PSL Quarterly Review

vol. 78 n. 313 (June 2025)

Article

The paradox of policy competition: A simple post-Keynesian theory of how beggar-thy-neighbour FDI-led growth strategies work in principle but not in practice

RYAN WOODGATE*

Abstract:
In recent decades, governments around the world have increasingly used various forms of state aid to try to attract and retain the business activity of foreign-owned multinational corporations. Yet, in most cases, this "commercialisation of state sovereignty" (Palan, 2002) has failed to catalyse foreign investment and economic growth as intended. This paper seeks to understand the general failure of such commercialised state strategies, while also explaining how demand and income growth in some notable exceptions (e.g., Ireland and Singapore) can be understood. To this end, a simple demand-led framework is presented that suggests that foreign-targeted state aid may lead to beggar-thy-neighbour, FDI-driven growth in one economy if certain conditions are met, such as there being sufficiently little policy competition from other countries. It is argued that the exceptional cases tend to be the early movers and that state aid for the attraction of foreign multinationals is unlikely to be an effective growth strategy in the current environment of intense state competition.

Forward College, Berlin, Germany,
email: ryan.woodgate@forward-college.eu

How to cite this article:
Woodgate R. (2025), "The paradox of policy competition: A simple post-Keynesian theory of how beggar-thy-neighbour FDI-led growth strategies work in principle but not in practice", *PSL Quarterly Review*, 78 (313), pp. 181-204.

DOI: https://doi.org/10.13133/2037-3643/18626

JEL codes:
E12, F23, F62

Keywords:
policy competition, foreign direct investment, tax havens, export platforms

Journal homepage:
https://rosa.uniroma1.it/rosa04/psl_quarterly_review

In recent decades, governments around the world have increasingly used various forms of state aid to try to attract and retain the business activity of foreign-owned multinational corporations. This kind of "commercialisation of state sovereignty" (Palan, 2002), reflected in falling effective corporate tax rates as well as rapidly increasing numbers of special economic zones (SEZs) and investment promotion agencies (IPAs) around the world, has become a defining feature of neoliberal globalisation. Such trends, which will be analysed in depth in the following section, reflect the beliefs of policymakers around the world that they can catalyse economic growth through the state-sponsored appeasement of foreign multinationals.

* I am grateful to Eckhard Hein for his valuable comments on an earlier draft. Of course, any remaining errors are mine alone.

Yet, as noted by Dunning and Lundan (2008) and Danzman and Slaski (2021), there is a good deal of consensus that, in most cases, tax incentives and other related state-commercialising strategies simply do not work as intended. Frick et al. (2019), ADB (2015), and Farole (2011) conclude that most SEZs fail to outperform their surrounding host economies and those that do perform well tend to not do so for long. Tørsløv et al. (2018) and Saez and Zucman (2020) show that multinationals predominantly shift profits to low-tax jurisdictions rather than tangible capital or employment, and that lowering corporate tax rates in high-tax jurisdictions does little to prevent the shifting of profits. Hence, despite the proliferation of growth strategies based on the commercialisation of state sovereignty, there is scant evidence that they consistently spur economic growth in the majority of cases.

However, there are exceptional cases where state-commercialising strategies do appear to drive growth. Generally, the high rates of growth of national income in numerous tax havens are widely seen as dependent on their ability to attract the financial flows of foreign multinationals. As Saez and Zucman (2020, p. 83) point out, the ratio of corporate income tax revenues to national income in Malta, Luxembourg, Hong Kong, Cyprus and Ireland are amongst the highest in the world, despite – or, rather, because of – some of the lowest effective rates of corporation tax in the world. The authors also argue that, despite statutory rates of zero percent, traditional tax havens such as the Bermuda and the British Virgin Islands also "generate serious revenue" through charging flat fees on company registration and re-registration (Saez and Zucman, 2020, p. 84). Through attracting, taxing, and spending these foreign capital flows that would otherwise be the tax base of foreign countries, some tax havens appear to successfully fuel aggregate demand and growth in this quintessentially beggar-thy-neighbour way.

Moreover, there appear to be further exceptional cases where tangible capital and employment is attracted through the commercialisation of state sovereignty, rather than just financial capital in the form of shifted profits. For example, the phenomenal growth of Ireland and Singapore is associated not just with the gains of tax base erosion but also with high rates of employment and investment of foreign multinationals, whose presence is widely seen as being induced through an array of policy incentives (Soon and Stoever, 1996; Garcimartín et al., 2008; Yusuf and Nabeshima, 2012; Woodgate, 2022). Furthermore, a few exceptional SEZs have also proven to be highly successful. ADB (2015, p.105) and Amirahmadi and Wu (1995) single out a few early SEZs in China, Malaysia, South Korea, and Taiwan as performing particularly well. Moreover, data provided in UNCTAD (2019, pp. 179-181) and ADB (2015, p. 88) show that a large majority of foreign direct investment (FDI) in China, Vietnam, and Malaysia has taken place in their SEZs in recent years.

This paper addresses this inconsistency puzzle in the effectiveness of foreign-oriented state aid: Why do state-commercialising strategies succeed in driving economic growth in a few exceptional cases but fail to do so more broadly? This question is particularly relevant for scholars of open economy macroeconomics, development economics, and comparative political economy. To explore this issue, we build on Woodgate's (2023) framework, which categorizes commercialised states into two types – tax havens and export platforms – and analyse them through a simplified demand-led model. In this framework, tax havens are defined as those economies that attract inflows of intangible shifted profits, while export platforms receive tangible capital through foreign-targeted state aid. As Woodgate (2023) demonstrates, tax havens may stimulate demand and national income by leveraging tax revenues collected from foreign multinationals engaged in profit shifting. In contrast, export-platform economies tend to experience demand and income growth through greenfield investment and employment linked to the expansion of foreign affiliates' genuine exports. While Woodgate (2023) shows how

economies with significant FDI inflows may achieve demand and output growth and thus represent distinct growth models, it does not explain how a given economy attracted such FDI inflows in the first place nor whether the efforts to attract such FDI may indeed fail to stimulate growth. To address this gap, this paper extends Woodgate's (2023) findings by identifying the conditions that determine the success or failure of state-commercialising strategies in catalysing FDI-led growth.

It will be argued that the success of state-commercialising strategies in spurring growth largely depends on the extent to which tax havens and export platforms manage to differentiate between domestic and foreign-owned firms when granting tax incentives and other forms of state aid. For example, tax incentives offered to domestic firms immediately decrease tax revenue collected, whereas those offered exclusively to foreign multinationals may increase revenues through expanding the tax base (at the expense of other countries). Given an exogenously fixed public budget position, this leads to higher government expenditure, while also alleviating the balance-of-payments constraint. The growth conditions for "traditional" tax havens, which are those that do not differentiate between foreign and domestic firms, are shown to be more difficult to fulfil than "modern" tax havens, which target foreign multinationals exclusively and tailor their incentive packages in response.

However, even if state aid is targeted toward foreign multinationals exclusively, there is ultimately a more fundamental coordination problem at play. The theory developed here predicts that one country acting alone in offering state aid to foreign multinationals may boost national income, but many countries doing so simultaneously will see a lower, possibly negative effect on national income if the concurrent increase in policy incentives fails to distinguish any particular country as being relatively attractive to foreign multinationals. Since, as this paper documents, policy competition intensified around the world since the 1980s despite these diminishing returns, it follows that further state-commercialising strategies are increasingly unlikely to boost growth, as outcompeting the incumbent winners of the race to the bottom becomes practically impossible at the bottom. This generalises the "paradox of tax competition" argument seen in Woodgate (2020) to include kinds of incentives not restricted to just corporate tax incentives and to incorporate effects on demand not limited to greenfield FDI inflows; thus, this is referred to as the "paradox of policy competition".

From this central thesis, it follows that there is an early mover advantage in the commercialisation of state sovereignty. Indeed, it is shown that most, if not all, of the countries and regions with exceptional success (of Ireland, Singapore, and SEZs in Shenzhen and Taiwan and so on) were among the first to compete on state-commercialising policies when they faced little to no competition. Hence, the commercialised states that managed to grow through this beggar-thy-neighbour strategy are generally not good role models for other countries now wishing to emulate their economic success.

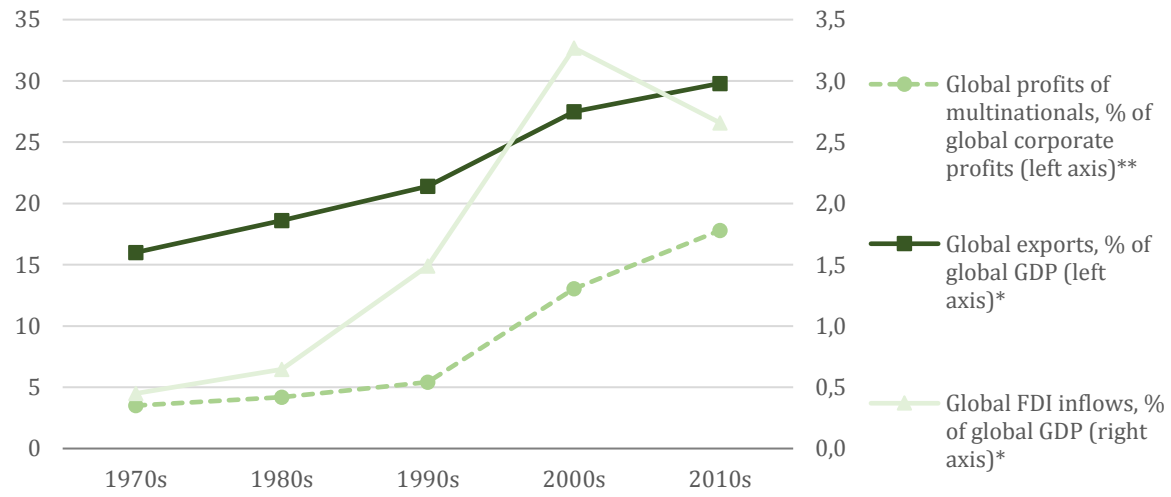
The paper proceeds as follows. Section 1 defines the commercialisation of state sovereignty and, with reference to the relevant data, argues that it is now so widespread that it has come to be a defining feature of modern neoliberal globalisation. Section 2 explains how tax havens and export platforms both tend to exhibit high trade surpluses and uses this as the basis for a simple model to find the conditions under which the attraction of foreign multinationals may induce growth. Section 3 analyses the implications of this model, particularly in relation to our research questions, while section 4 concludes.

