

Tax spillover: a new framework

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1. Introduction

Interest in analyses of spillover effects, (the direct impact of one country's tax policy on another country's tax base, tax policy and economic activity), has been growing since the IMF sought to define the term, and proposed econometric methods for evaluation (IMF, 2014.) The basic proposition justifying spillover analysis, is that countries' tax regimes can produce profit shifting and tax base erosion, as well as other forms of tax competition that erode the revenue raising capacity of governments, while detrimentally effecting levels of real economic activity in other jurisdictions through various forms of capital flight. Two EU states have since undertaken a spillover analysis guided by IMF definitions and methods to assess the implications of their tax regimes. One question is whether the UK should replicate the kind of analysis undertaken thus far by the Netherlands and Ireland? In this briefing note we raise serious doubts about whether the kind of quantitative econometric analysis advocated by the Fund can ever fully capture the harmful effects of tax competition or how this competition has spillover effects across borders. In both the Dutch and Irish analyses no evidence is found of the tax regimes of either country having a detrimental impact on developing countries, yet both countries have been at the centre of aggressive tax avoidance practices. Yet this does not invalidate spillover analysis. It remains potentially important for advancing our understanding of the vulnerabilities within and generated by certain tax regimes. In this SPERI report for the APPG on Inclusive Growth we call for assessment of a broader range of indicators that in our view, would allow for a more rounded view of the vulnerabilities particular tax systems face to spillover effects and the spillover risks generated by particular regimes, as part of a wider international comparative assessment exercise. The template we sketch is not the finished article. It is the starting point in a conversation about the need to refine, refocus, broaden and expand spillover analysis, and to move away from the limitations of the current econometric approach.

2. Definitions, the IMF Approach and Existing Spillover Analysis

The International Monetary Fund (IMF, 2014) define spillovers as the direct impact of one country's tax policy on another country's tax base and tax policy. This can arise through an impact on real activities (investment), the shifting of paper profits, or by encouraging harmful tax competition between countries. The IMF makes a distinction between 'base spillover' and 'strategic rate spillover'. Base spillover is the direct impact of one country's tax policy on the tax bases of other countries. This can arise either through an impact on real activities (through investment and the like) and/or the shifting

of paper profits. Strategic rate spillover is the impact of a country's tax policy choices on the tax policies of other countries, i.e. tax competition (Cobham and Gibson, 2015).

IMF spillover analysis has identified several spillovers in corporate taxation including: trade and capital flows; tax treaties; the domestic tax regime, including tax incentives; and EU subsidiary directives.

The spillover analysis conducted by the Irish government in 2015 looks at each of these in turn, in coming to its finding that spillovers from the Irish corporate tax regime to the developing world are limited. This analysis (IBFD, 2015), undertaken by a series of Dutch economists from the Universities of Nijmegen and Utrecht made the claim in its executive summary that Irish tax policies on their own could not lead to a significant loss of revenue in developing countries as a combination of elements were required to produce such outcomes (p.4). The analysis looked at capital, income and trade flows between Ireland and developing countries. Generally there was a reliance on aggregate figures, and the report frequently pointed to the relative paucity of available data. The main argument the analysis makes is that because trade and capital flows into Ireland from developing countries are limited, there is no indication Ireland is used as an intermediate jurisdiction for these flows. The analysis found that the data was not significantly affected by the presence or otherwise of bilateral tax treaties. Changes in residency rules in the 2014 Finance Bill, for example meant that the Irish tax system, including the system of withholding taxes, was found not to facilitate conduit structures that lead to loss of revenue for developing countries. The data used to reach such rather mechanical conclusions is, however, on the thin side. It would require a greater a range of quantitative, and especially qualitative, data to undertake adequate future spillover analysis.

In the case of the Dutch analysis the focus was solely on tax treaties, and was therefore even more restrictive.

The factors considered by existing studies are far from exhaustive. Moreover, specifying in advance the precise mechanisms through which spillover might occur, is difficult due to the potentially dynamic multivariate nature of the process. For this reason we are sceptical of the potential for formal modelling to precisely or reliably measure spillover effects.

