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tax systems for
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What to Tax?

A Responsible Tax publication that brings together diverse perspectives from around the globe

Most of the spotlight of the global tax debate has understandably been on how tax is collected from established, historic sources — most notably corporations and high net worth individuals. Obviously, this must continue and KPMG is keen to keep exploring issues such as the impact of digitalization, the difference between avoidance and acceptable planning, transparency and other key challenges in this arena. But any responsible tax approach should also look at the fundamental issue of what society is trying to tax.

To date, this discussion has been almost exclusively the preserve of the political and policy establishment and has focused on the balance between taxing incomes, profits and consumption. But as economies, cultures, technologies and societies change dramatically (in turbulent political, socioeconomic and technological times), there is a pressing need to discuss whether, in terms of the common good, we are taxing the right things and whether societies have established the right balance between those things that we tax.

There is a flourishing debate, for instance, on the taxation of digital goods, data and services and, of course, the taxation of robots as a way of redistributing the profits from any technological productivity gains, especially if we see a large net loss of jobs over time. If fewer people are in employment, or are in less well-paid jobs, then new sources of taxation will need to be found — not least to ensure that those not working or working less have sufficient funds to live.

It is interesting to note that even some centrist political figures have suggested a tax on land, both to regulate the speculative housing market (in areas such as in the UK) and to provide new sources of public income. There is a rich seam of issues to mine on this. Likewise, environmental taxes, progressive ways of taxing consumption and other areas all need closer inspection and exposure to wider debate.

KPMG, working with Jericho Chambers, has therefore convened diverse voices and viewpoints in this collection of essays for dissemination and discussion at a major Responsible Tax event in the UK in September 2018, and a series of Responsible Tax Roundtables in Italy and Mexico in October and November 2018, building on a preview roundtable that was held in France in July 2018. The format is similar to the Developing World publication, released in December 2017. Alongside each essay, KPMG offers commentary from tax specialists from across its global network of member firms, with each contributor offering additional perspectives on the areas of taxation examined, and in many cases, exploring the feasibility of approaches proposed throughout. The Responsible Tax platform and social media — together with internal KPMG engagement and the involvement of the global Responsible Tax community — will support the further sharing of ideas.

Some of the key questions the essayists seek to answer include:

— What are the limits of corporate, work and consumption taxes? What is the problem we are trying to fix?

— What are the issues surrounding taxing assets over earned income?

— What new areas could be taxed?

— What problems might arise from taxing new areas? (For example, double taxation risk, new opportunities for evasion, levels of progressiveness, etc.)

A full contents list, with authors and specialists, can be found on page 4. We thank all of our authors for their time and thoughtful contributions.

We hope this publication provides both food for thought and stimulus for further debate and action around responsible tax. We invite ongoing comments and article contributions through KPMG's Responsible Tax digital community at kpmg.com/responsibletax.

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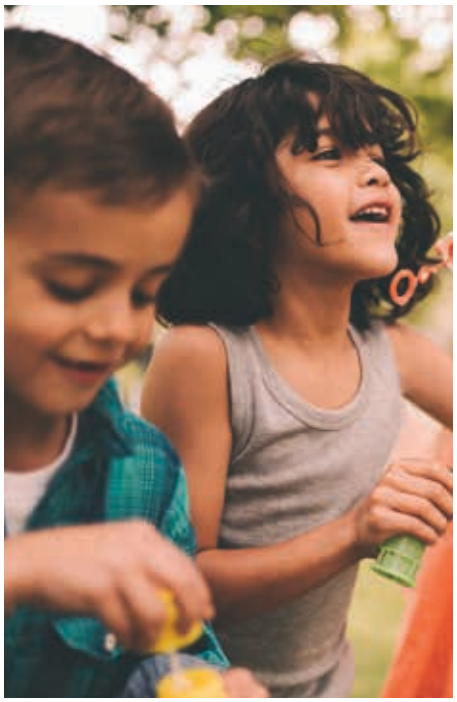
Contents

Introduction

06



Tax on the creation of wealth

10

Tax on holding wealth

32

Tax on spending wealth

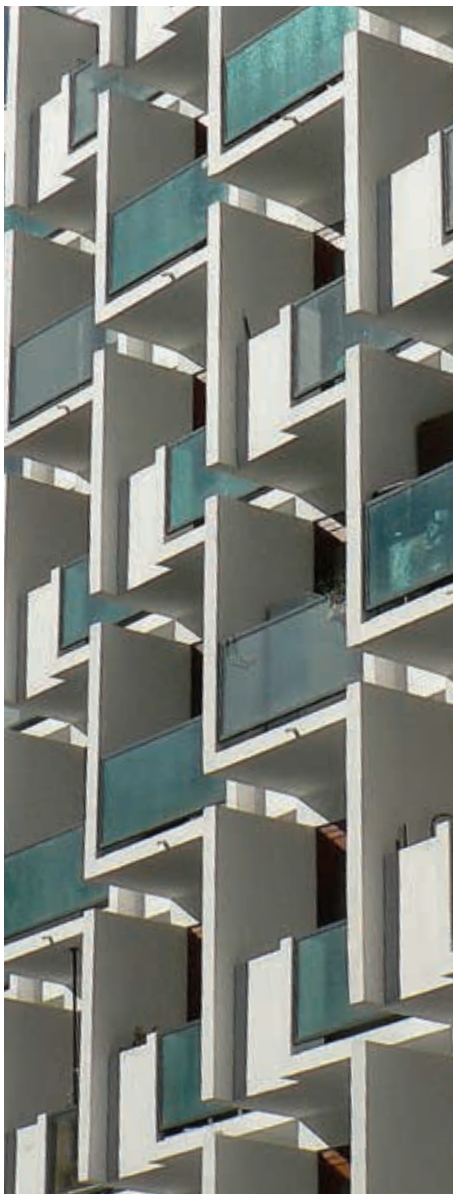
54

Tax and sustainability

70

Conclusion

82



What to tax? — How to tax?

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Whether we look at developed countries, with aging populations and growing health and social security bills, or at developing countries needing funds to finance the UN Sustainable Development Goals, it is clear that there is pressure to widen and deepen the tax base. Furthermore, it is often said that current tax systems — particularly corporate tax ones — are no longer fit for purpose in the 21st century. And in some countries the question of 'fair taxation' is a hot topic. With all these factors in mind, as part of the global Responsible Tax project, KPMG and Jericho Chambers decided to collate a set of articles, which features a diverse array of voices responding to the question, "What to tax?"

What is the purpose of tax?

Before looking at some of the issues, it is worth thinking about the purpose of tax and the principles of a good tax. There are no exhaustive definitions but the following is a rough guide:

1. Raising revenue: It is often said that tax is the price we pay for a civilized society; that is, tax pays for the social goods we desire including health, education, infrastructure and security.

2. Redistribution: The inherent inequality in society is undeniable and tax is one way of addressing it. This may be directly, for example, by providing social security payments, repayable tax credits or family allowances. Alternatively, it may be indirectly, through a progressive tax system where the richer bear a greater tax cost.

3. Changing behavior: There are debates about whether a tax should be used to help change behavior. Some argue it creates inefficiency and tax is not the best tool for addressing such issues. However, most countries use tax at least partly in this way. Firstly, tax can be used to address 'market failure'. An example would be providing accelerated or enhanced tax depreciation for research and development where it is considered that market forces do not incentivize these activities sufficiently. Another example is green taxes based on the principle that 'the polluter pays'. But there are also so-called 'sin taxes' — such as on tobacco, alcohol and gambling — which are designed to discourage certain activities that society considers less desirable.

4. Supporting the economy: To a certain extent, fulfilling this objective relies on how the tax law is formulated and how tax receipts are spent. Supporting the economy can include encouraging investment, creating employment, attempting to stabilize prices in the short term, controlling cyclical fluctuation of the economy and assisting the balance of payments.

Principles of a good tax system

Discussions on the principles of a good tax system often start with Adam Smith's *The Wealth of Nations*. These can be summarized as:

- **Proportionality:** The tax burden should be linked to the taxpayer's ability to pay. This is sometimes called 'vertical equity'. An allied principle is 'horizontal equity' — that is that taxpayers in the same position should bear the same burden.
- **Certainty:** Taxpayers should, as far as possible, have certainty over the amount they will have to pay.
- **Convenience:** Tax should be levied at a time and in a way that is most convenient for the taxpayer.
- **Economy:** The cost of collecting the tax should be as low as possible.

It is, of course, possible to add more principles. For example, in today's environment, the following are important.

- **Efficiency:** It could be said this is a subset of Certainty. It is, however, important that taxes are designed in a way that they cannot be avoided, or indeed evaded, easily and they should not distort business decisions.
- **Simplicity:** With tax codes growing ever more complex, this is an important issue — and clearly linked to Certainty, Convenience, and Economy.
- **Sustainability:** Generally speaking, a tax should be on a base that does not deteriorate over time — unless it is intended to be temporary or to reduce certain undesirable behaviors.
- **Stability:** In order for a government to plan expenditure, a good tax should generally not be volatile — although there are arguments for having volatile taxes that can act as an automatic stabilizer.
- **Consistency:** Individual rules should fit coherently with the overall tax system in a country, and there are also taxes, such as a financial transaction tax, that may not be efficient unless it applies regionally or globally.
- **Gender neutral:** There is a growing body of research showing that some tax systems — for example, VAT — tend to have a greater impact on women.

