A European Perspective on the US Plans for a Destination Based Cash Flow Tax

WP 17/03

Johannes Becker
University of Muenster, Germany

Joachim Englisch
University of Muenster, Germany
A European Perspective on the US Plans for a Destination Based Cash Flow Tax

Johannes Becker and Joachim Englisch

University of Muenster, Germany

Abstract

The Republican majority in the US House of Representatives is considering the introduction of a destination based cash flow tax (DBCFT). While its global implementation has the potential of substantially increasing welfare, a unilateral introduction of such a tax system raises a range of questions due to the co-existence with source based taxation systems abroad. We consider the US tax plans from an EU perspective. We show that European exporters may suffer, but European firms with affiliation in the US may benefit from a switch to the DBCFT. American multinational firms with affiliates in the EU will be the likely losers of this policy – a surprising finding given President Trump's “America first!” rhetoric. Finally, tax competition over profits, IP location and investment will further intensify, which will require policy reactions by the EU and its member countries far beyond the implementation of the OECD BEPS project. We will therefore also discuss the legal and economic implications of possible adjustments in EU tax systems.

0. A new tax plan

The Republican majority in the US House of Representatives is planning to launch the biggest tax reform in more than 30 years. The tax concept of this so-called Ryan blueprint has a bulky name, is theoretically brilliant and has the potential to trigger a major trade war between the US and its trading partners. The “destination based corporate cash flow tax” (DBCFT) is based on the work by economists Alan J. Auerbach (from Berkeley) and Michael P. Devereux (from Oxford).1 Globally implemented, the DBCFT system would solve almost all problems that currently

1 See Auerbach and Devereux (2013) as well as Auerbach et al. (2017). The idea of destination based taxation can be traced back to Avi-Yonah (2000) and has been formalized by Bond and Devereux (2002). The Mirrlees-Report adopts the idea (Auerbach, Devereux and H. Simpson 2010).
haunt the international tax system: tax induced production relocation and profit shifting, inefficient incentives to take up debt instead of equity – all these inefficiencies would be, after a transitional phase, issues of the past. However, the House Republicans do not aim for global implementation; they rather pursue a unilateral introduction of the DBCFT in the US. This has a number of substantial implications, especially for the US trading partners within the EU.

The good news is that – in contrast to recent claims (e.g. Dullien 2017) – the European trading partners would not lose across the board. European firms with subsidiaries in the US may even benefit from a switch to the DBCFT overseas. European exporters, however, would likely suffer from an increased tax liability in the EU which benefits the European governments. Perhaps surprisingly (given the strong Republican focus on supporting the US economy), American firms with subsidiaries abroad would be negatively affected by an introduction of the new tax. The claim by Auerbach et al. (2017) that “countries would broadly have an incentive to adopt [the DBCFT] – either to gain a competitive advantage over countries with a conventional origin-based tax, or to avoid a competitive disadvantage” (p. 5) therefore needs to be qualified. Finally, tax competition between the US and the EU may become much more severe due to heightened incentives to shift tax base (either via transfer pricing or relocation of IP or real production) to the US.

In the following, we focus on the implications of the US tax plans for the EU countries. After shortly presenting the DBCFT concept in general, we consider a unilateral introduction by the US. We then discuss potential reactions by the EU and its member countries.

I. The DBCFT concept

So far, the dominating principle in international business taxation is the source country principle. Business profits are taxed at source, i.e. where they are 'generated' (as suggested by the location of production or value added). In firms with more than one production location, transfer prices are required to determine locational profit.

In contrast, the DBCFT emphasizes the destination country principle known from the value added tax (VAT; sometimes also referred to as Goods and Services Tax, GST).
The underlying idea is that international mobility of consumers is low and, above all, cannot be effectively manipulated by the taxed companies. Thus, transfer prices become redundant for tax reasons, and taxes cannot be avoided by shifting production or book profit. The Ryan blueprint of the DBCFT implies a *border tax adjustment* (BTA). Revenues from exports are tax exempt, whereas import revenues are fully taxable.² The production cost (especially payroll) is deductible from the tax base where the costs are incurred, i.e. where either the inputs have been subject to DBCFT themselves or (in case of labor supply) where the employee performed the work. A similar border tax adjustment is common with VAT – the difference being that the DBCFT not only allows for the deduction of received inputs but also for labor cost. A firm specialized in exporting would therefore necessarily have a negative tax base in the domestic country since its revenues are tax exempt and its cost are deductible. Its revenues are fully taxed by the destination country.

Another important difference to the current system is the cash flow tax element. Such a tax exempts the normal return to capital from tax and prevents tax discrimination between different sources of financing (e.g. debt and equity).³ The overall effect is a smaller tax base that may be expected to reduce tax revenue.

Moreover, revenue implications may temporarily arise depending on whether a country is a net importer or a net exporter. The tax base under a DBCFT can be expressed as the value added (production value minus production cost) plus the difference of imports and exports. The latter is zero across all firms if the trade balance is even. Since this is to be expected in the long run,⁴ revenue implications mainly come from the switch to a cash flow system. This does not rule out, though, that there may be substantial short term effects.

² An overview of alternative ways of implementing a DBCFT is offered by Devereux and de la Feria (2014, p. 10). Regarding B2B imports, the same effect can be achieved by leaving imports untaxed but denying any deduction for the corresponding acquisition cost to the importing business, as Auerbach et al. (2017, pp. 27-28) have pointed out. The latter approach is indeed also frequently followed by VAT/GST systems around the world (so-called “reverse charging”).

³ There are different versions of a cash flow system which differ in their accounting for financial flows. An R base version neglects them completely, whereas an R+F base version treats financial flows symmetrically (new equity and debt as well as interest and dividend income is added to the tax base whereas debt and equity repayments as well as interest and dividend payments are deductible). For more details, see Bond and Devereux (2002).

⁴ A trade surplus is equivalent to a net capital export (a loan to foreigners) which, at some point, has to be reversed.
The effects of a global introduction of DBCFT on firms’ profits and production incentives are complex and have been subject to widespread misunderstanding. For clarity, we will in the following focus on the destination based tax aspects, and not so much on the well-known cash flow tax aspects. To start with, switching from source based taxation to a DBCFT does not change a firm’s tax liability if tax rates were equal across borders. Then, purely domestic firms are taxed just like exporters and importers. However, if tax rates differ, the DBCFT may result in an effective subsidy for exporters (if the foreign tax rate is lower than the domestic one) or an effective surcharge (if the foreign tax rate is higher). Revenues are then taxed at a lower or higher rate than the rate at which the corresponding cost can be deducted.

This potential surcharge or subsidy effect has been criticised in some recent work on the DBCFT, see e.g. Cui (2016, 2017). However, this critique is unfounded in the light of established trade theory and equilibrium models. The DBCFT can be thought of as a combination of two elements: First, a classical VAT element in which exports are exempt from tax whereas imports are fully taxed – trade remains undistorted (Lockwood 2001, Auerbach and Holtz-Eakin 2016, p. 6/14). Second, a subsidy for domestic wage payments which results from the deductibility of all domestic payroll. Since this subsidy is granted to all domestic firms, the resulting surge in labor demand will lead to a one-by-one wage increase. In the end, net-of-tax production costs stay constant. Thus, the subsidy is completely neutral with respect to trade (ignoring potential redistributive effects within the tax system). To sum up, net wage costs are unaffected by the tax system and the revenues are taxed independent of the location of production.

