

Blockchain tokens and data valuation

Aligning profit attribution and value creation



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Taxing data in the digital economy is set to become far easier.

In its interim report on how to tax the digital economy, the OECD noted that: “Advances of technology in the web 2.0 era are most dramatically felt in social networks supported by advertising revenue where the implications for the tax system are most apparent.”

Blockchain tech is well-positioned to fundamentally change how digital services are built, used and monetized. More and more social networks that rely on active user participation will be forced to move over to governance systems that are decentralized, network-centric and based on the blockchain. As the technology advances, digital business models built on web 2.0 will become defunct. What does this mean for the way data accumulates and generates value?

As Metcalfe’s law² explains, and as supported by Facebook and Tencent data,³ in the networked digital economy, value is created by network participants.

This also aligns with the OECD’s conclusions. In its interim report on challenges to the BEPS project brought about as a result of digitalization, the OECD summarizes the situation as follows: “User activity and participation statistics are key indicators for such businesses. Annual reports and initial public offering documents often disclose information concerning trends regarding active users, and present metrics such as average revenue per user (ARPU) for different geographical areas to indicate the different monetisation rates and potential”.

Ours is the ‘lost generation’ that handed over information carelessly — and for free — to attention merchants. Writing for the London Review of Books, John Lanchester says consolidate a new internet-age dictum: “If the product is free, you are the product.” For example, anyone using Facebook is actually working for Facebook. In 2014, the *New York Times* found that humans were spending 39,757 collective years on the site, every single day. This is “almost fifteen million years of free labor per year”.

This is the basis for Facebook’s ad strategy — generating US\$27 billion from advertising in 2016, up by 57 percent from the previous year. YouTube, on the other hand, is the

² Value of network is proportional to square of the number of users

³ Tencent and Facebook Data Validate Metcalfe’s Law — Zhang, XZ, Liu, JJ and Xu, ZW. *J. Comput. Sci. Technol.* (2015) 30: 246. <https://doi.org/10.1007/s11390-015-1518-1>

// Currently, capital requirements for production are not only distributed but owned by the platform workers themselves. Value is created at the fringes of such platforms."

largest music library on the planet, playing billions of tracks annually, but in 2015, artists earned less from YouTube than they earned from sales of vinyl.

For tax policymakers, it is important to consider that it is now the users or the network members who create value, not the network platform owner. It is therefore these individuals, these 'value-creators' who should be the main concern when it comes to determining the corporate tax base. Companies such as Uber, Facebook, Google, AirBnB, Amazon and Alibaba that famously own no taxis, real estate, inventory and create no content, yet dominate their respective industries, illustrate that capital requirements for production are not only distributed but owned by the platform workers themselves. Value is created at the fringes of such platforms.

Network participants can only be taxed if they earn income for the data and the user-generated content they have been contributing for free to those who own and control these platforms.

Blockchain experiments are underway to transfer ownership of data back to those who generate it. What follows is a world where data is established as a store of value and becomes a tradable commodity — to be exchanged, gifted and inherited.

This is being enabled by the advent of new technologies. Distributed computing systems are powered by a combination of decentralized

consensus protocols, game theory and cryptography and have proven that networked digital platforms don't have to be monopolized by tech giants like Facebook and Google. Blockchain and algorithms/consensus protocols can be used to decentralize governance and redistribute profit among users and network participants in source countries. In other words, there are alternatives to centralized, profit-oriented intermediaries — the Facebooks, Amazons and Googles — that have become household names.

Blockchain-based social ecosystems are built on paradigms that put the user in the centre and recognize that it is the users that create data, that the data created belongs to them and, correspondingly, any value generated from this data accrues to them. This is all made possible by native blockchain tokens or decentralized advertisement (ad) tokens. These tokens are used to compensate and reward the users for the data and content they contribute to social networks, and also for their attention to advertisements.

At its root, it is simply a points system. However, because this points system is blockchain-based, the points can be traded on markets as tokens.

People buy and sell these tokens, and many hold them in anticipation of increased purchasing power. The rewards people earn are tokens that have market value and are readily tradable.

Micropayments or subscriptions (in the form of tokens) allow content creators to receive payments directly from their audiences/readers for the internet traffic that they generate, without any third-party payment intermediaries and their attendant fees and delays. For the first time, thanks to this technology, it is economically (and technically) viable to digitally send 10–15 cents halfway across the world.

In terms of how this idea fits within a wider regulatory and political landscape, blockchain-based social network platforms that rely heavily on user participation are much in alignment with OECD/BEPS emphasis on allocating taxing rights to value-creating economies.

The GDPR and blockchain are clearly not compatible with respect to the GDPR's requirement that individuals be given the ability to revise or delete their personal data. However, there are ways to split the data structure in such a way that the citizen's data is stored off-chain and only referenced on-chain.⁴ In this way, the immutable data record is only a record of transactions involving data but not the data itself. And through this technique, GDPR's objectives might be met in substance if not form.

To summarize, the mediating function of centralized technology services offered by today's proprietary platforms can now be managed using blockchains, cryptography and game theory in such a way that user's privacy and monetization is at the core. Source countries will enjoy their fair share of taxes as users in their countries will be directly compensated for their data and contributions online. ■

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⁴ <https://cointelegraph.com/news/how-new-eu-privacy-laws-will-impact-blockchain-expert-take>



Ruud de Mooij

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The views expressed here are those of the author and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

How much can we shift taxes from labor to capital?

Social security contributions and progressive personal income taxes are associated with higher labor costs and tend to discourage job creation. But the solution is not as straightforward as simply reducing employment taxes and increasing tax on capital income.

— Employment taxes distort the functioning of labor markets.

— Taxes on capital income are controversial, as they might create even larger distortions, including on labor markets.

— In many countries, improved design of capital income taxes has some scope to strengthen revenue mobilization.

Taxes on employment have been heavily criticized for their distortionary impact on labor markets. Social security contributions and progressive personal income taxes are known to drive a wedge between the labor costs for employers and the take-home pay for employees. To the extent that these tax wedges are associated with higher labor costs, they discourage job creation; and as far as they reduce the take-home pay for workers, tax wedges discourage labor supply. The wedges can be large, often in the range of 40 to 60 percent of labor costs — especially in Europe and Latin America. Empirical studies consistently find that large tax wedges reduce countries' employment levels and increase involuntary unemployment. In addition, tax wedges tend to reduce the quality of employment (productivity), for instance, by discouraging education and training, inducing people to work informally and causing skilled workers to migrate abroad.

Would it therefore not be better to shift the tax burden away from employment, and, if so, where to? This article discusses the desirability of shifting the tax burden from labor and toward capital income. The latter can be taxed either at the individual level (taxes on interest, dividends, capital gains) or at the corporate level.

Capital income in most countries is earned disproportionately by the better off. High taxes on capital income (or on the underlying wealth) are therefore often viewed as a good way to address inequality. But theory offers several perspectives on this issue. Because capital income enables the purchase of consumption in the future, taxing it corresponds to imposing a tax on that future consumption. Prudent individuals who prefer to postpone consumption (or transfer it to their heirs) will be taxed more than those who do not. Some see this as unfair as time preference is not a good basis to differentiate tax liabilities. Moreover, a tax on capital may also create relatively large economic distortions. Since income first needs to be earned by working before it can be saved, taxes on capital discourage labor supply in the same way as labor



income taxes do. But in addition, they also distort saving behavior, thereby magnifying the overall economic distortion of the tax.

What all this implies is intensely debated among public finance economists. At one extreme is the view that, because it distorts behavior so much, the optimal tax on capital income is zero with redistribution better achieved by progressive labor taxes alone (including the personal income tax on employment income). At the opposite extreme is the view that labor and capital income should be taxed identically — for many years the most popular view. This, it is argued, best complies with the ability-to-pay principle. Moreover, it might also be efficient, as it can be hard to distinguish labor income from capital income, for instance, of self-employed entrepreneurs. Neither view stands

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on entirely firm theoretical grounds. What has become clear is that the desirable tax on capital income, even if not zero, may well differ from that on labor income — not least because capital is more mobile internationally, making it harder to tax without driving the base abroad. Many countries now employ some form of dual income tax: taxing capital income separately from labor income, and at a lower rate than the highest personal tax rate on employment income.

While capital income taxes clearly have their limitations, most countries have them in place. Often, governments have several opportunities to strengthen them. For example, taxes on capital income are very often a leaky bucket due to a myriad of exemptions and reliefs for certain types of income. These create major distortions in asset portfolios and ample tax avoidance. A more neutral treatment of all personal capital income at a reasonable, uniform rate could then boost revenue — enabling a revenue-neutral tax shift away from labor.

Countries might also consider shifting toward corporate income taxes. Here, the notion of tax incidence — who ultimately bears the real burden of a tax — is key. Corporations themselves cannot bear the incidence of tax — only people can. To the extent that corporate income generates personal capital income (in the form of dividends or capital gains), the arguments of the previous paragraph apply: the corporate tax is then merely a withholding mechanism for such taxes to facilitate collection. Yet, when it comes to business taxation, part of the incidence might actually fall directly on workers. To see this, take an economy that is small in world capital markets, and so must take as given the after-tax rate of return on investment: investors will move their capital abroad if they earn less than this. If a country now taxes the returns that investors earn there, the before-tax rate of return will have to rise enough to leave the after-tax return unchanged. Consequently, an outflow of capital will then occur. But



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that outflow leads to a lower domestic capital-labor ratio, which reduces labor productivity — and, in turn, wages. So workers, not shareholders, bear the real incidence of the corporate income tax; and it is more efficient to tax workers directly through employment taxes than indirectly through corporate taxes.

The corporate income tax still plays an important role in taxing economic rents — the profit over and above the minimum required return to compensate investors. The traditional corporate income tax is not a rent tax because it taxes all returns to equity, including the minimum required return. It could quite easily be transformed into a rent tax, however, either by allowing companies to reduce their taxable income through a deduction for normal capital returns (interest and equity returns) or by allowing immediate expensing of the cost of investment. This would eliminate its distortionary impact on investment and the incidence would fall on capital. When keeping a reasonably high tax rate, the corporate tax could then be an important and efficient revenue source.

Where does this leave us regarding options to shift taxation away from employment? A major shift in the tax burden away from labor toward capital income is unlikely to be the silver bullet that could enable big relief for employment. Yet, more efficient design of existing capital income tax systems offers some opportunities in many countries as a more buoyant source of public revenue — and provides relief for employment. ■



Edward J. Dodson

Edward J. Dodson retired in 2005 after three decades of management and analyst responsibilities in the housing finance sector of the US economy. He taught political economy and lectured on history at the Henry George School of Social Science and is the author of a three-volume work, *The Discovery of First Principles*. He is a contributing writer to several periodicals devoted to promoting systems of political economy developed in the late 19th century by Henry George. In 1997, he established the online education and research project, the School of Cooperative Individualism.

Rents as revenue

As an unearned source of income for individuals and private entities, it makes sense for rents to comprise the core source of public revenue.

- There is a moral decision regarding which assets and income flows are legitimately private property and which are legitimately societal property.
- The potential annual rental value of locations and natural assets with an inelastic supply is an ideal source of public revenue.

- When it comes to income tax, efficiency, equity and simplification of compliance can all be achieved by exempting individual incomes up to a certain amount (e.g. the national median income), eliminating all other exemptions or deductions, and then applying various tax bands.
- To support small business and entrepreneurship, some level of business revenue should be exempt from taxation.

Part of the problem — our inherited system of public finance

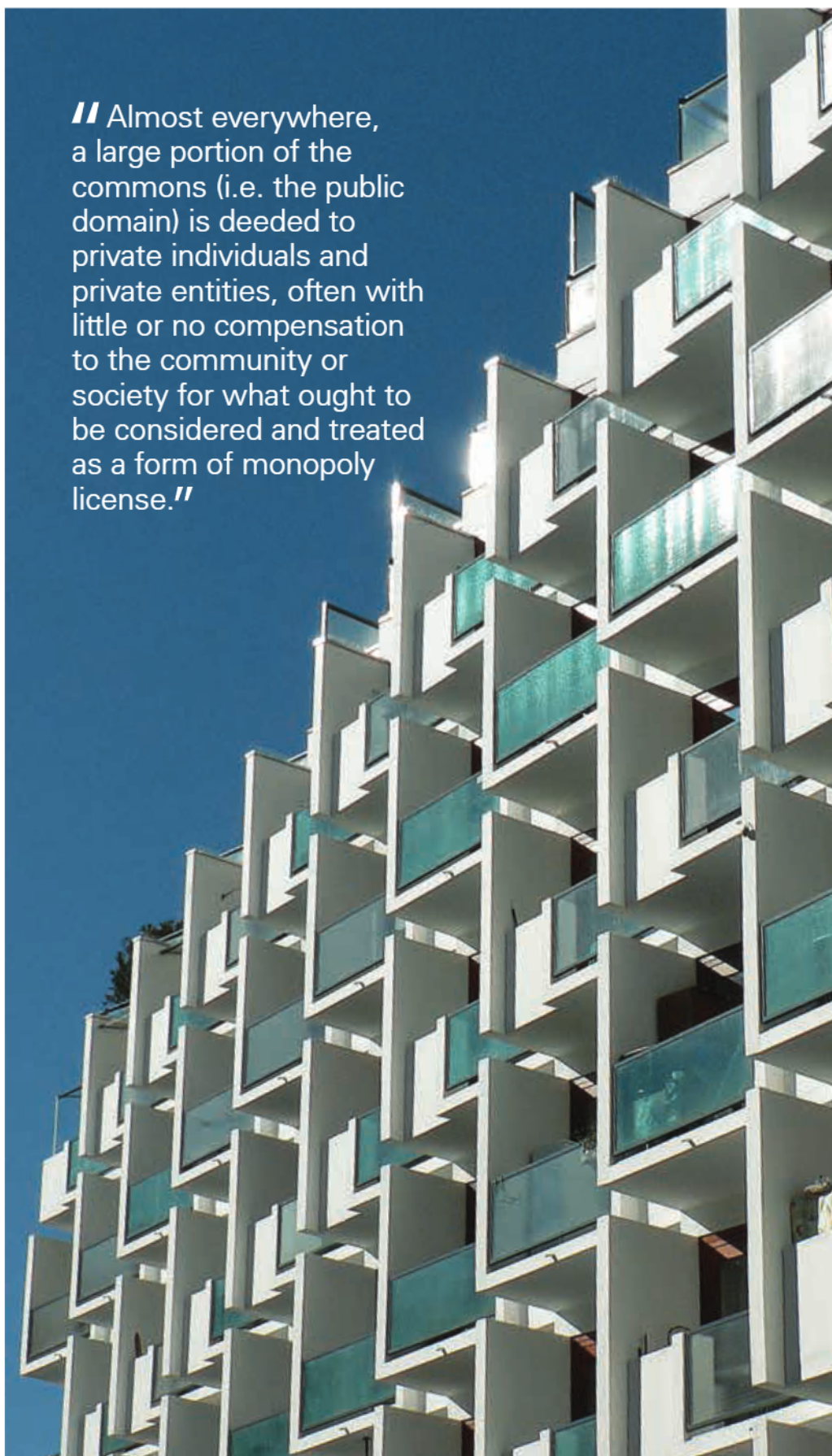
The fundamental impediment to creating a world where full employment is the norm, and all people have equal opportunities to achieve their potential, is that our systems of law and taxation have at their roots the protection of monopoly privileges. Implicit legislative privileges entrench many of the negative outcomes we experience in the world. Unfortunately, all but a few economists and analysts influential in the global economy are willing to call for fundamental reforms. In our world, economic outcomes are dictated by politics. And the politics of the world are directed toward protecting the status quo. The result is an accelerating concentration of income and wealth.

