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Practical Aspects of Implementing Formulary Apportionment in the European Union

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by

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**PRACTICAL ASPECTS OF IMPLEMENTING FORMULARY APPORTIONMENT
IN THE EUROPEAN UNION**

by

Joann Martens Weiner¹

I. FUNDAMENTAL COMPANY TAX REFORM IN THE EUROPEAN UNION

The European Commission is fast approaching its self-imposed deadline to present a legislative measure introducing a consolidated common corporate tax base and formulary apportionment within the European Union in 2008. This deadline represents the culmination of work that began when the Commission released a study in 2001 advocating that the European Union adopt a new method of taxing EU multinational companies that would eliminate the tax obstacles to cross-border investment that undermine the international competitiveness of EU multinationals.²

The Commission has concluded that the European Union would not be able to function as a true internal market as long as its multinational enterprises had to contend with up to 27 different sets of company tax rules – one set of rules for each of the 27 Member States. EU business groups generally support the Commission's efforts, noting that a common EU level company tax system would reduce the complexity and uncertainty surrounding corporate taxation in the EU. For example, the trade group Business Europe (formerly UNICE) has indicated that a common consolidated EU corporate tax base is the only way to eliminate the tax obstacles to cross-border business integration in the European Union. EU multinationals could become more competitive and expend fewer

1. Joann Martens Weiner is an adjunct professor of economics at the George Washington University and is also the author of *Company Tax Reform in the European Union. Guidance from the United States and Canada on Implementing Formulary Apportionment in the EU*, (New York: Springer Science + Business Media, 2006). The author presented this paper at the 2007 International Tax Symposium held at the University of Florida Levin College of Law Graduate Tax Program. I would like to thank Prof. Lawrence Lokken for inviting me to this conference and to the participants in the seminar, especially Paul McDaniel and Yariv Brauner, for helpful comments. I extend a special thanks to Michael Durst for his detailed comments on the draft paper. Any errors are my own.

2. See European Commission, *Towards an Internal Market without tax obstacles*, COM (2001) 582 final. For an update on the project, see European Commission, *Communication on Further Progress during 2006 and next steps toward a proposal on the Common Consolidated Corporate Tax Base (CCCTB)*, COM (2007) final, May 2, 2007, available at http://ec.europa.eu/taxation_customs/resources/documents/common/whats_new/ccctb_en.pdf.

resources in complying with Member States tax rules if they could use one set of tax rules to calculate their EU-wide profits.

After analyzing many options, the Commission settled on the strategy of allowing EU MNE's to use a common consolidated corporate tax base (CCCTB) to calculate their EU level profits and to use formulary apportionment (FA) to distribute a share of the consolidated EU tax base to each Member States according to the location of their business activity. Member States will continue to apply their own tax rates to their share of the EU tax base. The EU CCCTB with FA will be optional so that EU multinational companies may continue to use national tax systems.

This article addresses some practical aspects involved in implementing formulary apportionment in the European Union. It first describes the basic landscape for company tax reform in the EU and identifies pressures coming from the European Court of Justice on Member States to reform their company tax systems. It also describes the work being conducted by the CCCTB Working Group at the European Commission.

Second, it draws on experience from the U.S. states and Canadian provinces to set forth the basic contours of a formulary apportionment system in the EU. It also deals with certain international issues, including technical aspects that arise when the scope of the system is limited to the boundaries of the EU. The U.S. state experience can be very helpful in this analysis, especially concerning the scope of the tax base and the definition of the formula. All U.S. states now allow multinational companies to limit application of their formulary apportionment system to the geographical boundaries of the U.S. (known as the water's edge). In moving away from worldwide taxation with formulary apportionment, the states have resolved many of the issues that the EU Commission faces as it heads into the final stages of its project.

Third, the paper evaluates some of the pioneering research in this area on the economic effects of FA on investment and business location decisions. These papers evaluate particular aspects that deal with introducing a formulary method for taxing multinational companies in the EU.

This paper does not evaluate the merits of formulary apportionment versus the arm's length system of taxation since the subject has been treated at length elsewhere.³ It proceeds on the assumption that the political and economic

3. The list of papers in this area is wide-ranging. See Reuven Avi-Yonah, *The Rise and Fall of Arm's Length: A Study in the Evolution of U.S. International Taxation*, 15 *Va. Tax Rev.* 89 (1995), revised and updated version available at <http://law.bepress.com/umichlwps/olin/art73> (last visited Nov. 20, 2007); Eric Coffill and Prentiss Willson, *Federal Formulary Apportionment as an Alternative to Arm's Length Pricing: From the Frying Pan to the Fire?*, 4 *St. Tax Notes* 1232 (1993); Stanley Langbein, *The Unitary Method and the Myth of Arm's Length*, 30 *Tax Notes* 625 (1986); Jerome Hellerstein, *Federal Income Taxation of Multinationals: Replacement of Separate Accounting with Formulary Apportionment*, 5 *St. Tax Notes* 407 (1993);

conditions in the European Union make formulary apportionment the best way to tax the income of multinational corporations in the European Union.⁴

The political context is a key uncertainty surrounding the final contours of a possible CCCTB with FA. Although it has new methods, such as enhanced cooperation, to achieve its goals, the Commission still faces tremendous barriers to reaching its goals. It must achieve a proper balance between preserving the sovereign rights of the individual Member States and promoting the best interests of the European Union as a whole. Overcoming the political obstacles may prove more difficult than overcoming the economic obstacles; nevertheless, an analysis of the political negotiations and compromises necessary to achieve EU company tax reform are beyond the scope of this paper.

A. Why a Common Company Tax System for the European Union?

The European Union is now composed of 27 Member States that have jointly decided to work together to “lay the foundations of an ever closer union among the peoples of Europe.”⁵ In making this commitment, these sovereign nations have undertaken a monumental task – to create a common market together, united by a desire to expand economic growth and employment and to enhance the global competitiveness of the European Union.

The attractiveness of the European Union as an economic and political union is evident – its membership has more than quadrupled since its founding in 1957 by six European countries, Belgium, the Netherlands, Luxembourg, France, Germany, and Italy. As the EU celebrates its 50th anniversary in 2007, it can recognize many achievements, especially the lack of any military conflict among the Member States over this period, a peace that stands in sharp contrast

Joann Martens Weiner, *Using the Experience in the U.S. States to Evaluate Issues in Implementing Formula Apportionment at the International Level*, OTA Paper 83, Office of Tax Analysis, U.S. Dep’t of the Treas. (Apr., 1999). For an international view, see Organization for Economic Cooperation and Development (OECD), *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (1995) [hereinafter *Guidelines*].

4. For a detailed analysis, see Joann Martens Weiner, *Formulary Apportionment and Group Taxation in the European Union: Insights from the United States and Canada*, (European Commission, Taxation and Customs Union, Working Paper No. 8, 2005) available at http://ec.europa.eu/taxation_customs/taxation/gen_info/economic_analysis/tax_papers/index_en.htm (follow “Taxation Paper No 8” hyperlink).

5. See Treaty of Rome pmb., Mar. 25, 1957, 298 U.N.T.S. 11 (establishing the European Economic Community). The European Economic Community (EEC) is now known as the European Union while the Treaty, which since 2002 is the Consolidated Version of the Treaty Establishing the European Community, is known as the European Community, or EC, Treaty. For details on the Treaty, see Ruth Mason, *Primer on Direct Taxation in the European Union* (2005).

to the two world wars fought largely in Europe during the fifty years before the European Community existed.

The EU also shows tremendous achievements in the economic arena. The Member States have eliminated internal tariffs, many have adopted the euro as the common currency, all have adopted generally common consumption tax rules, and they are working together to create a Single Market among the Member States.

Despite these achievements, the EU has made only minor progress in eliminating the direct tax obstacles that EU multinationals encounter when expanding into another EU Member States. The most important achievements occurred in 1990 with the parent-subsidiary directive,⁶ the mergers directive,⁷ and the Arbitration Convention.⁸

The Commission, however, has not been able to bring about a common EU company tax system. The existence of a different company tax system in each Member States is a key source of the barriers to cross-border business expansion. It is the variation in tax rules, not the variation in tax rates, that creates the cross-border tax obstacles in the European Union. Complying with different rules in each Member States imposes high compliance costs and creates a barrier to cross-border economic activity.

B. Pressures for Company Tax Reform

The EU Member States are not moving with complete independence toward company tax reform. The main pressures to make their national tax systems compatible with the internal market come from two sources: In specific, from the European Court of Justice and the tax competition from the dozen newer Member States and, in general, from globalization.

1. The European Court of Justice

In more than a hundred cases dealing with direct taxation, the European Court of Justice has routinely found that numerous long-standing international tax rules in the Member States were inconsistent with a single market. These decisions began with the 1986 *Avoir Fiscal* case concerning the French dividend imputation system and continue through cases concerning relief from double taxation of dividends, thin capitalization rules, controlled foreign

6. Council Directive 90/443 (EEC).

7. Council Directive 90/435 (EEC).

8. See the Convention on the elimination of double taxation in connection with the adjustment of profits of associated enterprises, Council Directive 90/436 (EEC).

corporation rules, exit taxes, and limits on cross-border loss deductions, among others.⁹ Table 1 lists selected ECJ cases in the direct tax area.

Table 1
Selected European Court of Justice direct tax cases

Year	Case	Name	Issue
1986	C-270/83	Commission v. France (Avoir Fiscal)	Imputation tax credit
2000	C-35/98	Verkooijen	Dividend exemption
2000	C-141/99	AMID	Cross border losses
2001	C-397/98	Metallgesellschaft.	Taxation of group income;
	C-410/98	Hoechst	Advance corporation tax
2002	C-324/00	Lankhorst-Hohorst	Thin capitalization
2003	C-168/01	Bosal Holding BV	Participation exemption; Parent/subsidiary Directive
2004	C-315/02	Lenz	Inbound foreign dividends
2004	C-9/02	Hughes de Lasteyrie du Saillant	Exit tax
2004	C-319/02	Manninen	Cross-border dividend imputation credit
2005	C-446/03	Marks & Spencer	Group relief; cross-border loss compensation
2006	C-196/04	Cadbury Schweppes	Anti-deferral and controlled foreign corporation regimes
2006	C-170/05	Denkavit	Dividend withholding tax
2007	C-292/04	Meilicke	Tax credits for dividends
2007	C-231/05	Oy AA	Group contributions
2007	C-34704	Rewe Zentralfinanz	Write-downs on foreign participations
2007	C-157/05	Holböck	Third country dividend payments
2007	C-492/04	Lasertec	Thin capitalization and non- EU countries

Source: European Commission

Broadly speaking, the ECJ has such a strong influence on EU company tax rules because it takes a different view of company tax policy than do the individual Member States. The ECJ's goal is to create a seamless "internal union" where companies are able to invest in any Member States within the European Union without facing discriminatory taxation when they do so.

9. For a discussion of these cases, see Michael J. Graetz and Alvin C. Warren, Jr., *Income Tax Discrimination and the Political and Economic Integration of Europe*, 115 *Yale L.J.* 1186 (2006).

