Comments on Griffith, Hines and Sørensen

by
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Our understanding of the impact of taxes on economic decisions in an open economy has increased very significantly over the past three decades. As in many other areas of public finance a great deal of empirical evidence has been gathered and the modelling of economic decision making has become more sophisticated, allowing for a more focused identification of the variables in play. Moreover, the behaviour and goals of governments have been analysed more carefully and this has allowed a richer account of interactions between various jurisdictions.

The chapter by Griffith, Hines and Sørensen (GHS), three prominent contributors to the literature in this area, represents both a very comprehensive summary of our knowledge and a useful guide to potential policy prescriptions that follow from the analysis. My comments will be divided into three parts. The first concerns the overall framework employed by the authors. In the second I shall refer more directly to some of the specific analyses carried out by the authors whereas my third set of remarks will address their policy prescriptions.

1. Overall Framework

GHS choose to frame their discussion within the traditional juxtaposition of residence versus source. There are many areas in which this analysis is essential and leads to useful benchmarks, such as that derived in a Diamond-Mirrlees optimal tax-setting that a government in a small open economy should not levy any source-based taxes on capital. The residence vs. source and credit vs. exemption dichotomies also lead to important insights in respect of intertemporal and interjurisdictional efficiency, and provide useful guidelines for what is ultimately at stake in the international domain, the assertion of tax jurisdiction and the division of taxable income.

This framework, however, has for some time proved to be inadequate as a policy guide in the face of numerous changes in the way economic activity is increasingly conducted. The problems with this approach stem from a number of developments and factors[2]: (i) international business is increasingly being conducted in ways that are not clearly associated in economic terms with a national jurisdiction[3]; (ii) there is a lack of coordination across jurisdictions in respect of the tax treatment of distributions out of a company whether in the form of dividends, interest, royalties and other payment flows; (iii) a coherent basis for distinguishing between the return to capital and labour income[4] - particularly in the service sector – is becoming difficult to establish; (iv) the location decision of the overall controlling interest of a business (both head office and shareholder location) has become endogenous. As a result where and at what rate mobile individuals and companies choose to be taxed have become decision variables.

It is almost impossible to take account of all of these changes in an analytical framework because there are inevitably too many variables at play. While the tax credit or the exemption system seem

[1] I am grateful to Stuart Adam for a number of comments and to Giampaolo Arachi for numerous discussions on the topics discussed in this note especially in section 2.

[2] Bird and Wilkie (2000) draw attention to some of these developments.

[3] For example, what is the "source jurisdiction" of the production of telephone services over the internet? Should it be the location of the servers used for transferring the calls or should it be the jurisdiction of the "user"?

[4] The recent UK and US debates regarding "carried interest" in the private equity and hedge fund worlds is a case in point. This is not a small closely held company issue which appears to be the main concern of GHS. For a discussion of the scale of this phenomenon see Graham, Long and Shackelford (2004)

adaptable to solve some of these problems both inevitably collapse when taking account of all these developments together. For example, taxation on the basis of residence (a pure credit system without deferral) can be adapted to solve problems (i)-(iii) but is not helpful for (iv) if businesses and individuals are allowed to change residence freely. By contrast, a territorial system cannot easily cope with (i) or (ii) although (iv) would probably not be of great concern.

These difficulties are endemic in a world of free trade and capital mobility. If there is no perfect unilateral tax arrangement that achieves neutrality in an open economy the issue becomes one of finding a non-neutral tax system that is least distortionary along some clearly established dimensions. The prime objective of the analytical framework should be to establish clear terms of reference, trade-offs and priorities as to what a tax system should and can achieve given the existing constraints and the degree of complexity that one is willing to accept to achieve those objectives. Hence, if the credit system without deferral is too costly to implement or complex this should be quantified and analysed, and it should be possible to establish parameter values sufficient to warrant the abandonment of all CFC regimes. . Furthermore, recognising the inherent imperfection of the systems from the outset helps to identify those areas that are most clearly in need of anti-abuse or other forms of back-up provisions.

Since no system is watertight to a number of potential objections, analysis should be framed in terms of the least costly or most effective approach taking account when possible of potential foreign reactions. GHS rarely apply this cost/benefit approach systematically to the analysis various alternative regimes. Indeed what is generally disconcerting about most of the literature, and this is not the fault of GHS alone, is that the past thirty years of theory and empirical work rarely appear to inform the policy process except in a very distant fashion. Neither the costs or benefits of gradualism nor those associated with grand reform proposals are examined taking account of potential imperfections.