If you read the great political economists carefully — from Adam Smith and Anne Robert Jacques Turgot to Henry George — the depth of privilege enshrined in law is clearly described. Henry George interpreted what Turgot meant by ‘laissez-faire’ to be ‘a fair field with no favors’. George took Smith’s and Turgot’s analysis to its broader, ethical and logical application to laws relating to property. The moral element involves deciding which assets and income flows are regarded by law as private property and which belong to society. These issues remain unresolved, and there is deep resistance to public education and debate that might lead to changes in this area of public policy.

Defending the status quo against radical anti-propertyism

Beginning in the 16th century, modern history is the story of nation-state building and wars of territorial acquisition. Access to competitive weaponry enabled victims of colonialism and imperialism

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to retaliate and regain independence. Yet systems of property law and taxation within 'old world' powers have become almost universal, as is the control over nature as a legitimate form of private property. Almost everywhere, a large portion of the commons (i.e. the public domain) is deeded to private individuals and private entities, often with little or no compensation to the community or society for what ought to be considered and treated as a form of monopoly license.

Charging all who control nature to pay for the value of benefits received

The potential annual rental value of locations and of natural assets with an inelastic supply is an ideal source of revenue to fund the public realm.

Locations are the parcels in towns and cities, the rental value of which is determined not by what any owner does or does not do with land held, but by locational advantage. Such advantage is in some instances created by nature, in almost all instances by the quality of public amenities available. This means locations in a city's financial district are valued by the square metre; locations in outlying residential/commercial regions by hectare, while rural land is valued by the yield potential per hectare (based on agricultural use, forestry or mining). More recently, locational advantage is strongly influenced by the opportunity to install wind or solar farms in otherwise marginal locations.

Exemption of all property improvements from the tax base not only encourages the maintenance and periodic upgrading of the buildings, but also removes a major source of 'dead weight' loss in terms of economic output.

Natural assets with an inelastic supply (supply where percentage change is less than a percentage change in price) include frequencies on the broadcast spectrum and take-off and landing slots at airports,





based respectively on differences in demand dependent on time of day and the fact that no two airplanes can safely occupy the same space at the same time.

If we are to tax individual income, the key is to distinguish between income earned as wages received from producing goods or providing services, and income derived from passive and speculative investment. Tax efficiency, tax equity and simplification of compliance and administration can be achieved via implementing structures that exempt all individual incomes up to a certain amount (e.g. the national median income), eliminating all other exemptions or deductions. Above the exempt amount, ranges of income would be taxed at an increasing rate of taxation, the ranges and rates determined as part of the legislative process to achieve a balanced budget. The assertion here is that incomes at the highest ranges can be taxed at a very high rate of taxation without materially impacting individual consumption or investment in real capital goods (i.e. buildings, technologies and machinery), and that this level of income is largely rent-derived from speculative activity in financial instruments and land. All income would be included, regardless of source.

To encourage an increase in the number of small businesses and local ownership thereof, some level of business revenue should be exempt from taxation. A graduated system of gross revenue taxation is recommended, exempting some level of revenue (e.g. the median level of revenue for businesses in an MSA [Metropolitan Statistical Area] or its equivalent outside the US). Above this level, a low but graduated tax rate would be applied to higher ranges of revenue. This form of tax simplification removes the tax benefits of incurring and reporting high levels of expenses, rewarding those companies operating with a high attention to efficiency.

Finally, although not considered a matter of taxation, private leasehold access to public lands should be awarded by competitive bidding, with what I will generally call 'ground rent' charges periodically adjusted — upward or downward — based on the results of current leasehold interests. ■



Enid Slack

Enid Slack is the director of the Institute on Municipal Finance and Governance and an adjunct professor at the Munk School of Global Affairs at the University of Toronto. She is one of Canada's foremost experts in municipal finance. Recent publications include *International Handbook of Land and Property Taxation* (co-edited with Richard Bird), *UN Habitat Guide to Municipal Finance* and *Finance and Governance of Capital Cities in Federal Systems* (co-edited with Rupak Chattopadhyay).

Property taxes

In both developed and developing countries, there is significant potential to increase property tax revenues.

- Property taxes are a key part of financing local government.
- Property taxes capture the increase in value arising from government investment.
- Despite being efficient and non-distortionary, they tend to be unpopular among taxpayers.

In most developed countries, property tax has been the backbone of municipal finance for many years. Increasingly, it is playing an important role in financing local services in less developed countries. The tax on residential and non-residential properties is most often levied on the market value of the property but, in some jurisdictions, it is levied on rental value, land value, or area of the property.

Property tax — a good tax for local governments

Property tax connects the types of services funded at a local level (for example, schools, roads, transit, parks, and so on) and property values. When public services increase the value of property and result in higher property taxes, property tax may be thought of loosely as a benefits tax. In other words, taxpayers are paying for the benefits they receive from local services. To the extent that property taxes are not fully matched by expenditures on public services, there may be an impact on where people locate to, but this impact is considered to be smaller than the impact of income taxes on the decision to work or

sales tax on consumption patterns. For this reason, property tax is considered to be less distortionary than other taxes.

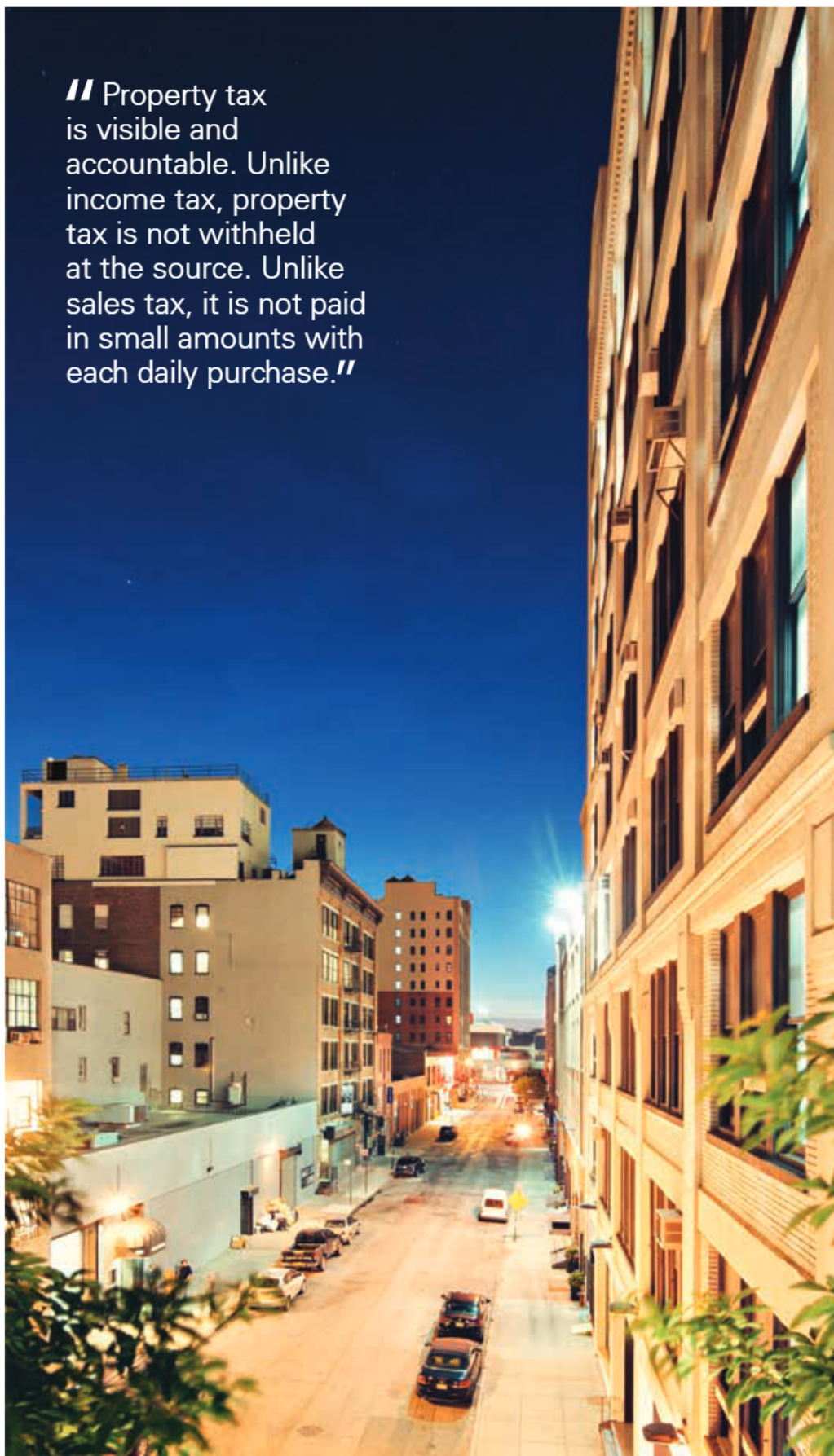
In terms of public investment in infrastructure, property tax is an obvious way to capture the increased land value arising from that investment. When a local government invests in roads or transit, for example, land values increase. The increased land value is the result of the public investment and not any investment on the part of the landowner. Governments can capture the increase in land value that they have created to recoup their initial investment.

Another reason why taxes on land and property are considered to be appropriate as a local revenue source is, in part, because real property is immovable: It is unable to shift location in response to the tax, and thus, it is difficult to evade. Property tax revenues also tend to be stable and predictable.

Property tax is visible and accountable. Unlike income tax, property tax is not withheld at the source. Unlike sales tax, it is not paid in small amounts with each daily purchase. Instead, property tax generally has to be paid directly by taxpayers in periodic lump sum payments. Moreover, property tax finances services that are also very visible, such as roads, garbage collection and neighbourhood parks. Studies show that residents are more willing to pay for local services when they rate their government and service provision highly; if services are considered inadequate, however, they are more likely to complain about their property taxes. This visibility makes local governments accountable to taxpayers, but it also makes it difficult to increase or reform the tax.

Despite these virtues, property taxes yield only 3 percent or more of GDP in only three OECD countries (the UK, Canada and the US) and more than 2 percent in only four other OECD countries (France, Israel, Japan and New Zealand). In 22 OECD countries, property taxes yield less than 1 percent of GDP. In less developed countries, property taxes are even smaller.

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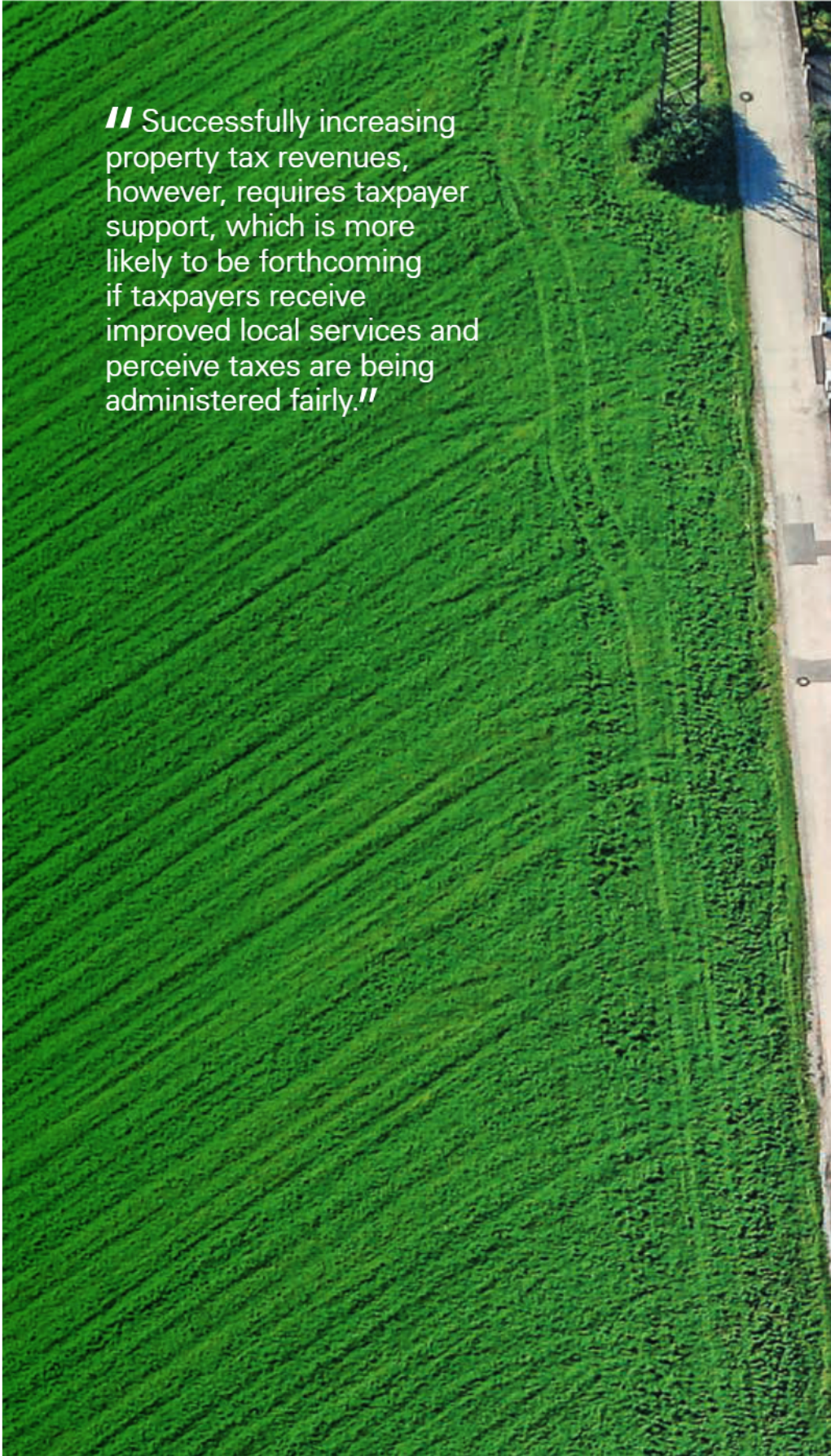


Criticisms of property tax

So, why is property tax so unpopular? It has been criticized for being unfair because it is unrelated to ability to pay. It has been said to be unsuitable as a tax for local government because it supports services that are not related to property (such as social services), and it is considered to be inadequate because it does not provide sufficient revenue to meet local expenditure needs. It has also been criticized for its negative effects on housing, land use, and urban development.

Taxpayers also dislike property tax because they may not agree with or indeed understand the base of the tax (usually market value). Unless the property subject to tax is sold in an arm's-length transaction between a willing buyer and an unrelated willing seller on the precise valuation date specified in the law, someone has to determine the value that serves as the basis on which to assess the tax. In other words, property tax is inherently a presumptive tax. Property tax valuations are thus always arguable, so it is not surprising that the results of this administrative process, no matter how technically good, are often perceived to be unfair and arbitrary.

