of the favorable characteristics (including low Indian taxes) of producing software in Bangalore for export to the US market, foreign-based MNEs and local Indian firms will fill the breach. The same wisdom applies to producing tax-advantaged microprocessors by Intel in Ireland or pharmaceuticals by Merck in Singapore.

In this book, we take corporate income tax as a political fact of life. Given an equally strong economic fact of life—competition between MNEs that are home-based in many different countries as well as global competition between purely national firms—we jettison the CEN dream of leveling the corporate tax between production in the United States and production in low-tax jurisdictions.

Antiabuse Measures

A territorial system puts compliance pressure on tax features that distinguish between US- and foreign-source income, and between “active” and “passive” income. While foreign tax credit limitations already require these distinctions, the importance of source rules and the active-passive distinction would be magnified under a territorial system because these rules would affect not only taxpayers who are in an excess-credit posi-

tion—the case under current law—but all taxpayers. The same is true of rules that allocate deductible expenses between taxable income streams, both home and foreign, and exempt income streams (in this context, exempt foreign income).

Regarding tax abuse, it is important to recognize that large firms always have some discretion in characterizing an income stream as “interest,” “royalties,” “fees,” or “dividends;” counting income as active or passive; classifying income as domestic source or foreign source; and attributing expenses to foreign or domestic income. Latitude on these matters exists under the present system and would continue to exist under any new system. Corporate tax departments naturally favor the characterization and classification that leads to the lowest tax payment; under existing law, tax differentials between types and sources of income are already large and would remain so with an exemption system.

Table 6.6 presents US tax differentials between types and sources of income and expense under current law and our proposed territorial system. The existing and proposed systems both feature huge tax-rate cliffs. Under the existing system, whether or not foreign-source income is repatriated can make a difference as large as 30 percentage points in the applicable US tax rate. Whether or not deemed-paid foreign tax credits are cross credited against interest, royalties, and export profits can make a difference of 27 percentage points. Under a territorial system, the distinction between “active” and “passive” income leads to a 30-percentage-point tax difference. The other large difference is between royalties and fees and other types of “active” foreign-source income; again, the tax gap is 30 percentage points.

Under the proposed territorial system, dividends and interest that “active” foreign affiliates pay to their US parents would be exempt from US taxation, along with the foreign-source component of export profits labeled export-source income.²⁵ However, foreign-source royalties and fees, together with lease income and portfolio interest and dividends, would be subject to US tax. There would thus be strong incentives to shift the classification of income using creative transfer pricing and other means. Such abuse cannot be eliminated, but it can be controlled. In this section, we touch on basic provisions that would be necessary to curtail abuse under a territorial system.

Transfer Pricing Abuse

Transfer pricing abuse has been much explored by lawyers and economists, yet practical solutions remain elusive.²⁶ A territorial system would not change the fundamental calculus that makes abusive transfer pricing

25. The current export source rules are summarized in appendix A4.

26. See appendix A9 for a summary of rules on intercompany pricing.

Table 6.6 Illustrative US corporate tax rates at the federal level (after foreign tax credits) by type of foreign-source income

Type of income	Foreign-source income (after allocated US deductions)				Domestic corporate income (post-AJCA)
	Current system		Territorial system		
	Repatriated or deemed repatriated ^a	Not repatriated	Active income	Passive income	
Foreign-source income					
CFC earnings					
Assuming 29 percent FTC for active income ^b	6	0	0	n.a.	n.a.
Assuming 5 percent FTC for passive income	n.a.	0	n.a.	30	n.a.
Interest paid from CFC					
Assuming cross crediting ^c	3	0	n.a.	n.a.	n.a.
Assuming no cross crediting ^d	30	0	0	30	n.a.
Royalties and fees					
Assuming cross crediting ^c	3	0	n.a.	n.a.	n.a.
Assuming no cross crediting ^d	30	0	30	30	n.a.

Foreign-source export earnings					
Assuming cross-crediting ^e	7	0	n.a.	n.a.	n.a.
Assuming no cross-crediting ^f	35	0	0	n.a.	n.a.
Portfolio dividends and interest ^g	25	0	n.a.	25	n.a.
Domestic corporate income ^h					
"Manufacturing" income	n.a.	n.a.	n.a.	n.a.	32
Other income	n.a.	n.a.	n.a.	n.a.	35

CFC = controlled foreign corporation

n.a. = not available

a. Deemed repatriated refers to foreign-source income taxed currently under subpart F, even if not repatriated.

b. In 2002 the foreign tax credit (FTC) for general limitation income (active income) was about 29 percent (see table 6.8) on grossed-up dividends. The FTC rate may have declined since, because foreign corporate tax rates are falling.

c. Assuming cross crediting of deemed paid foreign tax credits in the general limitation basket at a rate of 29 percent, plus a 5 percent foreign withholding tax credit under the current system.

d. Assuming only a 5 percent foreign withholding tax credit under both the current and territorial systems.

e. Assuming cross crediting of foreign tax credits in the general limitation basket at a rate of 29 percent and no foreign withholding tax under the current system.

f. Assuming no foreign withholding tax under the current system. Foreign-source export earnings would be exempt under the territorial system.

g. Assuming a 10 percent foreign withholding tax. By definition, portfolio dividends and interest are passive income under the territorial system.

h. "Manufacturing" income, broadly defined, will be subject to a rate of 32 percent after 2010. Other corporate income, including income from foreign sources, will continue to pay 35 percent before tax credits, including the foreign tax credit.

so attractive to corporate tax departments. Firms would still have an incentive to both underprice US exports destined for their affiliates based in low-tax jurisdictions and overprice US imports arriving from affiliates based in those same countries. They would have an incentive to characterize royalty income as affiliate profits. Many other examples could be cited. The United States and its closest trading partners—starting with Canada and Mexico and perhaps extending to EU member states—may eventually agree on formula apportionment of the corporate tax base for selected MNEs to mitigate transfer pricing abuse.²⁷ But so far, international agreement has been elusive, so we turn in the first instance to more immediate solutions.

For transactions among related parties, the tax law should be amended to require audited US firms to submit compelling evidence to rebut an IRS determination of the appropriate price of a transaction if the price asserted by the audited firm (by contrast with the price asserted by the IRS) would materially decrease the MNE group's total tax liability (US plus foreign). In other words, the tax liability would be calculated as if the transaction was priced according to the IRS view, in absence of contrary "compelling evidence" supplied by the taxpayer.²⁸ Because the corporate taxpayer has far better information about market terms and conditions than the IRS does, especially for intangible assets and differentiated products, this solution assigns a heavy burden of evidence to the audited firm, typically the corporate parent.

Of course the IRS should adequately staff its unit devoted to evaluating merchandise trade prices, royalties and fees, lease transactions, and salaries of highly paid US employees, such as executives, entertainers, and athletes.²⁹ The United States also should continue to work with its partners, particularly Canada, Mexico, and the European Union, to expand the pricing procedures developed in the last two decades within the framework of advance pricing agreements (APAs; see table 6.7).

Finally, as many observers (e.g., the 2007 Hamilton Project; see Clausen and Avi-Yonah 2007) have suggested, the United States should explore formula-apportionment approaches, at least for companies doing

27. Formula appointment would seem most appropriate for firms with large intra-MNE sales among affiliates located in Canada, Mexico, and the United States. Automobile companies might be a logical starting place.

28. Under current law, the burden of proof in a transfer pricing dispute already rests with the taxpayer. We would require, however, that the taxpayer discharge its burden by more than a "preponderance of evidence"; instead we would require the taxpayer to submit "compelling evidence." However, we would also require that the IRS determination not be "arbitrary or capricious," even if the taxpayer could not supply compelling evidence.

29. One possible rule of thumb is that, so long as the staff brings in \$100 million extra revenue for every \$20 million of additional administrative experts, it should be expanded.

Table 6.7 APA applications filed and executed, 1991–2005

Year	Unilateral	Bilateral	Multilateral	Total	Cumulative total
2000–2005					
Filed	205	322	0	527	928
Executed	170	206	3	379	610
1991–99					
Filed	n.a.	n.a.	n.a.	n.a.	401
Executed	112	114	5	231	231

APA = advance pricing agreement

n.a. = not available

Sources: Internal Revenue Service, Ann. 2004-26, 2004-15 Internal Revenue Bulletin 743; Ann. 2004-26, 2004-15 Internal Revenue Bulletin 743; Ann. 2003-19, 2003-1 Cumulative Bulletin 723; Ann. 2002-40, 2002-1 Cumulative Bulletin 747; Ann. 2001-32, 2001-1 Cumulative Bulletin 1113; Ann. 2000-35, 2000-1 Cumulative Bulletin 922; 2006-15 Internal Revenue Bulletin.

substantial business within North America and across the Atlantic. It must be acknowledged that formula apportionment is an old idea that so far has gained little practical traction. Among the US states, for example, it has been impossible to reach agreement on the factors and weights in the formula and which corporate subsidiaries should be included and which should be excluded from formula calculations. Nevertheless, with greater economic integration across jurisdictions, the arm's length pricing standard has become less satisfactory. Formula apportionment was commended in a recent study by the Hamilton Project (Clausing and Avi-Yonah 2007) and deserves to be explored within North America and across the Atlantics.

Allocation of Interest Expense

Under a territorial system, the interest expense allocation game simplifies dramatically. Because the United States would not tax the foreign dividends, interest, and earnings that a parent corporation received from its foreign subsidiaries or branches that earn active income, logically it would not allow a deduction for expenses attributable to that income.³⁰ Parent-company interest expense attributed to its holdings of debt and equity in its foreign affiliates would thus be disallowed as a deduction.³¹

30. This is a long-standing tax rule: Under section 265, deductions are disallowed for expenses attributable to exempt income.

31. The Canadian finance minister, Jim Flaherty, proposed a similar disallowance in the budget announced on March 19, 2007 (*North America Free Trade and Investment Report* 17, no. 6, March 31, 2007).

The only question is how much of the parent firm's interest expense should be attributed to exempted foreign income. The key choice is whether interest expense should be allocated on the basis of income flows or asset positions. As debt is often incurred to support the acquisition of assets that do not produce income for several years, we propose that the allocation should be calculated on the basis of assets. The allocation fraction should be foreign net assets (assets minus liabilities owed to unrelated parties) relative to worldwide net assets. For administrative simplicity, we suggest using tax book values to calculate net assets.³² To minimize tax avoidance games, we would not allow interest expense to be "traced" to particular assets, for example, by secured mortgages.

Taxation of Interest Income

Under our territorial proposal, interest that an active affiliate pays to its US parent corporation would be exempt from US taxation. Two considerations motivate this exemption. First, the distinction between equity and debt—and hence between dividends or branch earnings and interest—is largely arbitrary when a parent corporation controls the affiliate. Second, our basic policy thrust is to exempt active affiliates from the US tax net.

We recognize that our proposed treatment of direct investment interest receipts starkly contrasts with our proposed treatment of portfolio interest receipts. Under our approach, on a residence basis, the United States would fully tax portfolio interest received from abroad. By contrast, direct investment interest received from abroad would be exempt from US taxation. We recognize that—unlike dividends from an affiliate, which are usually subject to taxation abroad as corporate earnings—interest payments from an affiliate are normally allowed as a business expense by foreign jurisdictions. In other words, interest payments are not part of the foreign corporate tax base, and they usually attract very low withholding taxes (zero, 5, or 10 percent). Thus, if affiliate interest payments to the US parent company are not taxed abroad, and if they are not taxed in the United States, they are essentially tax free. This seems anomalous, even bizarre.

The eventual solution is to reform the business tax system in a fundamental way, both in the United States and abroad, by disallowing deductions for interest payments made by a company to its controlling shareholder—in this example, the US parent firm. This change would eliminate the tax advantage of characterizing repatriated income as inter-

32. Conceptually, market values might provide a better basis for allocating interest expense than book values, but establishing market values can be highly contentious. Current law permits the use of market values, at the election of taxpayer. Allowing an election, of course, works to the disadvantage of the tax collector.

est expense rather than dividend payments. Moreover, the change would enable a reduction in the corporate tax rate because the corporate tax base would be enlarged. While this solution will not be enacted soon, we endorse zero taxation of intracorporate interest payments as an intermediate solution for two reasons. First, no real distinction exists between debt and equity in a controlled corporation. Second, zero taxation of direct investment interest payments will dramatically point toward basic reform.

Taxation of Royalties and Fees

Corresponding to the new approach to headquarters expense (RD&E plus G&A), all technology and reputation royalties, and all management fees paid from foreign sources for the use of know-how and services expensed in the United States, should be taxed by the United States under the residence principle. In our view, the country where the taxpayer resides should normally have the sole claim to tax the income generated by the activity.³³ As a companion measure, Internal Revenue Code (IRC) section 367(d) should be retained and strengthened as needed. In principle, section 367(d) prevents a US company from engaging in a tax-free or tax-preferred exchange of its own intangible assets for shares in a foreign corporate subsidiary. In practice, however, such transactions are common. Thus the IRS needs to beef up its surveillance of the prices charged in sales of intangible assets to related foreign companies; otherwise bargain sales of hard-to-value patents, copyrights, and trademarks to related companies based in low-tax jurisdictions will become commonplace.

In the context of these changes, the United States should seek international acceptance of the principle that royalties and fees paid to firms based in another country are properly deductible in the payor country and are free of withholding taxes. Within the OECD, the deduction of royalty and fee payments is standard practice, and withholding taxes on know-how income are already very low and could soon be abolished. However, because of the highly unequal two-way flow of royalties and fees between the United States and most developing countries, it may take time before these ideas of deductibility and zero withholding taxes are universally accepted.

We anticipate that US-based MNEs will argue that taxation of foreign-source royalties and fees on a residence basis will disadvantage RD&E and other headquarters activities carried on in the United States compared with

33. However, if the know-how was generated in the United States but the expense was incurred by a foreign corporation under a cost-sharing arrangement, the resulting royalties and fees should properly be taxed only by the foreign country under the residence principle. Conversely, if the know-how was generated abroad but the expense was incurred by a US corporation, the resulting royalties and fees should be taxed only by the United States.

similar activities carried out in a country that exempts foreign-source royalties and fees from domestic taxation. This is true. But how important is the argument in practice? The US law should be written to tax all foreign-source royalty and fee income conducted under the auspices of the US parent firm and its foreign affiliates if the RD&E is claimed as a deduction against US income. That way, the scope for tax avoidance by relocating activity will be reduced. Here is an example: If subsidiary S, located in Singapore, conducts RD&E that is claimed as a US deduction and earns royalties and fees from licensing the intangible property to India, that income should be taxed by the United States under the residence principle. As with any other transaction involving intangible assets, the question of the proper transfer price paid by India will still arise, and to deal with this question we would arm the IRS with the “compelling evidence” test mentioned earlier.

Legitimate concerns can still be raised about the effect of residence taxation on the location of RD&E facilities over the long term. After all, US-based MNEs would now incur a higher tax burden on their technology income earned worldwide than most MNEs based elsewhere. Accordingly, we suggest that, as a complementary measure, Congress should raise the current RD&E tax credit available under IRC Section 41.³⁴ Unlike preferential effective taxation of foreign royalties and fee income, an enhanced RD&E tax credit would be neutral between foreign and US locations when the firm chooses between sites for high-technology production.

Cost-Sharing Arrangements

As a general rule, RD&E expenses incurred by a US corporate taxpayer, whether incurred in the United States or abroad, can be claimed as a deduction against corporate income taxable by the United States.³⁵ The same principle applies to bona fide cost-sharing arrangements under the procedures for APAs.³⁶ A cost-sharing agreement for RD&E enables each participant to enjoy exclusive rights to the use of the technology generated by the venture in designated markets and applications. Costs shared

34. Currently the RD&E credit amounts to about \$9.3 billion annually, compared with \$223 billion of total private RD&E expenditure, which includes RD&E expenditures both within the United States and by foreign affiliates of US parents outside the United States in 2004. Bills proposed in 2007 would liberalize the rules, increasing the credit to as much as \$15 billion annually (*Wall Street Journal*, May 30, 2007).

35. The same rule applies to G&A expense. We recommend that, after five years, the Treasury should evaluate the balance between return flows of foreign-source royalties and fees, as well as deductions claimed for RD&E and G&A expense attributed to affiliates.

36. Appendix A9 summarizes the procedures. The “investor model” proposed in the regulations for preexisting technology has been criticized for giving US-based MNEs an incentive to move their RD&E activities offshore.

by firms based in different countries are normally allocated as business deductions among those countries according to the agreement, no matter where the RD&E performed.

In our view, current law should be amended so that the United States only permits the expensing of RD&E costs, including cost-sharing contracts, incurred abroad on a reciprocal basis. This would require an amendment to IRC Section 174.³⁷ In other words, the partner country should also permit its firms to claim a deduction for RD&E costs incurred in the United States, including cost-sharing arrangements. Similar principles should apply to overseas performance and cost-sharing arrangements for G&A.

Executives, Entertainers, and Athletes

Among many possible abuse schemes, highly paid taxpayers—executives, entertainers, and athletes—are tempted to set up shell “management” corporations overseas to “employ” themselves. Customers who wish to engage the taxpayer’s services then enter into a contract with the overseas company. The taxpayer might direct the company to make tax-free “business expenditures” for his benefit, even expenses that bear little relationship to generating corporate income. Although the company might pay a salary taxed in the United States to the employee/owner, most of the shell corporation’s “profit”—essentially remuneration of the valued employee—can remain outside the US tax net. When it is time to pay US taxes, the taxpayer/owner would try to claim that the management corporation is an “active” business firm, not subject to current taxation under the present US system or any taxation under our proposed territorial system.

Schemes with a similar flavor are conceivable under almost any tax system. As an example, lawyers for Robert Wood Johnson IV—heir to the Johnson & Johnson fortune and owner of the New York Jets—devised a series of transactions on the Isle of Man that reportedly cost the US Treasury \$300 million.³⁸ Telecom entrepreneur Walter Anderson likewise admitted to evading about \$200 million in US taxes through a scheme that involved establishing Caribbean corporations to hide his income from US authorities.³⁹ In our view, the best answer to these and similar abuses

37. We recommend a similar amendment for the RD&E tax credit under Section 41.

38. Johnson told a Senate panel that his lawyers informed him the transaction “was consistent with the Tax Code.” However, when the IRS challenged his accounting, which involved two overseas corporations with 2 pounds sterling of paid-in capital generating \$2 billion in capital losses, Johnson settled with the IRS and agreed to pay all back taxes plus interest (“Tax Shelters Saved Billionaires a Bundle,” *Washington Post*, August 1, 2006, A4).

39. See CBS News, “Telecom Founder Pleads Guilty To Fraud,” September 8, 2006.

lies in a strict definition of active business firms, coupled with aggressive enforcement of current taxation of all forms of portfolio income, to defeat attempts to escape the residence principle for taxing individuals and their wealth.

Discriminatory Taxation

US policy should attempt to ensure that foreign tax systems do not discriminate against US taxpayers. To that end, the United States should continue its strategy of using bilateral tax treaties to reciprocally reduce the level of withholding taxes faced by both US MNEs doing business abroad and foreign MNEs doing business in the United States. This strategy has already succeeded in driving withholding taxes down significantly but has not eliminated them (see table 6.8).

Although withholding taxes have been eliminated with respect to interest, royalties, and service fees in most US treaties, such taxes still put US MNEs at a competitive disadvantage regarding dividends from controlled foreign corporations (CFCs). While the United States has eliminated withholding tax on direct investment dividends in several recent tax treaties (Australia, Belgium, Germany, Japan, Mexico, the Netherlands, Sweden, and the United Kingdom), it is lagging behind EU member states and many other developed countries. The United States continues to apply withholding taxes to direct investment dividend payments in most of its tax treaties, and its treaty partners do likewise.

Dividend withholding taxes put US MNEs at a significant competitive disadvantage vis-à-vis their EU-based multinational competitors. More than 15 years ago, the European Union adopted a directive that generally eliminated withholding taxes on cross-border direct investment dividend payments between member states, the Directive on Parent Companies and subsidiaries (90/435/CEE). As the directive requires that the firms involved must be incorporated in EU member states, the European Union continues to discriminate against dividend payments from EU firms to US firms.⁴⁰

To end tax discrimination, the United States should offer a so-called “zero-zero” option: The United States would drop its own withholding rates on dividend payments to zero for payments to partners that do like-

40. Until the introduction of section 954(c)(6) of the IRC (see appendix A3), the US system itself discriminated against US firms operating in Europe, as they were subject to subpart F taxation when dividends cross internal European borders. Some legislative proposals addressed this problem by proposing to treat the European Union as one country for purposes of subpart F (see, e.g., HR 4151, 107th Congress). Section 954(c)(6) achieved the same result in a different manner; however this provision sunsets in 2009 and, it is not clear whether Congress will extend the section beyond 2008.

**Table 6.8 Withholding rates applied by the United States,
1990 and 2005 (percent)**

Country	Dividends							
	Controlled foreign corporations ^a		Portfolio		Interest		Royalties	
	1990	2005	1990	2005	1990	2005	1990	2005
US statutory rate ^b	30	30	30	30	0/30 ^c	0/30 ^c	30	30
US treaty with ^d								
Canada (1984)	10	10	15	15	15	15	10	10
Japan (2004)	10	0/5 ^e	15	10	10	0	10	0
Germany (1991)	10	5 ^f	15	15	0	0	0	0
Netherlands (2004)	5	0/5 ^g	15	15	0	0	0	0
United Kingdom (2003)	5	0/5 ^g	15	15	0	0	0	0

a. Controlled foreign corporations (CFCs) are defined differently, in terms of their threshold share of ownership, in treaties with different countries.

b. Treaty rates are reciprocal: The same withholding rate is applied by the United States to a given type of income as is applied by the foreign country.

c. Portfolio interest from US debt obligations issued after July 18, 1984 and interest paid by US banks and insurance companies are exempt.

d. Year in parentheses represents the year in which the most recent treaty or protocol modifying the treaty entered into force.

e. The zero percent withholding tax applies if the parent company owns more than 50 percent of the CFC voting stock; otherwise the 5 percent withholding rate applies if the parent company holds at least 10 percent of the CFC voting stock.

f. The 5 percent withholding tax applies if the parent company holds at least 10 percent of the CFC voting shares.

g. The zero percent withholding tax applies if the parent company owns more than 80 percent of the CFC voting shares; otherwise the 5 percent withholding rate applies if the parent company owns at least 10 percent of the CFC voting shares.

Sources: PricewaterhouseCoopers (1990); CCH, Tax Treaties, 2005, Volumes I-IV.

wise for payments to the United States. Zero-zero withholding is particularly important as a tax goal with Japan, Canada, and members of the European Union (see box 6.1).

Tax Treaty Policy

Much of our reform package can be implemented unilaterally through appropriate legislation enacted by Congress, assuming that domestic political hurdles can be overcome. However, important components can

Box 6.1 Zero-Zero taxation

Recent US tax negotiations with Japan, the United Kingdom, and the Netherlands indicate that the United States is moving toward a zero-zero approach to withholding taxes. This approach entails a complete exemption from withholding tax on dividends paid to qualifying pension funds and, under certain circumstances, on dividends that affiliates pay to their parent corporations. It also entails a complete exemption from withholding tax on royalties for the right to use certain enumerated assets, such as patents, trademarks, and certain copyrights; and a complete exemption for interest paid to certain recipients, such as banks, insurance companies, and qualifying pension funds.

Revenue considerations—rather than economic considerations—might trigger the opposition of developing countries to a similar zero-zero system. Some developing countries still collect substantial amounts of revenue from inward foreign direct investment and technology imports, and these countries could be willing to phase in lower withholding rates over an extended period of time. A few enlightened countries may, however, follow the example of Mexico, which agreed to introduce a zero withholding tax for dividends as a means of attracting corporate investment (see the Second Additional Protocol that Modifies the Convention between the Government of the United States of America and the Government of the United Mexican States for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, available at www.treas.gov).

The US Senate Committee on Foreign Relations noted, in the context of approving the Mexican Protocol, that the Treasury Department should include similar provisions in future tax treaties or protocols, but only on a case-by-case basis (see Senate Foreign Relations Committee Report, Executive Report 108-4, 2003 TNT 55-17, 108th Congress, March 21, 2003).

In light of our recommendations in chapter 4 for a back-up withholding tax to ensure proper reporting of portfolio income to the residence country, we think the zero-zero approach should be coupled with comprehensive exchange of information systems, especially if extended to low-tax countries that are often conduits for tax evasion.

only be put in place with the cooperation of the European Union, Japan, Canada, and other economic partners. In particular, the principle of residence-only taxation for portfolio income and the determination of appropriate transfer prices both require tax cooperation among the major countries.

We do not rely entirely on sweet reason to accomplish these objectives. Instead, our reform package contains sticks as well as car-

rots to encourage tax cooperation. Without cooperation, for example, the United States would maintain its existing statutory withholding rates. On the other hand, in the context of a satisfactory treaty, the United States could allow other countries to limit the deduction for interest paid by a foreign affiliate to its US parent (and reciprocal treatment could be applied to foreign-owned affiliates located in the United States).

The traditional vehicle for tax cooperation is the bilateral income tax treaty. The United States currently has in force 63 comprehensive bilateral income tax treaties, 24 of them with member states of the European Union.⁴¹ Traditionally the four main purposes of an income tax treaty have been to establish a minimum threshold before business activity in a foreign country becomes subject to local income taxation (the permanent establishment concept); to avoid double taxation; to reduce discriminatory taxation; and to deter tax evasion.⁴²

To facilitate future tax treaty negotiations, especially in deterring tax evasion on portfolio income, the United States should build on moves toward regional integration already under way. The starting place is Europe: The United States should seek a single tax treaty with the entire European Union, at least with respect to portfolio income.⁴³ Cooperative reforms would prove difficult if the United States followed its past practice of negotiating separate treaties with each of the 25 EU member states, but significant progress toward deterring tax evasion on portfolio income can be accomplished if the United States and the European Union reach a common accord.

41. The United States currently has a tax treaty with all of the members of the European Union except Malta, which the United States perceives as a tax haven country.

42. The rapid growth of cross-border e-commerce raises important tax issues, especially in determining the source of income. Tax treaties often help to resolve the conflicts in source classification of income. For details, see appendix E.

43. The so-called Open Skies cases decided by the European Court of Justice on November 5, 2002 (*Commission v Belgium* C-471/98, *Commission v Denmark* C-467, *Commission v Sweden* C-468, *Commission v Finland* C-469, *Commission v Luxembourg* C-472, *Commission v Austria* C-475, *Commission v FRG* C-477) can be read as a harbinger of a new approach to tax relations between the United States and the European Union. In the Open Skies cases, the court determined that eight bilateral air transport agreements between individual EU members and the United States infringed EU treaty obligations that prohibited restrictions on the freedom of establishment among member states. Based on this precedent, if the court were called upon to rule on the limitation on benefits provisions in bilateral tax treaties between the United States and several EU members, these limitations might likewise be found to be in conflict with EU treaty obligations. Nevertheless, in December 2004, Barbara Angus, US Treasury international tax counsel, stated that as long as European countries had different tax systems, the United States would continue to negotiate tax relations with individual EU member states. See Sheppard (2004).

Revenue Implications

Revenue considerations are often paramount in shaping tax legislation. Corporate taxpayers are generally far more concerned about the short-term bottom-line impact of tax measures than long-run systemic effects. The same myopia has long afflicted the Treasury and Congress. Hence, it is worth examining the revenue estimates associated with our proposals, for both foreign income accruing to US MNEs and US affiliates of foreign MNEs, and US income accruing to foreign MNEs and foreign affiliates of US MNEs. We offer our calculations as rough guideposts. Unlike Treasury and Joint Tax Committee staff, we do not have access to corporate tax returns; hence we rely on published aggregates from IRS and BEA sources.

Revenue on Outward US Investment

The place to start is with foreign income and ultimate US tax collections in 2002, the most recent IRS figures available (table 6.5). In that year, gross foreign “general limitation income,” a category that corresponds closely to “active” income, amounted to \$226 billion. This figure includes dividends repatriated (or deemed repatriated) from foreign affiliates (plus the gross-up for underlying foreign corporate taxes), together with foreign-source export profits, royalties, and fees. This figure, however, does not include foreign affiliate earnings unless they are repatriated to US corporate taxpayers either as dividends, interest, royalties, or fees.⁴⁴

Expenses incurred by US corporate taxpayers that were allocated as deductions against repatriated “general limitation income” amounted to \$112 billion, leaving \$114 billion as US taxable income in 2002.⁴⁵ After the estimated foreign tax credit of \$33 billion, US tax collections amounted to an estimated \$7 billion, about 3 percent of all gross “general limitation” or “active” income repatriated to the United States. Most of the taxes collected on general limitation income correspond to foreign-source royalties, fees, and export profits that were not shielded from US corporate taxes by excess foreign tax credits, those resulting from foreign corporate taxes that are “deemed paid” by the US parent firm, which received dividends from its affiliates abroad.

44. Corporate earnings from active US direct investment not repatriated in 2002 (based on Bureau of Economic Analysis statistics) were approximately \$79 billion, which includes a current cost adjustment for inventory valuation. The amount of reinvested earnings by active firms without the current-cost adjustment was approximately \$59 billion. See Bureau of Economic Analysis, US International Transactions Accounts Data, Table 6a, December 2006 (available at www.bea.gov).

45. US deductions allocated to foreign-source income are primarily interest expenses, RD&E, and G&A expenses.

In 2002 gross foreign “financial services income” repatriated to the United States—a category that includes a mixture of “active” and “passive” income—amounted to \$85 billion. We estimate that “financial services income” not repatriated in 2002 was about \$7 billion.⁴⁶ Allocated deductions (mainly interest expense and insurance claims) against repatriated income were \$64 billion, leaving \$21 billion as US taxable income. After the estimated foreign tax credit of \$7 billion, about \$1 billion of US tax was collected, suggesting an effective US rate of about 1 percent on gross repatriated financial services income.

In 2002 gross foreign income of a purely passive nature, including subpart F income, amounted to \$20 billion. As a first approximation, purely passive income as currently defined in the IRC is either repatriated or deemed repatriated under existing US tax law. US deductions allocated to this income, mainly as interest expenses, were \$9 billion; US taxable income was \$11 billion; and the foreign tax credit was \$2.5 billion. The result is that about \$1.5 billion US tax was collected, an effective US rate of about 8 percent.

All told then, we estimate that US taxes collected on after-foreign tax US income under the current system were around \$9 billion in 2002, a little under 3 percent of repatriated or deemed repatriated foreign-source income.⁴⁷

As the next step in examining the revenue consequences of our recommended territorial system, table 6.9 repeats the exercise in table 6.5. Unlike the actual tax collection experience in 2002, our hypothetical calculations start with total earnings, not repatriated income flows. To estimate total earnings, whether or not they are repatriated, we account for \$85 billion of retained earnings plus \$34 billion for the estimated gross-up for the underlying foreign corporate tax on retained earnings. This addition of retained earnings and underlying foreign taxes increases total US foreign income by about \$120 billion to a pre-foreign tax total of \$450 billion.⁴⁸ In addition, we add a special line for US interest expense that would be disallowed as a US business deduction under our recommendation. This interest expense is disallowed because it is attributed to active income, which is exempt from US taxation under the territorial system. Business expenses that are attributed to exempt income cannot

46. The figure of \$7 billion does not include any current-cost adjustment for inventories, as inventory is not a major item for financial source firms.

47. By comparison, Grubert (2005) estimated that US tax collected on foreign-source income was \$12.7 billion in 2000.

48. According to BEA data, in 2002 total retained earnings after foreign corporate tax were \$85.3 billion. \$78.8 billion of this was retained by firms in the general limitation category; \$6.5 billion was retained by the financial sector. For table 6.8, we estimated foreign taxes of \$31.9 billion in the general limitation category and \$2.3 billion in the financial services sector.