2. Specific Analytical Issues[5]

It has been common in recent years to argue that the corporation tax is the archetypal source based tax and that the existence of rents is the basis for the tax. In many sections of their paper, GHS argue that source-based taxes can be justified if it falls on *location specific* and *immobile rents*. While I believe there is a sense in which this notion is helpful, I find it extremely misleading as a general guide to policy particularly in an open economy world such as the one in which we are currently living.

A simple model

In a static context, in the absence of a market for assets and in the absence of risk, a rent or pure profit is defined as the extra return on an asset over the normal return in a market. In a simple model of monopolistic firm the rent is the infra-marginal profit. The world is, however, not static. Assets are traded and the value of assets reflects the capitalised value of the future stream of returns and business is risky. The assumption of market valuation of assets as shown below is very important. The moment assets are valued in a capital market streams of returns with differing profiles but identical risk characteristics will be valued differently.

Assume two water wells are discovered one day on two different lots of land. Each can generate perpetual streams of income valued at R and 2R. The owner of the second well would clearly receive a yearly rent of R in excess of the owner of the first well. Note, however, that the owner of the first well would also be in a position of earning a rent of R if the cost of taking the water out of

[5] This section is the result of joint work with Giampaolo Arachi.

the ground were nil and if the land was valued at nil before the discovery of the well. Now assume that there is a market for wells. If the value of the riskless interest rate is R/100, the market value of the two wells would be 100 and 200. Hence, the owners will experience a capital gain at the moment of discovery, equal to the present value of the perpetual stream of net income, and from that instant onward they would both earn the same rate of return R/100 which incidentally is also the riskless rate. Clearly any subsequent purchaser of any of the two wells would earn the same rate of return R/100. In other words, the rent has vanished or rather been capitalised into the price of the assets. Once the rents have been capitalised owners will only earn the normal interest rate.

This example illustrates two issues with rents. The first is that rents are a relative measure. It is necessary to know the capital value of assets to be able to measure the exact amount of the rent. And secondly in the absence of risk if rents are capitalised there are no extra-normal returns to be earned in a well-functioning capital market. It is difficult to identify a "rent" in a well-functioning capital market and its measurement is a question of valuation[6].

A tax on rents

A tax on pure rents would be easy to apply before the lots were sold. The normal return on land is nil, under the assumptions that the land was worthless before the discovery of the wells and that the water could be taken out of the ground at no cost. Hence any cash flow generated by the wells represents a rent and can be taxed. With a rate equal to 50% the owner of the first lot will pay an annual tax equal to .5R and his net wealth will decline to 50. The owner of the second lot will pay R and his net wealth would decline 100.

But the tax base on rents as such would vanish if the land were sold prior to the introduction of the tax or if allowance were provided for capital losses to the owners of the wells. Notice that the first lot can still be sold at price 100. The buyer will earn a normal return equal to R which would go untaxed. Likewise, the second lot can still be sold at price 200 as the buyer could earn a (untaxed) normal return equal to 2R.

Revenues could be secured by levying a tax on capital appreciation at the time of discovery of the well. Assuming a tax rate equal to 50%, the owner of the first well would pay 50 while the owner of the second well would pay 100 leaving them exactly with the same net wealth they have under a tax on pure rents. Notice that if the capital gains tax is levied upon accrual, it can effectively substitute for the direct tax on rents. However, it is well known that it is quite difficult to implement accrual taxation as it could be hard to price an asset before it is sold and also because the taxpayer may have liquidity problems. There are two alternatives. The first one is to implement some kind of retrospective taxation on realized capital gains following the approach developed by Auerbach and Bradford (Auerbach 1991, Bradford 1997, Auerbach and Bradford 2004). The second is to apply both a tax on pure rents and a tax on realized capital gains.

