RECOMMENDING AN APPORTIONMENT FORMULA FOR THE EUROPEAN UNION'S COMMON CONSOLIDATED CORPORATE TAX BASE

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> The Union shall establish an internal market. It shall work for the
> sustainable development of Europe based on balanced economic
> growth and price stability, a highly competitive social market
> economy, aiming at full employment and social progress . . . .[1]

I. INTRODUCTION

The European Union must reexamine the methodology used in the taxation of companies to become a more dynamic economy and to

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[1] Consolidated Version of the Treaty on European Union, art. 3, May 9, 2008, 2008 O.J. (C 115) 13 [hereinafter EU Treaty].

enhance the competitiveness of European firms.[2] In order to fulfill the aspirations laid out in Article 3 of the European Union Treaty quoted above, the significant inefficiencies of corporate taxation based on arm's length transactions and separate accounting must be addressed through the use of formulary apportionment. Although the formula adopted by the European Union will ultimately be the result of political negotiation and compromise,[3] the focus herein will be on the economic benefits of a three-factor, double-weighted sales formula. This formula would be particularly effective in achieving the Common Consolidated Corporate Tax Base's ("CCCTB") goals of removing "tax obstacles and distortions" and eliminating "inefficiencies linked to the operation of [twenty-seven] different tax systems within the EU."[4] The European Commission has indicated that it will "aim for a CCCTB as soon as possible."[5]

Apportion means "to divide and share out according to a plan."[6] In the case of corporate income taxation in the European Union, the "plan" refers to the mathematical formula that divides a corporate taxpayer's income among the jurisdictions in which it does business "by taking into account the percentage of economic factors located in that jurisdiction relative to the percentage of such factors located elsewhere."[7] A corporate taxpayer's tax base is then allocated among the jurisdictions in which it transacts business according to a formula that reflects the corporation's activities therein.[8]

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[2] *Communication from the Commission: Towards an Internal Market Without Tax Obstacles: A Strategy for Providing Companies With a Consolidated Corporate Tax Base for Their EU-Wide Activities*, at 3, COM (2001) 582 final (Oct. 23, 2001) [hereinafter *Internal Market Without Tax Obstacles*].

[3] Joann M. Weiner, *CCCTB May Benefit Big Business, GE Official Says*, 50 TAX NOTES INT'L 196, 197 (2008) (quoting William H. Morris, senior international tax counsel and director, European Tax Policy for General Electric, April 8, 2008, Brussels Tax Forum); *see also* Benjamin F. Miller, *Comments on Document CCCTB/WP060 Common Consolidated Corporate Tax Base Working Group Possible Elements of a Sharing Mechanism*, 2 (Dec. 24, 2007).

[4] *Communication from the Commission: Tax Policy in the European Union - Priorities for the Years Ahead*, at 7, COM (2001) 260 final (May 23, 2001) [hereinafter *Priorities for the Years Ahead*]; *see also* Tracy Kaye, *The Gentle Art of Corporate Seduction: Tax Incentives in the United States and the European Union*, 57 KAN. L. REV. 93, 106 (2008).

[5] Press Release, European Commission, Summary of Hearing of Algirdas Šemeta (Jan. 11, 2010).

[6] MERRIAM-WEBSTER ONLINE DICTIONARY (2009), *available at* http://www.merriam webster.com/dictionary/apportion (last visited Mar. 28, 2010).

[7] Julie Roin, *Can the Income Tax Be Saved? The Promise and Pitfalls of Adopting Worldwide Formulary Apportionment*, 61 TAX L. REV. 169, 202 (2008).

[8] Marco Runkle & Guttorm Schjelderup, *Fiscal Autonomy Under Formula Apportionment* 1 (CESifo, Working Paper No. 2072, Apr. 3, 2007), *available at* http://www.cesifo-

Currently, intra-community economic activity is distorted by the existence of twenty-seven unique tax regimes.[9] In order to minimize distortion and the externality of inefficiency[10] borne by firms, tax authorities, and society, the Commission intends to implement the CCCTB by issuing a directive under Article 115 of the Treaty on the Functioning of the European Union,[11] giving it the force of law.[12] However, the issue of how the tax base, and thus the tax revenue, will be divided among the Member States remains unresolved.[13] The double-weighted sales formula is the most efficient and effective method of apportioning income; it meets the needs of the European Union because it balances the supply and demand interests that contribute to the creation of income and it encourages growth and development without being detrimental to small and mid-size firms.[14]

Section II identifies the problems associated with the use of arm's length transaction pricing and separate accounting and also assesses the effectiveness of formulary apportionment in addressing those externalities. Section III analyzes the costs and benefits of the three most common tax apportionment formulas used in the United States and evaluates whether each are appropriate for the CCCTB. Section IV concludes the paper by confirming the European Union's need for a more thorough integration of tax regimes, identifying how the double-

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group.de/link/pse07_Runkel.pdf.

[9]   *Priorities for the Years Ahead, supra* note 4, at 7; *see also* Ben J. Kiekebeld & Daniël S. Smit, *The CCCTB: Wishful Thinking or Future Reality*, 50 TAX NOTES INT'L 321, 321 (2008).

[10]   Inefficiency is a direct result of "the absence of cross-border loss offsetting, burdensome transfer pricing compliance rules, and the lack of a central EU tax authority." Charles Gnaedinger, *CCCTB Opponents Stake Out Positions*, 52 TAX NOTES INT'L 694, 694 (2008).

[11]   Lee A. Sheppard, *EU Tax Commissioner Puts CCCTB Proposal on Hold*, 51 TAX NOTES INT'L 891, 891 (2008).

[12]   From the outset some commentators suggested that a regulation be used as the legal basis for the CCCTB. *See* Katharina Kubik & Christian Massoner, *Common Consolidated Corporate Tax Base - The Possible Content of Community Law Provisions*, 17:3 EC TAX REV. 137, 137-38 (2008). However, the Commission has indicated that there is no legal basis for the creation of such a regulation and so the CCCTB will be created through the issuance of a directive. European Commission, Directorate-General, Taxation and Customs Union, *CCCTB: Possible Elements of a Technical Outline*, CCCTB\WP\057\en at 4 (Jul. 26, 2007), *available at* http://www.ec.europa.eu/taxation_customs/resources/documents/taxation/company_tax/common_tax_b ase/CCCTBWP057_en.pdf [hereinafter *Possible Elements*].

[13]   Gnaedinger, *supra* note 10, at 695.

[14]   "We do not want to engage in a fiscal adventure. . . . We don't want burdens on some member states and advantages to others." Lee A. Sheppard, *Technical Problems with the CCCTB*, 46 TAX NOTES INT'L 975, 976 (2007) (quoting Axel Nawrath of the German Federal Ministry of Finance) [hereinafter Sheppard, *Technical Problems*].

weighted sales formula meets that need, and noting areas that future research may expand upon.