The following simple example illustrates how the DBCFT works and why it is – if implementation is internationally coordinated – completely neutral with respect to location and investment decisions.

\[\text{Footnote:} \quad \text{Ironically, the Ryan blueprint does not accept this argument. It wrongly claims with regard to the VAT: “This amounts to a self-imposed unilateral penalty on U.S. exports and a self-imposed unilateral subsidy for U.S. imports.” See GOP (2016, p. 28).} \]

\[\text{Footnote:} \quad \text{Note that higher gross wages do not imply higher net income. Since the subsidy is financed out of domestic tax revenue, national income does not rise.} \]
**Example 1**

Suppose that the EU sells one single unit of a good in the US at a price of $80 and wage cost of 40€. Similarly, the US sells one unit in the EU at a price of 80€ and a wage cost of $40. There are no other production costs. The Euro-Dollar exchange rate is at exactly 1 (parity). Starting from a situation without any taxation in both economies, a DBCFT is introduced in the US with a tax rate of 25 per cent. At given prices, EU exporters see their revenues drop to $60, whereas US exporters have their net-of-tax wage cost reduced by $10 (i.e. 25 per cent of $40). If it stayed this way, the concerns by the DBCFT critics would be justified: EU firms are taxed, US firms are subsidized.

Now, however, there is a trade imbalance: The EU effectively exports $60 whereas the US exports 80€. In other words, the US has more income than expenditure, whereas the opposite holds for the EU. Prices have to adjust to restore the equilibrium. There are two ways to achieve this. First, the exchange rate could adjust. A dollar appreciation of 33.3 per cent (here to 1.33€ per $) would make 80€ out of revenues of $60. At the same time, American exporters see their revenues shrink, as 80€ become $60. The exchange rate adjustment thus limits the effects of the DBCFT to US firms and insulates European firms. The former now have profits of $30 which is 25 per cent less than without taxation, the American government has tax revenues of $10. European firms, consumers and government remain unaffected.

The same effect can be attained by a one-time 33.3 per cent inflation in the US (or a 25 per cent deflation in the EU). Then, the European export revenue would increase to $106.67 before and $80 after DBCFT. The gross wage cost would rise to $53.33 (the net wage cost would be at $40). Again, only American firms would be affected. The profit from exporting into the EU would still be $40, which now corresponds to $30 in before-DBCFT-prices. That is the DBCFT has reduced the profit by 25 per cent in purchasing power

---

7 Note that under the Ryan blueprint (as well as in this example), the tax rate is tax-inclusive, which corresponds to the standard approach in income taxation, rather than tax exclusive as it would normally be if the tax were formally designed as a VAT.
units. The American treasury has revenues of $13.33 (corresponding to $10 in constant prices).

The introduction of a DBCFT in the EU would have similar effects on the European price level of the Euro-Dollar-rate. Only European firms would be affected.

For the DBCFT to work, the general price level or the exchange rates need to be sufficiently flexible. If so, firms do not have an incentive anymore to shift production to save taxes, and foreign based firms and their owners are effectively exempt from DBCF taxation. One might, of course, question the degree of flexibility in prices and exchange rates. In the medium to long term, we can assume that they are sufficiently flexible. However, in the short term there may be substantial deviations.\(^8\) Therefore, concerns expressed by US retail companies (e.g. Walmart etc.) with respect to a surge in import prices may not be completely unjustified.\(^9\)

Moreover, there are legitimate doubts that a full and correct implementation of the DBCFT is feasible in system with pluralistic political and economic interests like the US. In fact, the Ryan blueprint already implies an important deviation from the original Auerbach-Devereux concept. Tax losses do not give rise to a tax refund but can rather be infinitely carried forward. However, since exporters will always have negative taxable income (since revenues are tax exempt), there is no expectation to recover the tax losses in the future. Therefore these firms may become attractive targets for mergers and acquisitions by firms with positive taxable income in the US. If these plans are realized, one might expect another wave of M&A. More implementation aspects are discussed in Devereux and de la Feria (2014), in Auerbach and Holtz-Eakin (2016) and, from a critical perspective, in Avi-Yonah and Clausing (2017) and Graetz (2017).

---

\(^8\) This point is also raised by Cui (2016). In fact, a number of studies (implicitly) question full exchange rate adjustment to tax changes. For instance, some studies find that value added taxes affect foreign direct investment, although they should not be expected to do so from a theoretical point of view. See e.g. Desai, Foley and Hines (2004) as well as Büttner and Wamser (2009).

\(^9\) See e.g. New York Times (2016).
II. Unilateral introduction

The Ryan blueprint proposes a unilateral introduction of the DBCFT in the US (see GOP 2016). Whereas, in theory, a reform that was globally coordinated e.g. by the OECD would be completely neutral and may increase welfare by curbing wasteful avoidance activities (Auerbach and Holtz-Eakin 2016), the co-existence of a DBCFT and source based tax systems, for instance those in the EU, may give rise to a number of problems. This comes as no surprise, considering that the DBCFT as envisaged in the Ryan blueprint is essentially equivalent to introducing a VAT (of the subtraction type) with a corresponding tax relief for wage earners, thus eliminating the Haig-Simons business taxation, while it formally still maintains the guise of this classical form of income taxation10. What is prima facie surprising, though, are some of the effects of the reform project that indeed run counter to the “America first!” agenda of President Trump.

There are three distinct types of effect of a unilateral DBCFT introduction. First, it has substantial effects on the firms’ effective tax rates compared to the status quo; we call these “structural effects” since they depend on the current firm structure. Second, the DBCFT has effects on the size of the tax base in EU tax systems; this is mainly due to the way taxes are levied in EU Member States and could, in principle, be unilaterally solved. Third, the DBCFT has severe implications for the firms’ incentives to avoid taxes which is why Auerbach et al. (2017) label such a reform the “ultimate move in a tax competition game” (p. 44).

**Structural effects on profits and tax revenues**

The simple example above demonstrates that, starting from a situation without any taxation, a unilateral introduction of DBCFT effectively exempts foreign investors from tax. In a world where trade takes place as pure exporting and importing (i.e. without any source based taxes on non-resident firms), this result holds even if source based taxation remains the dominating principle in the EU.

However, in the presence of multinational firms which have establishments involved in the value chain in both the US and in the EU, and which therefore are taxed in both

10 A similar classification is offered by Graetz (2017, p. 5).
economies under the current system, things look different. The reason is that the adjustment (in the exchange rate or the general price level) that is necessary to compensate for the introduction of a DBCFT depends on a firm’s share of value added located in the US.

To see this, consider the following simple example with multinational firms on both sides of the Atlantic which have production sites in the parent company jurisdiction and affiliated sales companies in the other economy, respectively.