The Member States, however, often enact policies that protect their national tax bases, sometimes in a discriminatory fashion. As O'Shea has commented, "what is 'tax avoidance' from one Member State's perspective is simply an exercise of the freedoms from another state's point of view."¹⁰

In striving to create a seamless internal union, the ECJ has repeatedly struck down Member States tax measures that, to varying degrees, favor domestic companies or domestic investment over foreign companies or foreign investment. The ECJ has found numerous national tax provisions that violate the fundamental freedoms – the freedom of movement for goods, persons, services, and capital, and the freedom of establishment – guaranteed in the EU Treaty.

It was not until the *Marks and Spencer* case in 2005,¹¹ however, that the Court seemed to accept that although certain features of national tax systems might not be entirely consistent with the internal market, they could, nevertheless, be acceptable for other reasons, such as maintaining the internal consistency of the tax system and preventing tax avoidance. The ECJ walks a fine line between accepting Member States tax policies that pursue national interests while also insisting that Member States apply policies consistent with the single market.

Marks and Spencer addressed the United Kingdom's system of group relief and cross-border loss compensation. The UK government argued that since it had not taxed the foreign subsidiaries' profits when earned, it was not obligated to allow *Marks and Spencer* to offset the losses of those foreign subsidiaries when incurred. However, *Marks and Spencer* claimed that since UK law allowed it to offset losses from its UK subsidiaries against its UK profits, then UK law should also allow it to offset losses from its French, German, and Belgian subsidiaries against its UK profits. The company argued that the UK government's failure to extend the domestic group relief scheme to foreign operations in the EU was a prohibited discrimination against freedom of establishment.

In December 2005, the ECJ ruled that the United Kingdom was not required to extend its cross-border loss offsetting system broadly throughout the European Union. In this particular case, however, because the company had no other possibility to offset its losses the Court required the UK to extend the group taxation scheme to *Marks and Spencer's* foreign subsidiaries. Thus, the ECJ stopped short of requiring the UK to extend its group relief system throughout the EU.

10. See Tom O'Shea, *The UK's CFC rules and the freedom of establishment: Cadbury Schweppes plc and its IFSC subsidiaries – tax avoidance or tax mitigation?* 2007/1 EC Tax Review 13 (2007) available at www.law.qmul.ac.uk/people/academic/docs/Cadbury_Schweppes_EC_Tax_Review_2007_Issue1.pdf.

11. Case C-446/03, *Marks and Spencer plc v. David Halsey*, 2005 E.C.R. I-10837, 2005 ECJ CELEX LEXIS 734.

Cadbury Schweppes¹² concerned the United Kingdom's controlled foreign corporation legislation and the general question of whether Member States may apply their anti-abuse rules broadly or whether they must limit them to so-called "artificial arrangements."¹³ The general purpose of controlled foreign corporation (CFC) legislation, which exists in the UK and in several other EU Member States as well as in the United States, is to prevent abusive tax avoidance. In the United Kingdom, subject to some exceptions, the CFC legislation applies where the host country taxes the subsidiary's profits at a much lower rate than they would be taxed in the United Kingdom.

Under UK law, UK companies are taxed on their worldwide income, but income of their foreign subsidiaries is subject to UK tax only when the income is distributed to the UK parent. However, subject to certain exceptions, if the foreign subsidiary is subject to a rate of taxation that is less than three-fourths of the UK tax that would be paid on the foreign subsidiary's profits computed under UK rules, the CFC rules apply and the UK taxes currently such profits at the UK rate with a tax credit offered for foreign income taxes paid. In the relevant years, Cadbury Schweppes' subsidiaries in Dublin were subject to a 10% rate of tax under Ireland's International Financial Services Centre regime while the subsidiaries would have been subject to a 30% rate of tax had they been located in the United Kingdom.¹⁴

This case attracted interest from several EU Member States, including Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italy, Portugal, Spain, Sweden and the United Kingdom. Belgium and Cyprus were the only EU Member States that supported *Cadbury Schweppes* in its position that the UK could not broadly apply its anti-abuse rules. The European Commission also expressed interest, arguing that cross-border investment should not be viewed as having an abusive motive if that investment has an economic substance.

The Court ruled that the UK's CFC legislation has a legitimate public purpose to prevent tax avoidance; nevertheless, it is valid only when the establishment of the foreign subsidiary is wholly artificial. Merely incorporating the subsidiary in a low-tax area is not sufficient for the action to be invalid. To be invalid, the foreign subsidiaries must lack economic substance. The Court ruled that EU Member States have the right to counteract tax avoidance, but they must limit application of the rules to cases where tax avoidance is the sole purpose.

Under this reasoning, general anti-abuse rules may violate the EC Treaty's freedom of establishment principle. However, as long as the subsidiaries provide genuine and actual services to the parent company, the fact that the parent company may reduce its overall tax burden by locating its operations in a low-tax area does not violate the freedom of establishment guaranteed by the EC Treaty.

12. Case C-196/04, *Cadbury Schweppes plc and Cadbury Schweppes Overseas Ltd. v. Comm'rs of Inland Rev.*, 2006 E.C.R. I-07995, 2006 ECJ CELEX LEXIS 445.

13. *Id.* at ¶ 51.

14. See *id.* at ¶ 14. Although the European Commission had sanctioned the special tax regime as legitimate state aid, in compliance with the EU code of conduct, Ireland has phased out this legislation.

After a series of rulings in favor of companies, in 2007 the ECJ finally issued a broad ruling in favor of a Member States. In *Oy AA*,¹⁵ Finland allowed group relief for transfers among Finnish-resident companies, but not for transfers between a Finnish resident company and a non-Finnish resident in the EU. Thus, a Finnish company could obtain a tax deduction for its taxable profits transferred to its loss-making Finnish companies but not for profits transferred to its loss-making UK-resident parent company.

In *Oy AA* the ECJ found that although Finland's group contribution regime discriminated on the basis of residence, and thus violated freedom of establishment, the Court justified the measure as a legitimate attempt to prevent the use of purely artificial arrangements designed solely to transfer group income to companies resident in low tax Member States. The Court reasoned that the Finnish measure struck an appropriate balance between the need to prevent tax avoidance and the need to raise revenue. Without this restriction, the ECJ reasoned, Member States would be subject to the risk that companies would create "wholly artificial arrangements" to shift income to companies located in the Member States with the lowest rate of tax.

To attempt to coordinate these anti-abuse rules following these ECJ decisions, the European Commission adopted a Communication in December 2007 that encourages Member States to review their anti-abuse rules for the purposes of exploring possible coordinated action against abuse (see IP/07/1878). In the Commission's view, because the Member States' existing anti-abuse rules often do not take into account the goals of the EU as a whole, the ECJ frequently finds that these rules violate the EU treaty. Rather than abandon anti-abuse rules, however, the Commission favors developing coordinated measures that balance the needs to prevent abuse with the desire to eliminate the barriers to cross-border activity in the European Union.

2. Enlargement and Globalization

EU enlargement and economic globalization are putting additional pressures on the tax systems in the Member States. The twelve newer Member States that have joined the EU since 2004, many of which only recently adopted a corporate income tax, tend to tax corporate income at a lower rate than do the older Member States. Table 2 shows the EU statutory corporate tax rates in 2007. These rates range from 10% in Bulgaria and Cyprus to nearly 40% in Germany (Germany reduced its rate to just below 30% effective January 2008). Most EU Member States have reduced their statutory tax rates in recent years. The average rate in the EU 15 Member States has fallen by roughly ten percentage points over the past decade. The rate declines in the newer Member States are even more dramatic, with the average rate falling by nearly 15 percentage points over this period. Moreover, many of the newer Member States have relatively low statutory rates. The newest

15. Case C-231/05, *Oy AA*, 2006 E.C.R. I-7605, 2006 ECJ CELEX LEXIS 1049.

Member States, Bulgaria and Romania, tax corporate income at 10% and 16%, respectively.

Chart 1 shows the statutory tax rates in the EU 27 Member States for 2007. Chart 2 shows the development in these tax rates and the variation in rates since 1995. These data show the dramatic declines in the top statutory tax rates over the past decade. (The EU-15 are the older Member States and the EU-12 are the newer Member States.) The chart also shows that the variation in statutory tax rates has not changed significantly during this period.

Table 2
Corporate income tax rates in the
European Union Member States, selected years

<i>EU-15 Member States</i>	1995	2000	2004	2005	2006	2007
Austria	34%	34%	34%	25%	25%	25%
Belgium	40.2	40.2	34	34	34	34
Denmark	34	32	30	30	28	28
Finland	25	29	29	26	26	26
France	36.7	37.8	35.4	35	34.4	34.4
Germany	56.8	51.6	38.3	38.7	38.7	38.7
Greece	40	40	35	35	29	25
Ireland	40	24	12.5	12.5	12.5	12.5
Italy	52.2	41.3	37.3	37.3	37.3	37.3
Luxembourg	40.9	37.5	30.4	30.4	29.6	29.6
Netherlands	35	35	34.5	31.5	29.6	25.5
Portugal	39.6	35.2	27.5	27.5	27.5	27.5
Spain	35	35	35	35	35	32.5
Sweden	28	28	28	28	28	28
United Kingdom	30	30	30	30	30	
<hr/>						
<i>EU-12 Member States</i>	1995	2000	2004	2005	2006	2007
Bulgaria	40%	32.5%	20%	15%	15%	10%
Czech Republic	31	28	26	24	24	
Cyprus	25	29	15	10	10	10
Estonia	26	26	26	24	23	22
Hungary	19.6	19.6	17.6	17.5	17.5	18.6
Latvia	25	25	15	15	15	15
Lithuania	29	29	24	15	15	15
Malta	35	35	35	35	35	35
Poland	40	30	19	19	19	15
Slovakia	40	29	19	19	19	19
Slovenia	25	25	25	25	25	23
Romania	38	25	25	16	16	16
<hr/>						
Average EU-15	38.0%	35.4%	31.4%	30.1%	29.6%	28.9%
Average EU-12	32.0	27.6	21.6	19.7	19.8	18.8
Average EU-27	35.3	31.9	27.1	25.5	25.3	24.4

Source: Commission Services. Commission of the European Communities, Eurostat, Taxation Trends in the European Union. Data for the EU Member States and Norway, 2007 edition.