II. TAXATION OF CORPORATIONS IN THE EUROPEAN UNION

A.Problems Associated With Arm's Length Transactions & Separate Accounting

Currently, corporations in the European Union engaged in multi-jurisdictional enterprise are treated as independent parties and are required to record each cross-border transaction under separate accounts valued at a market rate; this is the arm's length principle.[15] Such a practice results in economic inefficiency due to increased compliance costs, the temptation to shift profits to lower tax jurisdictions, and the occurrence of economic and juridical double taxation.[16] These obstacles introduce inefficiency into an otherwise highly integrated pan-European economy.[17]

With the rise of the Euro-zone and increased reliance at the community level,[18] the use of arm's length transactions between related entities engaging in cross-border business is becoming evermore unsuitable.[19] The complexity of such a system is exacerbated by the existence of twenty-seven autonomous domestic tax regimes, causing compliance costs to skyrocket.[20] This distortion, ubiquitous in territorial tax systems, has been termed "deadweight loss."[21] In particular, this deadweight loss arises from a small or mid-size firm's business decision to forbear from an otherwise efficient cross-border transaction because

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[15] Hilco Bogerd, *The Attraction and Feasibility of Formula Apportionment for the European Union*, 16 EC TAX REV. 274, 274-75 (2007).

[16] *Commission Staff Working Paper, Company Taxation in the Internal Market,* at Exec. Summ. ¶ 6, COM (2001) 582 final (Oct. 23, 2001) [hereinafter *Commission Paper on Company Taxation*].

[17] Jesper Barenfeld, *A Common Consolidated Corporate Tax Base in the European Union - A Beauty of a Beast in the Quest for Tax Simplicity?*, 61 BULL. INT'L TAX. 258, 258 (2007).

[18] *See, e.g.*, Charles Forelle et al., *Europe Vows to Save Greece*, WALL ST. J., Feb. 12, 2010, at A1.

[19] Johanna Hey, *EU Common Consolidated Corporate Tax Base: Guided Variety versus Strict Uniformity - Lessons from the "U.S. States' Tax Chaos"* 17 (Jean Monnet Working Paper No. 02/08), *available at* http://centers.law.nyu.edu/jeanmonnet/papers/08/080201.pdf.

[20] JOANN MARTENS-WEINER, COMPANY TAX REFORM IN THE EUROPEAN UNION: GUIDANCE FROM THE UNITED STATES & CANADA ON IMPLEMENTING FORMULARY APPORTIONMENT IN THE EUROPEAN UNION 18 (2007).

[21] Edward D. Kleinbard, *Throw Territorial Taxation From the Train*, 46 TAX NOTES INT'L 63, 78 (2007).

the marginal benefit of such activity is diminished by the increased compliance costs.[22] Even for larger firms, recordation of transactions becomes prohibitively expensive due to the need to maintain separate books for the income earned in each Member State.[23] In effect, the deadweight loss comes from firms that are discouraged from expanding across borders; this reduces the overall competitiveness of the European Union.

An additional shortcoming of arm's length transfer pricing is the ability to shift profits to Member States with lower tax rates. Firms are able to shift profits among their related entities because of the significant integration that makes it difficult to accurately determine where the actual income producing activity took place.[24] Furthermore, arm's length dealings fail to take into account a firm's economies of scale or functional integration, thereby making the fictitious idea of independently derived transfer prices replete with the opportunity for meaningful manipulation through significant under or overstatement of price.[25] This ability to manipulate transfer prices has a significant negative economic externality.[26] The corporate income tax revenues of Member States with high tax rates will erode as the benefit of manipulating transfer prices and financial structures becomes increasingly beneficial.[27] This may cause the Member States to engage in a "race-to-the-bottom" with respect to their statutory tax rates in order to insure sufficient revenue.[28]

The third major problem with arm's length transfer pricing is the double taxation of income resulting from the lack of coordination and uniformity among the Member States' sovereign tax regimes. A unilateral adjustment to the transfer price by one Member State, without a corresponding adjustment that offsets either the increase or decrease in price by the other Member State with tax claims, results in either over

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[22] *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 34.

[23] Charles E. McLure, Jr. & Walter Hellerstein, *Does Sales-Only Apportionment of Corporate Income Violate the GATT?* 3 (Nat'l Bureau of Econ. Research, Working Paper No. 9060, 2002) [hereinafter McLure & Hellerstein, *Sales-Only Apportionment*].

[24] *Id.*

[25] Bogerd, *supra* note 15, at 275.

[26] *Id.*

[27] McLure & Hellerstein, *Sales-Only Apportionment, supra* note 23, at 3.

[28] Charles E. McLure Jr., *Legislative, Judicial, Soft Law, and Cooperative Approaches to Harmonizing Corporate Income Taxes in the U.S. and the EU*, 14 COLUM. J. EUR. L. 377, 390 (2008).

or under taxation.[29]   Both are plainly undesirable results, as society wants firms neither to unfairly benefit from tax avoidance nor be unfairly disadvantaged by being taxed twice on the same income.

Furthermore, and arguably in response to the manipulation of transfer prices, Member States require ever increasing amounts of documentation from firms in support of the transfer prices proffered.[30] The result is that firms incur additional costs in compiling such extensive records and also face uncertainty as to whether additional costs will be necessary at a later date to withstand challenges to the prices by tax administrations.[31]

In summation, the arm's length transfer pricing principle is fundamentally inconsistent with the stated goals of creating an efficient internal marketplace within the European Union. In effect, the principle discourages the expansion of firms across internal boundaries by imposing costs for doing so.[32]   The subsequent loss of competitiveness results in a general "loss of potential [European Union] welfare."[33]   That is to say, rather than rewarding business paradigms that have thrived in the global economy, the use of arm's length transaction pricing and separate accounting actually hampers the synergy of small, mid-size, and large multinational firms.[34]

B. Consolidation & Formulary Apportionment

Confronted with the inefficiencies of arm's length transactions and separate accounting principles, the Commission has introduced the idea of switching to a formulary apportionment method of allocating corporate income among the Member States.[35] This method determines the proportion of a corporation's income attributable to a Member State by a formula that reflects the presence of factors deemed to be income producing within the state.[36] Upon determining a Member State's share

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[29]   *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 46.

[30]   *Id.* at Exec. Summ. ¶ 45.

[31]   *Id.*

[32]   Kleinbard, *supra* note 21, at 71.

[33]   *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 35.

[34]   Kleinbard, *supra* note 21, at 71.

[35]   *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 51.