How does the theory translate into practice?

If the answers to what and how to tax were obvious, somebody would have produced a blueprint for a perfect tax system. That this does not exist is due to the fact that different countries have different social, cultural and economic characteristics, and there are varying individual views on how to balance all the factors and set priorities. In the following articles, there are a range of views expressed. We have grouped them into themes of taxing the creation, holding, and spending of wealth and, finally, the future of taxation.

Tax on the creation of wealth

It is often noted that it is becoming harder to assess and collect corporation tax in an increasingly global environment with mobile capital. Furthermore, there are concerns — as explained by Ifueko Omoigui Okauru of ICRICT — that the current system allows multinational enterprises (MNEs) to shift profits from high tax to low tax jurisdictions. This undermines not only the principle of redistribution but also the one of horizontal equity and makes corporation tax an inefficient tax. A proposed solution is to adopt formulary apportionment of global profits. However, Gianni De Robertis of KPMG in Italy, notes that formulary apportionment carries its own difficulties and suggests, borrowing from Winston Churchill's dictum, that the current arm's-length principle may be the worst of all systems "except the rest of them." The solution may be to improve the current rules instead of completely changing the system.

The impact of digitalization increases the pressure on the corporate tax system. John Thornhill, *Financial Times,* argues that the data revolution is remaking capitalism in radical ways and innovative approaches to data taxation may be needed. Khoon Ming Ho and Conrad Turley, KPMG China, provide a detailed analysis and query whether the real issue is not more to do with identifying the location of investment rather than the use of digital technology. Nevertheless, many countries are now introducing specific digital taxes with the EU Commission, in particular, making this part of its 'fair tax' agenda. Shikha Mehra, Senior Research Associate, OP Jindal University argues that blockchain developments will enable users to own and trade their data, which may make it a taxable commodity in the future. Will blockchain assist with certainty, convenience and economy in tax collection?

The debate about taxing corporations is complicated by the fact that there is no clarity about who ultimately bears the cost. Corporation tax should be a charge on the capital invested, and so should apply to the investors; but it is often argued that a significant proportion is borne by the consumers or employees. Economists generally agree that taxing employment creates a drag on the economy; Ruud de Mooij of the IMF considers whether it is possible to move part of the tax burden from employment to capital. This would be in line with the principle of proportionality as capital is held disproportionately by the well-off. However, taxing capital can also adversely affect employment, and there are concerns that it is more mobile than employment, making it less efficient to tax.

Tax on holding wealth

In the section on taxing the holding of wealth, Edward J. Dodson argues that the most efficient tax would be on the potential annual rental of all land, and this would also recognize that land is a public asset and should not be the absolute possession of private individuals. Enid Slack, University of Toronto, and Jo Bateson, KPMG in the UK, debate the pros and cons of property taxes more widely. While they tend to be the least popular of taxes, they are particularly appropriate for financing local government. The emphasis however should be on annual property taxes rather than transactional taxes.

David Willetts, Executive Chair of the Resolution Foundation, proposes replacing traditional inheritance tax rules with a lifetime allowance and restricting pension contribution tax relief to a flat rate so as to make the tax system more proportional. Grant Wardell-Johnson of KPMG Australia, however, notes that in practice net wealth taxes have been found to create issues of neutrality, efficiency and equity; the best approach to taxing wealth could be through annual property taxes.

Keval Bharadia draws upon his experience while working at the London Stock Exchange to argue that a financial transaction tax on derivatives is an appropriate way to tax the accumulation of capital and reduce inequality.

Tax on spending wealth

Most economists would argue that moving to taxing consumption is the most efficient form of tax as it is least distorting of behavior. However, this is widely considered to be regressive. Christine A. Wernet, University of South Carolina Aiken, suggests ways to make consumption taxes more progressive; while Philippe Stephanny, KPMG in the US, argues it may be more efficient to lower the rate but broaden the base and then use the revenues generated to drive progressivity through other parts of the tax system. Lachlan Wolfers, KPMG's Head of Indirect Tax for Asia Pacific region, notes that when it comes to digital transactions, the issue is not what to tax but who should collect it? Another key issue is: Should indirect tax be applied to the growing number of consumer to consumer transactions?

Tax and sustainability

Finally, no review of what to tax would be complete without looking at green issues. Femke Groothuis, The Ex'tax Project, considers how green taxes can be used to improve health, protect nature, increase tax revenues and drive competitiveness and innovation. Susanne Åkerfeldt, Senior Legal Adviser at the Swedish Ministry of Finance, provides more detail on how carbon taxes work. Green taxes, though, do have a sustainability paradox. As Barbara Bell, KPMG in the UK, points out, the more successful they are at changing behavior, the less revenue they generate.

Where to now?

Some of the articles express conflicting points of view and undoubtedly there will be opposing views on some of the suggestions. In collating these essays, it is not our purpose to point to one answer or another, but rather to give each of these perspectives a platform, and indeed, to offer these ideas as stimulus for further discussion and debate. ■

> "If the answers to what and how to tax were obvious, somebody would have produced a blueprint for a perfect tax system."

Ifueko M. Omoigui Okauru

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Splitting the riches

A fairer future for global taxation

Unitary taxation with formulary apportionment would establish a much clearer, more effective, and fairer method of allocating the tax base of MNEs.

— Transfer pricing rules attempt to construct prices for transactions among entities that are part of MNEs as if they were independent, which is inconsistent with the economic reality of a modern-day MNE.

— MNEs should be taxed as single firms by combining their global profits.

— The global profits should be apportioned to the countries where the MNE operates using a formula based on factors such as employment, sales, resources used and fixed assets.

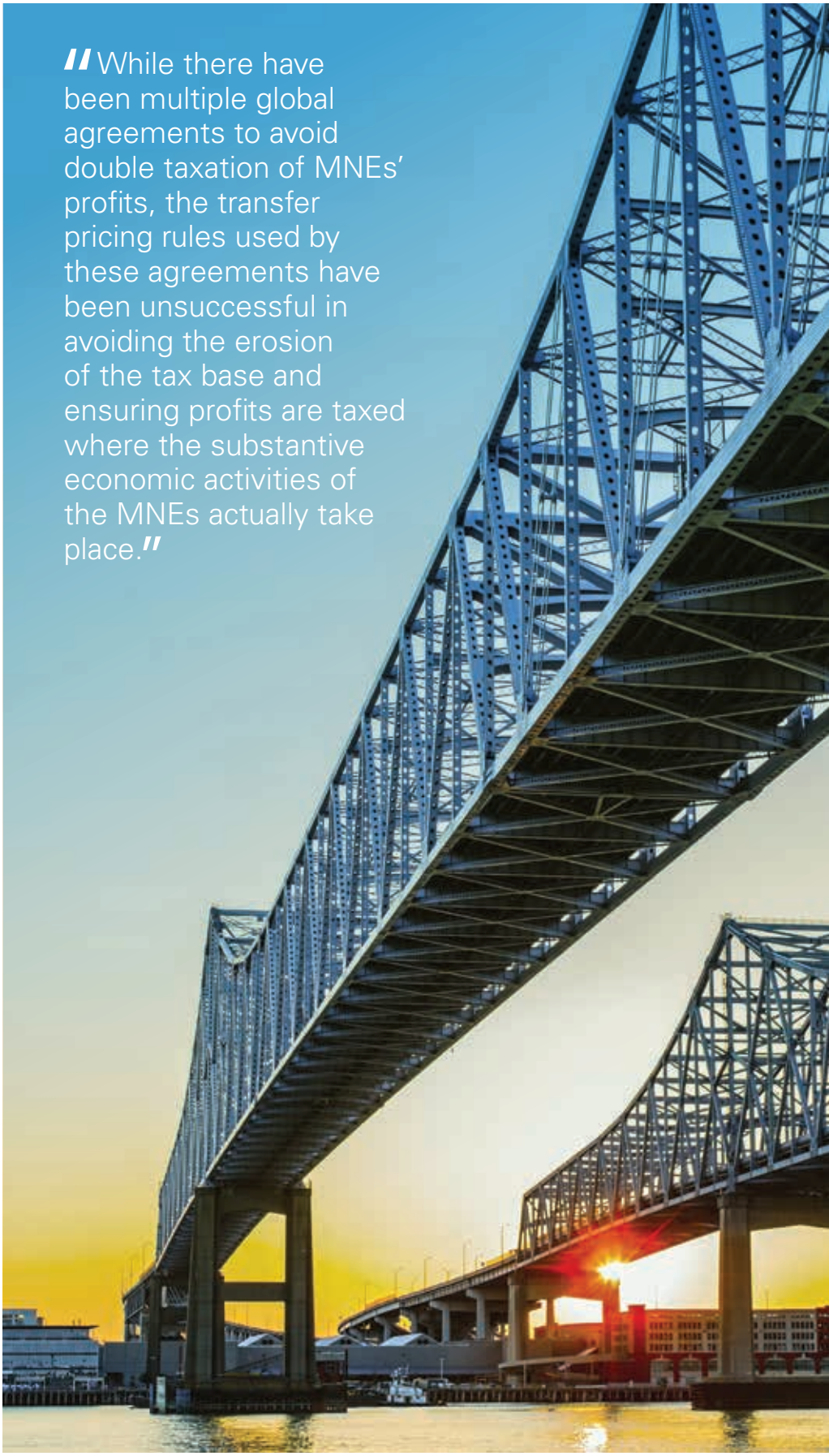
Systemic sticking points

The existing system of international taxation has been exploited by MNEs to shift large portions of their overall profits to low tax jurisdictions. This system has further exacerbated tax competition, by pressuring countries into lowering tax rates. While there have been multiple global agreements to avoid double taxation of MNEs' profits, the transfer pricing rules used by these agreements have been unsuccessful in avoiding the erosion of the tax base and ensuring profits are taxed where the substantive economic activities of the MNEs actually take place. These agreements have also failed to find a common ground to avoid a race to the bottom.