**Example 2**

As before, suppose that the Euro-Dollar exchange rate is at exactly 1 (parity). The EU-based multinational firm sells one single unit of a good in the US at a price of $80 and wage cost of 40€ at the European production plant. There are no other production costs. A transfer price of $60 splits the tax base (= profit) equally between the two locations. In both locations, the source-based tax rate is, again, 25 per cent. Tax revenue in both locations is thus equal to $5 or 5€, respectively. Similarly, the US-based multinational firm sells one unit in the EU at a price of 80€ and a wage cost of $40 with a transfer price at 60€. Note that trade is balanced. Exports in both directions have a value of $60 or 60€, respectively. In addition, there is a net profit repatriation payment of $15 or 15€, again in both directions.

Now, the US introduces a DBCFT without changing the tax rate. At a given exchange rate and given prices, the sales company of the EU multinational sees its revenues after DBCFT (and before European tax) drop to $60 (compared to $75 before the tax reform).

If these were the only trade transactions taking place between the US and the EU, an imbalance would arise: The EU effectively generates only $60 revenues from export whereas the US continues to have 75€ income from exports. As in the example above, the equilibrium may be restored by an adjustment of

---

11 For ease of illustration, we suppose that contrary to the Ryan blueprint, a negative DBCFT base results in a tax refund from the government. If the blueprint were implemented without modifications, the same effect would likely be achieved indirectly by merging domestic business with export activities.
either the exchange rate or the general price level (or a combination of both). In our example, a dollar appreciation\(^{12}\) of 25 per cent (here to 1.25€ per $) or a one-time 25 per cent inflation in the US\(^{13}\) (alternatively, a 20 per cent deflation in the EU) would do the trick. The European multinational then has a profit of 30€ as before. With net-of-DBCT wage cost of $30 (in before-DBCFT-prices), the US multinational has a profit of $30 (again, in before-DBCFT-prices) which corresponds to an effective tax of 25 per cent.

The important point here is that, due to the firms’ structure (which locates half of the value added in the US for tax purposes), a smaller adjustment (25 per cent, instead of 33 per cent in Example 1) is sufficient to restore equilibrium. In fact, as becomes obvious from the above, the necessary adjustment in the general price level or the exchange rates is a function of the transfer prices, because they determine the after-tax revenues in the country of destination prior to the reform that would have to be effectively restored in order to return to the pre-reform trade levels\(^{14}\). If, for instance, both “transfer prices” were $80 or 80€ before DBCFT (i.e. no tax base abroad, pure exporting), the dollar would have to appreciate by 33 per cent instead of 25 per cent – the situation analyzed in Example 1.\(^{15}\) A transfer price of $40 or 40€ (no value added at the production site, pure foreign investment) would require an appreciation of only 16.7 per cent.

However, there is only one adjustment that can actually take place. In the plausible scenario (also shared by Auerbach and Devereux 2013) where there is some homogeneous good traded at zero cost and consumed in both economies, arbitrage opportunities imply that the price level or exchange rate adjustment needs to exactly

---

\(^{12}\) The dollar appreciation would increase the Euro-equivalent of revenues of $60 to 75€. At the same time, American exporters see their revenues shrink as 75€ become $60.

\(^{13}\) Then, the European export revenue would increase to $100 before and $75 = 75€ after DBCFT. The gross wage cost born by the US firm would rise to $50 (resulting in a tax refund of $12.5 and a net wage cost of $37.5). Its profit from exporting into the EU would be $37.5 (i.e. revenues of 75€ = $75 minus net wage costs of $37.5), which now corresponds to $30 in before-DBCFT-prices.

\(^{14}\) Our analysis is based on the assumption that no indirect foreign tax credit is available for the parent company in the EU jurisdiction upon the net profit repatriation payment received from its US affiliate, hence the firm’s after-tax revenue in the country of destination (the US) prior to the reform was effectively determined by the affiliate’s tax liability there.

\(^{15}\) Of course, in the case of pure exporting, there would be no transfer prices in the strict sense. Rather, gross revenues would constitute the EU domestic tax base for the EU based firm whereas the US based firm would have no tax nexus to the EU.
correspond with the DBCFT rate (i.e. be equal to a factor of $1/(1-\text{DBCFT})$). Otherwise goods could be shipped across border at a profit (in the example above, an appreciation of less than 33.3 per cent would make cross-border trade from the US to EU profitable – the US$ would then be undervalued).

So what does a 33 per cent dollar appreciation mean for the firms described in Example 2? The European firm would have its US revenues appreciated to 106.7€ before and 80€ after DBCFT. With the transfer price still being at 60€, it pays 5€ tax in the EU, but effectively none in the US. Its net profit rises from 30€ before to 35€ after the DBCFT introduction. The US firm receives 75€ after European taxes (where we assumed that the transfer price is still at 60€) which corresponds to $56.25.\textsuperscript{16}

With net wage cost being given at $30, the net profit is $26.25 compared to $30 before the tax reform. Thus, US multinationals with taxable income in the EU suffer (because their foreign income is depreciated too much) and European multinationals with positive tax base in the US gain (because their foreign income is appreciated too much).

Thus, a unilateral introduction of the DBCFT effectively shifts the burden of American business taxation from European to US multinationals – a tax effect that is in odd contradiction to President Trump’s “America first!” rhetoric. Whereas under source based taxation, part of the US multinational’s income is shielded from US taxation due to transfer pricing arrangements, the DBCFT reduces the firm’s profits through general equilibrium effects to an extent that is equivalent to a full taxation of its overseas sales after European profit taxes. \textsuperscript{16} In the example above, the profit decrease due to DBCFT is exactly $3.75 (equal to the combined effect of (1) applying the DBCFT rate of 25 \% to the profit share of $20 that was previously allocated to the EU under arm’s length transfer pricing standards, thus increasing the burden by $5, and (2) a reduction of the European 5€ tax burden by $1.25, i.e. from previously $5 to now $3.75)). In this sense, the DBCFT imitates a system of worldwide income taxation after deduction of foreign taxes (see Richman 1963, Feldstein and Hartman

\textsuperscript{16} Letting both transfer prices be unaffected by the price or exchange rate adjustments in the US may be justified by the fact that the tested party will often be situated in the EU, where no adjustments occur. What is more, a 33.3 per cent appreciation of the transfer price would mean that there is no more European tax base – which will hardly be accepted by European tax authorities.
1979). Being “taxed” at an effectively higher rate, the competitive position of the average American multinational vis-à-vis domestic firms in European markets or elsewhere would deteriorate.

Similarly, European multinationals benefit since the price or exchange rate adjustment over-compensates them for the tax burdens resulting from the implementation of the DBCFT. Compared to the situation before DBCFT, the European firm in our example saves 5€ which corresponds to the saved pre-reform US tax. Because they can offer their goods at lower tax inclusive cost, the DBCFT effectively provides them with a competitive advantage over the American firms on the US market.

**DBCFT effects on the European tax base**

The second effect of a unilateral introduction of the DBCFT in the US is on the size of the European part of the firm’s taxable income.