[36]   Walter Hellerstein, *The Case for Formulary Apportionment,* 12 INT'L TRANSFER PRICING J. 103, 105 (2005). At the outset, it should be noted that the formulary apportionment is not without its own flaws. *See generally* Roger Gordon & John D. Wilson, *An Examination of Multijurisdictional Corporate Income Taxation Under Formula Apportionment,* 54 ECONOMETRICA 1357 (examining

of the corporate taxpayer's income, the Member State is then free to impose whatever statutory tax rate its domestic rules deem appropriate.[37] The European Commission has announced that the use of formulary apportionment would, among other things, help in reducing compliance costs, removing transfer pricing problems, and avoiding situations of economic and juridical double taxation.[38]

The use of an apportionment formula in the CCCTB would reduce compliance costs, as firms would only need to calculate the ratio of in-state activity to total activity for each factor.[39] Thus, the uniform application of the formula throughout the European Union would simplify the taxation process related to income producing activities in multiple jurisdictions;[40] no longer would it be necessary to comply with twenty-seven unique tax systems.[41] Furthermore, corporations would be able to make informed business decisions about expansion as the cost of operating in another Member State would be readily known.[42] This necessarily increases the efficiency of the internal market and makes the European Union a more competitive and desirable place to engage in business activities.

By consolidating related corporate entities, corporations will no longer have to determine transfer prices, thereby removing the opportunity to engage in transfer price manipulation.[43] Although the most effective means of preventing income-shifting would be through the enactment of uniform tax rates, such a solution would "throw the baby out with the bathwater," and significantly encroach on the Member States' sovereignty.[44] However, apportionment of corporate

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market distortions that arise under formulary apportionment due to incentives faced by both taxpaying firms and taxing states).

[37] Michael J. McIntyre, *Design of a National Formulary Apportionment Tax System*, 1991 NTA-TIA 84TH PROCEEDINGS 118-124 at 3 (1991) (paper presented at 84th Annual Conference of the National Tax Association November 12, 1991, at Williamsburg, VA.).

[38] *Internal Market Without Obstacles, supra* note 2, at 11-13; *see also* Lukasz Adamczyk, *The Sources of EC Law Relevant to Direct Taxation*, in INTRODUCTION TO EUROPEAN TAX LAW: DIRECT TAXATION 11, 31 (Michael Lang et al., eds., 2008) (discussing the need for the formula to "ensure a fair division of the tax base and be protected from income shifting."); Paul H.M. Simonis, *CCCTB: Some Observations on Consolidation from a Dutch Perspective*, 37 INTERTAX 19, 19 (2009); Barenfeld, *supra* note 17, at 262; Hey, *supra* note 19, at 4.

[39] Barenfeld, *supra* note 17, at 260.

[40] McLure, *supra* note 28, at 424.

[41] Barenfeld, *supra* note 17, at 261.

[42] Sheppard, *Technical Problems, supra* note 14, at 976.

[43] Bogerd, *supra* note 15, at 275.

[44] McLure, *supra* note 28, at 391.

income via a formula minimizes the vulnerability of the system, without compromising the fiscal sovereignty of the Member States.[45]

Finally, the use of a uniform system will prevent economic and juridical double-taxation while simultaneously protecting states' revenue streams from artificial income shifting.[46] In addition, the removal of the "conflicting taxing rights"[47] relieves the internal market of obstacles that currently stand in the way of firms engaged in cross-border economic activity; firms will no longer be discriminated against because of their state of origin.[48]

A comprehensive scheme such as the CCCTB addresses the identified barriers that have hindered the European Union from further internal integration.[49] Currently, the use of arm's length transactions and separate accounting results in inefficient and inaccurate determinations of the income's source.[50] The switch to formulary apportionment will simplify the taxation process for both Member States and businesses, thereby easing the burden of administration and compliance.[51]

III. GUIDANCE FROM THE UNITED STATES OF AMERICA

A. History & the Wisdom it Imparts

Early in the Twentieth Century, the individual states in the United States began taxing corporate income based on separate accounting principles.[52] However, pressure from businesses engaged in interstate commerce led to the adoption of formulary apportionment.[53] The Commission has indicated that the mechanism to be used in allocating a corporation's consolidated income may be similar to the "key" used in

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[45]   *Id.*

[46]   MARTENS-WEINER, *supra* note 20, at 80.

[47]   *Internal Market Without Obstacles, supra* note 2, at 10.

[48]   McLure, *supra* note 28, at 392.

[49]   *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 51.

[50]   Walter Hellerstein & Charles E. McLure, Jr., *The European Commission's Report on Company Income Taxation: What the EU Can Learn from the Experience of the US States*, 11 INT'L TAX & PUB. FIN. 199, 204 (2004) [hereinafter Hellerstein & McLure, *Company Income Taxation*].

[51]   *Internal Market Without Obstacles, supra* note 2, at 11; *see generally* Jack Mintz, *Corporate Tax Harmonization in Europe: It's All About Compliance*, 11 INT'L TAX & PUB. FIN. 221 (2004) (arguing that the primary focus of corporate tax consolidation among member states of a federation is to reduce compliance and administrative burdens).

[52]   Hellerstein & McLure, *Company Income Taxation, supra* note 50, at 208.

[53]   *Id.*

the United States.[54]

In arriving at the multi-factor formula to be used in the CCCTB,[55] it is helpful to examine the experiences of the states, where formulary apportionment has been used for several decades with success.[56] This examination is particularly appropriate in light of the fact that, similar to the Member States, the states have "divergent interests, considering the differences in their economies."[57] Furthermore, with the rise of the Euro Zone and the EU Treaty prohibition of restrictions on the free movement of goods, capital and labor,[58] the desire to adopt formulary apportionment will become greater as firms increasingly begin to operate with a European-wide focus, rather than a Member-State-wide focus.[59]

B. Political Considerations

Arguably based on the desire not to intrude on the states' sovereignty, the United States Congress, although constitutionally empowered to do so,[60] has never seriously considered enacting a uniform apportionment law.[61] In the states, an apportionment formula is fair and withstands constitutional attack as long as it is both internally and externally consistent, without regard to the fact that its interplay with other states' formulae results in double-taxation.[62] Thus, state

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[54]   *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 69.

[55]   The multifactor formula proposed is likely to include "tangible property, employee compensation, and the number of employees as well as destination-based sales." Joann M. Weiner, *European Commission Readies Draft CCCTB Proposal*, 50 TAX NOTES INT'L 1072, 1074 (2008).

[56]   Barenfeld, *supra* note 17, at 262.

[57]   Hey, *supra* note 19, at 29.

[58]   Consolidated Version of the Treaty on the Functioning of the European Union, art. 26, May 9, 2008, 2008 O.J. (C 115) 47 [hereinafter TFEU].

[59]   This parallels what led to the States adoption of formulary apportionment: "The states used the same accounting system and currency, and there were no tax or tariff walls around their borders. Many companies did business in more than one state, and many of them had a value that began with manufacture in one state and sales in other states." MARTENS-WEINER, *supra* note 20, at 105.

[60]   U.S. CONST. art. I, § 8, cl. 3 ("The Congress shall have Power . . . To regulate Commerce . . . among the several States.").