1. The "commercialisation of state sovereignty" as a defining feature of Neoliberal globalisation

A key difference between the current and previous waves of globalisation lies in the "increased international mobility of means of production (capital and technology) resulting from improvements in transportation, communication, and ability to manage globally diversified production networks" (Palley, 2015, p. 53). Such globalised production networks, Palley continues, are "configured on the principle of global cost arbitrage", whereby it is "as if factories are placed on barges that float between countries to take advantage of lowest costs – which can be due to under-valued exchange rates, low taxes, subsidies, absence of regulation, or abundant cheap exploitable labor" (ibid.). Palley and others refer to this most recent kind of globalisation as "neoliberal globalisation", which he categorises as the third wave of globalisation that began in 1990 and runs until today. Given that the first instances of this "barge economics" phenomenon occurred before 1990, he also accepts that such a discrete periodisation has, by necessity, a somewhat arbitrary element about it (Palley, 2018, p. 6).

Empirically, the 1990s appears to a reasonably good approximation of the start date of neoliberal globalisation. As figure 1 shows, the share of worldwide exports in global GDP increased in a steady and linear fashion every decade since the 1970s, whereas it is only in the 1990s that the share of worldwide FDI inflows in global GDP really take off. Similarly, it is around the 1990s that multinationals' share of global corporate profits increases sharply. From this, it is clearly evidenced that multinational corporations and global value chains are central to the era of neoliberal globalisation.

Figure 1 – *Neoliberal globalisation: steady increase in global trade vs. sudden increases in FDI and the profits of multinationals (decade averages)*



Sources: *World Bank (2020). **Saez and Zucman (2020).

In this paper, we will argue that another key aspect of neoliberal globalisation is what Palan (2002) calls the "commercialisation of state sovereignty". Although Palan (2002) does not offer a precise definition, here we will take the term to refer to the phenomenon whereby the state aligns its laws and regulations with the interests of foreign multinationals in order to attract and retain their business activity. Such business activity can be related to genuine production (e.g., investment and employment) or intangible capital flows (e.g., profits and intellectual property). The term could also be applied to the efforts of policymakers to appeal to the desires of wealthy individuals for financial secrecy and tax minimisation, but that is not the focus in this paper. Here, our use of the term will be more in line with that of Saez and Zucman (2020, p. 83), who write that commercialised states are those that have "sold multinationals the right to decide for themselves their rate of taxation, regulatory constraints, and legal obligations".

Palan (2002) describes the commercialisation of state sovereignty in the context of tax havens in particular, since they "perfected" the strategy, but he also mentions that tax havens are not the only states to do so (p. 172). Elsewhere (Palan, 1998), he suggests other kinds of commercialisation of state sovereignty, albeit not by this name. The author notes that nations offering special economic zones (SEZs)[1] and flags of convenience[2] are similar to tax havens: "the principle common denominator is that they have come about as states [that] use their sovereignty, or their right to write the law, often deliberately, to create special territorial or juridical enclaves characterised by a reduction in regulations, including taxation" (Palan, 1998, p. 626).

Evidence of the widespread nature of the commercialisation of state sovereignty abounds. For example, the race to the bottom in corporate tax rates around the world is widely seen as the result of government attempts to attract foreign multinationals or appease domestic firms in order to prevent them from moving abroad (Saez and Zucman, 2020, ch. 5). The average statutory corporate tax rate across the OECD halved between 1981 and 2019, from 47% to 23.5% (OECD, 2021). Using decade averages, as shown in figure 2, we can see that this persistent fall in statutory corporate tax rates appears to begin in the 1990s, though our measure of the effective corporate tax rate faced by multinationals around the world begins to fall before the 1990s.[3]

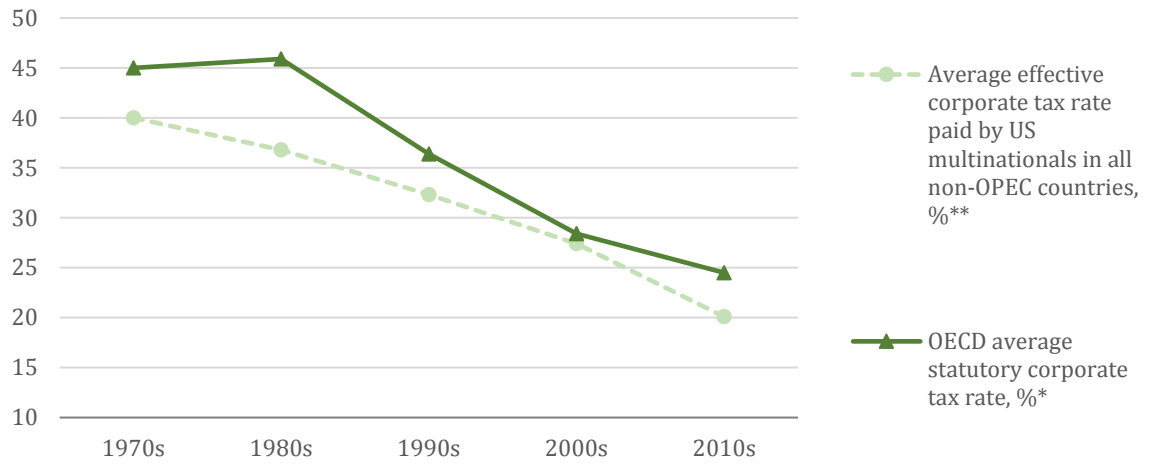
A second indicator of the intensive and extensive nature of the commercialisation of state sovereignty is displayed in figure 3, which shows estimates of the number of SEZs worldwide, as well as the number of countries that have established SEZs. Again, it appears to be around the 1990s that SEZs begin to become extremely widespread. UNCTAD (2019) estimates that the number of SEZs in existence around the world grew from 500 to 3500 between 1995 and 2006. The proliferation of SEZs demonstrates a kind of commercialisation of state sovereignty, albeit a kind that does not necessarily improve the attractiveness of the entire state to foreign multinationals but, rather, of a well-defined area within it.

[1] UNCTAD (2019, p. 128) defines SEZs as "geographically delimited areas within which governments facilitate industrial activity through fiscal and regulatory incentives and infrastructure support".

[2] A flag of convenience is the business practice of registering a ship or an aircraft in a country other than that of its owners in order to reduce or eschew operating and regulatory costs.

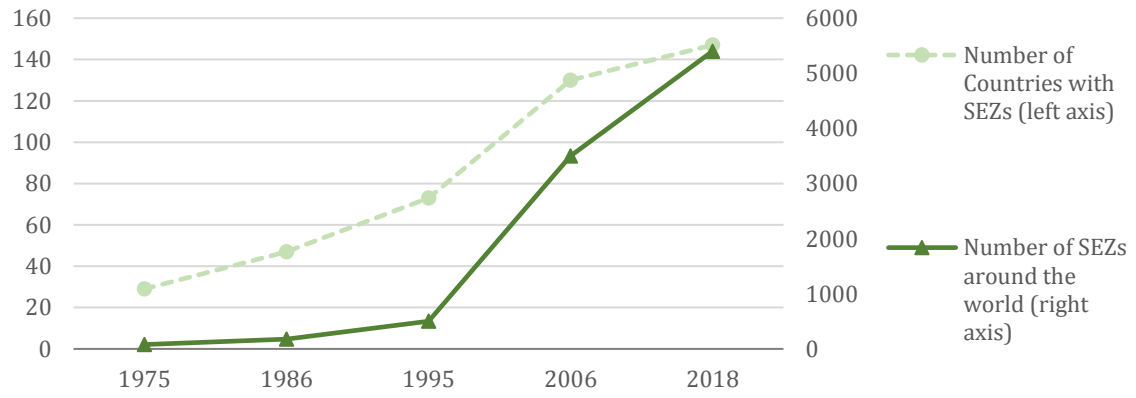
[3] Following Wright and Zucman (2018), this effective corporate tax rate measure is defined by the ratio of foreign income tax paid by majority-owned affiliates of US multinationals in non-oil exporting nations to the "profit-type return" of these affiliates, as reported in the BEA (2020) "Activities of US MNEs abroad" survey.

Figure 2 – *Falling corporate tax rates around the world (decade averages)*



Sources: *OECD (2021); Khan et al. (2020). **Wright and Zucman (2018); BEA (2020).

Figure 3 – *Proliferation of special economic zones around the world*



Source: UNCTAD (2019).

