

## Destination-Based Cash Flow Taxation<sup>1</sup>

Michael P. Devereux  
Oxford University Centre for Business Taxation  
European Tax Policy Forum

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**Michael Devereux** is Professor of Business Taxation at Oxford University and Director of the Oxford University Centre for Business Taxation. He is also Research Director of the European Tax Policy Forum and Honorary President of the International Institute of Public Finance. Previously he held professorships at the University of Warwick and the University of Keele. He received his Ph.D. in economics from University College London.

### Summary

This paper summarises the concept and properties of a destination-based cash-flow tax (DBCFT).<sup>2</sup> In principle, a DBCFT has several highly attractive properties: it does not distort the scale and location of investment, assures neutral treatment of debt and equity as sources of finance, is robust against avoidance through inter-company transactions, and provides long term stability due to its incentive compatibility and its resistance to tax competition amongst states. A DBCFT thus addresses many of the ailments afflicting current tax systems in both domestic and international settings.

A DBCFT does raise a number of significant implementation issues - both administrative and legal - and requires substantial changes, both conceptually and in application, from current practice in corporate taxation. Neither of its two principal design features, a cash flow tax base and taxation on a destination basis, are common amongst existing corporation taxes.

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<sup>1</sup> This paper draws heavily on a more extensive discussion of a DBCFT by Auerbach, Devereux, Keen and Vella (2017). I am grateful to my co-authors on that paper for many helpful discussions about the DBCFT.

<sup>2</sup> For earlier discussions of a DBCFT, see Bond and Devereux (2002), President's Advisory Panel on Federal Tax Reform (2005), Devereux and Birch Sorensen (2006), European Economic Advisory Group (2007), Auerbach, Devereux and Simpson (2010), Auerbach (2010), Devereux (2012) and Auerbach and Devereux (2017). See also Wei (2016) and Weisbach (2017).

## I What is a DBCFT?

A DBCFT has two distinct attributes: a cash-flow tax base and a destination basis. A destination basis could be applied to a variety of tax bases, and arguments for cash-flow taxation originally arose in a purely domestic setting. But there are advantages to combining the destination basis and the cash-flow tax base. This section sets out the key properties of each of these two elements.

### *Cash flow taxation*

A cash flow tax applies to net receipts arising in a business. The most significant difference from most existing corporate tax systems is in the timing of the inclusion of receipts and expenses in the base. In particular, capital assets that are typically depreciated over time would be immediately expensed. This introduces a significant difference between the cash-flow tax base and measures of profit in financial statements.

In the terminology of the Meade Committee (1978), a cash-flow tax could be levied on a company on an R (real) base or an R+F (real plus financial) base. Under the R base, transactions involving financial assets and liabilities are ignored. The R base is thus the difference between real inflows (from the sale of products, services and real assets) and real outflows (from the purchase of materials, products, services – including labour – and real assets). By contrast, the R+F base would also include net financial inflows, including borrowing and the receipt of interest, net of lending, repaying borrowing and interest payments.

The properties of the cash flow tax in a single economy are well-known. The key is that a tax applied at the same rate on all cash flows is equivalent to a tax applied to the net present value (NPV) of an investment, and therefore falls only on economic rent. As long as the rate is between zero and 100%, the post-tax NPV of an investment has the same sign as the pre-tax NPV. In this case, any investment worth undertaking in the absence of tax remains worth undertaking in the presence of tax, and vice versa. Hence the investment decision is independent of a tax on economic rent.

Cash flows taxes are also neutral with respect to financial decision-making. Existing taxes on corporate profit generally give favourable treatment to debt finance over equity finance. This distorts the choice of financing leading to leverage ratios that are higher than they would otherwise be.<sup>3</sup> This is a significant concern: socially excessive

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<sup>3</sup> For a survey on the impact of the tax incentive to use debt, see Graham (2003).

levels of debt, especially in the financial sector, are widely seen as having played a central role in triggering and deepening the financial crisis of 2008. By contrast, cash flow taxes, either with an R or an R+F base, do not distort the choice between debt and equity. This is easily seen in the case of an R base, since all financial flows are simply ignored, be they associated with debt or equity. But the same applies to the R+F base.<sup>4</sup>

However, there are caveats to the neutrality of a cash flow tax. One is that it is not neutral if the tax rate is expected to change over time. A second is if managers with a short term horizon seek to maximize current profit as recorded in financial statements, this may not be consistent with maximizing the value of the business. Again a cash flow tax would then not be neutral. But a more important caveat is that even a cash flow tax may distort the choice between mutually exclusive projects which face different tax rates. The classic case in which this is a factor is in location choices between countries, as we discuss next.