This can be illustrated with EU based exporters which currently have, by assumption, no taxable income that can be allocated to the US. The gross revenues (measured in Euro) are appreciated (either due to US inflation or a dollar appreciation). This appreciation fully compensates the firm for the US tax payment. However, if gross revenues enter the tax base in the EU country, its EU tax liability increases although income (before European tax payments) stays constant. The degree of this surcharge depends on both, the European tax rate and the DBCFT rate. As a consequence, it is above all exporting firms from high tax locations within the EU that suffer from a tax disadvantage due to the introduction of the DBCFT. The additional tax payments are collected by the EU country under consideration which in turn benefits from the DBCFT. The net revenue for the American fisc is zero.

The over-taxation of EU exporters could, in principle, be neutralized by taxing total revenues net of DBCFT. In this case, neither net export revenues of businesses nor the tax revenues of EU Member States would be affected by the DBCFT. Technically, this would imply a deduction of taxes paid in the US from the European tax base, or a tax credit for US-DBCFT that is equivalent to such a deduction, similar to what would be practiced with regard to foreign VAT liabilities. Currently, it is far from certain
that such a deduction or even a credit would actually be granted. As regards a tax credit in particular, it would routinely be denied on grounds that the levy of US-DBCFT on imports lacks a legitimate nexus for taxation of corporate profits, from the perspective of the traditional, source-country oriented CIT systems of EU Member States. A deduction from the tax base might be granted in some EU jurisdictions but not in others, not the least depending upon whether the US-DBCFT would be regarded as a tax on income or rather as a tax on (certain forms of) consumption.

Things look different for EU multinationals, if transfer prices do not respond to the price adjustments in the US. This could be the case, for instance, when European tax authorities consider the EU based group member to perform ‘routine functions’ and therefore qualify this company as the tested entity as defined in the OECD Transfer Pricing Guidelines\(^{17}\). In this case, the transfer price would be determined based on the relevant firm data of the EU company. For example, in applying the so-called cost plus method, this would be the EU firm’s cost plus a mark-up, which would be unaffected by changes in the US price level or exchange rate. Accordingly, the transfer price and thus European tax liability stay constant after the DBCFT introduction while US tax liability effectively (i.e. through price or exchange rate adjustments) drops to zero.

Summing up, the DBCFT has a marginal effect on the European tax base by potentially changing the numbers that enter the European tax base. Countervailing measure that prevent the European tax base from adjusting due to the DBCFT may work in the pure exporters case, but aggravate the under-taxation of EU based multinationals.

**Implications for tax competition**

The third effect of a unilateral introduction is a stark increase in the firms’ incentives to shift tax base (by transfer price manipulation or asset relocation) to the DBCFT country – what Auerbach et al. (2017) call the “ultimate move in a tax competition game” (p. 44).

---

\(^{17}\) See para. 3.18 OECD Transfer Pricing Guidelines.
As noted above, under a DBCFT, the US tax liability is independent of the location of production and assets. In contrast, EU tax liability depends on the allocation of taxable income across firm locations—through the location of assets (e.g., IP) and real economic activity, and intra-firm transfer prices. This asymmetry implies strong incentives to locate taxable income in the US for tax saving purposes since this reduces EU tax liability without increasing tax payments in the US (Clausing and Avi-Yonah 2007, p. 25, Auerbach and Holtz-Eakin 2016, p. 12). As noted above, in this sense, the DBCFT mimics a “full taxation after deduction of foreign taxes” system (discussed in Richman 1963, and others), the difference being that foreign firms have a similar incentive to relocate as domestic firms.

To be specific, with the US tax liability becoming independent of transfer prices, the incentives to manipulate transfer prices or shift assets and production are the same as with a zero-rate tax haven. For instance, a German multinational firm would save around 30 Cents for each Euro shifted to the US. The same is true for European exporters which might be incentivized to open affiliates in the EU to avoid the tax surcharge in the EU triggered by the DBCFT introduction (see above).

This is true even if the European countries adapt their tax systems, as described above, e.g., by allowing for crediting the DBCFT against European taxes to avoid the surcharge for EU exporters. To sum up, a DBCFT would generate substantial gravitational power on book profits, asset location and real production from the EU.

**International public law implications**

The border tax adjustment associated with the introduction of a DBCFT has frequently been considered to be incompatible with WTO law requirements. According to some scholars and experts, the tax exemption for exports of goods is to be classified as a prohibited export subsidy within the meaning of Art. XVI GATT, 3.1(a) ASCM; furthermore, they consider the denial of a tax deduction for foreign-sourced wage costs when levying DBCFT on imported goods to constitute an infringement of the national treatment requirement laid down in Art. III:2 or III:4 GATT. In a similar vein, the import taxation of services on a gross basis would amount to a violation of Art. XVII GATS, to the extent that the adopting country has
committed to national treatment of services, too.\textsuperscript{18} This assessment usually rests on an early, even though non-binding Report of a GATT Working Party on Border Tax Adjustments\textsuperscript{19}, as well as on the legally binding explanations to Art. XVI GATT and Art. 1.1(a)(1)(ii) ASCM\textsuperscript{20}, pursuant to which a border tax adjustment is permissible only for indirect taxes, and for VAT in particular. In contrast, border tax adjustments that seek to implement the destination principle for direct tax purposes are in contradiction to the aforementioned WTO rules.

In our opinion, the compatibility of the DBCFT concept need not necessarily be in conflict with WTO law requirements, at least not when certain modifications to the Ryan blueprint were introduced. First, it is important to point out that the test for forbidden export subsidies differs conceptually from the assessment of the national treatment requirement regarding imports. The former is to be construed as a specific manifestation of an equality principle; according to consistent interpretation of Art. 1.1(a)(1)(ii) ASCM, a fiscal stimulus effect cannot be regarded as a (potentially) forbidden subsidy if it results from a consistent implementation of guiding principles of the tax system at issue\textsuperscript{21}. This can be inferred from the wording of the aforementioned provision, according to which a fiscal incentive qualifies as a subsidy only when "government revenue that is otherwise due is foregone or not collected". It is only under this premise that the more detailed provisions in Annex I to the ASCM

\textsuperscript{18} See e.g. Graetz (2017, pp. 19-20); Boadway and Tremblay (2014, p. 47) as well as Weisbach (2013, p. 201) and McLure and Hellerstein (2002, p. 2/6), regarding similar problems of international formulary apportionment based exclusively on a sales factor.