Table 6.9 Hypothetical US income from foreign sources, foreign tax credits, and US tax revenue under territorial system, 2002

Category/type	Foreign gross income flows before foreign taxes paid	Foreign taxes deemed paid or withheld at source		Recommended tax rates under territorial system	Tentative US tax liability	Estimated foreign tax credit claimed	Estimated US tax revenue
		Rate	Amount				
Total US foreign income (before foreign taxes) whether repatriated or retained	450.4	16.8	75.6		29.4	5.1	24.3
Corporate earnings before foreign taxes	198.1	29.3	58.0		0.0	0.0	0.0
Passive income in other passive income category	9.7	19.6	1.9		4.0	2.5	1.5
Interest ^a	44.5	7.4	3.3		3.0	0.1	2.9
Rents, royalties, and license fees	57.3	4.0	2.3		19.6	2.3	17.3
Services income ^{a,i}	17.1	13.5	2.3		0.0	0.0	0.0
Other income (including export profits)	123.7	6.3	7.8		2.8	0.2	2.6
<i>Addenda:</i> US interest expense attributed to exempt foreign income and disallowed ^b	30.6				10.7	0.0	10.7
General limitation income (active income) whether repatriated or retained	336.3	19.1	64.2		18.1	2.3	15.8

Corporate earnings before foreign taxes	178.0 ^c	28.5	52.3 ^d	0.0	0.0	0.0	0.0
Interest ^a	5.7	1.8	0.8	0.0	0.0	0.0	0.0
Rents, royalties, and license fees	51.6	4.5	2.3	35.0	18.1	2.3	15.8
Services income ^{a,i}	15.0	13.3	2.0	0.0	0.0	0.0	0.0
Other income (including export profits)	86.0	7.9	6.8	0.0	0.0	0.0	0.0
<i>Addenda:</i> US interest expense attributed to exempt foreign income and disallowed ^b	11.4			35.0	4.0	0.0	4.0
Financial services income (active and passive)	93.8	9.6	9.0		7.4	0.3	7.1
Corporate earnings before foreign taxes	20.1 ^e	29.1	5.7 ^f	0.0	0.0	0.0	0.0
Interest ^{a,g}							
Active income	26.2	6.5	1.7	0.0	0.0	0.0	0.0
Passive income	8.7	5.7	0.5	35.0	3.0	0.1	2.9
Rents, royalties, and license fees ^h	4.2	0.0	0.0	35.0	1.5	0.0	1.5
Services income ^{a,i}	2.0	15.0	0.3	0.0	0.0	0.0	0.0
Other income ^g							
Active income	24.5	0.0	0.6	0.0	0.0	0.0	0.0
Passive income	8.1	2.5	0.2	35.0	2.8	0.2	2.6
<i>Addenda:</i> US interest expense attributed to exempt foreign income and disallowed ^b	19.2			35.0	6.7	0.0	6.7

(table continues next page)

Table 6.9 Hypothetical US income from foreign sources, foreign tax credits, and US tax revenue under territorial system, 2002 (*continued*)

Category/type	Foreign gross income flows before foreign taxes paid	Foreign taxes deemed paid or withheld at source		Recommended tax rates under territorial system	Tentative US tax liability	Estimated foreign tax credit claimed	Estimated US tax revenue
		Rate	Amount				
Other passive income before allocated US deductions ^l	20.3	12.3	2.4	35.0	4.0	2.5 ^k	1.5 ^k
Passive dividends	9.7	19.6	1.9				
Passive interest, rents, royalties, license fees, services, and other passive foreign incomes	10.6	11.3	0.5				

a. Foreign taxes paid in 2002 on branch income are attributed to interest and services income, prorated according to gross income flows.

b. In 2002 total allocated US deductions were \$185 billion (table 7.8). We assume that these deductions were allocated to active income. Of this amount, \$32.7 billion was allocated interest expense. Other than interest expense, US deductions (research, development, and experimentation and G&A) are assumed not to be allocated to exempt foreign-source income under the territorial system. US interest expense attributed to exempt foreign income could not be deducted as a business expense for US corporate tax purposes. Hence, under a static calculation, US tax revenue would rise. In practice, however, US-based multinational enterprises would rearrange their balance sheets to reduce the amount of nondeductible interest expense. The estimated tax revenue gains from disallowed interest expense are not included in the totals for estimated US tax revenue on foreign-source income.

c. Reinvested earnings of \$110.7 billion (including a gross-up for estimated foreign corporate taxes) are included in this figure.

d. This figure includes \$31.9 billion of estimated foreign corporate taxes on retained earnings.

e. Foreign corporate earnings in the financial services sector are assumed to be active income. Reinvested earnings of \$8.8 billion (including a gross-up for estimated foreign corporate taxes) are included in this figure.

f. This figure includes \$2.3 billion of estimated foreign corporate taxes on retained earnings.

g. Assuming that 75 percent of financial services interest income and other income represents active income and 25 percent represents passive income. This division is highly arbitrary.

h. All rents, royalties, and license fees are taxed under the residence principle.

i. All services income is assumed to be active income, even though some passive fee and leasing income are included in this category.

j. Total US allocated deductions for this category of income were \$9 billion, leaving \$11.3 billion as taxable income.

k. Foreign tax credit claimed and US tax revenue are both estimated.

Sources: Internal Revenue Service, Statistics of Income, Fall 2005, statistical tables for US corporate returns with a foreign tax credit, available at www.irs.gov (accessed January 8, 2007); Bureau of Economic Analysis, US International Transactions Accounts Data, table 6a (December 2006).

logically be claimed as a US deduction, a principle stated in IRC section 265. Disallowance of the attributed interest expense implies additional US revenue—we estimate an additional \$10.7 billion in 2002.

Starting with pretax foreign gross income, whether or not it is repatriated, table 6.9 walks through the tax consequences of our recommendations for “active” and “passive” income, distinguishing between types of income within these broad categories. Before calling out some of the details, we start with the headline. Perhaps most surprising is that table 6.9 suggests that US tax revenue on foreign-source income would amount to approximately \$24 billion under a territorial system, more than twice the actual tax collections we calculated under the current system in 2002 (table 6.5). In addition, the United States might have collected a further \$11 billion from disallowed interest expense. This estimate of potential revenue may well be exaggerated because, as a static calculation, it does not account for evasive actions by US corporate taxpayers. However, the calculations support other experts’ expectations that a territorial system would actually raise revenue on foreign-source income.

Out of \$24 billion of estimated tax revenue, we calculate that \$17 billion is raised from foreign rents, royalties, and license fees, and \$7.0 billion comes from purely passive income. In other words, under the proposed territorial system, US tax revenues are essentially derived from two types of foreign-source income: royalties and fees and passive income. The reinvested earnings of active corporations do not contribute to higher US tax revenue.

Most of the new US tax revenue collected from royalties and fees results from disallowing the cross crediting of foreign corporate taxes. Because of this change, US-based MNEs would no longer have a tax incentive to produce high-technology goods and services abroad rather than in the United States. We acknowledge that this change would deplete the flow of income that currently supports US RD&E activity. Hence we strongly recommend, as a linked change, that Congress should increase the RD&E credit under IRC section 41, or the RD&E deduction under IRC section 174.

APPENDICES

Appendix A1

History of US Taxation of Foreign Income of US Corporations (Excluding Merchandise Export Income)

This appendix highlights US measures that have affected the taxation of foreign income earned by US corporations. The entries indicate whether the change moved the US system toward capital export neutrality (CEN), national neutrality (NN), or capital import neutrality (CIN), alternative tax policy doctrines explained in chapter 3. In selected instances, similar indications are also given for significant tax changes that were proposed but never enacted.

Revenue Act of 1894

- Imposed an income tax on US persons, including US corporations, on income derived “from any source whatever.” (CEN)

The US Supreme Court declared this act unconstitutional in *Pollack v. Farmers Loan and Trust Co.*, 157 US 429 (1895), but the wide reach of US taxation (“from any source whatever”) was repeated in subsequent revenue acts.

Revenue Act of 1909

- Federal excise tax of 1 percent imposed on worldwide net income received by US corporations in excess of \$5,000. (CEN)
- Foreign taxes paid allowed as a deduction in calculating net income. (NN)

Between the Revenue Act of 1909 and the Revenue Act of 1962, no income from a foreign corporate subsidiary of a US parent corporation—that is, a controlled foreign corporation (CFC) or foreign corporation owned more than 50 percent by US shareholders—was subject to US taxation unless the foreign corporate income was paid as dividends to the US parent or the subsidiary was sold for a capital gain. (Interest, rent, royalties, and fees that the foreign subsidiary paid to the US parent were taxed currently.) Insulating retained subsidiary earnings from parent-company taxation is known as “deferral” (see appendix A3 for a history of deferral). (CIN)

Income Tax Act of 1913

- Federal income tax of 1 percent imposed on the worldwide net income of US citizens and US corporations. This followed ratification of the 16th Amendment, which overrode the decision in *Pollack v. Farmers Loan and Trust Co.* and permitted the levy of income taxes without apportionment among the states according to population. (CEN)
- Foreign taxes paid allowed as a deduction in calculating net income. (NN)

Revenue Act of 1918

- Credit against US tax liability for foreign taxes paid allowed for foreign income, war profits, and excess profits taxes. This provision became known as the “foreign tax credit.” (CEN)
- Corporations allowed to deduct foreign income taxes for which they did not claim a credit. Corporations have generally preferred to take a credit rather than a deduction: A credit offsets US tax liability dollar for dollar, whereas a deduction only reduces the tax base.
- No credit allowed (nor has one ever been) for foreign sales, excise, or property taxes. Instead, such taxes were allowed as a deduction in calculating net income, as is generally the practice in foreign countries. (CIN)
- Foreign tax credit allowed not only for taxes that the parent corporation paid directly to foreign governments (e.g., foreign taxes on branch earnings and foreign taxes withheld on dividends and royalties that foreign firms paid to US corporations), but also for taxes deemed paid on certain dividend distributions. The deemed-paid credit applied to corporate taxes on the underlying earnings of a first-

tier foreign corporate subsidiary in which the US parent held at least 10 percent of the equity. (CEN)

The 1918 formula for calculating the amount of deemed-paid taxes contained technical defects that were corrected in the Revenue Act of 1921.

Revenue Act of 1921

- Limit on the foreign tax credit imposed on an overall basis: The foreign tax credit claimed by a US parent corporation in any tax year could not exceed the US tax liability (before credits) multiplied by the ratio of net foreign-source income from all countries to net worldwide income from all sources (see appendix A2 for a history of the foreign tax credit limitation). (CEN, but with a view to protecting the US tax base from foreign encroachment)
- Formula for calculating the amount of deemed-paid credit refined to reflect that dividends could be funded by accumulated profits over a period of years, not just paid out of current-year earnings.

Revenue Act of 1932

- Foreign tax-credit limitation imposed on the lesser of a per-country or overall basis. The foreign tax credit could not exceed the overall limit (set forth in the 1921 act), or a defined amount for each country, aggregated across all countries from which the US parent corporation received income through either a foreign corporate subsidiary or an unincorporated foreign branch, or directly from sources within that country. The per-country limitation for country A was defined as the US tax liability before credits multiplied by the ratio of net foreign-source income from country A to net worldwide income from all sources. (CEN)
- Section 367 extended nonrecognition-of-income rules under subchapter C to certain “extraordinary” transactions involving foreign corporations (e.g., the transfer of a parent company’s patent rights to a foreign subsidiary in exchange for shares in the foreign subsidiary).

It is easy to see why the sum of foreign taxes creditable under the individual per-country limit might be smaller than the foreign taxes creditable under the overall limit. A parent company’s operations might be taxed heavily in country A, and part of that tax would be disallowed as a credit using the per-country formula. But if that tax and the underlying income could be averaged, or blended, with lower-taxed income derived

from country B, all foreign taxes might be credited against US tax liability using the overall limitation. In special circumstances, however, the overall limit might be less favorable to the parent company than the sum of the per-country limits. For example, if the US parent had branch losses in country A, but dividends from country B, so that its net foreign-source income from all sources was zero, the overall limit would permit no foreign tax credit, but the per-country limit would still allow a foreign tax credit on income from country B.

Revenue Act of 1939

- China Trade Corporation enacted, the first of successive special-status export corporations.

Revenue Act of 1942

- Western Hemisphere Trade Corporation enacted (see appendix A4), another special-status export corporation.

Internal Revenue Code of 1954

- Overall limitation on the foreign tax credit repealed, leaving the per-country limitation as the sole limitation. (CEN)
- Deemed-paid credit extended to second- and third-tier foreign subsidiaries (a second-tier subsidiary is a foreign firm owned by a first-tier subsidiary; a third-tier subsidiary is defined similarly), provided a sufficiently large stock holding by each tier in the tier beneath it. Stock holding requirements were tightened in 1962, 1971, and 1976. (CEN)

If a US corporation found the per-country limitation on the foreign tax credit burdensome, it could create a first-tier foreign holding company in country H. Second-tier subsidiaries in countries A, B, and C then paid their dividends to H. H then paid a dividend to the US parent. The dividend from H to the US parent was characterized as derived from country H alone, and thus subject to a single per-country limitation. The H dividend carried the deemed-paid foreign tax credits from A, B, and C, thereby averaging the tax rates across subsidiaries despite the statutory per-country limitation.

With the per-country limitation, if a US parent conducted some of its foreign operations through unincorporated foreign branches, the US parent could claim losses suffered, for example, by a branch in country A as

a deduction against its US income without reducing its foreign-source income, and hence, the allowable foreign tax credit, on income from branches or subsidiaries in countries B, C, and D.

Revenue Act of 1958

- Foreign taxes exceeding the applicable limit for the current tax year (“excess foreign tax credits”) allowed to be carried back two tax years, and credits still remaining carried forward five tax years; thereafter any remaining credits would expire unused. (CEN)

This carry-over provision remained in force until 2005 but was then changed. The American Jobs Creation Act (AJCA) of 2004 reduced the carry-back period to one year and extended the carry-forward period to 10 years, but the carry-over credits had to be applied to the appropriate basket of income.

HR 10087 (1960)

- Overall limitation on the foreign tax credit reenacted as an optional method. However, once a US corporation elected the overall method, it could not revert to the per-country method without the permission of the Internal Revenue Service (IRS).

Revenue Act of 1962

- Subpart F enacted, eliminating deferred taxation of passive foreign-subsidiary income in situations deemed abusive. These included
 - ◆ foreign personal holding company income, e.g., from a tax haven company closely held by US citizens that earned passive income in the form of dividends, interest, rents, and royalties;
 - ◆ foreign base company sales income, e.g., a tax haven company earning income by purchasing and selling traded goods and dealing with a related corporation. However, a limited preference was retained for export trade corporations (see appendix A4);
 - ◆ foreign base company services income, e.g., a tax haven company providing marketing, engineering, or accounting services to a related corporation; and
 - ◆ insurance of US risks. (CEN)

- A separate foreign tax-credit limitation imposed on passive interest income. (CEN)
- The 1962 act also provided that US shareholders of CFCs were to be taxed on other earnings of the corporation to the extent of the corporation's investments in US property. Earnings invested in the United States were taxed to shareholders because Congress believed the earnings to be substantially equivalent to a dividend paid to them. (CEN)

The 1962 act made the first inroads on the CIN principle of deferral, which had prevailed between 1909 and 1962. The act also marked the first use of a basket-of-income approach to the foreign tax credit limitation.

Subpart F was enormously complex by the standards of 1962; it contained many "safe harbor" rules and did not reach "active" foreign-source income. It engendered extensive tax planning but did not alter significantly the foreign operations of US firms or increase US tax revenue.

Tax Reform Act of 1969

- Foreign tax credit disallowed for taxes paid on mineral income, notably petroleum and gas income, including refining, transportation, and marketing, to the extent that the parent firm's US tax liability was reduced on account of resource depletion. (CEN)

This was the first in a long series of measures designed to increase US taxation of foreign oil and gas income derived by US corporations.

Revenue Act of 1971

- Created the domestic international sales corporation (DISC; see appendix A4).

HR 62 and S 2592 (Burke-Hartke)

- Would have repealed the foreign tax credit for corporations and terminated deferral across the board. First introduced in 1971 and strongly supported by the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), they were never enacted. US corporations would have been allowed to deduct foreign taxes in computing net income but would not have been allowed to claim a foreign tax credit. The US Treasury offered counterproposals

involving higher taxation of tax haven operations within the framework of subpart F, as well as new taxation of earnings generated by “runaway plants.” The House version of the bill died in the Ways and Means Committee. (NN)

In two separate cases, the Court of Claims (*Bank of America v. United States*, 459 F.2d 513, 1972) and the Tax Court (*Bank of America v. Commissioner*, 61 T.C. 752, 1974) held that foreign taxes on gross income and receipts were not net income or profit taxes and thus not creditable under US law.

Although not enacted, the Tax Reform Bill of 1974 emerged from the House Ways and Means Committee with several features that would have tightened the taxation of foreign-source income:

- The per-country limitation would have been repealed, leaving the overall limitation as the mandatory method and curbing the deduction of foreign branch losses against US income.
- The foreign tax credit on oil and gas income would have been limited. (NN)
- Subpart F would have been tightened, eliminating a safe harbor relating to minimum distributions of subpart F income by ending deferral of shipping income and other technical changes. Currently, if a minimum proportion of subpart F income is distributed, the undistributed remainder can still be deferred. (CEN)

Several of these features emerged in tax legislation passed in 1975 and 1976.

Tax Reduction Act of 1975

- Foreign income taxes paid on foreign oil and gas extraction income qualified as creditable taxes only to the extent that they not exceed foreign income multiplied by the US corporate tax rate (then 48 percent) plus 2 percent, or a maximum of 50 percent. Taxes in excess of this amount could be carried over, but to the extent the carry-overs are unused, they were neither creditable nor deductible. (CEN)
- New basket of income created for foreign oil-related income to prevent attribution of foreign taxes on oil-related income to other types of income through a holding company or otherwise. (CEN)
- Recapture rule enacted for foreign oil-related losses. Once a foreign branch loss was claimed as a deduction against US income, future foreign oil-related income was redesignated as US-source income to

the extent necessary to recapture the tax benefit created by the prior loss. (CEN, on the argument that the United States generally limits corporate tax deductions to the amount of business income subject to US tax)

- Subpart F amended to end deferral for shipping income earned by a foreign subsidiary of a US parent corporation, to the extent that the income was not reinvested in shipping operations. (CEN)
- Safe-harbor minimum distribution rules of subpart F repealed. Deferral was thereby totally ended for passive income earned in tax haven countries. However, active income, including manufacturing income, earned in low-tax countries could still be deferred.

Tightening subpart F had an attenuated effect, as many US corporations, including some financial institutions, were beginning to generate excess foreign tax credits because of rising foreign tax rates. The excess foreign tax credits could shield erstwhile undistributed subpart F income (even though it became deemed distributed) from current US taxation.

Tax Reform Act of 1976

- Per-country limitation on the foreign tax credit repealed, leaving the overall limitation as the mandatory method. However, separate basket-of-income limitations were retained for passive interest income and oil-related income. (CEN)
- General recapture rule adopted: If a foreign loss had previously reduced US tax on US operations, then subsequent foreign-source income was redesignated as US-source income to “restore” the US tax base. However, there was no symmetrical rule for US losses that previously reduced a firm’s ability to utilize its foreign tax credits. (CEN, following the argument applied to the recapture provision for oil in the 1975 act)
- For foreign oil and gas extraction income, foreign tax credit limited to the US corporate rate (then 48 percent) rather than the corporate tax rate plus 2 percent, as in the 1975 act. As of 2007, the applicable extraction limit is 35 percent. (CEN)
- Foreign tax credits denied to companies that participated in an international boycott, but only for taxes paid to the boycotting countries. Deferral was also terminated for income earned in boycotting countries. These provisions were a response to the Arab League’s boycott of Israel, marking the first important occasion in which the taxation of foreign income was used as an economic sanction. On

earlier occasions, foreign taxation had been used as an incentive to promote certain goals, e.g., through the Western Hemisphere Trade Corporation.

- By a close Senate vote (47–43), deferral was not terminated across the board. In a 1978 Senate vote, deferral was again preserved, this time by a wide margin (61–17). (CIN)
- Section 367 amended to require recognition of gain upon the outbound transfer of intellectual property rights to a foreign subsidiary.

Treasury Regulations under Section 861

- After many years of internal debate, Treasury regulations issued that set forth rules for allocating and apportioning research and development (R&D), general and administrative (G&A), and interest expenses; state taxes; and miscellaneous deductions to foreign-source income (see appendix A8). In many cases, the new rules resulted in the attribution of more deductions to gross foreign-source income; consequently, they reduced the foreign tax credit limit and resulted in the denial of foreign tax credits (technically, the creation of excess foreign tax credits).

Congressional legislation subsequently suspended the R&D allocation and apportionment rules. The interest allocation rules were tightened by the Tax Reform Act of 1986 and liberalized by the AJCA of 2004.

IRS Revenue Rulings 78-61, 78-62, and 78-63

- Tests set forth by the IRS for a foreign tax to qualify as a creditable income tax. These revenue rulings were anticipated by revenue rulings on Indonesian petroleum taxes. The gain on which the foreign tax was levied had to be realized in the US sense of realization of income, and the foreign tax had to be designed to reach net gain and imposed on the receipt of income rather than on transactions, sales, or the privilege of doing business. (CEN)

These revenue rulings, which questioned the creditability of many foreign oil and gas taxes, were refined and codified in subsequent temporary and proposed Treasury regulations issued by the Carter administration. However, final Treasury regulations issued by the Reagan administration allowed the splitting of foreign charges between tax and nontax amounts. The tax amounts could be claimed as foreign tax credits; the nontax amounts could be deducted.

Economic Recovery Tax Act of 1981

- No significant foreign provisions enacted, but extensive tax cuts laid the groundwork for subsequent attempts to find new revenue elsewhere, including new taxation of foreign-source income. These efforts flowered in the Tax Reform Act of 1986.
- Termination of deferral for foreign oil-related income debated and rejected. (CIN)

Tax Equity and Fiscal Responsibility Act of 1982

- For oil and gas operations, separate limitation for oil-related income repealed. In addition, in determining the limit on foreign oil and gas extraction taxes, oil and gas extraction losses incurred in one foreign country had to be offset against foreign extraction income regardless of where earned. (CEN)
- Deferral terminated for certain foreign base company oil-related income, such as refining, transportation, and marketing, by enumerating such income under subpart F. (CEN)

Tax Reform Act of 1984

- Section 367(d) introduced, governing outbound transfers of intangible property, such as patents, copyrights, trademarks, and trade secrets. Instead of recognition of all gain upon transfer, required by the Tax Reform Act of 1976, the transfer of intangible property to a foreign corporation was treated as giving rise to a stream of royalty payments over its useful life.

Deficit Reduction Act of 1984

- Replaced the domestic international sales corporation with the foreign sales corporation (FSC; see appendix A4).

Tax Reform for Fairness, Simplicity, and Economic Growth (Treasury I, 1984)

- Eventually led to the Tax Reform Act of 1986. In this wide-ranging set of tax reform proposals, Treasury I proposed to replace the overall limitation on the foreign tax credit with a per-country limitation

(CEN), and proposed a partial integration of corporate and shareholder taxation by allowing a 50 percent deduction, at the corporate level, for dividends paid.

The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity (Treasury II, 1985)

- More refined set of wide-ranging tax reform proposals moving toward the Tax Reform Act of 1986. Among its provisions, Treasury II, like Treasury I, proposed to replace the overall limitation with the per-country limitation. It also limited the scope of proposed corporate and shareholder tax integration to a 10 percent deduction for dividends paid.

Tax Reform Act of 1986

- Significantly reduced the foreign tax credit and terminated deferral for additional categories of income, driven by the need to ensure a revenue-neutral act.
- Instead of adopting the Treasury I and II proposals for a per-country limitation on the foreign tax credit, existing passive interest basket of income for foreign tax credit limitation purposes expanded and new baskets of income created, resulting in the following list of baskets of income, each with its own foreign tax credit limitation:
 - ◆ interest income subject to high foreign withholding taxes;
 - ◆ financial services income (i.e., income derived from the active conduct of banking, insurance, or financing of business);
 - ◆ shipping income;
 - ◆ dividends from each noncontrolled section 902 corporation (a section 902 corporation is a foreign corporation in which the US corporation holds at least a 10 percent share; a noncontrolled foreign corporation is one not controlled by US shareholders; these are sometimes called 10/50 corporations because they are owned not less than 10 percent nor more than 50 percent by US shareholders);
 - ◆ passive income, including interest income subject to low foreign withholding taxes, dividends, royalties and fees, and all gains from the sale of foreign corporate stock—except to the extent those gains are treated as a dividend;
 - ◆ DISC dividends;

- ◆ FSC taxable income attributable to foreign trade income; and
- ◆ distributions from an FSC to its parent corporation.

All other foreign-source income fell in the “general limitation” basket of income, which thus included dividends paid to the US parent by foreign manufacturing subsidiaries as well as foreign-source export income (including the US parent’s share of foreign-source income derived through FSC exports). (CEN)

- Special 34 percent of income limit retained on the foreign tax credit for foreign oil and gas extraction income.
- Special “look-through” rules enacted so that income earned by first-, second-, and lower-tier subsidiaries retained original character, even when passed up the corporate chain as dividends, interest, rents, or royalties.
- Deferral terminated for all banking and third-country insurance income by bringing these types of income within subpart F. Banking and insurance income earned in low-tax jurisdictions would be taxed currently by the United States, placing US financial institutions at a competitive disadvantage relative to their European and Japanese counterparts. (CEN) This provision was amended by the Taxpayer Relief Act of 1997, so that financial service income is generally not taxed currently. (CIN)
- Reinvestment exception to the termination of deferral for shipping income repealed. Other safe harbor provisions of subpart F were abolished. (CEN)
- Source-of-income rules significantly altered, affecting the foreign tax credit limitation and the taxation of the US income of foreign corporations (see appendix A6).
- Interest expense of any member of an affiliated group apportioned between US- and foreign-source income on a group-wide basis, prorated according to the US and foreign assets of the entire group. However, the interest expense of foreign subsidiaries was not accounted for in the apportionment (see appendix A8).
- Income from section 367(d) transactions commensurate with the income attributable to the intangible property (see appendix A9).

Omnibus Budget Reconciliation Act (OBRA) of 1986

- Foreign tax credit disallowed altogether for taxes imposed by countries not recognized by the United States and by countries that support terrorism.

OBRA 1993

- New significant antideferral provision added to the Internal Revenue Code (IRC, section 956A) subjecting accumulated active business profits of CFCs that were not reinvested in active business assets (excess passive assets) to current US taxation. (CEN)

The legislative history of OBRA 1993 suggests that Congress understood that exceptions to the subpart F rules for active business operations of a CFC were justified because US-owned businesses abroad had to remain competitive with their foreign counterparts. However, Congress felt that deferring US tax on accumulated active business profits was unnecessary to maintain competitiveness for US-owned businesses. Section 956A was repealed in 1996 (see below).

Small Business Job Protection Act of 1996

- Repealed section 956A (effective for tax years starting after 1996) after Congress found that the law provided incentives for CFCs to make foreign investments, enter into transactions, and engage in reorganizations to avoid application of the provision. On the whole, these avoidance techniques discouraged investment in the United States. (CIN)
- Changed the rules relating to the constructive dividend treatment of earnings invested in US property (see Revenue Act of 1962 above and appendix A3).

Taxpayer Relief Act of 1997

- Extended the definition of foreign personal holding company income to additional categories, such as payments in lieu of dividends made in certain loan transactions, income from notional principal contracts, and gain recognized by a CFC on the sale or exchange of stock in another foreign corporation. (CEN)
- Eliminated the requirement that the foreign tax credit limitation be computed based on a separate basket for dividends from each 10/50 corporation for earnings and profits (E&P) accumulated in post-2002 tax years (see appendix A2). (CIN)
- Added section 954(h), which generally excludes (on a temporary basis) financial institution income earned abroad from subpart F. (CIN) Subsequent legislation has extended this relief provision several times.

Treasury Proposed Regulations 1999 (Hybrid Entities)

In 1998 the Treasury published two notices (98-11 and 98-35) and issued proposed regulations to deal with hybrid entities (i.e., entities treated as separate taxable entities under foreign law but as pass-through entities for US tax law purposes). Those entities have been widely used to avoid subpart F. The Treasury focused renewed attention on the policy rationale underlying the current structure of subpart F, including CEN theory. (CEN)

Hybrid arrangements generally entail deductible payments to reduce the taxable income of a CFC under foreign law, thereby reducing the CFC's foreign tax. Moreover, under foreign law, hybrid arrangements create another entity to receive the deductible payments, which are low-taxed, passive income of the type to which subpart F was intended to apply. However, because of the entities' structure, this income is not taxed by the United States under subpart F.

The 1998 proposed regulations were severely criticized on various procedural and substantive grounds and replaced in 1999 by new proposed regulations. Under the new proposed regulations, payments received by a CFC from a hybrid branch would be recharacterized as subpart F income if certain conditions are met (see appendix A3). As of July 2007, the proposed regulations have not been issued in final form.

FSC Repeal and Extraterritorial Income Exclusion Act of 2000

In November 2000 as a result of the World Trade Organization (WTO) holding that the FSC was a prohibited export subsidy, Congress repealed the FSC structure and replaced it with the Extraterritorial Income Exclusion (ETI) Act, which phased-out the benefits of the FSC (see appendix A4).

The ETI Act adopted a partial territorial system, providing some relief from double taxation for both exports and foreign production. However, to use the territorial method, corporate taxpayers had to renounce their foreign tax credits with respect to the same earnings. The WTO Appellate Body found the ETI system to be an export subsidy in January 2002.

AJCA of 2004

- ETI for transactions entered into after December 31, 2004 repealed in response to the decision of the WTO Appellate Body in 2002, subject to a phase-out and phases in a 9 percent deduction for domestic manufacturing activities as a replacement for the ETI regime. As a result, in 2010 the US corporate income tax rate on domestic manufacturing

activity will be 31.85 percent, compared with the general corporate rate (also applied to foreign-source income) of 35 percent.

- Aimed to stop abusive corporate inversion transactions by defining two different types of corporate inversion transactions and establishing different adverse tax consequences for each type (see appendix A5). (CEN)
- Corporate taxpayers provided with a one-year window to make an election to claim a deduction equal to 85 percent of “cash dividends” in excess of a base-period amount received from CFCs if the dividends were invested in the United States under a proper domestic reinvestment plan, as approved by a top officer and the board of directors. (CIN) The resulting statutory tax rate on repatriated dividends in 2005 was 5.25 percent.
- Foreign personal holding company and foreign investment company regimes repealed, as the passive income in question is taxed under subpart F. Subpart F expanded to include certain income under personal service contracts.
- Gains or losses arising out of a commodity hedging transaction no longer included in foreign personal holding company income taxed under subpart F if the transaction satisfied the general definition of a hedging transaction under section 1221(b)(2).
- Subpart F look-through treatment extended to gain from selling partnership interests by a CFC. Exceptions under subpart F modified for “active financing income.”
- Foreign tax credit (FTC) baskets reduced from nine to two (passive and general limitation) for tax years beginning after December 31, 2006, making it easier for US multinationals to cross credit foreign income tax from different sources or countries and reducing complexity. (CIN)
- Interest apportionment rules reformed for the first tax year beginning after December 31, 2008 so that fewer interest deductions are allocable against foreign-source income. (CIN)
- FTC carry-forward extended from five to ten years, reducing the tendency of companies to make business decisions based on expiring FTCs and reducing the carry-back period to one year. (CIN)
- 90 percent limitation applicable to the FTC removed for alternative minimum tax purposes.
- Recapture of overall domestic losses allowed, increasing foreign tax credits similar to the current procedure for recapturing overall foreign losses under section 904(f). (CIN)

- Look-through rules applied to all dividends from 10/50 companies under section 902, regardless of when companies accumulated earnings. (CEN)
- Section 902 and 960 deemed-paid foreign tax credits allowed to flow through to domestic and foreign partnerships. (CIN)
- Disallowance of foreign tax credits expanded under section 901(k) to include credits for gross-basis foreign withholding taxes for any item of income or gain from property if the taxpayer that receives the income or gain has not held the property for more than a certain minimum amount of days. (CEN)

Tax Increase Prevention and Reconciliation Act of 2005

- New section 954(c)(6) enacted that narrows the definition of “Foreign Personal Holding Company Income” by providing look-through treatment for certain payments between related CFCs (sunsets in 2009). See appendix A3 for more details. (CIN)

Appendix A2

History of US Foreign Tax Credit Limitations

Period	Rule in effect
1913–17	No foreign tax credit.
1918–20	No limitation.
1921–31	Overall limitation.
1932–53	Lesser of overall or per-country limitation.
1954–60	Per-country limitation; introduction of carry-over of excess foreign tax credits.
1961–75	<p>Either overall or per-country limitation, at the taxpayer’s election. Separate limitations established for types of income normally taxed by foreign countries either at very low rates or at very high rates.</p> <ul style="list-style-type: none"> ■ 1963–75: Passive interest income (generally low foreign taxes). ■ 1972–75: Domestic international sales corporation (DISC) dividends (generally low foreign taxes). ■ 1975: Oil-related income; limit on creditable amount of foreign taxes on extraction income (generally high foreign taxes).
1976–86	Overall limitation; foreign-source losses subject to recapture; limit on amount of foreign tax credit for extraction income.