[61]   Hey, *supra* note 19, at 27-28. *See generally* Barley W. Hildreth et al., *Interstate Tax Uniformity and the Multistate Tax Commission*, 58 NAT'L TAX J. 575 (2005) (discussing various approaches to achieving State corporate tax uniformity and the issues arising from the countervailing loss of state autonomy).

[62]   Container Corp. of Am. v. Franchise Tax Bd., 463 U.S. 159 (1983). In this case, the corporation, incorporated in Delaware, headquartered in Illinois, and doing business in California among other places, alleged that the three-factor apportionment formula applied to it in California did not fairly apportion its income. *Id.* at 163, 183. The Court concluded that the formula, if applied uniformly by

sovereignty in fiscal matters is broad, allowing for the taxation of profits as long as the taxing state has a minimal connection or nexus to the generation of the income.[63]

> As the America[n] National Tax Association stated 80 years ago:
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> "All methods of apportionment . . . are arbitrary . . . . There probably are a number of different rules, all of which may work substantial justice. . . . The only right rule . . . is a rule on which the several states can and will get together as a matter of comity."[64]

The statement rings true with regard to the European Union as well; Article 115 of the Treaty on the Functioning of the European Union requires unanimous consent from the Council to adopt community-wide tax provisions.[65] Realistically, with one council-member from each Member State, the task may prove too difficult.[66]

However, the prospect of eliminating tax obstacles and enhancing competition appears to be too great an opportunity for the CCCTB to fail altogether.[67] Should unanimity in the Council prove to be elusive,[68] the Commission may resort to the use of the "enhanced cooperation" mechanism.[69] Enhanced cooperation requires at least nine Member

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every jurisdiction, would not result in double taxation. *Id.* at 184. Of import, the Court explained that a formula need not eliminate all instances of double taxation. *Id.* at 171. Furthermore, the formula actually reflected a reasonable sense of how the firm's income was generated. *Id.* at 183. The formula therefore did not violate the constitutional requirement of fair apportionment. *Id.* at 189. *But see*, Hans Rees' Sons, Inc. v. N.C., 283 U.S. 123, 135 (1931) & Norfolk & W. R. Co. v. M.O. State Tax Comm'n, 390 U.S. 317, 326 (1968) (striking down the application of an apportionment formula where the taxpayer proved, by clear and cogent evidence, that the income attributed to the State was in fact disproportionate to the business transacted therein).

[63] Hellerstein, *supra* note 36, at 106; Hey, *supra* note 19, at 23, 30. *See generally* Megan A. Stombock, *Economic Nexus and Nonresident Corporate Taxpayers: How Far Will it Go?*, 61 TAX LAW. 1225 (2008) (discussing the substantial nexus jurisprudence regarding the competing views of whether economic or physical presence is required under the Commerce Clause and arguing that Congress or the Supreme Court should resolve the issue).

[64] Bogerd, *supra* note 15, at 281.

[65] TFEU, *supra* note 58, at art. 115.

[66] *Priorities for the Years Ahead*, *supra* note 4, at 22.

[67] Joann M. Weiner, *French Support of CCCTB Doesn't Guarantee Approval*, 51 TAX NOTES INT'L 11, 11 (2008) (quoting Marie-Christine Lepetit, Director of Fiscal Legislation, French Ministry of Finance, June 26, 2008). See generally Hey, *supra* note 19, discussing "less ambitious approaches . . . to reveal ways out of an assumed political blockade." *Id.* at 56.

[68] Wolfgang Schön, *Group Taxation and the CCCTB*, 48 TAX NOTES INT'L 1063, 1080 (2007) ("For the making of laws in the context of such a core group, one is already looking at the application of the rules on enhanced cooperation, which were integrated into EC law by the Treaty of Nice.").

[69] László Kovács, The European Commission's Business Taxation Agenda, Speech before the Oxford Centre for Business Taxation (Mar. 23, 2006), *available at* http://ee.europa.eu/commission/barroso/kovacs/speeches/OXFORD_speech.pdf; *Commission Paper on*

States to agree to implement the CCCTB.[70] Of note, the use of this mechanism results in binding legal rules, or hard law.[71] Some scholars believe that enhanced cooperation will prove to be successful and eventually lead other Member States to participate.[72]

While the states are complacent and satisfied with allowing each state to exercise fiscal sovereignty in enacting an apportionment formula,[73] from the outset the Commission has steadfastly held that the CCCTB will be uniformly applied across the European Union.[74] Although complicating the political landscape by restricting Member States' fiscal sovereignty to determine the statutory tax rate applicable to the income assigned,[75] such political complications are necessary to achieve the overarching goal of increased market integration.

Given the generally high tax rates in the Member States, the risk of double taxation is an unacceptable possibility.[76] If Member States are permitted to apply whatever formula they desire, under-and-over taxation would almost certainly result.[77] The use of only one formula will minimize the negative externalities of diverging applications and interpretations experienced both in the United States[78] and in the

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Company Taxation, supra note 16, at Exec. Summ. ¶ 68. For an interesting discussion on the effects the repeal of Art. 293 of the EC Treaty may have on the application of enhanced cooperation, see Luca Cerioni, *Postponement of the Commission's Proposal for a CCCTB Directive: Possible Ways Forward*, 64 BULL. FOR INT'L TAX'N 98 (Feb. 2010).

[70]   EU Treaty, *supra* note 1, at art. 20.

[71]   McClure, *supra* note 28, at 383.

[72]   *Id.* at 416; Schön, *supra* note 68, at 1080.

[73]   Weiner, *supra* note 3, at 197. In *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274, 279 (1977), the Supreme Court held that a state may impose a "privilege of doing business" tax, which will be "sustained [] against Commerce Clause challenge when the tax is applied to an activity with a substantial nexus with the taxing State, is fairly apportioned, does not discriminate against interstate commerce, and is fairly related to the services provided by the State."

[74]   *Communication from the Commission: An Internal Market Without Company Tax Obstacles Achievements, Ongoing Initiatives and Remaining Challenges*, at 23, COM (2003) 726 final (Nov. 24, 2003) [hereinafter *Ongoing Initiatives and Remaining Challenges*].

[75]   BEN J.M. TERRA & PETER J. WATTEL, EUR. TAX LAW 600 (4th ed. 2005).

[76]   Hey, *supra* note 19, at 48.

[77]   European Commission, Directorate-General, Taxation and Customs Union, *The mechanism for sharing the CCCTB*, CCCTB\WP\047\en at 6, ¶ 14 (Dec. 13, 2006), *available at* http://ec.europa.eu/taxation_customs/resources/documents/taxation/company_tax/common_tax.../CCCT BWP47_sharing_mechanism_en.pdf [hereinafter *Mechanism for Sharing*]; Schön, *supra* note 68, at 1078; McLure, *supra* note 28, at 406.

[78]   "Those US States which do not impose corporate income taxes at all, such as Nevada, serve as natural tax havens. Other states have enacted special exemptions, like Delaware's tax shelter for holding or passive investment companies." Hey, *supra* note 19, at 33.