As Weyzig (2014) has noted, suggesting that there are limited spillover effects from the Irish tax system when it is notorious for cases like those of Google and Apple is stretching credibility. The Irish analysis arguably uses a limited methodology with limited available data to reach a convenient conclusion.

As Hearson (2015) reported the hard to locate Dutch analysis seemed to do the same thing:

The memorandum concludes that Dutch treaties with developing countries do need revising to strengthen their anti-abuse provisions, but no changes are needed in terms of their content (for example, the low withholding tax rates that they specify) nor in terms of their interaction with other aspects of Dutch tax law.

This is despite the fact that the Netherlands is notorious for its use of a tax agreement network. The focus on a very limited methodology with an assessment criterion largely linked to investment and growth rates is far too limited: these are not the sole issues of concern. The approach assumes that the losses arise within direct trading relationships between states, because that is effectively all that the data measures. If however the impact is from secondary effects this is not picked up. Such a secondary effect did for example, arise in the case of the notorious 'Dutch Sandwich' tax abuse structure where royalties were routed between two Irish companies, one resident in that state and the other not (the so called 'Double Irish'). In that situation the loss arose to third states that did not ever enjoy the taxes that might have been due on transactions that most would have expected to be recorded in their domains. Such transactions were not recorded as a result of the use of these abusive Dutch and Irish structures, data with regard to which never appeared in the trading relationships between those places and the countries that lost out.

In the rest of this briefing note, we favour a comparative international benchmarking/ monitoring exercise, based on a series of vulnerability indicators, producing a scorecard system that would be a prototype for ranking countries tax systems according to scores for internal vulnerability and the potential generation of international spillover effects. Such an exercise would need to be refined overtime and should stimulate further data collection efforts.

3. A new methodology

Our concern with the available spillover assessments is that they may not be wholly relevant; there is a strong possibility they are unreliable; those undertaken do not provide a comprehensive account of how complex spillover effects can occur and therefore do not measure many real actually occurring spillovers; the data required to undertake quantitative spillover analysis is poorly understood and is not comprehensively available; and outcomes may not be comparable, or the answers comprehensible. This has motivated us to look at a different basis for the preparation of spillover analysis, as the basis for vulnerability warning indicators, and subsequent scoring systems. The approach that we suggest for the assessment of spillovers is radically different from that used in those assessments already noted.

The objective is to combine both qualitative and perception data on a relatively wide range of issues intended to cover both domestic and international spillover effects of tax policy. We produce an index that is intended to rank states in isolation but which also, by allowing scores to be compared, ranks the relative risk that one jurisdiction poses to another, so producing a broader range of assessments than might be possible in any other way at reasonable cost.

We stress that our proposal is both provisional and tentative: it should be seen as exploratory at this stage of development. Constructive criticism and refinements are particularly welcome.

The Purpose of Corporate Tax and the importance of Spillover Analysis

It is important when assessing spillover effects within tax systems to understand how and why these arise, and how tax systems have been and should be designed to reduce the risk that they happen. Our argument is very straightforward. Corporate taxes (in particular) exist to prevent leakages and spillovers of various sorts. That is why they exist. It is also why spillover analysis is particularly important, because it can tell us whether corporate tax regimes are fit for purpose, or whether they are generators of precisely the type of negative social externalities they are designed to prevent.

Tax is one option for revenue raising for governments, but using tax may be desirable for reasons other than funding alone. In particular, many governments use their tax systems to achieve social purposes and this extends the importance of some taxes beyond their use in revenue raising. So, taxes might be designed to redistribute income and wealth; subsidise or penalise certain economic activities seen as of value (or not), and to provide an overall fiscal stimulus (or not) by deciding whether budgets should be balanced or run in surplus or deficit. The important point is that tax is about much more than revenue raising. It is an instrument in broader economic and social policy.