Chart 1. EU-27 adjusted top corporate tax rate, Member States and EU averages, 2007

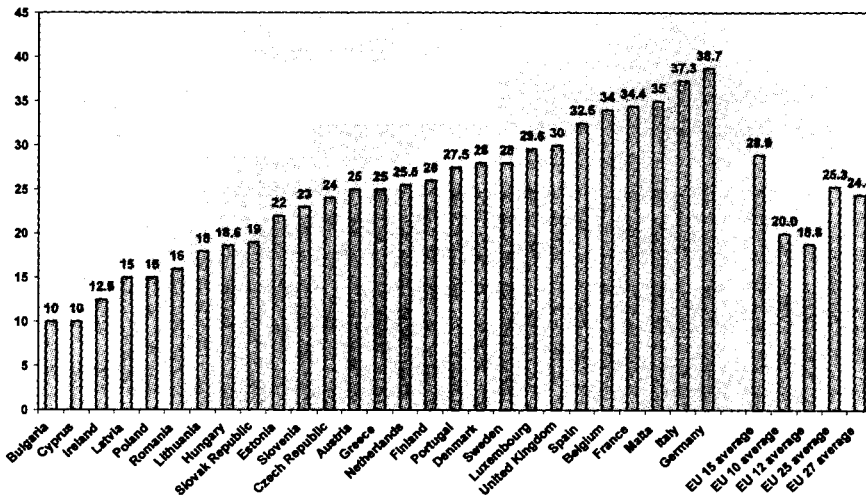
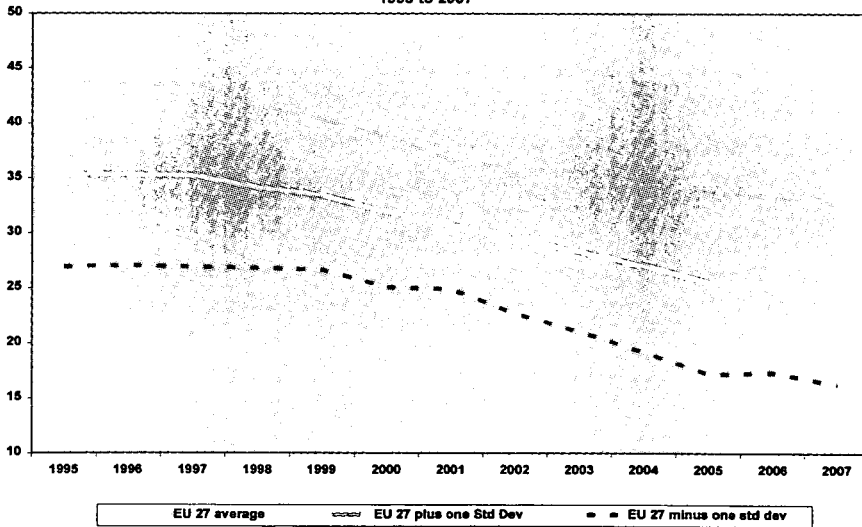


Chart 2. EU27 Adjusted Top Corporate Tax Rates, 1995 to 2007



C. Formulary apportionment in the EU

These pressures to undertake company tax reform in the EU do not necessarily lead to formulary apportionment. Thus, one question that arises is why the Commission is now pursuing formulary apportionment rather than pursuing the traditional methods it has favored in the past?

The history of company tax reform efforts in the EU helps understand the change in direction. These earlier efforts, in one form or another, all relied on the traditional methods that essentially centered on deciding which “national” tax system was the “best” national tax system for the European Union. These methods include partial imputation, classical, and split-rate, among others. Despite many attempts, the Member States never agreed on which method is the “best” method and, thus, never moved beyond the initial stages of implementing EU company tax reform.¹⁶

In 2001, the European Commission decided to take a new direction and examine modern concepts for taxing international income. The European Commission broke from tradition when it proposed a new strategy for taxing multinational companies in the European Union. In so doing, the Commission recognized that the 21st century economy bears little resemblance to the economy that existed at the turn of the 20th century. A century ago, since there were few cross-border transactions for Member States to be concerned about when designing their tax policies, companies generally created a physical presence when conducting business in other countries. Thus, basing a tax system along geographical borders for separate companies doing business in the country seemed entirely reasonable.

By 2001, cross-border transactions dominated multinational investment in the European Union and companies could conduct their cross-border business among their related affiliates without necessarily establishing a physical presence in the foreign country. Geographic boundaries became increasingly irrelevant for determining where a multinational company earned its income. In light of this blurring of geographic boundaries, it became evident that the European Union should consider “borderless” approaches to taxing multinational enterprises.

Rather than requiring each multinational corporate group to attempt to calculate its profits “as if” they had been earned by independent entities operating at arm’s length within national borders, the Commission suggested allowing each multinational company to calculate its EU profits as if the internal borders were not relevant to how they organized their operations. Thus,

16. The European Commission began issuing company tax reform proposals shortly after the creation of the Common Market, starting with the 1962 Neumark Committee and continuing to the 1992 Ruding Report. Its only formal proposal occurred in 1975 when the Commission proposed a common partial imputation system, which it withdrew in 1990. For detail see *supra* note 2.

the Commission proposed developing an EU level common consolidated corporate tax base and then using a common formula to distribute the EU tax base to the individual Member States for taxation at local rate.¹⁷

In another break from tradition, the European Commission is not proposing that the EU system replace the tax system in each Member States. It has taken an innovative approach of allowing multinational enterprises the option to adopt the EU level tax rules or to continue to use the national rules.

1. *Transfer Pricing*

Formulary apportionment does not require calculating transfer prices for controlled transactions. Thus, it avoids many of the complexities of the transfer pricing system. The transfer pricing regime that is a fundamental part of the separate entity accounting method has several weaknesses. Under international tax practices, multinational corporations determine the income earned in each country according to the separate accounting with arm's length pricing method.¹⁸ Companies price internal controlled transactions according to the prices that companies operating independently would have used.

In theory, national tax authorities have the ability to verify that the amount of income that the multinational attributes to its country is the correct amount, as determined under the transfer pricing rules. In practice, tax payers and tax authorities often disagree about those amounts. Since the transfer price determines where income is allocated, the tax authorities have a strong interest in ensuring that companies establish the proper transfer prices. If the competent authorities can not reach agreement on the amount of income attributed to each country, the company may suffer unrelieved double taxation.

The amounts in dispute can be substantial – a recent transfer pricing dispute involving GlaxoSmithKline and the U.S. tax authorities involved more than \$13 billion in transfer pricing adjustments. Asserting that Glaxo

17. Using a formula to distribute profits across jurisdictions is generally known as formulary apportionment. Using a system of internal transfer prices to distribute these profits is generally known as 'separate entity accounting with arm's length pricing. The separate entity accounting system is also often known as separate accounting and the arm's length method is also known as the arm's length standard or the arm's length principle. The definition of the taxable group is also often referred to as a consolidated group or as a unitary group, depending on the context. Unless the context requires otherwise, for simplicity and consistency, this article uses the terms formulary apportionment and consolidated group.

18. For the United States, these rules are contained in § 482 of the Internal Revenue Code and are expanded upon the regulations. "A controlled transaction meets the arm's length standard if the results of the transaction are consistent with the results that would have been realized if uncontrolled taxpayers had engaged in the same transaction under the same circumstances (arm's length result)." Reg. § 1.482-1(b)(1).

improperly shifted profits to its UK parent company, the IRS reallocated a substantial amount of the company's income to the United States. Glaxo had requested relief from the U.S. and U.K. competent authorities, but the bilateral negotiations failed when the British tax authorities supported the company's view that it did not owe any additional taxes to the U.S. Glaxo reached a settlement with the IRS in September 2006.

2. *Advantages of formulary apportionment*

Its advocates argue that formulary apportionment better reflects the economic reality of multinational (or, more generally, multijurisdictional) firms' corporate structure than the separate entity system does.¹⁹ Consolidated taxation with formulary apportionment does not require firms to draw artificial boundaries among the various, integrated parts of the corporation and then to price the transactions occurring between the members "as if" they operated at arm's length. By contrast, the separate entity system with arm's length pricing rests solidly on the view that an integrated company is able to find prices that independent entities operating at arm's length would use to price comparable internal transactions among dependent entities.

Increasingly in the global economy, however, no independent transactions exist for the transfer of unique items, such as intangibles or services. Walter Hellerstein summarized this point: "A key reason to employ formulary apportionment, whether to a single corporation or to a group of commonly controlled corporations, is because they are engaged in integrated cross-border economic activity that cannot readily be treated on an arm's length/separate-geographic accounting basis."²⁰

As the economic integration in the European Union has deepened, so has support for formulary apportionment.²¹ Weiner (1994) conducted an early analysis of the impact of formulary apportionment on investment in the European Community.²² Drawing from their experience in state corporate income taxation, Charles McLure and Walter Hellerstein have argued in favor

19. For an analysis of this issue, see Jinyan Li, *International Taxation in the Age of Electronic Commerce: A Comparative Study* (2003).

20. See Walter Hellerstein, *International Income Allocation in the Twenty-first Century: The Case for Formulary Apportionment*, 12 *Int'l Transfer Pricing J.* 103 (2005).

21. See Joann Martens Weiner, *Company Tax Reform in the European Union. Guidance from the United States and Canada on Implementing Formulary Apportionment in the EU*, New York, Springer, (2006).

22. See Joann Martens Weiner, *Company Taxation for the European Community. How Sub-National Tax Variation Affects Business Investment in the United States and Canada* (1994) (unpublished Ph.D. dissertation, Harvard University) (on file with author).

of introducing formulary apportionment in the European Union. Other authors, including Marcel Gérard, Peter Sorensen, and Christoph Spengel support formulary apportionment in the EU.²³

Although it has definitely not endorsed global formulary apportionment, the OECD recognizes that the economic integration in the EU has caused the European Commission and many Member States to “rethink” their views of formulary apportionment.²⁴ The OECD member countries have adopted profit-based methods that resemble formulary apportionment methods.²⁵

II. THE CCCTB WORKING GROUP

With the approval of European Union economics and finance ministers, the European Commission established a Common Consolidated Corporate Tax Base (CCCTB) Working Group in 2004 to evaluate the technical details involved in moving to a common EU tax base. Since its first meeting in 2004. The Commission’s CCCTB Working Group and the various subgroups have met more than a dozen times to focus on the technical details of the common consolidated corporate tax base with formulary apportionment.²⁶ The

23. See Walter Hellerstein and Charles E. McLure, Jr., *The European Commission’s Report on Company Income taxation: What the EU Can Learn from the Experience of the U.S. States*, 11 *Int’l Tax and Public Fin.* 199 (2004); Walter Hellerstein and Charles E. McLure, Jr., *Lost in Translation: Contextual Considerations in Evaluating the Relevance of U.S. Experience for the European Commission’s Company Taxation Proposals*, 58 *Bull. Int’l Fiscal Documentation* 86 (Mar. 2004); Charles E. McLure, Jr., *Corporate Tax Harmonization for the Single Market; What the European Union Is Thinking*, *Business Economics* Oct. 2004, at 28, Marcel Gérard, *Multijurisdictional Firms and Governments’ Strategies under Alternative Tax Designs*, (CESifo, Working Paper No. 1527, 2005) available at http://www.cesifo-group.de/DocCIDL/cesifo1_wp1527.pdf; Peter Birch Sorensen, *Company tax reform in the European Union*, 11 *Int’l Tax and Public Fin.* 91 (2004); Christoph Spengel, *Presentation at the International Tax Conference, Berlin: Concept and necessity of a Common Tax Base an academic introduction* (May 15, 2007).

24. See Organization for Economic Cooperation and Development, *Are the current treaty rules for taxing business profits appropriate for E-commerce?*, Public Discussion Draft (Nov. 26, 2003), available at <http://www.oecd.org/dataoecd/2/38/20655083.pdf>.