Local governments complain about property tax revenues because they are relatively inelastic. Unlike income or sales taxes, the revenues don't increase automatically with changes in the economy. Even if the potential tax base does increase with growth, as with a tax based on market value, property values generally respond more slowly to changes in economic activity than do incomes or sales. In those countries where property taxes are based on the area of the property, the tax responds even more slowly to annual changes in income. In order to maintain property tax revenues in real terms (let alone increase them), it is therefore usually necessary to increase the rate of the tax. Inelasticity thus makes local authorities more accountable because

An aerial photograph of a vast, green agricultural field, likely a rice paddy, showing distinct diagonal furrows or terracing patterns. A narrow, light-colored path or road runs along the right edge of the frame. In the upper right corner, a small section of a fence and some trees are visible.

// Successfully increasing property tax revenues, however, requires taxpayer support, which is more likely to be forthcoming if taxpayers receive improved local services and perceive taxes are being administered fairly."



they have to persuade taxpayers that they are justified in increasing tax rates, but it also makes it difficult to increase or reform the tax.

Tax administration matters

How well property taxes are administered will determine how much revenue is collected and the overall fairness of the tax. The process of taxing property involves a number of steps: property identification and management; valuation; billing and collection; enforcement; and adequate taxpayer service. Few countries do all of these things well. Particularly in less developed countries, there is often little or no information on property ownership or the characteristics of the property needed to provide an estimate of the tax base. Valuers are few in number and property values are often out of date. Low tax rates and inadequate tax collection procedures are additional reasons why revenues are low.

The future

There is significant potential to increase property tax revenues in developed and less developed countries and many countries are attempting to do that. New technology, in particular, has improved tax administration. GIS, for example, has made it easier to identify properties. Successfully increasing property tax revenues, however, requires taxpayer support, which is more likely to be forthcoming if taxpayers receive improved local services and perceive taxes are being administered fairly. Adequate resources (human and financial) need to be dedicated to the administration of the tax and, last but not least, there needs to be political will to undertake reform. ■



Jo Bateson

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Jo Bateson is a Partner at KPMG in the UK and leads the London Private Client Advisory team. Jo has over 18 years' experience advising high net wealth individuals, trustees and family offices with global tax issues. Jo became a partner of the UK firm in 2014 and is a member of the Association of Tax Technicians, the Chartered Institute of Taxation and the Society of Trust and Estate Practitioners. Jo has won a number of industry awards including: 'Top 35 under 35 Private Client Practitioners' for 2009, 2010 and 2011; Management Today's '35 Under 35'; Women in Business published in *The Sunday Times* in July 2012; City Wealth's Power Women Awards 2015 bronze award for 'Woman of the Year — Leadership' and gold award for 'Woman of the Year — Business Growth' categories; *Tax Journal's* 'Top 40 under 40' in 2016 and City Wealth's Power Women Awards 2017 for Mentorship.

What is the perfect land tax?

Get the taxation of property right and you significantly increase a country's overall tax intake. Systems will need to evolve to fit today's economic trends and behaviors.

- The ratio of property taxes to GDP varies widely globally, with the OECD average at 2 percent.
- Transactional taxes such as stamp duty focus on the owner and tax the value on transfer — but can distort behavior.
- Annual property taxes tend to focus on the benefits of occupying premises but require regular valuations to effectively capture increases in value.

A person with long blonde hair, wearing a red sweater and blue jeans, is riding a red bicycle on a gravel path. The path leads through a vast, open landscape of rolling green and brown hills under a clear sky. The person is seen from behind, looking out over the horizon.

// A good tax system is progressive, easy to quantify and collect, while also driving the right sort of economic behavior and ensuring the burden falls on the right person."

What is land tax?

What would be the key characteristics of a perfect land tax? Throughout history, governments have sought to increase revenues by taxing land. Historically, land tax has been especially well-employed when the taxation of effort, such as income, was deemed unpopular or difficult to collect. In the 18th century, window tax was introduced in France and the UK as a revenue raiser for central government. Although eventually becoming unpopular, window tax started off as relatively uncontroversial. It was considered to be progressive in relation to wealth (bigger houses have more windows), and it was easy to calculate by simply counting the windows.

In today's global tax environment, tax systems still strive for similar characteristics, with the holy grail a tax system that is progressive, easy to quantify and collect, while also driving the right sort of economic behavior and ensuring also that the burden falls on the right person or group of people.

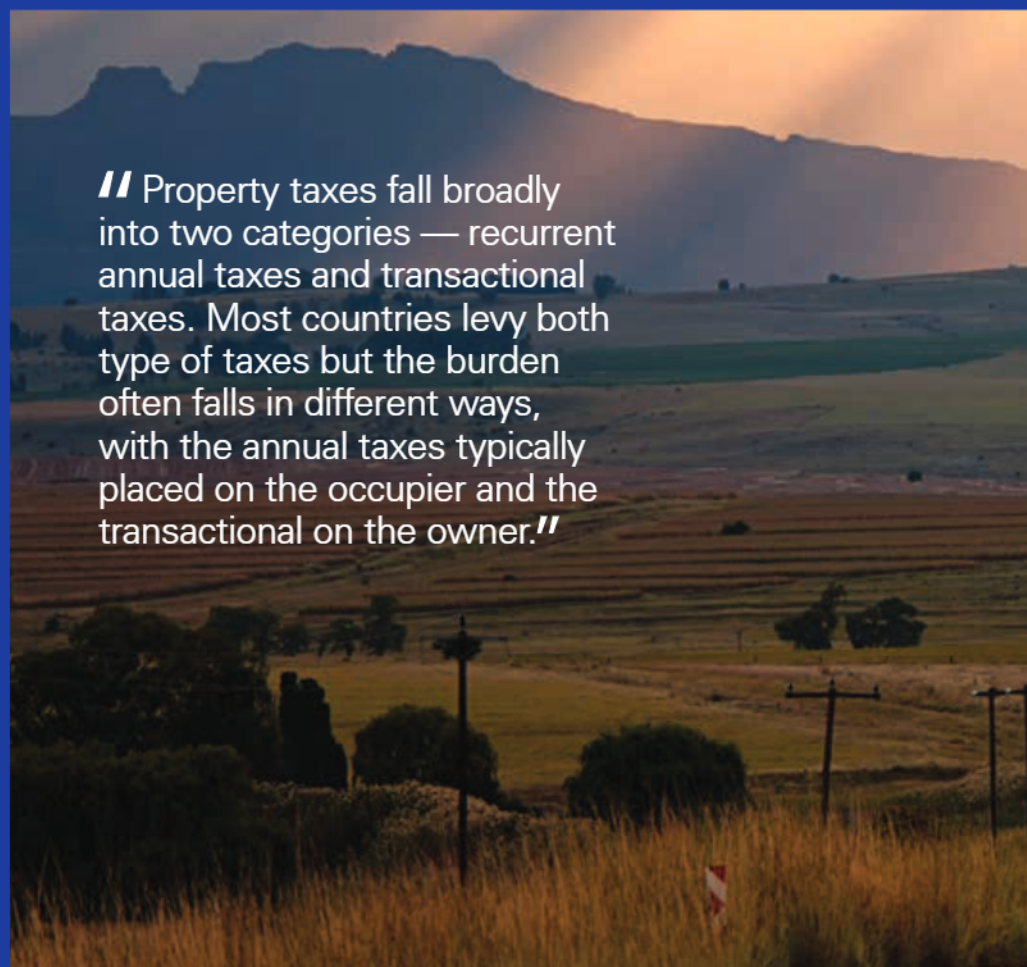
At 4 percent, France and UK have the highest proportion of property tax as a percentage of GDP across the OECD countries — still not a significant percentage. Germany, Sweden, Chile and Austria are all less than 1 percent, lower than the OECD average of just over 2 percent. Interestingly, as a percentage of overall tax take, the UK is again at the top of the OECD countries with over 12 percent of its tax take from property taxes (which would be predominantly Stamp Taxes). Korea is also at 12 percent and the US at 10 percent, showing that getting the taxation of property right can significantly increase the overall tax take for a particular country.

Property taxes fall broadly into two categories — recurrent annual taxes and transactional taxes. Most countries levy both type of taxes but the burden often falls in different ways, with the annual taxes typically placed on the occupier and the transactional on the owner. Of course these are sometimes the same, but it is interesting that where property tax is levied to fund consumption of local services, it tends to fall on the occupier. Correspondingly, setting the rate is devolved to local government whereas transactional taxes typically fall on the owner and are set centrally, although there are some cases where these taxes are set locally, in the city of Toronto, for example.

Transactional taxes

Transactional taxes are simpler to administer and collect as there is usually a connection to an agreement between parties where a value (typically the market value) is agreed upon, paperwork is submitted and — usually at least — cash changes hands. Due to their distortionary nature, transaction taxes can, however, prevent the right sort of economic behavior, such as people moving for work or trading up or down in relation to their circumstances. In isolation, transactional taxes are not the perfect property tax.

Most OECD countries have some form of transactional tax on the transfer of legal title, known as stamp taxes in Australia and the UK and as (land) transfer taxes in Canada, Spain, Italy, Germany, Japan, France and the US. The taxes are typically applied to the market value but the rates vary widely from 0.5 percent to 18 percent. Owners are usually also subject to domestic tax applied to gains on disposal of property even when the owners themselves are not resident in the country (again, usually levied by central government not local government). The UK is one of the last countries to be consulting on increasing the scope of UK capital gains to include gains made by non-UK resident individuals on commercial property — having extended



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the scope for residential property since April 2015. Transactional taxes can have significant impact on economic behavior, so there is a trend away from slab rates on transactional taxes (where the rates increase on the entire amount once you exceed a threshold) to ascending marginal rates — a progressive policy as more expensive transactions typically pay more. Transactional taxes therefore capture activity in a market but do not capture the benefit of holding on to property or the benefit of significant government expenditure that improves the local environment.

Wealth and annual property taxes

Wealth taxes on property, found in a number of countries globally (Spain, France, Italy and Portugal to name a few), do seek

to tax the long-term benefit of holding property, although with many exemptions, and usually fairly low rates applied to historic or net asset valuations. Such wealth taxes do not seem to meet the modern criteria for property tax: they tax the owner rather than the occupier (who may not be the same person); due to the historic nature of the valuations used, the revenues do not grow with the economy, and they are usually fairly complex with lots of exemptions and reliefs.

Other annual property taxes do capture the benefit of occupying a property where they fall onto the occupier — such as business tax or local government tax — and typically they contribute to funding local services that are consumed. Globally there are challenges on how these taxes are calculated: Are they based on market values or annual rental values? How easy are they to collect? The criticism of annual property taxes is that, while they are designed to be progressive, the burden does sometimes fall disproportionately on the asset-rich/



cash-poor population such as pensioners who have lived in the property a long time, or on low earners who live in an area where values have increased significantly due to external investment.

The key for keeping property taxes relevant is to base them on up-to-date valuations. Belgium and Germany require property valuations to be updated by legislation, which means that it does not happen often and, when it does, it can give rise to dramatic shifts. Portugal, Turkey and the UK only have periodic revaluations too. Denmark meanwhile has biannual updates, and France and South Korea also update valuations every year. The benefit of more frequent valuations is that, not only does the tax take increase in line with the economy, it also captures increases in value that are not funded by the owner. This could be, for example, significant government expenditure in an area's infrastructure. Care needs to be taken to ensure that this does not act as a disincentive for landowners

to improve their assets, especially where it generates local wealth. Therefore, an annual taxes regime would need to include specific exemptions for the right type of improvements and encourage the right type of behavior where possible.

The evolving future of property tax

Property will continue to be a key asset for governments to tax and is an area of complexity across the globe. If the key criteria for a property tax is that it is easy to administer and collect, drives the right sort of economic behavior, is progressive, and captures growth in the economy, then we will require a system that continues to combine transactional and annual taxes. The key issue is the rate at which it is set, and how often property values are updated. For today, this model fits. But

what about the future? Given the shift toward occupation rather than ownership as today's younger generation across the globe have a different attitude toward 'using things' rather than 'owning things', as well as the changing nature of work and shopping online, property tax will continue to evolve as behaviors evolve. ■

// The key for keeping property taxes relevant is to base them on up-to-date valuations. **//**



David Willetts

David Willetts is Executive Chair of the Resolution Foundation and was Chair of its Intergenerational Commission.

Why should we tax wealth?

The welfare state must be funded in a way that spreads the cost fairly across the generations.

- The UK population is aging, putting increased pressure on the health and pensions system.
- Over the last 40 years, the wealth-to-income ratio has moved from around 3:1 to 7:1, largely due to increases in the value of houses and pensions.
- To pay for increased healthcare costs, there needs to be changes to the taxation of domestic properties, inheritance tax and to the way pensions contributions are deducted.

The problem

Like many global economies, Britain faces a slow-motion fiscal crisis. A report by the Resolution Foundation's Intergenerational Commission shed light on the deep-seated demographic forces driving up public spending. The big post-War baby boomer cohort are moving out of jobs and into retirement. They will soon be claiming their pensions and become heavy users of the NHS. Following decades of an increasingly favorable worker to non-worker ratio in the UK, the trends are now going into reverse. The impact of this is a 'double whammy' of increased public spending combined with a shrinking tax base. These pressures do not arise from policy decisions to increase the size of the state: it is just meeting commitments that have already been made. And even if there were to be an unprecedented shift to privatized healthcare, it is hard to see how the over-60s would be expected to adjust to the new system, even though they are the group driving the increase in public spending. The big issue in British budget policy over the next decade is deciding which taxes to increase — and by how much. This is where the taxes on property come in.

“Following decades of an increasingly favorable worker to non-worker ratio in the UK, the trends are now going into reverse, creating a ‘double whammy’ situation of increased public spending combined with a shrinking tax base.”

Why wealth?

Back in the 1970s, the total stock of wealth held in the UK amounted to two or three times national income. Today, the ratio of wealth to income is close to seven times. Wealth has soared relative to people’s income, but the tax the UK Exchequer receives on that wealth has barely changed at all — staying at around 2.5 percent of GDP for most of the last 50 years. Measured by the Gini coefficient, wealth is now twice as unequally distributed as income.

Some of the increase in the value of assets over the past four decades is explained by people’s hard work. But this is only one of several factors. Four-fifths of the growth in net property wealth since the 1990s comes from ‘passive’ gains in house prices, rather than people taking ‘active’ steps like moving or improving houses. Similarly, the increases in pension valuations come not from increases in personal savings but because a promise to pay an income above a certain age becomes more valuable as life expectancy rises. In both cases, we are seeing extraordinary wealth effects that are unlikely to be repeated on anything like the same scale. The beneficiaries are mainly the baby boomers. They hold more than half of Britain’s GBP12.8 trillion in total wealth. They are the very same generation whose increasing need for health and social care is driving the increases in public spending. So, in order to help meet the costs of those services, it

makes sense to see if there are ways in which their significant comparative wealth can be taxed.

Three proposals for taxes on wealth

In light of the above, the Intergenerational Commission has proposed: reforms to property taxes; replacing inheritance tax with a broader lifetime receipts tax; and the modification of current tax reliefs on areas such as pensions.