Crucially many aspects of tax systems are also defensive in nature. Most taxes began as charges on personal incomes, the use of land or on sales transactions. These taxes are still the largest contributors to tax revenues: income tax and national insurance make up 46 per cent of UK tax revenues; council and business rates on the use of property provide 9 per cent of those revenues and VAT and customs duties of various sorts, including stamp duties, comprise almost 30 per cent. These, however, are not the taxes where there is most concern expressed on spillover effects, which are taxes on corporate profits and capital gains, but these contribute less than 8 per cent of total tax revenues in the UK. This, however, seriously understates the significance of such taxes whose function has always been to defend the credibility of other taxes. In fact both share the characteristic in common of defending the income tax from abuse. If there was no corporation tax then it would be all too easy for a person to arrange for their income to be transferred to a company and have it left untaxed there. If the ownership of the company was then recorded offshore any dividend paid might then also be untaxed on receipt before an arrangement might be put in place to remit it back to the UK. Such structures would create massive losses of revenue, increase in inequality and unfair competition. Income shifting would be rampant.

Likewise, if there was no capital gains tax then anyone with excess income over their immediate needs could dress it up as a capital gain and so have it untaxed. What this means is that while yields from these taxes may be relatively small this is not a wholly appropriate measure of their effectiveness, which should instead be assessed on their ability to block leakage from the income tax base whether domestically (which is vital to tax system integrity) or internationally.

It is vital to understand therefore that those taxes where spillover risks are highest were actually designed to prevent spillovers. We also want to make clear that this was a domestic concern at first in every case that we can think of: international awareness followed. The point is that spillover risks do not arise by chance in the case of these taxes: they were

designed to curtail them and in that case it is wholly appropriate to appraise the risks within their current construction to make sure that this objective is being achieved *domestically* and internationally. The template reflects this fact: it is designed to expose where attacks on the tax system may come from and where within a tax system is vulnerable to such attack. Some of these attacks will be from tax avoiders within a jurisdiction. Others will come from those who make use of the laws of states (commonly called tax havens or secrecy jurisdictions) that deliberately provide opportunity to internationally arbitrage the tax systems of other locationsⁱⁱⁱ. Spillover effects arise in both situations and the template highlights both vulnerabilities.

Our framework

Our assessment methodology is designed to be relatively simple to use. We have not fully refined this as yet, but think an assessment template of the sort suggested below, is the starting point for the kind of exercise we advocate. This kind of template we suggest could be harnessed for two purposes. One, for evaluative use by international agencies mandated to monitor the vulnerability of particular jurisdictions to spillover effects and to rank likely international generation spillover effects produced by the tax regimes of particular states. Two as a measure of the perceptions that a range of relevant stakeholders have of the vulnerabilities particular tax systems display, so as to provide a sense of how this may affect the behavior of various categories of agent, and therefore give us better warning indicators of the types of vulnerability different tax systems display. Different templates could be designed for the different purposes. The first evaluative, the second more questionnaire based. The version reproduced here is simply to illustrate the kind of thing we have in mind.

The index we suggest is built around the desire to measure a relatively wide range of spillovers. We stress these are not all international. Where corporate tax rates are concerned domestic spillovers matter. Some of those spillovers are represented in Table 1 that follows. That table is not meant to be comprehensive. It should be seen as purely indicative at this stage.

Our template or table is divided into four primary sections. First, there is a summary of the tax system of the country being reviewed, most particularly in those areas where spillover risk is highest. This covers key taxes where spillover risks are likely (income tax, social security, corporation tax and capital gains) and related aspects of tax and administration. As far as possible this should be factual data designed to inform the assessment of the consequences of that information, which is the second part of the evaluation process and the comparison indices that might give rise to. The table pinpoints an area of specific concern. This may be a tax, an aspect of tax administration or another aspect of the legal or regulatory system of a jurisdiction that has impact on the tax system of that place and, as importantly, of other jurisdictions.

Second, a specific aspect of that area of concern is considered. Examples might be the tax rate, the scope of the tax base, or the resources dedicated to a tax administration. It could also as easily be the territorial extent of the tax system or the relative progressivity of the

tax under consideration. Alternatively tax treaties and their impact might be the issue of concern. Likewise, the company law requirements in place in the jurisdiction and their impact on data availability could be considered. At this stage we are not seeking to establish a complete list of issues to be addressed: the template is indicative at present.