### ***Destination basis***

The international setting introduces the second dimension of a DBCFT, relating to how a country determines the component of a multinational's tax base falling within its jurisdiction. The principle of a DBCFT is that it would be based on sales of goods and services in the country less expenses incurred in the country: so receipts from exports are not included in taxable revenues and imports are taxed. This 'border adjustment' is essentially the same treatment as under VAT.

The only difference in principle between a DBCFT and a VAT is in the treatment of labour costs. The DBCFT is intended to tax profit (or, more precisely, economic rent), and so gives relief for labour costs. The VAT taxes value added; this is equivalent to the sum of economic rent and the amount paid to labour, and so VAT does not give relief for labour costs. It follows that introducing a VAT (or increasing its rate),<sup>5</sup> and

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<sup>4</sup> These economic effects can also be achieved by giving relief for the cost of depreciation of assets, instead of an immediate write-off, and in addition giving relief for the cost of finance. The IFS Capital Taxes Group (1991) showed, it is possible for a tax to fall on economic rent with any schedule of depreciation allowances, as long as an "Allowance for Corporate Equity" (ACE) is based on the difference between the initial cost of the asset and its tax-depreciated value. The equivalence of expensing and a rate of return allowance was first shown by Boadway and Bruce (1984). Kleinbard (2007) proposes a related form of cost of capital allowance. Bond and Devereux (1995, 2003) analyse the properties of various such rate of return allowances in the presence of risk. An ACE has been implemented in several countries, for example, in Austria, Belgium, Brazil, Croatia, and Italy. Experience with the ACE is reviewed in de Mooij (2011); see also Zangari (2014) and IMF (2016).

<sup>5</sup> Having in mind here an idealized VAT, levied at a single rate on a broad base.

reducing labour income taxes at the same rate would have equivalent economic effects to those of the DBCFT.

Like under a VAT, it is the location of the final consumer upon which the impact of the DBCFT ultimately turns. Sales to other businesses effectively attract no tax under the DBCFT, either (if the sale is domestic) because they generate a deduction for the purchaser or (if exported) because they are untaxed. A DBCFT builds on the intuition that taxing companies on the basis of something that is relatively immobile - which, by and large, consumers are - both results in neutrality with respect to location decisions and limits the scope for the gaming that has caused such difficulties within the current international tax framework. We discuss both of these issues below.

A key element for understanding both the incentive effects and effective incidence of a DBCFT is the role played by the VAT-type “border adjustments” - i.e. that exports would not be subject to the tax, but imports would be subject to the tax. To understand these, let us start from the case in which there are no taxes on multinational profit in one country, call it country A. To fix ideas, let us also assume that country A has a fixed exchange rate with the rest of the world. We will relax these assumptions below. Now consider the introduction of a DBCFT in country A.

A DBCFT would give full relief for all costs incurred in country A. For exporters, the relief for local costs represents in effect a form of export subsidy; costs are lower than in the absence of the tax. The “border adjustment” of not taxing exports would therefore make exports cheaper on the world market; this would create a stimulus to exports. By contrast, the domestic cost of imports would increase with the tax on imports; this would discourage imports. With a fixed exchange rate, and sticky wages, both effects would induce a stimulus to domestic activity.<sup>6</sup> In the short run, this would generate a stimulus to domestic production relative to foreign production.