Council Tax was designed as a compromise between property-based rates and a Poll Tax on users of local services. It has increasingly come to resemble the Poll Tax that it replaced. It is highly regressive — the tax rate of a family living in a GBP100,000 house is five times that of a family living in a property worth GBP1 million. We propose replacing Council Tax with a new progressive property tax. This is set so that the lowest-value 10 percent of properties in each region pay no tax, and all others pay 0.85 percent of property value each year (with a higher rate for the most valuable 10 percent of properties).

Inheritance tax (IHT) consistently ranks as the most unpopular of all taxes in the UK. It is a classic bad tax, with a high headline rate but few people liable to pay (even though many fear they will be liable). People also rightly think they should be able to pass on some of their wealth to their descendants, as part of the intergenerational contract within their families. Last year, GBP125 billion was passed on in inheritances and gifts, but only 4 percent of estates were liable for IHT. There are many exemptions, which means the very richest end up paying little IHT. They can shift a larger proportion of their wealth into exempt assets like agricultural land and unlisted shares. Inheritance tax should be replaced with a new ‘lifetime receipts tax’, which shifts the tax liability from the giver to the receiver with fewer

exemptions. We propose each person should have a GBP125,000 lifetime tax-free allowance for gifts and inheritances, above which they would pay lower tax rate than today’s IHT.

The current pension tax relief regime — which overwhelmingly benefits people on the highest incomes — should be replaced by a flat rate of income tax relief. At the same time, we should place a new national insurance (NI) charge at half rate (6 percent) and above a high threshold on income from occupational pensions.

A sensible, well-designed increase in tax to match the vast increase in the stock of wealth is an opportunity to fund security in later life for older people today and tomorrow. It is better than putting all the burden of increased tax on the earnings generated by the hard work of the younger generation. We should fund the welfare state in a way that spreads the cost fairly across the generations. ■

“Baby boomers hold more than half of Britain’s GBP12.8 trillion in total wealth.”



Grant Wardell-Johnson

Partner
KPMG Australia

Grant Wardell-Johnson is the Tax Leader of the Economics and Tax Centre in KPMG Australia. Grant has been the lead Tax Partner on many high-profile projects in the Australian and international markets.

Grant is an Adjunct Professor in Taxation and Business Law at the University of New South Wales. He is Chairman of the Tax Technical Committee of the Chartered Accountants Australia and New Zealand, and Co-Chair of the National Tax Liaison Group.

Taxation of wealth

When it comes to addressing societal issues, how can we use wealth tax to maximum effect?

- Wealth taxes have the potential to address issues such as wealth imbalances and rising health and welfare costs.
- However, not all wealth taxes address all the issues completely — or even partially.
- Net wealth taxes have generally created neutrality, efficiency and equity issues.
- Annual real property taxes have proved a relatively efficient way of taxing wealth.



Widespread concerns about unequal wealth accumulation and growing government expenditure obligations have led many to call for increased taxation of personal wealth. Some see wealth tax reform as a means of funding essential government services, at the same time as supporting equality of opportunity through wealth redistribution. However, when implemented in the past, certain wealth taxes have proven to be inefficient, distortive and inequitable and have consequently become less popular. Given this history, a hasty and ill-considered revival of old wealth taxation policies could do more harm than good. The essay below sets out points that are beneficial to bear in mind when determining whether a wealth tax warrants further consideration, based on a particular country's fiscal and social circumstances.

Wealth tax — a brief background

Any worthwhile decision on tax reform needs to be informed by the current context, bearing in mind the challenges of current global fiscal policy. Wealth taxes may directly address the general issues of imbalances in wealth accumulation, and specifically the issues of wealth accumulation through real property (arising in part out of population growth), and rising health and welfare expenditure. However, not all kinds of wealth taxation can address these problems totally or even partially.

The term 'wealth tax' could actually be applied to several different types of taxes, all of which are conceptually distinct. Taxes on land, capital gains, inheritance, and lifetime gift receipts each address certain elements of wealth, while 'net wealth taxes' are explicitly designed to be levied on total taxpayer wealth.

“While net wealth taxation may at first seem to be a logical, broad-based means of taxing wealth, it has historically been only a minor contributor to revenue.”

Considering the wealth tax alternatives

While net wealth taxation may at first seem to be a logical, broad-based means of taxing wealth, it has historically been only a minor contributor to revenue, and has created neutrality, efficiency and equity issues when implemented in OECD member countries. This is principally because net wealth taxes take no account of any return on wealth (i.e. they are akin to taxes on a notional or fixed return on wealth). So, asset-rich/cash-poor taxpayers earning little or no income on their wealth are treated in the same way as taxpayers who earn large returns on their wealth. Furthermore, it is hard for net wealth taxes to allow for circumstances where assets decline in value. As a result, there has been a global ‘retreat’ from wealth taxation among policymakers, which the OECD set out in the paper *The Role and Design of Net Wealth Taxes in the OECD* (2018). Whereas 12 OECD countries had net wealth taxes in place in 1990, this number dropped to three in 2018. As such, in many cases, net wealth taxation has generally been experienced as too economically burdensome compared to the revenue that it raises.

Net wealth taxes have also created a cottage industry out of tax avoidance involving both domestic and offshore tax planning, partly due to the complexity of wealth tax laws. This can exacerbate the effects of capital flight for the jurisdiction imposing wealth taxes, which ultimately undermines economic growth (i.e. by taxing wealth, governments chase wealth away, and ultimately end up with less wealth to tax and less revenue-generating economic activity).

An alternative approach to taxing wealth is implementing a lifetime gift tax, which is sometimes seen as preferable to an inheritance tax. However, taxes of this kind are often highly unpopular politically, and plagued by issues around how difficult it is to define a gift, and how to apply workable compliance measures.

In contrast, real property taxes have proven to be a relatively efficient means of taxing wealth as they have a lower negative impact on long-term economic growth when compared to other wealth taxes. Taxation on real property also tends to redistribute wealth from older, wealthier, property owners to younger people, while raising additional revenue needed to fund recurrent government expenditure. Real property taxes are also not as susceptible to avoidance strategies and capital flight, as the property is immovable. Investigating the optimum scope of real property taxes may therefore represent a sensible starting point for an analysis of possible wealth taxation policy changes.

Mitigating property tax downsides

Real property taxes may have a particular impact on cash-poor, older property owners who have high-value property because they have owned property for decades. Therefore, any good property tax should be designed to minimize the particular burden on such property owners. We believe a ‘reverse mortgage’ system can be effective in this regard, whereby cash-poor property owners could pay a property tax out of the equity in their property, with total tax payable for the period in which the property is owned to be capped at 30 to 40 percent of a property’s value.

A common argument against real property taxation is that it treats different classes of wealth differently (by taxing property over and above other asset classes). This is viewed as an undesirable distortion by

“Real property taxes are also not as susceptible to avoidance strategies and capital flight, as the property is immovable.”



many, however, there are also strong arguments in favor of taxing land, as it is finite, where other forms of wealth are not.

Consideration of real property tax reform is an opportunity to consolidate and streamline all taxes that are levied on real property, including domestic rates and real estate transaction taxes in jurisdictions where these taxes are legislated. Real estate transaction taxes have a very high marginal excess burden. There is merit in considering abandonment of transaction-based taxes and myriad other property taxes for a single, progressive, annual property tax.

Redistributing property tax revenue

For the tax to achieve its intended aim, property tax revenue should be redistributed very carefully. For

example, a maximum of two-thirds of the proceeds could be spent locally, to provide for essential local services, with one-third consolidated into an equalization fund that could be spent throughout a jurisdiction.

Conclusion

In summary, while wealth taxation will always carry equity, efficiency and neutrality concerns, real property taxation reform is a means of minimizing these, while maximizing efficiency and addressing squarely some of the current fiscal policy concerns facing governments.

It should also be acknowledged that great progress has been made toward reducing wealth inequality between countries. This has led to considerable gains in productivity and elevated the living standard of some of the most

disadvantaged members of the global community.

Whatever future reforms are undertaken as a result of the current debate around wealth and tax policy should recognize the extent to which existing policy positions have fostered absolute, as well as relative, economic benefits across the globe. ■

// For the tax to achieve its intended aim, property tax revenue should be redistributed very carefully."





Keval Bharadia

Keval Bharadia worked for the London Stock Exchange for 15 years, heading up product development for the derivatives business between 2007–2010. After leaving the city, he moved into the field of international development working for grass-roots human rights organizations and consulted for international NGOs including Oxfam, Christian Aid and Stamp Out Poverty.

The future of capital taxation

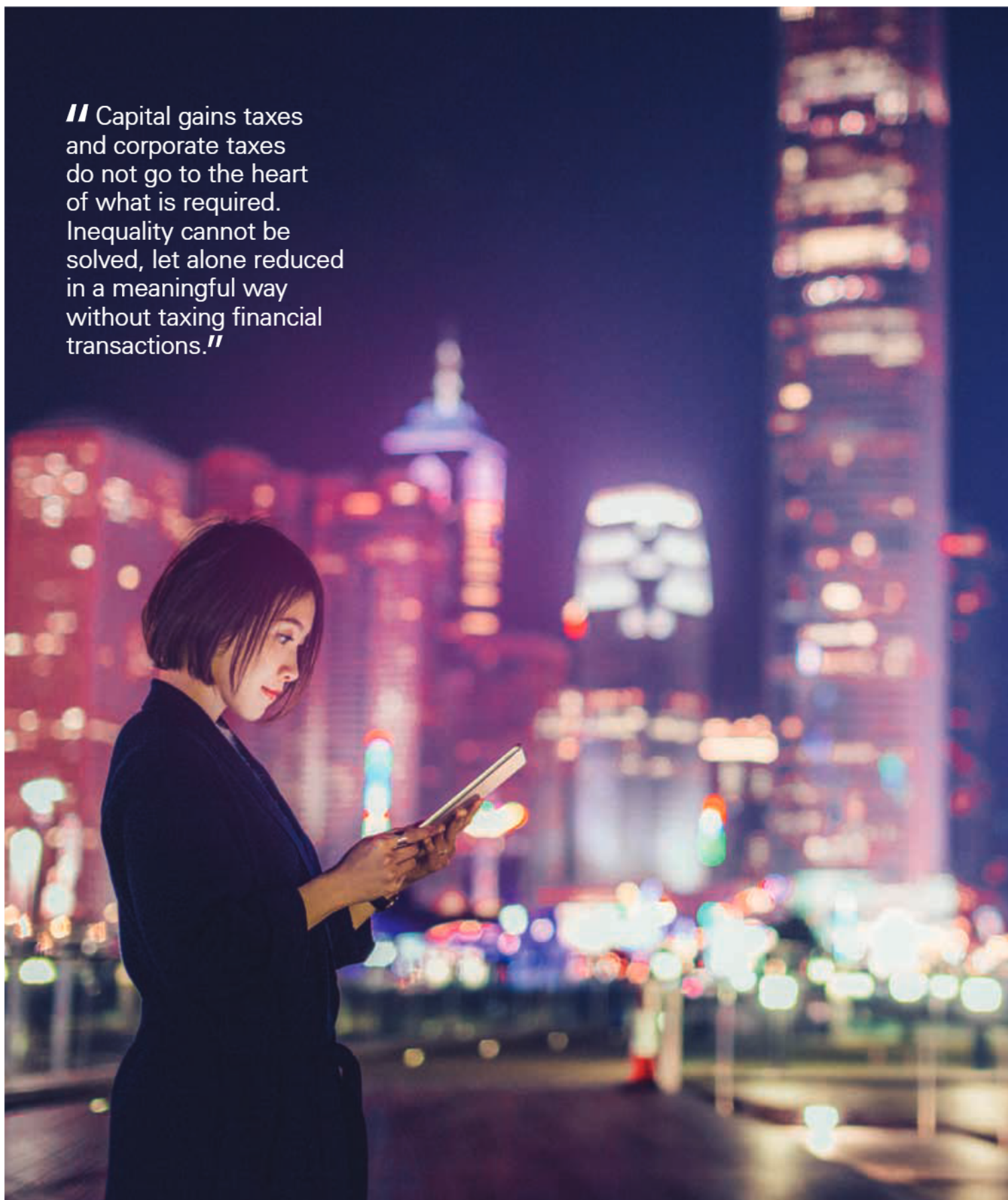
Without effectively taxing financial transactions, the inequality gap will continue to widen.

- Without effective taxes on capital, extreme concentrations in wealth occur.
- The trading of derivatives was originally conceived to help mitigate future risks on crops and homes by locking in

prices or expunging obligations. It has now become a speculative market.

- Modernizing the UK's stamp duty on shares — the world's oldest financial transactions tax (FTT) — and extending it to products like derivatives, would raise an additional GBP5 billion a year.

// Capital gains taxes and corporate taxes do not go to the heart of what is required. Inequality cannot be solved, let alone reduced in a meaningful way without taxing financial transactions."



// Modernizing the UK's stamp duty on shares — the world's oldest financial transactions tax (FTT) — and extending it to products like derivatives, would raise an additional GBP25 billion during the life of a parliament."

I spent 15 years working at the London Stock Exchange, the last three as head of Derivatives Product Development during the global financial crash.

When I launched one of the first over-the-counter trading and clearing services for European derivatives in 2006, I was optimistic my industry colleagues at the world's biggest investment banks would honor their word and use it to help counter rising systemic risk in the global financial system. They didn't. Soon there were homeowners losing their properties because bad debts were repackaged inside clever derivatives with triple A credit ratings.

My peers, including wealthy investment bankers, brokers and traders, continued negotiating multimillion pound trades after the crash. Their immunity to the social and economic turmoil that was unravelling around us felt strange to me. Despite the evictions, unemployment and recession we were witnessing as part of the general economic situation, for them it was business-as-usual.

What became apparent, working at the stock exchange for a decade and a half, was the truth behind the old casino adage: "the house always wins." The finance sector can garner vast streams of insider intelligence to easily predict market movements. Whether markets go up or down, it makes money by extracting value from the full breadth of society and the economy. Counter to common perception, this is where capital goes to become unproductive!