Taxing Extra-normal returns on cross border investments

The previous analysis show that it is quite difficult to introduce ex-novo a tax on pure rents for firms whose value is actively traded because capital values already reflect past innovations in returns and also because "new rents" tend to be capitalised quickly albeit imperfectly. The capitalization effect might be particularly relevant for cross border investments. It is well know that most FDI is in the form of M&A. Brakman et al. (2006) calculate that 78% of all FDI, in value term, are M&A while greenfield investment account for just 22% of total FDI value. Within M&A, 97% of deals are acquisitions. Further, the share of M&As have risen sharply in the last decades as shown by table 1.

[6] Valuation is important for determining the rent element.

Table 1: Greenfield investment and M&As (as a percentage of GDP, weighted averages)

	Net FDI Flows	FDI Inflows				FDI Outflows
		Total	Greenfield	M&A Total	M&A Privatization	
INDUSTRIAL COUNTRIES						
1987-89	-0.28%	0.99%	0.23%	0.76%	0.01%	1.27%
1990-94	-0.41%	0.76%	0.26%	0.50%	0.02%	1.17%
1995-99	-0.60%	1.74%	0.26%	1.48%	0.06%	2.33%
2000-01	-0.19%	3.67%	0.46%	3.21%	n.a.	3.86%
DEVELOPING COUNTRIES						
1987-89	0.46%	0.86%	0.77%	0.09%	0.01%	0.40%
1990-94	0.79%	1.43%	1.14%	0.30%	0.08%	0.65%
1995-99	1.83%	2.80%	1.87%	0.93%	0.31%	0.97%
2000-01	2.53%	3.63%	2.10%	1.53%	n.a.	1.10%
LATIN AMERICAN COUNTRIES						
1987-89	0.64%	0.74%	0.65%	0.08%	0.01%	0.10%
1990-94	0.93%	1.15%	0.68%	0.47%	0.20%	0.23%
1995-99	2.72%	3.21%	1.58%	1.63%	0.74%	0.49%
2000-01	3.38%	3.78%	1.82%	1.97%	n.a.	0.40%

Source: Calderon et al. (2004)

In particular, as shown by table 2, the United Kingdom is, on average, the second largest acquiring and target country after the US since 1986.

Table 2: Ten largest M&A countries; acquiring and targets, 1986-2005

a. Ten largest acquiring M&A countries, 1986-2005 (constant 2005 $ billion)

		annual average acquiring flows				
	country	1986-1990	1991-1995	1996-2000	2001-2005	1986-2005
1	United States	41.1	42.3	142.3	118.0	85.9
2	United Kingdom	37.2	27.0	200.3	76.7	85.3
3	France	17.0	13.2	85.6	34.9	37.7
4	Germany	6.4	10.7	68.7	31.5	29.3
5	Netherlands	4.3	8.1	39.8	32.8	21.2
6	Canada	13.3	7.5	29.9	24.1	18.7
7	Switzerland	6.1	8.0	28.8	15.8	14.7
8	Spain	2.0	2.9	27.1	24.5	14.1
9	Australia	8.2	3.7	14.1	21.4	11.9
10	Japan	16.0	3.7	13.7	8.9	10.6

b. Ten largest target M&A countries, 1986-2005 (constant 2005 $ billion)

		annual average target flows				
	country	1986-1990	1991-1995	1996-2000	2001-2005	1986-2005
1	United States	86.5	44.6	238.4	99.6	117.3
2	United Kingdom	29.6	22.7	119.7	92.7	66.2
3	Germany	4.1	7.9	83.3	40.3	33.9
4	Canada	11.3	6.9	37.6	22.2	19.5
5	France	5.8	12.9	28.9	26.1	18.4
6	Netherlands	3.0	5.7	29.4	20.6	14.7
7	Australia	4.1	8.4	18.0	13.5	11.0
8	Italy	3.8	5.8	10.4	21.8	10.5
9	Sweden	1.7	4.9	23.7	10.3	10.2
10	Spain	3.1	5.0	11.1	11.8	7.8

Source: Brakman et al. (2006)

These considerations have important implications for the way we think of the incidence of taxes in an open economy. The first one is that it is unlikely that a source base capital income tax may be justified as a way for exporting the tax burden on foreign investors even if there are rents. Assume that foreign investors may earn a net of tax riskless rate equal to R/100. If a tax is levied on wells gross income, R and 2R, at a 50% rate, foreigners will be ready to pay no more than 50 for the first well and 100 for the second one. Hence the tax is entirely capitalized in the market value of the assets and will be borne by the original owners in the form of a lower sales price for the asset. The tax is shifted onto foreigners only to the extent that they have bought the land before the discovery of the wells (as in Huizinga and Nielsen 1997). However, beside anecdotal evidence on recent M&As in Europe, the findings in Calderon et al. (2004) suggest that M&A do not precede a rise in profitability but rather that they respond to the arrival of new business opportunities as measured by the increases in the growth rate of the target country.