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Period	Rule in effect
1976–86	<p>Though overall limitation was the general rule, separate limitations maintained for types of income characteristically taxed abroad at very low or very high rates.</p> <ul style="list-style-type: none"> ■ 1976–86: Passive interest income and DISC dividends. ■ 1976–82: Oil-related income. ■ 1985–86: Foreign sales corporation (FSC) taxable income attributable to foreign trade income; distributions from an FSC attributable to foreign trade income or qualified interest and carrying charges.
1987	<p>Overall foreign-source losses subject to recapture; continued limit on amount of foreign tax credit for extraction income. Separate limitations for</p> <ul style="list-style-type: none"> ■ interest income subject to high foreign withholding taxes; ■ financial services income; ■ shipping income; ■ dividends from each noncontrolled section 902 corporation; ■ passive income; ■ DISC dividends; ■ FSC taxable income attributable to foreign trade income; ■ distributions from an FSC attributable to foreign trade income or qualified interest and carrying charges; and ■ other income (i.e., general limitation basket of income). <p>In addition, no foreign tax credit allowed for taxes paid to countries participating in an international boycott (e.g., Syria), or that are not recognized by the US government (e.g., Angola at the time), or that support international terrorism (e.g., Iran).</p>
1988	<p>Foreign tax credit also disallowed for taxes paid to South Africa.</p>

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Period	Rule in effect
1993	Revenue Reconciliation Act of 1993 removes passive income from the definition of foreign oil and gas extraction income (FOGEI) and shipping income, placing it in the passive basket for foreign tax credit purposes.
1994	Treasury issues regulations (TD 8556) regarding the calculation of the foreign tax credit limitation under section 904 for taxpayers operating in countries with a hyper-inflationary currency.
1997	<p>Taxpayer Relief Act of 1997 changes the foreign tax credit regime:</p> <ul style="list-style-type: none"> ■ De minimis rule for an individual taxpayer: individual taxpayers exempted from foreign tax credit limitation with creditable foreign taxes of no more than \$300 for the tax year, no foreign gross income other than qualified passive income, and if taxpayer elects to have this de minimis rule apply. ■ Dividends paid by a 10/50 corporation: eliminates requirement that foreign tax credit limitation be computed based on a separate basket for dividends from each 10/50 corporation (i.e., a foreign corporation in which the taxpayer owns at least 10 percent of the voting stock and is not a controlled foreign corporation). Instead, dividends paid by all the taxpayer's 10/50 corporations out of earnings and profits accumulated in post-2002 tax years (post-2002 earnings) generally treated as income in a single separate basket. ■ Minimum holding period for certain taxes on dividends: new provision, section 901(k), provides that a US shareholder may not claim foreign tax credit for foreign withholding taxes imposed on dividends from a corporation or regulated investment company if the shareholder has not held the stock for a certain minimum number of days.
1998	Notice 98-5: Treasury announced that it would issue regulations and use other principles of existing law to disallow foreign tax credits in "a variety of abusive tax-motivated transactions with a purpose of acquiring or

(timeline continues next page)

Period	Rule in effect
1998	generating foreign tax credits that can be used to shelter low-taxed foreign-source income from residual US tax.” The transactions targeted by the notice involved transactions “structured to yield little or no economic profit relative to the expected US tax benefits,” including transactions involving either: (1) the acquisition of an asset that generates an income stream subject to foreign withholding tax or (2) effective duplication of tax benefits through the use of certain structures designed to exploit inconsistencies between US and foreign tax laws.
1999	Internal Revenue Service (IRS) successfully litigates two cases asserting that the taxpayer’s foreign tax credits should be disallowed because the underlying transactions giving rise to the credits produced no economic profit apart from the tax savings generated by the foreign tax credit and, therefore, lacked economic substance (Compaq, IES Industries). In 2001, however, circuit courts reversed the tax court’s decisions in both cases.
2001	Treasury issues regulations (TD 8916) regarding the apportionment and computation of certain aspects of section 904(d) foreign tax credit limitation.
2005	American Jobs Creation Act of 2004: <ul style="list-style-type: none"> ■ reforms interest apportionment rules for the first tax year beginning after December 31, 2008, so that fewer interest deductions are allocable against foreign-source income; ■ reduces the number of foreign tax credit baskets from nine to two (passive and residual or “general limitation” basket) for tax years beginning after December 31, 2006, making it easier for US multinationals to cross credit foreign income tax from different sources or countries and reducing complexity; ■ extends FTC carry-forward from 5 to 10 years, thereby reducing companies’ tendency to make business decisions based on expiring FTCs. Also reduces the carry-back period to one year;

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Period	Rule in effect
	<ul style="list-style-type: none"> ■ removes the 90 percent limitation applicable to the FTC for alternative minimum tax (AMT) purposes; ■ allows recapture of overall domestic losses, thereby increasing FTCs, analogous to the current procedure of recapturing overall foreign losses under section 904(f); ■ applies look-through rules to all dividends from 10/50 companies under section 902, regardless of when companies accumulated earnings; ■ allows sections 902 and 960 deemed-paid FTCs to flow through domestic and foreign partnerships; and ■ expands the disallowance of FTCs under section 901(k) to include credits for gross-basis foreign withholding taxes for any item of income or gain from property if the taxpayer receiving the income or gain has not held the property for more than a certain minimum number of days.
2006	<p>New regulations were proposed (REG-124152-06), which provide guidance relating to the determination of who is considered to pay a foreign tax for purposes of sections 901 and 903.</p> <p>The IRS finalized regulations under section 704 dealing with the foreign tax credit in a partnership context (TD 9292).</p>
2007	<p>New regulations were proposed (REG-156779-06), which would disallow foreign tax credits for foreign taxes purportedly paid in connection with certain artificially engineered, highly structured transactions involving passive income that entail as “noncompulsory” tax payments, and thus are not eligible for the foreign tax credit. Generally, the guidance targets cross-border borrowing, lending, and asset holding transactions designed specifically to garner inappropriate foreign tax credits for US taxpayers. The IRS set out six detailed technical conditions that a transaction must meet in order to fall into the inappropriate category. However, the IRS reserved the right to pursue “substantially similar” deals that may not meet all six tests.</p>

Appendix A3

History of US Deferral of Current Taxation of Controlled Foreign Corporations

Period	Rule in effect
1913–62	Full deferral.
1963–75	Full deferral except income characterized as passive income under subpart F: <ul style="list-style-type: none"> ■ designated passive income (interest, dividends, rents, and royalties); ■ foreign base company sales and services income (e.g., income earned by a tax haven sales subsidiary); and ■ income from the insurance of US risks.
1976–82	Full deferral except above categories, plus shipping income in excess of the increase in qualified shipping investments and income derived from a country participating in an international boycott.
1983–86	Full deferral except above categories, plus foreign oil-related income.
1987	Full deferral except <ul style="list-style-type: none"> ■ a broad range of passive income; ■ foreign base company sales income; ■ foreign base company services income;

(timeline continues next page)

Period	Rule in effect
1987	<ul style="list-style-type: none"> ■ shipping income whether or not reinvested in shipping operations; ■ oil-related income; ■ income derived in the conduct of a banking, financing, or similar business (this provision is effectively repealed by the Tax Relief Act of 1997); ■ investment income derived in the conduct of an insurance business; ■ income from the insurance of all risks (not only US risks) outside the country of incorporation of the CFC; and ■ income derived in foreign countries that participate in an international boycott, that are not recognized by the US government, or that support international terrorism.
1988	Full deferral except for above categories, plus income derived in South Africa.
1991	Congressional proposal to abolish deferral for all CFCs fails (see appendix A1).
1993	<ul style="list-style-type: none"> ■ New legislation (section 956A) restricting the benefits of deferral for undistributed earnings that are not reinvested in active business assets by requiring the deemed repatriation of a portion of the untaxed profits of a CFC with “excess passive assets.” Section 956A repealed in 1996 after Congress found that it provided incentives for CFCs to make investments, enter into transactions, and engage in reorganizations to avoid application of the provision. ■ Treasury report on international tax reform discusses, among other issues, various options for simplification of subpart F rules.
1996	Congressional changes in rules relating to the constructive dividend treatment of earnings invested in US property. Under these rules, if any CFC invested its accumulated earnings that were not subpart F income in enumerated types of US property and effective repatriation of the earnings to the United States occurred, the transaction was treated as a constructive dividend. The modifications were

(timeline continues next page)

Period	Rule in effect
1996	intended to improve the mechanical operation of the provisions but did not alter the basic purpose or scope of the rules.
1997	Congressional extension of the definition of a “foreign personal holding company income”—which is subject to current US taxation without the benefit of deferral—to additional categories, such as payments in lieu of dividends made in certain securities-lending transactions, income from notional principal contracts, and gain recognized by a CFC on the sale or exchange of stock in another foreign corporation. Congress effectively repealed the application of subpart F to financial institutions earning income abroad.
1998	Exceptions to the definition of foreign personal holding company income broadened (1998, 1999, 2002, 2004) for certain income derived from the active conduct of banking, financing, or similar business by a CFC predominantly engaged in the active conduct of such a business. In addition, a special exception is enacted for income received from an unrelated person and derived from specified investments made by a qualified insurance company.
1999	Internal Revenue Service proposed regulations dealing with hybrid entities used to avoid subpart F. A hybrid entity is one treated as a separate taxable entity under foreign law but as a pass-through entity for US tax law purposes. As of July 2007 the proposed regulations have not been issued in final form. Under the proposed regulations, payments received by a CFC from a hybrid branch would be recharacterized as subpart F income under three conditions: <ul style="list-style-type: none"> ■ A hybrid branch payment was made between a CFC and the hybrid branch of a related CFC. ■ The hybrid branch payment reduced foreign tax. ■ The hybrid branch payment fell within the definition of foreign personal holding company income if the payer was a separate CFC created or organized in the jurisdiction where foreign tax is reduced.

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Period	Rule in effect
2000	<p>Policy study published by Treasury regarding deferral of CFC income:</p> <ul style="list-style-type: none"> <li>■ Considers options for reforming or replacing the subpart F regime, including the following options: <ul style="list-style-type: none"> <li>◆ repeal of deferral altogether; <li>◆ repeal of deferral subjecting foreign-source income to a lower rate of tax; and <li>◆ retain current subpart F, but end foreign-to-foreign related party rules and replace them with an effective tax rate test. <li>■ Discusses challenges to subpart F rules created by growth of services income and electronic commerce (see appendix E). <li>■ No specific recommendations to reform or replace subpart F.
2004	<p>American Jobs Creation Act of 2004 (PL 108-357):</p> <ul style="list-style-type: none"> <li>■ repeals subpart F rules relating to foreign base company shipping income; <li>■ provides that foreign personal holding company income does not include gains or losses arising out of a commodity-hedging transaction if the transaction satisfies the general definition of a hedging transaction under section 1221(b)(2); <li>■ extends subpart F look-through treatment to gains derived from the sale of a partnership interest by a CFC; <li>■ repeals the foreign personal holding company and foreign investment company regimes, as subject matter covered under subpart F; expands subpart F to include income derived under personal service contracts; <li>■ precludes section 956 constructive dividend treatment when CFCs invest earnings in securities that they hold as dealers and obligations acquired from a US person that is not a domestic corporation or a US shareholder of the CFC or a partnership;

(timeline continues next page)

Period	Rule in effect
2004	<ul style="list-style-type: none"> ■ provides corporate taxpayers with a one-year window to elect to claim a deduction equal to 85 percent of “cash dividends” in excess of a base-period amount received from CFCs if dividends are invested in the United States under a proper domestic reinvestment plan approved by a top officer and the board or directors; and ■ modifies the exceptions under subpart F for active financing income.
2005	<p>The President’s Advisory Panel on Federal Tax Reform issues a report recommending two alternative options to reform the Internal Revenue Code. The primary international proposals under the first option are</p> <ul style="list-style-type: none"> ■ adopting a territorial method for taxing active foreign income, pursuant to which (i) dividends paid by a foreign affiliate (a branch or a controlled foreign subsidiary) out of active foreign earnings would not be subject to corporate level tax in the United States and (ii) payments from a foreign affiliate that are deductible abroad, such as royalties and interest, would generally be taxed in the United States; ■ providing that expenses incurred in the United States to generate exempt foreign income would not be deductible against taxable income in the United States; ■ taxing in the United States, on a current basis, foreign passive income generated by foreign assets that can be easily relocated to take advantage of US tax rules; ■ devoting additional resources to transfer pricing enforcement; and ■ under the second option to reform the Internal Revenue Code, imposing a flat tax on all business cash flow, defined as sales or receipts less the cost of materials, labor services, and purchases of business assets. International transactions would be taxed on a destination basis. The cash flow would be rebated on exports, and imports could not be deducted from cash flow.

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Period	Rule in effect
2006	<p>Tax Increase Prevention and Reconciliation Act of 2005 adds Section 954(c)(6) to the Code that provides for certain look-through treatment for some payments made by CFCs to related CFCs. Under the new look-through rules, dividends, interest, rents, and royalties received or accrued by a CFC from related CFCs attributable to non-subpart F income of the payer CFC will not be treated as subpart F income to the recipient CFC. By enacting this Section, Congress took a major step toward permitting deferral for most active earnings of CFCs. Section 954(c)(6) applies, however, only to taxable years of foreign corporations beginning after December 31, 2005, and before January 1, 2009, and to taxable years of US shareholders with or within which such taxable years of the foreign corporations' end (as of July 2007, it is not clear whether Congress will extend the application of Section beyond year 2008).</p>

Appendix A4

History of US Taxation of Merchandise Export Income

US taxation of merchandise export income has been colored by two recurring questions. First, to what extent should export profits be regarded as having their source in the exporting country, and to what extent should they be “sourced” in the importing country? Second, to what extent should export profits be taxed at a lower statutory rate than profits earned on domestic income?

Revenue Act of 1918

- Net income derived from exports was sourced where the sale of export goods occurred. The place of sale was ordinarily considered to be the location where the marketing activity took place. Hence
 - ◆ all profits that US corporations earned from the production of export goods in the United States and their sale abroad were deemed foreign-source income; and
 - ◆ all profits that foreign corporations earned from the production of export goods abroad and their sale in the United States were deemed US-source income.

The foreign-source income of a US corporation was subject to US taxation but was eligible for the foreign tax credit. The foreign-source income of a foreign corporation was not subject to US taxation.

Revenue Act of 1921 and 1922 Regulations

- The 1921 act established a new source rule for foreign corporations engaged in exporting to or importing from the United States. Income earned through exporting and importing was to be divided between US-source income and foreign-source income as prescribed by Treasury regulations.
- The 1922 Treasury regulations established two apportionment formulas:
 - ◆ Under the first formula, if the corporation could establish an independent factory price (IFP), and if the selling branch was located in a country other than the place of manufacture, then the IFP would determine the amount of export income sourced in each country. For example, if a widget cost \$10 to make in a factory located in country A, and if the IFP was \$13, and if the widget was sold by the selling branch in country B for \$15, then \$3 of export income (\$13 minus \$10) would be sourced in country A and \$2 (\$15 minus \$13) would be sourced in country B.
 - ◆ Under the second formula, if the foreign corporation did not establish an IFP, export profits would be apportioned between the exporting country and the importing country on the basis of property (manufacturing assets located in the exporting country) and sales (located in the importing country).
- The House of Representatives passed a provision to create a special foreign trade corporation that would be exempt from US taxation of its foreign-source export income. The provision failed in the Senate.

Revenue Act of 1939

- China Trade Corporation established. This was the first of several statutory corporations designed to encourage US exports by taxing export profits at a lower rate.

Revenue Act of 1942

- Western Hemisphere Trade Corporation (WHTC) created. A qualifying WHTC (95 percent of income from foreign sources, all within the Western Hemisphere) was entitled to a special deduction: Whereas the general corporate rate was 48 percent, with the deduction, WHTC income was taxed at 34 percent.

The WHTC was repealed in 1976 for tax years beginning in 1979.

Internal Revenue Code of 1954 and 1957 Regulations

- Coverage of the 1922 regulations was extended to US as well as foreign corporations.
- Formulas 1 and 2 of the 1922 regulations were carried over in the 1957 regulations as “examples” 1 and 2.
- The “passage-of-title” test replaced the marketing activity test of the 1918 act. Sales were deemed to be located in the country where title to goods passed, whether or not any marketing activity took place there.
- In example 2 of the 1957 regulations, the apportionment formula that applied in the absence of an IFP was spelled out. One-half of export net income was sourced according to property values and one-half according to sales location. For example, if a US corporation manufactured a widget for \$200 and sold it for \$240, and if title passed in Switzerland, then \$20 of export income was sourced in the United States (half of the difference between \$240 and \$200) based on manufacturing assets and \$20 was sourced in Switzerland based on sales location.

As US corporate tax rates dropped in the 1980s relative to foreign corporate tax rates, the foreign-source income designation became more important. Using the overall foreign tax credit limitation, a US corporation could use excess foreign tax credits generated on foreign operations to shield foreign-source export income (which foreign countries usually taxed lightly if at all) from US taxation.

Revenue Act of 1962

- Export trade corporation (ETC) created to soften the impact of subpart F on US exports. A US parent could exclude from its own gross income the foreign base company income generated by an ETC that met several tests: 75 percent of ETC gross income had to be export trade income and 90 percent of ETC gross income from foreign sources; the excluded income could not exceed 150 percent of export promotion expenses or 10 percent of gross receipts, whichever was less; and the income had to be invested in export trade assets (inventory, physical facilities, etc.). The ETC has been little used because of these restrictive tests, but the provisions remain in force.

Revenue Act of 1971

- The Domestic International Sales Corporation (DISC) was created to lighten the tax burden on US exports. Key provisions included the following:
 - ◆ One-half of net export income (combined taxable income) could be allocated to the DISC and one-half to the US parent corporation. Other allocation rules were permissible but were used less frequently.
 - ◆ One-half of a DISC's income was deemed distributed to its parent corporation. Tax was deferred on the undistributed half. When the DISC was terminated in 1984, all deferred taxation of DISC income was forgiven.
 - ◆ The normal corporate tax rate at the time was 48 percent, whereas the tax rate on export earnings was 36 percent: 50 percent of export income was taxed at 48 percent; 25 percent of DISC income was deemed distributed to the parent and taxed at 48 percent; the 25 percent of DISC income not distributed was not taxed; $\{[0.5 \times 0.48] + [0.25 \times 0.48] + [0.25 \times 0.0] = 0.36\}$.

Although DISC income was deemed foreign-source income, it was put in its own "basket of income" and could not be used to absorb excess foreign tax credits on other income. Because of this limitation on the use of excess foreign tax credits, some firms found it more advantageous to export directly rather than through a DISC, thereby sourcing income on the basis of the 50/50 rule, which permitted them to shield the foreign-source export income—roughly 50 percent of total export profits—from US taxation by using their excess foreign tax credits.

DISC benefits were scaled back starting with the Tax Reduction Act of 1975. Benefits were concentrated on firms with rapidly growing exports by an incremental rule that limited benefits on base-period exports but allowed full benefits for additional exports.

Deficit Reduction Act of 1984

- The Foreign Sales Corporation (FSC) essentially repealed and replaced the DISC, bringing the US tax treatment of export income into harmony with the General Agreement on Tariffs and Trade (GATT). However, small exporters—those with under \$10 million of DISC income—could still use a DISC, but had to pay an interest charge on deferred taxes. Key provisions of the FSC are:

- ◆ Unlike the DISC, which was a paper corporation, the FSC had to maintain a minimal foreign presence.
- ◆ FSC legislation effectively exempted 15 percent of the combined taxable income (net export income) earned by an FSC and its US parent corporation from US taxation.
- ◆ If title was passed abroad, up to 25 percent of combined taxable income could be deemed foreign-source income earned by the parent corporation.
- ◆ Replacement of the DISC was intended to be revenue neutral. However, the distribution of tax benefits was altered: Whereas the DISC favored fast-growing exporters with the incremental rule, FSC benefits were proportional to exports.
- ◆ If the parent corporation was in an excess foreign tax-credit position, use of the FSC effectively shielded 40 percent of export income from US taxation: 15 percent through FSC exemption, plus 25 percent through excess foreign tax credits, implying an effective US tax rate of about 20 percent.
- ◆ Compared with the post-1986 corporate tax rate of 34 percent, the effective tax rate on combined taxable income passing through an FSC was about 20 percent (60 percent of 34 percent).
- ◆ Like the DISC before it, the FSC was unavailable as a vehicle for exporting business services (e.g., insurance, accounting, or engineering services). Only services connected with merchandise exports were eligible for FSC benefits.

If a US corporation did not use an FSC (or a DISC before), it could characterize 50 percent of net export income as foreign-source income under the 50/50 method. Further, if a US corporation had excess foreign tax credits, then compared with the post-1986 corporate tax rate of 34 percent, the tax rate on export income would be 17 percent.

Treasury Tax Reform Proposals (1984)

- The Treasury proposed replacing the passage-of-title test and the 50/50 method with two new rules:
 - ◆ If exports were sold to an affiliate of the US corporation, the entire export profit was deemed US-source income.
 - ◆ If exports were sold to an unrelated foreign party, the entire export profit was deemed US-source income unless the US corporation maintained a foreign branch that materially participated in making the sale.

The Treasury proposals were incorporated in the 1985 House tax bill but were ultimately rejected by the Congress in deliberations leading up to the Tax Reform Act of 1986.

Internal Revenue Service Revenue Ruling 88-73 and Notices 89-10 and 89-11 (1988/89)

- The US corporation had to use the IFP if one existed and the exports were not sold through an FSC. In the Internal Revenue Service (IRS) view, using an IFP was never available as an election to the taxpayer.
- The 50/50 method had to be used when the US parent exported through an FSC.

The net result of IRS revenue ruling 88-73 and notices 89-10 and 89-11 was to encourage US corporations to route their exports through an FSC, generally speaking, enabling 40 percent of export income to be shielded from US taxation if the parent corporation had excess foreign tax credits (implying an effective tax rate of about 20 percent on export profits); it enabled 15 percent to be shielded if the parent corporation did not have excess foreign tax credits (implying an effective US tax rate of about 29 percent on export profits).

1997: First Round of World Trade Organization (WTO) Litigation of the FSC Regime

- In 1997, breaking 16 years of tax peace, the European Union challenged the FSC as a violation of the Uruguay Round Agreement on Subsidies and Countervailing Measures (ASCM), leading to a holding by the WTO Appellate Body that the FSC was a prohibited export subsidy.
- The holding called for the FSC to be dismantled by October 1, 2000.

FSC Repeal and Extraterritorial Income Exclusion Act of 2000

- In November 2000, as a result of the WTO's holding that the FSC was a prohibited export subsidy, the FSC regime was repealed by Congress and replaced by the Extraterritorial Income Exclusion Act (ETI), which phased out the benefits of the FSC.

- The ETI Act adopted a partial territorial system, providing some relief from double taxation for both exports and foreign production. However, corporate taxpayers could only use the territorial method by renouncing their foreign tax credits with respect to the same earnings.
- The key provisions of the ETI Act are:
 - ◆ A US taxpayer could elect to exclude from its gross income a portion of income from sale or leasing of property (so-called “qualifying foreign trade income”) for use outside the United States and from the rendering of various services outside the United States.
 - ◆ Qualifying foreign trade income is defined as the amount of gross income, which, if excluded, will result in a reduction of the taxable income of the taxpayer equal to the greatest of (a) 30 percent of the foreign sale and leasing income derived by the taxpayer from the transaction; (b) 1.2 percent of the foreign trading gross receipts derived by the taxpayer from the transaction; or (c) 15 percent of the foreign trade income derived by the taxpayer from the transaction.
 - ◆ The exclusion produced tax benefits comparable with the FSC benefits it replaced, but the benefits covered more activity; unlike the FSC, which required that property sold abroad be manufactured in the United States, the ETI exclusion applied even if the products were manufactured by the US taxpayer outside the United States.
 - ◆ The new regime applied to individuals and corporations in the same manner.

2000: Second Round of WTO Litigation of ETI Act

- The European Union brought a second WTO case asserting that the ETI did not pass muster; like the FSC, it constituted an illegal export subsidy.
- In August 2001 the original FSC panel sided with the European Union, holding that:
 - ◆ The ETI exclusion was an illegal export subsidy because it was contingent on exports.
 - ◆ The US had not fully disassembled the FSC program as previously directed.

- The Appellate Body upheld the panel's decision on January 14, 2002. This ruling launched a WTO arbitration proceeding to determine the level of retaliatory duties. The arbitration panel held that the European Union was entitled to retaliate against \$4 billion of US exports.

2004: American Jobs Creation Act of 2004

- Repealed the ETI Act for transactions entered into after December 31, 2004 (in response to the decision of the WTO Appellate Body from 2002), subject to a phase-out that would, among other things, allow current beneficiaries to claim ETI benefits in 2005 and 2006.
- Phased in a 9 percent deduction for domestic manufacturing activities to replace the ETI regime. The deduction eventually lowered the corporate tax rate for qualified activities to about 32 percent in 2010. Unlike the ETI regime, the domestic manufacturing deduction applies to all taxpayers deriving income from qualified domestic production activities, whether or not they are exporters. Potential beneficiaries include not only manufacturers but also handlers of agricultural products; software companies; film production companies; electric, gas, and water companies; construction companies; engineering firms; and architectural firms. The deduction is available to corporations, partnerships, other pass-through entities, and individuals.

Appendix A5

History of US Taxation of Foreign Corporations Doing Business in the United States

Foreign corporations can do business in the United States using either or both of two legal forms: unincorporated branches and subsidiary US corporations.

Unincorporated branches face two important tax issues. First, how much contact with the United States is required before the foreign corporation is considered to be engaged in a US “trade or business,” and thereby subject to US taxation as an unincorporated branch? Second, which types of income should be attributed to that branch?

Foreign corporations do business in the United States predominantly through subsidiary US corporations. With the rapid growth of foreign direct investment in the United States in the 1980s and 1990s, two issues have attracted attention. First, how much interest paid out by a foreign-owned US corporate subsidiary to its related foreign corporations can be claimed as a deduction in calculating US taxable income for the subsidiary? Second, has there been unusual abuse of the transfer pricing regulations (section 482) of the tax code by subsidiary US corporations and their foreign parents? These issues are examples of the more general question of allocating expense and dividing revenue between related enterprises doing business in two or more taxing jurisdictions.

Taxation Before Passage of the Foreign Investors Tax Act of 1966

- The tax regime facing foreign corporations on their US income depended on whether the corporation had an unincorporated branch in the United States—more technically, a US “trade or business.” The

latter term appears in over 300 code sections and has been the subject of numerous regulatory interpretations and court decisions. For reasons explained below, sometimes a foreign corporation would prefer to have its activities characterized as a US trade or business; sometimes not. In the 1920s the Internal Revenue Service (IRS) took an expansive view of the term. Later the IRS reconsidered its position and in 1941 won an important Supreme Court case, *Higgins vs. Commissioner*, 312 US 212 (1941), which held that mere recordkeeping associated with collecting passive US income from stocks and bonds was not a trade or business. Subsequent cases have turned on the degree of activity as shown by facts and circumstances.

- The income tax treaty analogue of a trade or business is a “permanent establishment.” US treaties define a permanent establishment in greater detail than US statutes define a trade or business. For example, a drilling rig may be defined as a permanent establishment only if it is in place for more than 12 months (the number of months varies from treaty to treaty). Colloquially, a permanent establishment is also called a US branch.
- Foreign corporations that were not engaged in a US trade or business were taxed at flat withholding rates on their US-source income. In such cases the general statutory rate was (and remains) 30 percent of gross US-source income, without allowing for business deductions. However, the withholding rates on most types of income are significantly reduced through bilateral tax treaties, though they are still imposed on gross income.
- Foreign corporations that were engaged in a US trade or business were taxed at graduated corporate rates on their net US-source income, allowing for business deductions. When such deductions outweighed the higher corporate rate, the foreign corporation could prefer to be characterized as having a US branch (i.e., a trade or business).
- Once a trade or business—or a permanent establishment—was found to exist, the “force-of-attraction” doctrine was used to link all US-source income of the foreign corporation to its US trade or business. This outcome caused foreign corporations that wanted to be taxed at flat (usually low) treaty rates on their passive income to be wary of establishing any business presence at all in the United States. Conversely, foreign corporations that would benefit from net income taxation would establish a trade or business to sweep in passive income.
- Foreign corporations (and other foreign persons) were not taxed by the United States on their foreign-source income. This was true

whether or not the foreign corporation was engaged in a US trade or business.

Foreign Investors Tax Act of 1966

- Force-of-attraction doctrine replaced by the concept of effectively connected income. Any income earned by a foreign corporation that was effectively connected to its US branch was taxed by the United States on a net income basis at graduated corporate rates. Other US-source income received by the foreign corporation was taxed on a gross income basis at flat withholding rates.
- Effectively connected income could include foreign-source as well as US-source income. Hence the pre-1966 exemption from US taxation for the foreign-source income of a US branch was repealed. However, the foreign-source effectively connected income of a US branch was allowed foreign tax credit on the same basis as the foreign-source income of a US corporation.
- Effectively connected income could include both “fixed and determinable” income (e.g., interest and dividends) and capital gains and losses if certain tests are met:
 - ◆ The income or the capital gains or losses were derived from assets used in the trade or business (the asset use test); or
 - ◆ The activities of the trade or business were a material factor in realizing the income or gain or loss (the activities test).
- Under these tests, most interest income that US branches of foreign banks earned was effectively connected income. However, the portfolio income and capital gains and losses incurred by other foreign corporations were generally not effectively connected income.
- Effectively connected income automatically included all other US-source income that the foreign corporation earned. To this extent, the force-of-attraction doctrine survives.
- Effectively connected income was entitled to normal deductions for business expense. Expense items were allocated between US-source and foreign-source income based on the usual allocation and apportionment rules (see appendix A8).
- US branches were not taxed on remittances of income to their foreign home offices. In this respect they were favored over subsidiary US corporations, as dividends and interest that subsidiaries paid to foreign parent corporations were subject to US withholding taxes at statutory or treaty rates. (This distinction was changed in the 1986 act.)

Foreign Investment in Real Property Tax (FIRPTA) Act of 1980

- Gains and losses of a foreign taxpayer realized on the disposition of “real property interest” were treated as income effectively connected with a US trade or business. No longer could foreign investors arrange their affairs to treat real property as an effectively connected activity in loss-generating years but not effectively connected—and therefore outside the US tax net—when selling the property at a profit.
- The term “United States real property” was broadly defined to include land, buildings, pipelines, mineral deposits, other natural resources, timber, etc.
- The term “interest” was defined to include fee ownership, leaseholds, options, and any interest in a US corporation that qualified as a United States real property-holding corporation, that is, a corporation with real estate as its principal asset. Narrow exceptions were provided for corporations with publicly traded shares.

Tax Equity and Fiscal Responsibility Act (TEFRA)

- For tax years beginning after December 31, 1983, US firms that were 50 percent or more foreign-owned, and foreign firms that were 50 percent or more foreign-owned and conducted business in the United States, were required to file an information return on form 5472, reporting transactions with related foreign persons. The purpose was to improve IRS monitoring of transfer prices and other business dealings that affected taxable income.

Tax Reform Act of 1986

- Branch profits tax and branch-level interest tax introduced to tax the US branches of foreign corporations on the same basis as subsidiary US corporations.
- The branch profits tax was imposed by taxing the branches of foreign corporations at 30 percent of the dividend equivalent amount—branch earnings minus certain exclusions, such as foreign sales corporation (FSC) earnings and earnings from the sale of real property (taxed under FIRPTA). The dividend equivalent amount was reduced by any reinvestment in the United States.

- If the dividend equivalent amount exceeded the income that would be taxable for a permanent establishment under a treaty, the treaty rules took precedence. However, a second-level withholding tax was imposed on dividends subsequently paid out by the foreign corporation if a treaty prohibited branch profits tax and if the dividends paid by the foreign corporation were funded to the extent of 25 percent or more by US branch earnings.
- The branch-level interest tax was determined by a series of special computations:
 - ◆ The foreign corporation first had to compute its US-connected liabilities, namely, a theoretical slice of total corporate debt. The foreign corporation could elect to calculate US-connected liabilities either as a pro rata share of corporate worldwide debt, determined on the basis of US and worldwide assets, or as an arbitrary percentage of US effectively connected assets (in the case of a bank or finance business, 95 percent; in the case of any other business, 50 percent).
 - ◆ The foreign corporation had to then construct an applicable rate of interest, using one of two methods: the “branch book/dollar pool” method or the “separate currency pools” method.
 - ◆ A theoretical deduction for interest expense was calculated as the applicable interest rate times US-connected liabilities.
 - ◆ If the theoretical deduction exceeded the amount of interest actually paid by the branch—whether to its home office or to other creditors—the excess was taxed at the flat 30 percent statutory rate or lower treaty rate that applied to nonportfolio interest. This tax on the computed excess deduction was known as the branch-level interest tax.

Omnibus Budget Reconciliation Act of 1989

- Section 163(j) enacted to curtail “earnings stripping” of subsidiary US corporations by their foreign parent corporations. Earnings stripping is said to occur when a large fraction of corporate-level earnings is paid out as interest to the foreign corporate group and claimed as a deduction against US corporate income but taxed by the United States only at zero or low treaty withholding rates.
- The earnings stripping provisions in section 163(j) denied the subsidiary US corporation a deduction for a proportion of the interest paid to related foreign corporations, calculated as the reduction in the withholding rate provided by treaty divided by the 30 percent

statutory withholding rate, then multiplied by 50 percent of “adjusted taxable income,” defined as income before net interest expense, net operating loss carryovers, and depreciation, amortization, or depletion allowances.

- Section 163(j) applied to interest paid or accrued on fixed-term debt in taxable years beginning after July 10, 1989, and on debt incurred after that date.
- For tax years beginning after July 10, 1989, any 25 percent or more foreign-owned US corporation had to provide the IRS with information on related-party transactions (section 6038A) upon request. A reporting corporation under section 6038A was required to maintain at its US location, in English, records that the IRS deemed appropriate to determine the correct transfer price.
- The purpose of section 6038A was to facilitate IRS monitoring of the taxable income of foreign-owned US corporations.

