



BORDER ADJUSTMENT TAX: WHAT WE KNOW (NOT MUCH) AND WHAT WE DON'T (ALL THE REST)

BY JASON J. FICHTNER, VERONIQUE DE RUGY, AND ADAM N. MICHEL

February 2017

The US system for corporate taxation is likely to see major reform in the coming years. Perhaps the most dramatic departure from the current income-based system is a proposal in the House Republican Tax Reform Task Force Blueprint.¹ The Blueprint proposes a type of border-adjusted tax called a destination-based cash flow tax (DBCFT) as a full replacement to the current corporate income tax. The economics of this new tax proposal are poorly understood, and it presents unnecessary risks to the US economy.

The proposed cash flow tax allows businesses to immediately deduct all expenses from revenue, including capital investments and labor.² To keep the US tax from being levied on consumption in other countries, the tax is “border adjusted,” or removed from exports and added to imports. In effect, this means imports are taxed and exports receive a form of tax subsidy. Many proponents believe that this system is more efficient than an income tax as it is a less economically distortionary form of consumption tax, similar to a European-style value-added tax. However, the deduction of labor costs significantly narrows the tax base and may change the incidence of the tax, with the result that the tax actually does not fall completely on consumption.³

The efficiency claims of proponents rely on several key assumptions that are required for the tax to be non-distortionary. Mainly, the border adjustment must be implemented completely,

1. Office of the Speaker of the House, “Tax Reform Task Force Blueprint—A Better Way: Our Vision for a Confident America,” June 24, 2016.

2. Under the current corporate income tax, most depreciable assets are not fully deducted, but depreciated over their useful life, creating economic distortions. See Jason J. Fichtner and Adam N. Michel, “Options for Corporate Capital Cost Recovery: Tax Rates and Depreciation” (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, January 2015).

3. For a discussion of this point, see John H. Cochrane, “Corporate Tax (or Is It?) Reading List,” *Grumpy Economist*, February 1, 2017.

For more information, contact

Trevor Carlsen, Outreach Associate, 703-993-7729, tcarlsen@mercatus.gmu.edu
Mercatus Center at George Mason University, 3434 Washington Blvd., 4th Floor, Arlington, VA 22201

and international currency markets must fully adjust. For example, the US dollar would need to appreciate by 25 percent to offset a proposed 20 percent import tax and export subsidy.⁴

The academic and policy debate on DBCFTs is generally fragmented, overly confident, and lacking in evidence, as there are no real-world examples of a destination-based cash flow tax.⁵ In this paper, we explore just a few of the most pressing questions that threaten to undermine the theoretical benefits of such a reform. Given the uncertainty and large downside risk to a DBCFT, we conclude that the proposal is not yet ready to be implemented and policymakers should focus on more traditional and straightforward reforms.

There is additional concern that the proposed reforms, as currently understood, would not meet the trade neutrality standards of the WTO.⁶ This brief will not review these issues of international law, but if the WTO determines that a DBCFT is not allowed, sanctions could cause the United States to turn the destination tax into a European-style value-added tax (VAT), which could be achieved by simply denying the business deduction for labor. Denying the deduction for labor would create untold complications and harm workers, since labor income already pays individual income and payroll taxes.

TAX COMPETITION AND THE GROWTH OF GOVERNMENT

By taxing business activity based on destination, the DBCFT undermines domestic pressure from traditional international tax competition, which aims to attract economic activity by reducing the rate at which profits are taxed. The DBCFT threatens to undermine the tax competition that has contributed to the precipitous decline in global corporate tax rates over the past three decades.⁷

Standard principles of sound tax policy can inform policymakers on “what” to tax, but they shed little light on the question of “who” should do the taxing.⁸ The standard tax policy principles of simplicity, equity, efficiency, permanency, and predictability, carried to their theoretical ideal, result in uniform international taxation. However, to the extent that small, local political units are more responsive and efficient, tax rules should be set at the national or subnational level and should strive to maintain competitive pressures between jurisdictions.⁹

4. See description by Kyle Pomerleau, “Exchange Rates and the Border Adjustment,” Tax Foundation, December 15, 2016.

5. “Experiences with Cash-Flow Taxation and Prospects” (Taxation Paper No. 55, European Commission, May 2015).