Over the longer run, however, we would expect prices to adjust. Expansion of domestic production would lead to an increase in the demand for labour. This would push up the wage rate, and in consequence, push up the price of domestically produced goods and services. The effect of this rise in prices and wages would be to begin to raise again the price of exports on the world market, and to raise the price of domestically-produced goods relative to imports. When domestic prices and wages

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<sup>6</sup> This corresponds to the well-known effect of such border adjustments having the same impact as a currency devaluation - that is, in making exports cheaper to non-domestic consumers, and imports more expensive for domestic consumers, as was first pointed out by Keynes (1931).

had risen far enough, the initial real equilibrium would be re-established.<sup>7</sup> In the long run, there would be no overall impact on trade, due to the price adjustments.

If instead the country had a flexible exchange rate, the long-run effect would occur naturally – and much more quickly, quite possibly immediately – through an appreciation of the exchange rate,<sup>8</sup> which would raise the (domestic currency) price of exports in the world market and reduce the price of imports. This would not require adjustment to the nominal price level in the domestic country.<sup>9</sup> In effect, the impact of the tax would immediately be offset by an appreciation of the currency; these would cancel out, leaving trade, and decisions as to the location of investment, unaffected.

This claim about exchange rate effects is an application of the Lerner Symmetry Theorem (Lerner, 1936). Recently, Costinot and Werning (2017) have spelt out the relatively mild conditions under which this will hold. There is very little empirical evidence on the impact of introducing border tax adjustments on exchange rates. There are, however, signs of effects along the lines described in the work of de Mooij and Keen (2013) on ‘fiscal devaluations.’ These are tax changes that combine an increase in VAT and a reduction in social contributions on labour – a reform very similar to introducing a DBCFT. Looking at 30 OECD countries between 1965 and 2009, there is a marked short-term boost to net exports within the Eurozone countries. Outside the Eurozone, however, there is no effect – suggesting that adjustment to what resembles a DBCFT comes very quickly when the exchange rate is allowed to react. Where the exchange rate is fixed, recent evidence that increases in the standard rate of VAT are fully passed on to consumers fairly quickly – in about 6 months<sup>10</sup>— suggesting that it is rigidity in nominal wages that is most likely to account for extended adjustment periods.

In either case, the tax has no long-run impact on the real wage rate. Consequently the tax would not be borne by workers. Instead, it would fall on consumption out of income other than wages and salaries. We discuss this point further below.

The claim so far is that the introduction of a DBCFT in itself would have no impact on trade or investment. But what about replacing an existing corporation tax with a

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<sup>7</sup> See Auerbach and Devereux (2017).

<sup>8</sup> With some effect in advance if the change is pre-announced.

<sup>9</sup> These effects on the price level, either through changes in nominal prices or through the exchange rate, would also occur with the introduction of a VAT, or an increase in the rate of VAT. However, in the case of VAT, since wages are not deductible, they would fall relative to prices, leaving workers worse off.

<sup>10</sup> Benedek et al (2015).

DBCFT? An existing corporation tax is based – very broadly – on where economic activity takes place, and not (necessarily) where sales are made to third parties. As such, differences in tax rates between countries distort the location of production – which in turn is what drives tax competition between countries. Replacing the conventional tax with a DBCFT could be seen as an aggressive move in a tax competition game between countries – its sets source- and residence-based taxes to zero and makes the country which adopts a DBCFT an attractive place in which to undertake economic activity. As such, it will generally stimulate domestic economic activity.<sup>11</sup>

What of the impact on revenue? For countries running a trade deficit – imports exceeding exports – a shift to a destination basis will increase tax revenue. In the long run, however, if trade is balanced and the tax rate is expected to remain unchanged, the revenue impact of the border adjustment in present value terms will be zero, except to the extent of net imbalances prior to enactment.

## **II Evaluating a DBCFT**

A DBCFT can be evaluated in two cases: where it is adopted by all countries, although not necessarily at the same rate, and where it is adopted by just one country (or a small group). The main discussion here relates to the former, but the latter is critical for whether individual countries might find it in their own interest to adopt a DBCFT, and is also important for its stability; for example, whether countries that have already adopted it likely to undermine it through competition.