\textsuperscript{20} The explanatory notes to Art. XVI GATT in Annex I and in footnote 1 to Art. 1.1(a)(1)(ii) ASCM form an integral part of WTO law and they have the following identical wording: "In accordance with the provisions of Article XVI of GATT 1994 (Note to Article XVI) and the provisions of Annexes I through III of this Agreement, the exemption of an exported product from duties or taxes borne by the like product when destined for domestic consumption [...] shall not be deemed to be a subsidy" (emphasis added). As can be inferred from Annex I item (e) ASCM, it is assumed that direct taxes (within the meaning of footnote, i.e. especially taxes on profit and on economic rents) do not affect the price of exported goods, and thus a border tax adjustment is qualified as an export subsidy: "The full or partial exemption remission, or deferral specifically related to exports, of direct taxes [...] paid or payable by industrial or commercial enterprises."

concerning prohibited forms of a border tax adjustment become applicable. In comparison, the obligation to accord national treatment to imports has been interpreted more strictly in the fashion of a non-discrimination principle by the competent WTO adjudication bodies. As the Appellate Body has recently stated, “the concept of ‘treatment no less favourable’ under [...] national treatment provisions of the GATS is focused on a measure’s modification of the conditions of competition. This legal standard does not contemplate a separate and additional inquiry into the regulatory objective of, or the regulatory concerns underlying, the contested measure.” The same stance has been taken with a view towards Art. III GATT. As a consequence, distortions of competition to the detriment of imports that arise from the tax system of the importing country are liable to infringe Art. III GAT or Art. XVII GATS regardless of whether they originate from conceptually essential elements of the tax system or from special measures that do not correspond with the system’s internal logic.

Against this background, the fact that border tax adjustments constitute a key component of the proposed DBCFT is relevant (only) for its assessment in the context of Art. 1.1(a)(1)(ii), 3.1(a) ASCM. The exemption of exports, or the underlying destination principle, does not carve out income from the tax base merely for “technical” reasons, i.e. in order to eliminate opportunities for transfer pricing manipulation and conflicts, and to minimize the need for international administrative cooperation. These features of the DBCFT, which are indeed emphasized by its proponents, are in themselves a welcome side effect of an allocation of tax revenues based on the destination principle. The orientation of the DBCFT towards this principle, in turn, enhances its character as a consumption-type tax, which is already immanent to any form of cash flow taxation and has been stressed in the Ryan blueprint, and must therefore be regarded as a coherent and integral design feature of the DBCFT concept. It ensures an international allocation and exercise of taxing

---

22 See Farrell (2013, p. 143 et seq.); Schön (2016, p. 8); likewise, but with critical comments, Brauner (2005, pp. 751 et seq.).
24 Appellate Body Report, 22.5.2014, EC – Seal Products (WT/DS401/AB/R), paras. 5.116 et seq., with further references.
25 See also Alcover/ Garcés (2016, pp. 362 et seq.); Muller (2016, pp. 837 et seq.).
26 For a different opinion, see Schön (2016, p. 15).
rights that chimes with the idea of taxing consumption where it presumably occurs\textsuperscript{27}, as it is long established and generally accepted in the realm of VAT\textsuperscript{28}. It has already been pointed out in literature that the incidence of a DBCFT should not be expected to fall on (ultimate) shareholders or owners of the taxable businesses in general; it is instead predicted to be borne only by residents who fund their consumption expenditure from above-normal profit income, i.e. from economic rents\textsuperscript{29} (including those whose income indirectly depends on this source, e.g. pensioners, see Auerbach et al. 2017, p. 32). This is indeed an intuitive consequence of the DBCFT concept, considering its equivalence to a VAT cum corresponding payroll tax cut. Moreover, as has been pointed out above, a DBCFT of the type proposed in the Ryan blueprint also seeks to ensure neutrality of taxation for both marginal investments and discrete location decisions (Auerbach et al. 2017, pp. 22 et seq.). This core design objective, too, implies the need for border tax adjustment. It can therefore be established that the exemption of revenue resulting from the export of goods and services forms an integral part of the proposed tax system, and does not qualify as forgone revenue “\textit{that is otherwise due}”. Exemption of exports therefore does not amount to a subsidy within the meaning of Art. 1.1(a)(1)(ii) ASCM.

This notwithstanding, a DBCFT as currently envisaged in the House Republican’s reform proposal would very likely have to be classified as an internal tax regime that discriminates imports by according less favourable treatment to them than to competing domestic products and services, contrary to Art. III GATT and Art. XVII GATS\textsuperscript{30}. The DBCFT would tax imports on the basis of gross revenues, ignoring production cost incurred abroad, whereas the sale of domestically produced products would attract a tax liability based merely on net revenues, with full expensing of input supplies and deduction of local wage costs. Viewed in isolation, this would result in higher US tax burdens in case of importation of goods and

\textsuperscript{27} The pursuit of this type of allocation of taxing powers was also, ultimately, one of the key arguments for the admission of border tax adjustments for “indirect” taxes in the deliberations underlying the Report of the GATT Working Party on Border Tax Adjustments, adopted on 2 December 1970, (L/3464), as can be inferred from its para. 21.


\textsuperscript{30} This would then automatically also infringe upon the corresponding requirements laid down in Art. 301, 1202 NAFTA.
services, as compared to the trade in like domestic products. Such an effect can be expected, with a relatively high probability, to be qualified as “taxing imports in excess of like domestic products” or “according less favourable treatment to imports than to like products of national origin” thereby affecting the internal sales of imports and giving a competitive edge to the suppliers of similar domestic goods and services. This would contravene Art. III GATT or Art. XVII GATS, respectively. In particular, the difference in treatment could also not be defended as a merely compensatory measure within the meaning of Art. II:2 (a), III:2 GATT, or as according national treatment if “no less favourable treatment” if viewed holistically in the context of Art. III:4 GATT, XVII GATS, by arguing that the deduction of cost components of domestic goods and services would merely offset a corresponding domestic tax burden falling on local factors of production. While this might be the case regarding inputs received from other businesses, it could not be upheld vis-à-vis the wage cost deduction, even if one would accept that payroll taxes are falling on the employer, because wage taxation is usually progressive and does thus not correspond with the DBCFT rate. Such a correspondence could only be established, if at all, by taking into account the potential price effects caused by the introduction of a DBCFT (Auerbach and Holtz-Eakin 2016, p. 15); however, for reasons of legal certainty and justiciability, an Art. III GATT or Art. XVII GATS analysis will not extend to such general equilibrium effects.

However, the WTO assessment might change if certain modifications were introduced into the Ryan blueprint. Already under their current proposal, House Republicans do not want to grant a tax refund in case of a negative tax base, as a pure

---

31 The same would be true for an alternative version of the DBCFT where cross-border B2B trade in goods and services would not result in any taxation of imports, but that would also exclude the deduction of the costs incurred for the acquisition of such imports, different from the tax treatment of the costs incurred for domestically produced intermediary goods and services.
32 Art. II:2(a) GATT reads: “Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product: (a) a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or in respect of an article from which the imported product has been manufactured or produced in whole or in part.” (emphasis added).
33 The Ryan blueprint seeks a broad implementation of the DBCFT concept, extending also to partnerships and other pass-through entities, and to individual enterprises.
35 As regards the rejection of arguments based on effects not directly related to the system at issue or its internal logic see also Appellate Body Report, 14.4.2016, Argentina – Financial Services (WT/DS/AB453/R), paras. 6.143-6.145.
The DBCFT concept would require. Instead, net operating losses can be carried forward indefinitely and will be increased by an interest factor to preserve the neutrality features of the DBCFT. It would therefore not require such a big step to convert the deduction for local wage costs into an equivalent, free-floating tax credit that could be used to reduce the liability for any (federal) tax. The DBCFT would then only allow for the deduction of inputs acquired from other businesses, thereby also reducing the need for indexed loss carry-forwards. Such a system would quintessentially maintain the neutrality and revenue allocation features of a genuine DBCFT, but it would even more resemble the classical features of a VAT (of the subtraction type). The additional relief for local labour input would technically no longer be associated with the levy of the tax, but rather, each element would have to be assessed in isolation under Art. III GATT, XVII GATS. Since border tax adjustments are generally accepted for a VAT, and general wage subsidies for local labor input cannot, in themselves, be regarded as treatment “accorded to products” within the meaning of Art. III:4 GATT, such a modification might pass WTO law scrutiny.