Third, are the consequences the aspect of concern has in two different areas. One is domestic: this is the consequence of the issue raised within the jurisdiction itself. Because of the defensive motivation of corporate taxes we outlined earlier, including the potential for domestic leakage and prevention thereof, potential domestic spillovers should be an important element of spillover analysis. Then we turn to the international dimension of the concern raised. It is, of course, entirely possible that there may be multiple consequences worthy of note arising from one area of concern.

Fourth, each consequence of an area of concern is then rated in the template. The rating is against a specific scale. If the area of concern is likely to increase attempts to shift chargeable transactions out of the tax base to which the activity relates then a low score is given: this then indicates an area of vulnerability. On the other hand, if the issue stated to be an area of concern is likely to induce transactions into a tax base a high score is awarded. A scale of one to five is suggested for marking purposes. Anything less and there is insufficient gradation. The marks might be interpreted as meaning:

1. High risk of shifting into the tax base.
2. Moderate risk of shifting into the tax base.
3. Broadly neutral with regard to the tax base: unlikely to induce significant tax base shifting;
4. Moderate risk of shifting out of the tax base;
5. High risk of shifting out of the tax base.

The marks awarded will, inevitably, be a subjective evaluation in most cases. There will be some cases where an objective ranking may be available but overall this is a perceptions index. This has influenced our suggestion that no more than five different marks be awarded. If a broader mark range was used we think it likely that too high a degree of subjectivity would be involved in attributing a mark. We think that a relatively straightforward five mark criteria will create a higher degree of consistency between markers seeking to be objective with regard to any particular tax system.

We stress that the marks awarded might be different domestically from internationally. We would expect there to be a relationship between the two, but it is quite obviously possible for a tax system designed to meet domestic purposes to have unfortunate international consequences, and maybe vice versa. That is why we allow for different marks to be awarded.

The resulting spillover assessment table might look like this:

Table 1

Area of risk	Aspect of concern	Consequence	Domestic spillover risk	International spillover risk
Income tax	What is the overall perception of tax rates?	Low rates induce inward flows. High rates may induce outward flows.		
	What is the rate of progressivity by percentage bands?	Highly progressive rates may encourage flows out of the tax. Low or no tax may encourage inward flows to the tax.		
	What is the progressivity by income band?	If higher rates are not due until income is well above national average then progressive tax rates will be more readily accepted as being fair.		
	Is the tax base comprehensive?	A good tax is comprehensive to ensure fairness: no significant income falls out of the tax base.		
	Are income tax rates significantly different from the jurisdiction's capital gains tax rate?	If the tax rate differential is high the incentive to recategorise income as gains is significant.		
	Are income tax rates significantly different to the jurisdiction's corporation tax rates?	If the tax rate differential is high the incentive to incorporate is high.		
	Are there a significant number of incentives,	The more such incentives, allowances and reliefs that there are the greater is the		

	allowances and reliefs that encourage tax planning?	scope for tax planning, and so also tax avoidance.		
Capital gains tax	What is the overall perception of tax rates?	Low rates induce inward flows. High rates may induce outward flows.		
	What is the rate of progressivity by percentage bands?	Highly progressive rates may encourage flows out of the tax. Low or not tax may encourage inward flows to the tax.		
	What is the progressivity by income band?	If higher rates are not due until income is well above national average then progressive tax rates will be more readily accepted as being fair.		
	Is the tax base comprehensive?	A good tax is comprehensive to ensure fairness: no significant income falls out of the tax base.		
	Are there a significant number of incentives, allowances and reliefs that encourage tax planning?	The more such incentives, allowances and reliefs that there are the greater is the scope for tax planning, and so also tax avoidance.		
	Corporation tax	What is the overall perception of tax rates?	Low rates induce inward flows. High rates may induce outward flows.	
Is the tax base comprehensive?		A good tax is comprehensive to ensure fairness: no significant income falls out of the tax		