This section considers four criteria based on economic principles: economic efficiency, robustness to avoidance and evasion, fairness and stability. By stability we mean that there is an incentive for a country to adopt a system, whether or not other countries adopt it, and that there would also be no incentive for a country to compete with others by changing the basic system or by cutting the tax rate. The next section addresses issues of implementation.

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<sup>11</sup> Under some conditions such a switch would have no impact; this has been extensively studied in the VAT literature – see, for example, Lockwood (2001). But the conditions are demanding. A uniform tax rate must apply to all sectors, and there needs to be perfect competition and factor immobility. These conditions do not generally hold.

## ***Universal adoption***

### *a. Economic efficiency*

In principle, a DBCFT has remarkable properties in terms of economic efficiency. In particular, if introduced in all countries, a DBCFT should not distort the scale or location of investment, nor forms of financing choices. We have already outlined these issues above.<sup>12</sup>

### *b. Robustness to avoidance and evasion*

No tax system is perfectly robust to avoidance and evasion. However, when adopted universally a DBCFT would close the most significant avoidance channels found under existing tax systems: it does away, in particular, with many of the problems currently besetting the taxation of multinationals, cutting through the swathe of issues taken on in the G20-OECD project on Base Erosion and Profit Shifting (BEPS). This is a major strength of a DBCFT.

In particular, when adopted in all countries, a DBCFT eliminates the shifting of profits to low-tax countries through the three most important current channels: lending from a low-tax country to a high-tax country, locating intangible assets that earn a royalty or license payment in a low tax country, and manipulating transfer prices.

Under an R-based cash flow tax, there is no tax relief for interest payments and there is no tax on interest received. So the debt-shifting channel simply would not exist. As set out in Auerbach et al (2017), this channel would not exist under the R+F base either.

Profit shifting through the manipulation of intra-group prices is also precluded by a DBCFT. It is well known that under the existing system there is an incentive to manipulate transfer prices, as the value of a trade is taxed in the exporting country and deducted in the importing country. If the tax rate is higher in the exporting country, there is an incentive to understate the true price of the good, and vice versa. But under a DBCFT, there is no tax on the export. The importer does face a tax, but as an input into its activity, the cost of the good is also deductible.<sup>13</sup> These two effects exactly cancel out, implying that an import by a business is not subject to tax either, and making the value of the trade irrelevant for tax purposes.

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<sup>12</sup> A much fuller discussion is available in Auerbach et al (2017).

<sup>13</sup> An “import” could be defined as a good or service sold by an entity not subject to the domestic DBCFT. As a result, imports by business could be simply ignored under the DBCFT.

A third common strategy for profit shifting under the existing system is to place highly valuable intangibles in low tax jurisdictions. Other companies within the multinational group that are located in high tax countries may then pay royalties or license fees to the company that owned the intangible asset in return for their use. These payments receive tax relief at the high rate of tax and are liable to tax on the receipt at the low rate of tax. Again, this would not happen under a DBCFT. The purchase or sale of the right to make use of the intangible asset would naturally be treated in the same way as the purchase or sale of a good. As such, it is not taxed in the exporting country (where the intangible asset is owned). In the importing country it is in principle both taxed and deducted, like any other import. The incentive to locate intangible assets in low tax jurisdictions would therefore be absent if all countries adopted a DBCFT.

Finally, the DBCFT puts considerably less pressure on the notion of corporate residence, though at the cost of introducing a different notion of nexus than exists in current tax treaties. The tax base is essentially domestic sales less domestic expenses. There is no requirement for corporate residence to identify either sales or expenses.

The DBCFT is not perfectly robust to avoidance and evasion. Certain forms of evasion commonly found in the VAT sphere, such as fraudulently disguising domestic sales as exports, can be expected. One possible shift away from taxation that remains under the DBCFT would be through cross-border shopping, if other nearby or accessible jurisdictions impose tax at a zero or lower rate.<sup>14</sup>

### *c. Fairness*

What ultimately matters for the fairness of any tax system is how it affects people. But how we tax corporations does have implications for the fairness with which the tax burden is shared, both within and across countries.