Revenue Reconciliation Act of 1990

- Expanded the application of information-reporting and record maintenance rules under section 6038A from 25 percent-plus foreign-owned corporations to all foreign-owned corporations carrying on a trade or business in the United States. The reporting requirements were extended to all open tax years.
- New section 6038C extended the reporting and maintenance rules to records on nonrelated-party transactions.

Treasury Regulations under Section 6038A (1991)

- Sought mainly to implement section 6038A, but they also exempt several categories of foreign-owned corporations:
 - ◆ those with less than \$10 million in gross receipts;
 - ◆ those with aggregate gross payments to foreign related parties that do not exceed \$5 million, provided that gross payments are less than 10 percent of gross income;
 - ◆ those with gross income exempt from US taxation under section 883; and
 - ◆ those without a permanent establishment in the United States, as defined in the bilateral income tax treaty (even if they have a US trade or business as defined by US law).

Revenue Reconciliation Act of 1993

- Enacted new section 7701(l) authorizing Treasury regulations to recharacterize multiple-party financing transactions as a transaction directly among any two or more of the relevant parties, if such recharacterization “is appropriate to prevent avoidance of any tax.”
- Limited the scope of the portfolio interest exemption—which allowed interest to be paid free of withholding tax to foreign investors if the debt met certain requirements—by stipulating that post-1993 interest income would not be portfolio interest if determined by reference to (1) receipts, sales, other cash flow, income, or profits of the debtor or a related person; or (2) a change in the value of property owned by the debtor or a related person; or (3) dividends, partnership distributions, or similar payments made to the debtor or a related person; or (4) dividends, partnership, distributions, or similar payments made by the debtor or a related person. The Treasury could also, by regulation, deny the portfolio interest exemption to “any other type of contingent interest” if it found the denial “necessary or appropriate to prevent avoidance of Federal income tax.”
- Amended section 163(j) (“earning stripping”) to further restrict the ability of non-US investors to obtain a US tax deduction for interest expense. It treated all third-party loans guaranteed by tax-exempt or foreign related parties as related-party loans if the interest paid on such loans was not subject to gross basis taxation. In effect, the rule treated the third-party debt of a US company as a back-to-back loan from the bank to the guarantor and then from the guarantor to the US company. Before this change, the loans were not subject to the interest disallowance rule of section 163(j). This change significantly increased the taxable income of affected companies, thereby lowering the overall rate of return that foreign owners achieved on their US investments.

Treasury Regulations 1995 (TD 8611) (“Anti Conduit” Regulations)

- Regulations issued under the authorization of section 7701(l).
- When the regulations were invoked (see below) the intermediate entities (conduits) were disregarded in determining US taxes on international financing arrangements, which could include loans, leases, and licenses. The US tax results were then determined as if the loan were made directly from the foreign lender to the US borrower.

- Set forth the factors to trigger the exercise of power by the IRS to recharacterize conduit entities:
 - ◆ The participation of the intermediate entity reduced the tax imposed by section 881.
 - ◆ Such participation was “pursuant to tax avoidance plan.”
 - ◆ Either the intermediate entity was related to the financing or financed entity or participated in the financing arrangements only because the financing entity engaged in the transaction with the intermediate entity.
- Established a rebuttable presumption in favor of the taxpayer if the alleged conduit entity performed “significant financing activities with respect to the financing transactions forming part of the financing arrangement.”

Treasury Regulations 1997 (TD 8734)

- Enforced the basic withholding mechanism set forth in sections 1441 and 1442 on enumerated payments to foreign persons of US-source fixed or determinable annual or periodic income (usually referred to as “FDAP” income). FDAP income includes interest, dividends, rents, and royalties but generally excludes capital gains. Aimed at imposing accountability and retention of documentation at all stages of the payment process and replacing disparate withholding tax forms.
- Became effective (as amended in May 2000) on January 1, 2001.
- Required a withholding agent (generally, any person with control or direction over the making of a payment) to withhold 30 percent of the gross payment to a foreign person that constitutes FDAP income, unless an exception applies.
- The main exceptions to the 30 percent withholding requirement:
 - ◆ payees that certify their status as a US person;
 - ◆ income effectively connected to the conduct of a US trade or business, taxable on a net basis;
 - ◆ exempt income, e.g., portfolio interest payments;
 - ◆ payments to a qualifying resident of a jurisdiction with which the United States has an income tax treaty providing that the 30 percent rate may be reduced (often to zero percent); and
 - ◆ respecting financial institutions’ need to protect their own customer lists and foreign investors’ desire to protect their anony-

mity from the IRS, the regulations provided procedures whereby the names of beneficial owners would not ascend through the entire chain of intermediaries, including the withholding agent, to the IRS.

- Established a mechanism by which a foreign financial institution or a foreign branch of a US financial institution, under agreement with the IRS, can become a “qualified intermediary” (QI). As a QI, the financial institution can state that the owners are entitled to whatever withholding rate benefit is claimed in a global certificate filed with the withholding agent on behalf of the beneficial owners, who themselves have certified to the QI or another intermediary.

Taxpayer Relief Act of 1997

- Amended section 894 so as to deny treaty reductions in withholding tax on income derived by a foreign person through an entity viewed as “fiscally transparent” for US tax purposes (i.e., a pass-through entity such as a partnership). The denial applied if: (1) the item was not treated as an item of income of the foreign person under foreign law; (2) the foreign country did not impose tax on a distribution of the item by the entity to the foreign person; and (3) the treaty did not contain a provision addressing the application of the treaty to income derived through partnerships.
- Authorized the issuance of regulations under section 894(c)(2) that could specify the extent to which treaty benefits could be denied with respect to income derived by a foreign person through “regular” hybrid entities, that is, entities that the United States, but not the foreign country, treated as fiscally transparent, including partnerships, grantor trusts, and common trust funds.

US Treasury Department’s Preliminary Report on Corporate Inversion Transactions (May 2002)

- The US Treasury Department released in May 2002 a preliminary report examining the technical structure of corporate “inversion transactions,” defined as “a transaction through which the corporate structure of a US-based multinational group is altered so that a new foreign corporation, typically located in a low- or no-tax country, replaces the existing US parent corporation as the parent of the corporate group.”

- The report was stimulated by the marked increase in the frequency, size, and profile of such transactions in the years 1997–2001. The report described the current tax treatment of inversion transactions, the tax laws that facilitated them, the potential tax consequences resulting from them, and the tax laws driving many companies to consider them.
- The report suggested that the policy response to corporate inversion transactions should be broad enough to address the underlying differences in the US tax treatment of US-based companies and foreign-based companies, without regard to how foreign-based status is achieved (e.g., no distinction could be made between a new US-owned start-up corporation that incorporates in a foreign jurisdiction and a US-owned foreign corporation that results from a corporate inversion transaction).
- The report observed that corporate inversions occurred largely because of the tax savings available, recommending a two-pronged approach to reduce tax incentives:
 - ◆ The first prong aimed at tax motives associated with sheltering foreign-source income from US tax (i.e., avoiding the antideferential regime of subpart F and excluding foreign-source income completely from the US corporate tax base). As for this motive, the Treasury acknowledged that the US worldwide tax system had its faults and called for a comprehensive reexamination of the US international tax system as it applied to the foreign-source income of US corporations.
 - ◆ The second prong aimed at supposed tax loopholes enabling inverted corporations to shelter US-source income. To address that problem, the report focused on four main areas:
 - tightening the rules under section 163(j) to prevent the inappropriate use of related-party debt to generate deductions against income from US operations that otherwise would be subject to US tax;
 - ensuring that cross-border transfers and other related-party transactions, particularly transfers of intangible assets, could not be used to shift income out of the United States;
 - reviewing existing tax treaties to identify inappropriate reductions in US withholding tax that provided opportunities for shifting income out of the United States; and
 - establishing a Form 1099 reporting requirement for stock transfers in corporate inversions and other taxable reorganization transactions.

Treasury Regulations 2002 (TD 8999)

- The IRS issued final regulations under section 894 relating to the eligibility for treaty benefits of items of income paid by domestic entities that were not fiscally transparent under US law but were fiscally transparent under the laws of the jurisdiction of the person claiming treaty benefits—so-called domestic reverse hybrid (DRH) entities.
- The regulations were issued to address the phenomenon under which non-US multinationals were establishing DRH structures in the United States, manipulating the US tax treaty network to obtain tax-advantaged financing. The DRH structures were designed to provide a US deduction for the interest payment, zero withholding via a treaty provision, and low or no foreign taxation. The regulations altered the determination of tax treaty benefits with respect to US-source income of foreign persons.

American Jobs Creation Act of 2004 (AJCA)

- Among many other goals—foremost, repealing the FSC/ETI regimes and lowering the US corporate tax rate for manufacturing activity—the AJCA aimed to stop abusive corporate inversion transactions by defining two different types of corporate inversion transactions and establishing different adverse tax consequences for each type. The adverse consequences apply when the inverted corporation does not have substantial business activities in the new foreign home country compared with its total business activities.
 - ◆ For inversion transactions occurring after March 4, 2003 and involving at least 80 percent identity of stock ownership (i.e., when the former shareholders of the top-tier US corporation hold 80 percent or more of the stock of the new foreign parent), the AJCA deems the foreign parent to be a US corporation. For tax purposes, this effectively unwinds the inversion transaction.
 - ◆ For inversion transactions occurring after March 4, 2003 involving at least 60 percent but less than 80 percent identity of stock ownership, the AJCA taxes any inversion gain recognized by the inverted US corporation or domestic partnership and limits the use of favorable tax attributes (e.g., net operating loss carryovers or foreign tax credits) to offset tax on the inversion gain.
 - ◆ The anti-inversion penalties also apply to partnership transactions when a foreign corporation acquires substantially all of the properties constituting a trade or business of a domestic partnership. The penalties apply if the former partners of the domestic

partnership meet the 60 or 80 percent ownership requirement (summarized above) and the expanded affiliated group does not meet the substantial business activity threshold.

Additionally, the AJCA imposes a 15 percent excise tax on the value of all stock options and stock-based compensation held by insiders, top executives, and directors of a company that inverts.

Appendix A6

History of Source-of-Income Rules Prior to the Tax Reform Act of 1986

The distinction between foreign-source income (“sources without the United States”) and US-source income (“sources within the United States”) is important for three reasons. First, the United States historically has asserted taxing jurisdiction over foreign taxpayers only on their US-connected income, though in some circumstances the United States also taxes the US-connected foreign-source income of foreign taxpayers (see appendix A5). Second, the United States allows US taxpayers to credit foreign taxes only against the US tax on foreign-source income. Third, international norms formerly conceded primary and sometimes exclusive tax jurisdiction to the source country, though this is no longer a near-universal convention.

No conceptual “bright line” can be drawn between US-source and foreign-source income, as international income flows reflect economic activity carried on in one country by factors of production owned by residents of another country. Pragmatic considerations underpin the US source-of-income rules. How much weight should be given to the place of economic activity? Normally this place is the residence of the firm making the payment, and usually it is accorded the greatest weight. How much weight should be given to the place of factor ownership? Normally this is the place of residence of the firm receiving the payment. How much weight should be given to revenue collection? And how much weight should be given to using source rules as a disguised incentive for attracting or retaining economic activity?

Just because the United States designates a certain type of income as US-source does not mean that foreign taxing jurisdictions agree. In-

compatible source rules by different taxing authorities can result in double taxation.

Revenue Act of 1894

- Imposed on US persons a tax on income “from any source whatever.”
- Imposed a tax on foreign persons only on the income from “property owned” and any “business, trade, or profession carried on” in the United States.

The 1894 act was declared unconstitutional by the US Supreme Court in *Pollack v. Farmers Loan and Trust Co.*, 157 US 429 (1895), but its source-of-income concepts were carried over to later revenue acts.

Revenue Act of 1916

- Imposed a tax on all US-source income received by foreign persons and began the long legislative process of defining such income, starting with all interest paid to foreign persons by US residents.

Revenue Act of 1918

- Enlarged the enumeration of US-source income to include:
 - ◆ interest paid by US residents. This income was already classified as US-source income in the 1916 act; however, the 1918 act designated interest paid by US banks to foreign persons as foreign-source income, a designation that lasted until 1986. This was the first instance of altering the conceptual source rules to attract economic activity to the United States, in this instance, bank deposits from foreign persons;
 - ◆ dividends paid by US corporations; and
 - ◆ gains from the manufacture and sale of goods within the United States.

Revenue Act of 1921

- Set forth the first comprehensive statement of rules to determine source of income and allocation of expense (see appendix A8). Many

types of income were assigned a single source (either all US or all foreign), but some types of income—notably income generated by international merchandise trade—were assigned compound or mixed sources (part US and part foreign).

Between 1921 and 1986, the source rules were refined in statutes and occasionally altered in bilateral tax treaties but were not materially changed. The Tax Reform Act of 1986 entailed a sweeping overhaul of the source rules (see appendix A7).

Appendix A7

Comparison of Source-of-Income Rules Before and After the Tax Reform Act of 1986

Type of income	Rule before 1986 Act	Rule after 1986 Act
Interest income paid by a foreign person	Foreign source	Foreign source
Interest income (including original issue discount) paid by:		
US bank, savings and loan, or insurance company	US source if paid to a US person; foreign source if paid to a foreign person and not "effectively connected" to a US trade or business	US source, but exempted from US taxation if paid to a foreign person and not "effectively connected" to a US trade or business
Foreign branch of a US bank	Foreign source	Foreign source
Foreign branch of a US savings and loan	US source	Foreign source
80/20 corporation (a US corporation that derives at least 80 percent of its gross income from foreign sources)	All foreign sources	Foreign source only if 80 percent of the firm's gross income is from the active conduct of a foreign trade or business; moreover, if interest is paid to a related party, including a related US person (common ownership of 10 percent or more), the interest is foreign source only in the proportion that the 80/20 corporation's foreign-source income bears to its total income

(table continues on next page)

Type of income	Rule before 1986 Act	Rule after 1986 Act
Other US corporations, US Treasury, and other public borrowers	US source	US source, but all “portfolio interest” is exempted from US taxation if paid to a foreign person and not “effectively connected” to a US trade or business
Earnings of a US branch of a foreign corporation (other than a commercial bank)	Foreign source if less than 50 percent of the foreign corporation’s total income is “effectively connected” with a US trade or business over the prior three years; if 50 percent or more is effectively connected, then US source to the extent of effective connection	All US sources
Dividend income paid by:		
80/20 corporation	Foreign source	US source, but if paid to a foreign person and not “effectively connected” to a US trade or business, exempt from taxation to extent that the 80/20 corporation has derived foreign-source income
Other US corporation	US source	US source
Foreign corporation with US-source income above the threshold	US source to the extent the foreign corporation’s income is “effectively connected” to a US trade or business, once the threshold of 50 percent or more effectively connected income is passed	The 50 percent threshold is lowered to 25 percent
Foreign corporation with US income below the threshold	Foreign source	Foreign source
Rents and royalties (including payments for trade secrets, patents, copyrights, trademarks):		
If intellectual property is used in the United States	US source	US source

(table continues next page)

Type of income	Rule before 1986 Act	Rule after 1986 Act
If intellectual property is used in a foreign country	Foreign source	Foreign source
Gain (loss) on sale of real property:		
If located in the United States	US source	US source
If located in a foreign country	Foreign source	Foreign source
Sale of shares in US corporation with substantial US real property ownership	US effectively connected income, following Foreign Investment in Real Property Tax Act of 1980	US effectively connected income
Gain (loss) on sale of personal property, excluding merchandise exports and imports:		
Depreciable property	Passage-of-title test: if sold abroad, foreign source; if sold in United States, US source	Gain realized from the sale will be treated as US source income to the extent that depreciation deductions were previously allocated against US source income. To the extent that gain exceeds the depreciation deductions recaptured under this provision, the rules for inventory property apply (see below)
Intangible property	Passage-of-title test	In the case of noncontingent royalties, gain is US source if the seller is a US resident (including US branches and US subsidiaries of foreign corporations); gain is foreign source if the seller is a foreign resident (including foreign branches and foreign subsidiaries of US corporations); in the case of contingent royalties (e.g., royalties equal to 3 percent of sales), the source is the country where the rights are used

(table continues next page)

Type of income	Rule before 1986 Act	Rule after 1986 Act
Gain (loss) on sale of shares in affiliated foreign corporation	Passage-of-title test	Foreign source if the foreign corporation is 80 percent or more owned by the US corporation and the foreign corporation derives more than half its income from foreign business and the sale occurs in the country in which the affiliate conducts an active trade of business; otherwise US source if the seller is a US resident
Gain (loss) on sale of inventory property (i.e., merchandise exports and imports):		
Trading company income (i.e., a firm both purchases and sells the merchandise but is not engaged in manufacturing)	US source if sold in United States; foreign source if sold abroad (passage of title determines the place of sale; the place where the merchandise was purchased is immaterial)	Same
Production and export of produce from farm, forest, mine, or oil or gas well	Generally, all US source if the natural resource is located in United States; otherwise all foreign sources	Allocated between US and foreign sources based on the fair market value of the product at the export terminal. Conversely, gross receipts on a US sale of products derived from the ownership or operation of foreign farm, deposit, or timber are allocated with reference to the value at the foreign export terminal
Manufacture and sale of merchandise (three methods):		
Independent factory price (IFP)	If the taxpayer could establish an IFP and elected to use the IFP method, the IFP would determine how much income is allocated to place of manufacture and how much is allocated to place of sale	Under the 1996 regulations, the IFP method is elective, but once elected for any section 863 sales, it must be used for all sales of goods "that are substantially similar in physical characteristic and function, and are sold at a similar level of distribution," including the sale establishing the IFP

(table continues next page)

Type of income	Rule before 1986 Act	Rule after 1986 Act
50/50 method	At the taxpayer's election, one-half of taxable income could be apportioned between US and foreign sources according to the value of taxpayer's property located in the United States and abroad. The other half of taxable income was sourced at the place of sale	Allocates half of the gross income from the sale to production activity and half to sales activity. The portion allocated to production activity is divided between US and foreign sources based on the comparative adjusted production assets (tangible and intangible assets owned directly by the taxpayer that are used to produce the inventory concerned) located inside and outside the United States. The source of the portion of gross income allocated to the sales activity is normally determined by the passage-of-title test
Taxpayer's books and records	If taxpayer's books and records establish a more reasonable basis for apportioning income, that method may be used instead of the IFP or 50/50 method	Same
Income from transportation between US and foreign ports	Allocated between US and foreign sources based on the ratio of US and foreign expenses incurred in providing the services	Same
Income from international communications between the US and foreign countries	Foreign source to the extent attributable to activities in outer space or outside US territorial waters	50 percent US source, 50 percent foreign source if derived by a US person; generally all foreign source if derived by a foreign person
Income from outer space, Antarctica, and certain ocean activities	Foreign source	US source if derived by a US person unless, based on all facts and circumstances, the income is attributable to functions performed, resources employed, and risks assumed in a foreign country; foreign source if derived by a foreign person, unless derived by a CFC and the income, based on all facts and

(table continues next page)

Type of income	Rule before 1986 Act	Rule after 1986 Act
Foreign losses	<p>Once a foreign-source loss is deducted against US income, subsequent foreign-source income is recharacterized as US-source income up to the amount of the prior loss (but no more than 50 percent of foreign-source income would be recharacterized in any one taxable year)</p>	<p>circumstances, is attributable to functions performed, resources employed, or risks assumed in the United States. However, under proposed regulations from spring 2001 (not yet issued in final form as of March 2005), income from space or ocean activity is generally sourced depending on the residence of the person earning the income</p> <p>With the introduction of many separate baskets of foreign-source income (prior to 2007), the following ordering rule was devised: Foreign-source losses in basket A would first be applied pro rata against foreign-source income in baskets B, C, D, etc.; then any remaining foreign-source loss would be applied against US-source income. In subsequent years, income in basket A would be recharacterized as income from baskets B, C, D, etc. to make up the prior losses. (For tax years beginning in 2007, with the reduction of the number of the foreign tax credit baskets to two by the AJCA, the same rule applies, but only with respect to two baskets.)</p>

Appendix A8

Allocation-of-Expense Rules

Allocating expenses according to source of income is important for two purposes. The first is to determine the net foreign-source income of US corporations. The foreign tax credit limitations that apply to US corporate taxpayers are expressed in terms of net foreign-source income (income after expenses). As more expenses are allocated to a US firm's gross foreign-source income, its net foreign-source income is reduced, and hence its foreign tax credit limitation is smaller. A smaller foreign tax credit limitation increases the likelihood that the US firm will have excess foreign tax credits that cannot be used to reduce its US tax liability.

The second important purpose is to determine the taxable US-source income of US branches and subsidiaries of foreign corporations. As fewer expenses are allocated to its US-source income, a foreign corporation has a larger US tax base and accordingly pays more US tax.

Just because the United States allocates an expense item to foreign-source income does not mean that the foreign taxing jurisdiction recognizes the expense as a deduction, and vice versa. Incompatible allocation of expenses by different taxing authorities between US and foreign sources of income can result in double taxation.

The important allocation issues concern types of expenses that cannot be directly traced to individual products. The prime examples are interest expense; research, development, and experimentation (RD&E) expenses; and other headquarters expenses, primarily general and administrative (G&A) expenses. These items are often a large part of total costs but cannot be easily identified with the marginal costs of manufacturing individual products or supplying particular services.

Hence there is no conceptual "bright line" test for attributing these kinds of overhead expenses to particular sources of income. Various pragmatic

considerations underlie the US allocation rules. For example, how much weight should be given to the place where the expenses were incurred on the grounds that the activities—notably RD&E and G&A activities—have external benefits for the country where facilities are located? How much weight should be given to revenue collection? How much weight should be given to the place of final sales or the location of physical assets?

The revenue acts of 1913 and 1916 started to enumerate deductions that could be allocated to US-source income. The Revenue Act of 1918 retreated from the path of statutory enumeration and consigned “the proper apportionment and allocation of the deductions with respect to source of income within and without the United States” to Treasury regulations. This basic delegation of authority to the Treasury—now reflected in Internal Revenue Code (IRC) sections 861, 862, and 863—has remained in force to the present day.

Generally speaking, items of expense that are closely identified with particular sources of income are allocated to those sources; For example, the variable costs of producing widgets are allocated to the place where the widgets are manufactured. Other items of expense are apportioned between sources of income on the basis of formulas set forth in regulations promulgated under section 863. The apportionment formulas usually divide expenses pro rata between US-source and foreign-source income using one of three bases: the geographic source of corporate gross income, that is, corporate income from different geographic sources before any expense has been allocated or apportioned; the geographic origin of corporate group sales, including the sales of controlled foreign corporations (CFCs); or the location of corporate assets, in which case the parent corporation’s holdings in foreign subsidiary corporations are usually measured in terms of shares at book value. For example, if an expense item is apportioned according to corporate sales, the formula might be:

$$\text{Expense apportioned to foreign sales} = \text{total expense} \times (\text{foreign sales of corporate group} / \text{worldwide sales of the corporate group})$$

Below we focus our discussion on the legislative developments regarding the allocation of RD&E and interest expense.

I. RD&E Expenses

1977 Treasury Regulations

Detailed Treasury regulations on the allocation and apportionment of expenses were issued in 1977. Allocation refers to the assignment of an expense item to a single source of income; apportionment refers to the division of an expense item between two or more sources of income. The 1977 regulations were suspended for RD&E expenses in part by statute in

1981. However, the 1977 regulations (interpreting section 861) continued to influence allocation and apportionment decisions.

First, US firms had to allocate government-mandated RD&E to gross income arising in the jurisdiction where the RD&E was performed. This rule survived the various statutory provisions that Congress enacted after the 1977 regulations.

Second, US firms could automatically allocate 30 percent of RD&E expenses incurred in the United States exclusively to US-source income (a parallel rule applied to RD&E expenses incurred abroad). Moreover, US firms could exclusively allocate more than 30 percent to US-source income by establishing that RD&E expenses incurred in the United States would have a limited or delayed application outside the United States.

Third, the remaining US and foreign-incurred RD&E expenses would be apportioned between US and foreign income, normally on the basis of the ratio of domestic to foreign sales of the relevant product category.

As an optional alternative method, however, US firms could apportion the remaining RD&E expenses on the basis of relative domestic and foreign gross income. If the gross income method was used, the apportionment to either US- or foreign-source income could not be less than 50 percent of the apportionment that would have been made under the sales method. This minimum apportionment rule was designed to ensure that a fair share of RD&E expenses would be apportioned to foreign sources.

Economic Recovery Tax Act of 1981

The 1981 act provided that 100 percent of US-incurred RD&E expenditure could be automatically allocated to US-source income. This provision was extended by the Deficit Reduction Act of 1984 and the Consolidated Omnibus Budget Reconciliation Act of 1985.

Tax Reform Act of 1986

The Tax Reform Act of 1986 provided that 50 percent of US-incurred RD&E expenditure could be allocated automatically to US-source income. The remainder was to be allocated and apportioned based on sales or gross income, as provided in the 1977 regulations. However, if the optional gross income method was used, there was no reference to a minimum apportionment compared with the sales method.

1995 Treasury Regulations (Regulation 1.861-17)

In 1995 the Internal Revenue Service (IRS) issued new regulations that set forth new rules to allocate and apportion RD&E expenses, now called research and experimental (R&E) expenses. These regulations replaced the

previous 1977 regulations. The regulations made three principal changes to the 1977 regulations, proposed in part due to an economic study performed by the Treasury Department (1995)

First, a taxpayer is to allocate R&E expenditures to the product category or aggregate product categories (but not a subdivided portion of a category) reflected in the three-digit number of the Standard Industrial Classification (SIC) manual, available from the Superintendent of Documents, US Government Printing Office in Washington, DC.

Second, the percentage of R&E expenditures that may be exclusively apportioned to US-source income under the sales method of apportionment would be increased from 30 percent to 50 percent. A taxpayer may make such an exclusive apportionment only if more than 50 percent of the R&E activities that account for the deduction are performed within one country.

Third, use of the optional gross income method of apportionment would constitute a binding election to use that method for at least five subsequent taxable years. The election could be revoked with the prior consent of the Commissioner of the Internal Revenue Service.

II. Interest Expense Allocation

Before 1977

For both US corporations and foreign corporations engaged in business in the United States, interest expense was allocated or apportioned entity by entity. For these purposes, a US entity was an individual US corporation, even if it was a member of a group of US corporations that had filed a consolidated return. When interest expense was allocated to a particular activity, the US corporation generally allocated the interest expense to the actual income-producing property for which the expense was incurred. When interest expense was apportioned among types of income, the apportionment was done on a gross basis. For the parent firm of a US multinational industrial firm, gross income from US sources essentially meant sales receipts, whereas gross income from foreign sources essentially meant dividends, interest, and royalties from abroad. Hence, apportioning interest expense on a gross income basis usually attributed a disproportionately small amount of interest expense to foreign sources compared with apportionment on an asset basis.

In practice, most foreign banks used the separate-entity method, determining their allowable interest deduction under section 882(c) based on the interest expense shown on the books of their US branch. For these purposes, a US branch was treated as a separate entity, not a part of the foreign corporation.

1977 Treasury Regulations

For both US corporations and foreign corporations engaged in business in the United States, in 1977 the Ford administration rejected the prior approach in favor of a rule requiring interest expense to be attributed to all activities and property regardless of the specific purpose, if any, of incurring the obligations on which the interest was paid. An exception was allowed if the firm could establish, under restrictive tests, a tight connection between specific borrowings and particular assets. The interest expense of each corporate entity was apportioned among gross income from different sources, either according to the tax book value of assets generating the income or according to the gross income method. Under the 1977 regulations, most corporations computed their interest expense deduction using the following formula:

$$\text{US interest expense} = \text{worldwide interest expense} \times (\text{US-connected assets} / \text{worldwide assets})$$

This approach was premised on the principle that money is fungible (i.e., the fungibility paradigm).

Generally speaking, the 1977 regulations, which applied to both foreign and domestic corporations, did not trouble taxpayers insofar as interest allocation was concerned, in part because of entity-by-entity apportionment of interest expense. Among a group of related corporations, interest expense would largely be incurred by firms that could make the best use of the deduction, namely, those with few foreign assets.

But there was one important exception: The 1977 regulations led to anomalous results for US branches of foreign banks. Under the regulations, a large part of the interest expense incurred in the United States by foreign branch banks might be attributed to the foreign parent bank. This could happen if the foreign parent bank paid little interest on the demand deposits of its retail customers, while the US branch paid large amounts of interest on its certificates of deposit.

1981 Regulations

For foreign corporations engaged in business in the United States only, because the generally applicable rules for allocating and apportioning interest deductions can produce unreasonable results for foreign entities engaged in business in the United States, as described above under the 1977 regulations, special rules for allocating interest deductions were promulgated by the Treasury in 1981 (Reg. 1.882-5). These rules—as modified by regulations from 1996, discussed below—continue to govern the allowable interest deduction of a foreign corporation engaged in trade or business within the United States.

The 1981 regulations substituted a US interest rate for the average worldwide interest rate used in the 1977 formula. As under the 1977 formula, the total interest expense thus calculated was then allocated to the US branch on the basis of the relative value of US branch assets compared to worldwide assets. The revised allocation formula could be stated as:

$$\text{US interest expense} = \text{worldwide liabilities} \times \text{US interest rate} \times (\text{US-connected assets} / \text{worldwide assets})$$

The 1981 regulations permitted two alternative methods for determining the US interest rate allocable to effectively connected income: the “branch book-dollar pool method” and the “separate currency pools method.” In general, both methods applied an average cost of funds to the amount of US-connected liabilities, with adjustments for the rates on overseas dollar borrowings (under the branch book-dollar pool method) or the rates on nondollar borrowings by the US branch (under the separate currency pools method).

Tax Reform Act of 1986

The Tax Reform Act of 1986 further advanced the fungibility paradigm nascent in the 1977 regulations. The newly enacted section 864(e)(i) required the apportionment of the total consolidated interest expense of an affiliated group of corporations between its domestic and foreign sources of income. By requiring allocation on an affiliated group basis rather than an entity-by-entity basis, Congress sought to prevent a multinational firm from picking and choosing among its affiliated corporations so as to deduct the bulk of its interest expense from US-source rather than foreign-source income. An affiliated group is defined as related corporations in the United States and its possessions—essentially the US part of a multinational enterprise.

Because foreign subsidiary corporations are excluded from the affiliated group, the fungibility method required by the 1986 act is often called water’s-edge fungibility. After consolidating the accounts of the domestic affiliated corporations, the interest payments and receipts transferred among group members are netted out. The remaining amount of outside interest is then apportioned among sources of income according to asset values (the 1986 act no longer permitted allocation according to the gross income method).

The 1986 act, however, allowed all financial institutions within an affiliated group to be treated as a separate affiliated group for the purposes of section 864(e)(i). Like the earlier exception for foreign-owned branch banks, this exception was a reversion to tracing analysis. The drafters of section 864(e)(i) recognized that, without such an exception, large amounts of bank interest expense would be mindlessly attributed to sister firms in totally different lines of business.

1996 Regulations

For foreign corporations engaged in business in the United States only, in 1996 the IRS issued new interest expense regulations for foreign corporations (banks and nonbanks) conducting business in the United States. Like the 1981 regulations, the 1996 regulations require foreign corporations to determine their interest expense deductions using a three-step method. The foreign corporation must first determine the value of its US assets, that is, assets that generate or could generate income that is effectively connected with a US trade or business. Second, it determines the amount of the US-connected liabilities, that is, liabilities connected with the US trade or business. This is done by multiplying the total value of a foreign corporation's US assets for a taxable year, as determined in step one, by its debt-to-asset ratio for that year—that is, the total amount of its worldwide liabilities divided by the total value of its worldwide assets. The third step is to determine its interest expense deduction on the basis of its US-connected liabilities, generally determined based on the average interest rate attributable to US-connected liabilities using either the “adjusted book-liability method”—similar to the 1981 regulations book/dollar pool method—or a “modified separate currency pools method.” The regulations also identify a few limited situations in which interest expense can be directly allocated against certain assets.

American Jobs Creation Act of 2004

The American Jobs Creation Act of 2004 (PL 108-357, §401) enacted a one-time exception to the “water’s edge” fungibility paradigm enunciated in the Tax Reform Act of 1986 by providing a one-time election—available only when first eligible, but irrevocable—for taxable years beginning after December 31, 2008, under which the outside interest expense of the domestic members of a worldwide affiliated group may be allocated and apportioned to foreign-source income as if all members of the worldwide group were a single corporation. The affiliated group for this purpose includes all affiliates (regardless of exclusions for insurance companies) and CFCs in which at least 80 percent of the vote and value of the stock of the corporation is owned directly or indirectly by one or more of the other corporations included in the affiliated group. Separate rules apply to financial institutions and special provisions attempt to curtail abusive situations.