	base.		
Is the tax base likely to provide favour to income arising outside the jurisdiction?	A territorial tax system is unlikely to tax income arising outside the jurisdiction and so is attractive to multinational corporations.		
Are non resident companies permitted?	These companies are registered in a jurisdiction but not taxable there because their income is deemed to arise 'elsewhere' although that other place may be unaware of it.		
Are there special rates for dividends / royalties / overseas financial income and other financial flows?	Such rates tend to be very attractive to multinational corporations.		
Are there special rates for capital gains?	These rates tend to induce inward flows into the tax base both nationally and internationally		
Are there effective transfer pricing rules?	Not all transfer pricing rules are enforced alike: some are more attractive to multinational corporations than others		
Are there effective controlled foreign company rules?	Without such rules it becomes very easy for companies in the jurisdiction to have access to tax havens.		
Social security	What is the	High rates bias heavily	

	overall perception of tax rates?	against labour income and encourage attempts to disguise it		
	What is the rate of progressivity by percentage bands?	Many social security systems are regressive and open to exploitation in various ways as a result.		
	What is the progressivity by income band?	Does the charge only apply at specific levels of income or is it open ended?		
	Is the tax base comprehensive?	Does the charge apply equally to all types of income or are some e.g. self employment, favoured over others e.g. employment?		
	Is there an equivalent charge on unearned income e.g. an investment income surcharge?	If such charges do not exist the tax rates on unearned income may be very much lower than on earned income encouraging the recategorisation of income.		
Tax and politics	Is tax competitiveness a feature of national political debate?	An environment in which tax competitiveness is promoted is likely to be more accommodating of tax avoidance than one that is not.		
	Is tax seen as an instrument for delivering social domestic policy?	Are measures to tackle social exclusion, wealth and inequality gaps and for delivering industrial and social policy deeply embedded in the tax system? If so the tax system is likely to be		

		less abused.		
Tax administration	Is the domestic tax authority appropriately funded to undertake the tasks expected of it?	If not then no law will overcome this deficiency and abuse might be high.		
	Is the tax administration independent of political influence?	An effective tax administration will be independent and seek to apply the law without discrimination. One that is influenced may be biased towards certain sections of the population e.g. large companies and high net worth individuals.		
	Is there a fair tax appeals system?	The rule of law must be seen to be upheld if the tax system is to be seen without bias.		
Company and trust administration	Is company regulation seen to be 'light touch' in the jurisdiction?	This will encourage both domestic and international tax abuse if it is the case.		
	Are accounts required on public record for all limited liability entities?	The less information that is required on public record the more likely it is that tax abuse will take place because the chance that it will be identified is reduced.		
	Are the beneficial owners of companies required to be disclosed on public record?	The more likely this is the less likely it is that people will use companies to cheat on their tax obligations.		

	Is country-by-country reporting required on public record?	Multinational corporations are less likely to tax abuse if their activities are open to scrutiny.		
	Are trusts and foundations required to be recorded on a central register?	If trusts can exist without the authorities not knowing there is a much increased chance that they will be used for tax abuse.		
	Are trust accounts, donors, trustees, accounts and beneficiaries disclosed on public record.	The less information that is required on public record the more likely it is that tax abuse will take place because the chance that it will be identified is reduced.		
International tax agreements	Does the jurisdiction partake in automatic information exchange?	If this is the case those using it will be known to their domestic tax authority and so will be less inclined to use it for abuse.		
	Is the jurisdiction aligned to OECD information sharing standards?	This makes it more likely that automatic information exchange will be effective.		
	Does the jurisdiction have the data to undertake automatic information exchange?	NB: The Tax Justice Network Financial Secrecy Index will assist answering this question. Signing up to automatic information exchange is meaningless if there is no information to		

	exchange.		
Does the jurisdiction have a comprehensive range of double tax agreements?	These can be of benefit in ensuring information from within the jurisdiction can be accessed by others?		
Are the jurisdictions double tax agreements open to abuse on:	The more open to abuse a territories double tax agreements are the more likely it is that it will be used to record abusive transactions.		
a) Dividends			
b) Interest			
c) Capital gains			
d) Royalties			
e) Other financial flows			