25. See Robert E. Culbertson, *A Rose by any Other Name: Smelling the Flowers at the OECD’s (Last) Resort*, 10 *Tax Notes Int’l* 370, 376 (1995); Guidelines, *supra* note 3.

26. See Joann M. Weiner, *Approaching a Common Consolidated Corporate Tax Base in the European Union*, 46 *Tax Notes Int’l* 647 (2007) (summarizing the status of the EU’s project and listing key EU documents from the CCCTB working group).

Commission still has a great deal of work ahead, but it is convinced that it will release a legislative proposal in 2008.

From the start of the project, the Commission has made it clear that Member States will retain the ability to apply their national tax rates to their share of the EU tax base. The Commission also has decided to use formulary apportionment to distribute the EU tax base to the Member States. Although not all Member States agree, the Commission believes that the EU tax base should be consolidated from the start rather than proceeding in a two-step process that first introduces a common tax base and then introduces consolidation. The Commission recently noted that "it would be counterproductive to pursue at this stage a common tax base without consolidation and apportionment."²⁷

To maintain business support for its program, EU businesses have repeatedly stressed that they must have the option of using the new CCCTB or of remaining under their national tax systems. The Commission would impose restrictions on the option, requiring, for example, that the taxpayer remain with its choice for a specified period.

Member States would be required to make the CCCTB available to multinational companies that chose to use it. In response to concerns over the optional aspect of the CCCTB, the Commission has noted that if a Member States wished to make the CCCTB mandatory, then it could decide to eliminate its national tax rules.

The Commission has emphasized that the CCCTB should be limited to the European Union's territorial boundaries, i.e., to the EU's water's edge (EUWE). This decision is primarily a practical one, as the technical difficulties in gaining worldwide agreement to use CCCTB with formulary apportionment on a global basis seem insurmountable at this time.

The basic contours of the EU Commission's work on the CCCTB with formulary apportionment resemble the apportionment systems used in the U.S. states and the Canadian provinces. However, the sharply different political structure in the European Union, where each Member States remains a fully independent nation, will inevitably lead the final proposal to differ significantly from the apportionment systems used in these North American federations.

27. See Summary Record of the Meeting of the Common Consolidated Corporate Tax Base Working Group, CCCTB\WP\055\en at 2 (Jun. 28, 2007), available at http://ec.europa.eu/taxation_customs/resources/documents/-/taxation/company_tax/common_tax_base/CCCTBWP055_summary_en.pdf.

A. The Basic Contours of Formulary Apportionment in the European Union

This section summarizes the basic contours of a formulary apportionment system in the European Union. These main issues encompass the taxable connection, the definition of the taxable group, the formula and the factors, and international issues, including the treatment of foreign source income and the interaction with third countries.²⁸

1. The Taxable Connection

Before an entity may be subject to tax in a jurisdiction, it must have a minimum “connection” with that jurisdiction. The permanent establishment concept, which originated in the mid-19th century, is a long-standing test for determining whether an entity has a sufficient connection with a jurisdiction to fall under its taxing powers. All of the European Union’s bilateral tax treaties and the OECD Model Convention on income taxation include a permanent establishment article.

The usefulness of the permanent establishment notion as a criterion for being subject to tax, however, is questionable. The U.S. states, for example, have adopted a variety of tests for determining whether a non-resident corporation without a permanent physical presence in the state nevertheless has a sufficient economic presence to make it liable to the state’s corporate income tax.

The inappropriateness of basing taxation solely on a physical presence appears most starkly in the U.S. states where economic and geographic borders have long ago disappeared and common rules apply in each state. In the U.S., many out-of-state holding companies have asserted that the lack of a physical connection in a state removes their obligation to pay tax on the intangible income derived from the use of intangible property in that state.²⁹ One of the earliest cases to address the intangible income issue arose in 1993 and involved Geoffrey, Inc., the Delaware holding company for the Toys R Us retail stores.³⁰ Geoffrey licensed the use of its trademark to its various retail stores in the states in exchange for royalty payments. In this case, since the trademark was Geoffrey’s only presence in South Carolina, Geoffrey claimed that it was not

28. For additional analysis, see Weiner, *supra* note 26.

29. Physical presence is necessary for states to collect sales and use taxes on out-of-state sellers in certain circumstances. See *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

30. See *Geoffrey, Inc. v. S.C. Tax Comm’n*, 437 S.E.2d 13 (S.C. 1993). Geoffrey is a Delaware corporation. Since Delaware exempts income of a Delaware holding company from state corporate income tax, Geoffrey pays no Delaware corporate income tax on the royalty income it receives from its operating companies.

liable for state taxation when its operating company used its intangible property in the state.

The South Carolina State Court disagreed and ruled that use of Geoffrey's intangible property in the state created a constitutionally sufficient connection with the state. The Court noted that it was the customers who created Geoffrey's income, not the licensing agreement.

Although the company lost in South Carolina, Geoffrey has continued to assert in other states that the use of intangible property does not create a taxable connection. In a similar case in 2007, Geoffrey's operating company Toys R Us Massachusetts, Inc. used the trademark solely in the state and paid royalties to the holding company. As in South Carolina, Geoffrey had no employees or physical property in Massachusetts so that its only presence in the state occurred through its intangible property, and Geoffrey again claimed that its intangible property did not create a substantial nexus with the state.³¹ However, the Massachusetts Tax Board disagreed, claiming that substantial nexus encompasses more than a physical presence. The Massachusetts Appellate Tax Board ruled that Geoffrey was liable for state income tax on an apportioned share of the more than \$33 million in royalty income that it generated from its retail toy stores in Massachusetts.³²

Although intangible property does not have a physical location, a non-resident company that receives substantial amounts of income from the use of that intangible property in the state does reap an economic gain from the state. The Massachusetts Tax Board found that "Geoffrey purposefully sought to reap economic benefits from the Massachusetts retail marketplace by licensing its assets for use in Massachusetts" and that the facts introduced at trial "supported a finding of substantial nexus."³³ Several state courts have ruled that a "significant economic presence" better indicates substantial nexus than physical presence.³⁴

2. The Taxable Group

Given the prevalence of low-tax jurisdictions around the world, the type of structure that Geoffrey and other intangible property holding companies

31. *Geoffrey, Inc. v. Comm'r of Revenue, Findings of Fact and Report 2007-690, 693 (Mass. ATB, 2007).*

32. *Id.* at 713.

33. *Id.* at 701.

34. See, e.g., *Lanco, Inc., v. Dir., Div. of Taxation*, 879 A.2d 1234, 1237 (N.J. Super. Ct. App. Div. 2005), cert. denied, 127 S.Ct. 2974 (2007); *Kmart Props., Inc., v. Taxation and Rev. Dept.*, 131 P.3d 27, 32 (N.M. Ct. App. 2001); *AandF Trademark, Inc. v. Tolson*, 605 S.E.2d 187, 195 (N.C. Ct. App. 2004); *Tax Comm'r of State v. MBNA America Bank, NA*, 640 S.E.2d 226 (W. Va. 2006), cert. denied, 127 S.Ct. 2997 (2007).

use to minimize their state corporate income tax liability is likely to pose a significant challenge to the European Union. As long as companies are able to establish separate holding companies in tax favored locations outside of the European Union, they may be able to structure their operations so that the EU affiliate is able to deduct its royalty expenses on royalties paid to the holding company while the holding company pays little or no tax on the royalty income. Several solutions exist. For entities located entirely within the EU, requiring that companies consolidate their operations addresses this type of income shifting. By including both the payor and the payee of the royalty in the taxable entity, mandatory consolidation eliminates this tax minimization strategy.

For entities located both inside and outside the European Union, anti-avoidance measures can address income shifting. For example, Montana combats against income shifting outside of the water's edge group by including certain foreign operations located in so-called "tax haven" countries within the "water's edge." By including these entities within the water's edge consolidated group, the corporation eliminates income and expenses associated with these operations as intracompany transactions. Since their "location" has no impact on overall income, the company has a reduced incentive to shift income. A difficulty with the tax haven approach, however, arises in determining whether a jurisdiction is a tax haven. The OECD created a list of tax havens in 2000 as part of its project on harmful tax practices, but that list may no longer be up to date.

B. The Apportionment Formula

Ideally, the apportionment formula would assign income to locations where a company earns its income. Since the initial practices derived from the taxation of the transcontinental railroad based on the miles of track located in the state, states used the location of the company's tangible property to determine the location of the company's income. Over time, states modified their apportionment formulae to take into account additional factors, such as payroll and gross receipts, so that the distribution of income would more accurately represent the factors that generated the income than did a single factor property formula. In recent years, many states have moved toward a super-weighted sales factor formula, and a handful of states have adopted a formula that apportions income based solely on the location of sales.

One difficulty in defining the apportionment formula arises because there is no single "correct" apportionment formula. Some authors suggest that the formula should balance the supply and the demand sides and thus recommend a double-weighted sales formula, where property and payroll are weighted one-fourth each and sales are weighted by one-half. Other authors suggest that states should adopt a formula that does not affect the investment

location decision and, thus, recommend using a formula based solely on the location of sales measured on a destination basis.

The variety in state apportionment formulae arises, in part, from the lack of constraints on how states may determine the formula. The U.S. Supreme Court has allowed the states relatively free rein in this area and the trend toward a super-weighted sales factor can be traced back to a decision in 1978 validating Iowa's destination-based sales-only formula. The U.S. Congress has never mandated a particular formula.

As of 2007, a double-weighted sales formula is the most common state apportionment formula. Table 3 shows the state formulae as of January 1, 2007.

Table 3
State Apportionment of Corporate Income

ALABAMA *	3 Factor	NEBRASKA	Sales
ALASKA *	3 Factor	NEVADA	No State Income Tax
ARIZONA * (2)	60% Sales, 20% Property & Payroll	NEW HAMPSHIRE	Double wtd. Sales
ARKANSAS *	Double wtd. sales	NEW JERSEY (1)	Double wtd. Sales
CALIFORNIA *	Double wtd. sales	NEW MEXICO *	Double wtd. Sales
COLORADO *	3 Factor/Sales & Property & Payroll	NEW YORK (3)	80% Sales, 10% Property
CONNECTICUT	Double wtd. sales/Sales	NORTH CAROLINA *	Double wtd. Sales
DELAWARE	3 Factor	NORTH DAKOTA *	3 Factor
FLORIDA	Double wtd. sales	OHIO *	60% Sales, 20% Property & Payroll
GEORGIA (3)	90% Sales, 5% Property & Payroll	OKLAHOMA	3 Factor
HAWAII *	3 Factor	OREGON *	Sales
IDAHO *	Double wtd. sales	PENNSYLVANIA *	Triple wtd. Sales
ILLINOIS *	Sales	RHODE ISLAND	Double wtd. sales
INDIANA (3)	60% Sales, 20% Property & Payroll	SOUTH CAROLINA (4)	Double wtd. sales/Sales
IOWA	Sales	SOUTH DAKOTA	No State Income Tax
KANSAS *	3 Factor	TENNESSEE *	Double wtd. Sales
KENTUCKY *	Sales	TEXAS	Sales
LOUISIANA	Double wtd. sales	UTAH *	3 Factor/Double wtd. Sales
MAINE *	Double wtd. sales	VERMONT	Double wtd. Sales
MARYLAND	Double wtd. sales/Sales	VIRGINIA	Double wtd. Sales
MASSACHUSETTS	Double wtd. sales/Sales	WASHINGTON	No State Income Tax
MICHIGAN	92.5% Sales, 3.75% Property	WEST VIRGINIA *	Double wtd. Sales
MINNESOTA (3)	78% Sales, 11% Property & Payroll	WISCONSIN * (3)	80% Sales, 10% & Payroll
MISSISSIPPI	Accounting/3 Factor	WYOMING	No State Income Tax
MISSOURI *	3 Factor/sales	DIST OF COLUMBIA	3 Factor
MONTANA	3 Factor		

Note: The formulas listed are for general manufacturing businesses. Some industries have special formula different than those reported. * State has adopted substantial portions of the UDITPA. (1) A 3-factor formula is used for corporations not subject to the corporation business franchise tax. (2) For tax years beginning in 2008, formula changes to 70% Sales and 15% Property and Payroll. (3) State is phasing in a single sales factor. Weightings will change each year until 100% sales factor in 2008 for Georgia, New York and Wisconsin, 2011 in Indiana, and 2013 in Minnesota. (4) Taxpayers are allowed only 20% of the reduced taxes from a single sales factor (40% in 2008).