European Union under arm's length transactions.[79] Thus, designing and implementing the single allocation formula is of paramount importance in achieving an efficient and competitive internal market within the European Union.[80]

C. Defining the Factors

Even though the States possess a wide degree of latitude in enacting apportionment formulas, for the most part, the factors used have remained relatively homogenous in the sense that all use some or all of three microeconomic factors:[81] property, payroll, and sales.[82] The United States Supreme Court has explained that these three factors have "gained wide approval precisely because [they] appear in combination to reflect a very large share of the activities by which value is generated."[83] That is to say, the factors comprehensively represent the substantive economic activity that contributes to the income derived from intra-territorial pursuits, which, in fairness, may be taxed by that jurisdiction.[84]

In order to increase the efficiency of the allocation formula, the factors must be clearly defined and readily available for measurement.[85] To be as clear as possible, the factors should be based on microeconomic notions of where a company earns income.[86] In addition, the reliability of the factors' values increases when the measurement is reported for a purpose other than calculating a Member State's share of the apportioned income.[87] The use of the three common factors used in the United States is a practical solution because it has been "field-tested" with success.[88]

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[79] *See supra* notes 15-34 and accompanying text.

[80] Runkle & Schjelderup, *supra* note 8, at 1; Barenfeld, *supra* note 17, at 270.

[81] That is to say, no state has implemented a "unique" factor, such as a macroeconomic measurement of a particular industry's presence within the state or per capita national income. MARTENS-WEINER, *supra* note 20, at 47.

[82] Roin, *supra* note 7, at 173.

[83] Container Corp. of Am. v. Franchise Tax Bd., 463 U.S. 159, 183 (1983).

[84] McIntyre, *supra* note 37, at 2.

[85] Schön, *supra* note 68, at 1078; Barenfeld, *supra* note 17, at 270.

[86] MARTENS-WEINER, *supra* note 20, at 48.

[87] *Id.* at 51.

[88] *Ongoing Initiatives and Remaining Challenges, supra* note 74, at 23 ("All three factors represent the capacity to generate income, although all three are of course vulnerable to potential manipulation, and achieving the appropriate balance is difficult."); Hey, *supra* note 19, at 16 (noting that the Commission is considering these factors).

The property factor includes all real property and tangible personal property that is either owned or leased by the corporation, including "land, buildings, machinery, equipment, and inventory."[89] After defining *what* the property factor includes, the next step is to define *how* the property is to be valued. Unfortunately, the valuation method used in the United States is far from ideal. In the United States, the historical value of the property, adjusted for certain capital improvements and deductions, but not for depreciation, is used.[90] This method, although simple to quantify, fails to take into account the market value of property.[91] In failing to account for the market value, firms that own property with the same market value, but purchased at different times, will be taxed differently.[92] The Commission has indicated, however, that it will use the "tax book value of the assets."[93]

Identifiable, but intangible, property, such as intellectual property rights and bank accounts, presents a significant problem as firms can easily manipulate its location.[94] This highly mobile property should be excluded from the property factor measured in the apportionment formula, as is often done in the United States,[95] because it will exacerbate tax competition among the Member States.[96] Furthermore, excluding intangible property significantly increases the practicality and simplicity of the formula.[97] The exclusion of such assets will make it necessary to enact specific rules for sectors in which intangible assets

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[89] MARTENS-WEINER, *supra* note 20, at 52.

[90] Roin, *supra* note 7, at 219; *see also* McLure, *supra* note 28, at 395 n. 62 (discussing ways in which the property factor can be manipulated).

[91] Bogerd, *supra* note 15, at 278.

[92] *Id.*

[93] *Mechanism for Sharing*, *supra* note 77, at 7, ¶ 16.

[94] Bogerd, *supra* note 15, at 279. *See generally* Thomas C. Pearson, *Proposed International Legal Reforms for Reducing Transfer Pricing Manipulation of Intellectual Property*, 40 INT'L L. & POL. 541 (discussing the abusive tax avoidance problem with respect to complex intellectual property issues and proposing legal reforms to address avoidance problems).

[95] Roin, *supra* note 7, at 206 (noting intangible property's exclusion from the UDITPA property factor). *See generally* Walter Hellerstein, *State Taxation of Corporate Income From Intangibles: Allied-Signal and Beyond*, 48 TAX L. REV. 739 (1993) (reviewing the case law, analyzing the States' authority to tax income derived from intangible assets, and providing a framework for future analysis of such issues).

[96] *See generally* Kaye, *supra* note 4 (discussing the negative effects tax competition has on Member States).

[97] Lukasz Adamczyk, *The Sources of EC Law Relevant for Direct Taxation, in* INTRODUCTION TO EUROPEAN TAX LAW: DIRECT TAXATION 11, 31 (Michael Lang et al. eds., 2008).

play a significant role, such as financial institutions.[98] These different rules, beyond the scope of this Note, would necessarily involve a complex formula that determines where the intangible property was developed.[99]

The payroll factor should include all payments made to employees for services provided, including wages, salaries, and commissions.[100] Payroll may include compensation paid to executive officers and certain in-kind payments, such as the value of board, rent, housing, lodging, and other benefits or services.[101] In order to accurately measure the payroll factor, the OECD's standardized payroll figures may be utilized.[102]

Although considered the easiest factor to measure,[103] there are several interesting concerns that will need to be addressed. First, a problem arises in assuming equal productivity across jurisdictions.[104] In effect, a firm in a high-wage country will be assessed a higher tax than a firm *with the same output* in a low-wage country.[105] An additional aspect that requires further consideration arises from the outsourcing of labor and which Member State should be permitted to recognize such labor costs.[106]

Sales reflect the demand for a good or service in addition to the

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[98] *Communication from the Commission: Implementing the Community Programme for Improved Growth and Employment and the Enhanced Competitiveness of EU Business*, at 6-7, COM (2007) 223 final (May 2, 2007) [hereinafter *Implementing the Community Programme*]; *see also* European Commission, Directorate-General, Taxation and Customs Union, *Summary Record of the Meeting of the Common Consolidated Corporate Tax Base Working Group*, CCCTB\WP\68\en at 2 (Jul. 2, 2008), *available   at* http://ec.europa.eu/taxation_customs/resources/documents/taxation/company_tax/common_tax_base/C CCTBWP068summary_apr2008_en.pdf; Bogerd, *supra* note 15, at 278; *see also* Richard D. Pomp, *The Future of the State Corporate Income Tax: Reflections (and Confessions) of a Tax Lawyer, in* THE FUTURE OF STATE TAXATION 49, 55 (David Brunori, ed., 1998) (noting that separate rules are used in the States for high intangible asset sectors including "banking, insurance, financial services, communications, transportation, natural resources, constructure and utilities.").