SEZs around the world offer a broad range of incentives to lure foreign capital, as is reflected in table 1. The survey data employed come from two sources, one referring to a sample of 127 SEZs (UNCTAD, 2019) and the other to a larger sample of 553 SEZs around the world (CIIP, 2017). Chief among these incentives are tax exemptions, tax holidays, or a reduced corporate tax rate, as well as an elimination or reduction of import tariffs and VAT. In the CIIP sample, 68% of SEZs offer a complete corporate tax exemption, 18% offer exemptions based on firm qualifications and performance (e.g., number of persons employed, percentage of output that is exported, amount of investment, etc.), and 7% offer a reduced rate. In a third of the SEZs in the UNCTAD sample, a government-backed "one-stop shop" for legal, bureaucratic, and/or technical advice is available and labour hiring and firing procedures are relaxed. Other legal assurances and offers of low rent at favourable conditions are found in about a quarter of surveyed SEZs, whereas other incentives seen in table 1 are less common.

Table 1 – *Investment attraction tools and their prevalence in SEZs around the world*

Incentives	**Measures include…**	
Fiscal incentives 72%* – 92%†	• Complete tax exemptions • Performance-based tax deductions • Reduced tax rates	68%† 18%† 7%†

Special customs
74%* – 95%†
	• Import duty exemption on:
	  ○ Capital equipment and material inputs
	  ○ Capital equipment only
		
		55%†
		40%†

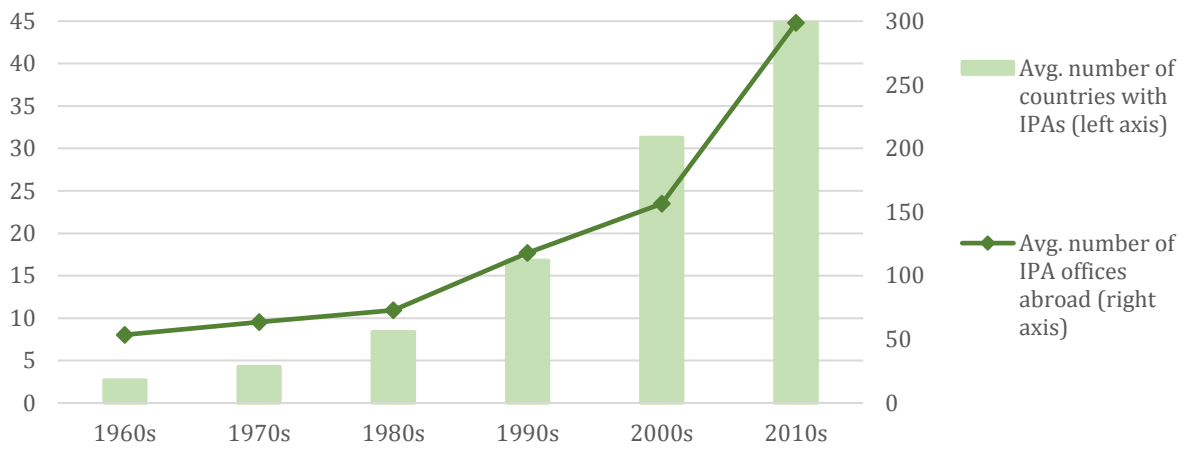
Investment facilitation 32.3%*	• Legal and technical advice • Relaxed recruitment and employment regulation	
Investment protection 26.0%*	• Assurances that SEZ firms cannot be expropriated or affected by newer domestic laws	
Preferential land use 25.2%*	• Exemptions from lease payment • Reduced rent	
Trade facilitation 17.3%*	• Simplification of tax filing obligations	
Infrastructure 16.5%*	• Provision of electricity, gas, water, and communication utilities	
Social amenities 3.1%*	• Provision of educational, health, or recreation facilities	

* Of a sample of 127 SEZs (UNCTAD, 2019, pp. 166-167).
† Of a sample of 553 SEZs (CIIP, 2017, p. 19).

A third and final trend closely associated with the commercialisation of state sovereignty is the rapid growth of investment promotion agencies (IPAs) around the world. Most frequently, IPAs are public agencies whose primary mandate is to attract and retain inward foreign

investment, usually with a clear preference for greenfield FDI projects (OECD, 2018). They do so through a number of means. Among other functions, IPAs typically advertise the business environment of their region, target particular sectors, reach out to desired foreign companies, act as an intermediary between foreign corporations and local government, and offer or negotiate deals with foreign firms regarding taxes, tariffs, and subsidies. As Danzman and Slaski (2021, p. 2) put it, "IPAs are the bureaucratic gatekeepers of incentives, and are the part of the state that works most closely with multinational enterprises to encourage them to pursue local investment opportunities". As Martincus and Sztajerowska (2019, p. xxi) point out, now "virtually each country has at least one IPA that seeks to attract and facilitate FDI". Yet, this is a very recent phenomenon. As figure 4 makes clear, the number of countries across the OECD, Latin American, and Caribbean regions with IPAs, as well as the number of foreign offices of each IPA, has ballooned only in recent decades.

Figure 4 – *Growth in the number of national IPAs and their offices abroad (sample of 51 countries across the OECD and South America)*



Source: Martincus and Sztajerowska (2019).

From this data follows the first central point to be advanced in this paper, namely that Palan's "commercialisation of state sovereignty", broadly defined, is the other side of the coin to Palley's "barge economics". Where Palley rightly declares that neoliberal globalisation "has been driven by corporate restructuring of global production" (2018, p. 29), we might add that it has also been intensified by governments keen to outcompete one another in order to facilitate and benefit from such global corporate restructuring. The two processes characterise the current era of neoliberal globalisation and have become intricately interwoven.

2. Growth conditions for commercialised states

The data on corporate tax rates, SEZs, and IPAs strongly suggest that many policymakers around the world believe their incentives may attract some part of the business activity of foreign multinationals, and that the establishment of foreign affiliates will stimulate regional or national economic growth. However, as mentioned in the introduction, reviews of the literature tend to find that effective state-commercialising strategies appear to be the exception rather than the rule. In this section, we develop a simple model that may help explain why this is the case.

2.1. Two kinds of commercialised states

In this paper, we follow Woodgate (2023) by focussing on two theoretical categories of commercialised states in particular, *tax havens* and *export platforms*. In reality, the two categories can and do overlap. However, for the purposes of our analysis, it will serve us well to make the theoretical distinction.

Though there are a number of definitions of tax havens and ways to identify them, here we will take a tax haven to be any country that is a net recipient of the shifted profits of foreign multinationals. Three channels of profit shifting have been observed in the literature (Cobham and Janský, 2020). First, through *transfer mispricing*, a subsidiary in a low-tax jurisdiction receives intergroup imports at artificially low prices (i.e., at cost or a near-cost price) and exports to consumers or other affiliates at (close to) market price. Second, through *intra-group royalty payments*, the multinational locates its intellectual property in the low-tax jurisdiction, such that other affiliates around the world pay service fees for its use. Third, through *debt shifting*, loans are charged at high interest rates by the affiliate in the low-tax country to other affiliates in higher tax countries. In each case, the end effect is to reduce a multinational's worldwide tax bill by shifting its gross profits to its affiliates in low-tax jurisdictions. Hence, indicators of tax haven status are usually given by especially low effective rates of corporate tax, high FDI inflows and foreign affiliate profitability ratios, and inflated measures of output, gross operating surplus, and the profit share. Based on these kinds of indicators, there is a strong degree of consensus in the related literature as to which countries are tax havens (Hines, 2010; Garcia-Bernardo et al., 2017; Tørsløv et al., 2018; Cobham and Janský, 2018, 2019).

What is important for our purposes is the distortionary effect of profit shifting on the trade balance of tax havens. As Tørsløv et al. (2018, p. 31) point out, the first two methods of profit shifting listed above are the most prevalent, accounting for around 85% of shifted profits worldwide. They are also the methods that tend to inflate the net exports of tax havens and reduce the net exports of non-havens. For example, the authors estimate that, once corrected for the effects of profit shifting, Ireland's reported trade surplus of 31% of GDP in 2015 turns into a trade *deficit* of 5.8%. Profit shifting is found to distort the trade balance of other (especially smaller) tax havens to an even greater extent (ibid., appendix table C5b).

In contrast to tax havens, export platform economies host foreign affiliates that are engaged in the genuine production of goods and services. However, these goods and services are predominantly destined for sale in other countries. This may be because the market of the host economy is small relative to the home and third-country markets. Alternatively, it may be influenced by policymakers who explicitly encourage exports through linking state aid incentives to the trade performance of foreign affiliates in order to, for example, protect indigenous infant industries from the threat of established foreign corporations. To the extent that policymakers aim to fill SEZs with foreign affiliates, it follows that SEZs are one kind of instrument of an export

platform economy. Of course, they are not strictly necessary. For example, IPAs may be tasked with attracting foreign-owned, export-oriented manufactures.

From this discussion, it follows that both types of commercialised states are likely to exhibit a relatively high percentage of trade due to foreign affiliates. In the case of tax havens, this increased foreign affiliate trade reflects profit shifting and tax planning, whereas in the case of export platforms this trade relates to genuine goods and services. Such considerations help us understand those countries found to have some of the highest trade surpluses on record. This is reflected in figure 5, where all countries for which data was available in the World Bank database were ordered in terms of highest average trade surplus to GDP ratios across the 2010s. As an indicator of the trade surpluses of the traditional tax havens found in the Caribbean, three tax haven economies were added with data from UNstat (2021). Economies where a majority of exports is of fuels or precious metals are excluded, as are all economies where the ratio of average net exports to GDP is less than 2%.