In any event, it can by no means be taken for granted that the US congress or the Trump administration let themselves be constrained by global trade rules. The determination of a breach takes some time and would likely involve several rounds of assessment. Even if the incompatibility with WTO requirements would ultimately be confirmed, the result would not be an enforceable ultimatum to take back the tax reform. Instead it would give Europeans (and other US trading partners) the right to apply countervailing measures as sanctions and penalties. Under these circumstances, a trade war could become a realistic scenario.

Finally, it should be noted that the DBCFT as currently envisaged in the Ryan blueprint would likely be in contradiction to many of the US double taxation agreements (DTAs). Although its focus on cash flows makes the DBCFT effectively a consumption tax, it would probably still be regarded as a “tax on income” within the

---

36 Any unused and non-refundable wage cost tax credit would have to be indexed, too, though, and be allowed to be carried forward as well.
37 Of course, this very effect of such a modification might also render it politically unfeasible due to strong opposition among House Republicans to formally advocate for the introduction of a VAT; see also Graetz (2017, p. 7).
38 See Art. 22 DSU.
meaning of Art. 2 OECD-MC and the tax treaties following this model. Since the OECD-MC revenue allocation rules are still firmly based on the concepts of source and residence, taxing imports based on gross revenues and without sufficient “territorial nexus” regarding their production would then contravene treaty obligations of the US. Moreover, because for US firms the DBCFT causes effects that are equivalent to a “full taxation after deduction of foreign taxes” regime, it also contravenes the spirit of the OECD-MC, which seeks to avoid any international double taxation of profits.

However, again, it may be expected that the US policy-makers would accept a ‘treaty override’ or might simply terminate the agreements, given that they are even willing to breach WTO rules. Moreover, it is a likely scenario that the OECD would jump upon the bandwagon and try to coordinate an international transition to DBCFT, should it actually be adopted in the US as the most important OECD member country, since domino effects could then be expected and the OECD would seek to maintain its political clout as globally leading institution on international taxation. Should the House Republican’s proposal be enacted with the aforementioned modifications (free-floating wage cost credit instead of wage cost deduction), the DTA problem would likely not arise in the first place, because the tax would arguably no longer display the essential characteristics of a tax on income.

### III. Implications for the EU

In principle, the EU and its member countries are free to follow the US in implementing the DBCFT. Such a system has, as described above, a number of advantages over the current system (although it should be noted that the research on this topic is still work in progress). Due to the similarity of the DBCFT and a broad-based, single-rate VAT cum wage cost deduction, a switch could be attained as a gradual transition starting from the current system (thereby at least temporarily maintaining the classical tax mix). To that effect, it would be necessary to lower the level of the traditional corporate/business tax in place until it is eventually phased out (i.e., levied at a zero rate), possibly combined with an allowance for corporate equity for immediate attainment of marginal investment neutrality. In addition, an

amount based on the product of local wage cost and VAT rate would have to be credited against the business tax liability, or against social security contributions or payroll taxes, in order to move the traditional VAT regime closer to the effects of a DBCFT, even though outside the VAT system.\textsuperscript{40} Simultaneously, and to compensate for the ensuing revenue losses, the VAT revenue would have to be increased primarily by abolishing exemptions and reduced rates. The result would be an emulation of a DBCFT that would come with the additional benefit of being compatible with world trade law and tax treaty obligations. It could ultimately be transformed into a full-fledged version of the tax, abandoning the traditional co-existence of business taxation and VAT.

However, within the EU, this could only be achieved through harmonization. First, the non-discrimination principle enshrined in the guarantee of free movement of workers (Art. 45 TFEU) would require a justification for granting a tax credit only for the cost of domestic labour: In this context, it is important to note that the CJEU has shown more leniency with the Union legislator than with the national legislator when it assesses the legitimacy of infringements upon the internal market equality principles\textsuperscript{41}. Second, almost all VAT exemptions are mandatory by virtue of secondary Union law, and thus the VAT Directive would have to be amended. In addition, countries with a federal system (or separate social insurance funds) might struggle how to vertically balance the disparate revenue effects of the individual steps mentioned above. The UK, however, could do all this on its own after the Brexit. Recent statements by British politicians indeed point in this direction, even though experience shows that a major challenge would consist in selling the abolition of VAT privileges to the general public.

As for the remaining EU Member States, realistically speaking, one should not expect a shift to DBCFT in the short term. In a Community of still 27 Member States, such a fundamental and ambitious reform of corporate taxation would probably fail to overcome the unanimity hurdles built into the founding treaties of the EU. Moreover,

\textsuperscript{40} The traditional wage cost deduction for the purposes of calculating the CIT base would still be granted, to maintain the classical CIT “intact” until it is eventually phased out.

\textsuperscript{41} It should be noticed, though, that this is not a crucial component of the DBCFT emulation for the purpose of countering its effects on international tax competition, but it would rather serve to socially balance the increase in the VAT burden and ensure that it does not affect labor income.
only few months ago the EU Commission has re-launched its initiative for a common consolidated corporate tax base (CCCTB) and presented a carefully drafted proposal.\textsuperscript{42} It is hard to see that the Commission would be willing to abandon its project of prestige any time soon for an American-inspired reform concept. A unilateral introduction by one or more individual Member States is prevented by European law, though, as described above. Even if only the national corporation tax were transformed into a DBCFT (leaving harmonized VAT unaffected), European law would probably rule out the deductibility of wage payments only for domestic labour. In addition, the exemption of exports by an individual Member State as an inherent feature of a genuine DBCFT could be considered an unlawful state aid, following some recent (albeit questionable) CJEU rulings.\textsuperscript{43} Finally, countries other than the US might lack the political leverage to simply ignore WTO law restrictions when re-designing their tax code.

As a consequence, the EU and its member states need to decide whether they want to adjust their source based tax systems at least to the extent that severe trade distortions are prevented. In the short term, it might be opportune to adopt temporary measures in order to avoid competitive disadvantages for the exporting sector, in particular in countries with significant exports into the US such as Germany\textsuperscript{44}. Once the expected exchange rate or price effects within the US have become manifest and the DBCFT would no longer constitute an effective burden for European firms, though, such measures would have to be abolished. Adjustments would then only be necessary with a view towards the repercussions on the European tax burdens. As regards pure exporters in particular, this could be done with regard to the deductibility of DBCFT payments in the US from the tax base of classical European corporate taxes. However, the tendency of the DBCFT to under-tax European multinationals would then, of course, be aggravated, and the incentive to invest and produce in the US or (re-)locate IP there would still remain strong. Double taxation of US multinationals would not go away, either.