[99] McIntyre, *supra* note 37, at 6; *see generally* Charles E. McLure, Jr., *U.S. Federal Use of Formula Apportionment to Tax Income from Intangibles*, 75 TAX NOTES TODAY 109 (1997) (identifying some of the difficulties faced when attempting to devise an appropriate formula to apportion income earned from intangible assets).

[100] Hellerstein & McLure, *Company Income Taxation, supra* note 50, at 211.

[101] MARTENS-WEINER, *supra* note 20, at 52-53.

[102] *Id.* at 51.

[103] Hellerstein & McLure, *Company Income Taxation, supra* note 50, at 211.

[104] Schön, *supra* note 68, at 1078.

[105] *Mechanism for Sharing, supra* note 77, at ¶ 15.

[106] *Implementing the Community Programme, supra* note 98, at 10.

profitability after netting the direct and indirect lots of production.[107] The sales factor includes the amounts received as gross revenue from the in-state provision of goods or services divided by the gross revenue received from all other sources.[108] Gross revenue includes all activity undertaken in the regular course of business that results in a transaction of money, including sales and interest payments, dividends, rents and royalties, and capital gains.[109] The sales factor should be determined at the destination where final consumption of the good occurs.[110] This reduces the likelihood that the sales factor will be double-taxed, as it is possible, and arguably likely, that the goods will cross several Member States before it reaches the end user.[111] In addition, the sales factor should be measured at destination because this is where the demand for the goods or services is generated.[112]

D. Weighting the Factors: Modern Trends

To determine a jurisdiction's share of a firm's income, each factor is turned into a ratio corresponding to the in-state activity of each factor relative to the firm's aggregate or consolidated value of each factor.[113] Although the factor weights are important, the choice of factor weights is essentially arbitrary and will ultimately be the result of political negotiation.[114] Increasingly, many states are weighting the sales factor heavily[115] or relying on it exclusively.[116] This trend reflects states' desires to use the apportionment formula to promote economic development by attracting firms and the employment opportunities they represent.[117] Of note, in states that have raised the relative weight of the sales factor, the weight of the payroll and property factors have been

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[107]   Bogerd, *supra* note 15, at 279.

[108]   *Id.*

[109]   *Possible Elements, supra* note 12, at 12-13; MARTENS-WEINER, *supra* note 20, at 53.

[110]   Hey, *supra* note 19, at 16; Adamczyk, *supra* note 97, at 31.

[111]   Bogerd, *supra* note 15, at 280.

[112]   *Id.* at 279. The United States also bases the sales factor on destination. *Id.*

[113]   Roin, *supra* note 7, at 173.

[114]   *Ongoing Initiatives and Remaining Challenges, supra* note 74, at 21; Schön, *supra* note 68, at 1079; MARTENS-WEINER, *supra* note 20, at 50.

[115]   *See* Kirk J. Stark, *The Quiet Revolution in U.S. Subnational Corporate Income Taxation,* 23 ST. TAX NOTES 775, 782 (2002).

[116]   The exclusive use of a sales factor was found to be constitutional in *Moorman Mfg. v. Bair,* 437 U.S. 267 (1978).

[117]   Kelly D. Edmiston, *A Single-Factor Sales Apportionment Formula in the State of Georgia,* 20 ST. TAX NOTES 1367, 1367 (2001); Pomp, *supra* note 98, at 57.

reduced ratably, arguably to avoid the substitution of a greater amount of the lesser-weighted factor for the heavier-weighted factor.[118] Such stimulus, in the long run,[119] attracts firms to the state by effectively shifting some of the tax burden to out-of-state firms—those with less payroll or property presence, but with some in-state sales.[120]

The following subsections will assess the benefits and drawbacks of the three most common apportionment formulas used in the United States. The first is the equally weighted three-factor formula. The second formula relies solely on the sales factor to determine the portion of income taxable within the jurisdiction. The third formula, and most common,[121] is the double-weighted sales, three-factor formula. Guiding the format of the analysis, the European Commission has indicated that the formula "would both have to satisfy sound economic principles and meet with the political approval of Member States."[122] It should be noted at the outset that the analyses that follow assume the uniform application of the formula across jurisdictions.[123]

1.Three-Factor Formula

In 1957, the National Conference of Commissioners on Uniform State Laws drafted the Uniform Division of Income for Tax Purposes Act (UDITPA).[124] Although several states had implemented the equally weighted three-factor apportionment formula prior to 1957, the UDITPA was intended to harmonize the states' corporate tax laws for the purpose of simplifying interstate commerce.[125] The amount of income apportioned to a jurisdiction, represented by the term I_A, is calculated by using the following formula:

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[118] Austan Goolsbee & Edward L. Maydew, *Coveting thy Neighbor's Manufacturing: The Dilemma of State Income Apportionment*, 75 J. PUB. ECON. 125, 130 (2000).

[119] *Id.*

[120] Edmiston, *supra* note 117, at 1367.

[121] Pomp, *supra* note 98, at 55-56.

[122] *Ongoing Initiatives and Remaining Challenges*, *supra* note 74, at 21.

[123] *See supra* notes 73-80 and accompanying text.

[124] NAT'L CONFERENCE OF COMM'RS ON UNIF. STATE LAWS, UNIF. DIV. OF INCOME FOR TAX PURPOSES ACT 1 (1958); *see also* Pomp, *supra* note 98, at 55; *see generally* Charles E. McLure Jr., *A Comprehensive and Sensible UDITPA*, 37 ST. TAX NOTES 929 (2005) (analyzing and criticizing the UDITPA).

[125] JOHN P. JOSEPHS, JR., VIRGINIA'S APPORTIONMENT FORMULA, JOINT SUBCOMMITTEE STUDYING MANUFACTURING NEEDS AND THE FUTURE OF MANUFACTURING IN VIRGINIA – PURSUANT TO SJR 361 (2005).

$$I_A = \{ \ [(S_s/A_s) \bullet (1/3)] + [(S_p/A_p) \bullet (1/3)] + [(S_e/A_e) \bullet (1/3)] \ \}$$

where S_s, S_p, and S_e represent the amount of in-state sales, in-state property, and in-state employee payroll, respectively, and A_s, A_p, and A_e represent the aggregate or total value of a firm's consolidated sales, property, and employee payroll.[126] Upon calculating the ratio of a factor's in-state to aggregate value, the weight of the factor is then applied; in this case, one-third. The final step in determining a firm's tax liability, represented by the term T_L, is calculated by using the following formula:

$$T_L = \{ \ I_A \bullet T_R \ \}$$

where T_R is the jurisdiction's statutory tax rate.[127]

The equally weighted three-factor formula paved the way in allocating taxing rights to states that provide both services to the supply side factors that contribute to income producing activities as well the demand side factor of providing a market in which to sell goods and services.[128] The supply interests are represented by the property and payroll factors, both of which represent the assets necessary to produce goods;[129] what are termed in classical economics, the factors of production: land, labor, and capital.[130] Such a policy is well thought out, as both supply and demand interests must intersect in order for a good or service to generate income.[131] Simply put, a supplier of goods or services needs interest in his wares; to satisfy a general need, there must be a good or service to purchase.