Of the 30 economies in figure 5, 12 can be considered as tax havens and 8 as export platforms. Here, to be considered a tax haven, the economy in question must have been found to be a net recipient of shifted profits in the literature (Tørsløv et al., 2018; Cobham and Janský, 2018, 2019). To be designated an export platform, at least 40% of the net exports of the nonhaven economy in question must be due to foreign-owned firms, using data from the OECD Analytical Activities of Multinational Enterprises database (see Cadestin et al., 2018).[4] Tax havens tend to have some of the highest trade surpluses in the world. Export platforms, as defined here, are dispersed amongst the top 30 net exporters, and nearly all belong to either the SEZ-dependent Asian group (China, Thailand, Malaysia) or the Central and Eastern European group (Slovakia, Estonia, Czechia, Hungary), whose "FDI-oriented state strategies" (Drahokoupil, 2009, p. 18) are well established in the literature (Bohle, 2009, 2018; Bohle and Regan, 2021).

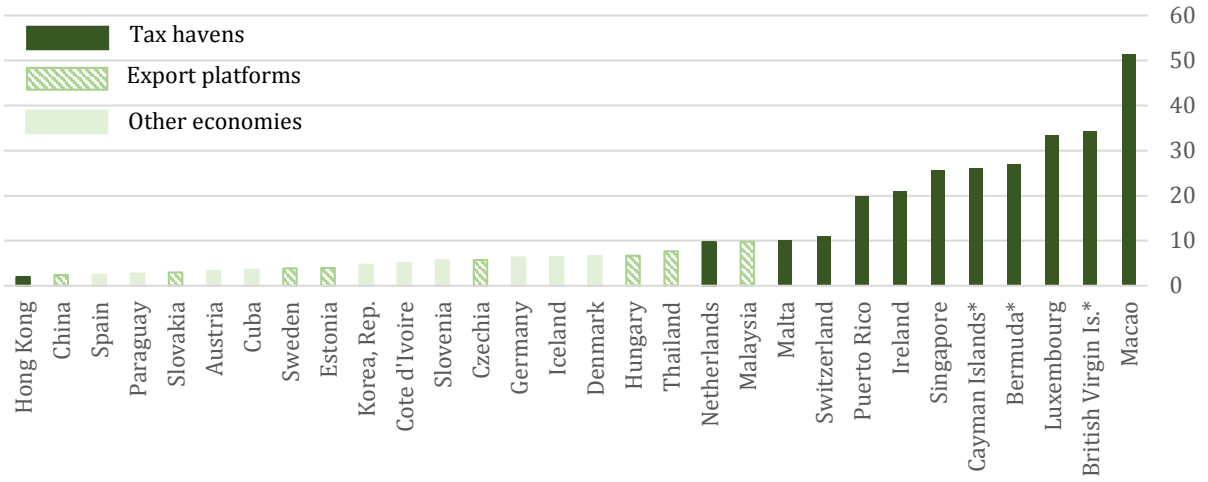
Though the two types of commercialised state are distinct, they are both induced by the same kind of government policies and likely have similar consequences regarding the trade balance. In the modelling approach that follows, these commonalities will be kept in mind. As a means to simplify the otherwise complex nature of state-commercialising strategies, we will employ an especially broad definition of the effective rate of tax. The effective corporate tax rate on foreign affiliates is defined by

$$\tau_{FA} = \frac{T_{FA} - S_{FA}}{\Pi_{FA}}, \tag{1}$$

where T_{FA} is the tax collected from foreign affiliates, S_{FA} represents the output subsidies and the monetary value of all benefits to kind paid by the government to foreign affiliates, and Π_{FA} denotes the total profits of foreign affiliates. S_{FA} may include any of the investment incentives seen in table 1 that do not affect T_{FA}, e.g. direct and indirect subsidies, reduced rent on public lands, provision and maintenance of infrastructure and amenities used by foreign affiliates, reduced compliance and bureaucratic costs, and so on. We will suppose S_{FA} is dependent upon genuine output, and so is paid by the governments of export platforms but not tax havens. Hence, τ_{FA} is bounded between zero and one in tax havens, but may be negative in export platforms.

[4] 40% is, of course, a rather arbitrary threshold. In any case, as this is just illustrative, the exact threshold for the definition of "export platform" is unimportant for our ultimate purposes.

Figure 5 – *Top net exporters (% of GDP, 2010s average), exc. oil and precious metal exporters*



Sources: World Bank (2020). *UNstat (2021).

2.2. Model

Presented here is a highly simplified two-period demand-led model in which prices and the capital stock are fixed. Foreign affiliates do not exist in the first period, only in the second. Hence, period one is the benchmark against which the macroeconomic effects of the presence and operation of foreign affiliates, seen in period two, are compared. A discrete, two-period model is preferred to a continuous alternative, primarily because small changes in tax incentives are not likely to attract foreign multinationals, whereas large changes are. Profit shifting and tax base erosion, in particular, appear to be winner-take-all phenomena. Economies that establish near zero effective corporate tax rates may receive shifted profits, but other, higher-tax economies that lower corporate tax rates slightly do not attract shifted profits as a result nor do they appear to prevent domestically made profits from being shifted out. Hence, the discrete periodisation is preferred to a continuous-time modelling approach, though the latter can be found in Woodgate (2023).

We begin with the benchmark model of period one, i.e., with no foreign affiliates or commercialised state strategies. We employ a simple Keynesian consumption function, where consumption (C) is a function of autonomous consumption (C_A) and the product of the marginal propensity to consume (c) and disposable income, given by the difference between national income (Y) and total income tax revenues (T)

$$C = C_A + c(Y - T). \tag{2}$$

Tax revenues are, in turn, given by the product of the average effective tax rate (τ) and total income

$$T = \tau Y. \tag{3}$$

Investment (I) is given by

$$I = I_A + \gamma Y, \tag{4}$$

where I_A is autonomous investment and γ represents the responsiveness of investment to changes in the income level. Note that our simplified investment function assumes that the effective rate of tax has no direct effect on domestic investment.[5] Government expenditures (G) are dependent upon the exogenously determined fiscal budget parameter (b) and tax revenues

$$G = bT. \tag{5}$$

A value of b equal to one implies that the government is following a balanced budget rule, greater than one implies a targeted deficit, and less than one reflects a persistent fiscal surplus. For simplicity, we suppose deficits are financed through money emission. Hence, we need not analyse interest payments or debt dynamics. Lastly, a simplified net export function is employed, where net exports (NX) are determined by an autonomous part (NX_A) and an induced part in which η reflects the responsiveness of net exports to changes in the income level

$$NX = NX_A - \eta Y. \tag{6}$$

Solving for the equilibrium level of income in period one (Y_1^*), we find that

$$Y_1^* = \frac{E_A}{m - \tau_1(b-c)}. \tag{7}$$

All autonomous expenditures are captured in $E_A = C_A + I_A + NX_A$ and m is defined such that $m = 1 + \eta - c - \gamma$. Importantly, E_A and m will not vary between periods one and two, whereas the effective tax rate may vary (and is thus separated from the rest of the denominator). We make the usual assumption of Keynesian stability, i.e., we assume that $m - \tau_1(b-c) > 0$ at all times.

From equation (7) it follows that, in the benchmark economy of period one with no foreign affiliates or state-commercialising strategies, a decrease in the effective tax rate will lower the equilibrium income level as long as the fiscal budget parameter is greater than the marginal propensity to consume ($b > c$). Of course, in any given real economy, this is likely always the case and so the benchmark economy reflects the conclusion of Kalecki (1944, p. 57) that "income tax financed expenditure […] should be pushed as far as politically possible".

In period two, we wish to understand the effects on equilibrium national income due to the operation of newly established foreign affiliates. We begin with the assumption regarding their behaviour. Throughout the analysis, we suppose that all foreign affiliate profits net of tax are repatriated out of the economy, such that net factor income receipts (NY) are given by

[5] For a related discussion, see Mott and Slattery (1994, p. 404).

$$NY = -(1 - \tau_2)\Pi_{FA}, \tag{8}$$

where τ_2 is the effective rate of tax in the second period and Π_{FA} is the gross profit of foreign affiliates. Foreign affiliates may affect aggregate demand directly by their investment expenditure (I_{FA}) and by the value of their net exports (NX_{FA}). Supposing the functions determining the components of demand are otherwise the same as in period one, the additional aggregate demand due to foreign affiliates is given by

$$AD_{FA} = I_{FA} + NX_{FA}. \tag{9}$$

Again, to keep the focus on the area of interest, we suppose that all foreign investment (I_F) is financed entirely by the foreign parent.