6. Scott Lincicome, “Will House Republicans’ ‘Border Adjustable’ Tax Plan Cause a Trade War? (Spoiler: Maybe Not!)” (Cato at Liberty, Cato Institute, Washington, DC, January 23, 2017); Gary Clyde Hufbauer and Zhiyao (Lucy) Lu, “Border Tax Adjustments: Assessing Risks and Rewards” (Policy Brief No. PB17-3, Peterson Institute for International Economics, Washington, DC, January 2017).

7. The United States has largely been the exception, but global competition has necessitated US deferral of foreign gains to mitigate the economic harm of the United States’ worldwide tax system, and competition is now driving reform of the corporate income tax.

8. Geoffrey Brennan and James Buchanan, “Normative Tax Theory for a Federal Polity: Some Public Choice Preliminaries,” in *Tax Assignment in Federal Countries*, ed. Charles E. McLure (Canberra, Australia: Center for Research on Federal Financial Relations, Australian National University, 1983), 52–69.

9. Jason J. Fichtner and Adam N. Michel, “The OECD’s Conquest of the United States: Understanding the Costs and Consequences of the BEPS Project and Tax Harmonization” (Mercatus Research, Mercatus Center at George Mason University, Arlington, VA, March 2016).

If the system of border adjustment and currency revaluation works as proponents suggest—by removing the incentive to relocate business activity elsewhere—the DBCFT would be an irresistible source of additional tax revenue for future policymakers.¹⁰ The DBCFT increases the corporate tax base, and thus revenue, by more comprehensively taxing domestic business activity. To the extent that the US tax base is perfectly protected from competing jurisdictions' lower tax rates, policymakers would be tempted to raise rates as an easy source of additional revenue.

Proponents say a DBCFT would simplify the tax code, grow the economy, create jobs, and increase revenue to pay for lower tax rates. As we discuss below, many of these benefits would likely not be realized. One of the most appealing features of the proposed border adjustment is its likeness to a territorial tax system. Thus, it is important to note that DBCFTs are certainly not the only way to eliminate our current worldwide tax regime.

The United States is one of just six OECD countries that attempt to tax the worldwide income of domestic corporations.¹¹ Moving to a territorial system where foreign-sourced income is exempt from US taxation would increase economic growth and improve tax simplicity and efficiency. Much like the border adjustment, taxing income where it is earned levels the playing field, so that operations in one jurisdiction are taxed at the same rate, regardless of parent ownership. A territorial tax system is a much-needed reform, but the traditional form is highly preferable to the DBCFT's quasi-territoriality.¹² Tax regimes with border adjustments that eliminate competitive pressures should be approached with an abundance of caution.

CURRENCY REVALUATION AND EFFICIENCY

The understanding of the proposed DBCFT's impact on global economies, exchange rates, and trade balances is purely theoretical. The policy and academic debates generally draw on case studies of VAT implementation or academic models. There is compelling evidence that in some circumstances, exchange rates would fully adjust, while other equally convincing research casts doubt on some of the more optimistic claims of a full exchange rate offset.

Simple models of a DBCFT or VAT assume the tax does not change the domestic savings-to-investment balance, which in turn means the trade balance cannot change. Using this assumption, the US dollar must, as a matter of simple math, appreciate to maintain the necessary trade balance. The dollar appreciation would offset the potential distortion of levying a tax on imports and subsidizing exports.¹³

10. To the extent that intangibles and financial transactions are still subject to tax planning, some competitive pressures may remain. Citi Research, "Border Tax Adjustments Are Not Benign," January 13, 2017.

11. Firms are allowed to defer paying taxes on "active" foreign income that has not yet been repatriated.

12. For a description of how the two systems differ, see Kyle Pomerleau, "A Destination-Based Business Tax Isn't Exactly the Same as a Territorial Business Tax," Tax Foundation, November 23, 2016.