While the Base Erosion and Profit Shifting (BEPS) international reform led by the G20 and the OECD is a step in the right direction and progress that would have been thought of as impossible just 5 years ago, we believe that one of the biggest deficiencies of the BEPS process has been its inability to address the core problem of our global tax system — the fiction that an MNE consists of separate independent entities transacting with each other at arm's-length.

The transfer pricing rules attempt to construct prices for the transactions among entities that are part of MNEs as if they were independent, which is inconsistent with the economic reality of a modern-day MNE — a unified firm organized to reap the benefits of integration across jurisdictions. Large MNEs are oligopolies, and in practice there are no truly comparable independent local firms that can serve as benchmarks.

The OECD reform proposals, while helpful at the margins, do not help resolve the basic challenge of ensuring that MNEs pay taxes where they have real economic activities take place and create value. They still provide too much opportunity for profit shifting, especially through the exploitation of intangible assets (intellectual property, trademarks, etc.). This is an issue for both developing and advanced countries,



but so far tax rules have prioritized the perspective of advanced countries where MNEs tend to be headquartered. This is a major reason why they have failed to ensure profits are taxed where activities take place (at the 'source'), in favor of where the companies that receive income are based (in the country of 'residence'), which can easily be manipulated.

ICRICT's latest report presents concrete solutions to address this issue so that all countries are able to collect a fair share of tax revenue from MNEs and avert a race to the bottom.

One way to improve the situation would be to tax MNEs as single firms by combining their global profits and then allowing each country where the corporation operates or sells goods to tax only the portion of profits attributable to the corporation's economic activity there. Unfortunately, the BEPS project has not taken this route to reform.

A unitary approach should apportion the MNEs' global income to the different jurisdictions based on objectively verifiable factors rather than resort to the fiction of arm's-length transactions or that one could possibly calculate what arm's-length prices might look like.

These factors, such as employment, sales, resources used, fixed assets, etc., should be chosen to reflect the MNEs' real economic activity in each jurisdiction. Just as important, these factors cannot be easily moved around the group to avoid taxation. Relocating employees to a low-tax jurisdiction involves much more than transferring intangible assets to a letterbox company in such a jurisdiction, and a firm has even less power over the location of its customers.

Furthermore, these objective factors reflect in different ways actual economic activity, while the separate entity principle and transfer pricing rules enable profit shifting to MNEs' entities lacking economic activities.

Global formulary apportionment is the only method that allocates profits in a balanced way using factors reflecting both supply (e.g. assets, employees, resources used) and demand (sales). Neither can create value without the other.

Two major criticisms are frequently made of formulary apportionment: firstly, that states could not agree on a formula, and secondly, that the enterprise could still play jurisdictions against one another by focusing on the factors in the formula.

However, both these arguments overlook the point that, in choosing a suitable formula and the corporate tax rate, states would need to take into account interacting factors: not only the tax revenue it would produce but also the effects on inward investment. This creates a basis for compromise and convergence between states.

While the sales factor in the formula cannot be manipulated, apportioning profits according to other measures of economic activity, such as employees and assets, may affect inward investment. This may pressure countries to veer toward single factor (sales) formulary apportionment. However, sales-based apportionment may limit the tax base of developing countries, where much income is generated by asset- and labor-intensive activities. A suitable formula will, therefore, need to reflect the different needs of, and be negotiated by, both advanced and developing countries.

Unitary taxation with formulary apportionment would establish a much clearer, more effective, and fairer method of allocating the tax base of MNEs. While formulary apportionment will effectively eliminate profit shifting, countries will still be able to compete against each other by lowering the corporate tax rate to incentivize investment or the relocation of activities — pressures which are, of course, also present in the current system. It is therefore important to avoid a position where a move to formulary apportionment further exacerbates the race to the bottom in corporate tax rates.

To forestall this competition and the resultant distortionary effects, global formulary apportionment should be accompanied by an agreed minimum rate for taxing all apportioned profits. Such a system of multifactor global formulary apportionment, together with a minimum corporate tax rate, offers the best method of ensuring that source countries where the activities generating MNEs' profits take place receive their fair share of tax revenues from these profits. ■

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The end of the arm's-length principle?

Where the context is complex, the best option is sometimes the 'least-worst' one.

— The arm's-length principle can be complex to apply and is under pressure due to changing business models.

— Formulary apportionment appears to present a simpler approach to allocating taxing rights globally but is not without its own weaknesses and complexities.

— Formulary apportionment could only work if there was global agreement. However, this is unlikely in the near future, making the arm's-length principle the 'least-worst' solution.

"With the globalization of the economy and the rise of multinational corporations, much attention is being paid to the way intra-firm transactions are being priced."

Transfer pricing is one of the most debated aspects of the current international tax system. With the globalization of the economy and the rise of multinational corporations, the volume of international trade within multinational companies has increased. As a consequence, much attention is being paid to the way such intra-firm transactions are being priced.

Today, when establishing prices for intra-firm trades, most countries refer to the OECD Transfer Pricing Guidelines and the arm's-length principle (ALP). In essence, the ALP states that transactions between companies belonging to the same group should be priced the same (and conducted under the same conditions) as similar transactions between unrelated parties. In this way, the profit earned by each company in the group should reflect the relative value created by their activity.

The origins of the ALP can be traced back to the early 20th century. The principle was formally introduced into internal law by the US and Canada in 1924, then by Sweden in 1928, and subsequently Italy in 1936. An ALP type of provision was included in the 1933 League of Nations Draft Convention for the Allocation of Business Income between States, and then in the first OECD Tax Model Convention in 1963. Sixteen years later, in 1979, it was implemented worldwide for the first time when the OECD published its *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*.

"Any formula which may be designed would necessarily imply that some countries will benefit while others will lose out from the Formulary Apportionment system."

In recent years, countries, NGOs, businesses and international organizations have been focusing on how taxes are computed in international business transactions, and also on the strengths and weaknesses of the ALP.

Advocates of the ALP highlight two main strengths — one theoretical and one practical. Economically, when correctly applied, the ALP replicates market conditions in intra-firm trade, not only allocating value where it is created but also minimizing distortions of investment decisions and maximizing global economic welfare. In practical terms, the ALP is currently used by a large majority of countries. Built up over many years, such a large international consensus would — in practical terms — be difficult to replicate if another system were introduced. Supporters of the ALP argue that abandoning the principle would certainly increase instances both of double and less-than-single taxation, damaging the economy overall (and decreasing global economic welfare).

The ALP's critics usually view the principle itself as plainly wrong since it defies reality. They highlight that multinational groups exist for the purpose of generating profit by internalizing transactions that would be more costly if conducted with unrelated parties. Critics also argue that the application of the principle is complex and potentially subject to manipulation, giving companies the possibility of locating their profit in low-tax countries.

Of the various alternatives to the ALP proposed by its critics, the one that most often emerges is a system based on apportionment, where the taxable profit of a multinational group would be allocated to its constituent entities based on pre-determined formulas and factors (often sales, employees and assets — the so-called formulary apportionment or "FA").

According to its proponents, the use of an FA system would reduce compliance costs for tax administrations and taxpayers alike, as it would only be necessary to compute the multinational group global profit and the value of factors included in the formula. Therefore, in their view, FA would give all involved parties more certainty about the amount of taxes to be paid on international business activities.

While FA is currently used domestically within certain countries, such as Canada and the US, to allocate profit to local taxing jurisdictions, it is not used internationally. Examining how FA is used domestically sheds light on several issues that would need to be considered and addressed to ensure FA is a suitable replacement for the ALP at the international level.

First and foremost, countries would need to agree on the apportionment formula. The agreement would need to specify not only the formula itself, but also the factors and their weightings, how such factors should be defined and what valuation/computation criteria should be used. Reaching an international agreement on all these elements would present many more challenges than agreements at the national level. For example, an international FA would need to allow for foreign exchange fluctuations, which could significantly alter the allocation of profit from one year to the next, regardless of business operations. Another challenging aspect could be deciding how to value assets, if assets are included in the formula. The valuation of intangible assets (particularly important in the knowledge economy) poses its own

set of problems: Should such assets be included in the formula together with tangible assets, or would they be ignored?