\textsuperscript{44} Such measures could consist in granting direct or indirect foreign tax credits for the DBCFT liabilities of European exporters and of European multinationals and their American sales companies.
Apart from this, there is the risk that transfer pricing might increasingly be abused by individual EU member states to gain a competitive advantage on the US market – that there might be something like a race to leniency.  It can also not be excluded that the US will intervene with respect to specific transfer prices (which are up for negotiation to certain degree). Other than most tax havens nowadays, the US have the political capital to attain specific changes in transfer pricing to preserve or gain market power of its firms on the EU market or weaken the market power of European firms on the US market. For instance, US authorities could urge an individual EU country to increase the transfer price for intermediate goods imported from the US. The loss in European tax base fully benefits the US firm since US taxation does not depend on the transfer price. Intergovernmental negotiations on transfer pricing could therefore become more important and more contentious – also from a state aid and competition policy viewpoint (see also Becker 2014).

Germany in particular, with its traditional rule-based tax policy, is not well equipped for this development and might be less able than other, more pragmatic Member States to flexibly adjust to taxation changes in the US – a problem that is aggravated by the importance of the US market for the German economy. For these reasons, Germany has a vital interest in a pro-active and coordinated response within the EU to the recent US tax plans. Germany is especially exposed since its high tax rates amplify the over- and under-taxation effects described above.

Currently, the German government is still responding to international tax competition predominantly by relying on an array of anti-avoidance and anti-BEPS rules, and it is quite reluctant to engage in the competition itself, despite some corporate tax rate cuts during the last 15 years. This paradigm, whose effectiveness is already questionable today, would have to be revised should the US adopt a

---

45 However, in that case the respective EU Member States would themselves provoke charges that they breach world trade law, because such a deviation from the arm’s length standard is likely to constitute a forbidden export subsidy within the meaning of Art. 1.1(a)(1)(ii) ASCM, as can be inferred from the second sentence of footnote 59 to the ASCM. Moreover, even if such a move were limited to trade with the US as a third country, it risks to be qualified as forbidden State aid under Art. 107 para. 1 TFEU, see the Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union, 2016/C 262/01, 19 July 2016, paras. 169 et seq. and para. 193.

46 In 2015, the United States became the most important market for German exports, with a share of 9.5% in total exports, based on data generated by the German Federation of Wholesale and Foreign Trade (BGA).
DBCFT. Not only would it be difficult to contain the huge incentive for transfer pricing manipulations, for the reasons pointed out above; but a large and developed country like the US might indeed attract significant R&D, IP and production activity from Germany at least in the medium and long term, if it implemented the destination principle and thereby became a tax haven from the perspective of source country taxation. Germany could therefore eventually find itself in a position where it is forced to embrace the DBCFT concept as a benchmark for its own tax system and at least move in that direction along the lines described above, to the extent admissible under EU law. This could imply measures such as introducing a cash flow element in form of an allowance for corporate equity into its business taxation and further lowering the corporate tax rate, the income tax rate for business income, as well as the trade tax burden (trade tax being an additional quasi-corporation tax levied by the municipalities). Since a trade tax is a strictly territorial tax, it might even be possible to introduce a “super-deduction” for local wage costs in this context without infringing upon EU non-discrimination standards, which could compensate wage earners for an elimination of the reduced VAT rate that is also already possible under EU law\(^47\). The EU, in turn, should consider taking steps to further facilitate a move towards the emulation of a DBCFT, also to the benefit of other EU Member States. This would require proposals to remove outdated and inefficient VAT exemptions (or at least give Member States the liberty to do so), and could also include the introduction of a wage cost credit component into the ongoing CCCTB reform project.

For the time being, the tax debate in the US should be closely followed. So far, President Trump has shown an ambiguous attitude towards the Ryan blueprint. After expressing sympathy for the plan early on, he is quoted in a Wall Street Journal (2017) interview with more reservation: “Anytime I hear ‘border adjustment’, I don’t love it.” And he adds: “Because usually it means we’re going to get adjusted into a bad deal. That’s what happens.” Whereas this comment mainly refers to the expected dollar appreciation, the President also finds the DBCFT to be “too complicated” (see

\(^{47}\) The revenue raised would then primarily have to flow to the municipalities affected by the loss of trade tax revenue ensuing from a super-deduction or other form of tax relief for local wage costs.
also Freund 2017 and The Economist 2017). As mentioned above, there are some mighty lobby groups mainly from industries who would suffer from increasing import prices which oppose the tax plans. The House Republicans and their Speaker Paul Ryan will have to face these skeptics.

Although a clear-cut prediction seems impossible under these circumstances, it seems to be reasonable for Germany and the EU to stay alert and to be prepared.

References


A. J. Auerbach, M. P. Devereux, M. Keen and J. Vella (2017): Destination-Based Cash Flow Taxation, Oxford University Centre for Business Taxation WP 17/01.


---

48 Most recently, the Ryan blueprint seems to enjoy more presidential approval which seems to be motivated by the conflict over building a Wall at the US-Mexican border. See New York Times (2017).


M. Daly (2016): Is the WTO a World Tax Organization?, IMF.


M. J. Graetz (2017): The known unknowns of the business tax reforms proposed in the House Republican blueprint, unpublished manuscript.


WP17/02 Andreas Haufler, Mohammed Mardan and Dirk Schindler *Double tax discrimination to attract FDI and fight profit shifting: The role of CFC rules*

WP17/01 Alan Auerbach, Michael P. Devereux, Michael Keen and John Vella *Destination-based cash flow taxation*

WP16/14 Anzhela Cédelle *The EU Anti-Tax Avoidance Directive: A UK Perspective*

WP16/13 Michael Devereux *Measuring corporation tax uncertainty across countries: Evidence from a cross-country survey*

WP16/12 Andreas Haufler and Ulf Maier *Regulatory competition in capital standards with selection effects among banks*

WP16/11 Katarzyna Habu *Are financing constraints binding for investment? Evidence from natural experiment*

WP 16/10 Li Liu and Ben Lockwood *VAT notches, voluntary registration and bunching: Theory and UK evidence*

WP 16/09 Harry Grubert and Roseanne Altshuler *Shifting the burden of taxation from the corporate to the personal level and getting the corporate tax rate down to 15 percent*

WP 16/08 Margaret K McKeehan and George R Zodrow *Balancing act: weighing the factors affecting the taxation of capital income in a small open economy*

WP 16/07 Michael P Devereux and Li Liu *Stimulating investment through incorporation*

WP16/05 Tobias Böhm, Nadine Riedel and Martin Simmler *Large and influential: firm size and governments’ corporate tax rate choice?*

WP16/04 Dhammika Dharmapala *The economics of corporate and business tax reform*

WP16/03 Rita de la Feria *EU VAT principles as interpretative aids to EU VAT rules: the inherent paradox*