13. For the most commonly cited examples of these models, see Martin Feldstein and Paul Krugman, "International Trade Effects of Value-Added Taxation," in *Taxation in the Global Economy*, ed. Assaf Razin and Joel Slemrod (Chicago: University of Chicago Press, 1990), 263–82; Alan Auerbach and Michael Devereux, "Cash Flow Taxes in an International Setting" (Said Business School RP 2015-3, University of Oxford, Oxford, UK, February 2015); Alan Auerbach, "The Future of Fundamental Tax Reform," *American Economic Review* 87, no. 2 (1997): 143–46.

There is some limited evidence from changes in export incentives and VAT taxes to support the view that exchange rates fully—and in some cases instantaneously—adjust. There is credible evidence that anticipated changes in the likelihood of the repeal of a US tax incentive for exports were associated with depreciation of the dollar, as standard theory would predict.¹⁴ There is also evidence that implementing a VAT in Eurozone countries did improve trade balances in the short run. However, as theory predicts, the effects disappear in the long run as currencies adjust to the change.¹⁵

However, the preponderance of evidence seems to show that currencies don't adjust as theory would predict. Two academic analyses show that VATs do alter international trade by reducing trade volumes, contrary to standard economic models that predict no effect on trade flows.¹⁶ Real-world imperfections in the design and implementation of VATs, such as imperfect border adjustments, are likely to fall more directly on traded goods over others. In a higher-level analysis, Rogoff explains “the extent to which monetary models (or indeed, *any* existing structural models of exchange rates) fail to explain even medium-term volatility is difficult to overstate.”¹⁷ The economics profession's understanding of exchange rates is so “mediocre” that our models fail to outperform random walk models—a model that assumes we can't predict the future.¹⁸

Since the DBCFT was proposed, many private-sector analyses have supported the academic literature that finds currencies do not always fully adjust. Morgan Stanley research expects that a DBCFT would have a significant impact on foreign exchange markets. It concludes that the dollar could appreciate by 10 to 15 percent, but that real-world frictions and uncertainty around WTO eligibility would keep exchange rates from fully adjusting.¹⁹ Citigroup research projects a 14.6 percent rise in the real effective exchange rate three years after DBCFT implementation, finding that “slow real exchange rate adjustments are the historical norm.”²⁰

Proponents who claim that DBCFTs do not effect domestic savings-to-investment decisions are at odds with others who describe the proposal as a consumption tax. To the extent that a cash flow tax falls on final consumption, it will increase saving (by making current consumption more expensive), which will change the savings-to-investment balance. This changes the trade balance and consequently keeps the exchange rate from fully adjusting.²¹

14. Mihir A. Desai and James R. Hines Jr., “Exchange Rates and Tax-Based Export Promotion” (NBER Working Paper No. 8121, National Bureau of Economic Research, Cambridge, MA, February 2001).

15. Ruud de Mooij and Michael Keen, “‘Fiscal Devaluation’ and Fiscal Consolidation: The VAT in Troubled Times” (NBER Working Paper No. 17913, National Bureau of Economic Research, Cambridge, MA, March 2012).

16. Mihir A. Desai and James R. Hines Jr., “Value-Added Taxes and International Trade: The Evidence” (unpublished working paper, January 2005); Michael Nicholson, “Value-Added Taxes and US Trade Competitiveness” (Working Paper 186, Forum for Research in Empirical International Trade, July 2010).

17. Kenneth Rogoff, “Perspectives on Exchange Rate Volatility,” in *International Capital Flows* (Chicago: University of Chicago Press, 1999), 444.

18. For a great literature review on this topic, see appendix B in Hufbauer and Lu, “Border Tax Adjustments.”

19. Morgan Stanley, “Border Adjustability: How US Tax Reform Could Be a Boon for USD,” December 19, 2016.

20. Citi Research, “Border Tax Adjustments Are Not Benign”; Goldman Sachs' analysis also concludes that a partial dollar appreciation appears more likely. Goldman Sachs, “US Daily: What Would the Transition to Destination-Based Taxation Look Like?,” December 8, 2016.