If the one-time election is made, the taxable income of the domestic members of a worldwide affiliated group from sources outside the United States is determined by allocating and apportioning the third-party interest expense of those domestic members to foreign-source income in an amount equal to the excess (if any) of (1) the worldwide affiliated group's worldwide outside (third-party) interest expense, multiplied by the ratio

Table A8.1 Summary of expense apportionment before and after the Tax Reform Act of 1986

Type of expense	Rule before 1986 Act	Rule after 1986 Act
Interest expense of a US corporation	Apportioned firm by firm between its US-source and foreign-source income, on the basis of either gross income or asset values; under the asset method, only the basis of shares in a nonaffiliated foreign corporation was taken into account.	Apportioned generally on a consolidated groupwide basis between US-source and foreign-source income of the domestic members of a worldwide affiliated group; apportionment based on asset values only. The taxpayer may use either the tax book value or the fair market value of assets in determining asset values for this purpose. For taxable years beginning after 2008, the American Jobs Creation Act of 2004 provides a one-time election under which the third-party interest expense of the domestic members of a worldwide affiliated group may be apportioned to foreign-source income as if all members of the worldwide group were a single corporation.
Interest expense of a foreign corporation		
US branch of a nonbank	US interest of US branch allocated to effectively connected US income.	The 1996 regulations use comparative asset values to effect an appropriate allocation, using a three-step analysis (described in the text).
US branch of a bank	Worldwide interest of US branch apportioned on the basis of assets held in various countries, including the United States.	Generally the same as US branch of a nonbank.

Headquarters expenses

Apportioned firm by firm between US-source and foreign-source income, on a gross income basis.

Apportioned on a consolidated group basis between US-source and foreign-source income; apportionment based on gross income.

Research, development, and experimentation (RD&E) expenses

The 1977 Treasury regulations apportioned RD&E to US-source and foreign-source income based on gross receipts derived from the product category to which the research relates—except that 30 percent of RD&E expenditures may be allocated to the place where research is performed (the so-called exclusive percentage). This regulation was applied symmetrically to US and foreign firms. The Economic Recovery Tax Act of 1991 and subsequent revenue acts suspended the 1977 regulations and instead provided for high “exclusive allocation” percentages.

The 1995 Treasury regulations provide that RD&E expenses are related to gross income from product categories and are to be allocated between product categories. Relevant product categories are determined by reference to Standard Industrial Classification system (SIC). The regulations allocate RD&E first to geographic source of the jurisdiction where research is undertaken to meet legal requirements imposed by a government entity (provided such research is not reasonably expected to generate more than de minimis income outside that jurisdiction).

After such allocation, 50 percent of the remaining expenses are first apportioned to income from the geographic source where more than half of the taxpayer’s research and development activities were performed. The remaining expenses are apportioned to foreign-source sales in the relevant SIC product group to the total worldwide sales in that SIC product group. The regulations also allow the taxpayer, under certain conditions, to apportion the remaining expenses under one of two optional gross income methods in lieu of the sales method.

of the foreign assets of the worldwide affiliated group to the total assets of the worldwide affiliated group, over (2) the third-party interest expense incurred by foreign members of the group to the extent that such interest would be allocated to foreign sources if the provision's principles were applied separately to foreign members of the group.

Table A8.1 summarizes the rules for apportioning interest, headquarters, and R&D expenses between US-source and foreign-source income in effect before and after the Tax Reform Act of 1986, with reference to the most recent rule.

Appendix A9

History of Rules for Intercompany Pricing Between US and Affiliated Foreign Corporations

The issue underlying intercompany pricing questions is how payments and receipts between two or more related corporations should be recorded for tax purposes. Suppose company A licenses a patent to company B, its subsidiary, at a royalty of 5 percent of sales. There are then three logical possibilities: 5 percent is “too high” a rate, and company A thus reports too much net income and company B too little; 5 percent is “too low,” and thus company A reports too little income and company B too much; or 5 percent is “just right,” and neither company reports too much or too little income.

There are two ways to address the tax consequences of a misstatement of income by related companies. The first is to invite or compel the companies to file a consolidated return. The second is to restate the transfer prices for transactions between the companies.

When companies A and B are both US corporations and join together as part of an affiliated group that files a consolidated federal tax return, the tax revenue effects of a “wrong” royalty rate cancel out, as the “too high” income of company A is offset by the “too low” income of company B, or vice versa. However, when companies A and B do not file a consolidated return, the tax revenue effects may not cancel out. Company A may pay US federal tax at a low rate on current net income because of carryover losses or tax credits, whereas company B may pay US federal tax at a high rate. In this case, if company A’s reported income is “too high,” the total tax revenue from the two companies will be less than if they had filed a consolidated return.

Ordinarily, a group of related firms may elect whether or not to file a consolidated return. If companies A and B are both US corporations and

have the requisite degree of common ownership (80 percent), various statutory incentives strongly invite A and B to file a consolidated return. In this way the code substantially reduces but does not eliminate the tax consequences of wrong intercompany pricing between domestic corporations.

When either A or B is a foreign corporation, however, the story is different. As a general rule, a foreign corporation may not elect to join in the consolidated US tax return of the US-affiliated group (there are limited exceptions to this rule for Canadian insurance subsidiaries). Then the only remedy for misstating income between the US corporate group and the related foreign corporation is to ensure correct prices for all intercompany transactions that involve the related foreign corporation. This is also true when related domestic corporations do not elect to file a consolidated return.

This section summarizes the approaches taken under successive revenue acts and Treasury regulations to ensure correct transfer prices between related corporations.

War Revenue Act of 1917

- Allowed the Internal Revenue Service (IRS) to allocate income and deductions among affiliated corporations and to require related domestic corporations to file a consolidated return.

Revenue Act of 1921

- Filing of a consolidated return by related domestic corporations made optional and remained so for the period 1921–33. For the period 1934–41 the consolidated return was abolished, except for railroad corporations. After 1941 the consolidated return election was reinstated, but a penalty of 2 percent of additional tax had to be paid on consolidated taxable income; this penalty was repealed in 1964. In 1964 and 1969 measures were enacted to discourage the filing of multiple returns by related corporations and encourage the filing of a single consolidated return by domestic firms with 80 percent common ownership.
- Broadly, the 1921 act enabled the IRS to compute the correct tax liability of related trades or businesses, whether domestic or foreign.

Revenue Act of 1928

- Amplifying the broad provisions of the 1921 act, Internal Revenue Code section 45 authorized the IRS to restate income to determine the “true tax liability” of related domestic and foreign corporations. The

language of section 45 remains substantially unchanged and now appears as section 482, which is the key section invoked by the IRS to restate transactions between related corporations. The Tax Reform Act of 1986 added the “commensurate-with-income” standard for intangibles; see below.

Treasury Regulation of 1935

- Interpreting section 45, this regulation enunciated the arm’s-length standard: “The standard to be applied in every case is that of an uncontrolled taxpayer dealing at arm’s length with another uncontrolled taxpayer.” Beyond this general standard, specific guidance was not given; instead the evolution of concrete rules was left to the courts.

Revenue Act of 1954

- Code section 45 was transformed into section 482.

Revenue Act of 1962

- In deliberations over the Revenue Act of 1962, the House of Representatives proposed to add a new subsection to section 482 that would require the US parent corporation to demonstrate to the IRS that it had used an arm’s-length price in selling intangibles to its foreign subsidiary; otherwise an apportionment formula based on relative economic activities would be used. The conference committee dropped this proposal but urged the Treasury to adopt tighter regulations.

Treasury Regulations of 1968

- Reaffirmed the arm’s-length standard but gave greater guidance to perform services, license or sell intangible property, and sell tangible property.
- For intangible property, the preferred standard is the price for the transfer of comparable property between unrelated parties. Where no unrelated-party transactions are available, 12 factors are to be taken into account, including offers of competitors, prevailing royalty rates in the industry, uniqueness of the property, extent of legal protection, prospective profits, and investment required to utilize the intangibles.

- Outlined three specific methods and one residual method for taxing tangible property, to be used in the order set forth below:
 - ◆ comparable uncontrolled price (CUP) method, the price between unrelated parties for comparable merchandise;
 - ◆ resale price method, the next-stage selling price of the merchandise to an unrelated party, minus appropriate charges for packaging, handling, and sales commissions;
 - ◆ cost-plus method, the direct manufacturing cost plus an appropriate charge for overhead expense; and
 - ◆ the “fourth method,” any of several other methods based on facts and circumstances.

The Treasury rejected using mechanical safe havens based on profit margins, percentage markups or markdowns, etc., for two reasons. First, the range of returns based on arm’s-length prices was very wide, and hence no principled safe harbors could be devised. Second, taxpayers would use safe harbors only when the other methods gave less favorable results.

In litigation between the IRS and corporate taxpayers involving unique intangibles and foreign distribution centers for proprietary goods, the courts have often focused on profit-splitting methods (e.g., in *Eli Lilly & Co. v. Commissioner*, 86 T.C. 996, 1985) or rate-of-return analysis (e.g., in *E.I. du Pont de Nemours & Co. v. US*, 608 F.2d 445, Ct. Cl., 1979). Thus, in practice and in light of the assets and activities of the firms involved, courts have often determined what is a reasonable sharing of profits between parent and subsidiary, or what is a reasonable return on sales by the subsidiary, rather than trying to ascertain the arm’s-length price.

Tax Equity and Fiscal Responsibility Act (TEFRA, 1982)

- Authorized a 50/50 profit split election between a US parent corporation and its affiliate located in a US possession.

Tax Reform Act of 1986

- Amended section 482 to establish a commensurate-with-income standard for intangibles to address the question of high-profit intangibles transferred to tax haven subsidiaries. Corporate taxpayers had previously relied on industry averages as indicative of correct trans-

fer prices under the CUP method. The amendment requires that actual profit experience should govern the sale price or royalty rate.

- When a firm sells a high-profit intangible outright, the lump-sum price should be commensurate with what might be realized by a contingent royalty arrangement (e.g., 8 percent of sales). Subsequent unanticipated developments required periodic adjustments in either the royalty or the lump-sum price.

The commensurate-with-income standard is often referred to as the superroyalty provision because rates in excess of those commonly found in unrelated-party transactions are assigned to the intangibles.

Revenue Reconciliation Act of 1990

- Any taxpayer making a “substantial valuation misstatement”—an understatement of income by more than \$10 million—by virtue of erroneous transfer prices subjected to a 20 percent penalty. In the case of a “gross valuation misstatement”—an understatement of income by \$20 million or more—the penalty could double to 40 percent.
- Under section 6038A, any foreign-owned corporations carrying on a US trade or business must provide the IRS, upon request, with information on any transaction between itself and its foreign affiliates and must maintain in the United States, in English, all records appropriate to determine the correct tax treatment of such transactions.

IRS Revenue Procedures 91-22, 91-23, and 91-24 (1991)

- Under the advance pricing agreement (APA) procedure, the taxpayer and the IRS can reach an agreement, in advance, on the correct transfer-pricing methodology.
- Excuses the accuracy-related penalty with respect to any portion of an understatement of tax if there is “reasonable cause” for this portion and the taxpayer acted in “good faith.”

Revenue Reconciliation Act of 1993

- Amended Revenue Reconciliation Act of 1990 by strengthening the accuracy-related penalty provisions in section 6662(e) as applied to transfer pricing adjustments.

- Lowered the threshold for imposing the substantial valuation misstatement penalty as follows: The threshold for applying the 20 percent substantial valuation misstatement penalty to a net section 482 transfer pricing adjustment was reduced to the lesser of \$5 million or 10 percent of gross receipts. The 40 percent gross valuation misstatements penalty threshold was reduced to the lesser of \$20 million or 20 percent of gross receipt.
- Replaced the reasonable cause/good faith exception to the penalties with a standard that required contemporaneous documentation of the taxpayer's reasonable application of the section 482 transfer pricing regulations.

Temporary Treasury Regulations of 1994 (TD 8519)

- Temporary regulations issued under section 6662(e), concerning transfer pricing penalties, designed to implement the accuracy-related penalties with respect to the transfer pricing rules under section 482. The thrust was to encourage taxpayers to comply with the arm's length standard in setting prices for controlled transactions and provide documentation to the IRS upon request.
- Temporary regulations created a two-part exception from the transfer-pricing penalty for section 482 transfer-pricing adjustments, depending on whether the taxpayer used a "specified" or "unspecified" method described in the section 482 regulations. No matter which method was used, the taxpayer must have prepared documentation concerning the transaction and provided such documentation to the IRS within 30 days of a request.
- In choosing an approach, the taxpayer must have reasonably concluded that it would provide the most accurate measure of an arm's-length result under the facts and circumstances of the transaction.
- Temporary regulations set out the following nonexclusive factors to be considered in determining whether the taxpayer selected the most accurate method: the taxpayer's experience and knowledge in transfer pricing; the extent to which accurate data were available to apply a method; the extent to which the taxpayer followed the relevant requirements under the section 482 regulations; and the extent to which the taxpayer relied on the advice of a qualified professional.
- Temporary regulations required that, to use an unspecified method, the taxpayer must have reasonably concluded, based on the available data, that none of the specified methods was likely to achieve an

arm's-length result, and that the taxpayer's method was likely to achieve that result.

- Supporting documents classified into two groups: principal documents and background documents. Principal documents consisted of the basic transfer pricing analysis conducted by the taxpayer. Background documents were those that supported the principal documents

Treasury Regulations of 1994 (TD 8552)

- Modified the 1968 regulations evaluating intercompany transfer pricing under section 482; replaced the January 1993 temporary regulations, as described above.
- Described five methods to judge the acceptability of a transfer price for the sale of tangible property, along with a sixth category called unspecified methods. The methods enumerated included the three methods authorized by the 1968 regulations, augmented by the following two new methods:
 - ◆ the comparable profits method (CPM), determining an arm's length result based on profit level indicators derived from similarly situated uncontrolled taxpayers;
 - ◆ the profit split method (PSM), determining the operating profit or loss from the most narrowly identifiable business activity of the controlled taxpayer including the controlled transaction. Such profit or loss then divided between the controlled parties based upon "the relative value of each controlled taxpayer's contributions" to the success of the activity. The value of each party's contributions is to be based upon "the functions performed, risks assumed, and resources employed."
- Provided that an arm's-length result had to be determined under the method that, given the facts and circumstances, provided the "most reliable measure" of an arm's-length result (the "best method rule"). Whenever the available data suggested that more than one method could reasonably be applied to a controlled transaction, the best method rule had to be applied to determine which of those methods will be selected.
- Provided that adjustments be made to reflect differences between the controlled transactions and the uncontrolled transactions to which comparison was made. In many instances, the regulations enumerated these differences and provide examples of the way adjustments should be analyzed.

- Authorized the following methods to determine the arm's-length pricing for transfers of intangible property between related parties:
 - ◆ comparable uncontrolled transaction (CUT) method,
 - ◆ comparable profit method (CPM),
 - ◆ "profit split" method (PSM), and
 - ◆ further unspecified methods.

The method to be used in a particular case had to be selected under the best method rule.

Treasury Regulations of 1996 (TD 8656)

- Codified the 1994 Temporary Regulation (TD 8519) with the following main changes:
 - ◆ Search for data: In determining whether the taxpayer acted reasonably, the IRS considered the extent to which reliable data were available with reasonable effort.
 - ◆ Most current data requirement: The taxpayer must have generally used the most reliable current data available before the end of the taxable year in question, rather than the most current data available prior to filing the tax return.
 - ◆ Prior IRS audit: The IRS considered transfer-pricing methods used by the taxpayer pursuant to an APA for a prior taxable year or a method specifically approved by the IRS pursuant to an audit.
 - ◆ Relation of size of adjustment to total transaction: Among the factors to be considered, the IRS weighed "[t]he size of a net transfer pricing adjustment in relation to the size of the controlled transaction out of which the adjustment arose."

1996: Cost Sharing Treasury Regulations (TD 8632)

- The Tax Reform Act of 1986 (the Act) amended section 482 to require that consideration of intangible property transferred in a controlled transaction be commensurate with the income attributable to the intangible. The Conference Committee report to the Act indicated that, in revising section 482, Congress did not intend to preclude the use of bona fide research and development cost-sharing arrangements as

an appropriate method of allocating income attributable to intangibles among related parties.

- TD 8632 defined a cost-sharing arrangement as an agreement for sharing costs in proportion to reasonably anticipated benefits from the individual exploitation of interests in the intangibles that are developed.
- To be qualified under the regulations, a cost-sharing arrangement had to meet the following five requirements: (1) it had to have two or more eligible participants; (2) it has had to be recorded in writing contemporaneously with the formation of the cost sharing arrangement; (3) it had to provide a method to calculate each controlled participant's share of intangible development costs, based on factors that can be reasonably expected to reflect the participant's share of anticipated benefits; (4) it had to provide for adjustment to the controlled participant's shares of intangible developments costs to account for changes in economic conditions, the business operations and practices of the participants. and the ongoing development of intangibles under the arrangement; the eligible participants had to share the costs and risks of intangible development in return for a specified interest in any intangible produced.

2004: Revenue Procedure 2004–29

- The IRS published Revenue Procedure 2004–29, explaining the manner in which taxpayers could request an APA from the APA Program within the Office of the Associate Chief Counsel (International), the manner in which such a request would be processed by the APA Program, and the effect and administration of APAs.

2005: Proposed Cost-Sharing Treasury Regulations

- Provide guidance under section 482 that would replace the existing regulations under section 1.482-7 relating to cost sharing arrangements (see section on “1996: Cost Sharing Treasury Regulations (TD 8632)” above). Proposed regulations were issued as a result of US Treasury's concerns that taxpayers may have undervalued the intangibles and other resources that are subject to cost sharing arrangements and therefore that the US parties contributing such intangibles and resources may have been undercompensated for their contributions. The proposed regulations would significantly limit the ability of US taxpayers to use cost sharing arrangements.

- Adopt the “investor model” as a fundamental concept. In this model each controlled participant is viewed as making an aggregate investment attributable both to its ongoing share of intangible development costs and to its “buy-in” cost of external contributions. In this model the purpose of making the investment is to achieve an anticipated return appropriate to the risks of the cost sharing arrangement over the term of the development and exploitation of the intangible resulting from the arrangement.
- Incorporate in the definition of a cost sharing arrangement both “cost sharing transactions” regarding the ongoing sharing of intangible development costs as well as “preliminary or contemporaneous transactions” by which the controlled participants compensate each other for their external contributions to the arrangement (what the existing regulation refer to as the “buy-in”).
- Set forth specified methods for valuing “buy-in” payments and generally preclude taxpayers from making periodic adjustments when the actually experienced results of a controlled participant’s investment attributable to cost contributions and external contributions diverge widely from what was expected at the outset of the arrangement.
- Provide that arrangements that fall outside the scope of the definition of cost sharing arrangements must be analyzed under other section 482 regulations to determine whether they achieve arm’s-length results.
- Include provisions to facilitate administration of, and compliance with, the cost sharing rules, including documentation that must be maintained, and accounting and reporting requirements.

2006: Treasury Regulations (TD 9278)

- Address the tax treatment of services transactions, including services transactions related to intangible property, under the related party transfer pricing rules. The regulations update the existing rules regarding related party services transactions (which have not been revised since their issuance in 1968) to reflect an increasingly global economy, as well as the significance of cross-border services (the regulations become effective in taxable years after December 31, 2007).
- Generally reduce administrative and compliance burdens for low-margin services, ensure that valuable intangibles can not be transferred outside the United States for less than arm’s-length consideration, coordinate the rules applicable to services related to intangibles with the transfer pricing rules applicable to transfers of

intangible property, and update guidance on the transfer pricing methods to determine the arm's length price in a services transaction.

- Eliminate the simplified cost based method for pricing low-margin services. In its place, the regulations set forth the services cost method, which provides two avenues for routine back-office services to be charged at cost with no markup.

Appendix B

Methods for Reducing Corporate Income Taxes

This appendix summarizes several features of corporate income taxation implemented over the past four decades that result in lower effective tax rates. While the emphasis is on US practices, many of the features find general application among Organization for Economic Cooperation and Development (OECD) countries.

Outright Tax Reduction

A favorite means of reducing effective tax burdens, dating from the 1960s, is to use investment tax credits, accelerated depreciation, and tax holidays, often tailored to attract particular firms from outside the jurisdiction. These tax breaks may later be consolidated into the outright reduction of corporate tax rates and the accompanying abolition of preferences. Thus, during the last 20 years many countries were swept up in the Reagan revolution of lower business taxation and broader tax bases (table 2.5). In many cases, lower corporate rates were accompanied by such measures as reduced depreciation allowances and lower tax credits.

“Do-It-Yourself” Tax Reduction

Firms have used two main “do-it-yourself” methods to reduce their corporate tax burdens. The first is to avoid paying dividends and instead distribute cash to shareholders by repurchasing common shares. Only the selling stockholders are taxed, and then only on their capital gains. If

gains have accrued over a period of years, the effective tax rate is significantly reduced from the nominal rate—perhaps by as much as half. From the corporation's point of view, repurchasing shares is thus a far more tax-efficient way of moving cash from its coffers to its shareholders than is declaring dividends. For this reason some countries, such as Australia, do not permit firms to repurchase their own shares.

The second important do-it-yourself method used by firms is to rely more on debt finance and less on equity capital. Swept up by the mergers and acquisition boom, and mindful of the tax benefits of debt financing, US firms dramatically increased their leverage during the 1990s.¹ In 1970 the average debt-equity ratio of American corporations was estimated at 50 percent, measuring equity at market value. By 1980 that ratio had risen to 76 percent; it then zigged and zagged for 15 years, climbing to a record high of 83 percent in 2000.² In 1980 the ratio of corporate net interest payments to corporate cash flow for the nonfinancial corporate sector was 13 percent; in 1990 that ratio was 20 percent; but by 2005 that ratio fell to 10 percent because of the sharp decline in market interest rates.³

Increased leverage went hand in hand during the 1990s with corporate restructuring activities: stock repurchases, leveraged buy-outs (LBOs), and mergers and acquisitions.⁴ The composition of corporate payments to shareholders, through either dividends or stock repurchases, changed dramatically. In 2000 the repurchase of shares reached 57 percent of total corporate payments to shareholders (Dittmar and Dittmar 2004, table 1).

Integration of Corporate and Shareholder Taxes

Most OECD countries have departed from the classic two-level system of taxation to introduce some form of integration of corporate and share-

1. In LBOs and other corporate acquisitions, corporate debt often increases dramatically (see Shoven and Waldvogel 1990). Gordon and Lee (1999) estimated that a 10 percentage point reduction in the corporate income tax rate might reduce the share of assets financed with debt by about 4 percentage points.

2. According to data supplied by Benjamin Friedman, National Bureau of Economic Research, Cambridge, MA, April 4, 1991; data for 1995 and 2000 are extracted from MLC-Platinum Global Fund, Investor Review, February 2001.

3. Board of Governors of the Federal Reserve System, *Monetary Policy Report to the Congress*, February 2006, available at <http://federalreserve.gov>.

4. From 1986 to 2000, annual share repurchases increased from \$41.5 billion to \$153.4 billion. From 1990 to 1999, LBO activity shot up from 174 cases to 344 cases, and the average size of an LBO increased from \$99 million to \$169 million. Over the same period, merger and acquisition activity increased from 4,239 cases to 9,599 cases, and the average size of a merger or acquisition deal increased from \$48 million in 1990 to \$354 million in 1999 (Weston and Siu 2003; *Statistical Abstract of the United States*, 2001, 493, table 742, available at www.census.gov).

holder income taxes.⁵ The various forms of integration have in common that the appearance of the corporate tax survives and the tax merges to a greater or lesser degree with the personal income tax imposed on dividends.⁶ Several different models of integration have been proposed, but only a few have been put into practice.

At one extreme is the partnership model of full integration. Under this model, the corporation itself is not taxed; instead corporate income is fully imputed and taxed to shareholders in the year earned, whether or not it is distributed. Likewise, corporate losses are imputed to shareholders and allowed as a deduction. Dividends actually paid are not subject to additional tax. To eliminate capital gains tax on retained earnings, the basis of stock held by shareholders is automatically increased by the amount of corporate income and decreased by the amount of any dividends paid. Subchapter S of the Internal Revenue Code allows small and closely held corporations to elect the partnership model.

Equivalent in effect to the partnership model, but quite different in its administrative details, is the earnings credit model of full integration. Under this model, the corporation pays tax on its own income at the top individual rate and thus remains the “associate tax collector.” However, corporate earnings are imputed to shareholders, together with a credit for taxes paid by the corporation. Any shareholder who does not pay tax at the top rate can claim a refund for the excess credit. To eliminate capital gains tax on retained earnings, the shareholder’s tax basis is increased by the amount of after-corporate-tax income attributed to his shares and decreased by any dividends paid out.

The third major model is the dividend deduction method. Under it, a corporation is allowed to deduct dividends paid from taxable income, just as it deducts interest; this implies full integration for distributed earnings but none for retained earnings. No adjustment is made in the stock basis, so there is no relief for capital gains.

None of the three models—the partnership model, the earnings credit model, and the dividend deduction model—was seriously considered either by Congress or by the Treasury Department during the

5. The United States first provided meaningful integration of corporate and shareholder taxes in 2003, via the 15 percent dividend rate in the Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003. Earlier, in 1984, the Treasury suggested that corporations should be able to deduct 50 percent of dividends paid. President Reagan proposed a 10 percent deduction, the House Ways and Means Committee came up with a 10 percent deduction phased in over 10 years, but the Senate Finance Committee rejected integration. Hence the landmark Tax Reform Act of 1986 did not include relief from double taxation.

6. A vast literature surrounds the integration of corporate and shareholder taxes. See Andersson (1991), US Department of the Treasury (1992), and Graetz and Warren (1998). For a short review of the principal systems, see Ault (1997, 285–89).

presidency of George W. Bush. The reason is that all these models confer additional benefits on a large group of already “preferred” taxpayers: shareholders who are not subject to tax at all, or only subject to tax at a reduced rate.⁷

The most common form of integration, endorsed by almost half of the OECD countries, is the dividend credit model, also known as the imputation system (see table B.1). A credit is allowed only on dividends paid out, it is often limited to part of the corporate tax, and in important circumstances it is not refundable. No refunds are permitted for tax-exempt institutions or foreign parent corporations, except by tax treaty. Further, as a general rule, no adjustment is made to the stock basis for retained corporate earnings, so there is no relief from capital gains taxation. The American Law Institute recommended this approach in a 1993 study.⁸ The Treasury Department, however, did not recommend it in a 1992 study, principally because of its complexity; instead, the Treasury recommended a dividend exclusion method.

Under the dividend exclusion model, the corporation pays tax, but dividends are excluded in part or in whole from shareholders’ income for purposes of personal income taxation. The dividend exclusion model is not applied in practice to any significant extent,⁹ but its logic would require that capital gains, to the extent of retained earnings, also be excluded from tax. The 1992 Treasury study recommended the dividend exclusion model because of its overall simplicity and because it could be implemented with relatively little structural change. The Bush administration’s

7. “Preferred” taxpayers include nonprofit institutions, which pay no tax; foreign shareholders, who often pay only source-country tax on dividends at low withholding rates established by treaty; and pension funds and life insurance companies, for which tax is paid by the recipients only as pensions are received or policies are paid out. Of course, supplementary provisions could ensure that no benefits accrue to “preferred” taxpayers from switching to one of the three integrated methods. For example, in the case of the dividend deduction method, the withholding tax could be increased on dividends paid to a foreign shareholder and a new tax could be imposed on dividends received by a tax-exempt institution. But such provisions are complicated to administer and most countries have adopted the simpler dividend credit method at the outset.

8. The American Law Institute’s *Federal Income Tax Project: Integration of the Individual and Corporate Income Taxes* (1993) sets forth four proposals to implement the system: (1) a withholding tax on dividends, with a credit for the corporate income tax paid with respect to the dividend; (2) shareholders would receive a refundable tax credit for the dividend withholding tax; (3) certain corporate tax preferences could be passed through to shareholders; and (4) a withholding tax on corporate interest payments.

9. From time to time the United States has allowed individual shareholders to exclude a small amount of dividends (e.g., \$100) from taxable income.

Table B.1 Dividend tax relief in the OECD countries

Country	Individual tax credit	Reduced tax rate on dividends (percent)
Australia	Full (imputation)	
Austria		25
Belgium		15 and 25
Canada	Partial	
Czech Republic		15
Denmark	Partial	25 and 40
Finland	Full	29
France	Full	
Germany		50 percent exclusion
Greece		Full exclusion
Hungary	Classical	25 and 35
Iceland	Classical	10
Ireland	Classical	
Italy	Full	Or 12.5 flat rate
Japan	Classical	
Korea	Partial	Or a 16.5 flat rate
Luxembourg	Classical	50 percent exclusion
Mexico	Full	
Netherlands	Classical	30
New Zealand	Full	
Norway	Full	28
Poland	Classical	15
Portugal	Partial	20
Spain	Partial	
Sweden	Classical	30
Switzerland	Classical	
Turkey	Partial	
United Kingdom	Partial	10 and 32.5
United States		15

OECD = Organization for Economic Cooperation and Development

Sources: Chen, Lee, and Mintz (2002); Edwards (2003a).

budget proposal for fiscal year 2004 endorsed that model, but Congress ultimately rejected it because of budget constraints.¹⁰

A close cousin to the dividend exclusion model is to impose a lower tax rate on dividends compared with other income, such as salaries or interest, that can be deducted at the corporate level. The JGTRRA of 2003 endorsed that model for the years 2003 to 2010 by prescribing that dividends received by an individual shareholder from a domestic or qualified foreign corporation should be taxed the same as capital gains income, which translates into a tax rate of 15 percent for most taxpayers.

Another competitive dimension of tax integration involves extending integration benefits to foreign investors. If foreign integration methods are not fully extended to US parent corporations because the United States has nothing to offer in return, then US multinationals are disadvantaged compared with multinationals based in foreign countries. The 15 percent tax rate on dividend income under the JGTRRA of 2003 is extended to all shareholders, including foreign shareholders, as long as the dividend is paid by US corporations (with some exceptions) or by qualified foreign corporations, usually corporations that are incorporated in countries that have a comprehensive income tax treaty with the United States, provided the foreign corporate stock is traded on an established securities market in the United States. On the other hand, foreign countries that grant integration by imputing credits typically do not extend the credit to foreign investors by treaty or otherwise. In Europe, the European Court of Justice is forcing countries to grant imputation credits to investors from other EU members. This is the major reason for German and UK initiatives to change from full integration to partial dividend exemption (Avi-Yonah 2002a).

10. The estimated revenue cost of the president's proposal was \$316 billion for the years 2004 to 2013. Under the budget proposal, shareholders would exclude from taxable income dividends that have been taxed at the corporate level. Relief from double taxation would also be extended to retained earnings through a shareholder basis adjustment. Shareholders would receive an increase in stock basis for taxed corporate earnings that are not paid out as dividends. This would relieve the capital gains tax on retained corporate earnings. A 2003 working paper from the Heritage Foundation that considered the economic implications of the proposal to end the double taxation of dividends concluded that it would improve the nation's economic growth and employment level and would strengthen investment and boost personal savings over the next 10 years. Taking into account "supply side" effects, the paper concluded that the proposal would reduce total federal tax revenues by a total of only \$64 billion during its first 10 years. Close to \$56 billion of this reduction would take place during the first five years, while during the final five the tax cut would be virtually revenue neutral because of the corollary expected increase of pretax corporate profits, which would increase corporate tax collections and employment levels, which would increase payroll taxes. See Norbert (2003).

Appendix C1

A Simple Model of World Portfolio Capital Flows

The policy prescriptions in chapter 4 for the taxation of portfolio capital solely by the residence country (the capital-exporting nation) rest on the following assumptions about the workings of the world economy:

- The annual supply of portfolio capital is highly inelastic regarding the after-tax rate of return to the lender. In other words, private savings show little response to changes in the after-tax rate of return. This assertion finds support in the failure of US private savings to rise, when expressed as a percentage of disposable household income, in the 1980s, 1990s, and 2000s, despite four favorable features: Several dramatic cuts in the marginal tax rate applied to affluent households; high real rates of interest (in the 1980s); a super-bull stock market (in the 1990s); and a prolonged real estate boom (in the 1990s and 2000s).
- However, the annual supply of portfolio capital shows some response to “policy virtue.” In our view, measures that restrain credit card and home mortgage borrowing and measures that encourage contributions to private pension plans and life insurance policies increase the level of private saving somewhat.
- Moreover, the annual supply of portfolio capital for purchasing non-governmental financial instruments (e.g., stocks, bonds, and mortgages) is highly elastic to public deficits. In other words, when governments practice “policy virtue,” in the sense of reducing their public deficits, portfolio capital for private purposes increases almost dollar for dollar. This assumption rejects the doctrine known as “Ricardian equivalence”—namely, the idea that households adjust their private savings to offset public deficits.

- Private demand for portfolio capital is moderately elastic to the interest cost to the borrower (i.e., the before-tax rate of return to the lender). However, the public demand for portfolio capital is strictly a function of policy vice, namely, the extent to which the government budget is in deficit.
- By and large, we assume that more portfolio capital fosters a better world economy by lowering long-term interest rates. This was true even in 2005, when long-term rates were quite low on top-rated dollar, euro, and yen bonds.