The effective incidence of a DBCFT – who bears the burden of this tax – was set out above. A DBCFT is economic equivalent to a tax on domestic consumption financed by resources *other than* wage and salary income. These resources have three components. First, in transition they will include returns to previous investments. Second, on an ongoing basis, economic rent: the return on investments in excess of that needed to cover the normal return to capital. Third, in the context of a fixed exchange rate, introducing a DBCFT would raise prices and wages. So the tax would be

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<sup>14</sup> This depends to some extent on how the place of the sale is defined. See the discussion in Devereux and de la Feria (2014).

borne by anyone financing expenditure from resources other than wages and salaries. This could include individuals in receipt of government transfer payments, such as pensions, unless these are indexed to rise with the rise in the general price level. In a country with a flexible exchange rate, nominal domestic prices would be unaffected, and the tax would then fall only on domestic shareholders consuming out of taxed profit.

This suggests that a DBCFT would be considerably more progressive than a broad-based VAT, which falls on all consumers. And it is likely also to be more progressive than a conventional corporate tax, which at least to some extent is passed on in higher prices to consumers, and in lower wages to workers.

A DBCFT would generate a different allocation of revenue between states than existing corporation taxes. The fairness of an allocation based on sales rather than the allocation of economic activity could be debated. But it should be noted that, with a border adjustment, total revenue depends on the country's balance of trade. That should be the focus of the debate, not the circumstances of any individual company.

Note that a DBCFT is not designed to capture a share of the value of natural resources, and so additional taxes would be needed for this purpose. Assuming that taxes on natural resources are unchanged, Auerbach et al (2017) estimate that few countries would see a reduction in their overall tax base from switching to a DBCFT. Only one low income country and four lower middle income countries would be in this position.

#### *d. Stability*

The existing tax system for taxing profit is destabilised by competitive forces which drive countries to cut their tax rates, or reduce liabilities in other ways. However, a DBCFT would not be subject to competitive forces of this kind, since reducing the tax rate of a DBCFT would not help attract inward investment, headquartering or business activity, nor would it be necessary to combat tax avoidance. States can thus set their DBCFT rates in accordance with their own preferences, without concern about the rates set by other states. By neutralizing these competitive forces, a DBCFT would provide long term stability in the tax system; this is one of its principle merits.

#### ***Unilateral adoption***

Suppose a DBCFT were introduced in one (large) country only, while all other countries maintained traditional corporation taxes. What would be the properties of

the tax in this case? The answer depends on the interaction of a DBCFT with the conventional taxes in other countries. As already noted, the introduction of a DBCFT would be an aggressive move in a tax competition game, effectively reducing the source and residence country tax rate to zero. Not surprisingly, that could have a very significant effect on incentives, aggravating existing differences between countries.

First, there would be an incentive for business to move its activities to the DBCFT country. The DBCFT itself would be neutral with respect to the location choice; but existing taxes are not neutral. A business could save itself tax in the place of production by shifting production to the DBCFT country.

Second, the unilateral adoption of a DBCFT would leave existing avoidance opportunities in place; and they would operate to the detriment of the rest of the world, not that of the DBCFT country. For example, a company exporting to the DBCFT country would have an incentive to underprice its product, and a company importing from the DBCFT country would have an incentive to overprice the import. To this extent, the DBCFT country would have similar effects to a tax haven. This could aggravate the problems of base erosion and profit shifting in countries that did not implement a DBCFT. This is a significant concern with unilateral adoption.<sup>15</sup>

The considerations of fairness are broadly the same as if the tax were introduced globally.<sup>16</sup>

### **III Implementation**

A starting point for considering implementation issues is that a DBCFT could be introduced as a reform to corporation tax, or as an increase in the rate of VAT and corresponding reduction in taxes on wages. Given space constraints, the discussion here focuses on a DBCFT as a reform to corporation tax.<sup>17</sup>

In either case, as already noted, the reform would eliminate the need for swathes of complex corporation tax legislation which burdens the current tax system and increases compliance costs on taxpayers and revenue authorities. For example, under

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<sup>15</sup> The quantitative impact of additional profit shifting opportunities on other countries is hard to gauge: multinationals already have many opportunities to shift profits to low rate jurisdictions.