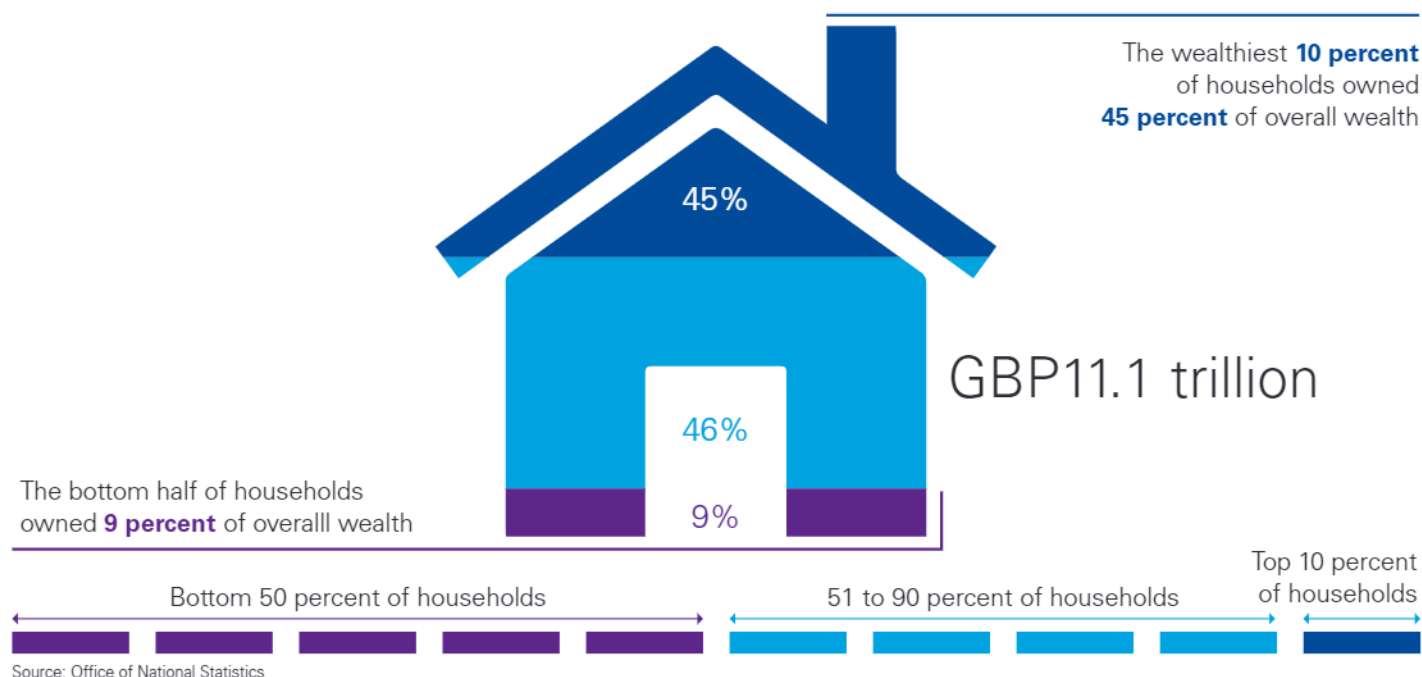
The trading of derivatives was originally conceived in earnest — to help mitigate future risks on crops and homes by locking in prices or expunging obligations. Early records indicate that the Babylonians used them extensively. Common examples are the farmer, who, when worried about what the weather might do to crop yields, locks in a price

now for future harvests, to help provide some stability and security in the event of bad weather and poor yields.

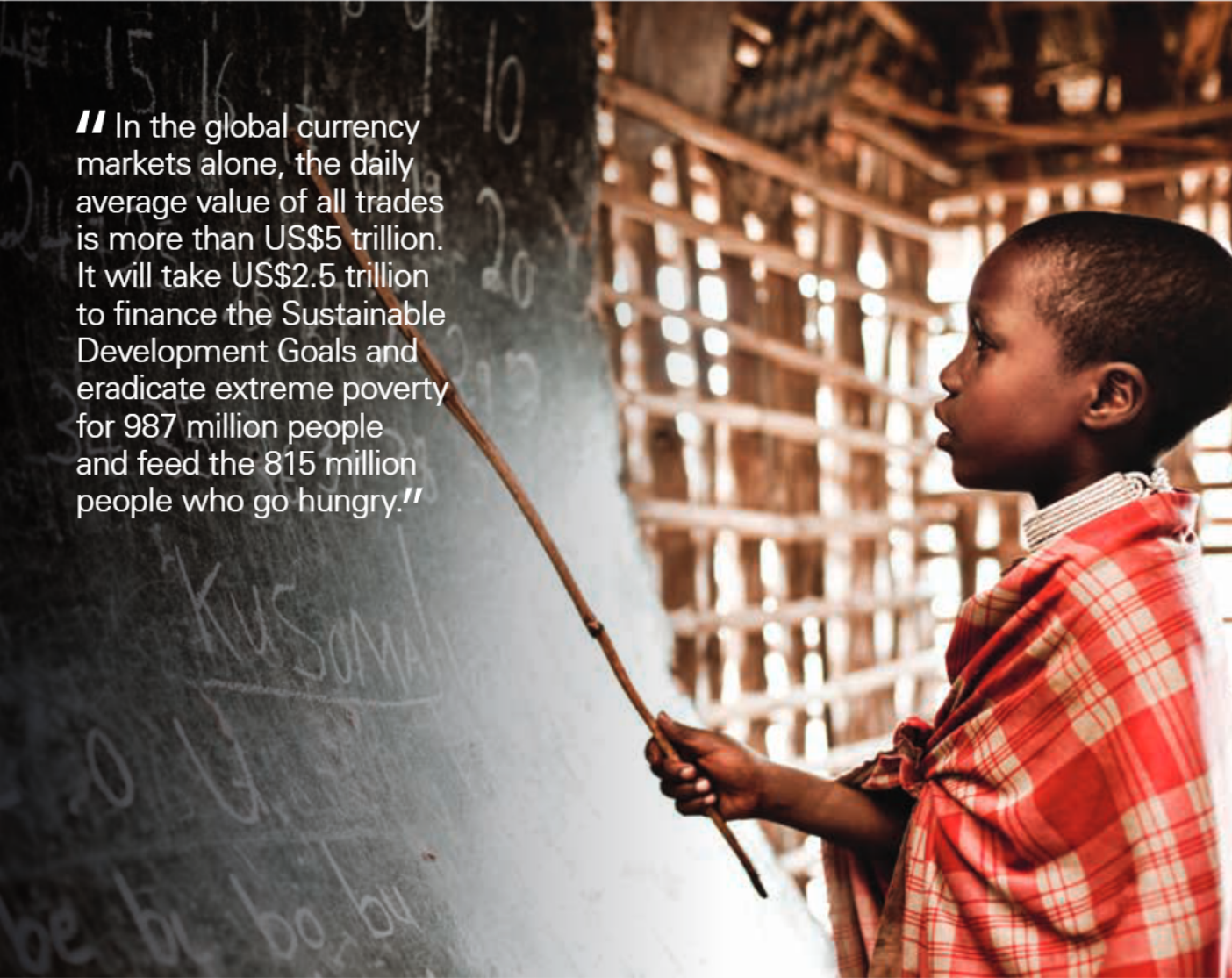
But times have changed. Derivatives trading has now essentially become the world's biggest betting shop for the wealthy, contributing greatly to rising inequality. Large speculative bets are made cheaply because they offer traders the ability to leverage their positions at a fraction of the cost of an underlying asset that does not need to be owned. Due to the trillions of capital exposed, huge profits are made when asset prices move by only fractions of a decimal place. Today, stock and derivatives exchanges share the stage with investment banks and the financial community as the epicenter of capital accumulation and concentration.

Inequality cannot be solved, let alone reduced in a meaningful way without taxing financial transactions. Capital gains taxes and corporate taxes do not go to the heart of what is required.

Without effective taxes on capital, extreme concentrations in wealth occur. Last year saw the biggest increase in billionaires in history, one more every 2 days. According to a report by Oxfam,⁵ 82 percent of all wealth created in the



⁵ <https://policy-practice.oxfam.org.uk/publications/reward-work-not-wealth-to-end-the-inequality-crisis-we-must-build-an-economy-fo-620396>



// In the global currency markets alone, the daily average value of all trades is more than US\$5 trillion. It will take US\$2.5 trillion to finance the Sustainable Development Goals and eradicate extreme poverty for 987 million people and feed the 815 million people who go hungry."

last year went to the top 1 percent, with not a cent to the bottom 50 percent. The highest paid hedge fund manager is earning GBP1.2 billion per year, taking home the average annual UK salary every 3 minutes.

In the UK, inequality is widening dramatically because ineffective and inadequate taxes on capital allow wealth to grow at an exponential rate.

The top 10 percent in the UK who own 45 percent of wealth are immune to austerity, low wages and cuts to public services. Excess wealth needs taxing and redistributing to close the inequality gap, as does a reversal of austerity. There's plenty of money for everyone, but unfettered capitalism is allowing those at the top to pull away from the rest.

Modernizing the UK's stamp duty on shares — the world's oldest financial transactions tax (FTT) — and extending it to products like derivatives, would raise an additional GBP25 billion during the life of a parliament. As set out in an influential paper by former financier, Avinash Persaud, not only would this produce much-needed extra revenue to improve spending on hospitals and schools, even a small tax would disincentivize high-frequency trading, with the result a safer economy.

If comprehensive FTTs were introduced across all major financial trading activity, we would have an opportunity to tackle some of the world's biggest issues. In the global currency markets alone, the daily average value of all trades

is more than US\$5 trillion. It will take US\$2.5 trillion to finance the Sustainable Development Goals and eradicate extreme poverty for 987 million people and feed the 815 million people who go hungry.

FTTs would not be detrimental to society — they would vastly improve it. A socially just FTT is essential if we are to eradicate exponential capital accumulation and tackle extreme wealth creation. What is our economy for, if not to improve the lives of ordinary citizens! Placing more tax on the financial sector is plain common sense. ■



Christine A. Wernet

Christine A. Wernet, Ph.D. is a Professor of Sociology at the University of South Carolina Aiken. Her research focuses on stratification both in the US and globally. As a returned Peace Corps Volunteer, Fulbright scholar, and lecturer on Semester at Sea, her research is informed and guided by her extensive international experience. She has received grants and awards that have furthered her exploration of global inequalities, and she has published numerous articles in national and international journals.

Consumption taxes: Is progressivity the answer?

How a targeted, well-thought-through tax on consumption could play a role in reducing inequality.

- In their current form, consumption taxes tend to be regressive.
- An equal society tends also to be a peaceful society.
- Progressive taxation is potentially a means to reduce inequality without stunting economic growth.

Consumption taxes in context

Two central reasons for taxation are generation of government revenue and the redistribution of income among the population. Governments have used taxation as a means to generate revenue for centuries, and some governments have been using taxation as a means of resource reallocation since at least the 1800s.

Consumption taxes, such as sales taxes, could be used to redistribute income and decrease inequality, but the problem is that consumption taxes tend to be regressive. Regressive taxes burden lower-income groups more than higher-income groups because less affluent individuals spend a higher proportion of their income on consumer goods than do more affluent individuals.

Sales tax is tax that is placed on goods and items that are sold, such as clothing, furniture, tools, etc. As an example, in the US, some states place a sales tax of 7 percent on all items sold. In this case, if an item is purchased for US\$100, the individual will owe US\$7 in sales tax to the government. Another consumption tax is the excise tax. Excise taxes, which are also regressive, are placed on certain items such as alcohol, tobacco and gasoline. Excise taxes place a heavier burden on the poor than on the rich because, like sales taxes, they account for a larger proportion of their total income.

Responsible tax behavior in a global context would require governments to use different forms of progressive taxation to not only generate income, redistribute income and reduce inequality, but to do so in a way that does not stunt economic growth. Progressive taxes are taxes that require those who earn more money to pay higher tax rates. In many countries, income taxes are progressive. Proponents of progressive taxes argue that wealthy individuals have a moral obligation to society to pay higher taxes.

// Responsible tax behavior in a global context would require governments to use different forms of progressive taxation to not only generate income, redistribute income and reduce inequality, but to do so in a way that does not stunt economic growth."



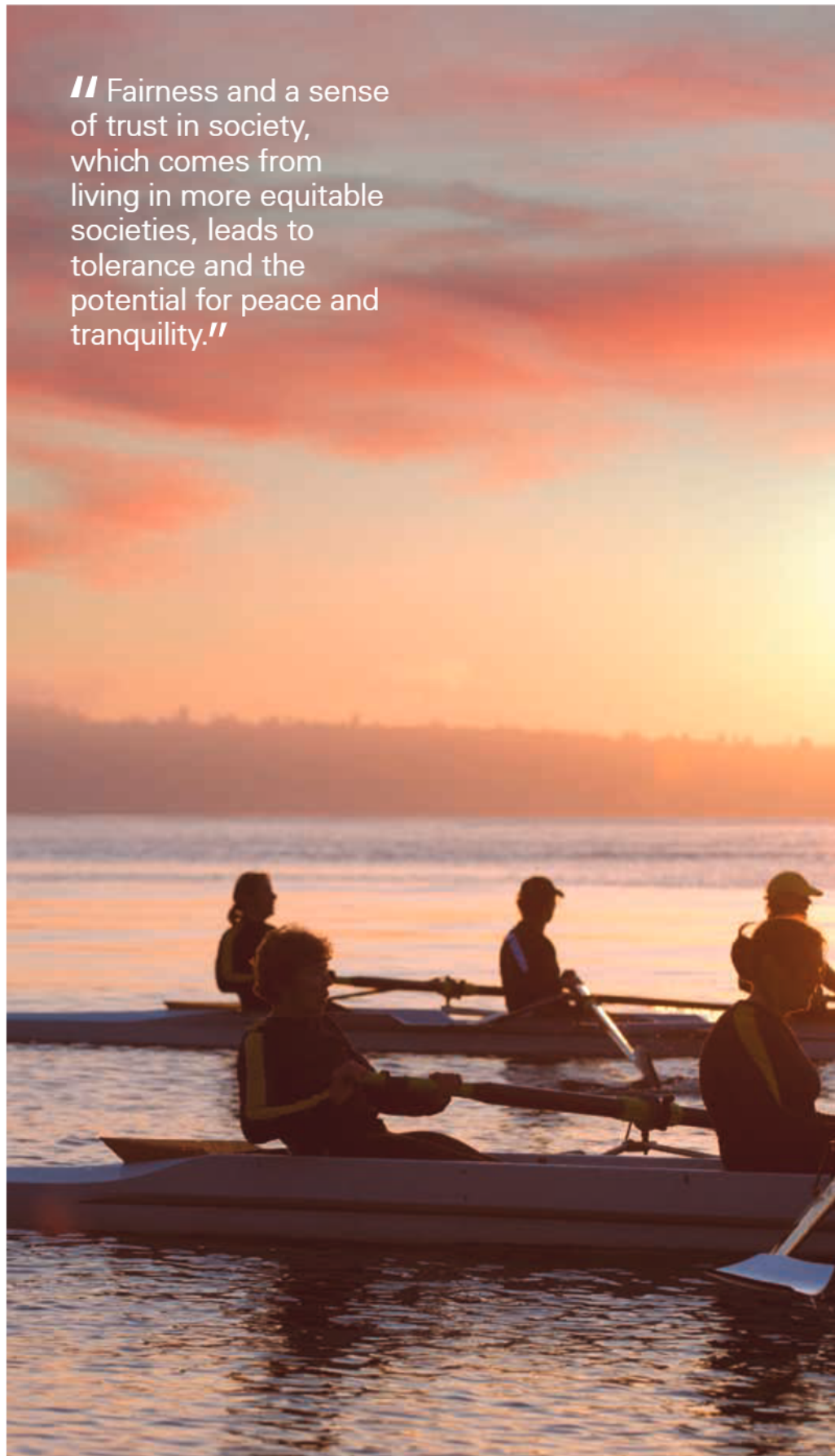
Why are progressive consumption taxes necessary?

Progressive consumption taxes are necessary because they can be used to reduce inequality. There is an enormous amount of inequality globally, both between and within countries. It is irresponsible for governments not to use the revenue generated by taxation (and other sources) to reduce inequality in their own countries and in countries around the world.