The second is that a tax on extra-returns (like a cash-flow tax or the ACE) would hardly discourage the location of profitable firms to the extent that the ownership of these firms can be traded in the capital market. As we have shown in the previous section, a tax on extra-returns would affect neither the net return that an external investor may earn through the firm nor (as a consequence) the price he is willing to pay. In other words, if rents are quickly capitalised in shares prices, extra-returns will arise only to compensate for risk. A perfectly symmetric cash flow tax or ACE would leave both investors and the governments unaffected (Kaplow, 1994). This suggest that the emphasis should be shifted from rents to risk and that some provisions that may affect the volatility of post-tax income may be far more relevant for the location of international investment than statutory tax rates and double taxation agreements. One of source of risk is the treatment of losses, in particular in the case of a business restructuring. Another one is given by the transfer pricing rules, where the lack of an international Autority for settling the disputes among countries may give rise to highly volatile "retrospective" double taxation, as illustrated by the recent case Glaxo Smith Kline vs IRS.

Finally, I think it is important to recall that the corporate tax is not the instrument typically used in industries where location rents are prevalent, such as mining and oil industries, specific taxes are the norm. They take the form of "royalties" payable to the host country and or taxes based on a redefinition of corporate income that is far from that found in financial accounts. These taxes also tend to vary according to the nature of external shocks and are the object of very specific negotiations. For example, the recent sharp rise in oil prices has led to renegotiation of these arrangements in many countries.

3. Policy Issues

The taxation of international investment is composed of many moving parts that interact with one another. As noted by GHS, taxes are known to affect strongly profit and investment location but there is little agreement on the size of elasticities. The effects of the tax system on inward and outward investments, moreover, cannot be considered in isolation from developments in other jurisdictions. Apparently minor changes in legislation in other countries may impact significantly on the effects of domestic tax provisions (Altshuler and Grubert 2005) and other jurisdictions may alter their tax rules in response to policies enacted by domestic tax authorities.

Policy prescription in a world with few empirical benchmarks is difficult[7] and GHS are very guarded in their suggested agenda for reform. Accordingly they divide their prescriptions into "gradualist" and "grand" schemes:

The "gradualist" approach can be summarised as follows

1) Move towards an exemption system:
2) Revise the current CFC regime in such a way as to tax on a current basis only passive or "mobile" income.
3) Create an EU wide data base on arm's length prices for comparable transactions

In many ways they endorse the major proposals set forth in HMRC (2007). In particular GHS do not believe that a shift to exemption would entail any material change to current revenues[8]. They also support the other changes suggested by HMRC in respect of the current CFC regime and backstop provisions.

An important area not touched upon by the GHS and HMRC (2007) concerns the extent to which participation exemption should extend to corporate capital gains resulting from the sales of assets. Currently in the UK capital gains are taxed albeit allowing for a revaluation of the original cost basis. Experience from other countries suggests that much of the attraction of using the UK as a basis for carrying out acquisitions would hinge on exemption from tax of the sales of foreign assets[9]. Another important element that is not considered by the authors is the impact of exemption for the tax treatment of shareholders in the parent company. Would there not be an incentive for domestic closely held companies to reincorporate abroad and establish a UK holding company? While in theory this would have been possible in the past the move towards exemption reduces the cost of such structures considerably. Given the growing evidence on the the impact of taxes on organisational choice (De Mooij and Nicodeme (forthcoming), one would expect that exemption would result in a significant reshuffling of company identities. Finally the authors do not consider the importance of UK foreign direct investment in the world economy: it is not a small open economy as far as other capital importing jurisdictions are concerned. While moving towards exemption can make sense for most countries, the UK and US special cases. Since these two countries account for such a large share of foreign direct investment, they may be playing a back stop role for source countries. If exemption were adopted the overall global incidence of taxes could change very markedly[10].