Source: Compiled by Federation of Tax Administrators from various sources. See www.taxadmin.org.

The European Commission has examined many ways to define the formula to share the common consolidated tax base among the Member States. These options include one based on macroeconomic variables, such as aggregate national value added, or on microeconomic variables, such as the firm's value added, or on traditional formulary apportionment using labor, capital and sales.³⁵

The Business Europe Task Force on the CCCTB has identified four elements as important for the CCCTB to succeed. The tax base must be consolidated from the start, transfer pricing problems should be removed, the sharing mechanism should be based on a formulary apportionment approach, and the formula should be uniform and identical for all Member States.³⁶

The business group favors the formulary apportionment method using a predetermined formula based on factors (e.g., payroll, assets, or sales) deemed to have generated the group income. The group notes that in no circumstances, however, should the FA approach include a "distribution factor" that is based on the perceived origin of a specific income (or loss) as this would re-introduce transfer pricing problems."³⁷

After initial discussions by the Commission's Working Group on the tax base sharing mechanism, it decided to put aside the macro and value added distribution mechanisms and to focus on traditional formulary apportionment methods.³⁸ According to the Commission's summary, experts showed no support for a sales factor measured on a destination basis. One expert objected to using a destination-based sales factor because it would assign too much income to the consuming state and would duplicate the revenue raised by the value added tax. An origin-based sales factor may create tax planning opportunities.

C. International Aspects of Formulary Apportionment

Work on the international aspects of the CCCTB began with establishing its territorial limits. From the start, the Commission has indicated that the territorial scope of the CCCTB will be limited to the EU water's edge

35. See Ana Agúndez-García (2006), *The Delineation and Apportionment of an EU Consolidated Tax Base for Multi-jurisdictional Corporate Income Taxation: A Review of Issues and Options*, Taxation Paper No. 9, Directorate-General Taxation and Customs Union.

36. See Krister Anderson, BusinessEurope Task Force, *Comments on document CCCTB\WP047: Common Consolidated Corporate Tax Base Working Group: Sharing Mechanism*, Mar. 8, 2007.

37. *Id.*

38. See the CCCTB Working Documents *An overview of the main issues that emerged during the discussion on the mechanism for sharing the CCCTB*, CCCTB\WP052\doc\en, Feb. 27, 2007 and *The mechanism for sharing the CCCTB*, CCCTB\WP047\doc\en, Nov. 17, 2006.

(EUWE). It has not yet established what income will be considered to be earned within the EUWE or which companies or permanent establishments will be covered by the CCCTB.³⁹

The Commission distinguishes between tax residents and tax non-residents. A tax resident is an EU company that earns income outside its country. A tax non-resident is a company from outside the EU that earns income in the EU. Non-EU Member States are referred to as third countries.

The territorial scope of the CCCTB is important to establish for purposes of allocating taxing rights when there is consolidation and apportionment of income to the Member States. In terms of the scope of the CCCTB rules, the Commission has raised the issue of whether the CCCTB rules should apply to all tax residents and include their activities outside the EUWE and any activity of tax non-residents regardless of the territory. The Commission's concern about this approach is that it "may lead to a situation where the CCCTB rules are applied on activities of companies performed almost exclusively outside of the CCCTB jurisdictions (e.g., the Dutch parent with U.S. and Japanese subsidiaries and permanent establishments in Korea, China, and Kuwait), which may be a bit of an overambitious plan."⁴⁰

In evaluating the Commission's presentation, the Working Group agreed that the foreign income of non-residents should not be covered by the CCCTB. Thus, the arm's length principle will continue to apply for transactions between related parties in the CCCTB and in non-EU countries. The CCCTB should include business income earned by a permanent establishment in the CCCTB jurisdiction.

The subgroup also acknowledged the complications of integrating the arms length method with the CCCTB's formulary method.⁴¹ It noted, in particular, that the international community has largely viewed the arm's length principle as the only acceptable method of allocating profits to permanent establishments. Other allocation methods, such as apportionment of total profits, may be acceptable if their use has been customary in a contracting state.

The Commission suggested that in the short term the Member States establish how major third countries would react to the use of a method different

39. To simplify the presentation, the Commission's initial work also assumes that all multinational enterprises and all Member States participate in the CCCTB.

40. CCCBT Working Group, International Aspects in the CCCTB, CCCTB\wp\019\aooc\en, Nov. 18, 2005.

41. To remain open to alternative "allocation mechanisms" the Commission's early documents did not state that the CCCTB would be allocated to the MS using the mechanism of formulary apportionment. The Commission notes that "the current method of allocation is to separately account on a single entity basis and apply arm's length pricing" and that "In the CCCTB a different mechanism would be used for the allocation of the tax base to participating MS." For a more detailed discussion, see Weiner, *supra* note 26.

from the arm's length principle for allocating profits to permanent establishments. If such countries viewed the new method as compatible with the treaty, the treaties would not require immediate renegotiation.

1. Territorial vs. Worldwide Taxation

The Commission also must decide whether the CCCTB should treat foreign source income (i.e., income earned outside of the EUWE) under the worldwide method or the territorial method.⁴² If the Commission chooses the worldwide method, then it must choose to provide relief from double taxation either via exemption or by offering a foreign tax credit.⁴³

The EU can turn to the Member States for guidance on how to tax international income. Two Member States, Denmark and France, operate a territorial system, although the numerous restrictions on exempt income mean that the systems are not pure territorial systems. The other Member States operate a worldwide system, with the exemption system being the most common approach to avoid double taxation in these Member States.⁴⁴ Some

42. There is some ambiguity in the literature over the difference between a territorial and an exemption system. Technically speaking, a territorial system applies the tax solely on a source basis. Any foreign-source income is not subject to tax. Territorial systems do not distinguish between residents and non-residents but, instead, look solely to the source of income. By contrast, many countries tax on a worldwide basis and avoid double taxation either through exemption or by offering a foreign tax credit. Countries that apply an exemption system may decide to tax their residents on their worldwide income but offer an exemption for certain types of foreign-source income. No industrialized economies apply a pure territorial system. In practice, since many countries that apply worldwide taxation with a foreign tax credit allow deferral of active income from tax, the two methods are very similar, with one of the biggest differences arising in the treatment of dividend repatriations. For additional details, see Hugh J. Ault, "U.S. Exemption/Territorial System vs. Credit-Based System," *Tax Notes Int'l*, Nov. 24, 2003. For additional discussion, see J. Clifton Fleming, Jr., Robert J. Peroni, and Stephen E. Shay, *Fairness in International Taxation: The Ability-to-Pay Case for Taxing Worldwide Income*, 5 Fla. Tax Rev. 299 (2001).

43. In 2005, the U.S. President's Advisory Panel suggested a simplified income tax plan that proposed moving to a territorial system. See Report of the President's Advisory Panel on Federal Tax Reform, *Simple, Fair and Pro-Growth: Proposals to Fix America's Tax System* (Nov. 2005).

44. For a comparison of the dividend exemptions in Canada, Germany, and the Netherlands with the panel's proposal, see Peter Merrill, Oren Penn, Hans-Martin Eckstein, David Grosman, and Martijn van Kessel, "Restructuring Foreign-Source-Income Taxation: U.S. Territorial Tax Proposals and the International Experience," *Tax Notes* 799, May 15, 2006, pp.

Member States provide exemption only by treaty while others apply the same rules whether a bilateral treaty is in place or not.⁴⁵

Table 4
Corporate taxation of residents and double-tax relief systems
for dividends received in EU Member States, 2003

Member States	Taxation of Tax residents	Method of Double tax relief
Austria	Worldwide	Exemption
Belgium	Worldwide	Exemption (to 95%)
Bulgaria	Worldwide	Indirect credit
		Direct credit if no treaty
Cyprus	Worldwide	Exemption
Czech Republic	Worldwide	Indirect credit
		Deduction if no treaty
Denmark	Territoriality	Exemption
Estonia	Worldwide	Indirect credit
Finland	Worldwide	Exemption
		Direct credit if no treaty
France	Territoriality	Exemption (to 95%)
Germany	Worldwide	Exemption (to 95%)
Greece	Worldwide	Indirect credit
Hungary	Worldwide	Exemption
Ireland	Worldwide	Indirect credit
Italy	Worldwide	Exemption (up to 60%)
Latvia	Worldwide	Exemption
Lithuania	Worldwide	Exemption
Luxembourg	Worldwide	Exemption
Malta	Worldwide	Indirect credit
Netherlands	Worldwide	Exemption
Poland	Worldwide	Indirect credit
		Direct credit
Portugal	Worldwide	Direct credit
Romania	Worldwide	Indirect credit
Slovakia	Worldwide	Indirect credit
		No relief if no treaty
Slovenia	Worldwide	Exemption
Spain	Worldwide	Exemption
		Indirect credit no treaty
Sweden	Worldwide	Exemption
United Kingdom	Worldwide	Indirect credit

Source: Huizinga, Laeven, and Nicodeme (2006).

45. See Harry Huizinga, Luc Laeven, and Gaetan Nicodeme, *Capital Structure and International Debt Shifting*, Centre for Economic Policy Research, Oct. 2006. The European Court of Justice is considering whether applying different taxation of foreign dividends between treaty and non-treaty countries is compatible with the EC Treaty.

When applying the system when several underlying national tax systems are involved, exemption offers advantages in terms of simplicity as it does not require keeping track of the different tax rates or applying the various double-tax relief provisions offered via tax treaties. Moreover, since the EU will be designing an exemption system from scratch, it could avoid many of the transition issues that hinder movements toward territorial taxation in other countries. Given the variation in tax rates among the EU Member States, operating a credit system might become quite complicated.