Global inequality between countries in per capita incomes began increasing with the colonization process 500 years ago. In the past, there were not major differences in the incomes of the average person from country to country. However, today there are vast differences in the resources available to people in countries around the world. While most individuals in wealthy countries live a life where food, clean water, material goods, and health care is widely available while many individuals in poor countries have difficulties meeting their basic needs. The differences in the access to these resources is stark. For example, people living in developed countries often die of diseases related to obesity like heart disease and cancer. Whereas people living in less developed countries are more likely to die from malnutrition and parasitic diseases.

In addition to inequality between countries, there is also great inequality within countries that needs to be addressed. Generally speaking, there tends to be more inequality within less developed countries, like Brazil, where there are vast divides between the haves and the have-nots. The wealthy often live in armed, gated communities and enjoy many luxuries, while the poor live in shanties in deep poverty. There's even inequality in developed countries like the US where the top 10 percent of the population live in great wealth while roughly 20 percent of the population is impoverished.

// Fairness and a sense of trust in society, which comes from living in more equitable societies, leads to tolerance and the potential for peace and tranquility."





The reason that governments should be motivated to reduce inequality both locally and globally is not only because it is morally wrong but because inequality leads to violence and terrorism. Numerous studies show that inequality increases violence. Fairness and a sense of trust in society, which comes from living in more equitable societies, leads to tolerance and the potential for peace and tranquility. Contrary to conventional thinking, wealth does not trickle down. Lowering taxes on the wealthy only leads to the consolidation of wealth, the entrenchment of class structure and the reduction of social mobility. Governments must intervene in order to distribute resources more equally.

Suggestions and solutions for the problem

Progressive consumption taxes could be used to engage in responsible taxation and to decrease inequality. Nearly all goods and services sold in the private sector could be subjected to a progressive consumption tax. In this case, each household unit would report both their taxable income and their annual savings to the government, the difference between the two, the family's annual consumption expenditure, would be taxed. Standard deductions and a graduated tax would also need to be in place, as well as tax exemptions for food, prescriptions, medical expenses, childcare, etc... in order to assure that lower income individuals pay less.

Alternatively, progressive consumption taxes could include taxation on non-essential items that wealthy people are more likely to purchase, such as: jewelry, data, expensive weddings, land, luxury goods, expensive cars, exclusive homes, second homes, private planes, digital resources, robots, etc. This is the model

followed in, for example, a number of European countries which apply a higher rate to luxury goods. Some also exempt essential items such as food. Progressive consumption taxes could even be applied to the products and services produced or to the consumption of non-sustainable energy. Progressive consumption taxes on property could be based on the cost of an item. For example more expensive cars would be taxed at a higher rate than less expensive cars. Progressive consumption taxes like these would ideally result in wealthy individuals, especially those in developed countries, paying more taxes.

Progressive taxation on consumption can be used to decrease inequality and create more equitable societies, both globally and locally, by funding high-quality education and healthcare for everyone. In less developed countries, education and healthcare are the seeds of development; in developed countries, they are equalizers. In both cases they lead to more equal and peaceful societies that foster tolerance and respect for the human rights of all global citizens. ■

// Progressive taxation on consumption can be used to decrease inequality and create more equitable societies."



Philippe Stephanny

Senior Manager
KPMG in the US

Philippe is a Senior Manager in Washington National Tax's State and Local Tax (SALT) practice, specializing in global indirect taxes. Philippe performs global indirect tax research, assists in developing indirect tax training for the SALT practice, and tracks global indirect tax administrative and legislative developments. Philippe also advises US and multi-national corporations regarding global indirect tax planning, supply chain restructuring, reorganizations, mergers and acquisitions, tax engine implementations, etc. Philippe is a member of KPMG's Global Indirect Tax Policy Group and an adjunct professor at Georgetown Law Center.

Can consumption taxes be progressive?

An examination of mechanisms to enhance progressivity.

- Consumption taxes are generally considered to be regressive.
- Attempts to make consumption tax progressive can be complex and lead to fraud.
- The best approach may be to simplify consumption taxes — reducing the rates but widening the base.
- Revenue from consumption tax system should then be used to create transfers to the less well-off to address the issue of progressivity on a holistic basis.



// Most people would judge that a tax-collection system is fair if it satisfies two limited criteria: horizontal and vertical equity.”

Taxes come in a number of shapes and sizes, with income taxes and consumption taxes the two main categories. An income tax is a tax on the net income of an individual or business, whereas a consumption tax is levied on the purchase of goods and services. Revenues from consumption taxes, specifically value added tax (VAT) — also known as goods and services tax (GST) — constitute a major revenue source for countries around the world. The OECD estimates that 20 percent of the OECD members’ tax revenue comes from VAT/GST and another 12 percent comes from various excise taxes and duties on goods and services.

Consumption taxes are often perceived as regressive or falling disproportionately on low-income households. This article discusses the regressivity of consumption taxes (Part 1) and steps jurisdictions have taken to reduce the regressivity (Part 2), before proposing other ways to improve consumption taxes (Part 3).

1. The regressivity of consumption taxes

One of the general principles of taxation and tax policy is that the tax burden should be fairly distributed among taxpayers. Most people would judge that a tax-collection system is fair if it satisfies two limited criteria: horizontal and vertical equity. The criteria state respectively that it is desirable (i) for similarly situated taxpayers to be treated similarly under the law, regardless of circumstances such as the nature of their income or their transaction; and

“There is a general consensus that, in aggregate, taxes should be distributed progressively with respect to income.”

(ii) that overall, a taxpayer’s liability should increase with ability to pay. While both criteria involve a subjective judgment, there is a general consensus that, in aggregate, taxes should be distributed progressively with respect to income.

Whether a tax is considered progressive or regressive depends on the share of income paid in taxes. If the share rises with income, the distribution of the tax burden is called progressive; if it stays constant, it is proportional; and if the share falls, the distribution is called regressive.

General consumption taxes, such as VAT, that apply to all goods and services at the same tax rate, regardless of the wealth level of the consumer, are generally considered regressive. This is because low-income taxpayers tend to devote a larger share of their incomes to the payment of this tax than wealthier taxpayers, as demonstrated in the example below.

	Person A	Person B	Person C
Weekly income	US\$422	US\$525	US\$776
Weekly groceries	US\$75	US\$75	US\$75
VAT on groceries ⁶	US\$14.4	US\$14.4	US\$14.4
Share of income paying VAT on groceries	3.4%	2.7%	1.9%

However, economists at the OECD and elsewhere have argued that VAT systems are only regressive when measured as a percentage of current income but are generally either proportional or slightly progressive

when measured as a percentage of lifetime expenditure.⁷ Measuring taxes with respect to current income allows an analysis of the immediate distributional effects of consumption taxes, whereas a lifetime expenditure-based approach would provide a potentially more reliable measure that accounts for periods in which a taxpayer is earning and accumulating assets, and then spending down those assets once

the earning power declines. While these arguments are interesting, it is very likely that — in the eyes of the general public — a VAT would be considered regressive. Again, the fairness of a tax depends on subjective observations, and it is very unlikely that in the example above Person A will consider her lifetime expenditure and income patterns and consider its tax burden ‘fair’ over the long term.



⁶ Based on OECD average VAT rate of 19.2 percent — OECD, *Consumption Tax Trends 2016*.

⁷ OECD Tax Policy Studies, *The Distributional Effects of Consumption Taxes in OECD Countries* (2014).

2. Approaches to limit the regressivity of consumption taxes

Some countries address the regressivity of consumption taxes by introducing reduced rates or exemptions on basic goods and services to alleviate the tax burden on lower-income

households. According to proponents of such measures, the tax is made more progressive by identifying key expenditures that are the most important to these households. While the OECD found that applying reduced rates on basic goods such as food does have the desired progressive effect, it also found that reduced rates constitute poor tools targeting support to low-income households as, in the aggregate,

upper-income households would benefit as much or more from these policy decisions. In other words, simply excluding a good or service from taxation may reduce the burden on low-income households, but such a measure is not targeted only to low-income households.

Some jurisdictions use a multiple VAT rate structure to address regressivity by taxing certain goods that are

// What matters is the progressivity of the entire tax system. The income tax and benefits system is the best place to do that."

— John Rolfe



disproportionately important to low-income households at lower rates. Introducing a multiple rate structure in the consumption tax system may have adverse consequences on the efficiency of the tax. In 2007, Copenhagen Economics undertook a study on the application of reduced VAT rates in the EU. The study found empirical evidence indicating that compliance costs associated with multiple VAT rates can be sizeable. It further found that differences in VAT rates between similar products may give rise to a substantial number of administrative and legal conflicts about the proper classification of specific goods resulting in businesses and tax authorities disputing borderline cases. Finally, the study stressed the need to consider alternatives to multiple VAT rates to accomplish the desired policy goals. Targeted subsidies may have smaller mechanical revenue consequences and greater effectiveness.

In this respect, other countries take a broader approach when considering the regressivity of consumption taxes. As the economist John Rolfe argued: "What matters is the progressivity of the entire tax system. The income tax and benefits system is the best place to do that. The GST is not the best place." One way to improve progressivity is thus to use some of the revenue from a consumption tax to create universal transfer payments or to implement progressive direct tax changes. For instance, considering the regressivity of its GST system, in 2012, Singapore introduced the GST Voucher scheme under which, in 2017, about 1.35 million eligible Singaporeans received up to SGD300 (US\$225) in GST Vouchers — Cash. In addition, about 437,000 elderly Singaporeans received the GST Voucher — Medisave — of up to SGD450 (US\$337), while about 880,000 households received utilities rebates of up to SGD380 (US\$285) from the GST Voucher — U-Save. In addition, when Canada adopted its GST, it also introduced a refundable tax credit.⁸

// Consumption taxes cannot, at least for now, be made more progressive without creating additional compliance and administrative burdens."

3. How to improve consumption taxes

As discussed above, consumption taxes are in practice regressive and countries are attempting to limit the regressivity with more or less success. The question remains as to whether the regressivity of consumption taxes could be reduced. Introducing multiple rates for targeted products is not the best approach for addressing the regressivity of consumption taxes. One possibility to introduce progressivity into the consumption tax system is to have consumption tax rates that increase by level of income of the consumer, instead of lower rates for selected goods and services. Under such a system, a wealthy individual would always pay a higher VAT rate than a lower income individual. In addition, such a system would likely combine the advantage of taxing consumption with a progressive tax burden. However, such a system is not realistic today as it would require a level of data exchange and technology that is currently unachievable to address concerns related to administration, compliance and fraud. One way to achieve a simplified version of such a system would be to allow low-income households to make VAT-free purchases if they provide a proof of income qualification (e.g. special ID card). However, such a simplified system would likely increase the risk of fraud (e.g. individuals using ID cards that are not their own) and create issues of audit traceability (e.g. how should such VAT-free purchases be audited, who would be liable in case of fraud, and so on) as well as perhaps not accounting for changes in income tax status in a timely

fashion. There is also a possibility that the use of such ID cards would be a source of stigma to users.

As a consequence, consumption taxes cannot, at least for now, be made more progressive without creating additional compliance and administrative burdens. But the focus should not be on whether each individual tax levied is progressive, but on whether the overall tax and expenditure system is progressive. As a consequence, adjustments to the income tax system and targeted redistribution through the social safety net system are likely to produce a more efficient and progressive tax system than changes to the consumption tax.

// The focus should not be on whether each individual tax levied is progressive, but on whether the overall tax and expenditure system is progressive."

In fact, countries should aim at making their consumption taxes as efficient as possible to reduce the tax burden on consumers. One of the major criticisms of consumption taxes is their high rates (a 19.2 percent average rate for OECD countries). If consumption taxes are made as efficient as possible, the rates could be reduced without impacting countries' revenues from them. One of the ways countries currently are looking into improving efficiency is to ensure that the consumption taxes are effectively levied where consumption occurs. In this respect, the OECD International VAT/GST Guidelines endorse the destination principle as an international norm and recommend that business-to-business (B2B) and business-to-consumer (B2C) transactions in general be taxed in the country where the customer is established, except certain services. For B2C services, the guidelines recommend that the nonresident vendor

⁸ Richard M. Bird, Jack M. Mintz and Thomas A. Wilson, *Coordinating Federal and Provincial Sales Taxes: Lessons from the Canadian Experience*, National Tax Journal Vol. VIX No. 4 (December 2006).



should register for and charge a VAT in the country where the consumer is located. For B2B services, the guidelines suggest that the business recipient should self-assess VAT using a reverse charge or similar mechanism. More than 50 jurisdictions have so far embraced the principles of the Guidelines focusing mainly on cross-border sales of digital services. More recently, jurisdictions have started addressing challenges resulting from cross-border sales of goods to final consumers. While these new rules create new, sometimes complex, challenges for businesses, countries that fully implement the OECD guidelines ensure taxation of the full consumption taking place within their borders.

Another change that could be implemented quickly would be for countries with a multiple rate system to move toward a single rate system, which, as demonstrated above, should be the leading practice. As such a transition would have a negative impact on low-income households, revenues gained from unifying the VAT rates could be used to address that transitional effect with a more targeted approach. Other changes may be more difficult to achieve and require questioning long-established policies. In this respect, some have argued that countries should aim to broaden their tax base to achieve a system that taxes all (or nearly all)

consumption in the country.⁹ Traditionally, countries exempt certain sales from VAT/GST either on account of social reasons (e.g. healthcare and education) or because the supplies are difficult to tax (e.g. financial services).¹⁰ As pointed out by Wolfers et al., countries will likely have to expand their tax base in ways not previously contemplated such as financial services. In addition, the authors argue that countries should look into taxing the healthcare sector, which is currently generally exempt, because, at least in western countries, the population is aging and there will likely be a shift of consumption from traditional consumer goods and services to healthcare. Other areas that the authors suggest should be taxed include education, housing, and consumer-to-consumer transactions.

However, having a single rate, broad-based system is not enough when taxpayers do not comply (either voluntarily or involuntarily) with the tax rules. For instance, the EU estimates that the VAT Gap (i.e. the difference between the amount of VAT revenue actually collected and the theoretical amount that is expected to be collected) amounted to EUR151.5 billion in 2015. In this respect, we start observing countries leveraging new technologies, such as real-time reporting, e-invoicing, data and analytics tools, to ensure compliance with the VAT rules and thus reduce the VAT Gap. This trend will

likely accelerate in the near future when these technologies have been tested and popularized, as shown by recent reports published by the OECD.

Consumption taxes, as employed today, have a regressive incidence across income groups, especially on lower-income households. There are a variety of approaches that have been recommended to addressing that issue, including a comprehensive tax base taxed at a single rate with good enforcement. In dealing with regressivity, however, attention will need to be paid to the entire tax system, including direct taxes, and the use of other forms of assistance to offset the impact of consumption taxes. In doing so, countries should question whether their taxation system is designed for the 21st century, taking into consideration technological disruption and changes to business models. ■

// Countries should aim at making their consumption taxes as efficient as possible to reduce the tax burden on consumers."

⁹ Lachlan Wolfers, Shirley Shen, John Wang and Aileen Jiang, *VAT: A Pathway to 2025*, International Tax Review (Nov. 28, 2017).

¹⁰ Id.



Lachlan Wolfers

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Indirect taxes and the digital economy — What to tax?