To find another expression for the net exports of foreign affiliates (NX_{FA}), we begin with the income statement of all foreign affiliates

$$\Pi_{FA} = X_{FA} + R^D_{FA} - M_{FA} - Mat^D_{FA} - W_{FA}, \tag{10}$$

where X_{FA} is the revenue generated by affiliates through exports and R^D_{FA} through domestic sales, M_{FA} represents the materials inputs that are imported and Mat^D_{FA} are those sourced domestically, and W_{FA} is the wage bill paid by foreign affiliates to (local) labour. We assume that all revenues are generated through exports and all material inputs are imported ($R^D_{FA} = Mat^D_{FA} = 0$) or, to the same effect, that $R^D_{FA} = Mat^D_{FA}$. Under these assumptions, it naturally follows that

$$NX_{FA} = \Pi_{FA} + W_{FA}. \tag{11}$$

Since gross profits are equal to net profits (which are, in turn, equal to net factor income payments by equation 8) and the tax paid by foreign affiliates, we can express this as

$$NX_{FA} = \tau_2\Pi_{FA} + W_{FA} - NY. \tag{12}$$

Hence we can write equation (9) as

$$AD_{FA} = I_{FA} + \tau_2\Pi_{FA} + W_{FA} - NY. \tag{13}$$

In equilibrium, the domestic product Y^D is equal to total aggregate demand, which comprises domestic aggregate demand and the aggregate demand due to foreign affiliates:

$$Y^D_2 = E_A + Y_2[c(1 - \tau_2) + \gamma + b\tau_2 - \eta] + AD_{FA}. \tag{14}$$

Substituting equation (13) into (14), we get

$$Y^D_2 = E_A + Y_2[c(1 - \tau_2) + \gamma + b\tau_2 - \eta] + I_{FA} + \tau_2\Pi_{FA} + W_{FA} - NY. \tag{15}$$

Recognising that national income is equal to the sum of the domestic product and net factor income receipts ($Y = Y^D + NY$), it follows that the equilibrium level of national income in period two is given by

$$Y^*_2 = \frac{E_A + W_{FA} + \tau_2\Pi_{FA} + I_{FA}}{m - \tau_2(b - c)}. \tag{16}$$

2.2.1. Revisiting the FDI-led growth hypothesis

Before we consider how particular commercialised state strategies may or may not work, it is worth briefly contextualising the model in its general form. Suppose, for now, that, for whatever reason, foreign affiliates are established in period two but the effective rate of tax in period two is the same as in period one ($\tau_2 = \tau_1$). From equations (7) and (16), we can see that the equilibrium national income level increases in period two in proportion to the increase in foreign affiliate activity, whether in terms of investment undertaken or wages and taxes paid locally:

$$Y_2^* = Y_1^* + \frac{W_{FA}+\tau_2\Pi_{FA}+I_{FA}}{m-\tau_2(b-c)}. \tag{17}$$

Our simple model thus suggests an economy may be "FDI-led" or "FDI-driven", in the sense that the establishment and operations of foreign affiliates, and the necessary FDI that goes with it, may lead to higher levels of equilibrium national income. Though Singer (1950) is best known for his reasoned doubts concerning the possibility of growth driven by FDI, our finding here is actually strongly in line with Singer's conclusion. Singer (1950, p. 484) writes, "the main requirement [for the FDI-led growth] of underdeveloped countries would seem to be to provide for some method of income absorption". He suggests three ways in which foreign incomes may be absorbed (ibid.): First, via "the reinvestment of profits in the underdeveloped countries themselves", which is reflected in the I_F term in equation (17). We will refer to this as the investment channel. Second, via "the absorption of profits by fiscal measures and their utilization for the finance of economic development", which is clearly captured in the $\tau_2\Pi_{FA}$ term. We will refer to this as the tax channel. Or, finally, via "the absorption of rising productivity in primary production in rising real wages and other real incomes", which relates to the W_F term in equation (17). This will be referred to as the employment channel. Especially if the kind of FDI is not in the primary but, rather, the higher value-added manufacturing and services sectors, and so the terms of trade problems associated with the Prebisch-Singer hypothesis are less relevant, then it stands to reason that an economy that attracts many foreign affiliates without lowering aggregate demand of the domestic residents can expect to grow.

Thus, our short-run model in its general form supports the hypothesis that, in principle, an economy may be FDI-led. In the case of commercialised states that aim to achieve such FDI-led increases in national income, however, it remains to be seen under which conditions, if any, state aid may be used as a catalyst.

2.2.2. Growth conditions for tax havens

Let us now consider the growth conditions of tax havens, i.e., economies that are the recipient of shifted profits in the second period. Two conditions are imposed on the effective rate of tax in period two. First, it is lower than the rate in period one ($\tau_2 < \tau_1$) and, second, it is low enough to induce multinationals to set up shell companies in this low-tax economy to facilitate pure profit shifting for tax avoidance and evasion purposes. In order to induce foreign multinationals to do so, let us suppose the effective rate of tax must be no greater than some tax haven threshold tax rate (τ_{TH}):

$$\tau_2 \leq \tau_{TH} \tag{18}$$

Though the determinants of τ_{TH} can be said to be complex and varied, we can speak broadly of two kinds of determinants. It depends, firstly, on the effective rates of tax elsewhere in the relevant region (Woodgate, 2020). For example, if effective rates of tax are already near zero in other countries in which multinationals would consider locating, τ_{TH} may be effectively zero and our given economy cannot establish itself as a tax haven since it can no longer induce multinationals to change their tax planning arrangements. Second, τ_{TH} depends on international legal agreements and conventions surrounding corporation tax and the degree of enforcement of the corresponding rules. For the reasons Zucman (2014) explains, the traditional pillars of international taxation – source-based taxation, arm's length pricing, and bilateral double taxation treaties – mean that tax differentials between countries enable and incentivise profit shifting in the first place. The exact nature of the international legal system surrounding the taxation of corporations affects the tax haven threshold, and, in principle, an alternative system could eliminate the threshold, which is what recent global corporate tax agreements have aimed to do. We will return to the importance of the determinants of τ_{TH} later. For now, we accept that this hypothetical threshold exists and that our model economy will receive shifted profits by matching or undercutting it.

Importantly, the model economy is a pure tax haven in the sense that no genuine value-added is created by the new foreign affiliates in period two. We suppose that any legal or accounting costs of setting up and maintaining the shell company are negligible. Hence, in our model tax haven of period two

$$W_{FA} = I_{FA} = 0, \tag{19}$$

and, so, in line with the discussion in section 2.1, any increase in the value of net exports actually reflects the value of shifted profits

$$NX_{FA} = \Pi_{FA}. \tag{20}$$

With this arrangement, this tax haven is left with an equilibrium level of income in period two that, by equation (16), is equal to

$$Y_2^* = \frac{E_A + \tau_{TH}\Pi_{FA}}{m - \tau_{TH}(b-c)}. \tag{21}$$

Note that, for simplicity, we have set $\tau_2 = \tau_{TH}$, the maximum effective tax rate at which the economy can still establish itself as a tax haven. Comparing equations (7) and (21), we find that the condition for the increase of the equilibrium national income level ($Y_2^* > Y_1^*$) is

$$\Pi_{FA} > Y_1^*(b-c)\left(\frac{\tau_1}{\tau_{TH}} - 1\right). \tag{22}$$

Inequality (22) says that, for this particular commercialised-state strategy to spur growth, the value of shifted profits must be sufficiently large. Sufficiency is determined by the size of the economy in period one (Y_1^*), the difference between the fiscal budget parameter and the marginal propensity to consume, and the ratio of the effective rate of tax in period one to that of period two. For example, if $\tau_1 = 0.4$, $\tau_{TH} = 0.05$, $c = 0.7$, $b = 1$, then our very simple model, which predicts an economy that attracts a value of shifted profits that is greater than 2.1 times the value of equilibrium national income in period one ($\Pi_{FA} > 2.1 * Y_1^*$), will see an increase of income in period two. Hence, economic size matters a great deal – smaller or poorer countries are more

likely to grow through this particular tax haven strategy. Also important is the degree of tax competition necessary for the economy to establish itself as a tax haven, i.e., how much lower τ_2 must be relative to τ_1, which is determined by the threshold rate (τ_{TH}) discussed above. If τ_{TH} is zero or sufficiently close to zero, then even the smallest economy could not grow through this commercialised state strategy.

Besides traditional tax havens, especially in the Caribbean, which are marked by low or zero rates of tax across many income streams and not just corporation tax, it seems that many modern tax havens do not employ an especially low *average* effective rate of tax but, rather, a low effective rate on corporations alone. As such, the tax haven strategy modelled so far can be seen as a blunderbuss approach to attracting foreign multinationals. A more targeted approach of lowering the effective rates of tax on foreign affiliates exclusively could attract the activity of multinationals without leading to a reduction in tax revenues collected from domestic firms. Indeed, this is one of the main purposes of investment promotion agencies, namely seeking out foreign firms and tailoring the state aid package necessary to induce that firm to establish an affiliate locally. Alternatively, by filling SEZs primarily with foreign-owned firms, policymakers can achieve an effective rate of corporate tax on foreign affiliates that is lower than that faced by domestic firms.

It is easy to show that a "modern" or "targeted" tax haven that manages to keep domestic effective rates of tax constant across the two periods ($\tau_2 = \tau_1$) while charging an especially low effective rate of corporate tax on foreign affiliates alone, denoted τ_{FA}, has a much higher chance of growth. Supposing $\tau_{FA} \leq \tau_{TH}$, the growth condition for our model economy becomes

$$Y_2^* = Y_1^* + \frac{\tau_{FA}\Pi_{FA}}{m-\tau_2(b-c)}. \tag{23}$$

In this hypothetical case, holding all else equal, the growth of national income is ensured as long as the tax haven threshold can be undercut.

Given this result, why would any commercialised state pursue the blunderbuss approach related to equation (22) rather than the targeted tax haven approach related to equation (23)? There are at least two highly relevant political constraints. First, it may be considered unacceptable to local firms that foreign-owned competitors pay less tax. Hence, there may be domestic pressures against the targeted approach. There are also political constraints imposed from abroad. Within the EU, offering tax advantages on a selective basis may be considered state aid and is prohibited in the general case (European Commission, 2021). However, lowering overall or statutory rates of tax, although increasingly frowned upon, is nonetheless considered an expression of state sovereignty rather than a beggar-thy-neighbour growth strategy that can be legislated against. World Trade Organisation rules may also limit the extent to which a targeted tax haven approach works (Daly, 2016). For such reasons, economies wishing to pursue a tax haven growth strategy may be constrained in the extent to which they can target foreign affiliates exclusively with tax incentives.