A system of worldwide taxation with deferral for active foreign income closely resembles the system of exemption with current taxation of foreign passive income. The main difference in the two systems lies in how they treat foreign-source income repatriations. A worldwide system defers residence taxation of foreign income while the territorial/exemption system provides permanent exemption. Thus, the territorial system reduces the incentive for multinational enterprises either to re-invest continually their profits in foreign jurisdictions or to engage in tax planning strategies to find ways to repatriate the income in tax-advantaged forms.⁴⁶

Renegotiating the bilateral income tax treaty network to accommodate the new EU tax method would be a formidable task. Creating identical bilateral treaties among the 27 EU Member States and between the U.S. and the 27 Member States would require 368 identical treaties. To accommodate the new common rules in the EU Member States, the EU may wish to negotiate a multilateral tax treaty with non-EU countries. A common tax treaty between the EU and third countries would help bring about common approaches to elimination of double tax and prevention of tax evasion/avoidance.⁴⁷

Despite its advantages, moving to a territorial or a worldwide system with exemption system introduces its own difficulties. Exempting foreign-source income from home taxation places additional pressure on anti-abuse rules designed to prevent inappropriate income shifting to tax-favored locations. In addition, since active foreign income is permanently exempt from tax under a territorial system rather than just benefiting from deferral, transfer pricing becomes very important under a territorial system. To address these pressures, systems that exempt foreign-source income provide the exemption only to active foreign income and subject passive foreign income to current taxation.

46. For an analysis of some of these issues, see Lawrence Lokken, *Territorial Taxation: Why Some U.S. Multinationals May be Less Than Enthusiastic about the Idea (and Some Ideas they Really Dislike)*, 59 *SMU Rev.* 751 (2006). Lokken's basic point is that U.S. multinational companies are able to obtain greater tax savings under the current system than under an exemption system.

47. The European Business Initiative on Taxation (EBIT) encourages work on a European Model Treaty in the OECD framework. See European Business Initiative on Taxation, EBIT Contribution to the Commission on the CCCTB, Nov. 2006.

If income earned outside of the water's edge is exempt from tax, then the expenses associated with that exempt income should also be treated as outside of the water's edge and thus non-deductible. It would be necessary to create reasonable rules so that domestic expenses incurred to generate exempt foreign income would not be deductible against domestic income. If the home country exempts foreign source dividends from tax, then to avoid allowing a tax deduction for exempt income, expenses incurred in earning the income should be allocated to that income. Companies should not be allowed to deduct the interest expense on debt used to finance investments in operations outside of the water's edge.

2. Water's Edge Limitation to the EU Consolidated Tax Base

The Commission's plan to limit the CCCTB to the water's edge boundaries of the EU raise two key issues. First, which entities will be included in the water's edge group? Second, what income will be included within the water's edge? The practices in the U.S. states that limit their corporate income tax to the water's edge provide several approaches to these questions.

In general, states that allow water's edge taxation include only the income and apportionment factors of members included in the water's edge in the tax calculation. California gives corporations the option to elect to compute income attributable to California sources on the basis of a "water's edge combined report." Making this election allows the corporation to exclude foreign affiliates from the combined report. Foreign corporations are included in the combined report only to the extent of their U.S.-source income and apportionment factors. The election, which is binding for seven years, does not change the unitary concept, but only limits the unitary entities included in the combined report.⁴⁸

California provides a list of criteria for determining whether an entity should be included in the combined report. If the entity meets any one of the criteria and is unitary, then it must be included in the combined report. The California water's edge group generally includes:

1. Any corporation, regardless of where it is incorporated, if the average of its property, payroll, and sales factors in the United States is 20% or more;
2. Any controlled foreign corporation (CFC) as defined in IRC Section 957 that has Subpart F income as defined in IRC Section 952;
3. Any other corporation with less than 20% of its property, payroll, or

48. See Cal. Rev. and Tax. Code § 25110. See also State of California, Franchise Tax Board, 2001 Guidelines for Corporations Filing a Combined Report, FTB Pub. 1061.

sales in the U.S. but only to the extent of their U.S. located income and factors. U.S. located income includes both of the following:

- (a) Income that is effectively connected income (ECI) with a U.S. trade or business, or is treated as effectively connected under provisions of the Internal Revenue Code.
- (b) U.S. source income that is business income as described under the state tax code.

California includes the income of CFCs that have Subpart F income according to the ratio of the entity's Subpart F income for the year to its current year earnings and profits (E&P). If current year E&P is zero or less, none of the income and factors of the entity is included in the combined report. Like other states, California includes so-called 80/20 corporations within the water's edge only to the extent of their U.S. located income and factors. California includes income that is effectively connected income (ECI) with a U.S. trade or business and does not provide the immunity of federal income tax treaties concerning this income. California also includes U.S. source income that the state considers business income regardless of whether the federal government considers that income to be ECI.

California does not allow deductions for expenses that are allocable to income that is not included in the tax base. Interest expense attributable to foreign investment equals the amount of interest expense that is specifically assigned to foreign investment plus the amount of unassigned interest expense that is allocated to foreign investment. Unassigned interest expense is allocated by formula.

In New Hampshire, a water's edge combined group is a group of business organizations operating as a unitary business, except for overseas business organizations, which are those with 80% or more of their average payroll and property assignable to a jurisdiction outside the fifty states and the District of Columbia. Generally, an overseas business organization is not included in the water's edge group if the group can certify that transactions conducted between the overseas business and members of a water's edge group are similar to transactions conducted between other businesses owned by the overseas business and any other member of the water's edge group and if the overseas business agrees to report any adjustments made by the IRS regarding transactions between related business organizations that bear on the comparability of transactions between the members.⁴⁹

In Illinois, an entity is excluded from the unitary group if its business activity outside the United States equals 80% or more of its total business activity.⁵⁰ The Vermont corporate income tax is a water's edge unitary tax because an "affiliated group" excludes overseas business organizations. An "overseas business organization" means an organization that ordinarily has 80%

49. N.H. Rev. Stat. Ann. § 77-A:1 XV, XIX (2007).

50. ILL. Comp. Stat. 15/1501(a)(27) (2007).

or more of its payroll and property outside the fifty states and the District of Columbia.⁵¹

III. ECONOMIC IMPACTS OF FORMULARY APPORTIONMENT IN THE EUROPEAN UNION

A. Potential Impact of Formulary Apportionment on Individual Member States

The EU Member States are keenly interested in how their revenues might be affected in moving to formulary apportionment, and the EU Commission is keen to provide this information. Absent any tax data and a concrete proposal, it is impossible to make an accurate prediction. However, it is possible to construct some potential outcomes.

1. U.S. multinational operations in Europe

The distribution of the operations of the affiliates of U.S. multinational corporations in Europe provides one illustration.⁵² Considering a purely static analysis, countries that have a greater share of net income than of operations in a location under the current system would report lower net income to that location under apportionment than under separate accounting, and vice versa. U.S. multinational activity is relatively low in the new Member States. Poland, the largest of the new Member States, has an average of just 1.2% of U.S. affiliate activity. The newer Member States tend to have a relatively larger share of employees than of compensation, thus suggesting their interest in using number of employees as an apportionment factor instead of employee compensation.

2. Financial accounts from a European Company

Financial accounts data present another view of how income may be distributed under formulary apportionment. To see the possible distributional effects within the EU, consider the Merck Group, which is headquartered in Germany and has 171 companies in 52 countries and 61 production sites in 28 countries. Its annual report provides details for selected countries, including Germany and France, as well as for regions, such as Europe, Asia, and North America.

Table 5 uses these accounts to show a rough idea of the geographic distribution of the company's group activity.

51. Vt. Stat. Ann. 32 § 5811(18)(C); Vt. Stat. Ann. 32 § 5811(22) and Vt. Stat. Ann. 32 § 5811(24).

52. Detailed data are not available for the distribution of the operations of EU multinational companies across the EU twenty-seven Member States.

Table 5
Illustration of apportionment using Merck company data

	2006	2005	2004	2003	2002	2001
GERMANY						
Shares of Europe						
External sales	20.9%	22.4%	20.9%	23.1%	22.9%	26.5%
Operating assets	68.5	51.0	64.2	54.1	52.1	52.9
Number of Employees	<u>57.5</u>	<u>56.7</u>	<u>56.4</u>	<u>51.1</u>	<u>44.0</u>	<u>51.3</u>
Average	49.0%	43.3%	47.2%	42.8%	39.7%	43.6%
EBIT in Germany (€ million)						
By financial statements	€676	€222	€317	€ (38)	€ (41)	€67
By apportionment	476	268	237	97	108	293
FRANCE						
Shares of Europe						
External sales	33.6	31.6	29.9	27.1	26.6	27.1
Operating assets	11.6	17.6	18.9	18.7	20.0	19.1
Number of employees	<u>15.7</u>	<u>16.5</u>	<u>18.0</u>	<u>19.9</u>	<u>17.4</u>	<u>20.8</u>
Average	20.3	21.9	22.3%	21.9%	21.4%	22.3%
EBIT in France (€ million)						
By financial statements	€149	€138	€152	€101	€151	€490
By apportionment	197	136	112	50	58	150

Note: The figures used are proxies for the property, payroll, and sales factors used in the typical apportionment formula. The actual apportionment factors are likely to be different from the factors obtained from the financial reports.

Source: Merck annual reports, various years

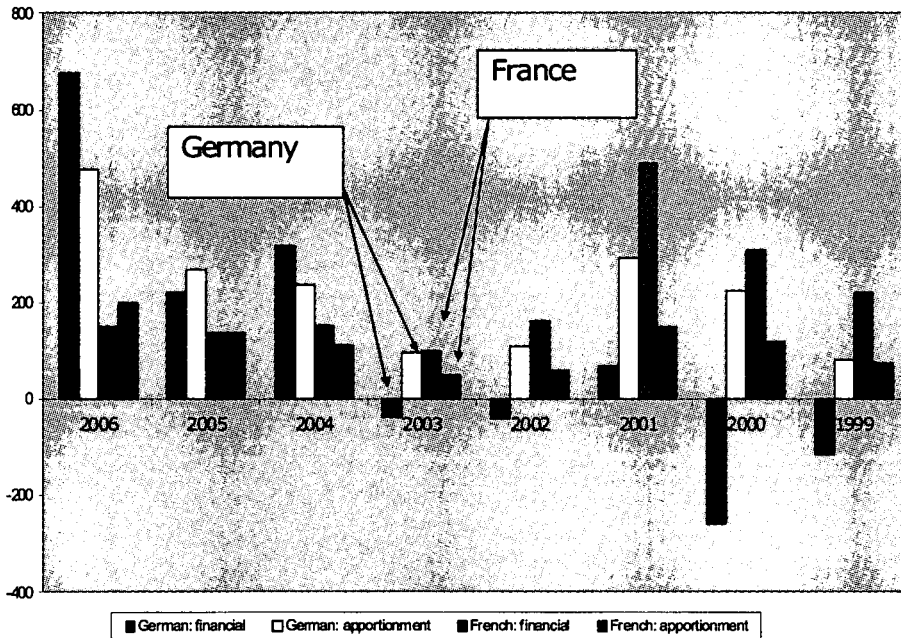
If European income were distributed to Germany on the basis of the average of the shares of external sales, operating assets, and number of employees, Germany would receive around 40% of the company's European income. Because the company is headquartered in Germany, it has a relatively large share of its assets located there. By contrast, Merck's assets, sales, and employees are distributed relatively more equally in France than in Germany. France would receive about 20% of European income, regardless of which factors are used to apportion income.