21. This discussion draws heavily on Hufbauer and Lu, “Border Tax Adjustments.”

Depending on the assumptions and historical examples, reasonable people can disagree about the question: Would exchange rates fully adjust to offset border adjustments? However, it seems clear that this type of border adjustable tax plan is an economic gamble. We cannot know in practice if any resulting exchange rate revaluation would uniformly adjust across the world or how more closely managed currencies would react. If exchange rates don't immediately fully adjust, then at a 20 percent corporate tax rate, the United States could be creating a 25 percent tax wedge between domestic and foreign prices—dramatically increasing the prices of US consumer goods.²² If the resulting distortions are passed on as price increases on imported consumer goods, this tax change could be very regressive, with the increased tax burden falling more heavily on lower-income Americans.²³ Even under a full currency adjustment, with no effect on trade flows, the adjustment itself could be a great source of wealth loss for some and windfall gains for others. This policy-caused disruption would ultimately have unknowable distributional effects on individuals and businesses through revaluation of global investments.²⁴

NEGATIVE TAX LIABILITY AND INCENTIVES TO MERGE

Assuming the exchange rate fully adjusts, avoiding distortionary trade effects also depends on completely removing the tax on exports at the border.²⁵ If exports included the cost of the domestic tax, domestic producers selling abroad would face a significant tax disadvantage, especially if their supply chain included imports.

Most models of border adjustments assume that a net exporter receives an actual check from the Treasury Department to compensate for domestic taxes paid on net exported goods. However, a direct cash rebate is likely politically untenable.²⁶ The Blueprint's DBCFT instead allows inflation-adjusted carryforward of net operating losses (NOLs).²⁷ In theory, this acts as a direct subsidy. But in reality, a subset of businesses that predominately produce domestically and sell in foreign markets would never have a positive tax liability that their NOLs could apply to. Two Treasury Department economists estimated that 10 percent of firms with \$1 billion or more in total income would have a persistent negative tax liability over a 10-year period.²⁸ Another mechanism to more fully implement the refundability of losses is to allow refunds

22. See Goldman Sachs' more complete analysis of industry-specific price changes under no currency fluctuation.

Goldman Sachs, "What Would the Transition to Destination-Based Taxation Look Like?"

23. Hufbauer and Lu, "Border Tax Adjustments."

24. Marie Sapirie, "News Analysis: Border Adjustments versus Tariffs under Trump," *Tax Notes*, Tax Analysts, January 23, 2017; Stan Veuger, "How Border Adjustment Reduces the Value of Your Scottish Golf Course" (AEIdeas, American Enterprise Institute, Washington, DC, January 10, 2017).

25. Feldstein and Krugman, "International Trade Effects of Value-Added Taxation."

26. Under this system, large exporters (such as Boeing or GE) could conceivably have negative tax liabilities and instead of the firms paying taxes, the Treasury Department would pay the firms. This appearance of corporations receiving rebate checks from the government seems politically untenable.

27. Office of the Speaker of the House, "Tax Reform Task Force Blueprint."

28. The authors use a panel of tax returns over the 2004–2013 period to compare an income tax base and a cash flow tax base. The dataset included the Great Recession; thus the underlying data has more firms in loss than may be typical. Elena Patel and John McClelland, "What Would a Cash Flow Tax Look Like for US Companies? Lessons from a Historical Panel" (Office of Tax Analysis Working Paper 116, Department of the Treasury, January 2017).

against payroll tax liability.²⁹ This could reduce the 10 percent of firms with unused losses, but it would not eliminate them.³⁰

However tax losses are refunded, if refundability is not perfect, then firms with a consistent negative tax liability resulting in unusable credits will have an incentive to merge with those that have a positive tax liability and can apply the NOLs. By one estimate, about \$260 billion worth of credits would be unusable over a 10-year period—this is a large economic incentive for business restructuring.³¹ Some of this problem could be mitigated through a system that allowed the sale NOLs, but the design and implementation would need to carefully consider the administrative burden and additional newly created incentives.³² Business organization, production chains, and location are best determined by market price signals, not changes in tax policy. Tax-motivated business decisions create economic inefficiencies and force firms to allocate resources away from productive activities and toward tax planning and compliance.