Any formula that may be designed would necessarily imply that some countries will benefit while others will lose out from the FA system. In particular, developing and developed countries are bound to have conflicting interests when selecting allocation factors, as the former will have activities that are more labor-intensive, built around tangible assets, while the latter will have more sales and activities exploiting intangible assets.

Obviously, abandoning the ALP to implement FA without agreement on the formula and factors would be detrimental to everyone, as it would directly result in widespread double taxation and/or less-than-single taxation.

How difficult it would be to reach a consensus on the FA formula can be clearly seen from developments in the US, where FA is used domestically. The allocation of profit to each state was initially based on a three-factor model encompassing sales, tangible property and payroll, all equally weighted.

However, over time, many states have unilaterally changed the formula to a point where, nowadays, there are approximately 10 different formulas for calculating the state apportionment of corporate income. Compounding the differences in apportionment methods, the states have not agreed on a common tax base or the rules for permitting or filing returns on a group basis. Should the same differences happen internationally, this would necessarily imply a proliferation of double taxation and/or less-than-single taxation.

The US example also provides evidence of two other weaknesses of the FA system, which are often underestimated. Firstly, FA would not stop the use of tax competition by countries: policymakers will have an incentive to modify the FA factors in order to attract investments and employment from other countries. At the same time, an FA system would alter business and investment decisions made by companies, with a negative effect on market efficiency and potential losses of global economic welfare. Companies may decide, for example, to outsource certain activities or replace employees with outside contractors in order to lower payroll, or change the location of assets such as inventory by relocating their warehouses. In addition, as for ALP and possibly any other system of taxation, FA could also be potentially subject to misuse and manipulation, for example, by modifying the location where sales are concluded or delivered.

In conclusion, the ALP, while being very complicated to apply in some cases and leading to disputes in others, remains theoretically sound. FA is conceptually simpler but also more arbitrary. While most countries currently accept the ALP, reaching a global agreement on FA does not seem likely in the near term. To some extent, the current debate on the ALP brings to mind Winston Churchill's famous statement on democracy, as expressed in the UK's House of Commons in 1947: "Democracy is the worst form of government, except for all the others". ■

> "According to its proponents, the use of an FA system would reduce compliance costs for tax administrations and taxpayers alike."

John Thornhill

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John was previously deputy editor and news editor of the FT in London. He has also been Europe editor, Paris bureau chief, Asia editor, Moscow correspondent and Lex columnist.

Data as a commodity

If designed correctly, a form of tax paid in data could not only benefit the public sector and help improve government services, it could also stimulate a new wave of innovation.

— Data companies are set to grow increasingly rich and powerful.

— New-generation tech companies are particularly elusive entities to tax.

— Movement towards partial payment of taxes in data rather than money would turn a portion of private assets into common goods, the principle of most tax systems.

There are now more connected devices on this planet than there are people, each one beeping out data about how we work, live and play.

Gartner, the technology consultancy, forecasts that there will be more than 20 billion connected devices by 2020 as the Internet of Things and ambient intelligence become all-embracing realities. The companies that harvest and exploit all that data will grow increasingly rich and powerful.

Seven of the top 10 most valuable companies in the world by stock market value are already US and Chinese tech firms.

Several of these companies believe their greatest asset is the data they hold on their users, invaluable for selling them more products, services or advertisements. Yet although the companies and their investors are well aware of the value of that data, it seems that accountants, regulators and governments have still to catch up with this new reality. In their different ways, they all seem far more obsessed with tangible rather than intangible assets. That makes these new generation tech companies particularly elusive entities to tax. According to the European Commission, digital businesses pay an effective tax rate of 9.5 percent compared with 23.2 percent for traditional businesses.

A new book, *Reinventing Capitalism in the Age of Big Data*, by Viktor Mayer-Schoenberger and Thomas Ramge, presents a powerful case that this data revolution is remaking capitalism in radical ways that we are only just beginning to understand. Their core argument is that data is replacing price as the most important organizing signal of the modern economy. This gives enormous competitive advantage to those data-rich tech companies, spelling big trouble for many traditional firms.

Whereas price is a two-dimensional signal between the producer and the consumer, data can reflect many other implicit preferences: affinity for a particular brand, quality of service, and speed and convenience of delivery, for example. All that additional customer knowledge gives online only retailers a massive edge over traditional rivals and allows them to constantly adjust their prices according to a series of dynamic factors. The potential to undermine competition and maximize profit is clear.

In *Reinventing Capitalism in the Age of Big Data,* the authors propose that governments need to understand these new economic realities and should therefore consider moving to partial payment of taxes in data rather than money. In this process, a portion of private assets could be turned into common goods, the principle of most tax systems.

For instance, car manufacturers might provide the public with anonymized sensor data helping improve traffic flow and identify accident blackspots. Data from online learning platforms could better inform decision-making in public-sector education. The principle could be extended even further. Anonymized health data drawn from smart watches and other wearable devices could be pooled in public data trusts and used for research purposes.

"If taxes paid in data make huge amounts of data available to the economy and society at large, this may signal what open data proponents have long dreamed of but haven't yet achieved," the authors write. "The conventional conception of open data — making data held by government available to the general public — was limited by the minimal commercial and societal value of government data. The data that businesses are already transforming into value, on the other hand, may be more immediately useful."

If designed correctly, these data taxes would not only benefit the public sector and help improve government services. They could also help stimulate a new wave of innovation by providing data to the next generation of private sector entrepreneurs and sharpen competition between the tech firms themselves. Although it sounds radical, enforced data-sharing is not an entirely novel concept. There are already some sectors where dominant data-rich companies have been forced to share information with rivals, such as in the German motor insurance market.

Mayer-Schoenberger and Ramge's book feels like an early iteration of an evolving argument. There are many, and obvious, practical difficulties to overcome before data taxes became a reality. Who, for example, would value the data? That is a trickier issue than it at first appears given the differential value such data may have for different users. After all, the value of data most often depends on its contextualization.

Nevertheless, the argument for data taxes is beginning to acquire some political momentum, particularly in Europe. There appears to be a growing feeling that the tech companies are profiting at our societal expense and need to pay more back in return. The European Commission is already proposing a new Digital Services Tax. Data taxes may become a new weapon in their armory.

At a conference in Berlin on May 28, Angela Merkel, Germany's chancellor, called on researchers to devise new ways of valuing data and taxing it just like tangible products. She said that it was unjust that consumers handed over their data for free to giant tech companies that then turned around and monetized it.

"The pricing of data, especially that of consumers, is in my opinion the central problem of fairness of the future," she said.

When a politician as habitually cautious as Mrs. Merkel advocates such a radical proposal, then it is fair to assume that a groundswell of public opinion is already building on the issue. ■

> "Although the companies and their investors are well aware of the value of data, it seems that accountants, regulators and governments have still to catch up with this new reality."

Khoon Ming Ho
Head of Tax for Asia Pacific region
KPMG China

Khoon Ming Ho is the Head of Tax for KPMG's Asia Pacific region. Khoon Ming has been advising foreign investors on their investments and operations in China. He has also advised on issues related to investment and funding structures, repatriation and exit strategies, M&A and restructuring.

Khoon Ming has worked throughout China, including in Beijing, Shanghai and southern China, and has built strong relationships with tax officials at both local and state levels. He has also advised the Budgetary Affairs Committee under the National People's Congress of China on various tax reforms. Khoon Ming actively participates in various government consultation projects about VAT reforms, BEPS and the digital economy. He is a frequent speaker at tax seminars and workshops for clients and the public, and an active contributor to thought leadership on tax issues. Khoon Ming is a fellow of the Institute of Chartered Accountants in England and Wales (ICAEW), a member of the Chartered Institute of Taxation in the UK (CIOT), and a fellow of the Hong Kong Institute of Certified Public Accountants (HKICPA).

New boundaries of tax

Should digitalized companies be paying more tax where their customers are based? What are the complexities?

— The OECD Interim Report identified various fault lines between countries on whether or not international tax norms need changing for some business situations arising from digitalization.

— Some argue that there is a need for a 'digital presence' tax concept and a modification of profit attribution rules to reflect the value from user data and contributions.

— For effective systems to be implemented, clarity is required on what digitalization really means.

— There are arguments that any changes to tax rules should focus on wider developments in ways of doing business and on intangible investment rather than just digitalization.