However, the equally weighted three-factor formula does not balance the supply and demand factors. The imbalance can be seen here:

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[126]   Edmiston, *supra* note 117, at 1368.

[127]   *Id.*

[128]   Michael Mazerov, *The 'Single Sales' Factor Formula for State Corporate Taxes: A Boon to Economic Development or a Costly Giveaway?*, 3 CORP. FOR ENTERPRISE DEV. 1, 1 (2001) *available at* www.cfed.org/publications/accountability/Accountability%20Jun%2001.pdf.

[129]   MILTON FRIEDMAN, PRICE THEORY 201-02 (2007).

[130]   ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS I.6.18 (Edwin   Cannan,   ed.,   Methuen   &   Co.,   Ltd.   1904)   (1776),   *available   at* http://www.econlib.org/library/Smith/smWN2.html#B.I,%20Ch.5,%20Of%20the%20Real%20and%20 Nominal%20Price%20of%20Commodities.

[131]   Pomp, *supra* note 98, at 69 n.12.

$$I_A = \{ [(S_d/A_d) \bullet (1/3)] + [(S_g/A_g) \bullet (2/3)] \}$$

where S_d represents the in-state demand and S_g signifies the combined in-state supply factors of property and payroll.[132] Such disequilibrium results in market distortions that result in three undesirable negative externalities. First, the higher tax on supply side factors[133] results in deadweight loss equivalent to the reduction in supply and subsequent rise in prices.[134] Second, the unequal tax creates a disincentive for a firm to locate its factors of production within the taxing jurisdiction, a politically unfriendly externality.[135] Third, in a circumstance where statutory tax rates vary, an incentive to "cross-haul" goods and services arises, resulting in an inefficient market structure where variable costs rise to offset the increased transport fees.[136] This inefficiency occurs when a firm producing goods in a high tax-rate state sells its product in a low tax state to reduce its tax burden. And a firm producing an *identical product* in a low tax state will be induced to sell in the high tax state because of the relatively low demand-side factor weight.[137] In effect, the producer from the low tax-rate state will have a competitive advantage, as their production costs will be lower.

2. Single-Factor Sales Formula

Although first enacted in Iowa in the 1930s, the single-factor sales formula has only recently come into common use.[138] The allure of this formula is twofold. First, the formula stimulates economic development by decreasing the tax liability of corporations with significant in-state investments and employment relative to in-state sales.[139] This

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[132] Formula derived from Edmiston, *supra* note 117, at 1368.

[133] *See generally* Charles E. McLure, *The Elusive Incidence of the Corporate Income Tax: The State Case*, 9 PUB. FIN. Q. 395 (1981) (positing that corporate income tax levied on the basis of formulary apportionment is in effect a tax levied on the factors identified in the state's apportionment formula) [hereinafter McLure, *The Elusive Incidence of the Corporate Income Tax*].

[134] Such a reduction could be effected by either terminating employees or selling property assets, which would necessarily reduce the output of the firm, *ceteris paribus; see* Kleinbard, *supra* note 21, at 78.

[135] *See* McLure, *The Elusive Incidence of the Corporate Income Tax, supra* note 133, at 395 (noting the distortionary effects on the allocation of resources in the economy).

[136] Gordon & Wilson, *supra* note 36, at 1370-72.

[137] *Id.*

[138] Pomp, *supra* note 98, at 57.

[139] ERNST & YOUNG, ASSOCIATED INDUSTRIES OF MASSACHUSETTS FOUNDATION, INC., THE

proposition becomes clear upon examination of the formula used to apportion income to a jurisdiction, represented by I_A:

$$I_A = \{ (S_s/A_s) \}$$

where S_s represents the amount of in-state sales and A_s represents the aggregate or total value of a firm's consolidated sales.[140] Second, the sales-only formula is politically popular precisely because it benefits in-state corporations; a "happy" corporation has happy employees—*who vote*.[141] However, with respect to uniform implementation in the European Union, the benefits of this formula are outweighed by the negative externalities imposed, both inside and outside the jurisdiction, which could distort the internal market.

The use of sales as the only factor stimulates economic development because it provides a competitive advantage or incentive for firms to locate both their capital assets and employees within the state.[142] However, three significant questions arise that detract from this seemingly beneficial proposition. First, various information goes into a firm's decision to locate within a state,[143] and therefore, the impact on economic and employment growth from the adoption of a single-factor sales formula is minimal.[144] Second, the competitive advantage provided to large in-state firms will likely come at the cost of *disadvantaging* small firms that are less likely to engage in multi-jurisdictional activity.[145] By way of example, one econometric study found that "almost 75 percent (mostly local firms) would have seen no change in their tax liability" if Georgia were to switch to a single-factor formula.[146]

ECONOMIC AND FISCAL EFFECTS OF SINGLE SALES FACTOR APPORTIONMENT FOR MASSACHUSETTS MANUFACTURERS 2 (2003).

[140] Edmiston, *supra* note 117, at 1368.

[141] Pomp, *supra* note 98, at 57.

[142] McLure & Hellerstein, *Sales-Only Apportionment, supra* note 23, at 1.

[143] *Priorities for the Years Ahead, supra* note 4, at 16 ("The geographical accessibility of markets, the existing infrastructure, transport costs, environmental standards, the availability and the quality of the workforce, wage levels, social security systems and the overall attitude of its government all play an important role."); *see generally*, ROGER WILSON, ECONOMIC DEVELOPMENT IN THE STATES: STATE BUSINESS INCENTIVES AND ECONOMIC GROWTH: ARE THEY EFFECTIVE? A REVIEW OF THE LITERATURE 8-17 (The Council of State Governments) (1989) (discussing the nature and process of plant location decisions).

[144] Mazerov, *supra* note 128, at 2.

[145] *Id.* at 3.

[146]. Edmiston, *supra* note 117, at 1373.

Third, due to the imbalance of supply and demand factors in the formula, and the variance in statutory tax rates, firms will be encouraged to produce goods in-state and sell to consumers out of state.[147]

The political feasibility of the formula is undermined by the realization that the tax cuts provided to a small amount of large corporations will result in an erosion of the state's revenue,[148] necessitating a reduction in spending or an increase in other taxes.[149] Thus, what was originally billed as a welfare-enhancing formula is transmogrified into a free-rider dilemma,[150] where the businesses benefiting the most from state services unfairly shift the cost of such services to non-resident firms and resident individuals.[151]

3.Three-Factor Formula With Double-weighted Sales

The double-weighted sales formula is flexible, recognizing the extent to which revenue generation and its component parts, supply and demand, contribute to the overall taxable presence of a business within the taxing state.[152] To determine the portion of income generated within a jurisdiction, represented by I_A, the following calculation must be made:

$$I_A = \{ [(S_s/A_s) \cdot (1/2)] + [(S_p/A_p) \cdot (1/4)] + [(S_e/A_e) \cdot (1/4)] \}$$

where S_s, S_p, and S_e represent the amount of in-state sales, in-state property, and in-state employee payroll, respectively, and A_s, A_p, and A_e represent the aggregate or total value of a firm's consolidated sales, property, and employee payroll.[153] In effect, the double-weighted sales formula embodies the positive aspects of the other formulas while

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[147] See *supra* notes 136-137 and accompanying text for a discussion of the "cross-haul" problem; *see also* Gordon & Wilson, *supra* note 36, at 1370-72; MARTENS-WEINER, *supra* note 20, at 96.