2.2.3. Growth conditions for export platforms

Lastly, let us consider a second period in which the model economy has attracted foreign multinationals whose affiliates are not mere shell companies but produce and export genuine goods and services. We assume that there is no pressing constraint on the supply of labour in the economy, such that any increase in the employment of foreign affiliates can be facilitated (and is facilitated, again, without wage or price inflation). We continue to suppose that the overall effective tax rate does not change between the two periods ($\tau_2 = \tau_1$) and that foreign

multinationals are attracted through the *targeted* foreign effective corporate tax rate (τ_{FA}). This time, however, we suppose that τ_{FA} may be less than or equal to zero, since we will consider subsidies paid to foreign affiliates and other benefits in kind linked to output (represented by S_{FA} in equation 1); hence, we no longer entertain the possibility of the overall effective tax rate changing between periods (as it is unrealistic to suppose the overall tax rate could be negative). The tax rate threshold for the successful attraction of genuinely productive foreign multinationals (τ_{EP}) may also be negative, as it is partly determined by how low effective corporate tax rates are elsewhere and these rates may be negative for the same reason. The condition for our model economy to host the genuine production of foreign affiliates in the second period is thus

$$\tau_{FA} \leq \tau_{EP}. \tag{24}$$

Now the net exports of foreign affiliates represent genuine value added and not shifted profits. Thus, we are back to the general case, where $NX_{FA} = \Pi_{FA} + W_{FA}$ and $I_{FA} > 0$. The equilibrium level of income in period two is thus

$$Y_2^* = Y_1^* + \frac{W_{FA}+\tau_{FA}\Pi_{FA}+I_{FA}}{m-\tau_2(b-c)}. \tag{25}$$

If $\tau_{FA} > 0$, all three (employment, tax, and investment) channels are in effect and there is an unambiguous increase in the level of income. Note that any induced government expenditure here is due to taxes collected on the profits connected to genuine production, not on shifted profits. If subsidies exceed tax revenue collected from foreign affiliates, such that $\tau_{FA} < 0$, then $Y_2^* > Y_1^*$ if

$$|\tau_{FA}| < (W_{FA} + I_{FA})/\Pi_{FA}. \tag{26}$$

If we suppose, in analogue with how domestic investment is determined, that foreign affiliate investment increases linearly by a factor of μ with total value added of foreign affiliates

$$I_{FA} = \mu(NX_{FA}) = \mu(\Pi_{FA} + W_{FA}), \tag{27}$$

then the growth condition for when $\tau_{FA} < 0$ behind equation (26) becomes

$$|\tau_{FA}| < \frac{W_{FA}}{\Pi_{FA}}(1 + \mu) + \mu. \tag{28}$$

Inequality (28) implies that there is a limit to how negative the effective rate of tax on foreign affiliates can be while still having a net positive effect on the growth of incomes. However, especially if $W_{FA} > \Pi_{FA}$, the effective limit on how negative τ_{FA} may be is again determined by exogenous legal or political constraints rather than by this theoretical macroeconomic limit.

3. Discussion: relevance and implications of the model

The simple theory offered in the preceding section throws forth a number of implications that may help us assess its relevance and usefulness. First, condition (22) suggests that smaller economies are more likely to engage in tax and policy competition. This prediction is also found in the game-theoretic literature on tax competition (Keen and Konrad, 2013), and is borne out in the data (Woodgate, 2020, p. 528). Second, condition (22) also suggests that the "traditional" tax

havens, i.e., those economies with low or zero tax rates on many types of income and not just corporate income, must attract a level of shifted profits that is far greater than the size of the economy in the first period. This appears to be the case in Bermuda, the British Virgin Islands, and the Cayman Islands, for example, which are all economies with no (or a zero-rated) statutory tax on various income streams. Estimates from Tørsløv et al. (2018) indicate the value of shifted profits was over 19 times the value of national income in 2015 in the Cayman Islands and the British Virgin Islands and around 5 times the national income in Bermuda. Hence, it appears these traditional tax havens may indeed attract a sufficiently high level of shifted profits. Lastly, our tax haven model economy grows through the spending of the part of shifted profits that is taxed at an especially low rate, so it follows that tax havens should have low effective rates of corporate tax, yet high corporate tax revenues. As noted in the introduction, this is indeed the case. For example, company registration fees paid by foreign multinationals make up 56% of total government revenues in the British Virgin Islands.[6] Recent data published by OECD (2020, p. 40) shows that corporate tax paid by foreign affiliates accounts for 65% of total corporate tax receipts in Ireland, 45% in Luxembourg, and 33% in Singapore, as opposed to 7% on average across Canada, France, Italy, Japan, and the United States.

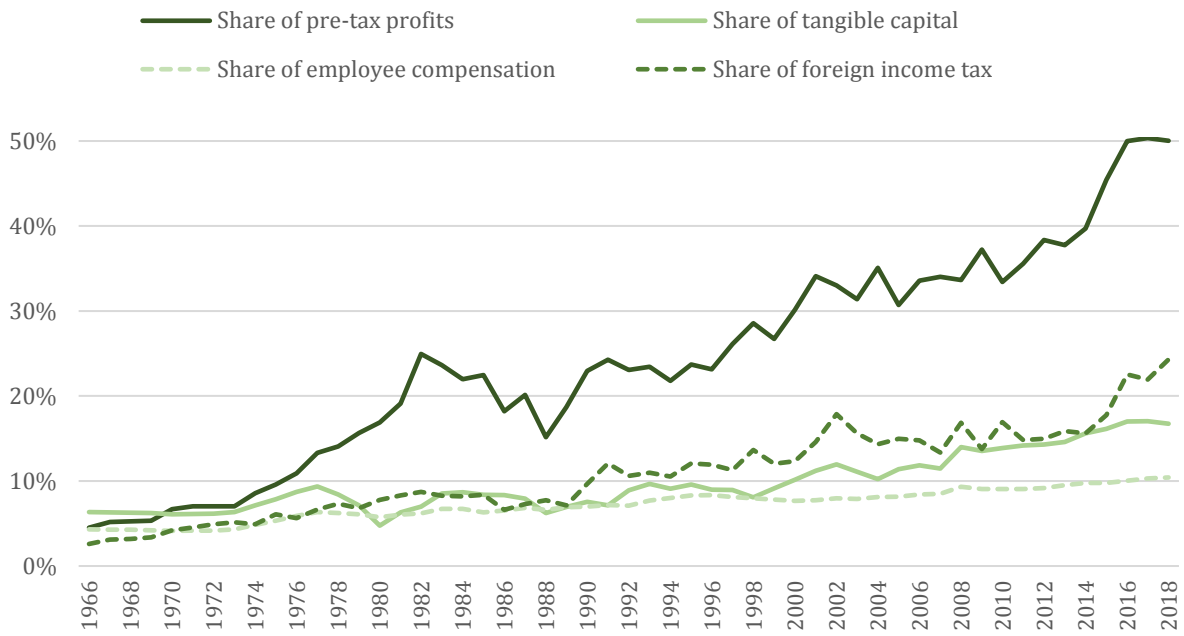
Our export platform model suggests that a large part of employee compensation and investment in particular is due to foreign affiliates. This can also be seen in the data, although proving that the high degree of foreign affiliate activity is caused by state commercialisation and not, say, by low wage rates is a difficult and involved task. Nonetheless, data on SEZs in particular may be taken as indicative. Around 80% of cumulative FDI in China and around 60-70% of FDI in Vietnam has taken place in their respective SEZs (UNCTAD, 2019, pp. 179-181). In Malaysia in 2006, 72% of all FDI flowed into SEZs, while 83% of exports came from SEZs (ADB, 2015, p. 88). The percentage of national exports originating from SEZs was 67% in Sri Lanka in 2005, 49% in the Philippines in 2011, and 44% in China in 2012.[7] Though these percentages are indicative, further empirical work is warranted to examine more closely any causal link between state commercialisation and economic performance in these SEZ-dependent countries, as well as in the Central and Eastern European countries, which exhibit a high degree of economic activity due to foreign affiliates as well as a high level of state aid (Bohle, 2009, 2018; Drahokoupil, 2009).

3.1. Genuine production in tax havens

Here we have supposed that tax havens grow exclusively through the taxing and spending of shifted profits. However, a number of modern tax havens appear to benefit to some extent through the productive investment and genuine net exports of foreign affiliates too. As shown in figure 6, the share of worldwide gross profits of US multinationals that are booked in six prominent tax haven economies (Ireland, Luxembourg, the Netherlands, Switzerland, Singapore, and the grouped economy of Bermuda and the Caribbean) soared from 4.5% in 1966 to 50% in 2018. In the same timeframe, the percentage of worldwide foreign income taxes paid by US multinationals in these tax havens grew from 2.6% to 24.3%. From the point of view of our model, this is as expected. Yet, the share of tangible capital and employee compensation going to tax havens has also risen, from 6.4% and 4.3% to 16.7% and 10.4% respectively, which, although not as stark an increase as that of gross profits and corporate tax paid, is not insignificant.

[6] This figure is the ratio of "fees from registry of corporate affairs" to "total government revenue" in the government finance accounts of the British Virgin Islands, averaged across 2014 to 2016 inclusive.
[7] This data is from ADB (2015, pp. 88-90). The years data referred to is determined by data availability.

Figure 6 – *Profits, tangible capital, tax and wage bills of non-oil US affiliates in tax havens as a percentage of the respective totals of non-oil US affiliates in all countries*



Sources: Wright and Zucman, 2018; BEA, 2020.