Drawing on Horst (1980), a simple model may be built around these assumptions. The capital-exporting area's net export of portfolio capital (*POR*) is

$$POR = S - D - B - (FDI + OFF) \quad (C1.1)$$

where

- S* = private supply of capital (household and business savings)
- D* = private demand for capital (residential and nonresidential investments)
- B* = budget deficit (federal, state, and local governments combined)
- FDI* = net outflow of direct foreign investment
- OFF* = net outflow of official capital

Similarly, the net import of portfolio capital by the rest of the world is given by

$$POR^* = S^* - D^* - B^* - (FDI^* + OFF^*) \quad (C1.2)$$

where starred variables denote rest-of-world quantities.

The after-tax return on foreign portfolio investments to residents of the capital-exporting area (R_{AF}) equals the before-tax return in the rest of world (R_F)—the capital-importing area—multiplied by unity minus the combined home and foreign tax rate (T):

$$R_{AF} = (1 - T)R_F \quad (C1.3)$$

where

- R_F = the before-tax rate of return on portfolio investment in the rest of the world (the capital-importing area)
- T = the combined home and foreign tax rate on portfolio income earned abroad by residents of the capital-exporting area, taking into account any deduction or credit given by this area for foreign-country taxes

The after-tax rate of return on domestic portfolio investment to residents of the capital-exporting area (R_{AH}) equals the average before-tax return at home (R_H) multiplied by unity minus the average home tax rate (t):¹

$$R_{AH} = (1 - t)R_H \quad (\text{C1.4})$$

where

R_H = the before-tax rate of return on domestic portfolio investments in the capital-exporting area
 t = the average home-country tax rate on portfolio income in the capital-exporting area

From the standpoint of world efficiency, the optimal level of international investment occurs when the marginal cost of international investment to the capital-exporting area, defined in the sense of opportunity costs (which is the same as the before-tax rate of return in this area, R_H), equals the marginal benefit to the capital-importing country (which is the before-tax return there, R_F).

Portfolio capital presumably moves far enough so as to equate after-tax rates of return,² R_{AH} and R_{AF} , not to equate before-tax rates of return, R_H and R_F . So, from equations (C1.3) and (C1.4), the actual level of international investment occurs when the following equation is satisfied:

$$(1 - T)R_F = (1 - t)R_H \quad (\text{C1.5})$$

In this equation, R_F equals R_H only when T equals t . In other words, the actual level of international investment, determined by equation (C1.5), is optimal only when the combined tax rate equals the average home-country tax rate in the capital-exporting area. Thus, world efficiency requires capital export neutrality: The combined tax rate on portfolio income should equal the tax rate applied by the capital-exporting area.

The conditions for world efficiency say nothing about the division of revenue. It would not impair world efficiency if all of the tax revenue were collected by countries in the capital-importing area. However, if the world faces a shortage of portfolio capital, and if the capital-exporting country's supply of portfolio capital reflects policy virtue—meaning measures that encourage both larger private saving and smaller public

1. Because the capital-exporting area normally encompasses several countries, the "home" tax rate should be thought of as a weighted average of national tax rates in capital-exporting countries.

2. The equalization of rates of return refers to assets of equivalent risk, including credit, currency, and political risk.

deficits—then it seems right that the capital-exporting country should collect the tax on portfolio income. This means that the capital-importing area should apply a zero rate withholding tax on portfolio income payments. If policy virtue is thereby rewarded and reinforced, then, from equation (C1.1), there will be larger international flows of capital and lower interest rates.

On a pragmatic level, if a significant group of portfolio investors (for example, pension funds or central banks) based in the capital-exporting area pay zero tax, and if the capital-importing area wants to benefit from the lowest possible interest rate, then the capital-importing area must totally abandon its own taxes on portfolio income paid to foreign investors. In fact, this is what the United States—the largest importer of portfolio capital—has done over the past two decades. Our policy prescription for zero tax by the capital-importing area thus rests on a combination of policy virtue considerations and pragmatic arguments. The pragmatic arguments have played a strong role in the US approach.

If a capital-exporting country can drive up R_F by withholding capital from the world market, then that capital-exporting country might raise its national income by imposing a higher tax on foreign portfolio income than on domestic portfolio income. This would be a clear beggar-thy-neighbor tax, designed to improve home prosperity in the capital-exporting country at the expense of world efficiency. Turning the same logic around, a capital-importing country might tax interest paid to foreign investors in hopes of driving R_H down. In practice, these sorts of beggar-thy-neighbor taxes on portfolio capital are not imposed for the following reasons:

- Few capital-exporting countries are large enough suppliers of global funds to affect R_F by raising their tax.
- Pragmatic concerns about the level of interest rates are enough to keep the largest capital-importing country (the United States) from raising its withholding tax on portfolio interest and dividend payments to foreigners.
- The extensive network of bilateral tax treaties—negotiated by each party against a background of concerns about both tax revenue and the impact of taxes on interest rates—serves to put a cap on withholding taxes.
- If tax rates on portfolio capital were determined as a textbook “game,” each party would anticipate retaliation by the other and thus forswear beggar-thy-neighbor taxation (committing itself, *inter alia*, through more intensive use of bilateral tax treaties).

Appendix C2

Temporary Taxes on Portfolio Capital

As chapter 4 alluded to, over the past decade many commentators have advocated taxes on international portfolio income as a strictly temporary, internationally supervised measure to promote economic stability by modifying global capital flows. Perhaps the best-known scheme is the Tobin tax, designed to throw a little sand in the wheels of international finance. The pure Tobin tax runs into severe administrative and conceptual hurdles, but a derivative variant, the Chilean inward portfolio tax, has gained popularity. In 1990 Chile imposed a tax on short-term capital inflows to avert domestic inflationary pressures or an unwanted exchange rate appreciation (Dobson and Hufbauer 2001, 74). Subsequently, the taxes were relaxed and then withdrawn. Analysis of the Chilean episode suggests that the largest effect may have been to shift inward capital flows into longer-term instruments rather than reduce the local volume of flows. However, two important features of the Chilean experiment were that it was temporary and the emphasis was on inflows, not outflows. In the midst of a financial crisis, a tax bite is not likely to deter much flight capital: The tax will be avoided and investors will use circuitous routes of escape. Instead, the object of the temporary tax is to discourage excessive inward flows that set the stage for future crises.

The parallel between a temporary withholding tax of the Chilean variety and, in the realm of trade, a temporary import surcharge deserves mention. An import surcharge is an across-the-board tariff, sometimes used to curb an excessive trade deficit. This kind of tariff is clearly a second-best measure, justifiable (if at all) only as a short-term palliative while more fundamental fiscal and exchange rate remedies are

implemented.¹ Similarly, a withholding tax on the income paid to foreign investors on inward portfolio flows might conceivably be imposed when domestic monetary policy is significantly tightened to cool the local economy. The withholding tax would dampen the surge of foreign capital otherwise attracted by high interest rates. This temporary measure might be justified if the country wanted to avoid a currency appreciation that would worsen its current account position.²

There are several pitfalls to putting a withholding tax in place to temporarily expedite a balance of payments. In the first place, the tax's effectiveness is eroded to the extent that residents simply pay off foreign debt; the trade analogy is a country that consumes what otherwise would have been exported. In the second place, some portfolio flows inevitably escape taxation, especially if selected portfolio investments made in past years are exempted from the new tax (existing bilateral tax treaties and established financial relationships may compel such exemptions). Here the trade analogy would be the exemption of merchandise imports from free trade area partners from an import surcharge, giving rise to the possibility that partners might become conduits for third-country imports. Finally, in an effort to close loopholes in its tax provisions, the country might create a formidable bureaucracy, which predictably extends the life of the tax after it has outlived its original purpose.

We conclude that, when withholding taxes are used to deter capital inflows, their use should require prior approval by the International Monetary Fund (IMF) and their duration should be strictly monitored.³ In this case, the trade parallel is with GATT Article XV, which requires IMF approval before a member country can use quantitative restraints to address its balance of payments problems.

1. Although Article XII of the General Agreement on Tariffs and Trade (GATT) permits temporary quantitative restrictions as a balance of payments remedy, GATT has never squarely accepted or rejected the legality of a balance of payments tariff. See Jackson, Davey, and Sykes (2002, 1094–1105).

2. Under different circumstances, in 1964 the United States enacted the Interest Equalization Tax Act, which imposed a 15 percent tax on interest received from foreign securities. The idea behind the tax (abolished in 1974) was to dampen capital outflows. In 1965 Germany introduced a 25 percent coupon tax on interest paid at fixed rates to nonresident creditors. This tax, abolished in 1984, was designed to limit the inflow of foreign portfolio capital into Germany.

3. Interestingly, in 2001 a United Nations panel unveiled a proposal for an International Tax Organization (ITO) that would develop norms for tax policy, engage in surveillance of tax systems, and negotiate with countries to desist from harmful tax competition. However, the proposal has not gained worldwide support, especially from the developed countries, including the United States.

Appendix C3

Conditions for Reimbursement of the Backup Withholding Tax

Chapter 4 recommends a backup withholding tax as a mechanism to promote residence-only taxation of international portfolio income. This appendix lists several conditions that foreign tax systems should meet to qualify for reimbursements from the Internal Revenue Service (IRS) of the US backup withholding tax. The conditions are designed to promote worldwide compliance with residence-only taxation, encourage honest administration, and ensure that the tax information is not used to enforce nontax policies:

- implement a mechanism to ensure that the recipient of portfolio income actually benefits from reimbursement of the backup withholding tax;
- prohibit issuing anonymous securities by entities within the jurisdiction of the partner country. Because a blank endorsement on a negotiable instrument can create a bearer instrument, the prohibition against banks and corporations from issuing bearer instruments represents only the first step, but an important step, in a full-scale system of title registration of securities;
- impose a similar 10 percent backup withholding tax on interest income paid not only to nonqualifying US residents but also to nonqualifying third-country residents, so as to reduce the global scope for tax evasion;
- exchange payee names and amounts between the IRS and its sister tax authority by electronic means that meet the specifications of the

receiving authority.¹ This condition is consistent with Internal Revenue Code section 871(h)(6) that authorizes the Treasury Department to deny the portfolio interest exemption to payments made to persons within countries that are not cooperative in information exchange; and

- disallow the information obtained to be used for any purpose other than collecting taxes due on international portfolio income. If the country limits the outflow of portfolio capital, it must agree that tax information could not be used to trigger prosecution for evading laws against capital flight.

1. Under the exchange of information system proposed by EU's Savings Directive, the communication of information between member states is automatic and takes place at least once a year, within six months following the end of the tax year of the member state of the paying agent, for all interest payments made during that year to individual beneficial owners residing in every other member state.

Appendix D

The Simple Economics of Imperfect Competition

Firms concerned with maximizing profits in the short term make and sell their products or services until the extra revenue from selling another unit just covers the extra cost of producing it.¹ In other words, production and sales take place at the point where marginal revenue equals marginal cost.

Most multinational firms engage in producing manufactured goods and sophisticated services. It is customary in these markets for a firm to focus on its long-run marginal cost, namely, the costs of variable labor (production and distribution workers), plus raw materials, power, and an allowance for servicing fixed assets (interest plus depreciation). However, costs may differ from market to market, or from production country to production country. Moreover, technology gains episodically cause the entire long-run marginal cost curve to shift downward.

Long-run marginal costs do not include headquarters costs, and headquarters activities are largely devoted to improving existing products, creating new products, or opening new markets. In our simple model, headquarters activities help to determine prospective market share, but headquarters costs are regarded as overhead costs, not marginal costs.

Marginal revenue for a given market is defined as:

$$mr = \Delta(pq) = q\Delta p + p\Delta q \quad (\text{D.1})$$

1. This exposition is paraphrased from Richardson (1989, 10–11), with extensions to clarify the explanation and algebra. Published with the permission of the Organization for Economic Cooperation and Development.

where

- mr = marginal revenue derived in a given market
- Δ = a small change in the variable
- p = price per unit of the product
- q = quantity sold by the firm.

In the real world of ever-changing variables, it is not easy for a large firm to know the marginal revenue equations for its many products and markets. However, the firm's estimate of its marginal revenue from making and selling an extra unit of a given product should be related to its perception of the elasticity of demand for that item. The perceived elasticity of demand, e , expressed as a positive number, is defined as:²

$$e = -[(\Delta q/q)/(\Delta p/p)] \quad (\text{D.2})$$

By algebraically manipulating equation D.2, the following expression can be derived:

$$q\Delta p = -(p\Delta q)/e \quad (\text{D.3})$$

Substituting the right-hand side of equation D.3 into the right-hand side of equation D.1 and setting Δq equal to unity, we derive the following expression for marginal revenue per unit of product sold:³

$$mr = p(1 - 1/e) \quad (\text{D.4})$$

Setting marginal revenue in equation D.4 equal to marginal cost, mc , leads to the familiar markup pricing equation of microeconomic theory:

$$(p - mc)/p = 1/e \quad (\text{D.5})$$

Equation D.5 says that a sensible firm charges a markup over marginal cost of $(p - mc)$, which, when expressed as a proportion of price, is simply the reciprocal of the perceived demand elasticity. The smaller the perceived demand elasticity, the greater the firm's market power. A firm facing an elasticity of 2 charges a markup equal to one-half the final price,

2. The negative sign on the right side of equation D.2 ensures that e will be a positive number. This is true because, with an increase in price (positive Δp), the quantity demanded will decrease (negative Δq), and vice versa. The negative sign converts the invariably negative expression in square brackets into a positive number.

3. When the elasticity of demand is less than unity, marginal revenue is negative. Presumably a sensible firm will withhold product from the market before the marginal revenue turns negative.

or a markup of 100 percent over marginal cost; a firm facing an elasticity of 3 charges a markup equal to one-third the price, or a markup of 50 percent over marginal cost; and so forth. Under idealized perfect competition, firms face infinitely elastic demand schedules and enjoy no market power. Therefore, their prices contain no markup and they price at marginal cost.

In settings of imperfect competition, the perceived demand elasticity is usually rather low—in practical terms, less than 5. In these settings, the first interesting question is how one firm's market power depends on the actions on its rivals. The extent of interaction provides an empirical index of imperfect competition. Suppose that n similar rival firms together sell a total of Q units of the same product in the same market. The total amount sold will, in equilibrium, be willingly purchased by buyers according to a market demand schedule:⁴

$$Q = A - Bp \quad (\text{D.6})$$

where

A = a constant indicating how much would be purchased if the price were zero

B = a constant indicating how many fewer units will be purchased for every unit increase in price

This market demand schedule has its own elasticity, E , which can be shown to equal⁵

$$E = 1/[(A/Bp) - 1] \quad (\text{D.7})$$

The market demand schedule elasticity, E , does not equal e , the representative firm's perceived demand elasticity. Instead, the relationship between the two is determined by an imperfection weight, w , which reflects the interdependence of firms:

$$e = (1/w)E \quad (\text{D.8})$$

4. The demand schedule for the entire market is affected by the similarity of substitute products (e.g., personal computers and minicomputers) and by the extent of geographic competition (e.g., the linkage between software spreadsheet markets in Europe and the United States). By equation D.6, the presence of close substitutes or intense geographic competition increases the value of parameter B and raises the elasticity of demand as defined by equation D.7.

5. This derivation can be shown, using calculus, as follows. Defined as a positive number, $E = -(dQ/dp)(p/Q)$. Differentiating equation D.6 with respect to p yields $-(dQ/dp) = B$. Multiplying both sides of the expression by p/Q and substituting $(A - Bp)$ for Q gives equation D.7.

At one extreme, for perfectly competitive firms, w approaches zero; hence each firm sees itself facing a highly elastic demand schedule, whatever the market demand elasticity. In a setting of perfect competition, interaction with other firms is very low, in the sense that each firm perceives its rivals as unaffected by its own price decisions. Consequently, e has a large value and each firm's markup over marginal cost is very small (see equation D.5). At the other extreme, for a monopolist, w equals one and e equals E . For a group of firms acting together as a cartel to maximize joint profits, w also equals one and each firm perceives itself as facing an e equal to E . If the market demand elasticity is rather small—values under 3 are in fact common—then each firm's markup over marginal cost is significant in a monopoly or cartel setting.

With less intense collusion, w lies between zero and one, and each firm's market power depends moderately on that of its rivals. An important intermediate degree of imperfect competition is called Cournot competition, where w equals each firm's share of the overall market. In other words, $w = q/Q$, and hence $e = (Q/q)E$. Cournot competition emerges when each firm perceives the outputs of all its rivals as given and then optimally decides on its own output.⁶ Cournot pricing entails a price-markup proportion equal to the reciprocal of $(Q/q)E$. If a firm has 20 percent of the market and the market elasticity is 2, in Cournot competition the firm perceives its own demand elasticity to be 10 and sets its markup at 10 percent of the price.

The intensity of competition, measured by w , is one important dimension of imperfect competition. A second dimension is excess profits above the amount necessary to attract entrepreneurial resources, that is, production costs plus headquarters costs. Unhindered entry and exit of firms drive excess profit rates per unit of output, π , close to zero in the long run. In that case, market structure is described as monopolistically competitive. If the number of firms is fixed by barriers to entry, then π is greater than zero, and the market structure is called oligopolistic.

The excess profit rate π is defined more precisely as the proportion by which price exceeds average cost per unit of product. Average cost is the sum of production costs (long-run marginal costs) plus headquarters cost per unit of output. We have assumed constant marginal costs per unit, so that

$$\pi = [(p - mc) - (h/q)]/p \quad (\text{D.9})$$

where h is total headquarters costs.

6. This is also called Cournot-Nash behavior. Cournot competitors can engage in successive rounds of action and reaction; the important thing is that, in each round, players assume that their own actions will not affect those of their rivals.

When free entry and exit drive excess profits to zero, equation D.9 implies that $(p - mc)$ equals (h/q) . In this case, a firm's markup over marginal cost just equals the amount necessary to pay its headquarters costs per unit of output. Market power is then merely the power of the firm to pay all the overhead costs associated with research, management systems, legal staffing, and other headquarters services. The story told in chapter 5 (especially figures 5.1a and 5.1b) is a story of free entry and exit, over the life of the product, to the extent permitted by governmental impediments.

Each firm's market power $(p - mc)$ declines as more firms enter the fray. At the same time, each new firm's headquarters costs per unit of output (h/q) are also falling because of cumulative industry experience, as discussed in chapter 5. With free entry, excess profits (that is, profits above headquarters costs per unit of output) bounce up and down around zero (see figure 5.1b). All the while, prices drop.

Increasing returns to scale, in this case the ability to spread headquarters costs thinner and thinner over larger and larger outputs, are built into equation D.9 and into the definition of average cost. Hence it might seem wasteful for multiple firms to deploy headquarters resources several times over—even if headquarters costs for each new firm are falling—when a monopoly would require only a single investment in headquarters activity to supply the whole market.

But when the market is supplied by a single firm, or even two or three firms, the public may demand some sort of regulation to ensure that lower average costs are passed on in lower prices. Government regulation has vices of its own: The regulators are often captured by the regulated, and firms with prices regulated on a cost-plus basis have every incentive to pad their costs and little incentive to innovate. Moreover, on an international scale, regulation to ensure competition is barely known: Only between United States and the European Union does some degree of cooperation exist in the realm of competition policy.

The trick then is to let the market regulate by keeping entry conditions as open as possible. The mistake is for governments to restrict competition, as it takes a longer time, and more firms are required, to bring prices down to average costs.

Appendix E

Electronic Commerce

Electronic commerce (e-commerce) generally refers to the conduct of business over the Internet. The world Internet economy reached almost \$7 trillion in 2004 (table E.1) and has continued to grow at brisk double-digit rates. In 2006 US online retail sales to consumers alone may have surpassed \$200 billion, or almost 5 percent of total US retail sales (table E.2). Total e-commerce transactions account for about 2 percent of turnover in major Organization for Economic Cooperation and Development (OECD) countries but reach nearly 12 percent in Ireland (table E.3).

Thus, any proposal to reform the US taxation of international income or transactions must consider the rapid rise of e-commerce. As the volume of international e-commerce increases exponentially (see tables E.1 and E.2), tax authorities worldwide, including the US Treasury, are increasingly concerned about the potential for tax base erosion.

In November 1996 the US Department of the Treasury (1996) identified principles of taxation that might need adaptation to cope with the e-commerce environment. The report focused on the classification and sourcing of e-commerce income, primarily the concepts of US trade or business and permanent establishment (PE), as well as problems of tax compliance. The report emphasized that changes should be based on the principle of neutrality between conventional and e-commerce. Beyond that, the report gave little guidance. Since 1996, the Treasury has said little about the e-commerce challenge. However, in 1998 Treasury published regulations on the characterization and sourcing of software transactions (Treasury Regulations section 1.861-18).¹

1. Jensen (2001) argues that the principles contained in the software regulations should apply to Internet transactions in digital information.

Table E.1 Total worldwide e-commerce revenues, 2004 (billions of dollars)

Region	Revenue	World share (percent)
North America	3,500	52
Asia Pacific	1,600	24
Western Europe	1,500	22
Latin America	82	1
Rest of world	69	1
Total	6,751	100

Source: Forrester Research.

Table E.2 US online retail sales, 2000–2006 (billions of dollars)

Source	2000	2001	2002	2003	2004	2005	2006 ^d
Forrester Research ^a	n.a.	n.a.	76	114	141	176	211
Census Bureau ^b	28	34	49	56	71	88	105
InternetRetailer.com ^c	n.a.	n.a.	n.a.	70	88	109	n.a.
E-commerce as share of total retail sales, Census Bureau (percent)	0.9	1.1	1.5	1.8	2.0	2.4	2.7

n.a. = not available

a. Annual State of Retailing Online Report.

b. Census Bureau Quarterly Retail E-Commerce Sales at www.census.gov (accessed February 12, 2007).

c. Annual Internet Retailer Top 500 Guide to Retail Web Sites.

d. Forecast.

E-Commerce Challenges

Issues created by cross-border e-commerce arise with respect to various taxes: income and franchise taxes, sales and use taxes, and value added taxes (VAT). We focus on the income tax aspects of e-commerce, but we also consider the VAT dimension. E-commerce presents four main challenges to existing international income tax principles: income characterization, income source, income allocation, and enforcement.

Table E.3 E-commerce as share of total turnover, 2003 (percent)

Country	Share
Austria	1.0
Belgium	1.5
Cyprus ^a	0.2
Czech Republic	1.9
Denmark	4.4
Estonia	1.1
Finland	1.1
Germany	2.7
Greece	1.0
Hungary	1.1
Ireland	11.6
Italy	1.2
Latvia	0.2
Lithuania	1.6
Luxembourg	0.4
Norway	2.7
Poland	1.3
Portugal	1.3
Slovakia	0.8
Spain	0.4
Euro area	2.1
EU-15	2.2
EU-25	2.1
Australia	2.0
Canada	1.0
Japan	1.6
United States	2.0

a. Survey was taken in 2005, but data refer to experience in 2004.

Note: Calculated as receipts from sales through the Internet as percentage of total turnover. Sales through other networks are not included. Only enterprises with 10 or more employees are covered. The e-commerce surveys were taken in 2004.

Sources: OECD (2005), Eurostat (2005).

Income Characterization

Whether income produced from e-commerce transactions is characterized as income from sales, services, or royalties can make a significant difference in determining its source under established rules. Suppose a US software company, US.Soft, manufactures and distributes software

worldwide through the Internet. For a lump-sum payment, US.Soft customers can use the software (including updates) for a period of 10 years, starting the first time a customer downloads the software. The software may be downloaded through a server placed in country B. If US.Soft sells the software to a customer located in country C, the transaction may be characterized as a sale for US tax purposes, and the income considered as derived partly from US sources.² Continuing this example, if country C insists that the income should be characterized as “royalty” income under its tax law, country C may impose a withholding tax on the total payments to US.Soft.³ If country C has a comprehensive tax treaty with the United States, the treaty might resolve the conflicting classification. However, the United States has only 63 income tax treaties, and most of these were drafted long before the era of e-commerce (only 15 were completed or amended after 2000, as of June 2006).⁴

Inconsistent classification of e-commerce income by the United States and country C may result in international double taxation for the portion of the foreign taxes attributable to the gross income that is classified as US-source income.⁵ While conflicts in characterization of income items arise in conventional commerce, problems of characterization are more acute when digital products are delivered over the Internet. Moreover, delivering digital products allows both firms and tax authorities more scope to blur the distinction between goods, services, and rights of use—each seeking a revenue advantage.⁶

2. See section 863(b)(2) of the Internal Revenue Code and Treasury Regulation section 1.863-3. Because the software is wholly produced within the United States, half of the gross income would be treated as US source income. The other half would be allocated between US-source and foreign-source income under the principles of Treasury Regulation section 1.863-3.

3. Different approaches to the classification of income between country C and the United States can arise from disagreement over whether substantial rights in the software were transferred from US.Soft to the customer in country C. See Treasury Regulation section 1.861-18(f)(1).

4. The US-USSR tax treaty remains in force and governs tax relations with nine former Soviet Republics. Text and technical explanations of completed and proposed income tax treaties are available on the Internal Revenue Service (IRS; www.irs.gov) and US Treasury (www.ustreas.gov) websites (accessed on September 5, 2006).

5. This is especially true for US-based MNEs that are in an “excess-credit” position. US-based MNEs that are in an “excess-limit” position will be able to claim a foreign tax credit for such foreign taxes assuming they have sufficient foreign-source income in the same foreign tax credit basket from other sources.

6. As the US Treasury (1996) notes: “Classifying transactions involving digitized information may require a more complex analysis that disregards the form of the transaction—without regard to whether tangible property is involved—in favor of an analysis of the rights

Source of E-Commerce Income

The principal purpose of source-of-income rules is to determine which country has the primary right to tax and which country has the secondary right. By implication and convention, countries that have only a secondary right to tax income should either give a credit for the tax imposed by the source country or exempt the income from taxation.

Defining the source of income derived from e-commerce presents a challenge. The concept of source reflects a world of conventional commerce, conducted through identifiable physical locations. E-commerce transactions, however, are conducted without regard to national borders and without using significant infrastructure. They dissolve the link between an income-producing activity and a specific territorial location.

Adapting source rules to the new realities of e-commerce arises both in the context of US domestic taxation—especially state sales taxes—and US income tax treaties with foreign countries. One issue is the applicability of the passage-of-title source rule to the transfer of digital products via the Internet (see appendix A7). However, a larger conceptual and practical difficulty arises in the context of the tax treaty concept of “permanent establishment” (PE), designed to resolve jurisdictional conflicts over the active income produced by a resident (i.e., a firm) of one treaty country doing business in another treaty country. The core idea is that a business firm that merely exports to another treaty country should not be subject to corporate income tax in that country. However, a business firm that distributes or services its products in the other treaty country should be subject to corporate income tax. To make this distinction, the existence of a PE creates the threshold presence of tax liability. A PE is commonly defined as “a fixed place of business through which the business of an enterprise is wholly or partially carried on.”⁷

It has come to be accepted in international fiscal matters that, until a multinational enterprise (MNE) based in one country sets up a PE in

transferred. This is necessary to ensure that neutrality between the taxation of transactions in digitized information and transactions in traditional forms of information, such as hard copy books and movies, so that decisions regarding the form in which information is distributed are not affected by tax considerations.” In 2001 the Technical Advisory Group (TAG) in the OECD published a paper entitled “Treaty Characterization Issue Arising from Electronic Commerce.” The group identified 26 common categories of e-commerce transactions, discussed the treaty characterization issues arising from these categories, and offered preliminary conclusions as to how the payments arising from these transactions should be classified for tax treaty purposes.

7. See, for example, OECD model tax treaty, article 5(1) or US model tax treaty, article 7, available at www.oecd.org. Examples of a PE cited under article 5(2) of the OECD model tax treaty are “a place of management, a branch, an office, a factory, a workshop, a mine, an oil or gas well, or any other place of extraction of natural resource.”

another country, it does not participate in the economic life of the second country to a sufficient extent that the MNE comes within the second country's corporate tax jurisdiction. Assuming that the United States and country B (the location of the server) both characterize the income from downloading software by the customers of US.Soft in country B as a "sale," the key question under traditional tax concepts is whether US.Soft has a PE in country B.

Both the US model tax treaty and the OECD model tax treaty explicitly exclude from the definition of a PE "the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise" and the maintenance of a fixed place of business solely to conduct an "activity of a preparatory or auxiliary character." Invoking these definitions, the US Treasury contends that an unmanned server does not generally constitute a PE under US tax treaties (US Treasury 1996, section 7.2.4-5). Many net importing countries of e-commerce products and services, such as India and Spain (see Buchanan 2002), hold a contrary view: An unmanned server does constitute a PE. Under their interpretation, country B could impose its income tax on that portion of US.Soft income attributable to the server located within its borders. The potential for international double taxation is obvious because the United States does not permit a foreign tax credit for any tax imposed by country B that relates to US-source income.⁸

The conceptual difficulty is compounded by the technical reality that servers can be located anywhere around the globe, and their locations are irrelevant to the Internet user. Further, signals may be transmitted over an array of linked servers in more than one jurisdiction and may be switched among servers depending upon traffic volumes (Andersen 2004). Defining a server as a PE would seem to open the door for extensive tax planning opportunities. To limit these opportunities, countries that seek to extend their tax jurisdiction tend to lump websites and Internet service providers (ISPs) into the PE concept. The result is a tug-of-war between developing countries, such as China and India, which define the term PE broadly to expand their tax base, and developed countries, such as the United States, the United Kingdom, and Canada, which define the PE concept narrowly to exclude servers, websites, and ISPs (Reinhold 2004).

8. The controversy as to whether a server constitutes a PE is not limited to software sales; it spreads to other e-commerce features, such as websites and ISPs. The controversy is relevant whether US.Soft's legal residence is a territorial/exemption or worldwide tax system country. Countries that adopt the territorial/exemption system for taxing their residents ordinarily exempt foreign-source business income from domestic taxation. Countries that adopt the worldwide tax system, notably the United States, ordinarily tax residents on their worldwide income, including foreign-source business income, but provide a foreign tax credit to alleviate international double taxation. In both cases, the question of where a specific item of income is sourced has important tax consequences.

In January 2001, in an effort to reach consistent treatment among OECD countries, the OECD Committee on Fiscal Affairs (OECD 2001a) issued a commentary that began with the premise that the concept of PE should continue to apply in an e-commerce world. The commentary concludes that a website is not tangible property and thus cannot create a PE by itself, but that a server on which the website is stored and transmitted is a piece of equipment having a physical location, and may thus constitute a PE. In 2004, however, the Technical Advisory Group (TAG) in the OECD issued a final report that a server could not by itself constitute a PE (OECD 2004a, 154).

Allocation and Enforcement Problems

Even when both countries agree that e-commerce activity reaches the level of a PE, the question often arises as to how to attribute income and deductions to the PE. This question raises classic transfer pricing problems of allocating income and deductions between the country of residence and the country of source. While transfer pricing disputes are already litigated in numerous contexts, e-commerce places additional strain on transfer pricing norms. Tax administrations have to evaluate intangibles more often and face the daunting challenge of valuing the contributions of related parties or even divisions of the same firm.

Beyond allocation issues, e-commerce makes it harder for tax authorities to obtain the information necessary to ensure tax compliance. Conducting an effective tax audit generally requires several types of information: the identity of the parties to the transaction, the nature of the transaction, bank records, and more. Electronic payment systems that preserve business anonymity, offshore banks that adhere to strict secrecy rules, the ease of electronic record manipulation, encryption, and other techniques can make it practically impossible for tax authorities to obtain vital information. Additionally, e-commerce trade tends to eliminate intermediate middlemen that can be significant leverage points for tax collection. Tax collectors are faced with the choice of applying very strong and adverse presumptions against taxpayers—ensuring a howl of public protest—or letting large sums escape the tax net altogether.

Coping with the Challenges

Several proposals have been laid out to deal with the tax challenges presented by e-commerce. Proposals run the gamut from maintaining the status quo to shifting from separate entity accounting and arm's length rules to formula apportionments of profits. A broad international consensus on taxing e-commerce seems highly desirable to avoid inconsistent rules that in

turn lead to double taxation or nontaxation.⁹ Moreover, consistent and relatively simple rates will be a great boon to small- and medium-sized firms that, with e-commerce technology, can suddenly participate in international commerce. We focus our discussion on the most salient proposals.

Residence Approach

Several commentators support the taxation of e-commerce strictly on a residence basis (e.g., Jensen 2001). Under this approach, the seller's resident country would have the exclusive right to tax the income derived from e-commerce transactions. The Treasury Report (at section 7.1.5) endorses the residence approach:

[The] growth of new communications technologies and electronic commerce will likely require that principles of residence-based taxation assume even greater importance. In the world of cyberspace, it is often difficult, if not impossible, to apply traditional source concepts to link an item of income with a specific geographical location. Therefore, source based taxation could lose its rationale and be rendered obsolete by electronic commerce. By contrast, almost all taxpayers are resident somewhere. An individual is almost always a citizen or resident of a given country and, at least under US law, all corporations must be established under the laws of a given jurisdiction. However, a review of current residency definitions and taxation rules may be appropriate.