Using the proposed marking system

We would stress that there may be ways to overcome some of the inherent weakness in perception indices in the system we propose. If complementary assessment questionnaires were completed multiple times (and maybe by invitation, on line) across a representative sample of informed respondents from across stakeholder groups likely to have concern with the issues then a representative index for an informed population as a whole could be prepared. The data from this could then be used to inform scores. If those completing the survey were also required to disclose the nature of their interest and the stakeholder group they most associated with, then not only could an appropriate weighting by interest group be maintained, but the differing perceptions of the stakeholder groups could also be compared and contrasted, actually adding to the value of the process by indicating the areas where stress in interpreting the system might arise. We do not wish to be prescriptive at this stage but suggest that such groups might include employees, the self-employed, pensioners, trade unions, corporate tax payers, tax agents, government and civil society groups. It might also be appropriate to identify the income banding of the respondent. Within the UK context in which this paper is being written it may well be possible to differentiate both individuals and companies into two bands, one of which would be for those earning net taxable income and gains of less than £100,000 a year and another for those earning more than that sum. We are open to suggestion here though: a greater differentiation will be required in the corporate sector, in particular.

Internationally, the stakeholder groups may need to be more narrowly defined. It is likely that high net worth individuals (who are very unlikely, however, to partake in any such survey), tax agents and their own representative bodies, multinational corporations and civil society organisations, including NGOs, development agencies and trade unions, are the most likely responders in this area. Carefully weighting each will be a requirement to ensure representative assessments are created.

Interpreting results

Assessment of any jurisdiction might differ domestically and internationally. Domestically averages will, of course, make little sense: it is the spread of marks that will matter within a jurisdiction. That is because, for example, an overall low mark for an income tax system when there is simultaneously a high mark for either a corporation tax or capital gains tax system would suggest that the risk of income being shifted into these other two tax bases is high, and so the system is vulnerable to abuse. It would, of course, be necessary to anticipate these possible outcomes and suggest what they might imply in broad terms, but each jurisdiction is likely to require some degree of specific interpretation to make sense of marks awarded in any event.

Internationally average marks for a jurisdiction make more sense, with specific results by tax adding interpretative depth to such broad based approaches. This is because, for example, a jurisdiction with an overall low score may well be vulnerable to another with a high score. The risk of tax base shifting between the two would be high. A gravity based model of risk between the two, quite specifically taking distance into account would, however, be necessary in assessing specific relationship risk: there is quite a lot of evidence that tax shifting is more prevalent into relatively local destinations than it is into distant ones and the model of spillover effects would have to allow for this. However, care would be required in the structure of this distance weighting: a UK resident has a choice of a relatively large number of tax havens within reasonable distance but a taxpayer in South Africa has not and this would need to be taken into account. It is not an insurmountable hurdle.

What these suggestions mean is that the resulting spillover assessment system will have several quite distinct uses. First, the risk of tax abuse within a jurisdiction can be assessed. The resulting measure will indicate areas of risk within a jurisdiction and should suggest where tax abuse is more or less likely. The uses should be obvious. A tax authority should be more aware of the perception of vulnerabilities within the tax system that they administer than they are at present. Those with political concern on these issues might have a better understanding of where their priorities might lie. And, perhaps as importantly, if the marks of differing stakeholder groups were compared, an assessment of resulting stress within the system and consequent vulnerability to use of such difference as a function in political offerings might be made available.

Second, the results arising from the domestic tax spillover assessment could be combined with other indicators, such as those on inequality and wealth distribution, to help provide explanation of identified trends in these areas. Again, we think the potential uses are readily apparent.

Third, internationally, the results will very clearly suggest the likely flows of tax base shifting, provide an indication of those jurisdictions most vulnerable to them arising, and the tax bases most at risk. The intention would be to suggest those states that need to reform their practices to reduce spillover effects through a gentle form of peer review and pressure, but the framework should also be capable of suggesting the defensive measures that could best increase the chance of a jurisdiction resisting tax base shifting. The results should be of interest to all with concern to eliminate the harmful impacts of tax competition, base erosion and profit shifting.