WP 16/02 Irem Guceri *Will the real R&D employees please stand up? Effects of tax breaks on firm level outcomes*

WP 16/01 Giorgia Maffini, Jing Xing and Michael P Devereux *The impact of investment incentives: evidence from UK corporation tax returns*
Anzhela Cédelle *Enhanced co-operation: a way forward for tax harmonisation in the EU?*

James Mahon and Eric Zwick *Do experts help firms optimise?*

Robin Roadway, Motohiro Sato and Jean-François Tremblay *Cash-flow business taxation revisited: bankruptcy, risk aversion and asymmetric information*

Martin Simmler *Do multinational firms invest more? On the impact of internal debt financing and transfer pricing on capital accumulation*

Daniel Shaviro *The crossroads versus the seesaw: getting a 'fix' on recent international tax policy developments*

Zhonglan Dai, Douglas A Shackelford, Yue (Layla) Ying and Harold H Zhang *Do companies invest more after shareholder tax cuts?*

Martin Ruf and Julia Schmider *Who bears the cost of taxing the rich? An empirical study on CEO pay*

Eric Orhn *The corporate investment response to the domestic production activities deduction*

Li Liu *International taxation and MNE investment: evidence from the UK change to territoriality*

Edward D Kleinbard *Reimagining capital income taxation*

James R Hines Jr, Niklas Potrafke, Marina Riem and Christoph Schinke *Inter vivos transfers of ownership in family firms*

Céline Azémar and Dhammika Dharmapala *Tax sparing agreements, territorial tax reforms, and foreign direct investment*

Wei Cui *A critical review of proposals for destination-based cash-flow corporate taxation as an international tax reform option*

Andrew Bird and Stephen A Karolyi *Governance and taxes: evidence from regression discontinuity*

Reuven Avi-Yonah *Reinventing the wheel: what we can learn from the Tax Reform Act of 1986*

Annette Alstadsæter, Salvador Barrios, Gaetan Nicodeme, Agnieszka Maria Skonieczna and Antonio Vezzani *Patent boxes design, patents,location and local R&D*

Laurent Bach *Do better entrepreneurs avoid more taxes?*
WP 15/16 Nadja Dwenger, Frank M Fossen and Martin Simmler From financial to real economic crisis: evidence from individual firm–bank relationships in Germany

WP 15/15 Giorgia Maffini and John Vella Evidence-based policy-making? The Commission’s proposal for an FTT

WP 15/14 Clemens Fuest and Jing Xing How can a country ‘graduate’ from procyclical fiscal policy? Evidence from China?

WP 15/13 Richard Collier and Giorgia Maffini The UK international tax agenda for business and the impact of the OECD BEPS project

WP 15/12 Irem Guceri and Li Liu Effectiveness of fiscal incentives for R&D: quasi-experimental evidence

WP 15/11 Irem Guceri Tax incentives and R&D: an evaluation of the 2002 UK reform using micro data

WP 15/10 Rita de la Feria and Parintira Tanawong Surcharges and penalties in UK tax law

WP 15/09 Ernesto Crivelli, Ruud de Mooij, Michael Keen Base erosion, profit-shifting and developing countries

WP 15/08 Judith Freedman Managing tax complexity: the institutional framework for tax policy-making and oversight

WP 15/07 Michael P Devereux, Giorgia Maffini and Jing Xing Corporate tax incentives and capital structure: empirical evidence from UK tax returns

WP 15/06 Li Liu and Ben Lockwood VAT notches

WP 15/05 Clemens Fuest and Li Liu Does ownership affect the impact of taxes on firm behaviour? Evidence from China.

WP 15/04 Michael P Devereux, Clemens Fuest and Ben Lockwood The taxation of foreign profits: a unified view

WP 15/03 Jitao Tang and Rosanne Altshuler The spillover effects of outward foreign direct investment on home countries: evidence from the United States

WP 15/02 Juan Carlos Suarez Serrato and Owen Zidar Who benefits from state corporate tax cuts? A local labour markets approach with heterogeneous firms

WP 15/01 Ronald B Davies, Julien Martin, Mathieu Parenti and Farid Toubal Knocking on Tax Haven’s Door: multinational firms and transfer pricing

WP14/29 Anzhela Yevgenyeva The taxation of non-profit organizations after Stauffer

WP 14/28 Peter Birch Sørensen Taxation of shareholder income and the cost of capital in a small open economy
WP 14/27 Peter Birch Sørensen *Taxation and the optimal constraint on corporate debt finance*

WP 14/26 Johannes Becker, Ronald B Davies and Gitte Jakobs *The economics of advance pricing agreements*

WP 14/25 Michael P Devereux and John Vella *Are we heading towards a corporate tax system fit for the 21st century?*

WP 14/24 Martin Simmler *Do multinational firms invest more? On the impact of internal debt financing on capital accumulation*

WP 14/23 Ben Lockwood and Erez Yerushalmi *Should transactions services be taxed at the same rate as consumption?*

WP 14/22 Chris Sanchirico *As American as Apple Inc: International tax and ownership nationality*

WP 14/19 Jörg Paetzold and Hannes Winner *Taking the High Road? Compliance with commuter tax allowances and the role of evasion spillovers*

WP 14/18 David Gamage *How should governments promote distributive justice?: A framework for analyzing the optimal choice of tax instruments*

WP 14/16 Scott D Dyreng, Jeffrey L Hoopes and Jaron H Wilde *Public pressure and corporate tax behaviour*

WP 14/15 Eric Zwick and James Mahon *Do financial frictions amplify fiscal policy? Evidence from business investment stimulus*

WP 14/14 David Weisbach *The use of neutralities in international tax policy*

WP 14/13 Rita de la Feria *Blueprint for reform of VAT rates in Europe*

WP 14/12 Miguel Almunia and David Lopez Rodriguez *Heterogeneous responses to effective tax enforcement: evidence from Spanish firms*

WP 14/11 Charles E McLure, Jack Mintz and George R Zodrow *US Supreme Court unanimously chooses substance over form in foreign tax credit*

WP 14/10 David Neumark and Helen Simpson *Place-based policies*

WP 14/09 Johannes Becker and Ronald B Davies *A negotiation-based model of tax-induced transfer pricing*

WP 14/08 Marko Koethenbuerger and Michael Stimmelmayr *Taxing multinationals in the presence of internal capital markets*
WP 14/07 Michael Devereux and Rita de la Feria *Designing and implementing a destination-based corporate tax*

WP 14/05 John W Diamond and George R Zodrow *The dynamic economic effects of a US corporate income tax rate reduction*

WP 14/04 Claudia Keser, Gerrit Kimpel and Andreas Oesterricher *The CCCTB option – an experimental study*

WP 14/03 Arjan Lejour *The foreign investment effects of tax treaties*

WP 14/02 Ralph–C. Bayer Harald Oberhofer and Hannes Winner *The occurrence of tax amnesties: theory and evidence*

WP 14/01 Nils Herger, Steve McCorriston and Christos Kotsogiannisz *Multiple taxes and alternative forms of FDI: evidence from cross-border acquisitions*