Conrad Turley
Tax Partner
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Conrad Turley is a Tax Partner and leads KPMG China's China Tax Centre. Now based in Beijing, Conrad has previously worked for the European Commission Tax Directorate in Brussels, as well as for KPMG in Ireland, the Netherlands and Hong Kong. He has extensive experience in international tax advisory work. From Beijing, he provides innovative solutions to both China-inbound and China-outbound clients in the fields of M&A, tax-efficient cross-border operating, and investment structures for JV establishment, IP structuring and business restructuring/ liquidation. Clients served by Conrad cover a range of sectors, among them private equity, technology and manufacturing and financial services. Conrad has authored numerous publications for KPMG, and has contributed frequently to international tax and finance journals including the International Tax Review, Tax Notes International, BNA Tax Management Transfer Pricing Report, International M&A Review and the Asia-Pacific Journal of Taxation, as well as various IBFD publications

Taxation of 'digitalized companies' — where we are at

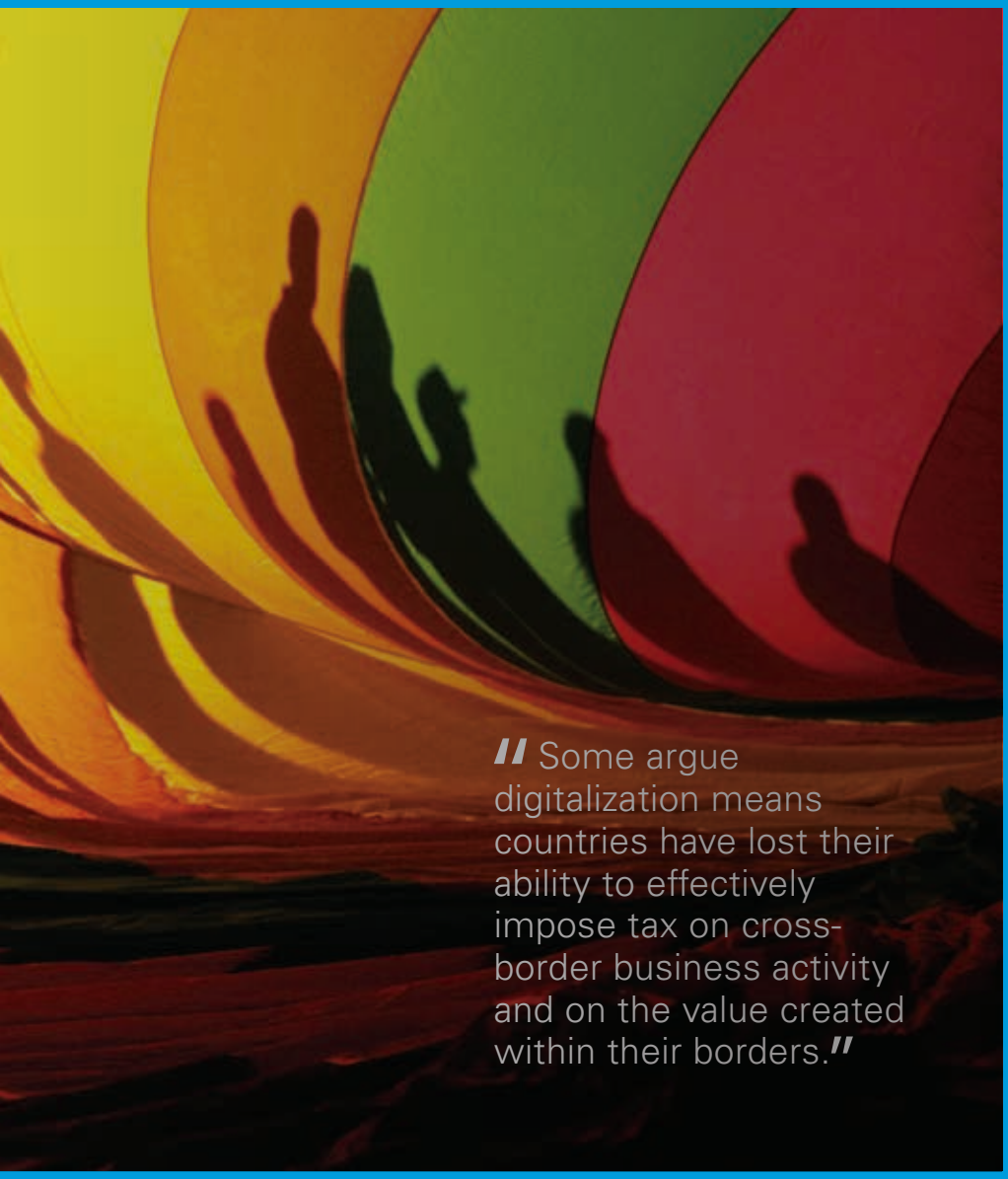
The global community is currently engaged in a major initiative to overhaul the existing international tax rules. These efforts are being conducted by over 100 jurisdictions through the OECD Inclusive Framework (IF) on Base Erosion and Profit Shifting (BEPS), whose Interim Report, *Tax Challenges Arising from Digitalisation*, released on 16 March 2018, sets an ambitious timeline for these efforts. The IF members wish to arrive at a consensus solution, with possible modifications to jurisdictional nexus and profit allocation rules by 2020. These efforts are playing out in an environment where increasing numbers of countries are adopting unilateral measures to tax digitalized businesses and the provision of digitized services across borders, into their jurisdictions. As these are frequently incompatible with the existing global tax framework, a sense of urgency is felt among policymakers on the need to develop, agree and implement the global solution in the shortest possible time.

Two major fault lines between the IF members were identified in the Interim Report:

— Some countries think that modifications to international tax rules could 'ring-fence' certain highly digitalized business models for special treatment, while others consider this as inappropriate given the wholesale digitalization of the economy;

— Some countries consider that user data and participation is a key driver of value creation in certain highly digitalized business models, whereas other countries consider it merely a standard business input.

The Interim Report indicates an understanding among the countries that the aims of the OECD BEPS project launched in 2013 — which was to address the concern that some MNEs were using mismatches in countries' laws and artificially moving profits to



achieve low or non-taxation — are progressively being dealt with by the BEPS measures set out in the Final Report in 2015. To this extent the BEPS issue has been, or is being, largely addressed. However, the question of whether the allocation of taxing rights between countries is 'fair', in the sense that it reflects the location in which value is created, remains open. The BEPS project specifically did not set out to address this question, and the issue is the focus of the work on digitalization, with the value contributions from user data and participation at the center of the debate. This is the context for the question of whether 'digitalized companies' should be paying more tax where their customers are based.

Proposals to address digitalization tax challenges

National policymakers, as well as academic and business commentators, have been taking up positions on this question. The proponents of the position that 'digitalized companies' should, indeed, pay more tax where their customers are based, generally start from a particular understanding of the original 1920s compromise underlying the existing global tax rules. They argue that this compromise was based on the assumption that significant involvement in the economic life of a country, and large-scale selling of goods and services in that country, would require setting up a local subsidiary, a branch or other physical presence (Permanent Establishment or PE in tax language). The right to tax therefore followed the existence of such a physical presence. The sharing of taxing rights between countries, provided for under this compromise, is now 'frustrated' by the rise of the digitalized economy where significant sales can be made without a significant physical presence. Consequently, countries have lost their ability to effectively impose tax on cross-border business activity and on the value created within their borders.

At one level it can be said that, in the digital age, it is possible to do business in another country without having a physical presence there. The issue is sometimes framed by an assertion that value can be created in the locations where firms offer use of platforms and from which users share valuable information. There is therefore a need for a 'digital presence' tax concept and a modification of profit attribution rules to reflect the value from user data and contributions. It is argued that these changes would 'restore' the original 1920s compromise, otherwise undermined by digitalization.

This thinking is implicit in the papers, proposals and rules put forward by the UK, EU Commission and India, among others. Some proposals go wide, such as the EU's proposed long-term solution, which catches all digital services on the basis that to more or lesser an extent user-created value contributes to all digital services. Alternatively, the proposals can go narrow; the UK paper and EU short-term proposal focus on certain business models that are highly reliant on user engagement, such as social networks supported by advertising revenue, or intermediaries for the sharing economy and e-commerce. It is asserted that these businesses simply could not exist without user contributions, and so there is a strong argument for taxing them in the user state on the basis of location of value creation.

"There does not appear to be one single authoritative and generally accepted definition of digitalization."

Addressing digitalization, without knowing what it is…

Whatever the merits of these arguments and these policy proposals, in the rush to find the 'how' of new global rules to tax 'digitalized companies', the more fundamental 'what' question, on the meaning of digitalization, has not yet been addressed. The 2015 BEPS Action 1 report referred to features of digitalization and digital markets that are potentially tax relevant, such as mobility, reliance on data, network effects, the spread of multi-sided business models, a tendency toward monopoly or oligopoly, volatility, and so on. The Interim Report focused on certain features of highly digitalized business models that are problematic for existing tax rules, including scale without mass, high reliance on intangibles, and the high importance of user data and participation. However, despite this, neither report states explicitly what is meant by digitalization.

In a way this seems understandable, as there does not appear to be one single authoritative and generally accepted definition of digitalization. It can be conceived of from a social dimension; as the way in that many domains of social life are restructured around digital communication and media infrastructures. It can be viewed through the lens of changes to business models, with the use of digital technologies to provide new revenue and value-producing opportunities in the move to a 'digital business'. It can take a more operational focus, looking at processes of employing digital technologies and information to transform business operations, including automation and the emergence of the 'digital workplace'. Some commentators assert that one should distinguish between digitalization and a more all-encompassing 'digital transformation'. Against this backdrop, one can understand the hesitance of the OECD and others to define digitalization. However, the net result of this lack of clarity on what digitalization really means is proposals constructed as responses to certain consequences of digitalization, while leaving significant gaps and wide divergences on the conceptual bases.