4. Where to go now?

Where do these suggestions lead? We believe, that we have created an approach to the measurement of spillovers that could lead to their rapid development and roll out, resulting in completely new ways in which all tax system stakeholders can better assess the impact of tax abuse on their own and other jurisdictions. At a time when interest in the politics of tax has never been higher this alone is of importance. But there is more to it than that: what we hope we have also created is a mechanism to encourage dialogue on this issue. This brief project was undertaken in an initial spirit of curiosity: we would now like the opportunity to take this much further and turn our initial thinking into a fully formulated, tried and tested system for assessing tax spillover effects. If that resulted in better tax systems and less tax abuse within and between them the result could be of real benefit. That, we think, is a conversation that is needed now.

5. Footnote re Charts

The potential to map these spillovers exist. Thinking on this has only been undertaken on domestic spillovers as yet and only with regard to four, likely to be connected, taxes:

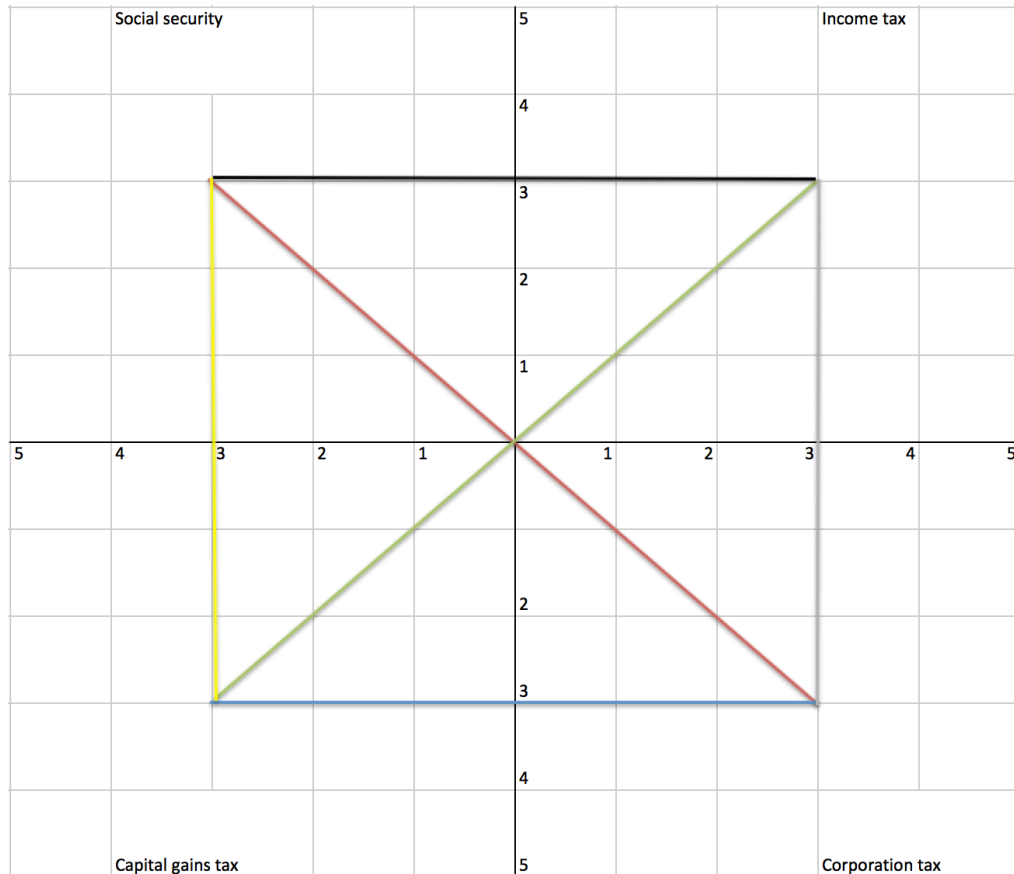
1. Income tax
2. Social security
3. Corporation tax
4. Capital gains

The mapping reflects the fact that assessments are made on a scale of 1 to 5. Five means a tax is vulnerable to attack: the tax to which it is vulnerable will have a low score because it artificially attracts a tax base. A line can be drawn between the two. A score of three is neutral.