The merits of the residence approach are clear. It circumvents the difficulties associated with classifying and sourcing e-commerce income discussed above. It alleviates and possibly eliminates transfer-pricing disputes because no profit is attributed to the server or related equipment (Cockfield 1999). Finally, residence taxation eases the job of tax administrations, given the dispersed and decentralized nature of Internet networks (Jensen 2001).

The flaws in a residence approach are equally clear. From a political perspective, it seems unrealistic to assume that large net-importing countries of e-commerce goods and services accept the residence approach if the result is a significant concession of the tax base to resident countries. Agreed rules require give-and-take between countries (Doernberg 1998, Forst 1997). As long as the United States and a few other developed countries dominate e-commerce sales (see table E.2), give-and-take negotiations are unlikely to settle on the residence principle.¹⁰

9. Without consensus, to avert double taxation resident countries must provide either an exemption for income claimed by source countries or a foreign tax credit for taxes levied by source countries. These solutions guarantee considerable friction both between taxpayers and tax administrators and between tax jurisdictions (see Avi-Yonah 1997).

10. As seen in table E.1, the United States continues to account for more than half of the total global market in e-commerce, with Western Europe and Asia-Pacific (Japan and the

Two additional considerations argue against taxation solely on the basis of residence. That approach offers an incentive for new high-technology corporations to set up operations in a tax-haven country. Indeed, the ability to set up a new company in almost any jurisdiction already makes the country of corporate residence virtually a free choice for new business organizations (OECD 2004a). Tax-driven offshoring may cause even the US Treasury to question the residence approach.¹¹ Finally, from a policy perspective, it is difficult to justify a residence tax only on cross-border e-commerce transactions and not on conventional cross-border trade. This would seem to violate the neutrality principle that the US Treasury (1996) emphasized. If a software company that sells downloadable software solely through the Internet is taxed on a residence basis, it may have an advantage over an equivalent “bricks and mortar” company, as the latter, which sells the same products through physically delivering compact discs, are taxed under conventional principles (source taxation on income that is attributable to a PE).

Withholding Tax Approach

Another proposal, aimed at striking a tax balance between the interests of exporting and importing countries, would impose source-based taxation in the form of a withholding tax, similar to source-based taxation on passive income (Avi-Yonah 1997, Cockfield 1999, Doernberg 1998, Reinhold 2004). Under this approach, a withholding tax obligation would be imposed by the importing country, designated the source country. The jurisdiction where purchases of the e-commerce product occurred would tax the gross income (i.e., the sales) of the seller/licensor/service provider.

Several variants have been laid out. Variants run the gamut from a modest withholding tax at the rate of 2 to 4 percent (Reinhold 2004) to a significant withholding tax at the prevailing corporate tax rate (Avi-Yonah 1997). Table E.4 summarizes the different proposals. All of the variants would impose withholding tax on e-commerce payments that are derived from either business-to-business (B2B) or business-to-consumer

newly industrialized economies (NIE)) essentially accounting for the rest. Other parts of the world account for only 2 percent of global revenues. As long as a few developed countries dominate the selling side of e-commerce, it is hard to expect broad support for the residence approach.

11. The anti-inversion legislation that Congress passed in October 2004 as a part of the American Jobs Creation Act of 2004 (see appendix A5) does not change this reality. The legislation only applies (among other limits) to the acquisition of a domestic corporation by a foreign corporation, not to a new business that is set up from its inception by US persons in a foreign jurisdiction.

Table E.4 Proposals to implement withholding taxes on cross-border e-commerce transactions

Approach	Avi-Yonah (1997)	Cockfield (1999)	Doernberg (1998)	Reinhold (2004)
Withholding tax rate	Prevailing corporate tax rate	5 percent	10 percent	2 to 4 percent
Tax base for withholding tax	B2B and B2C	B2B only	Usually B2B only	B2B and B2C
Special definition of e-commerce income subject to withholding tax	Yes. Withholding tax on "sales and service provided through electronic means"	Yes. Withholding tax on "cross-border transfers of e-commerce goods, services, and capital that generate <i>active</i> business income"	No. Withholding tax on <i>any</i> payment (not limited to e-commerce payments) by source-country payer that erodes the source-country tax base	Yes. Withholding tax on the definition of "electronically supplied services" under the European Union value added tax directive of July 2003 ^a
Withholding tax would apply only to e-commerce sales above a threshold amount	Yes	Yes	No	Yes
Election to be taxed on net basis	Possible, upon filing tax return	Not possible	Possible, upon filing tax return	Possible, upon filing tax return
Restricted "force of attraction" rule	No	Yes	No	Possible
Withholding tax creditable in the resident country	Yes	Yes	Yes	Yes

a. "Electronically supplied goods" under the directive refer to (1) Web site supply and web hosting; (2) supply of software and updating thereof; (3) supply of images, text, and information, and making data available; (4) supply of music, films, games (including games of chance and gambling), and political, cultural, artistic, sporting, scientific, and entertainment broadcasts and events; and (5) supply of distance teaching.

(B2C) cross-border transactions.¹² However, consumer-to-consumer (C2C) sales, such as eBay and other online auction transactions, would be exempt. Almost all of the variants would allow the e-commerce seller to elect taxation on a net income basis by filing a tax return in the importing jurisdiction.¹³ Additionally, all of the variants require that the withholding tax be creditable in the residence jurisdiction, preventing international double taxation and reducing the incentive for a selling firm to reincorporate in a tax haven jurisdiction.¹⁴

The withholding tax approach has three main merits. First, withholding tax at source is a well-established mechanism that is relatively easy to apply in B2B transactions. Second, the approach can alleviate enforcement problems by establishing a collection point (the purchasing company) that is responsible for withholding the tax and remitting it to the government. Finally, the approach has the appearance of balance between the tax claims of importing and the exporting countries. Hence it is more likely to attract a broad international consensus than the residence approach.

The withholding tax approach has several drawbacks, however. First, taxation at source presents serious enforcement problems for business-to-consumer (B2C) e-commerce transactions. Long experience with consumption taxes (both retail sales taxes and VATs) has shown that households are not a reliable collection point (OECD 2004a). Either the firm collects the tax when it sells to households or the tax is not collected

12. The exception is Doernberg's (1998) proposal that would impose withholding tax obligations on any payment (not limited to e-commerce payments) that is borne by the source country firm and that erodes the source country's corporate tax base (generally B2B payments only). Under this approach, all cross-border payments that might erode the tax base of the source jurisdiction, including royalties, interest, compensation, and component purchases, would be subject to withholding tax at source. The practical effect of this approach is the imposition of a type of VAT on imports of goods, services, and intangibles. Doernberg's approach would thus subject MNEs to source taxation on royalty and interest payments, in contrast with the general tendency to reduce and eliminate such forms of source taxation. His approach also would subject MNEs to source taxation on business income in the absence of a PE—another significant departure from current international norms. Finally, Doernberg's approach distinguishes sharply between taxed B2B transactions and untaxed B2C transactions. Experience with retail sales taxation, where the reverse rule applies (i.e., B2B is exempt and B2C is taxed), shows that any distinction based on classification of the buyer invites tax avoidance.

13. Cockfield's (1999) variant would not permit this election.

14. Under Cockfield's (1999) proposal, a restricted "force-of-attraction" rule would allocate some additional revenues to e-commerce importing nations. Under this rule, based on the UN model tax treaty, the seller's PE in the source (importing) country would be attributed with earning business income in the source country whenever the e-commerce income was similar (even if not directly related) to other business income generated by the PE itself. Cockfield's force-of-attraction rule addresses the source country's concern that transfer-pricing practices might permit an enterprise in the residence country to shift profits away from a PE in the source country, even though the PE contributed to those profits.

at all.¹⁵ However, under current international norms, a firm based in the United States selling distinct services to households in the European Union is not subject to EU taxation. For practical reasons, therefore, the withholding approach might be restricted to B2B payments,¹⁶ meaning that B2C e-commerce transactions escape taxation—a serious disadvantage from the standpoints of both tax neutrality and tax revenue. B2C e-commerce transactions are estimated to account for approximately 20 percent of total e-commerce transactions, and this share will likely expand.

Finally, under long-standing international tax principles, withholding tax on cross-border payments has been limited to “passive” forms of income, such as dividends, interest, and royalties. By imposing a withholding tax on cross-border e-commerce payments, the domain of this form of taxation would be greatly extended. In fact, this approach endorses the thesis that a consumer market represents a “factor” (like labor, capital, or technology) that contributes to a selling firm’s net income. The characterization of a consumer market as a factor and the legitimacy of imposing a tax are supposedly justified by the host government’s providing a legal framework, public services, and property rights. Tax authorities have so far rejected this thesis in the context of corporate income taxation (OECD 2004a).

“Current Principles” Approach

Another approach is to resolve the new challenges by applying existing international tax principles, making modest adjustments to reflect the unique features of e-commerce. The great advantage of the “current principles” approach is that it is most likely to attract international consensus because it entails only modest changes in current international rules.

US online e-commerce sales within the United States in 2006 may have amounted to as much as \$200 billion (table E.2) and as a percent of sales are significantly higher in a few other advanced economies (table E.3). These data reflect not only e-commerce transactions in digital products but also e-commerce sales of tangible products, such as online orders of televisions, specialty foods, books from Amazon.com, travel tickets, and hotel reservations. For tangible products, the Internet is primarily used as a medium to enter into a transaction and make a payment. On-

15. Several states in the United States attempt to impose “use” taxes when state residents purchase goods from out-of-state or out-of-country. Use tax compliance is abysmal. Moreover, the US Supreme Court has turned down attempts by some states to tax catalogue retailers who maintain no business presence in the taxing state and instead simply rely on postal or express delivery of their wares (e.g., Amazon.com).

16. See, however, the discussion below with respect to the European Union’s attempt to collect a VAT on B2C cross-border e-commerce transactions.

line sales of tangible goods are qualitatively little different from traditional catalogue orders. Hence, on the principle of tax neutrality, it can be argued that there is no policy justification for applying a different tax treatment to such transactions.

Bearing these features in mind, the OECD has advocated the “current principles” approach that entails modest changes in the definition of a PE and would largely preserve existing rules. The most salient OECD proposals are

- narrowing the definition of a PE to exclude activities that involve no human intervention. As an alternative, modifying the definition of PE so that a server cannot, in itself, constitute a PE; and
- broadening the concept of a PE to add a force-of-attraction rule dealing with e-commerce. Under this rule, profits derived from sales or other business activities of an enterprise through its website will be attributable to a PE if the sales or business activities are the same or similar to those carried on through that PE.

So long as e-commerce is taxed within the larger framework of the corporate income tax—rather than, for example, the VAT—we believe that the OECD approach is preferable to the residence and withholding tax approaches. Excluding servers from the definition of PE is justified for the practical reason that servers can be located and accessed from anywhere around the globe and do not have to be maintained by employees of the company that is engaged in e-commerce transactions. Servers are just too footloose to serve as a basis for tax jurisdiction (Cockfield 1999). A limited force-of-attraction rule appears appropriate to create a better tax balance between net-importing and net-exporting nations for business income derived from e-commerce transactions that involve digital products.

Several US tax treaties with developing countries already incorporate the force-of-attraction concept.¹⁷ A limited force-of-attraction rule on e-commerce would subject MNEs that have traditional PEs to taxation by source countries on their cross-border e-commerce sales of digital products. But MNEs that do not have a traditional PE in the source country could engage in remote sales of digital products through the Internet without taxation by the source country. This result seems appropriate from a policy standpoint, as it is congruent with the notion that business profits should be viewed as originating from the national location of the multiple factors that allow the enterprise to earn business profits (OECD 2004a). In our view, electronic transmission, without more, does not rise

17. See, e.g., the US-Mexico (1993) and the US-Philippines (1982) tax treaties. However, neither the 1996 US Model Income Tax Treaty nor the 2006 US Model Tax Treaty uses a force-of-attraction approach. See Andersen (2004).

to the status of a factor that should attract a corporate income tax. A VAT is another matter, to which we now turn.

Collecting VAT on E-Commerce Transactions

Over the past few years, enormous attention has been devoted to the consumption tax aspects of e-commerce, in both the United States in the context of retail sales taxes and the European Union in the context of VATs.¹⁸ In the 1998 ministerial meeting in Ottawa, Canada, the OECD agreed to a framework for e-commerce, including consumption tax aspects. OECD members also agreed to the principle that consumption taxation should coincide with the jurisdiction where consumption occurs. For international transactions, this means taxation according to the destination principle. Finally, the OECD agreed that a simplified online registration scheme is the only viable option for applying taxes to e-commerce sales by nonresident firms to private consumers (B2C sales).

We focus our discussion on an issue that has drawn renewed attention: the imposition and collection of a VAT on cross-border e-commerce transactions between non-EU-based online sellers and EU customers, pursuant to EU Council Directive 2002/38/EC (effective July 1, 2003). To better understand the approach taken in Directive 2002/38/EC, it is necessary to provide general background on the VAT system in the European Union as it existed before July 1, 2003.

Every member state of the European Union has a VAT, starting with France in 1957. The first VAT Directive of April 11, 1967, as amended, required that member states replace their general indirect taxes with VAT systems. Yet the laws establishing the VATs are national laws, each framed within certain EU parameters specified in the Sixth Council Directive 77/388/EEC, as amended, on the common VAT system and the uniform basis for its assessment. This Sixth VAT Directive tries to ensure that each member state has a broadly identical "VAT base," so that the VAT will be levied on the same transactions throughout the European Union. Subsequent amendments to the Sixth VAT Directive have attempted to remove anomalies.

As of January 1, 1993, when the "single market" in Europe became a reality, national borders ceased to exist as commercial barriers within the European Union, and practical features of VAT systems had to be adapted to the new environment.¹⁹

18. US states have chafed against the federal moratorium, recently extended until 2007 by the Internet Tax Nondiscrimination Act (PL 108-435), limiting the collection of retail sales tax on e-commerce transactions.

19. Even after single market principles were adopted in 1992, implementing and administering VATs remained a matter of national law in each of the 15 member states. This is still true now that the European Union has expanded to 25 member states.

EU VAT Regime after January 1993 and before July 2003

Recall that the VAT is a tax levied on the difference between the sales price of a good or service before taxes and its cost of production. Classifying a transaction as the sale of goods or supply of a service is crucial for VAT purposes because different source rules apply to each different category, as described below.

Sale of Goods

The general rule for sourcing the sale of goods for tax purposes in the European Union—that is, identifying whether the origin or the destination country has the right to levy a VAT—is that the VAT is charged in the member state where the goods are physically located at the time of the sale; in other words, the origin country. This rule applies also when goods are ordered and sold through the Internet. If the goods are sold by a registered VAT trader (“trader”) in one member state to a trader in another member state, the second trader self-charges the VAT and the destination member state receives the VAT. On the other hand, if the goods are sold by a trader in one member state to a household consumer in another member state (“private consumer”), the originating member state keeps the VAT.

As different member states have different VAT tax rates, to avoid tax arbitrage in which a private consumer orders goods from a supplier located in a low-tax member state to save VAT, certain antiabusive remote-selling rules come into play. Under these rules, if the total sales by a seller into a member state exceed a certain threshold amount, the seller must register (if it is not already a registered trader) and charge VAT at the prevailing VAT rate for the private consumer’s member state, that is, the country of destination.

These rules do not apply, however, to non-EU sellers, such as a US seller. When a non-EU seller exports goods to a member state they must be declared for import VAT and taxed at the rate applicable in the member state into which the goods are being imported (Sanderson, Houtzader, and Merrill 2002).

Supply of Services

The general rule for sourcing the supply of services for tax purposes in the European Union is that a VAT is charged in the country in which the supplier has established its business—the country of origin—regardless of the location and status of the customer. However, there are two main exceptions to this rule.

The first exception applies to so-called performance services, such as training, education, cultural entertainment, and sporting events. Under it, the supplier must register for the payment of a VAT in the customer’s member state and charge at the local VAT rate.

The second exception applies to broadly defined “intellectual” services, enumerated in article 9.2(e) of the EU Sixth VAT Directive, such as legal, advertising, consulting, banking, and financial services, including the transfer and assignment of copyrights, patents, license, trademarks, and “similar rights.” For these services, the export by a supplier to a trader—that is, a B2B transaction—results in zero-rate VAT liability on the supplier in the origin state (i.e., no VAT in the supplier country) and “self-charging” of the VAT by the trader in its own member state, applying the so-called reverse charge rules (i.e., the recipient is liable for VAT at the rate in the destination country). Conversely, where the private customer is not a trader—that is, in a B2C transaction—a VAT at the rate of the supplier country must generally be charged (i.e., origin-based VAT), and the supplier country keeps the revenue.

Thus, under the EU legal regime before July 1, 2003, US.Soft, based in the United States, could deliver downloadable software through the Internet to traders and private consumers located throughout the European Union without being subject to any VAT charge.²⁰ If US.Soft exported the software to a trader in the European Union (a B2B transaction), the VAT liability was imposed on the trader. If US.Soft exported the software to a private consumer (a B2C transaction), no VAT liability would be imposed on US.Soft, because the United States, the country of the supplier (i.e., the country of origin), itself charges no VAT. The resulting disparity of VAT treatment between EU-based Internet sellers and non-EU-based Internet sellers was a major concern in the European Union and prompted the adoption of EU Council Directive 2002/38/EC, discussed below.²¹

EU Council Directive 2002/38/EC

In response to the competitive concerns of EU firms, the European Council of Ministers adopted a directive that, for the first time, attempted to collect a VAT on online sales by non-EU sellers of digitized products to

20. The export of the software in the form of a transfer of digital data through the Internet is considered a “service” under article 9.2(e) of the EU Sixth VAT Directive because the article includes the “transfer and assignment of copyrights, patents, license, trademarks and similar rights.”

21. Frits Bolkestein, European tax commissioner, made this comment in a speech entitled “Taxation Policy in the EU” on May 29, 2001, “Within the EU, our tax systems work well in this context. But we have identified a particular problem at the point of interface with third countries in the area of on-line e-commerce. Existing rules leave European business at a significant tax-induced cost disadvantage when compared with their international competitors. In fact, at present all digital sales by EU suppliers are subject to VAT, whereas competitors based outside the EU supplying in many cases the same consumers do not have to charge VAT.” See Frits Bolkestein, “Taxation Policy in the EU,” May 29, 2001, available at <http://europa.eu>.

EU consumers (e.g., downloadable software, video, and music in B2C transactions). Council Directive 2002/38/EC of May 7, 2002, which went into effect on July 1, 2003, required all e-commerce companies to account for and collect VATs on electronically supplied services with EU consumers, regardless of the company's location.²² The directive has a very broad ambit: The electronically supplied services that are the subject of the new rules encompass a vast array of information services, including the electronic supply of cultural, artistic, sporting, scientific, distance teaching, entertainment, and similar services when supplied over the Internet. Also included are software (including updates), computer games (a popular form of software), downloadable music, database access, website hosting, and subscription-based and pay-per-view radio and TV broadcasting.²³

According to the directive, for sales to nontaxable persons in the European Union—namely households (private consumers) and entities that do not themselves pay a VAT directly to their governments—the seller will collect and remit the VAT at the applicable rate in the buyer's member state. EU taxable persons buying e-commerce services from non-EU suppliers will continue to self-assess the VAT on their purchases and pay it with their regular VAT returns (Tittle 2003).

The VAT directive is a landmark in fiscal policy, as the European Union is attempting, for the first time, to enforce its consumption tax laws well beyond its territorial boundaries. The EU landmark may be used as a precedent for taxing cross-border e-commerce transactions not only for consumption taxes but income taxes as well.

Not surprisingly, the directive provoked scathing criticism, especially in the United States. The underlying if unspoken objections are two. First, US firms are huge exporters of e-commerce services and now face a new tax. Second, because the United States does not have a VAT system,

22. Council Directive 2002/38/EC, 2002 OJ (L 128) 41 (amending Sixth VAT Directive 77/388/EC). The language of the Directive can be found online at <http://eur-lex.europa.eu>. The directive provided for a regime lasting only three years. Unanimous consent of the member states was required for extension, and this was achieved by Council Directive 2006/58/EC, adopted on June 27, 2006, which extended the application of Council Directive 2002/38/EC by a further six months until December 31, 2006. On December 19, 2006, Council Directive 2006/138/EC extended the application of Council Directive 2002/38/EC until December 31, 2008.

23. Annex L states that the directive shall apply with respect to (1) website supply, web-hosting, distance maintenance of programs and equipment; (2) Supply of software and updating thereof; (3) Supply of images, text and information, and making databases available; (4) Supply of music, films, and games, including games of chance and gambling games, and of political, cultural, artistic, sporting, scientific, and entertainment broadcasts and events; and (5) Supply of distance teaching. The language of the directive emphasizes that this is only an illustrative list, and therefore, the European Union may choose to bring additional services and products within the directive's scope.

reciprocity is entirely absent in tax revenues. At a more technical level, the United States contends that the directive is discriminatory and therefore in breach of OECD and World Trade Organization guidelines (Ivinson 2003).²⁴

The main US argument is that the directive discriminates against non-EU suppliers because it creates tax burdens for them that are higher, in many situations, than the tax burdens EU suppliers face. There are two reasons why tax burdens might be higher. First, for businesses established in Europe, e-commerce supply of B2C transactions is taxed according to the origin principle, that is, according to the applicable VAT rate in the jurisdiction from which the supply originates. However, for B2C e-commerce supply by businesses established outside the European Union, the destination principle applies, and the supply is taxed according to the applicable VAT rate in the country of destination. Thus, when a US e-commerce supplier sells to a Danish private consumer, the applicable VAT rate will be 25 percent. However, if an e-commerce supplier based in Luxembourg sells the same services, it will be subject to a VAT rate of only 15 percent. Second, non-EU suppliers based in countries that have their own VAT systems cannot claim a credit for EU VAT purposes, whatever home VAT they may incur on inputs in the course of delivering the supply to the EU consumer. However, a supplier based in Luxembourg could claim a VAT credit for VAT paid on inputs (Ivinson 2003).

Of course, a non-EU e-commerce business can put itself on a similar VAT footing to its EU counterpart by setting up a branch or a subsidiary within one of the 25 member states of the European Union. However, by taking this route, the non-EU business would expose itself to corporate income tax liability in the member state where it is established. Equally important, it could incur duplicative business expenses operating the subsidiary or branch (Sanderson et al. 2002).

Despite these potential disadvantages, many Internet suppliers, such as AOL and Skype, established subsidiaries in Luxembourg to take advantage of that country's 15 percent VAT rate when selling to European households located in higher VAT rate countries. However, in June 2007, as part of a VAT reform package, Germany agreed to reverse the rule for sales of services to consumers, so that tax revenue collected on B2C sales will be remitted by the origin state to the destination states.²⁵ Luxembourg, which exports a great deal of telecom and internet services, stands to lose \$400 million annually from this change.

Another source of US criticism is that the directive creates an administrative burden for non-EU suppliers, especially small- and medium-

24. See also the letter from Thomas Niles of the US Council for International Business to US Treasury Secretary John Snow, dated June 19, 2003, expressing the continuing concerns of the council with regard to the directive.

25. See George Parkerin, "Berlin to Lift Blockade on VAT Reform," *Financial Times*, June 2, 2007, 2.

sized firms. As explained, non-EU businesses are required to collect a VAT based on the location of their customers within the European Union. However, such firms may lack the means to verify this information in a cost-effective manner. Also, non-EU firms are obligated to make costly systems upgrades to comply with the directive, keep records of their transactions with their EU-based customers for up to 10 years, and make these and other records available for audit by 25 different tax authorities (following the EU enlargement). The administrative burden is further compounded by the need to make records available in over a dozen official EU languages.

In light of these objections, only time will tell whether the directive constitutes a viable precedent for imposing fiscal policy in the e-commerce context beyond the territorial jurisdiction of a country.²⁶ In our view, the United States and Europe could negotiate the practical modalities of e-commerce taxation on a reciprocal basis. Until a reciprocal arrangement can be negotiated—perhaps entailing a very substantial EU concession in some other dimension of trans-Atlantic commerce—we see no reason for the United States to cooperate in implementing the EU directive. Moreover, we see no basis for extending the precedent set in the landmark EU directive to corporate income taxation. US interests will not be served by going beyond the OECD “current principles” approach in applying corporate income tax to digital services.

26. In May 2006 the Commission of the EC stated in an explanatory memorandum to Council Directive 2006/58/EC (June 2006)—which, as discussed, extended the valid Directive 2002/38/EC—that Directive 2002/38/EC has delivered on its objective “of eliminating an undesired and unintended effect of the 6th VAT Directive whereby EU businesses found themselves charging and collecting VAT in circumstances which placed them at a competitive disadvantage vis-à-vis 3rd country based operations.” The Commission added that “although not the primary objective, the Directive has contributed to the tax receipts of Member States. In addition to tax collected and paid by non-EU operators registered under the schemes, the amounts accounted for by businesses which opted for establishment within the Community are likely to be significant. . . . A further effect on tax revenue is attributable to VAT from existing businesses who, with the adoption of the Directive, no longer had any incentive to move their operations outside the Community to protect their competitive position” (available at <http://eur-lex.europa.eu>).

Appendix F

Revenue on Foreign Investment in the United States

Table F.1 walks through the calculation of US tax collected on foreign investment in the United States. To summarize, in 2005 total US-source income derived by payments to foreign-owned affiliates and foreign individuals amounted to approximately \$490 billion. Some \$31 billion of US tax revenue was collected on these income streams.

Out of the \$490 billion total, about \$146 billion was earned on inward direct investment. Foreign multinationals doing business in the United States earned profits of \$101 billion (including both distributed and retained earnings). Based on effective tax rates reported by the Internal Revenue Service for the year 2000, we estimate that the taxes collected on the corporate earnings of foreign affiliates were about \$29 billion. In addition, these affiliates paid about \$45 billion in interest, royalties, and fees to their foreign parent corporations. We estimate that US tax revenue on these payments were about \$1 billion. Thus, in 2005 the total US tax take on inward direct investment was approximately \$30 billion.

Out of the \$490 billion total income streams accruing to foreigners, approximately 70 percent represent income payments on inward portfolio investment (an investment stock in the United States of approximately \$6.5 trillion, as shown in table 1.4). However, only about \$1 billion of tax revenue was collected on this income, due to the low tax rates imposed on this income category. For reasons spelled out in chapter 4, we think that the United States should apply a low or zero tax rate on these income streams.

All together, tax revenues on inward US investment totaled about \$31 billion, of which \$29 billion derived from corporate earnings. By comparison, approximately \$9 billion of total tax revenue was raised on outward

Table F.1 US tax revenue on US-source income accruing to foreign persons, 2005 (billions of dollars)

Type	Income payments ^a	Effective tax rate ^b (percent)	Tax revenue
Direct investment income	146.1	20.3	29.7
Corporate earnings			
Distributed earnings ^c	42.1	28.8	12.1
Retained earnings	59.4	28.8	17.1
Interest payments	24.5	1.5	0.4
Royalties and license fees	20.1	0.4	0.1
Portfolio investment income	343.4	0.4	1.3
Private interest payments			
Bonds	81.8	0.4	0.3
Bank liabilities	61.7	0.4	0.2
Other liabilities	42.8	0.4	0.2
US government interest payments	116.1	0.0	0.0
Dividends	36.9	1.4	0.5
Royalties and license fees	4.1	0.9	0.0
Total	489.5	6.3	31.0

a. Income figures are from Bureau of Economic Analysis (BEA), US International Transactions Accounts Data, 2005. Generally, they are reported after the deduction of any US withholding taxes.

b. Effective tax rates are based on Internal Revenue Service (IRS) data for 2000. For portfolio investment income, we use one-fourth of the effective tax rate reported by the IRS to reflect the difference between portfolio investment income reported in 2000 by the IRS and the BEA.

c. Distributed earnings can also be classified as "dividends."

Sources: Bureau of Economic Analysis, US International Transactions Accounts Data, 2005, available at www.bea.gov; Internal Revenue Service, Statistics of Income, Summer and Fall 2003.

US investment under the current tax system (table 6.5). Even under our proposed territorial system, less US tax revenue would be raised on US investment abroad than on foreign investment in the United States. Tax revenue is a very poor measure of the overall economic gains of inward and outward investment; still, it is worth noting that inward foreign investment makes a healthy contribution to US tax collections.¹

1. Blouin, Collins, and Shackelford (2005) studied whether foreign controlled US companies report less taxable income than US owned companies, as some previous studies had argued. They found no evidence that taxable income declines more after a non-US investor acquires a US-domiciled firm than when a US investor makes the acquisition. On the basis of this finding, they argue that the tax avoidance motive of foreign firms doing business in the United States has probably been exaggerated.

