

Key Elements of the U.S. Tax System

How would formulary apportionment work?

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A. Under the current global system, multinational firms determine their profits separately in each tax jurisdiction in which they operate. An alternative system would allocate a firm's worldwide income across countries using a formula based on some combination of its sales, assets, and payroll in each jurisdiction.

HOW FORMULARY APPORTIONMENT WORKS

Under formulary apportionment, a multinational corporation would allocate its profits across countries based on its sales, payroll, and capital base in each jurisdiction. The corporation would pay US corporate tax on the share of its worldwide income allocated to the United States. An alternative formula would base a corporation's US taxes only on the fraction of its worldwide sales destined for domestic consumers, a so-called "destination-based" corporate profits tax.

Many states in the United States use a formulary apportionment system to determine their taxable share of US-source corporate profits. The formulas have been historically based on a weighted average of the shares of sales, payroll, and assets in the state. But some states have shifted to a sales-only apportionment system to remove any incentive to shift employees or facilities to other jurisdictions.

The adoption of formulary apportionment by states was motivated by the widespread perception that states are so highly integrated economically that it is impractical to determine using a separate-entity system how much of a firm's income is earned by an affiliate in one state and how much by an affiliate in another.

ADVANTAGES OF FORMULARY APPORTIONMENT

Formulary apportionment would remove the current artificial incentive for multinationals to shift reported income to low-tax locations. Tax liabilities, instead, would be allocated by a measure (or measures) of their real economic activity in each location. These measures are far more difficult to manipulate for tax purposes than the division of profits among separate entities within a firm.

Formulary apportionment would also reduce the tax system's complexity and the administrative burden it imposes on firms. Firms would no longer have to allocate income or expenses across countries for tax purposes. Because intra-firm transactions would not affect the measure of domestic profits, there would be no need for transfer-pricing rules for intra-firm transactions, which would remove a major source of dispute between corporations and tax authorities.

There would also no longer be a need for controlled foreign corporation rules because all profits assigned

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to foreign activities would be exempt. For this reason, there would also no longer be a need for foreign tax credits, so firms with deemed profits from intangible assets (GILTI) would have no incentive to earn taxable profits in high-tax foreign countries to increase the availability of offsetting tax credits in low-tax countries.

Absent behavioral responses, the United States and countries with similar tax rates would gain revenue under formulary apportionment: firms' shares of real economic activity in these countries typically exceed the shares of income they now report as originating there instead of in tax havens. The move to formulary apportionment could therefore be made revenue neutral by reducing corporate tax rates. Moreover, formulary apportionment would make a multinational corporation's tax liability independent of both its legal residence and its legal form (for example, branch or subsidiary). Formulary apportionment would thus remove any incentive for corporate inversions in which firms from two countries merge and establish their residence in a low-tax country to reduce their tax liabilities.

PROBLEMS AND DISADVANTAGES OF FORMULARY APPORTIONMENT

Significant issues, however, emerge in designing and implementing a global formulary apportionment system. And such a system would create new incentives for tax avoidance and could increase the incentive to shift real investments to low-tax countries.

Formulary apportionment would require an agreement among the major economies to scrap the current separate-entity system and to agree on how to allocate corporate income among jurisdictions. It would also require agreement on common accounting methods for measuring corporate profits.

A unilateral move by the United States to formulary apportionment would result in double taxation of some multinationals' income and exemption of other income. That's because different countries would use radically different methods of allocating income among jurisdictions.

A formulary apportionment system would introduce new boundary problems between high-tax and low-tax activities. While the current separate-entity system creates incentives to shift reported profits among firms within a multinational corporation, formulary apportionment provides incentives to shift profits between multinationals and separately owned firms. For example, if physical assets help determine the location of a multinationals' profits, a firm might well have an incentive to contract its low-margin manufacturing activities in high-tax jurisdictions to independently owned firms instead of establishing a manufacturing subsidiary within the firm to reduce its share of capital assets allocated to high-tax countries.

Further, formulary apportionment could worsen the incentive to shift real activities to low-tax countries because intangible assets—a large share of value for many leading multinational companies—are part of a firm's total profits but are absent from the allocation formula. Intangible assets magnify the effects on the firm's tax liability of putting more real capital in low-tax countries. They increase the share of both the firm's return to real capital and its return to the intangible profits taxed at lower rates.

Some analysts and commentators favor sales- or destination-based allocation of corporate profits because firms are least likely to reduce sales in a jurisdiction simply to reduce tax liability. A problem with a sales-based allocation, however, is that multinationals can then avoid tax on the profits from their intangible assets by selling their products to independent distributors in low-tax countries, who would then resell them throughout the world. Although rules could be written to prevent such abuses, they would be cumbersome

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and hard to enforce. Most multinationals sell most of their output primarily to other companies in complex supply chains rather than directly to final consumers.

Further Reading

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Avi-Yonah, Reuven S., and Kimberly A. Clausing. 2007. "[Reforming Corporate Taxation in a Global Economy: A Proposal to Adopt Formulary Apportionment.](#)" Discussion paper. Washington, DC: The Hamilton Project.

Devereux, Michael. 2016. "[Residual Profit Allocation Proposal.](#)" Presentation at Urban-Brookings Tax Policy Center conference "A Corporate Tax for the 21st Century," Washington, DC, July 14.

Graetz, Michael, and Rachael Doud. 2013. "[Technological Innovation, International Competition, and the Challenges of International Income Taxation.](#)" *Columbia Law Review* 113 (3): 347–446.