The UK and EU short-term proposals, mentioned above, focus on the ability of out-of-market platforms to harness network effects in the country of the users, with possibilities to extract significant economic rent. The focus in these cases is on penetrating a market. But what about other digitalized businesses? What about the case of a one-off surgical operation, conducted on a person in a jurisdiction using local medical equipment, which is directed by a person outside the jurisdiction through electronic means? What about a case where a doctor is 'projected' into the operating theatre by use of augmented reality (AR) technology? Might these also be viewed as cases of significant involvement in the economic life of a country? Rules just focused on platform businesses and market penetration have nothing to say about these.

The existing international tax rules, weather-beaten as they are, were capable of application to all sorts of businesses. If global tax rules are adjusted for some of the new business situations arising from digitalization, but not for others, a very incomplete set of rules may result. This could result in certain profits either escaping tax or being taxed twice, or in tax-distorting business decisions.

Is it really all about 'digitalization'?

An angle worth considering is whether the main issue at play for international tax rules is, in fact, digitalization. An increasing body of research and commentary considers that the major narrative in global economic change — which goes beyond the digitalization dynamic — is the shift of investment from tangible toward intangible assets.

In their 2018 book, *Capitalism Without Capital,* Jonathan Haskel and Stian Westlake argue that an intangible-rich economy and intangible-rich businesses exhibit different characteristics from tangible-rich ones, and this needs to be factored into public policy. They label the differences as the 'four S's', being that intangible assets, relative to tangible assets, are more scalable, their costs are more likely to be sunk, they incline to have spillovers, and they exhibit synergies with each other. It is striking that many of the phenomena that the Interim Report describes as 'characteristics of digital markets', or as features of digitalized businesses, can equally be described as features of intangible investment and intangible-led activity, and mapped to the 'four S's'.

A particularly notable point in Haskel's book is on network effects as a force for 'supercharging' the scalability of intangible assets. It is observed that in markets where scalable investments are important, industry concentration arises, and the small number of dominant firms can potentially earn economic rents. It is also observed that some enterprises have proved adept at managing intangible spillover effects, and harnessing intangible asset synergies, through the building and controlling of ecosystems of businesses.

The whole thrust of the UK paper and the EU short-term proposal, with their focus on the ability of out-of-market platforms to harness network effects in the country of the users, seems to be directed at such cases. Should their rules be crafted more around investment in, and creation of intangible assets with these properties, rather than on digitalized market penetration, per se? Certainly some notable tax academics, such as Professor Wolfgang Schoen, have

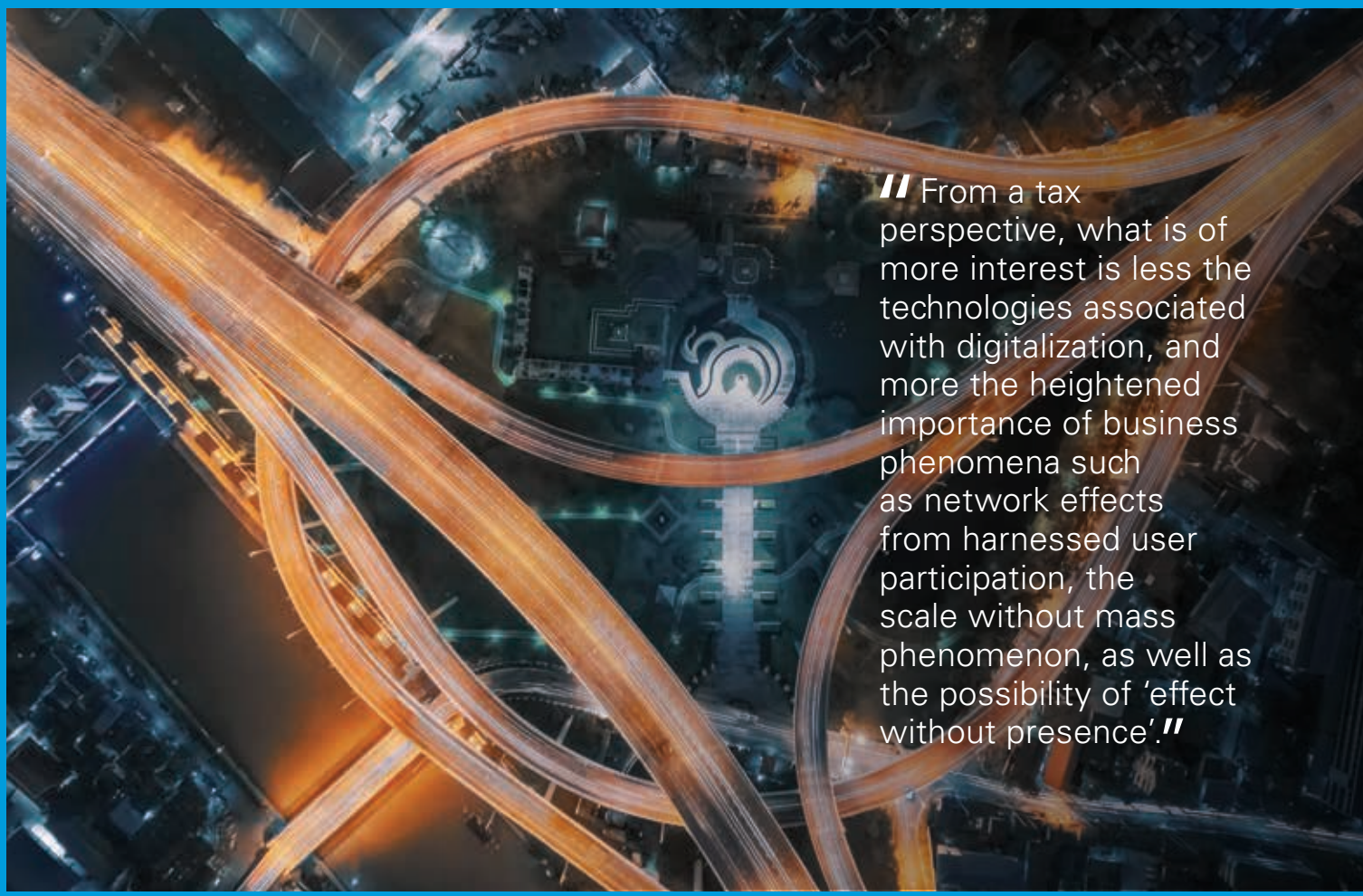
suggested that the focus in redesigning international tax rules should be on country-specific intangible investment.[1]

One might still craft rules that recognize the possibility of tax nexus without physical presence, but the question is whether this concept should be entirely shaped by the digital penetration of a market. From a tax perspective, what is of more interest is less the technologies associated with digitalization, and more the heightened importance of business phenomena such as network effects from harnessed user participation, the scale without mass phenomenon, as well as the possibility of 'effect without presence', as in the remote surgery example above. It could well be that future waves of technological change build upon the current wave of digitalization to heighten these phenomena, and it would certainly be best for international tax principles and rules to be in a position to deal with such further evolution.

> "Some notable tax academics, such as Professor Wolfgang Schoen, have suggested that the focus in redesigning international tax rules should be on country-specific intangible investment."

In this context, crafting rules that tax businesses because they provide services in a digitalized form but not otherwise appears inadequate. The rules developed would best not fixate on the current crop of digital technologies or, indeed, on the existing business models enabled by them; this would be to excessively look at the future through the lens of the present. Rather, the rules should be robust enough, in the face of these emerging business phenomena, to maintain their relevance through future successive waves of technological advancement.

Ultimately, no firm conclusions can yet be drawn on whether 'digitalized companies' should be paying more tax where their customers are based. Before policymakers reach a conclusion on this point, it would be highly advisable to further study (i) whether the challenge here is really about digitalization, or about intangible-ization more generally, and (ii) if the challenge really is digitalization, what exactly is that? ■



[1] W. Schoen, Ten Questions about Why and How to Tax the Digitalized Economy, 72 Bull. Intl. Taxn. 4/5 (2018), Journals IBFD

Blockchain tokens and data valuation

Aligning profit attribution and value creation

Shikha Mehra

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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 law[2] 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. ■

> "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."

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

How much can we shift taxes from labor to capital?

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.

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

"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."

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

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. ■

Rents as revenue

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.

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.