Table 5 also shows how earnings before interest and taxes might be distributed using an apportionment formula. For example, Merck reported a financial loss in its German operations for 2003 and 2002, although the company reported positive profits throughout Europe during those years. Under

apportionment, some of those European profits would be apportioned to Germany each year.

The Chart below illustrates this situation. It compares Merck's earnings before interest and taxes and its income under formulary apportionment in Germany and France over several years. This chart shows that the distribution of income varies significantly depending on the method of income allocation. It also shows that as long as the company is profitable overall, the formula will apportion each country some of the overall tax base. This feature of apportionment leads countries to compete for the tax base and preserves tax competition.

Merck Group Consolidated Financial and Estimated Apportioned Income,
Germany and France, Millions of Euros



The firm-specific data from the German company Merck and the aggregate U.S. multinational data from the U.S. Bureau of Economic Analysis also show that income attributed to each country, and therefore tax revenues, are more stable under apportionment than under the current system. Thus, a system of apportionment addresses the issue that reducing compliance costs is not the most important objective for a large EU multinational company.⁵³ Obtaining stability and certainty may be important in terms of shareholder

53. Paul Morton, Challenges for a listed multinational enterprise doing business in Europe, *EC Tax Review*, 2006/3 (2006).

value. In this respect, formulary apportionment seems to have an advantage over the current system.

3. Possible Revenue Effects

Devereux and Loretz examined how formulary apportionment might affect corporate tax revenues in the EU Member States.⁵⁴ Using a comprehensive database containing five years of EU multinational company data provided by Orbis from 2000 to 2004, the authors calculated pre-tax profit from the tax payments reported in the unconsolidated financial accounts and used this figure as the measure of taxable profits. Total profits are fixed, but companies may consolidate losses within the group. This amount is then distributed to the individual Member States and taxed at the national tax rate, which they assume is fixed.

Assuming no changes in behavior, the authors find that an optional CCCTB with FA would cause EU corporate tax revenues to decline very slightly. The distributional effects would not be even. Some countries would benefit in terms of revenue while others would be worse off under the new scheme. In discussing the revenue impacts, however, it is important to note that a formula that maximizes revenue may also discourage the location of business operations in that location. The U.S. state experience suggests that countries prefer a formula that creates fewer distortions to investment to a formula that increases revenue.

More generally, countries receive less income under apportionment than under separate accounting if their apportionment factors are “highly productive,” that is, if the ratio of income to the apportionment factor is greater than one. Countries that are a common location for headquarter companies, which do not have much economic activity relative to the income generated, also would likely receive less income under mandatory apportionment than under the current system.

As long as the system is optional, groups that would see a significant amount of income apportioned to high-tax countries – Germany, Italy, and Denmark – might decide to opt out of the system. In this case, the high-tax countries do not gain the benefit of having the EU tax base distributed to them but remain with the low tax revenue reaped under the current system.

Many newer Member States, such as Lithuania, Latvia, Hungary, the Slovak Republic and Estonia would gain from the new system. Since these countries are among the lowest tax countries in the EU, as long as the companies remain free to choose whether to adopt the CCCTB or not, it seems likely that revenue would rise in these countries relative to the higher tax countries as companies choose to adopt a system that assigns relatively more

54. See Michael P. Devereux and Simon Loretz, *The Effects of EU Formula Apportionment on Corporate Tax Revenues*, Oct. 15, 2007.

income to these locations. The Netherlands would benefit under a voluntary system but lose under a mandatory system since most multinationals with operations, mainly headquarters, in the Netherlands are assumed not to participate when the system is optional.

Other studies find that the revenue distribution may be less sanguine than expected. For example, Fuest, Hemmelgarn, and Ramb created an EU tax base from the Deutsche Bundesbank's foreign direct investment data and corporate balance sheet data for German multinational enterprises.⁵⁵ Using this database, the authors find that German tax revenues fall by 20% under formula apportionment relative to the current situation. Although this result stands in contrast to Loretz and Devereux, who find that German tax revenues rise slightly under apportionment, it is not surprising since the two studies use different data and cover different time periods.

Many participants in the Working Group have taken a pragmatic view towards revenue estimates. Many note that "there may be winners and losers in the first years of application of the new system" but that all Member States would benefit in the long run from the positive economic consequences brought about by introducing a tax system that is appropriate for the internal market.

Making revenue estimates for a plan that has not yet been proposed using data that do not exist is very difficult. Fennell explored the Devereux and Loretz results for Ireland and found that data issues may limit the usefulness of the results.⁵⁶ For example, many multinational corporations doing business in Ireland are not included in the database, the data include some very large loss making groups (which are described as "negative" tax payments), and many operations in Ireland are subsidiaries of foreign headquartered companies.

In addition, the CCCTB system would not necessarily shift profits of U.S. groups outside of Ireland. Based on these limitations, Fennell suggests that any conclusions regarding how a country might fare under the Commission's tax proposal should be "treated with caution" until the Commission presents a proposal that can be tested with actual company data.

Another set of researchers developed a general equilibrium model to analyze the impact of introducing FA in the EU. Van der Horst, Bettendorf, and Rojas-Romagosa show that the fact that the proposal will be optional and that tax rates will not be harmonized offset the benefits of adopting a CCCTB.⁵⁷

55. See Clemens Fuest, Thomas Hemmelgarn, and Fred Ramb (2007), *How Would Formula Apportionment in the EU Affect the Distribution and Size of the Corporate Tax Base? An Analysis Based on German Multinationals*. International Tax and Public Finance, Oct. 2007.

56. See David Fennell, *Are Businesses Covering all the Common Consolidated Corporate Tax Bases?* Ernst and Young Tax Newsletter, Aug. 2007.

57. See Albert van der Horst, Leon Bettendorf, and Hugh Rojas-Romagosa, *Will Corporate Tax Consolidation Improve Efficiency in the EU?*, CPB Netherlands Bureau for Economic Policy Analysis, Mar. 2007.

However, in terms of tax competition, if the formula includes a capital factor, formulary apportionment increases tax competition relative to separate accounting since countries are more likely to reduce their tax rates to attract investment than to attract paper profits as under separate accounting.

The authors also analyze the impacts on individual countries. In contrast to the results discussed above, Ireland, for example, is worse off under the CCCTB since multinational enterprises can no longer manipulate transfer prices to shift income into the country. More generally, the impact of moving to CCCTB with formulary apportionment depends on the country's industrial composition, the tax base, and the formula.

These wide differences in outcomes suggest the wisdom of approaching "revenue estimates" with a good deal of caution. Depending on the time period, the database, and the treatment of losses, for example, a country may find that estimates show it benefits greatly, not at all, or is not affected by a move to apportionment.

B. Theoretical Analysis of EU Formulary Apportionment

Since the European Commission released its report in 2001, European researchers have taken an active interest in how formulary apportionment might affect investment and employment decisions and the level of tax revenues in the Member States. Unlike in the U.S. states, where data are readily available, there are no data on the distribution of tax revenues and operations by individual Member States, so that European research is limited to undertaking a theoretical examination of potential results under FA.⁵⁸

Much of this research builds on the initial theoretical work of McLure, who demonstrated how a tax applied via a formula alters the incidence of that tax relative to a tax levied on profits directly.⁵⁹ In particular, McLure showed that basing a tax on, say, the location of capital transforms the profits tax into a peculiar type of capital tax. The incidence effects that arise under apportionment are similar to the incidence effects that arise from excise taxes levied directly on the factors included in the apportionment formula.

A simple equation demonstrates how this transformation occurs. State profits are a function of total profits, the weight applied to each factor, and the share of each factor located in that state. The equation below shows the general case where each state may set the weight on the apportionment factor (including setting the weight to zero).

58. See Joann Martens Weiner, *Company Tax Reform in the European Union*, Ch. 7 for further analysis of the empirical and theoretical studies. New York, Springer (2006).

59. See Charles E. McLure, Jr, *The Elusive Incidence of the Corporate Income Tax: The State Case*, 9 *Public Finance Quarterly*, 395.

A firm's total net federal profits, Π , are distributed to each individual state, i , as shown below:

$$(1) \quad \Pi_i = [\alpha_i^k(K_i/K) + \alpha_i^L(L_i/L) + \alpha_i^S(S_i/S)] \Pi$$

where Π_i is post-apportionment state profits, K_i , L_i , and S_i are the company's property, payroll, and sales, respectively, in state i and K , L , and S are total property, payroll, and sales, respectively, over all states; and α_i^k , α_i^L , and α_i^S , are the weights applied to the property, payroll, and sales shares in each state, where the sum of the weights on the factors is one, i.e., $\alpha_i^k + \alpha_i^L + \alpha_i^S = 1$. (Technically speaking, the sum of the weights must be less than or equal to one.) The parameters without subscripts stand for the total values for capital, payroll, sales, and profits across all locations.

The tax liability in any state is the product of the local tax rate, t_i , and the post-apportionment profits, as shown below

$$(2) \quad T_i = t_i \Pi_i \\ = t_i [\alpha_i^k(K_i/K) + \alpha_i^L(L_i/L) + \alpha_i^S(S_i/S)] \Pi$$

where T_i is tax revenue in state i and t_i is the statutory tax rate in state i .⁶⁰

The state corporate income tax may be represented as three separate taxes, each of which is levied as a share of the statutory rate on each factor in the formula. Thus, the property-related portion of the profits tax T_{ik} may be represented as:

$$(3) \quad T_{ik} = t_i [\alpha_i^k(K_i/K)] \Pi$$

If the apportionment formula weights the property factor by one-third, i.e., $\alpha_i^k = 1/3$, then the tax rate applied to state property is levied at one-third the statutory weight, i.e., $t_i \alpha_i^k$. If the statutory tax rate is 9% and the state weights the property factor by one-third, then the rate applied to the state property share falls to 3%. Representing the tax in this manner illustrates the incentive to

60. The definitions of total profits and the factor totals depend on how the taxable group is defined. For example, compared with water's edge consolidation, if the group includes worldwide operations, the factor shares will decrease so that a smaller share of total income will be apportioned to the state; however, the amount of total profits will generally increase when the composition of the group expands geographically. Total profits will decrease under worldwide consolidation if the company has losses in its foreign operations. The fact that worldwide consolidation (combination) can reduce a company's tax liability explains why many companies choose worldwide combination in the states that make this option available. For an illustration, see *supra* note 58 at Ch. 6.

eliminate the property factor from the formula, since this move reduces to zero the tax applied to property located in the state.