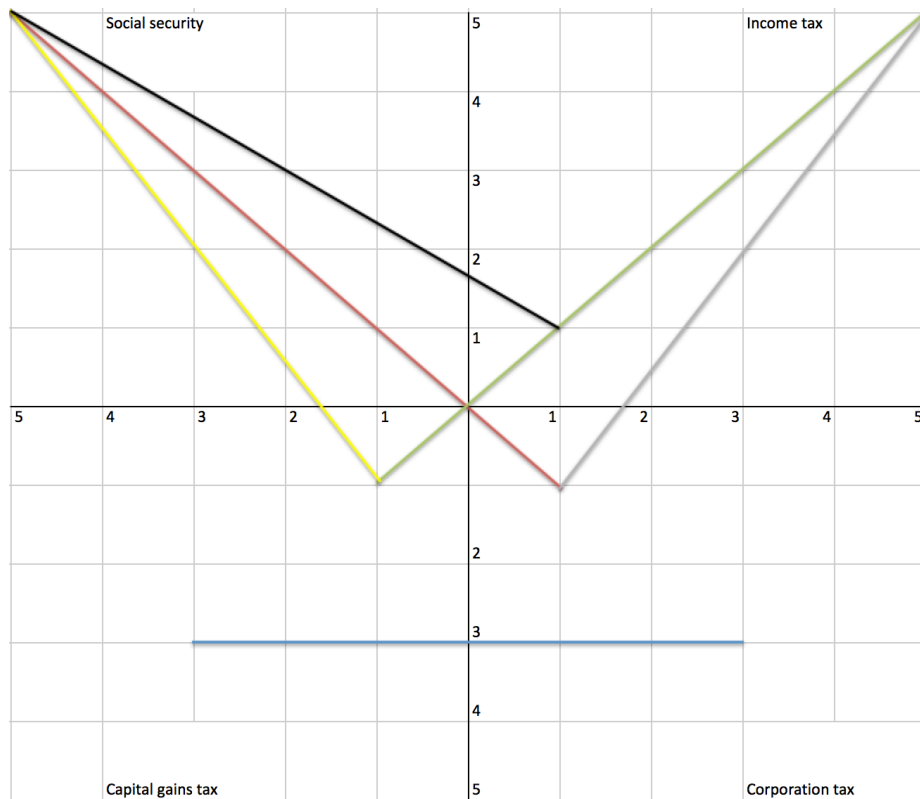
Now put a tax in each corner of a chart using this logic that Income tax should be top right because it is the tax that is often of greatest concern. Social security charges and similar

style charges are also usually of some significance so they are placed top left. Then, because its revenues tend to be next biggest corporation tax is placed bottom and right. That leaves capital gains tax in the bottom left.

Each tax can have a spillover on each other: here six different colours are used to identify the six relationships that can exist. A neutral score is a three between all taxes. So a perfect score looks like this:



Alternatively, what is the worst case? That would be a score of five for both income tax and social security with each being vulnerable to abuse from corporation tax and capital gains tax, with both of them scoring one. Social security would score five for social security in its relationship to income tax which would get a one with regard to it. It is assumed that corporation tax and capital gains tax are neutral with regard to each to each other. This results in this chart of a tax system with high spillover impacts:



International spillover risks would require a different type of chart: work on this has not been undertaken as yet.

6. References

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7. Endnotes

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ⁱⁱ Professor of Practice in International Political Economy, City, University of London. See
<http://www.city.ac.uk/people/academics/richard-murphy> Richard Murphy's work on tax gaps and related issues is funded by Combating Financial Fraud and Empowering Regulators (COFFERS), which is supported by European Union Horizon 2020 research and innovation programme under grant agreement 727145.

ⁱⁱⁱ It should be noted that this approach is consistent with the new widely accepted definition of a secrecy jurisdiction originally suggested by Richard Murphy (and others) which is that secrecy jurisdictions are places that intentionally create regulation for the primary benefit and use of those not resident in their geographical domain with that regulation being designed to undermine the legislation or regulation of another jurisdiction and with the secrecy jurisdictions also creating a deliberate, legally backed veil of secrecy that ensures that those from outside the jurisdiction making use of its regulation cannot be identified to be doing so.