- While there are direct tax debates about which countries have taxing rights over a given transaction, there is near unanimous agreement that indirect taxes should be applied to B2C transactions based on the destination principle.
- The question in indirect taxes is not 'what' to tax but 'who' will collect the tax.
- Key issues include ensuring indirect tax is applied to all cross border transaction and also to what extent it should be applied to C2C transactions.



// There is near unanimity in the view that indirect taxes should be applied to B2C transactions based on the destination principle. //

On a superficial level, the question of what to tax by way of indirect taxes [such as a Value Added Tax (VAT) or a Goods and Services Tax (GST)¹¹] in the digital economy is a comparatively easier problem to solve relative to many other forms of taxation. The answer is relatively uncontroversial — indirect taxes such as a VAT seek to tax final private consumption expenditure¹² in the place or location in which the relevant good or service is consumed.¹³

As Professor Rebecca Millar recently noted,¹⁴ there is a real contrast in the challenge for policy makers in taxing cross-border transactions under corporate taxes as compared with indirect taxes:

Yet the conclusion that “something needs to be done” simply does not have the same significance for VAT as it does for income tax. This is not because VAT on global digital transactions is easy to collect: it is not. Nor is it because VAT raises different collection problems than income tax: for the most part, it does not. What is different about VAT is the almost universal agreement on the substantive jurisdictional principle that should be used to determine the tax base. Some countries might pay lip service to the destination principle, particularly countries with limited tax collection capacity and a high reliance on VAT to meet their revenue needs. Other countries — or their tax administrations

¹¹ For convenience, in the balance of this article we use the term “VAT” to refer to a VAT or a GST.

¹² OECD (2017), International VAT/GST Guidelines, OECD Publishing, Paris at para 1.2.

¹³ Ibid at para 1.11.

¹⁴ Millar, R. (2014). Looking ahead: potential global solutions and the framework to make them work. *The Future of VAT in a Digital Global Economy 2014*, Vienna, Austria: Presentation.

and/or courts — might disagree about what the destination principle requires in particular circumstances. Nonetheless, there is little or no significant disagreement on the fundamental principle. Nor is there any significant disagreement about the most important aspect of the neutrality principle, which entails the notion that there should generally be no tax burden on business-to-business (B2B) transactions under a VAT. Thus, whatever it is that needs to be done, it is unlikely to involve a fundamental re-think of the jurisdictional basis upon which decisions are made about which country has the right to tax consumption.

While many corporate tax commentators embark on a quest to

identify the elusive concept of where value is created, and they vigorously debate whether to apply source or residence based taxation, Rebecca Millar's quote highlights the fact that there is near unanimity in the view that indirect taxes should be applied to B2C transactions based on the destination principle.

Indeed, the major work being carried out by the OECD's Working Party No.9 on Consumption Taxes has been in establishing clear guidelines upon which the destination principle can operate in respect to the digital economy. Their recent major focus has been on plugging three potential gaps in indirect tax revenue which have grown more prevalent through digital economy business models. They are:

Policy issue	Approaches
No VAT was being paid on low value goods importations into a country. This came to the fore through the growth (and relative ease) of consumers ordering goods online for delivery to their home destination.	— Lowering the thresholds below which an exemption from VAT applies. — Applying simplified VAT registration systems. — Imposing VAT registration and payment obligations on online marketplaces, rather than the vendors who sell on them.
Suppliers of digitized services could sell from remote locations to consumers (i.e. B2C) into a country without VAT	— Requiring non-resident suppliers to register for VAT, collect and remit VAT according to the jurisdiction in which the customer is located. — Imposing VAT registration and payment obligations on online marketplaces, rather than the vendors who sell on them.
VAT exempt businesses could save VAT by purchasing services and intangibles from offshore without VAT	— VAT should be collected from the purchasing business under 'reverse charge' rules.

Work in implementing these measures globally (or at least among OECD countries) is likely to continue over the next few years.

At the opening of this article we said that on a superficial level the challenges of the digital economy under a VAT are

relatively straightforward to resolve. However, let's examine two areas where there is considerable uncertainty or inconsistency of approach amongst policy makers.



“ Perhaps the major source of controversy in indirect taxes globally right now is in resolving the problem of ‘who’ will collect the tax. In particular, in seeking to collect VAT on B2C importations of low value goods and B2C cross-border supplies of services, governments are faced with a number of choices.**”**

The issue in indirect taxes is not ‘what’ to tax — the issue is ‘who’ will collect the tax

Perhaps the major source of controversy in indirect taxes globally right now is in resolving the problem of ‘who’ will collect the tax. In particular, in seeking to collect VAT on B2C importations of low value goods and B2C cross-border supplies of services, governments are faced with a number of choices. They could seek to:

1. Collect the VAT from the non-resident supplier, but they may lack the practical ability to enforce the collection of the tax (for example, where the non-resident supplier has no assets or other physical presence in the jurisdiction).
2. Collect the VAT from the end-consumer (but history shows compliance with these types of measures is extremely low).
3. Collect the VAT from an online marketplace (in lieu of the seller).
4. Collect the VAT from the debit or credit card issuer used in the transaction (though there is some doubt about whether most of these issuers would have sufficient transaction level data upon which to calculate and account for the tax);
5. Collect the VAT through a so-called ‘split payment method’, in which the purchaser pays the VAT into a separate bank account which is diverted for the tax authority’s benefit.
6. Collect the VAT by deeming a permanent establishment to exist in the country if goods or services are supplied to customers in that country either through a local domain name address, or through local payment processing.

As things stand right now, there is a patchwork of solutions being adopted around the world. In 2017, the OECD released a document entitled "Mechanisms for the Effective Collection of VAT/GST when the Supplier is not located in the Jurisdiction"¹⁵, but disappointingly this document seemed to fuel more of an 'anything goes' style approach. In an effort to provide countries with flexibility of approach, the OECD lost sight of two core objectives. The first being that the more globally consistent the approach, the more effective the enforceability, and the more tax revenue will ultimately flow to every country. The second error was in ignoring the fact that online sellers and online marketplaces often sell to a global marketplace and therefore the greater the consistency of approach, the more their one-time investment in systems and processes could be replicated. In short, consistency in approach produces a win-win for both governments and online marketplaces.

Interestingly, Australia in 2017 (for B2C services) and in 2018 (for low value goods) legislated to collect the VAT from online marketplaces in priority to the actual offshore sellers. This approach, while controversial, shows some signs of gaining momentum with a number of other jurisdictions signaling an intention to follow suit.¹⁶ The question remains whether the collection of VAT on cross-border supplies from online marketplaces may ultimately be extended to domestic sales too, as a means of combating increased VAT fraud. Only time will tell.

Whether to tax C2C supplies

Virtually all VAT systems around the world have, as a precondition for registration and VAT payment obligations, that the supplier is carrying on either a business, or they are an entrepreneur, or they carry out some other commercial activity.

Many countries are fast discovering that advances in digital marketplaces mean that businesses or entrepreneurs need not have a physical shop front, need not hire employees, and in fact, need not really have inventory either. As a result, the traditional tax base of applying VAT in situations akin to when a business has a permanent establishment must surely be under threat.

The question this raises is whether a profit making pursuit, coupled

with a de minimis exclusion (where compliance costs would exceed the tax collected) is all that is really needed as a precondition for imposing VAT liabilities?

Many digital marketplaces now facilitate trade between private individuals. Consider the growth of peer-to-peer (P2P) lending, the rise of online accommodation platforms, and even ride sharing companies in their role as an intermediary between a passenger and



¹⁵ OECD (2017).

¹⁶ For example, the EU, New Zealand, Singapore.

a transportation provider. Developments in other areas of commerce, with labels such as the 'sharing economy', 'crowd funding' or 'crowd sourcing' further illustrate the point.

The central question is why should the profit or gains derived from these activities fall outside the VAT net? Already there is some tax authority activity in this area, especially in relation to crowd funding and ride sharing.¹⁷ But to what extent are

these merely symptoms of a bigger issue — which is that VAT systems need to be adapted to tax the value added, irrespective of whether it is by a traditional business or a consumer sitting online. The value added by employees is already taxed in the hands of the business or company they are servicing, but what about the value added by these other forms of independent contracting?

Again, while this issue is not limited to the digital economy, the growth and expansion of the digital economy makes it increasingly easier to generate profit without the traditional indicia of a business. The challenge for governments around the world is to ask whether their VAT systems are fit for the modern way in which value may be created in the digital economy, and therefore whether all forms of private final consumption expenditure are truly subject to tax.



¹⁷ See for example, European Commission, VAT Committee, "Question concerning the Application of EU VAT Provisions", Working Paper No.836 (6 February 2015), and Australian Taxation Office, "GST and Crowdfunding", 3 January 2017.



Femke Groothuis

Femke Groothuis is Founder and President of The Ex'tax Project, a think tank that works with tax experts and global business leaders to create practical tools that enhance understanding of the dynamics of a tax shift.

The future of tax is green

The world is changing and so should our fiscal systems.

- In the 28 countries of the EU, half of government budgets are based on personal income tax, payroll tax and social contributions.
- Just 6 percent of tax revenues in the EU are 'green' taxes, mostly placed on energy and mobility.

- There is a possibility to move from taxes on income to more green taxes, for example, by putting a price on pollution and the consumption of natural resources in general — fossil fuels, waste, water and the extraction of metal ores.



// Currently, governments prefer to put a high tax burden on honest work instead of putting a price on pollution. High labor taxes unfortunately tend to nudge companies to reduce headcount, which harms employment."

The problem? The polluter doesn't pay

In my hometown of Utrecht, a 'miniature Amsterdam' in the centre of Holland, citizens lose 13 months of their lives due to air pollution. Fine particles emitted by cars, trucks and mopeds penetrate our lungs, damaging lung function and aggravating cardiovascular diseases.¹⁸

Every year, pollution kills nine million people globally.¹⁹ How this relates to tax may not be immediately evident. But even today, polluters receive massive fiscal support. In just 11 European countries,

fossil fuel producers and consumers receive over US\$100 billion of tax breaks each year.²⁰ Global fossil fuel subsidies are at least US\$500 billion per year.²¹

This means that taxpayers' money is spent on activities that harm people and create even bigger additional costs for society in terms of healthcare costs, lost vitality and labor market impacts as children and adults are inhibited to develop their full potential. The welfare losses from pollution are estimated at US\$4.6 trillion a year.²²

Currently, governments prefer to put a high tax burden on honest work instead of putting a price on pollution. In the 28 countries of the EU, half of

government budgets are based on personal income tax, payroll tax and social contributions (basically, the amounts employees and employers pay on salaries). High labor taxes unfortunately tend to nudge companies to reduce headcount, which harms employment.

Just 6 percent of tax revenues in the EU are 'green' taxes, placed first and foremost on energy and mobility. Virtually no taxes are raised on the use of finite resources such as water, metals and minerals and pollution such as greenhouse gas emissions. Similar structures can be found in other regions around the world.²³

¹⁸ <https://www.volksgezondheidsmonitor.nl/en/air-quality-utrecht/page111.html>

¹⁹ <https://www.thelancet.com/commissions/pollution-and-health>

²⁰ 88.6 billion euro in the 2014–2016 period, through budget expenditures, tax exemptions and price and income support in Czech Republic, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Spain, Sweden and the UK. Gençsü, Ipek, Maeve McLynn, Matthias Runkel, Markus Trilling, Laurie van der Burg, Leah Worrall, Shelagh Whitley and Florian Zerzawy. 2017. Phase-out 2020: Monitoring Europe's fossil fuel subsidies. ODI and CAN Europe. September 2017. Available: <https://www.odi.org/publications/10939-phase-out-2020-monitoring-europes-fossil-fuel-subsidies>

²¹ <https://www.carbonbrief.org/oecd-fossil-fuel-subsidies-373-billion-2015>

²² <https://www.theguardian.com/environment/2017/oct/19/global-pollution-kills-millions-threatens-survival-human-societies>

²³ In the United States, the ratio is 80% labor, 3% green tax. In Brazil, it's 36% versus 2%. Asian economies also show modest green-tax revenues: just 13% in India, 9% in Korea, 7% in China, 5% in Japan and 1.3% in the Philippines.



The problem's root cause? Fiscal systems adapt slowly to a fast-changing world

The foundations of the typical Western fiscal system were laid down in the era before globalization, digitization and mass consumption. They are built on the assumption that 1) taxing labor provides a stable source of income for governments and 2) natural resources are infinitely available. Unfortunately, we have moved into an era of megatrends such as climate disruption, resource constraints, mass unemployment, automation and robotization, which means the old assumptions no longer hold. Isn't it time we adapt and shift financial incentives to deal with the challenges of our economies?

As president of The Ex'tax Project I'm leading several studies on fiscal reform, and I am fully aware that it's not easy to shift from labor taxes to green taxes. For one, nobody likes to pay for something that was previously free of charge. The lobbies of vested interests are strong. Another barrier is that tax reform requires international cooperation, as shifting financial incentives will change trade patterns. The saying 'alone we go faster, together we go further' is applicable here.

// The foundations of the typical Western fiscal system were laid down in the era before globalization, digitization and mass consumption. //

Why we will get this done

Fiscal systems are intricate, intelligent systems. They are man-made, so man can shape them. Technically, there are no limitations to implement change. At least nine regions have already advanced on the tax shift²⁴ and international institutions such as the IMF, World Bank, OECD and European Commission have supported the approach.

How would it work? The first step is to put a price on pollution and the use of natural resources in general, such as fossil fuels, waste, water and the extraction of metal ores. Countries can start with the low-hanging fruit — options that suit national circumstances best. It's only logical to start with abolishing the (fiscal) subsidies to polluters.

In cooperation with Deloitte, EY, KPMG and PwC, The Ex'tax Project has identified more than 100 green tax base options, which should provide governments with ample opportunity to raise stable revenues. As in the current system, any reform needs to be monitored and adjusted. In case a tax base erodes (much like labor taxes do when employment declines), tax bases and rates can be expanded or increased.

Some natural resource taxes will be highly effective in changing people's behavior, others not so much. This can be addressed on a case-by-case basis. For example, in a country where water is not (yet) scarce, putting a price on water may not be necessary from an environmental

point of view, but might still help create revenues to lower other taxes.

It is vital to create long-term plans and announce measures in time, so businesses and consumers can anticipate and adapt. Ultimately, the goal is to advance to a system that taxes 'extracted value' (degradation of natural capital) rather than the 'added value' of work, craftsmanship and creativity.

Below are four benefits of extracted value taxes, illustrated by an example:

1. Improving health

When Stockholm began taxing vehicles to reduce traffic in the city centre, the number of vehicles jamming its streets fell by at least 20 percent. So did the number of children's asthma cases.²⁵

2. Protecting nature

The plastic bags levy in the UK reduced the use of plastic bags by 80 percent,²⁶ which protected waterways, oceans and sea life.

3. Increasing tax revenues for the good of the population

The Democratic Republic of Congo produces more than half of the world's cobalt. Yet, it remains one of the world's poorest countries because only 6 percent of the revenue garnered from mining exports makes it to the national coffers.²⁷ In the Netherlands, the exploitation of oil and gas fields has led to almost €286 billion²⁸ in revenues for the national coffers since the 1960s. These revenues have enabled investments in social security, education and infrastructure²⁹ which has enabled investments in social security, infrastructure, and so on.