<sup>16</sup> Auerbach and Devereux (2015) point out an advantage of a source-based cash flow tax, in that it allows a country to “export” the tax to non-resident owners of companies operating domestically. However, this is less likely to apply to a conventional source-based tax.

<sup>17</sup> Again, a much fuller discussion is available in Auerbach et al (2017).

the R-based cash flow tax, there is also no need for rules to police the border between debt and equity. A destination basis would eliminate the need for many existing anti-avoidance rules, including exit taxes, transfer pricing, Controlled Foreign Company, thin capitalisation and anti-inversion rules. These rules require constant updating to meet new planning strategies and their application is notoriously costly and burdensome. Their elimination thus provides significant benefits of simplification to both governments and businesses.

On the other hand, the DBCFT does raise some significant administrative challenges which are new to corporation taxes, but well known in VAT, to which we now turn.

#### *a. Scope*

The scope of taxes on business profits varies between countries. In most, corporation tax is applied to all incorporated businesses, although in the US, for example, ‘S corporations’ are subject to pass-through treatment. By contrast, VAT is normally applied to all businesses over a certain size threshold, almost always defined in terms of turnover. On balance, the best option may well be to follow the same approach as is standard under the VAT, and apply a DBCFT to all businesses over a certain (modest) size, measured by domestic sales. Indeed, an obvious and simple approach would be to set the threshold for a DBCFT at the same level as the VAT threshold.<sup>18</sup>

#### *b. Real versus financial flows under an R base*

A DBCFT would likely best be structured to have R-base treatment for all cash flows with business-to-business financial transactions zero-rated, but with special rules for flows between a taxed financial company and non-taxable entities.<sup>19</sup> This requires rules to counter attempts to avoid taxation by disguising R flows as F flows, in cases where one party to the transaction is not subject to the tax (or if full loss relief is not available and one of the parties has a taxable loss).

#### *c. Losses*

The neutrality properties of a DBCFT depend on the tax being symmetrical: positive tax bases should bear tax and negative tax bases should receive a refund. So providing

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<sup>18</sup> The literature on VAT discusses considerations for the optimal threshold for VAT. See, Ebrill et al. (2001), Keen and Mintz (2004) and, on empirics, Liu and Lockwood (2016). See also Kanbur and Keen (2015).

<sup>19</sup> The case for such treatment is set out in Auerbach et al (2017); see also Huizinga (2002). In such cases, rules would continue to be required to differentiate debt from equity.

relief for losses is critical to attaining one of key attractions of cash flow taxation. The issue of losses and negative tax bases arises in two main contexts under the DBCFT.<sup>20</sup> First, immediate expensing makes negative tax bases more likely to arise even for successful companies operating in a purely domestic setting. Second, this is more pronounced in an international setting, because the DBCFT taxes domestic sales less domestic expenses, and so a business that exports is more likely to have a domestic taxable loss. This is more pronounced than for VAT since domestic wages are also deductible. Unlike a domestic situation, this could also be permanent.

There are practical difficulties in dealing with taxable losses when relief in the form of immediate refund could prove politically unattractive, and could introduce fraud. Permitting the taxable loss to be carried forward indefinitely with an interest markup alleviates the problem, but not in the case of permanent taxable losses for exporters. Other possible solutions include: allowing the marketing of unused tax benefits associated with these activities, although this is also not without its pitfalls;<sup>21</sup> allowing taxable losses to be used in the context of mergers with profitable businesses; or allowing taxable losses to be set against other taxes paid by the business, such as payroll taxes.

#### *d. Destination*

A central element in the implementation of a DBCFT would be operationalising the relevant notion of “destination”, identifying “exports” to be taken out of tax and “imports” to be brought in. The design of a DBCFT can usefully draw on experience under the VAT, for which notions of destination have been most fully discussed and developed. The OECD defines the destination principle as the “principle whereby internationally traded services and intangibles should be subject to VAT in their jurisdiction of consumption” (OECD, 2013).<sup>22</sup> This clearly identifies the VAT notion of “destination” as a proxy for the place of consumption.