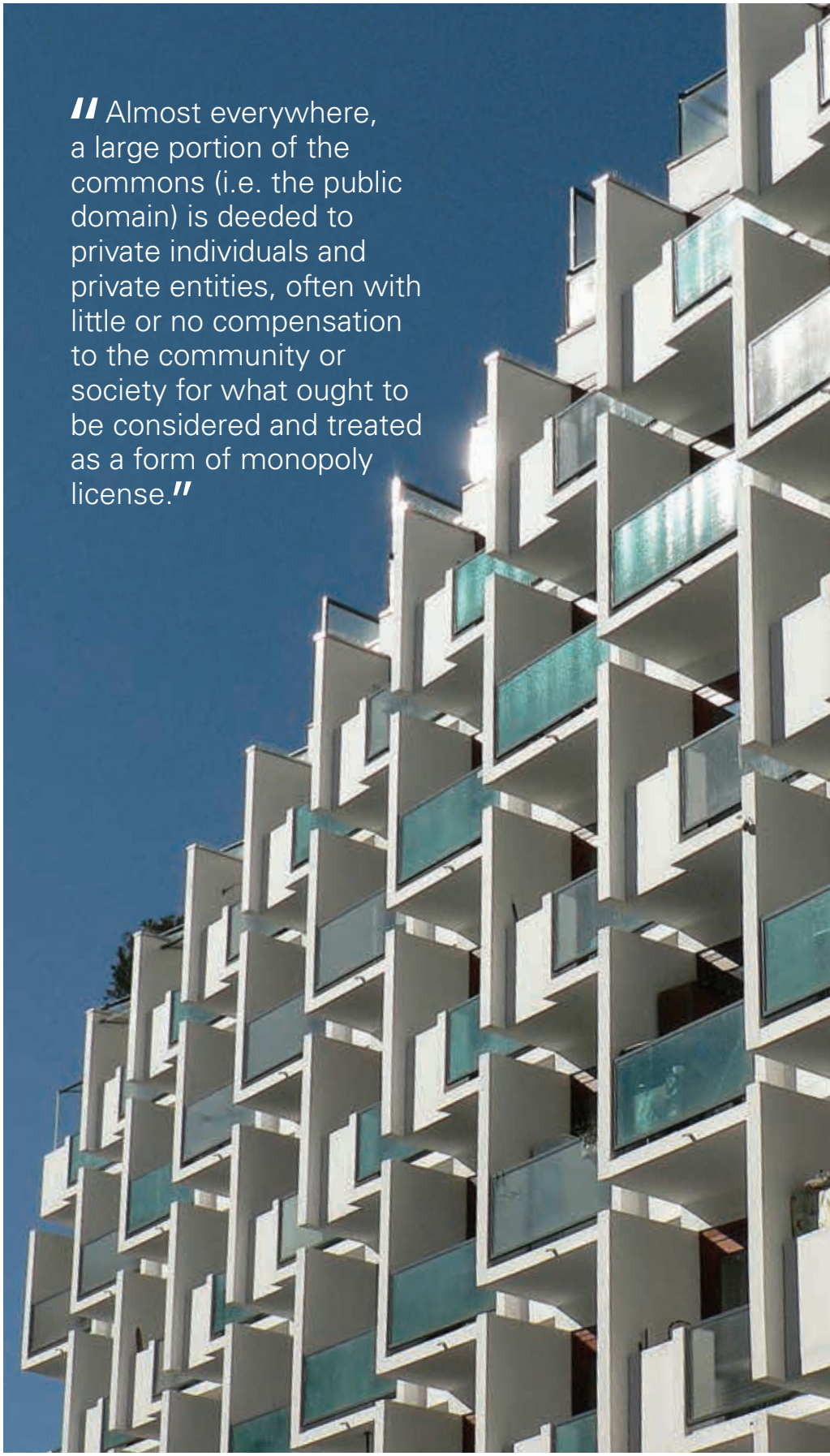
— When it comes to income tax, efficiency, equity and simplification of compliance can all be achieved by exempting individual incomes up to a certain amount (e.g. the national median income), eliminating all other exemptions or deductions, and then applying various tax bands.

— 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

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. ■

Property taxes

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).

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

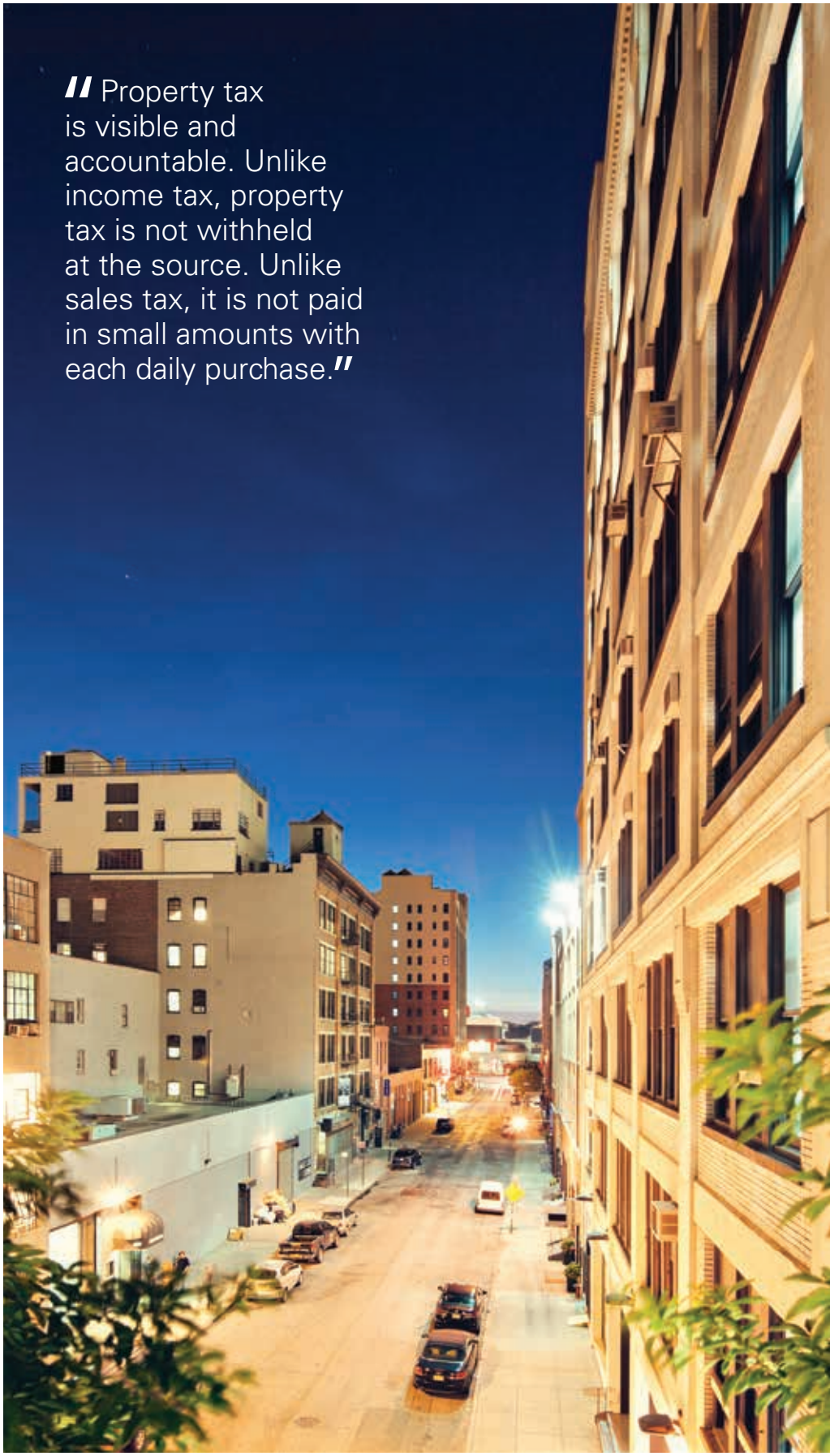
sales tax on consumption patterns. For this reason, property tax is considered to be less distortionary than other taxes.

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.



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

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 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."