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Index

- advance pricing agreements (APA), 156, 156*t*
 - procedure, 247
- AFL-CIO. *See* American Federation of Labor and Congress of Industrial Organizations
- Agreement on Exchange of Information on Tax Matters, 91, 91*n*, 96
- Agreement on Subsidies and Countervailing Measures, 208
- AJCA. *See* legislation, American Jobs Creation Act
- allocation-of-expense rules
 - apportionment of expenses, 234, 236
 - summary of, 240*t*–41*t*
 - for interest expenses, 235–39, 240*t*–41*t*, 242
 - issues, 233–34
 - purpose of, 233
- American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), 65, 180
- anti-money laundering (AML) initiatives, 92
 - Senate report on, 93*n*
- AOL, 292
- APA. *See* advance pricing agreements
- Auerbach, Alan J., theory of corporate tax, 34
- Australia
 - consumption tax, 30*t*
- corporate tax, 27
 - as shares of GDP and total tax revenues, 29*t*
 - dividend tax relief, 259*t*
 - rates, 45*t*
 - e-commerce, 277*t*
- Austria, 259*t*, 277*t*
- Bahamas, 132*t*
- Bank of America v. Commissioner*, 181
- Bank of America v. United States*, 181
- banks, financial institutions
 - interest expenses for foreign branches
 - in US, 237, 240*t*
 - serving as a qualified intermediary, 219
 - top 50, worldwide, 6*t*
 - treatment under US tax system, 139–40, 140*n*
- Barbados, 132*t*
- Belgium, 259*t*, 277*t*
- Bermuda, 132*t*
- Brazil, 134*t*–36*t*
- Bush, George W. administration, 92, 140*n*
 - rejection of dividend exclusion model
 - for corporate tax, 259–60, 260*n*
- Canada
 - consumption tax, 30*t*
 - corporate tax, 27
 - as shares of GDP and total tax revenues, 29*t*

Canada (*cont.*)
 dividend tax relief, 259*t*
 rates, 45*t*
 e-commerce, 277*t*
 RD&E spending, 18*n*
 capital export neutrality (CEN), 53, 53*n*, 54–63
 criticism of economic efficiency of, 66–67, 67*n*
 deferred tax payments, 58, 59, 59*n*
 example tax situation, 54–56
 goal of, 54
 hybrid regime with CIN, 68, 70, 71
 impact of limiting foreign tax credits, 56–57, 57*n*
 impact on taxing portfolio income, 81–82, 81*n*
 legislation, measures that moved toward system, 175–90
 role of MNEs, 79
 tax competition, 59
 Treasury support of, 61, 61*n*
 capital gains
 eliminating, reducing tax on, 257
 taxation of, 36, 36*n*, 138
 capital import neutrality (CIN), 53, 53*n*, 65–69
 argument for, 66, 69
 hybrid regime with CEN, 68, 70, 71
 legislation, measures that moved toward system, 175–90
 proposed “low-tax kick-in” rules, 68
 revenue considerations, 73–74
 US-based MNEs, advantages for, 68–69
 capital ownership neutrality (CON), 53, 130
 compared with other tax reform plans, 124*t*–28*t*
 description of, 72
 Caribbean Islands (UK), 132*t*
 Cayman Islands, 95
 CEN. *See* capital export neutrality
 CFC. *See* controlled foreign corporations
 Chile, 265
 China
 interest in satellite technology, 119
 RD&E spending in, 18, 19*t*, 21*n*
 taxation of foreign-source income in, 134*t*–36*t*
 China Trade Corporation, 178
 CIN. *See* capital import neutrality
 Clinton, Bill, 140*n*
 coexistence tax model, 85*n*
 comparable profits method (CPM), 249, 250
 comparable uncontrolled transaction (CUT), 250
 CON. *See* capital ownership neutrality
 consumption tax. *See also* value added tax (VAT); *specific countries*
 definition of, 28*n*
 shares of GDP and total tax revenues, for selected countries, 30*t*
 controlled foreign corporations (CFCs). *See also* corporations; multinational enterprises (MNEs)
 deferral of current taxation, 63, 63*n*, 176
 history of, 197–202
 exemptions for, 68, 137, 137*n*
 Convention on Mutual Assistance in Tax Matters, 89, 89*n*
 corporate inversion, 22, 22*n*
 adverse consequences for, 221–22
 description of, 77, 219
 corporate taxation. *See also* tax systems; tax reform; United States
 argument for, appeal of, 41
 Auerbach’s theory of, 34
 on capital gains, 36, 36*n*
 defects of, 35–36, 36*n*
 of e-commerce
 Cockfield’s proposal, 285*n*
 current principles approach, 286–88
 Doernberg’s proposal, 285*n*
 residence approach, 282–83
 withholding tax approach, 283, 284*t*, 285–86
 efficiency, inefficiency cost of, 31, 32, 32*n*
 Harberger’s theory of, 31–32, 32*n*, 33–34
 impact on labor, prices, capital, 32, 34
 increase in annual share purchases, 255, 256*n*
 methods for reducing
 “do-it-yourself,” 255–56
 dividend credits, deductions, exclusion, 257, 258, 260
 imputation system, 258
 integration of corporate, shareholder taxes, 256–58, 257*n*, 260
 NFTC support for reforming current system, 62*n*
 rates
 and exchange rates, 44*n*, 46
 and tax competition, 42–46
 average tax rate, 45*n*

- competitive approximation, 47, 47*n*
- convergence of systems, 46–49
- planned approximation of, 48, 49
- as a sales tax, 28, 30*n*, 31*f*
- as a shareholder income tax, 34–36, 35*f*, 38, 41
- as shares of GDP and total tax revenues, for selected countries, 29*t*
- temporary taxes on portfolio capital, 265–66
- in United Kingdom, 38*n*
- in United States, 36, 38, 41, 44
 - dividend tax relief, 259*t*
 - historical background for, 26–28
 - methods for reducing, 255–58, 260
 - rates, 44*n*, 45, 45*t*, 46*n*
 - federal vs. national, 40*n*
 - federal vs. state, 44*n*
 - impact on firms operating in global markets, 42
 - vs. individual tax rate, 40*n*
 - rate on interest paid to foreign firms, 84–85
 - reduction of statutory rate, 26
 - rationale for, 26–27
 - relevance to international tax issues, 41–49
 - shift toward CIN approach, 62
 - theories, approaches to, 28, 305–34
 - “use” taxes, 286*n*
- corporations. *See also* controlled foreign corporations (CFCs); multinational enterprises (MNEs)
- concerns regarding supply sources, 119
- cost-sharing requirements for, 160–61, 251, 252
- expense apportionment for, 240*t*–41*t*
- foreign
 - “force-of-attraction” doctrine, 212, 213
 - branch profits, interest taxes, 214, 215
 - determining interest expense
 - deductions for, 239
 - doing business in the US, 211
 - earnings strippings, 215, 216, 217
 - expense apportionment for, 240*t*–41*t*
 - interest expenses, 238
 - multi-party financing transactions, 217
 - portfolio interest exemption, 217
 - US interest, dividends paid to, 84*t*
 - US taxation of, history, 211–22
- headquarters locations, 67, 67*n*, 118*t*
- history of rules for intercompany pricing, 243–53
 - in excess-credit position, 75
 - industrial firms, top 100, 6*t*
 - industry breakdown of companies, 118*t*
 - intercompany pricing issues, rules, 243–44, 244
 - manufacturing industry costs, 102, 103*t*, 104*t*
 - operation of foreign affiliates of, 106*t*
 - royalty income and transfer pricing, 76*n*
 - special-status export companies, 178
 - tax treatment of services, 252–53
 - vs. partnership, 62*n*–63*n*
 - withholding a backup tax for nonqualifying foreigners, 96–97
- cost-sharing, 160–61, 251, 252
- Cournot-Nash behavior, 272*n*
- CPM. *See* comparable profits method
- cross-crediting, 60*n*–61*n*, 62, 141, 142*n*
 - description of, 141*n*
 - proposal for eliminating, 75, 75*n*
- CUT. *See* comparable uncontrolled transaction
- Cyprus, 277*t*
- Czech Republic, 277*t*
- Denmark, 259*t*, 277*t*
- dividends
 - credit, deduction, exclusion models for corporate taxation, 257, 258, 260
 - dividend tax relief, country comparison, 259*t*
- domestic international sales corporation (DISC), 206–07
- domestic reserve hybrid (DRH) entities, 221
- Dunning, J. H., OLI (ownership, location, and internalization) paradigm, 100*n*
- e-commerce, 275. *See also* under corporate taxation
 - as a share of turnover, 277*t*
 - cross-border transactions, payments, 285–86
 - EU vs. non-EU sellers, 289
 - Internet Tax Nondiscrimination Act, 288*n*
 - proposed “force-of-attraction” rule, 285*n*, 287
 - revenue from, 275, 276*t*
 - tax approaches
 - current principles, 286–88

- e-commerce (*cont.*)
 - residence, 282–83
 - withholding tax, 283, 284*t*, 285–86
- tax challenges posed by
 - coping with, 281–83, 285–88
 - enforcement problems, 281
 - income allocation problems, 281
 - income characterization, 277–78, 278*n*
 - source of e-commerce income, 278–81
- transaction types (B2B, B2C, C2C), 283, 284*t*, 285, 290, 292
- VAT on, 288, 289–90
 - EU Council Directive, 290–93
- E. I. du Pont de Nemours & Co. v. US*, 246
- East Asia / Asia
 - e-commerce revenue, 276*t*
 - rapid industrialization of, 115*n*
- eBay, 285
- EGTRRA. *See* legislation, Economic Growth and Tax Relief Reconciliation Act
- electronic data interchange (EDI), 14*n*
- Eli Lilly & Co. v. Commissioner*, 246
- Estonia, 277*t*
- ETC. *See* export trade corporation
- ETI. *See* Extraterritorial Income Exclusion Act
- Europe, postwar reconstruction of economy, 2
- European Council, 97*n*
- European Union (EU)
 - bilateral tax agreements, 85*n*
 - challenge of ETI, 209–10
 - challenge of FSCs, 208
 - coexistence tax model, 85*n*
 - coordination on corporate tax system, 48, 48*n*
 - corporate tax rates, 44*n*, 45, 45*t*
 - Council Directive 2002/38/EC, 288, 290–93, 291*n*
 - US criticism of, 291–93
 - Council Directive 2006/58/EC, 291*n*, 293*n*
 - Council Directive 77/388/EEC, 288, 290, 290*n*
 - Directive Concerning a Common Tax System, 85*n*
 - e-commerce, 277*t*
 - FDI, inward and outward stock, 3*t*
 - high-technology exports, 3*t*
 - implementation of VAT, 288*n*, 289–90
 - RD&E spending, 19*t*
 - Savings Directive 2003/48/EC, 85, 85*n*, 86, 94, 97
 - information exchange system, 96*n*
 - shares of world GDP, exports, 3*t*
 - Sixth VAT Directive, 288, 290
 - tax treaties, 165*n*
 - taxation of interest paid to foreign firms, 85–86
 - technology exports, 16
 - top industrial firms, banks, 6*t*
- excess-credit position, 75
- vs. excess-limit position, 75*n*
- export trade corporation (ETC), 205
- FATF. *See* Financial Action Task Force
- FDAP. *See* fixed or determinable annual or periodic income
- FDI. *See* foreign direct investment
- Financial Action Task Force (FATF), 93*n*
- Finland
 - dividend tax relief, 259*t*
- e-commerce, 277*t*
- RD&E spending, 18, 19*t*
- FIRPTA. *See* legislation, Foreign Investment in Real Property Tax Act
- fixed or determinable annual or periodic income (FDAP), 218–19
- “force-of-attraction” rule
 - and e-commerce, 285*n*
 - foreign corporations, 212, 213
- Ford, Gerald administration, 237
- foreign direct investment (FDI)
 - definition of, 79*n*
 - impact of control of parent corporation, 7*n*
- foreign sales corporations (FSC)
 - repeal of, 188
 - tax credit limitations, 192
- foreign tax credits (FTC), 176–77
- “deemed-paid credit,” 176–77, 178
- “excess foreign tax credits,” 179
- CEN impact on, 56–57
- cross crediting, 141, 141*n*, 142*n*
- limitations, history of, 191–95
- under US tax system, 139
- US legislation, measures regarding, 176–90
- foreign-owned assets, impact on current account deficit, 6–7, 8*t*
- foreign-source income. *See also* CFCs; royalties and fees; sources of income
 - from international communication, 231*t*
 - from personal holding companies, 187, 190

- from space, Antarctica, certain ocean activities, 231*t*
- from transportation, 231*t*
- interest and dividends paid to US firms, 96*t*
- taxation of, 25, 123*t*–36*t*, 203
- taxes paid on oil, gas, 181
- US tax rates for
 - current vs. territorial system, 154*t*–55*t*
 - RD&E, 160
 - vs. US-source income
 - impact on taxation of foreign businesses, 223
- foreign-source losses, 232*t*
- Fortune 500 Global, 118*t*
- France
 - consumption tax, 30*t*
 - corporate tax
 - as shares of GDP and total tax revenues, 29*t*
 - dividend tax relief, 259*t*
 - rates, 44*n*, 45*t*
 - headquarters locations in, 116, 118*t*
 - RD&E spending, 18*n*, 19*t*
 - taxation of foreign-source income, 134*t*–36*t*
- FSC. *See* foreign sales corporations
- FTC. *See* foreign tax credit
- General Agreement on Tariffs and Trade (GATT), balance-of-payments remedy, 266, 266*n*
- General Electric (GE), 11, 12*n*, 131*n*
- Germany
 - 25 percent coupon tax, 266*n*
 - consumption tax, 30*t*
 - corporate tax
 - dividend tax relief, 259*t*
 - rates, 44*n*, 45*t*
 - corporate tax as shares of GDP and total tax revenues, 29*t*
 - e-commerce, 277*t*
 - foreign tax system, 74*n*, 75*n*
 - headquarters locations in, 116, 118*t*
 - RD&E spending, 17, 18, 18*n*, 18*t*, 19*t*
 - royalties and fees, tax on, 76*n*
 - taxation of foreign-source income, 134*t*–36*t*
 - withholding tax on interest, 88*n*–89*n*
- Global Forum on Taxation, 92
- Greece, 259*t*, 277*t*
- Grubert, Harry, tax exemption theory, 74–76, 74*n*
- Harberger, Arnold C., theory of corporate tax incidence, 28, 30–34, 32*n*
- Higgins vs. Commissioner*, 212
- high-technology sector, 4
 - characteristics of, 14
 - headquarters costs, services, 10
 - impact of increased dynamic random access memory (DRAM), 13*n*
 - impact on transportation,
 - communications costs, 10, 14*n*
 - impact on US economy, productivity, 14–15, 14*n*
 - impact on world economy, 13–14
 - incentives for US MNEs to go abroad, 131, 142–43
 - market shares (US, EU, Japan), 3*t*
 - new competitors in the field, 16, 16*n*
 - RD&E investment, 15
 - US competitiveness in, 4, 17–18, 21
 - US exports, 3*t*
- Hong Kong, 132*t*
- Hungary, 259*t*, 277*t*
- hybrid entity, 199
- IBM, 16*n*, 120
- Iceland, 259*t*
- IFP. *See* independent factory price
- imperfect competition, 99*n*, 100, 101
 - arguments for, 115
 - excess profit rate, 272
 - intensity of competition, 272
 - long-run marginal costs, 269
 - market demand schedule, elasticity, 271, 271*n*
 - market regulation, 273
- Implafa. *See* legislation, International Money Laundering Abatement and Anti-Terrorism Financing Act
- income types
 - active vs. passive, 58*n*
 - source-of-income rules for, 227*t*–32*t*
 - tainted income, 138
- independent factory price (IFP), 230*t*
 - and taxation on merchandise export income, 204
- India, 134*t*–36*t*
- infant-industry argument, 115–16
- Intel, 120*n*
- intercompany pricing
 - arm's-length standard, 245
 - commensurate-with-income standard, 245, 246, 247
 - for tangible, intangible property, 245, 246, 247

- intercompany pricing (*cont.*)
 - history of rules for, 243–53
 - penalties for misstatements, 247, 248
- Internal Revenue Code (IRC). *See also* legislation; US Treasury Department
 - of 1954, 178–79
 - portfolio interest exemption, 83, 83*n*
 - section 367(d), 159
 - section 7701 (“check the box regulations”), 62–63
 - sections regarding allocation of expenses, 234
 - taxation on merchandise export income, 205
- Internal Revenue Service (IRS)
 - Higgins vs. Commissioner*, 212
 - hybrid branch payments and CFCs, 199
 - Procedure 2004-29, 251
 - Procedures 91-22, 91-23, and 91-24, 247
 - requirements for reimbursement of
 - backup withholding tax, 267–68
 - revenue rulings 78-61, 78-62, 78-63, 183
 - rules for research and experimental expenses, 235–36
 - withholding taxes collected from foreign firms, 84*t*
- International Tax Organization (ITO)
 - 25 percent coupon tax, 266*n*
- Interpol, 92, 92*n*
- IRC. *See* Internal Revenue Code
- Ireland
 - dividend tax relief, 259*t*
 - e-commerce, 277*t*
 - reduction of corporate taxes, and growth in GNP, 42*n*–43*n*
 - US MNEs headquartered in, 132*t*
- IRS. *See* Internal Revenue Service
- Israel, 19*t*, 182
- Italy
 - consumption tax, 30*t*
 - corporate tax as shares of GDP and total tax revenues, 29*t*
 - corporate tax rates, 45*t*
 - RD&E spending, 18*n*
- ITO. *See* International Tax Organization
- Japan
 - consumption tax, 30*t*
 - corporate tax, 27
 - as shares of GDP and total tax revenues, 29*t*
 - dividend tax relief, 259*t*
 - rates, 44, 44*n*, 45*t*
 - e-commerce, 277*t*
 - FDI, inward and outward stock, 3*t*
 - headquarters locations in, 116, 118*t*
 - high-technology exports, 3*t*, 16
 - MNE strategy, 119*n*
 - postwar reconstruction of economy, 2
 - rapid industrialization of, 115*n*
 - RD&E spending, 17, 18, 18*n*, 18*t*, 19*t*
 - share of world GDP, exports, 3*t*
 - taxation of foreign-source income, 134*t*–36*t*
 - top industrial firms, banks, 6*t*
- JCWA. *See* legislation, Job Creation and Worker Assistance Act
- JGTRRA. *See under* legislation, Jobs and Growth Tax Relief Reconciliation Act
- Joint Committee on Taxation, 129*n*
- just-in-time (JIT) management, manufacturing, 14*n*, 148*n*
- Kintner Regulations, 62*n*
- Korea, 18, 19*t*, 259*t*
- Latin America
 - e-commerce revenue, 276*t*
 - taxation of portfolio income, 83*n*
- Latvia, 277*t*
- legislation. *See also* Internal Revenue Code; US Treasury Department; tax reform
 - American Jobs Creation Act (AJCA), 25, 36, 62, 66, 179, 188–90
 - adverse consequences for inversion transactions, 221–22
 - deferral of CFC income, 200–01
 - foreign tax credit limitations, 194–95
 - impact on passive, general income baskets, 60, 60*n*–61*n*, 142
 - impact on revenue, 77, 77*n*
 - impact on tax rates, 41
 - impact on taxation of foreign businesses, 221–22
 - interest expense allocations, 239, 242
 - tax on merchandise export income, 210
 - Deficit Reduction Act of 1984, 184, 206–07
 - Economic Growth and Tax Relief Reconciliation Act (EGTRRA), 25, 27*n*
 - Economic Recovery Tax Act of 1981, 25, 184, 235
 - Economic Recovery Tax Act of 1991, 241*t*

- Extraterritorial Income Exclusion (ETI) Act, 25, 188
 - EU challenge of, 209–10
 - tax on merchandise export income, 209
 - taxation of foreign income of US companies, 188
- for foreign tax credits, 176–90
- for intercompany pricing between US, affiliated firms, 244–53
- for RD&E expenses, 234–36
- Foreign Investment in Real Property Tax Act (FIRPTA), 97*n*, 214
- Foreign Investors Tax Act, 213
- Homeland Investment Act, 62, 66, 66*n*, 74*n*
- HR 10087, 179
- HR 62, S 2592 (Burke-Hartke), 65, 180–81
- Income Tax Act of 1913, 176
- Interest Equalization Tax Act, 266*n*
- International Money Laundering Abatement and Anti-Terrorism Financing Act (Implafa), 93
- Internet Tax Nondiscrimination Act, 288*n*
- Job Creation and Worker Assistance Act (JCWA), 140*n*
- Jobs and Growth Tax Relief Reconciliation Act (JGTRRA), 25, 36*n*
 - corporate tax model, 260
 - impact on tax rates, 36–38, 37*n*, 37*t*, 38*n*
- Omnibus Budget Reconciliation Act (OBRA), 186–87, 215–16
- Proposition 13 (California), 27*n*
- Revenue Act of 1894, 26, 175, 224
- Revenue Act of 1909, 26, 175–76
- Revenue Act of 1913, 234
- Revenue Act of 1916, 224, 234
- Revenue Act of 1918, 176–77, 203, 224, 234
- Revenue Act of 1921, 177, 204, 224–25, 244
- Revenue Act of 1922, 204
- Revenue Act of 1928, 244–45
- Revenue Act of 1932, 177–78
- Revenue Act of 1939, 178, 204
- Revenue Act of 1942, 204
- Revenue Act of 1954, 245
- Revenue Act of 1958, 179
- Revenue Act of 1962, 51, 71, 179–80, 205, 245
- Revenue Act of 1971, 180, 206
- Revenue Reconciliation Act of 1990, 216
- Revenue Reconciliation Act of 1993, 193, 217, 247–48
- S 1597, 70*n*
- Small Business Job Protection Act, 187
- Tax Act of 1962, 25
- Tax and Trade Relief Extension Act, 140*n*
- Tax Equity and Fiscal Responsibility Act (TEFRA), 184, 214, 245
- Tax Increase Prevention and Reconciliation Act (TIPRA), 36*n*, 140*n*, 190, 201
- Tax Reduction Act of 1975, 181–82
- Tax Reform Act of 1969, 180
- Tax Reform Act of 1976, 182–83, 184
- Tax Reform Act of 1984, 184
- Tax Reform Act of 1986, 44, 60, 66, 184, 185–86
 - impact on taxation of foreign businesses, 214–15
 - intercompany pricing rules, 246–47
 - interest expense allocations, 238
 - regarding RD&E expenses, 235
- Tax Reform Bill of 1974, 181
- Tax Reform for Fairness, Simplicity, and Economic Growth, 184–85
- on taxation of foreign income earned by US competitors, 175–90
- Taxpayer Relief Act of 1997, 140*n*, 186, 187, 193
 - impact on taxation of foreign businesses, 219
- Ticket to Work and Work Incentives Improvement Act, 140*n*
- USA Patriot Act, 92, 93, 94
- War Revenue Act of 1917, 244
- Liberia, 132*t*
- Lithuania, 277*t*
- Luxembourg, 132*t*, 259*t*, 277*t*, 292
- marginal revenue, mathematical
 - definition of, 269–70
- merchandise export income, US taxation
 - of, history of, 203–10
- merchandise manufacture and sale,
 - methods, 230*t*–31*t*
- Mexico, 259*t*
- Moynihhan, Patrick, 120*n*
- multinational enterprises (MNEs). *See also* controlled foreign corporations (CFCs); corporations

- multinational enterprises (MNEs) (*cont.*)
 - and “permanent establishment,” 279, 280, 287
 - arguments for interventionist policies, 115–16, 119
 - associated US merchandise trade, 12*t*
 - distinction between domestic and foreign, 10*n*
 - excess-credit vs. excess-limit position, 75*n*, 76
 - formula apportionment, 156–57, 156*n*
 - growth of, 99–100, 99*n*
 - headquarters costs, services, 102, 102*n*, 105–09, 115–16
 - licensing of, 105
 - headquarters locations, 21–23, 117*t*, 121, 131
 - impact of restrictive policies on
 - national prosperity, 114–16, 119
 - interventionist policies, 101–02
 - intragroup transactions, 109
 - model of operating profits and
 - headquarters costs, 109, 110*f*, 111–13
 - production and distribution services, 108–09, 108*n*
 - tax policy recommendations for US, 119–22
 - US-based
 - “home bias” and US employment, 144, 145*t*, 146–47
 - competition between MNEs, 152
 - export consequences for, 147–48
 - headquarters costs, services, 102, 103*t*, 104*t*
 - impact on investment, 148, 152
 - incentives for US headquarters to go
 - abroad, 131, 133
 - negative features for, 131
 - operating in tax havens, 132*t*
 - production in a low-tax jurisdiction, 148
 - taxation of royalties and fees, 159–60, 159*n*
- National Foreign Trade Council (NFTC), 62, 62*n*
- national neutrality (NN), 53, 53*n*, 63–65
 - criticism of, 65, 65*n*
 - example tax situation, 64
 - goal of, 63
 - legislation, measures that moved
 - toward system, 175, 176, 180–81
 - portfolio income taxation, 86
- national ownership neutrality (NON), 53
 - description of, 72, 73*n*
 - criticism of, 73
- Netherlands
 - consumption tax, 30*t*
 - corporate tax as shares of GDP and total tax revenues, 29*t*
 - corporate tax rates, 45*t*
 - dividend tax relief, 259*t*
 - taxation of foreign-source income, 134*t*–36*t*
- Netherlands Antilles, 132*t*
- New Zealand, 259*t*
- NFTC. *See* National Foreign Trade Council
- NN. *See* national neutrality
- NON. *See* national ownership neutrality
- nonprofit organizations, estimated
 - income of, in US, 27*n*
- Norway, 259*t*, 277*t*
- OBRA. *See* legislation, Omnibus Budget Reconciliation Act
- OECD. *See* Organization for Economic Cooperation and Development
- oil, gas
 - companies, 129*n*
 - foreign income taxes, tax credits on, 181, 182, 183, 184
- OLI paradigm, 100*n*
- oligopolistic market, 100*n*, 101
- open market, arguments for, 114
- Open Skies cases, 165*n*
- Organization for Economic Cooperation and Development (OECD)
 - consumption tax on e-commerce, 288
 - Convention on Mutual Assistance in Tax Matters, 89
 - dividend tax relief of member countries, 259*t*
 - e-commerce characterization, 279*n*
 - efforts to identify, eradicate harmful tax practices, 89–92, 90*n*
 - harmful tax competition project, 94
 - Harmful Tax Competition, an Emerging Global Issue*, 89–90
 - Improving Access to Bank Information for Tax Purposes*, 91
 - model tax treaty, 280
 - Technical Advisory Group, 281
 - Working Group on Effective Exchange of Information, 91, 91*n*

- Panama, 132*t*
- partnership vs. corporation, 62*n*–63*n*
- “permanent establishment” (PE), 279, 280
 - definition of, 280, 281, 287
 - examples of, 279*n*
 - unmanned server issue, 280, 280*n*, 281
- Poland, 259*t*, 277*t*
- Pollack v. Farmers Loan and Trust Co.*, 26, 175, 176
- portfolio capital taxation
 - assumptions for
 - mathematical, 262–63
 - regarding world economy, 261–62
 - temporary taxes, 265–66
 - zero tax by capital-importing countries, 264
- portfolio income
 - cooperation in information exchange, reporting, 90–91, 94, 94*n*, 98
 - exemption, 83, 83*n*
 - taxation of
 - CEN approach to, 81, 81*n*
 - in Latin America, 83*n*
 - on interest paid to foreigners, 82, 82*n*, 83
 - residence approach, 83–86
- portfolio investment
 - CEN approach for, 81–82, 81*n*
 - definition of, 80*n*
 - example tax situation, 81–82, 82*n*
 - US, global increases in, 79–80
- Portugal, 259*t*, 277*t*
- “preferred” taxpayers, 258*n*
- President’s Advisory Panel on Federal Tax Reform, 69, 129
 - deferral of CFC income, 201
- profit split method (PSM), 249, 250
- property, tangible and intangible, regulations for, 245–46
- property interest, definition of, 214
- property sale income, source-of-income rules for, 229*t*–30*t*
- qualified intermediary (QI), 87–88, 87*n*, 219
- repatriated foreign profits/dividends, 143, 143*n*
- research, development, and experimentation (RD&E)
 - 40 largest US firms, 20*t*–21*t*
 - expenditures on
 - as a percentage of GNP, country comparisons, 17–18, 18*n*, 18*t*
 - country comparisons, 18*t*, 19*t*
 - foreign expenditures in US, 22–23, 22*n*–23*n*
 - expenses, legislation regarding, 234–36
 - interest expenses for foreign branches in US, 241*t*
 - international trends, 18–19, 19*t*
 - investment, 16*n*
 - impact on high-technology, productivity, 15
 - performed in US and by foreign affiliates in US, 107*t*
 - pharmaceuticals, 19*n*, 23*n*
 - technological competitiveness, 21, 21*n*
 - US credit, expenditures, 160, 160*n*
 - US funding, 17, 17*n*, 18*n*
 - US tax bias against, 140–41
 - US taxation of, 138
 - residence-only taxation
 - abuse of, 86–87
 - portfolio income taxation, 83–86
 - potential for double-taxation, 86*n*
 - US certification requirement for foreign investors, 87–88
- Rosenbloom, David, bottom-up taxation model, 130
- royalties and fees
 - as income, 76*n*
 - source-of-income rules for, 228*t*–29*t*
- taxation of, 122*n*, 159, 159*n*
 - antiabuse measures for, 153
 - US, 139, 142, 142*n*
 - US receipts of, 143*n*
- Russia, 18*n*
- Samsung Electronics, 22*n*
- Singapore, 19*t*, 132*t*, 134*t*–36*t*
- Skype, 292
- Slovakia, 277*t*
- Snow, John, 89*n*
- sources of income. *See also* foreign-source income
 - allocating expenses for, 233–34
 - US characterization of, 121*n*
- source-of-income rules
 - before the Tax Reform Act of 1986, 223–25
 - and after, comparison of, 227*t*–32*t*
 - for e-commerce, 279
 - foreign- vs. US-source income, 223
 - passage of title test, 229*t*, 230*t*
- South Africa, 192
- South Korea, 18*n*

- Spain
 - consumption tax, 30*t*
 - corporate tax
 - as shares of GDP and total tax revenues, 29*t*
 - dividend tax relief, 259*t*
 - rates, 45*t*
 - e-commerce, 277*t*
 - Summers, Lawrence, 17
 - Sweden, 18, 19*t*, 259*t*
 - Switzerland, 19*t*, 132*t*, 259*t*
 - tax avoidance, cooperation against, 86–87, 88–89
 - tax competition, 42–46, 45*t*
 - harmful, recommendations for actions against, 90
 - tax cooperation, 164–65
 - tax discrimination, 162–63, 162*n*, 163*t*
 - tax havens, 22, 59, 95, 132*t*. *See also specific countries*
 - tax reform, 123, 129–30, 133. *See also* legislation
 - “zero-zero” option, 162–63, 164*b*
 - allocation of overhead deductions, 76
 - compared with other plans, 124*t*–28*t*, 133
 - competing CEN, CIN approaches, 69–72
 - cooperation needed from other countries, 163–65
 - excess-credit vs. excess-limit position, 75, 75*n*, 76
 - Grubert’s exemption proposal, 74–76, 74*n*
 - impact of shift toward territorial system, 133, 137–40
 - issue of cross-crediting, 75, 75*n*
 - on interest income, 158–59
 - President’s Advisory Panel on Federal Tax Reform, 69, 129, 201
 - revenue consequences of, 166–67
 - revenue considerations, 73–76
 - taxation on merchandise export income, 207–08
 - territorial system, impact of, 78*n*
 - Treasury’s 1985 proposal, 52–53
 - tax systems. *See also* tax reform; corporate taxation; tax treaties
 - bottom-up taxation, 130
 - capital ownership neutrality, 130
 - for taxing foreign-source income, comparison of, 134*t*–36*t*
 - territorial system, 66, 131, 133, 133*n*, 137–40
 - “runaway plant” specter, 144
 - antiabuse measures for, 152–53
 - allocation of interest expense, 157–58, 158*n*
 - cost-sharing arrangements, 160–61
 - discriminatory taxation, 162–63
 - executives, entertainers, and athletes, 161–62
 - taxation of interest income, royalties, and fees, 153, 158–60
 - transfer pricing, 153, 156–57
 - cooperation needed from other countries, 163–65
 - exemptions for US affiliates, 158
 - revenue consequences of, 167, 168*t*–71*t*, 172
 - shell management schemes under, 161
 - in United States (*See also* US Treasury Department)
 - actual income from tax revenue, foreign sources, and foreign tax credits, 149*t*–51*t*
 - and intracorporate trade deficit, 147, 147*n*
 - biases against
 - RD&E and G&A activity, 140–41
 - repatriation, 143–44
 - US production, 141–43
 - compliance challenges, 144*n*
 - double taxation in, 36, 38, 41
 - export source rule, 77*n*
 - for taxing foreign-source income, 123*t*–36*t*
 - current vs. territorial, 154*t*–55*t*
 - foreign tax credits, 139
 - incentives to move production abroad, 131, 133
 - merchandise export income, 203–10
 - taxation of passive vs. active operations, 137, 138
 - under a territorial system, 78*n*, 133, 137–40
 - withholding rates, 163*t*
 - withholding regulations, 88*n*
 - withholding tax approach for e-commerce, 283, 284*t*, 285–86
 - worldwide taxation, 129, 129*n*
 - compared with other plans, 124*t*–28*t*
- tax treaties
 - bilateral income, 165, 165*n*
 - European Union, 165*n*

- impact of DRH structures on, 221
 - US-German tax treaty, 60
 - US-USSR tax treaty, 278*n*
- tax-sparing credits, 133, 133*n*, 135*t*
- Tobin tax, 265
- transfer pricing
 - abuse of, 122, 122*n*
 - antibuse measures for, 153, 156–57
 - determining acceptability of, 249
 - dispute resolution, 156*n*
 - methods for determining arm's length pricing, 250
 - problems in e-commerce, 281
 - Treasury regulations for, 248–49, 250, 252–53
- Turkey, 259*t*
- United Kingdom
 - consumption tax in, 30*t*
 - corporate tax
 - as shares of GDP and total tax revenues, 29*t*
 - dividend tax relief, 259*t*
 - rates, 44*n*, 45*t*
 - headquarters locations in, 116, 118*t*
 - RD&E spending, 18*n*
- United States. *See also under* corporate taxation; tax systems; tax treaties; US Treasury Department
 - assets abroad, 9*t*
 - consumption tax in, 30*t*
 - e-commerce in, 277*t*
 - economy
 - changes in US MNEs, 10, 12, 12*t*
 - impact of high-technology market, 14–15, 14*n*
 - internationalization of, 10–13, 11*t*
 - measures of openness to trade, investment, 11*t*
 - FDI, inward and outward stock, 3*t*, 4*t*
 - foreign-owned assets in, 8*t*
 - headquarters locations in, 116, 118*t*
 - high-technology market, 3*t*, 4, 16, 17
 - market share of global economy, 66–67
 - portfolio investment, increase in, 79–80
 - RD&E spending in, 18*t*, 19*t*
 - role in world economy, changes in, 1–2, 4
 - shares of world GDP, exports, 3*t*
 - tax revenue derived from foreign investment, 295–96, 296*t*
 - top industrial firms, banks in, 6*t*
 - universal taxpayer identification number (UTIN), 87, 87*n*, 91
 - US Model Income Tax Treaty, 287*n*
 - US Model Tax Treaty, 280, 287*n*
 - US Treasury Department
 - cost-sharing regulations, 250–52
 - dividend exclusion model for corporate taxation, 258, 260
 - e-commerce, 275, 278*n*
 - hybrid entities, proposal on, 188
 - partnership with Interpol, 92
 - policy on deferral of CFC income, 200
 - Preliminary Report on Corporate Inversion Transactions, 219–20
 - regulations affecting foreign tax credits, 183 (*See also* Internal Revenue Code; legislation)
 - “anti-conduit” regulations, 217
 - affecting US tax on foreign income, 183, 184–85, 188
 - arm's-length standard, 245
 - for transfer pricing, 248–49, 250, 252–53
 - impact on taxation of foreign businesses, 216, 217–19, 221
 - regarding RD&E expenses, 234–36
 - tangible, intangible property, 245–46
 - Tax Reform for Fairness, Simplicity, and Economic Growth, 184–85
 - TD 8611, 217–18
 - TD 8734, 218–19
 - TD 8999, 221
 - TD 9278, 252–53
 - reporting requirements for banks on interest paid to foreigners, 89*n*
 - residence approach to taxing e-commerce, 282
 - rules for apportioning RD&E expenses, 241*t*
 - support of CEN, 61, 61*n*
 - tax reform proposal of 1985, 52–53
 - tax reform proposals on merchandise export income, 207–08
- value added tax (VAT), 288. *See also* EU Council Directive 2002/38/EC
 - adoption of, 28
 - description of, 289
 - EU directives, rules on, 288–90, 290*n*
 - on e-commerce, 288
 - US objections to, 28*n*
- Western Hemisphere Trade Corporation (WHTC), 178, 183, 204
- World Trade Organization (WTO)
 - EU's challenge of ETI Act, 209–10
 - prohibition of FSC, 77, 188, 208