4. Driving innovation and competitiveness

Expecting governments to act on carbon pricing in the near future, more than 1,300 companies have started to apply an internal carbon price. This shifts investments toward low-carbon options as they become more competitive compared to polluting options.³⁰

Through their economic, social and environmental impacts, taxes are the threads that connect many of the world's challenges. It's high time to re-assess our fiscal systems and to adapt them to serve the goals of inclusiveness and sustainability. ■

// Ultimately, the goal is to advance to a system that taxes 'extracted value' (degradation of natural capital) rather than the 'added value' of work, craftsmanship and creativity."

²⁴ Sweden (1990), Denmark (1993), Netherlands (1996), Finland (1997), Slovenia (1997), Germany (1999, 2007), UK (1996, 2001), British Columbia — Canada (2008), Colombia (2012).

²⁵ https://www.washingtonpost.com/gdpr-consent/?destination=%2fnews%2ftripping%2fwp%2f2018%2f03%2f27%2fcongestion-pricing-clears-the-lungs-too-researchers-say%2f%3futm_term%3d.83a930fc7aae&utm_term=.89af712532be

²⁶ <https://www.euractiv.com/section/energy-environment/news/bottle-and-can-deposit-return-scheme-gets-green-light-in-england/>

²⁷ https://qz.com/1087495/cobalt-miners-are-leaving-dr-congo-for-canada-and-europe-to-meet-demand/?utm_source=qzfb

²⁸ Data 2017: CBS (Accessed September 2018), Overheid: inkomsten en uitgaven 1995-2017. Data 1969-2016: CBS (2017), Aardgasbaten op laagste niveau in ruim 40 jaar.

²⁹ CBS (2015), De invloed van de aardgaswinning op de Nederlandse economie.

³⁰ <https://www.carbonpricingleadership.org/blogs/2017/11/7/carbon-pricing-a-case-for-transformative-climate-action>

Carbon taxation — How it works and why it is a good idea



Susanne Åkerfeldt

Susanne Åkerfeldt is a Senior Legal Adviser at the Swedish Ministry of Finance. She has been instrumental in fine-tuning the design of the Swedish carbon tax since the 1990s.

How carbon tax nudges 'green' behaviors.

- Carbon taxes can both reduce greenhouse gas emissions and raise revenues.
- Carbon tax can be calculated on the average carbon content of different fuels, so there is no need to measure actual emissions.
- Carbon taxes are simple to design and administer.

// In comparison to emission trading schemes, a carbon tax can be easy to implement and administer, at low costs to authorities and operators."

Why is carbon taxation a good idea?

Carbon taxation can be a major instrument to successfully reduce emissions of greenhouse gases from fossil fuels. This helps jurisdictions to deliver on the Paris Agreement, at the same time mobilizing domestic resources and raising essential revenues. In comparison to emission trading schemes, a carbon tax can be easy to implement and administer, at low costs to authorities and operators.

A carbon tax can be introduced as a new tax or as an existing tax, and can be completely or partly designed to reflect the average carbon content of the fuel. Tax rates may be expressed in common trade units (volume or weight), avoiding the need to measure actual emissions. Depending on national prerequisites, the tax can be collected from fuel producers or distributors either upon extraction or import of the fuels, or further down the fuel distribution chain.

The tax will normally be reflected in the price of the fuel. This incentivizes consumers to purchase the least carbon-intensive fuel, resulting in widespread emission reductions. This 'nudge' instrument is price-efficient, as it relieves governments of the need to engage in administratively burdensome

// Carbon taxation can be a major instrument to successfully reduce emissions of greenhouse gases from fossil fuels."

ways of 'picking a winner' (a particular technology or a particular fuel) and pushing it as the basic tool for reaching emission reductions.

A carbon tax allows households and businesses to choose ways of operating that are best for them, often coinciding with cost-efficiency. This might include investments in new technologies with low or zero greenhouse gas emissions, large-scale energy systems using non-fossil energy, and small-scale energy solutions for households in rural areas, as well as a more extensive use of public transport.

A global outlook

Finland, Denmark, Norway and Sweden implemented carbon taxation in the early 1990s. Costa Rica followed suit in 1997, but it is only in the last decade that carbon taxation has really taken off globally. Within Europe carbon taxation systems now operate in 10 countries, and there has been a significant increase in uptake within jurisdictions outside of Europe. There are currently close to 30 examples of carbon taxation schemes worldwide, with more information available to read in a survey published by the World Bank initiative, Partnership for Market Readiness, *The 2017 Carbon Tax Guide: A Handbook for Policy Makers*. Examples of recent implementation are found in India, Japan, Mexico, Chile, Colombia and Argentina. A couple of Canadian provinces introduced carbon taxation in 2007–2008 and the Government of Canada is committed to ensuring that carbon pollution is priced nationwide by 2019. Bangladesh, Belgium, the Philippines, Singapore and South Africa are among countries currently debating the introduction of national carbon taxation schemes.



// It is only in the last decade that carbon taxation has taken off globally."

The highest carbon tax worldwide is levied by Sweden (further information about this is available to view on the Swedish government website). The Swedish carbon tax came into effect in 1991, as part of a major tax reform that, among other things, included lower marginal income taxes on labor and capital. The general carbon tax rate chosen per tonne of carbon in the fuels at the time was reasonably low (EUR26), and it has taken Sweden more than 25 years to reach the current level of EUR118 — a rate some see as exceptionally high.

How to levy a carbon tax

The basic logic of carbon taxation is generally to levy tax on fossil fuels in proportion to their average carbon content, as carbon dioxide emissions released in burning any fossil fuel are proportional to the fuel's carbon content. It is therefore not necessary to measure actual emissions, which greatly simplifies the system. National conditions may be brought into consideration when designing the tax. For example, derogations may be deemed necessary — at least during a transitional period — to strike a balance between environment and competitiveness, or to address distributional consequences.

One of the major benefits of a carbon tax, if compared to an emissions trading scheme, is that it can be administratively simple to design as well as to collect. A well-designed carbon tax system would be of interest to developing countries as it raises revenues without requiring a market or the design of a complex monitoring system.

// One of the major benefits of a carbon tax, if compared to an emissions trading scheme, is that it can be administratively simple to design as well as to collect."





//The basic logic of carbon taxation is generally to levy tax on fossil fuels in proportion to their average carbon content."

The average carbon content of fossil fuels is also the method used when emissions of carbon dioxide are reported under the Kyoto Protocol. The average carbon dioxide emissions and energy factors used in this reporting can be used when calculating national carbon tax rates. To ensure a simple administration, the tax rates can be expressed in weight or volume units for the different fuels. So a carbon tax can be collected in the same way as excise duties which, in most countries, are already levied on petrol, diesel, coal and gas. This gives low administrative costs for tax authorities as well as for operators.

How to make it happen

Both in theory and in practice, it is proven that carbon taxation is an effective way to reduce emissions of greenhouse gases. It is not rocket science. More and more jurisdictions — both authorities and operators — have the opportunity to share experiences and best practice. Revenues are raised and may be used to make non-fossil options available. In fact, the more you look, the more carbon taxation presents itself as a win-win solution. ■



Barbara Bell

Director
KPMG in the UK

Barbara Bell leads the delivery of KPMG's National Environmental Tax services. The team advises on a full range of environmental taxes, including climate change levy, landfill tax and aggregates levy, and has strong links with KPMG in the UK's Sustainability and Advisory teams.

The ins and outs of green taxation

Green taxes have the potential to raise revenue while also positively changing behavior. Smart implementation will be key.

- Environmental taxes can raise revenue and change behavior to protect the environment.
- The key sticking point is that the more tax is raised, the less behavior is likely to have been changed, and vice versa.
- If a tax is successful in largely eliminating polluting activity, the policymaker has a choice: either continue to raise the tax rate, or accept a job well done and move on to a new type of green tax.



// An environmental tax set at a high level will change environmentally 'bad' behavior but it will not raise much revenue for very long; conversely, a tax which raises a lot of revenue may not be significantly changing behavior."



Historically, governments have raised the revenues they need by direct taxation of labor, income, profits and capital, or by targeting consumption through indirect taxation regimes, such as VAT. But governments also have a choice in how and where they place taxes, and over the last quarter of a century, there has been a shift from taxing these so-called 'goods' to taxing 'bads', with a view to raising revenue and changing behavior at the same time. The key conundrum is whether an environmental tax can simultaneously achieve both these objectives.

Interviewed by the BBC earlier this year, even a UK Government minister seemed unclear on this point. On the subject of the UK's proposed plastic tax, the minister was asked whether the public would pay a 25p charge for single-use coffee cups. The minister's response was that of course they would — which seems to illustrate a common conceptual difficulty with environmental taxes. Was the minister correct? If he was, and the clientele of all high-street coffee shops are willing to pay an additional 25p for a daily cup of coffee, that would raise a phenomenal amount of tax — perhaps GBP7 million or more per day — but it would not save the world from a single coffee cup. Perhaps setting the tax at GBP10 per cup would stop all but the richest and most profligate coffee drinkers from using single-use coffee cups — but it would raise very little revenue and could have a calamitous impact on business. An environmental tax set at a high level will change environmentally 'bad' behavior but it will not raise much revenue for very long; conversely, a tax which raises a lot of revenue may not be significantly changing behavior.

Did the minister actually mean to say that while some members of the public would pay 25p tax on a single-use coffee cup, others would not, and such a tax would therefore result in a net reduction in coffee cups (a good environmental starting point) and a useful amount of revenue for the Treasury? What if the tax was set at 25p in year one, rising gradually (or not so gradually) each year? Would this allow all

involved to adjust behavior and gear up to new manufacturing and purchasing practices? Could some or all of the tax raised be hypothecated to assist in the development of alternatives to coffee cups or another good environmental cause?

The template for this sort of environmental tax already exists. As an example, anyone wondering why UK households now have so many recycling bins and boxes, or why so many waste management companies have ventured into the energy-from-waste business, needs only to look at the 22-year history of the UK's flagship environmental tax — landfill tax. Now devolved to Scotland (as Scottish Landfill Tax) and Wales (as Landfill Disposals Tax), landfill tax (as it continues to be known in England and Northern Ireland) has changed the face of the waste management industry across the UK. When it was introduced in 1996/7, there were hundreds of landfill sites across the country handling 96 million tonnes of waste each year. This had fallen by April 2018 to just over 26 million tonnes of waste disposed of at landfill, with a corresponding increase in the number of closed or mothballed landfill sites. This decline in landfill is even more remarkable than it appears at first sight when one realizes that, in the mid-1990s, it was expected the amount of waste going to landfill would increase substantially over the coming decades. Indeed, the amount of waste sent to landfill has fallen by more than 70 percent since 2000, and average household recycling rates rose from 18 percent that year to 44 percent by 2016, according to UK Government data.

While the tax did not achieve this massive change on its own (European directives and other policy measures also played a part), many within the waste industry nevertheless consider it the primary driver of the change. Having been introduced at GBP7 per tonne for most wastes and GBP2 per tonne for certain less polluting materials, the standard rate of the tax was rapidly ratcheted up, reaching GBP88.95 per tonne by 1 April 2018 with the lower rate remaining a much





more conservative GBP2.80 per tonne. During a memorable period, the standard rate of the tax increased by GBP8 per tonne each year, meaning that it made economic sense for waste management companies to seek different methods of dealing with the waste that they handle, including investing in energy from waste facilities that, at present at least, are not subject to environmental taxation. Landfill tax has also driven an increase in recyclable packaging and a reduction in kerbside collections of household waste. Recycling is now big business and not the fringe pursuit of the 1990s.

The problem is, of course, that the future of landfill tax itself is now uncertain and, in revenue raising — if not environmental — terms, this will become a problem for Government. One solution would be to increase the rate of tax, but at this early stage in the life of environmental taxes, there is a danger that it would produce the perverse consequence of taxing at a high rate what might be environmentally good behavior. For some types of waste, disposal in a sealed and highly regulated landfill cell represents the best practicable environmental option, meaning that it might be cheaper not to deal with such waste, or not to deal with it properly, if the rate of tax climbs too high.

This is an increasingly familiar issue with environmental taxes or other taxes designed to change behavior. It is for the policymakers to decide whether they should adhere to their original objectives, congratulate the tax on a job well done and move on to changing some other sort of bad behavior, raising revenue as industry and consumers take time to adjust their habits. Perhaps a plastic tax is the natural successor, therefore, to landfill tax? ■

// Landfill tax has changed the face of the waste management industry across the UK."

What to tax and what's next?

A few concluding thoughts on the issues explored in this publication, and a look at what to expect next from the Responsible Tax project.

The KPMG Responsible Tax project was born from the recognition that tax is too important an issue to be left to unproductive shouting matches amongst small groups of people (often mostly men) through megaphones from mountaintops. That is not to say that anger at egregious avoidance and evasion is not something to shout about, but after the anger, then what?

What society and economic actors need is answers to how we can build a more responsible tax system. But in a global, networked and complex world, that's tough. There are all kinds of fast-moving moral and practical issues to which no one can claim a monopoly of truth or wisdom. So what is needed is a calm but determined space to listen to the key voices and views; to learn from each other; and, crucially, to begin to understand each other's assumptions so that real progress can be made. A responsible tax system is not going to be imposed by anyone; instead, it can only be negotiated by all of us. Politicians, officials, regulators, corporates, advisors, thinkers, campaigners and eventually, of course, citizens must all be a genuine part of the process.

Even on fundamental issues, such as the line between acceptable planning and unacceptable avoidance, or legitimate privacy and harmful secrecy, this is going to be difficult and take time. Progress depends on trust between key actors, and building trust is about building relationships and demonstrating vulnerability by asking and answering honest questions about ourselves. However, even assuming we can find agreement on desired behaviors, any responsible tax approach should also look at the fundamental issue of what society is trying to tax, why and how? This publication serves as a starting point for looking coherently at the tax options, bringing together an eclectic and informed mix of authors under the premise that uniting these diverse viewpoints is in itself an important step forward in the debate. Consensus, at this early stage, would be an impossible expectation. But what we are building is consent: to work, think and build together.

Of course, as the Responsible Tax project continues its search for answers, at least two major questions will need to be considered. The first is about issues of *spending*: what do we spend on and how much? Again, this has been largely the preserve of the political class, and is not our focus in the responsible tax debate. But we need some kind of realistic assessment of the necessary tax base in the 21st century when climate change, an aging society and the rise of the robots are going to create all kinds of stresses and strains on the tax base.

And a second question is *how to agree and enforce rules and regulations in a global system*? Much of the architecture for global tax rules is a product of postwar institutions, context and culture. The world is now a very different place — so how can responsible tax be structured in a way that is fit for our global future?

These are huge and difficult questions, but they cannot be ducked. KPMG International, working with Jericho Chambers and many other partners and stakeholders, wants to play an active part, not just in making sure corporations pay the right amount of tax, in the right place and at the right time, but also in helping to address some of the fundamental issues about how to build a responsible tax system that is fit-for-purpose in the 21st century. Of course every country is different and there will be multiple responses, but global patterns and trends are likely to emerge between how much we tax work, corporations, wealth etc. This will require not just more publications, roundtable discussions and Responsible Tax events, but a global alliance that wants to work together for the common good. The discussions continue, and additional viewpoints and voices are welcome to contribute to the digital community at kpmg.com/responsibletax.

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