What might explain why the employee compensation and tangible investment of foreign affiliates is rising in these tax havens, many of which have relatively expensive labour costs? One likely reason is that multinationals often must prove "economic substance" in order to qualify for particularly low effective tax rates, and so, as Tørsløv et al. (2018, p. 21) suggest, it may simply be "easier for multinationals to shift profits into the countries where they also have sizable real activity". Woodgate (2022, p. 347) shows that this is likely the case in Ireland and argues that foreign multinationals have an incentive to locate capital-intensive production processes and high-skill, managerial labour in tax havens like Ireland. The cost of doing so will likely be similar to what it would be elsewhere, but locating this kind of business activity in the selected tax haven comes with the benefit of helping prove economic substance to local and foreign tax authorities. These considerations may help explain why modern tax havens appear to be benefiting not just from higher tax revenues but also from higher rates of employment and tangible investment.

3.2. The paradox of policy competition

Our model advanced the notion that state aid may be used to spur growth in tax havens and export platforms and explained the channels through which such growth may take place. However,

ceteris paribus conditions were imposed throughout, which ought to be relaxed if we are to understand why, in practice, most attempts at the commercialisation of state sovereignty fail. In particular, the thresholds that determine whether an effective rate of tax is low enough for the model economy to establish itself as a tax haven (τ_{TH}) or an export platform (τ_{EP}) within its region may, in fact, vary between periods. When numerous economies face the same growth conditions seen above and simultaneously engage in the commercialisation of state sovereignty to lure foreign multinationals, these effective threshold rates fall, as described in the more formal game-theoretic models summarised by Keen and Konrad (2013). Hence, while the commercialised state approach may work for one economy alone, as we saw above, it will likely not work for many economies following the same strategy at once, as argued in a related model in Woodgate (2020). Thus, what we call the "paradox of policy competition" describes how commercialised-state growth strategies become ineffective for those countries that enact them at the same time as others or after the threshold values have already fallen to the legal or economic minimum.

This theory would therefore predict that early movers in the ensuing race to the bottom in effective rates of tax are the few economies where state-commercialising strategies worked. This first-mover advantage issue is, indeed, well established within the literature on SEZs. Farole (2011, p. 249) considers the "entrenched position of 'factory Asia'" as one of the main challenges that the more recently established African SEZs inevitably face. Narula and Zhan (2019, p. 2) write that "much of the popular understanding of SEZs focuses on examples from this [pre-1990s] period (such as Ireland, India, Malaysia, South Korea and Mauritius)", when multinationals found reliable, export-oriented locations to be in short supply. However, as the authors add, "developing countries in today's global economy that seek to pursue an SEZ-driven approach to development are unlikely to see similar benefits as those countries that followed this approach prior to the 1980s" (ibid.). This sentiment is echoed by ADB (2015, p. 105), which writes that "numerous [SEZs] have failed—and as we close in on the present—successes have become fewer; no SEZ established since the turn of the century has come close to matching the performance of Shenzhen or of the zones set up in Taipei, China and in Malaysia in the 1970s".

Nonetheless, SEZs continue to be built and policy competition continues to intensify. An explicit example is offered in ADB (2015, p. 84), where the super-competitive "X+1" strategy upheld by SEZs in cities close to Shanghai means that they automatically offer one additional incentive for every new incentive offered by Shanghai. More explicit yet, according to a survey of investment promotion agencies found in UNCTAD (2019, p. 191), the number one challenge facing their SEZs is "high competition with neighbouring countries". Hence, it appears the early movers' success with SEZs encouraged emulation elsewhere, but to such an extent that the ensuing competition makes it increasingly difficult for a newly commercialised state to win over foreign multinationals.

Furthermore, most of the tax havens mentioned in this paper did indeed establish themselves at a very early stage. Luxembourg, for example, introduced the concept of the tax-exempt holding company as early as 1929 (Palan, 2009). Switzerland passed its Banking Act of 1934, which established the principle of financial secrecy, one of the "three pillars of the offshore world" (ibid.). Another pillar, "virtual residency", had been ruled lawful by British courts as early as the 1920s, allowing companies across the then British Empire to register in London but pay taxes elsewhere. Combined with the third pillar, "easy incorporation", this precedent helped paved the way for British Overseas Territories and ex-colonies, especially in the Caribbean, to be used as the ideal location for tax-planning shell companies. By the 1970s, it emerged that the Netherlands had a similar route set up to the Netherlands Antilles (van Dijk et al., 2006, p. 15). The commercialisation of the Irish state is exemplified as early as 1956, when 50% of profits resulting from exports were

made tax-free, increased to 100% in 1958. Interestingly, the personal writings of John Costello, the Taoiseach (Irish prime minister) in 1956, suggest he was keenly aware of the tax haven growth strategy described above (as quoted in Barry, 2011, p. 13):

> I would foresee that if [the exports profits tax relief bill were passed] a great deal of trading would be attracted to Ireland. I would visualise that many English manufacturing concerns would find it worth their while to open businesses, i.e. trading companies in Ireland, and so fix their prices that their real profits or exports were made here to benefit from the favourable rate, and that we would get a lot of extra tax as a consequence.

Due to these kind policies and others, the effective corporate tax rate on US-owned foreign affiliates (not including subsidies or benefits in kind) was as low as 20% in Switzerland, 9% in Singapore, and 2% in Ireland as early as 1984, when the non-haven average was as high as 58% (Wright and Zucman, 2018, appendix).

Hence, many of the dominant tax havens and export platforms of today raced to the bottom on effective rates of tax before other countries (in the same region) started to do the same – and often long before the era of neoliberal globalisation began in earnest. Newer commercialised states had to contend with a degree of competition not faced by the first movers, reflected in the threshold values of τ_{TH} and τ_{EP} falling ever more quickly, and eventually they could no longer outcompete the first movers as τ_{TH} and τ_{EP} hit their lower bounds. The embeddedness of each economy in its historical context as seen here should caution policymakers against simply copying the same state-commercialising policies in the hope of the same outcomes.

4. Conclusion

This paper has argued that the commercialisation of state sovereignty is a defining feature of neoliberal globalisation, which, under the right conditions, may spur economic growth in a quintessentially beggar-thy-neighbour way. We have shown that the extent to which incentives apply to foreign-owned firms rather than to all firms matters, especially if one wishes to expand the tax base. However, even if policymakers can avoid the political problems that this kind of differentiation of state aid implies, the success of their commercialised state strategies ultimately depends on the degree of competition between states. Early movers faced little or no competition for the attraction of foreign multinationals and were thus more likely to be successful in boosting demand indirectly (though the tax channel) in tax havens and directly (through net exports and greenfield FDI) in export platforms. The success of the early movers likely lent state-commercialising strategies a degree of legitimacy in the eyes of policymakers elsewhere, who then engaged in "competitive emulation" (Palan, 1998, p. 639) by offering their own arrays of foreign investment incentives, often through SEZs and IPAs. No doubt such incentives were also encouraged by lobbying, the strategic interests and behavioural biases of policymakers (Danzman and Slaski, 2021), and objectionable neoclassical capital theory, which supposes the optimal corporate tax rate is zero (Mankiw et al., 2009). Whatever the motivation, such competitive emulation ultimately served to only shift the goalposts concerning how intensely governments must compete in order to attract foreign multinationals (represented in our model by how low τ_{TH} and τ_{EP} are). When commercialised states cannot keep up in the ensuing race to the bottom or can no longer outcompete their rivals at the "bottom", we expect that commercialised state strategies are thus rendered ineffective, as there is little room to entice foreign multinationals away from their entrenched position in early mover economies.

In the beggar-thy-neighbour, zero-sum game of state commercialisation, simultaneous and widespread competition means that the surest winners in the race to the bottom are the multinationals and their shareholders, who mostly reside in richer nations. This has important ramifications for inequality and uneven development the world over, as well as stagnant demand and output growth in wage-led economies. Recent policy initiatives designed to curb profit shifting and tax base erosion, such as the global minimum corporate tax rate and a tax revenue apportionment mechanism, are, of course, to be encouraged. However, as Barake et al. (2021) emphasise, it remains to be seen how meaningful and how much of a break with the past any recently proposed changes to the international tax rules will be. While it makes sense to combat the commercialisation of state sovereignty by focussing on its most egregious form first (i.e., the facilitation of profit shifting), this ought to be followed with international coordination to combat or limit competition for genuine production with other kinds of targeted state aid.

Final remarks concern the main limitations of the modelling approach employed and suggestions for future research. Our model is an analysis of the short run, where prices, wages, and the productive capacity of capital are held constant. However, the long-run model of Woodgate (2023) shows similar channels by which tangible and intangible FDI may drive demand and output growth, so the simplification seems justified in order to shed light on the puzzle of inconsistent FDI-led growth considered here. One could aim to more formally model the connections between the game-theoretic aspects of policy competition and the macroeconomic aspects focussed on here. Exchange rate effects were also excluded from the analysis, which, in reality, may prove important, especially in small tax havens with large capital inflows. Productivity and the related spillover effects from foreign affiliates to local firms may also be pertinent to the topic at hand, although they were not included here. Particularly interesting further work in this line of research may wish to analyse the effects of recent changes to the rules on global corporation tax on the viability of the growth strategies of the few hitherto successful commercialised states mentioned here.

References

ADB – Asian Development Bank (2015), *Asian Economic Integration Report 2015: How can special economic zones catalyze economic development?*, Mandaluyong City, Philippines: Asian Development Bank. Available online.