The tax rate applied to in-state capital is the product of the state tax rate, the weight levied to the capital share, and the share of capital located in the state. Thus, if a state applies a profits tax of 20% but applies a weight of one-half to the capital factor, then the tax rate applied to the share of capital in the state falls from 20% to 10%.

A multistate firm's overall tax rate is the sum of the average tax rates applied to each factor included in the formula. A firm can reduce its tax burden by locating its apportionment factors in relatively low tax areas.

Apportionment has a second impact that affects the cross-state tax rate differential between states that participate in the formulary system and those that do not participate. This effect is particularly important in the case of the European Union, which is planning to limit the formulary system to the territorial borders. Due to the averaging effect, apportionment causes the tax rate in relatively low tax areas to rise relative to the rates in jurisdictions that do not participate in the apportionment system and causes the tax rate in relatively high tax rate areas to fall relative to the rates in jurisdictions that do not participate in the apportionment system. Therefore, under apportionment, multistate firms in low-tax areas have a relatively greater incentive than do multistate firms in high-tax areas to shift their physical operations outside of the formulary area.

Gordon and Wilson showed that FA creates an incentive for cross-border mergers because firms doing business in a high-tax state can reduce their overall tax burden by merging with a company doing business in a low-tax state.⁶¹ Their analysis also shows that if the formula includes destination-based sales, then FA encourages companies to produce in a state and sell out of the state. The states put these theoretical results into practice by moving away from a property and payroll based formula to one that increases the weight on the sales factor.

Recent research that focuses on the EU's plan to move to FA modifies this model to incorporate additional issues, such as income shifting, that alter some of the traditional conclusions of FA. For example, Sorensen finds that tax rates may be too high under FA compared with SA if countries do not take the negative impacts of FA into account when setting their tax rates.⁶² Nielsen,

61. See Roger Gordon and John D. Wilson, An examination of multijurisdictional corporate income taxation under formula apportionment, 54 *Econometrica* 6, 1357 (1986).

62. Peter B. Sorensen, Company Tax Reform in the European Union, 11 *J. of Int'l Tax Pub. Fin.* 91 (2004); Soren Bo Nielsen, Pascalis Raimondos-Moller, and Guttorm Schjelderup, Tax Spillovers Under Separate Accounting and Formula Apportionment 1-7 Economic Policy Research Union, Copenhagen Business School (2004).

Raimondos-Moller, and Schjelderup showed that countries will tend to keep their tax rates low if they face the threat of tax base flight. Under separate accounting this threat is stronger the weaker is transfer pricing enforcement. Under formulary apportionment the threat is stronger the greater are pure profits. If multinational firms can shift profits at a relatively low cost, say because transfer pricing enforcement is weak in the current system, then the attractiveness of formulary apportionment in terms of preventing tax base flight rises relative to separate accounting. However, if transfer pricing is costly, say because the tax authorities impose penalties for transfer pricing abuse, then profit shifting becomes more costly under separate accounting and that method becomes more attractive in preventing tax base flight relative to formulary apportionment. By contrast, if pure profits are relatively large, then companies have an incentive to shift the location of their investment under formulary apportionment and countries face pressures to keep their tax rates low. Combining these effects shows that if countries increase the cost of shifting income and if companies have high pure profits, then formulary apportionment increases tax competition relative to separate accounting.

Assuming that countries agree to use the same formula, Pethig and Wagener examine how tax competition varies under different formulae. Tax competition will generally be stronger the more sensitive factor shares are to tax rate differences. Since labor is assumed to be the least mobile factor, at least in the short run, tax competition is likely to be lower under this formula than under formulae that include property and sales factors.

The tax base is also an important element to consider. Kolmar and Wagener find that although the amount of tax competition is independent of the tax base under separate accounting, the tax base and the formula simultaneously affect tax competition under apportionment.⁶³

Mintz and Weiner consider the efficiency aspects of the Commission's specific proposals. As long as tax rates continue to differ across Member States, economic inefficiencies arise under formulary apportionment. It is not clear whether the inefficiencies introduced through formulary apportionment (e.g., distortions through the factors) are empirically more important compared to the inefficiencies that are removed (e.g., the differences in tax bases).⁶⁴

Gérard and Gérard and Weiner examine a situation of formulary apportionment and cross-border loss offsetting in a model with uncertainty. The

63. Rudiger Pethig and Andreas Wagener, Profit Tax Competition Formula Apportionment (IIPF Conference, Prague (2004), available at <http://www2.uni-siegen.de/dept/fb05/vwlviv/papers/current/106-03.pdf>; Martin Kolmar and Andreas Wagener, The Role of the Tax Base in Tax competition with Formula Apportionment I, (University of Vienna, Working Paper, 2004), available at http://homepage.univie.ac.at/Andreas.Wagener/papers/kolmar_wagener.pdf.

64. Jack Mintz and Joann Weiner, Exploring Formula Allocation for the European Union, 10 Int'l Tax and Pub. Fin. 695, 701 (2003).

uncertainty arises because companies may have losses in one jurisdiction and profits in another jurisdiction. If the EU introduces cross-border loss offsetting, a multinational company will be able to offset profits in one jurisdiction with losses from another jurisdiction and Member States revenue may fall as it absorbs losses from other jurisdictions. Formulary apportionment, however, has the benefit of partially insuring governments against these negative impacts. As long as the firm is profitable overall, Member States will receive some income under formulary apportionment. Governments are, therefore, eager to attract foreign investment since formulary apportionment acts as a type of insurance against a bad outcome, so they continue to set competitive income tax rates.⁶⁵

The data reported earlier for Merck illustrate this “insurance” situation. In the case where the company reported losses in one country under separate accounting, the company, nevertheless, still had positive amounts of the factors in each country. Thus, the country’s tax revenues (and, the company’s tax payments) are more stable under FA than SA.

Much of the research on formulary apportionment focuses on how it affects business decisions in cases where all countries participate in the system. A recent study by Gérard may alter some of the conclusions concerning FA in the EU. In particular, Gérard suggests that the gains from tax reform are not clear unless all EU countries adopt the system using a formula with factors that are not easily moved, and the system is mandatory, and the EU adopts a credit system rather than an exemption system.⁶⁶

Riedel and Runkel identify another interesting impact of EU formulary apportionment under a water’s edge limitation. They extend the research to the case where two countries apply formulary apportionment within an economic union (i.e., the European Union) and a third country exists outside of the union where transactions occur under separate accounting.⁶⁷

If a country within the formulary area increases its national tax rate, the multinational enterprise’s total tax rate within the system will rise, thus increasing the difference between the average tax rate within the formulary area and the rate outside the area. This rate differential creates an incentive for investment to flow out of the apportionment area, causing a negative externality

65. Marcel Gérard and Joann Weiner, *Cross-Border Loss Offset and Formulary Apportionment: How do they Affect Multijurisdictional Firm Investment Spending and Interjurisdictional Tax Competition?* (CESifo Working Paper No. 1004 (2003); Marcel Gérard, *Multijurisdictional Firms and Governments’ Strategies Under Alternative Tax Designs*, (CESifo, Working Paper No. 1527, 2005), available at http://www.cesifo-group.de/pls/guestci/download/CESifo%20Working%20Papers%202005/CESifo%20Working%20Papers%20August%202005/cesifo1_wp1527.pdf.

66. Marcel Gérard, *Reforming the Taxation of Multijurisdictional Enterprises in Europe*, 53 *CESifo Econ. Studies*, 329 (2007).

67. Nadine Riedel and Marco Runkel, *Company Tax Reform With a Water’s Edge*, 91 *J. of Pub. Econ.*, 1533 (2007).

within the formulary area and, perhaps, leading to an inefficiently high level of taxation.

However, as the authors point out, the initial “profit shifting” incentives are not the same under apportionment as under separate accounting. In particular, the incentive to shift profits is weaker under formulary apportionment than under separate accounting so that, on balance, the union is better off under apportionment than under separate accounting.

Consolidation within the union largely eliminates profit shifting abilities in the formulary apportionment area. However, profit shifting incentives still exist between the union and the rest of the world and between the participating and the non-participating countries.

Multinationals with headquarters (HQ) located outside of the union and subsidiaries located in two different union countries face different incentives from those faced by operations located solely within the apportionment area. The non-union headquarters company has an incentive to shift income to or from either subsidiary. However, the HQ company in the union will tend to shift investment to the subsidiary located in the low-tax rate country.

Subsidiaries located in the union face new transfer pricing incentives when formulary apportionment replaces separate accounting. To see how this happens, assume that the non-union country is a tax haven so that its tax rate is lower than the statutory rates in the two union countries. In this scenario, although the lower tax country in the union has a greater incentive to shift income to the tax haven, the higher tax country has a lesser incentive to shift income to the tax haven. On balance, the shift to formulary apportionment reduces the amount of total profit shifting outside of the union. This outcome occurs because the effective tax rate under formulary apportionment is “biased” toward the low tax rate so that the effective tax rate is lower than the unweighted average of the two rates.

In simple terms, moving from SA to FA increases the incentive for companies in low-tax countries to shift income to “tax haven” countries outside of the FA area. The opposite incentive arises in the high-tax country – the incentive to shift profits to the tax haven is lower under FA than under SA. Since these incentives are offsetting, the impact on total profit shifting depends on whether the increased shifting from the low tax FA country is smaller than the reduced shifting from the high tax FA country. In the simplest case where a change in the tax rate differential between the FA area and the tax haven leads to a proportional change in transfer pricing and profit shifting, then the reduced profit shifting from the high tax FA country outweighs the increased profit shifting from the low tax FA country.

As the authors explain, the only case where total profit shifting out of the FA area increases from the shift from SA is when the tax rates in the union countries are relatively close to one another. In this case, however, the initial

incentive to shift profits is relatively small so that income shifting is not a major problem.

In cases where the non-union country tax rate is above the union rate under FA, there is increased profit shifting into the union. Since the tax rates in the major non-EU industrialized countries are well above the EU average, this effect may become quite strong. Thus, the EU could become an attractive location for investment coming in from non-EU countries.

IV. CONCLUSION

The growing economic integration in the European Union has led the European Commission to suggest that the EU Member States re-consider how they tax multinational enterprises. Specifically, the EU Commission would like to give multinational enterprises the opportunity to calculate a common consolidated corporate tax base at the EU level and use a common formula to distribute the single tax base to the Member States for taxation at local rates.

Using a formula to distribute income to the Member States does not eliminate Member States tax sovereignty. To the contrary, the local tax rate remains a highly effective fiscal tool even within a system with a common formula and common tax base. As long as the Member States are able to set their own tax rates, they will be able to remain competitive in the drive to stimulate new investment and employment.

The European Commission has set forth an ambitious schedule for 2008. To achieve its goal of making a legislative proposal, it must define taxable income, the consolidated group, the apportionment formula, and the definition of the EU's territorial boundaries. Whether the Commission can achieve this goal or not is uncertain. The Member States may not have the political will to create a common consolidated tax base with formulary apportionment in the European Union. Whether the Commission should aim for this goal is not in question. Despite some technical and political difficulties, a common consolidated corporate tax base with formulary apportionment appears to be the best way to tax multinational companies in the European Union.