The fundamental principle underlying the DBCFT is not necessarily that the tax should be levied in the place of consumption per se, but that the relevant tax rate should be that of a place of relative immobility, with a more immobile location than the place of consumption is likely to be the place of residence of the consumer. Devereux and de la Feria (2014) recommend the use of the customer location proxy, defined as “the

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<sup>20</sup> A third context arises in the case of financial businesses that apply an R+F base to transactions with tax-exempt entities and individuals, yet are able in principle to deduct all costs from the tax base: see Auerbach et al (2017).

<sup>21</sup> See Warren and Auerbach (1982).

<sup>22</sup> OECD (2013), as above, p. 3.

location, residence, or place of business of the customer, the person to whom the seller has a contractual legal obligation to supply the goods”, for both goods and services and for both business-to-business (B2B) and business-to-consumer (B2C) transactions. This is recommended by the OECD as the main rule for B2B transactions.

B2C transactions in cross-border services create difficulties for administrative obligations, since applying the customer location proxy may result in a requirement to register for VAT purposes in every jurisdiction where services are received. Devereux and de la Feria propose that in exceptional circumstances the proxy used vary from the customer location proxy, particularly for B2C transactions where that rule would be too burdensome.

#### *e. Collection*

The challenges for collecting revenue under a DBCFT relate primarily to cross-border B2C transactions. A DBCFT would tax imports purchased by individual consumers and non-taxable entities. Where a customer purchases a good or service directly from a business in another country, two options open to the destination country are to collect the tax from the exporting company or from the consumer. The former appears to be the more realistic, although not without difficulties of its own, especially in the absence of fiscal borders, or for digital products, as is clear from the operation of VAT. In principle it would be necessary for the company to register for tax in the country into which it is exporting the good or service; this is difficult to administer for relatively small exporters, particularly when the good or service can be downloaded electronically, or where there are no customs operations at borders. The exporter must also identify the location of its customer, and whether the customer is a business or a consumer. The tax authority must identify companies from around the world that export to its country, and also guard against any opportunities for fraud if final consumers pretend they are businesses. For this purpose, gathering information from intermediaries such as credit card and other payment companies will be an important enforcement tool, both for a DBCFT and a VAT.

One innovation in the EU that could be applied amongst cooperating countries is a “one stop shop”, as proposed by Devereux and de la Feria (2014) and the Gaspar Committee (2014). Under such a system a company selling into several separate countries would need to register in only one; in many cases that is likely to be the origin country from which the company exports. The tax authority in that country would administer the DBCFT at the rate of the country to which the good or service is exported. There would be a clearing arrangement at the aggregate level, where payments are made between tax authorities in recognition of the appropriate

recipient of the tax. Such cooperation would clearly create a significant administrative simplicity relative to the case in which the exporter is required to register and pay tax in each country in to which it exports.

#### *f. Tax Treaties and the WTO*

The DBCFT is built on different assumptions about residence-based and source-based taxation than existing income taxes, and these are not covered by existing income tax treaties. Such treaties would still be important for a country adopting a DBCFT with respect to income tax matters related to individuals, but not to business activities.<sup>23</sup>

It is also important to recognize that a DBCFT would likely be vulnerable to challenge under WTO rules (Schön, 2016). The primary concern with the DBCFT under WTO rules relate to the deduction for labour costs, on the grounds that the costs of an imported good are not deductible, while those of an identical domestically-produced are deductible. It is argued that this makes the DBCFT incompatible with WTO rules. In contrast, a credit-invoice VAT on a destination-basis is unambiguously WTO compliant since it does not give relief for either form of labour costs. So too, of course is reducing payroll taxes, or even instituting a general wage subsidy. The VAT cum payroll subsidy equivalent to the DBCFT would thus face no prospect of legal challenge in the WTO or any need for re-negotiation of trade agreements (Schön, 2016). To economists, this legal distinction between two equivalent tax structures makes no sense. However, it may mean that a DBCFT must be designed in such a way as to be WTO-compatible.<sup>24</sup>

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<sup>23</sup> See Collier and Devereux (2017).

<sup>24</sup> See Grinberg (2017).

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