Amirahmadi H. and Wu W. (1995), "Export processing zones in Asia", *Asian Survey*, 35(9), pp. 828-849.

Barake M., Neef T., Chouc P.E., Zucman G. (2021), "Minimizing the Minimum Tax? The Critical Effect of Substance Carve-Outs", in *EUTO Note*, no. 1, July 21, Paris: EU Tax Observatory, Paris School of Economics. Available online.

Barry F. (2011), "Foreign investment and the politics of export profits tax relief 1956", *IIIS Discussion Paper*, no. 357, Dublin: Institute for International Integration Studies. Available online.

BEA – Bureau of Economic Analysis (2020), *Activities of US Multinational Enterprises* (database; accessed Sep. 2020), Washington (DC): United States Bureau of Economic Analysis. Available online.

Bohle D. (2009), "Race to the bottom? Transnational companies and reinforced competition in the enlarged European Union", in van Apeldoorn B., Drahokoupil J., Horn L. (eds.), *Contradictions and Limits of Neoliberal European Governance* (pp. 163-186), Basingstoke: Palgrave Macmillan.

Bohle D. (2018), "European integration, capitalist diversity and crises trajectories on Europe's Eastern periphery", *New political economy*, 23(2), pp. 239-253.

Bohle D. and Regan A. (2021), "The comparative political economy of growth models: explaining the continuity of FDI-led growth in Ireland and Hungary", *Politics & Society*, 49(1), pp. 75-106.

Cadestin C., De Backer K., Desnoyers-James I., Miroudot S., Rigo D. and Ming Y. (2018), "Multinational enterprises and global value chains: the OECD analytical AMNE database", *OECD Trade Policy Papers*, no. 211, Paris: OECD Publishing. Available online.

CIIP – Competitive Industries and Innovation Program (2017), *Special economic zones: an operational review of their impacts*, Washington (DC): Competitive Industries and Innovation Program, World Bank Group. Available online.
Cobham A. and Janský P. (2018), "Global distribution of revenue loss from corporate tax avoidance: re-estimation and country results", *Journal of International Development*, 30(2), pp. 206-232.
Cobham A. and Janský P. (2019), "Measuring misalignment: The location of US multinationals' economic activity versus the location of their profits", *Development Policy Review*, 37(1), pp. 91-110.
Cobham A. and Janský P. (2020), *Estimating illicit financial flows: a critical guide to the data, methodologies, and findings*, Oxford: Oxford University Press.
Daly M. (2016), "Is the WTO a world tax organization? A primer for WTO rules for policy makers", *Technical notes and manuals*, no. 2016/003, Washington (DC): International Monetary Fund, Fiscal Affairs Department. Available online.
Danzman S.B. and Slaski A. (2021), "Explaining deference: why and when do policymakers think FDI needs tax incentives?", *Review of International Political Economy*, 29(4), pp. 1085-1111.
Drahokoupil J. (2009), "The rise of the competition state in the Visegrád four: Internationalization of the state as a local project", van Apeldoorn B., Drahokoupil J., Horn L. (eds.), *Contradictions and Limits of Neoliberal European Governance* (pp. 187-208), Basingstoke: Palgrave Macmillan.
Dunning J.H. and Lundan S.M. (2008), *Multinational enterprises and the global economy*, Cheltenham, Edward Elgar Publishing.
European Commission (2021), *Competition Policy: State aid*, official website of the European Commission, retrieved 17 May 2021. Available online.
Farole T. (2011), *Special economic zones in Africa: Comparing performance and learning from global experience*, Washington (DC): The International Bank for Reconstruction and Development/The World Bank. Available online.
Frick S., Rodríguez-Pose A. and Wong M. (2019), "Toward economically dynamic special economic zones in emerging countries", *Economic Geography*, 95 (1), pp. 30-64.
Garcia-Bernardo J., Fichtner J., Takes F.W. and Heemskerk E.M. (2017), "Uncovering offshore financial centers: Conduits and sinks in the global corporate ownership network", *Scientific Reports*, 7(1), pp. 1-10. Available online.
Garcimartín C., Rivas L.A. and De Sarralde S.D. (2008), "Accounting for Irish growth: a balance-of-payments-constraint approach", *Journal of Post Keynesian Economics*, 30(3), pp. 409-433.
Hines J.R. (2010), "Treasure islands", *Journal of Economic Perspectives*, 24(4), pp. 103-26.
Kalecki M. (1944), "Three ways to full employment", in Burchardt F.A., Kalecki M., Worswick G.D.N., Schumacher E.F., Balogh T. and Mandelbaum K., *The Economics of Full Employment: Six Studies in Applied Economics prepared at the Oxford University Institute of Statistics* (pp. 39-53), Oxford: Basil Blackwell.
Keen M. and Konrad K.A. (2013), "The theory of international tax competition and coordination", in Auerbach A.J., Chetty R., Feldstein M. and Saez E. (eds.), *Handbook of public economics* (vol. 5, pp. 257-328), Amsterdam: North Holland.
Khan U., Nallareddy S. and Rouen E. (2020), "The role of taxes in the disconnect between corporate performance and economic growth", *Management Science*, 66(11), pp. 5427-5447.
Mankiw N.G., Weinzierl M. and Yagan D. (2009), "Optimal taxation in theory and practice", *Journal of Economic Perspectives*, 23(4), pp. 147-174.
Martincus C.V. and Sztajerowska M. (2019), *How to solve the investment promotion puzzle: A Mapping of investment promotion agencies in Latin America and the Caribbean and OECD countries*, Washington (DC): Inter-American Development Bank. Available online.
Mott T. and Slattery E. (1994), "Tax incidence and macroeconomic effects in a Kaleckian model when profits finance affects investment and prices may respond to taxes", *Journal of Post Keynesian Economics*, 16(3), pp. 391-409.
Narula R. and Zhan J. (2019), "Using special economic zones to facilitate development: Policy implications", *Transnational Corporations Journal*, 26(2), pp. 1-25.
OECD (2018), *Mapping of investment promotion agencies in OECD Countries*, Paris: OECD & Inter-American Development Bank. Available online.
OECD (2020), *Corporate Tax Statistics*, 2nd ed., Paris: OECD Publishing.
OECD (2021), *Revenue statistics* (database; accessed Feb. 2021). Organisation for Economic Cooperation and Development. Available online.
Palan R. (1998), "Trying to have your cake and eating it: how and why the state system has created offshore", *International Studies Quarterly*, 42(4), pp. 625-643.
Palan R. (2002), "Tax Havens and the Commercialization of State Sovereignty", *International Organization*, 56(1), pp. 151-176.
Palan R. (2009), "History of tax havens", *H&P Policy Papers*, October, London: History & Policy, Institute of Historical Research, Senate House, University of London. Available online.
Palley T.I. (2015), "The theory of global imbalances: mainstream economics vs structural Keynesianism", *Review of Keynesian Economics*, 3(1), pp. 45-62.

Palley T.I. (2018), "Three globalizations, not two: Rethinking the history and economics of trade and globalization", *FMM Working Paper Series*, no. 18, Berlin: Forum for Macroeconomics and Macroeconomic Policies-Hans-Böckler-Stiftung. Available online.
Saez E. and Zucman G. (2020), *The triumph of injustice: How the rich dodge taxes and how to make them pay*, New York: WW Norton & Company.
Singer H.W. (1950), "The distribution of gains between borrowing and investing countries", *American Economic Review*, 40(2), pp. 473-485.
Soon T.W. and Stoever W. (1996), "Foreign Investment and Economic Development in Singapore: A Policy-Oriented Approach", *The Journal of Developing Areas*, 30(3), pp. 317-340.
Tørsløv, T., Wier L. and Zucman G. (2018), "The Missing Profits of Nations", *NBER Working Paper Series*, no. w24701, Cambridge (MA): National Bureau of Economic Research. Available online.
UNCTAD – United Nations Conference on Trade and Development (2019), *World investment report 2019: Special economic zones*, New York: United Nations Publications. Available online.
UNstat (2021), National accounts – Analysis of main aggregates (database; accessed Feb. 2021). Available online.
Van Dijk M., Weyzig F. and Murphy R. (2006), *The Netherlands: a tax haven?*, Amsterdam: Stichting Onderzoek Multinationale Ondernemingen (SOMO) – Centre for Research on Multinational Corporations. Available online.
Woodgate R. (2020), "Can tax competition boost demand? Causes and consequences of the global race to the bottom in corporate tax rates", *Review of Keynesian Economics*, 8(4), pp. 512-535.
Woodgate R. (2022), "Profit-led in effect or in appearance alone? Estimating the Irish demand regime given the influence of multinational enterprises", *Review of Evolutionary Political Economy*, 3(2), pp. 319-350.
Woodgate R. (2023), "FDI-led growth models: Sraffian supermultiplier models of export platforms and tax havens", *European Journal of Economics and Economic Policies*, 20(3), pp. 491-514.
World Bank (2020), *World Development Indicators* (database; accessed Sep. 2020). Available online.
Wright T. and Zucman G. (2018), "The Exorbitant Tax Privilege", *NBER Working Paper Series*, no. w24983, Cambridge (MA): National Bureau of Economic Research. Available online.
Yusuf S. and Nabeshima K. (2012), *Some small countries do it better: Rapid growth and its causes in Singapore, Finland, and Ireland*, Washington (DC): World Bank Publications. Available online.
Zucman G. (2014), "Taxing across Borders: Tracking Personal Wealth and Corporate Profit", *Journal of Economic Perspectives*, 28(4), pp. 121-148.