PROFIT SHIFTING: FINANCIAL TRANSACTIONS AND INTANGIBLES

Proponents claim that a DBCFT will almost completely stop traditional profit shifting by eliminating the incentive to move real or fictitious activity to lower-tax jurisdictions. This is a significant benefit of the proposal, as the current US system of worldwide taxation, paired with complicated transfer pricing rules, is easily gamed and inefficient.³³ However, the proposed replacement has two features that could provide new mechanisms for profit shifting and new types of complexity that should be considered.

Academic DBCFTs follow the “real-plus-financial” approach, include all cash inflows in the tax base, and deduct all cash outflows. Real-world border adjustments, including most VATs, exclude financial flows (the “real” approach). The real-plus-financial approach has the academic advantage of not needing to distinguish financial from other business cash flows.³⁴ Designing the actual rules to operationalize the treatment of financial flows is complicated and requires significant additional research and analysis.

David Hariton discusses the various design features a DBCFT could implement by asking: “What happens when Corporation A invests \$100x in a financial asset, such as a bond?” The

29. Alan Auerbach and Douglas Holtz-Eakin, “The Role of Border Adjustments in International Taxation” (Research, American Action Forum, Washington, DC, November 2016).

30. Patel and McClelland, “What Would a Cash Flow Tax Look Like for US Companies?”

31. Alex Brill, “Border Adjustment Tax: \$260 Billion More than You Thought” (AEIdeas, American Enterprise Institute, Washington, DC, January 30, 2017); Patel and McClelland, “What Would a Cash Flow Tax Look Like for US Companies?”

32. See the discussion under the section titled “The Larger Question” in David P. Hariton, “Financial Transactions and the Border-Adjusted Cash Flow Tax,” *Tax Analysts*, January 11, 2017.

33. The current international corporate income tax system sources income to the jurisdictions in which it is earned, requiring multijurisdictional firms to create separate legal entities in each country. In order to maintain the integrity of each legal entity, any transfer of assets from one country to another must be documented as if the two entities were separate firms. The asset prices recorded on each firm’s ledger are governed by “transfer pricing” rules, which are largely thought to be ineffective. See Fichtner and Michel, “The OECD’s Conquest of the United States.”

34. Martin A. Sullivan, “Border Adjustments Key to GOP Blueprint’s Cash Flow Tax,” *Tax Notes*, *Tax Analysts*, July 18, 2016.

first option is that nothing happens. In a true consumption tax base, financial transactions should be excluded. A second option is to treat these assets like any others, deduct the cost at purchase, and include the sale price in revenue. Hariton concludes that both of these options are unlikely because of significant tax planning flaws when embedded in the rest of the US tax code. The third option would require two separate sets of rules for financial and business transactions, necessitating the difficult task of drawing a “detailed and coherent line” between the two.³⁵

The development of rules to distinguish financial and business cash flows will be complicated, dense, and likely no more effective than our current system of global transfer pricing rules. The rules would likely be easily gamed, add additional administrative complexity, increase firm incentives to invest in tax planning over value creation, and provide opportunities for inefficient tax planning.³⁶

A recent analysis argues that tax proposals in the Blueprint would not completely stop the incentive for US corporations to shift income overseas. The intangible assets of any business are difficult to appropriately capture under any tax system. A destination tax would not make it any easier to determine the final location of sale of a cloud-based digital service, for example.³⁷

Designing appropriate rules around financial transactions, however imperfect, and sourcing intangibles to their appropriate destination may be an improvement over the current system of the corporate income tax. The discussion above should serve just to remind reformers that there is no silver bullet to do away with all tax-planning-motivated profit shifting.

OPACITY AND CRONYISM

The DBCFT, specifically the border tax adjustment and currency revaluation, is difficult for experts to explain and analyze, and the general public’s understanding is even lower. This complexity allows lobbyists and special interests to exploit the system by adding loopholes, exemptions, and special rates to their favor. This is particularly worrying in the context of the uncertain effects on exchange rates, price levels, profit margins, and trade flow. Any perceived “loser” under the new system could easily make the case for selectively higher import taxes on international competitors or for selectively manipulating the border adjustment in some other way.