[148] *See, e.g.*, Edmiston, *supra* note 117, at 1373 ("[T]he imposition of a single-factor sales formula in the state of Georgia in 2002 would likely yield a corporate tax revenue loss of approximately $61.6 million in its first year.").

[149] Mazerov, *supra* note 128, at 1.

[150] *See generally* Theodore Groves & John Ledyard, *Optimal Allocation of Public Goods: A Solution to the "Free Rider" Problem*, 45 ECONOMETRICA 783 (May, 1977) (discussing the free rider problem and presenting a method for achieving allocative efficiency of public goods).

[151] Mazerov, *supra* note 128, at 1, 3.

[152] MARTENS-WEINER, *supra* note 20, at 34.

[153] Edmiston, *supra* note 117, at 1368.

simultaneously tempering their distortion-causing negative externalities.

Similar to the evenly weighted three-factor formula, the double-weighted sales formula apportions income based on the factors that actually contribute to the overall value of the business.[154] However, by giving the sales factor twice the weight of the property and payroll factors, an optimal economic situation occurs wherein:

$$I_A = \{ \ [(S_d/A_d) \bullet (1/2)] + [(S_g/A_g) \bullet (1/2)] \ \}$$

where S_d represents the in-state demand and S_g signifies the combined in-state supply factors of property and payroll.[155] Balancing the supply and demand factors, which determine the revenue derived from the economic activity,[156] promotes the accurate allocation of income to States in which the income was earned.[157]

Additionally, a double-weighted sales factor is likely to give an in-state company a competitive advantage over out-of-state competitor firms as the cost of doing business in-state increases due to the sales factor's weight in the apportionment formula.[158] However, unlike the single-factor formula, the advantage does not come at the cost of shifting the tax burden unfairly.[159] For example, one study found that in the first two years of apportioning income based upon the double-weighted sales formula, tax revenue *increased* by "$26.4 million and $28.9 million."[160] Thus, the formula stimulated economic development without detrimentally affecting the state's revenue stream.

Furthermore, the double-weighted sales, three-factor formula minimizes the shifting of factors of production in order to take advantage of lower local rates.[161] As long as the tax rates of the Member States vary, firms will still seek out the least costly location in which to locate the supply-side factors—labor and property.[162] Although it is seemingly impossible to eradicate the ability of firms to manipulate the

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[154] Bogerd, *supra* note 15, at 277.

[155] Formula derived from Edmiston, *supra* note 117, at 1368.

[156] Pomp, *supra* note 98, at 69 n.12.

[157] Miller, *supra* note 3, at 1.

[158] McLure & Hellerstein, *Sales-Only Apportionment*, *supra* note 23, at 5; MARTENS-WEINER, *supra* note 20, at 96; Edmiston, *supra* note 117, at 1368.

[159] Pomp, *supra* note 98, at 56.

[160] Edmiston, *supra* note 117, at 1377.

[161] Barenfeld, *supra* note 17, at 270.

[162] MARTENS-WEINER, *supra* note 20, at 22.

factors that generate income under an allocation formula, by balancing both the supply and demand factors, the negative effects of such manipulation can be minimized.[163]

IV. CONCLUSION

The tax situation in the European Union has been aptly described as a "tax jungle," due to the existence of twenty-seven independent tax systems.[164] While European Union promoters tout the absence of internal market frontiers, firms within the European Union face a tax reality incongruent with a highly integrated economy.[165] The main reason for adopting formulary apportionment in the European Union is to minimize the negative externalities associated with the use of arm's length transactions, thereby making the European Union more competitive.[166] Under such a system, corporations operating across-borders will be taxed on a consolidated tax base that will be distributed among the Member States in which business is undertaken.[167]

This paper focused on the apportionment formula and its usage in distributing the consolidated tax base to the Member States. As "a page of history is worth a volume of logic,"[168] the focal point was on the successes and shortcomings of the various formulas implemented in the United States. In examining an apportionment formula, it is necessary to answer the following question: does the formula equitably distribute income based on where the companies engage in business?[169]

Although no apportionment formula is "theoretically correct,"[170] a double-weighted sales, three-factor apportionment formula is the most equitable means of distributing income among the taxing Member States.[171] This conclusion is supported by the findings that it balances the economic components that contribute to the income earned.

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[163] Barenfeld, *supra* note 17, at 270.

[164] MARTENS-WEINER, *supra* note 20, at 18.

[165] *Commission Paper on Company Taxation, supra* note 16, at Exec. Summ. ¶ 6.

[166] Barenfeld, *supra* note 17, at 261; Bogerd, *supra* note 15, at 274.

[167] Hey, *supra* note 19, at 4.

[168] New York Trust Co. v. Eisner, 256 U.S. 345, 349 (1921) (Holmes, J.).

[169] MARTENS-WEINER, *supra* note 20, at 41.

[170] *Id.*

[171] Michael J. McIntyre, *The Use of Combined Reporting By Nation States*, 35 TAX NOTES INT'L 917, 920 (2004) ("I favor this formula because I think there are no compelling reasons for favoring the production state over the market state, or vice versa, in apportioning income."); *see also* Runkle & Schjelderup, *supra* note 8, at 2 (noting that capital factor should be present in the formula).

Furthermore, and ultimately the decisive factor, the double-weighted sales formula is politically acceptable. Of the three formulas examined, the double-weighted sales formula mitigates the erosion of the tax base as found under the single-factor formula and promotes economic development. The uniform application of an apportionment formula "master those frictions, which exist at present in the weak points of international group taxation."[172]

Future research may further develop the concept of "optionality."[173] In particular, research should address how the simultaneous operation of the CCCTB and twenty-seven national systems is a functional alternative to mandatory participation[174] or whether it is a temporary political stopgap, which will ultimately lead to mandatory participation.

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[172] Wolfgang Schön, *supra* note 68, at 1072.

[173] *See generally* Johanna Hey, *CCCTB-Optionality, in* 53 COMMON CONSOLIDATED CORPORATE TAX BASE 93 (Michael Lang et al. eds., 2008) (discussing the pros and cons of optionality).

[174] Christiana HJI Panayi, *The Common Consolidated Corporate Tax Base - Issues for Member States Opting Out and Third Countries*, 48 EUROPEAN TAXATION 114, 115 (2008).