The authors also take issue with the EU proposal for a common consolidated tax base (CCCTB). Many of their arguments such as the difficulties of a coexistence of formula apportionment within the EU separate accounting between the EU and the rest of the world are well taken. However, GHS do not consider the increasing degree of integration occurring between EMS countries. This may not concern the UK in the foreseeable future but if pressure for CCCTB were to grow in this group of countries particularly from the business sector, it would be in the interest of the UK to participate actively in the design of such a system. Opposition to CCCTB may simply not be an option.

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[7] See De Mooij and Erdeven (2003) for a survey of the literature on the response of foreign direct investment to changes in taxes.

[8] GHS prefer exemption to credit without deferral apparently for three reasons. The first is that ceteris paribus in the absence of income shifting both the exemption and credit system can ensure neutrality in respect of company ownership. The second is that unlike the credit system with deferral an exemption system does not result in a penalty for repatriations. Thirdly, exemption is administratively simpler and may foster the competitiveness of British companies in the M&A arena.

[9] This would also require careful implementation of backstop provisions. Otherwise the funding costs of a foreign acquisition could be tax deductible in the UK and the proceeds of the sale as exempt.

[10] Altshuler and Grubert (2005) discuss how changes in the US tax system affected the distribution of tax revenues between Germany and the Netherlands following changes in US legislation regarding hybrid entities.

The “grander schemes” considered by the authors entail moving towards an allowance for corporate equity (ACE) along the lines suggested by IFS nearly two decades ago. GHS believe that a move towards ACE would entail revenue losses but that in the long run the reduction in taxes on normal returns would result in a significant increase in investment and therefore indirectly in some recovery of lost revenue. Implicitly they also appear to assume that any remaining revenue loss could be recovered by taxes on other (less mobile) factors of production (which presumably already bear the bulk of the burden of the tax) without sacrificing all the gain in production efficiency.

The exact impact of moving towards ACE, like the shift from the current tax system to a cash flow tax, would probably require a greater understanding of the underlying responses to tax changes (both through profit shifting and investments) before agreeing fully with this conclusion. The recent decade has witnessed a massive increase in the mobility of both skilled and unskilled labour. While there is no hard evidence on the tax sensitivity of these international labour flows, the discussion arising out of the new regime on non-domiciled residents suggests some degree of responsiveness[11]. More generally, skilled labour and capital inputs have become increasingly complementary as a result of the growth of the services sector (whose share of the economy is likely to continue to expand). Under these circumstances the only factor of production bearing the tax burden would be immobile unskilled labour. An explicit tax on this factor would be difficult to justify.

One important aspect of the introduction of ACE that is not discussed by GHS is how it would interact with an exemption system. With a credit system (without deferral) ACE would operate as in a closed economy. With an exemption system, there would be a strong incentive to capitalise UK companies as “holding companies” for international investments and exploit the current network of double taxation treaties[12]. As already mentioned, further consideration also needs to be given to the impact of these changes on the treatment of corporate capital gains. Moreover, as recently highlighted by the discussion surrounding the possible replacement of the tax credit system with an exemption system, there are significant number of complications in implementing such a change under the current company system; it is not a foregone conclusion that ACE would not face the same issues.

4. Conclusions

Much has been learned in recent decades regarding the behaviour of companies in an international environment and GHS provide an excellent overview of many of the broad implications for policy in a stylized world. However, once one moves away from the ideal prescriptions a number of issues emerge regarding implementation and these have remained largely unaddressed. It is these rather problematic and at times messy areas that typically give rise to complications in the tax system and lead to an increase in compliance costs. They are generally also the ultimate driver for change rather than efficiency gains which are extremely difficult to quantify in the case of multinational companies.

[11] See for example, http://business.timesonline.co.uk/tol/business/economics/article3340849.ece and http://www.ft.com/cms/s/0/499bbd1c-edf7-11dc-a5c1-0000779fd2ac,dwp_uuid=05a3b658-ac95-11dc-b51b-0000779fd2ac.html

[12] The introduction of participation exemption in Italy including the exemption from capital gains was in part justified as a way to compete with the use of Luxembourg as a centre for locating holding companies. It is interesting to note that a political backlash against this capital gains exemption occurred at the time of the takeover of Banca Antonveneta by ABN-AMRO when a number of Italian investors were able to escape untaxed.

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