There are still other unanswered questions after our review of the literature. For example, if the US moves to a DBCFT, how would the individual states respond? States could continue

35. Hariton, “Financial Transactions and the Border-Adjusted Cash Flow Tax.”

36. See *ibid.* for Hariton’s discussion of what he describes as the “idiosyncratic fact patterns” that will make defending this revised tax base from tax planning difficult.

37. Avi-Yonah and Clausing explain that they “are doubtful that the line between US and foreign markets can be drawn precisely where services and intangibles are concerned, where there can be no enforcement of the tax at the border. Even a normal (invoice credit) VAT has issues where imports of services and intangibles are concerned, since it is difficult to collect the tax from consumers who are not eligible for deductions or input credits.” For detailed examples of this phenomenon, see Reuven S. Avi-Yonah and Kimberly A. Clausing, “Problems with Destination-Based Corporate Taxes and the Ryan Blueprint” (University of Michigan Law & Economics Research Paper No. 16-029, University of Michigan, Ann Arbor, MI, February 2017).

with their current structure for taxing corporate income, they could lower rates, or they could move to a different system altogether. A worst-case scenario would be that some states keep a parallel corporate income tax system while others do something different, adding further complexity to the tax system.

Further, how would businesses react to this entirely new form of taxation? Pass-through entities would still be subject to the individual income tax, which would create new incentives for corporate reorganization. To what extent would there be major restructuring of business operations? Would existing supply chains be disrupted? Would firms be put out of business because of the potential DBCFT tax wedge between domestic and exported sales? How would state-level variation in the DBCFT rate effect currency markets and trade flow? All of these questions are left unanswered but have major implications for the US economy.

CONCLUSION

A DBCFT would be a new and novel way to tax corporate income. Proponents are overstating the positive effects of a DBCFT based on ambiguous results in the research literature while understating some likely negative distortions caused by the changes. In addition, there are many unanswered questions about the effects of a DBCFT that must be better understood before this reform is enacted.

In the context of the current political environment and the debate over reform of the US corporate income tax system, this type of border-adjusted tax plan is an unnecessary gamble. It is unclear whether any resulting exchange rate adjustment would uniformly adjust across the world and how currencies would adjust for those that are more closely managed by particular governments. If exchange rates don't fully adjust immediately, then, at a 20 percent US corporate tax rate, a 25 percent tax wedge would be created between domestic and foreign prices. US consumers will likely not be pleased if prices dramatically increase. Further, for many major US corporations that heavily import products, a border-adjustment tax as described in the Blueprint would massively expand their tax base and possibly drown out any benefit from a lower corporate tax rate.

ABOUT THE AUTHORS

Jason J. Fichtner is a senior research fellow at the Mercatus Center at George Mason University. He has served as chief economist at the Social Security Administration and as senior economist with the Joint Economic Committee of the US Congress. He earned his PhD in public administration and policy from Virginia Tech.

Veronique de Rugy is a senior research fellow at the Mercatus Center. She received her MA in economics from the Paris Dauphine University and her PhD in economics from the Pantheon-Sorbonne University.

Adam N. Michel is the program manager for the Spending and Budget Initiative at the Mercatus Center. He received his MA in economics from George Mason University and his BA in politics from Whitman College.

ABOUT THE MERCATUS CENTER

The Mercatus Center at George Mason University is the world's premier university source for market-oriented ideas—bridging the gap between academic ideas and real-world problems.

A university-based research center, Mercatus advances knowledge about how markets work to improve people's lives by training graduate students, conducting research, and applying economics to offer solutions to society's most pressing problems.

Our mission is to generate knowledge and understanding of the institutions that affect the freedom to prosper and to find sustainable solutions that overcome the barriers preventing individuals from living free, prosperous, and peaceful lives.

Founded in 1980, the Mercatus Center is located on George Mason University's Arlington and Fairfax campuses.
www.mercatus.org