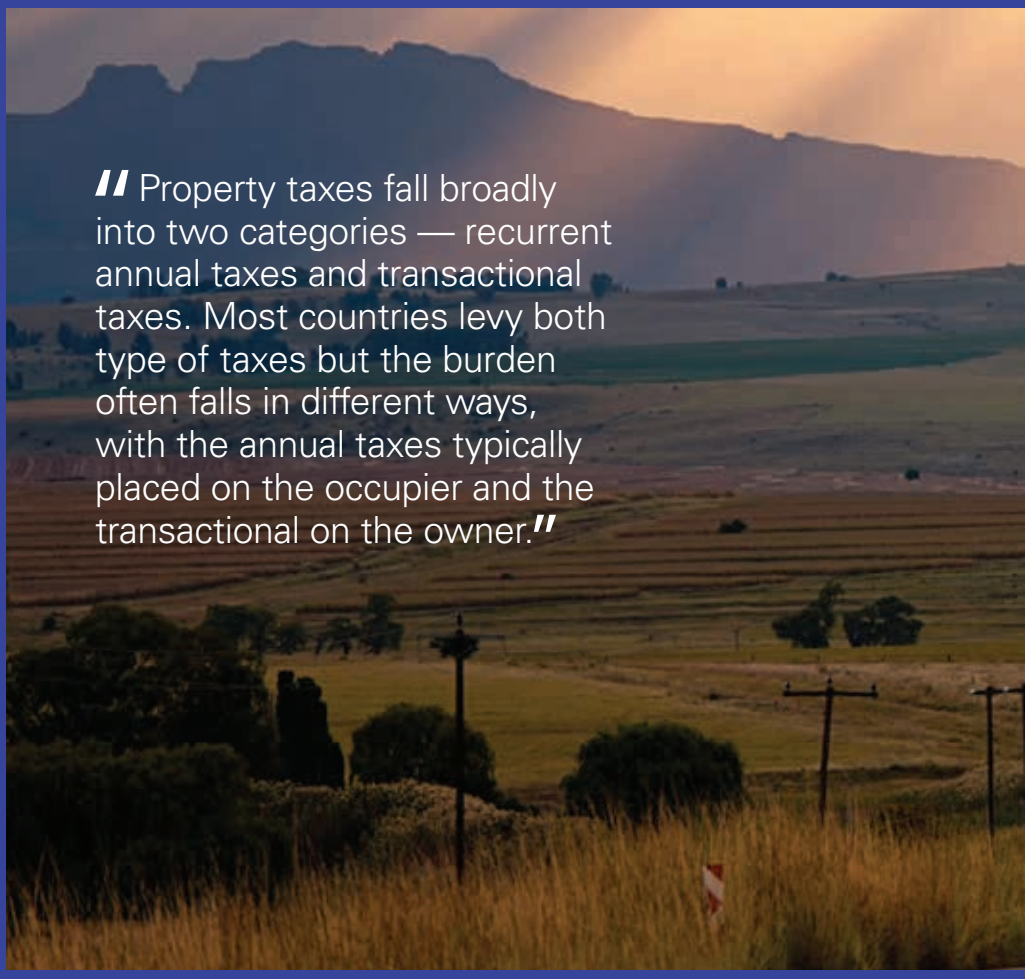
What is land tax?

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 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."

Why should we tax wealth?

David Willetts

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

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.

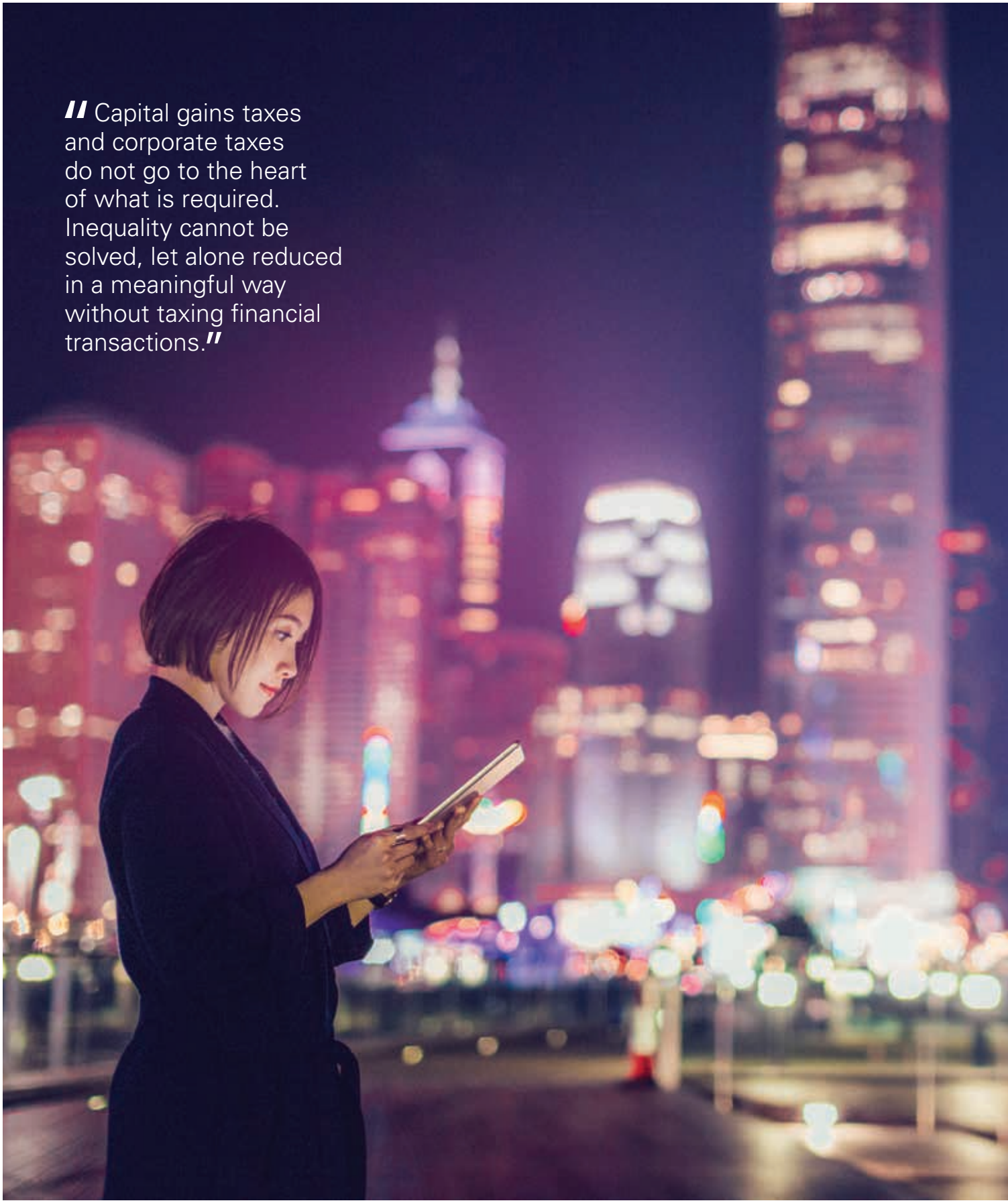
The future of capital taxation

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.



> "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.

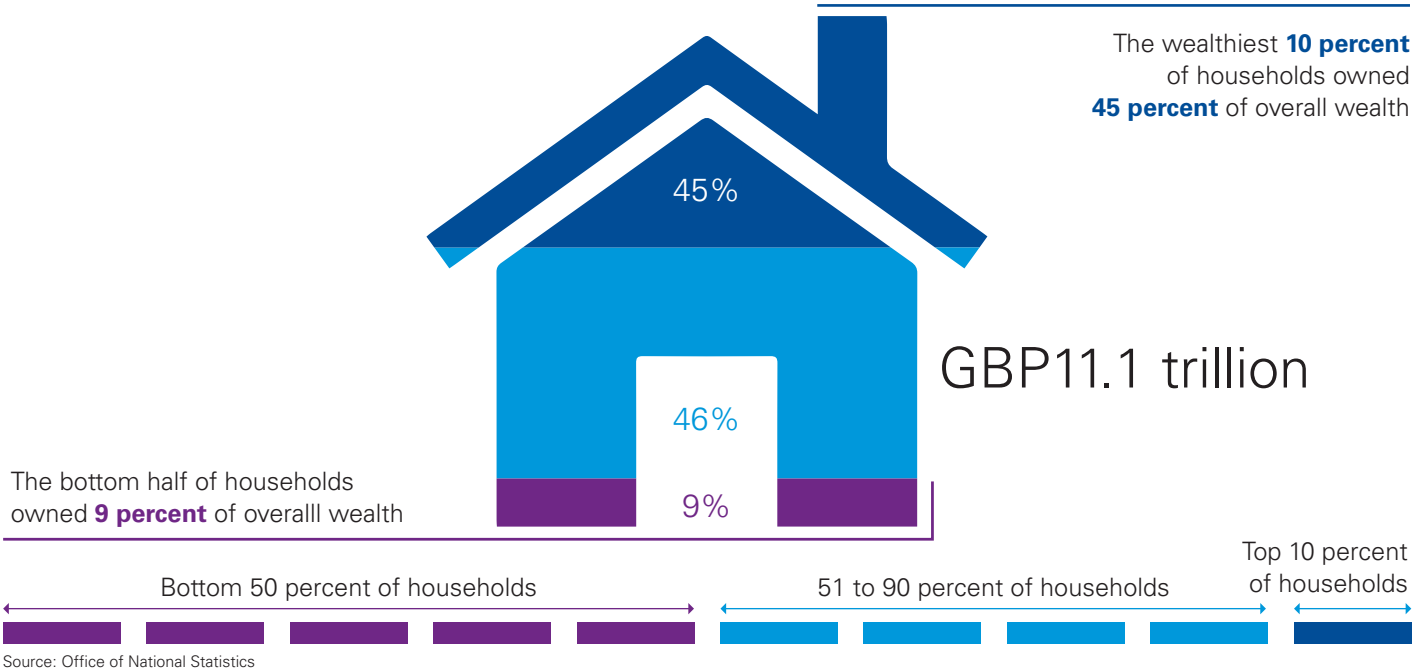
What became apparent, working at the stock exchange for a decade and a half, was the truth behind the old casino adage: "the house always wins". The finance sector can garner vast streams of insider intelligence to easily predict market movements. Whether markets go up or down, it makes money by extracting 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.

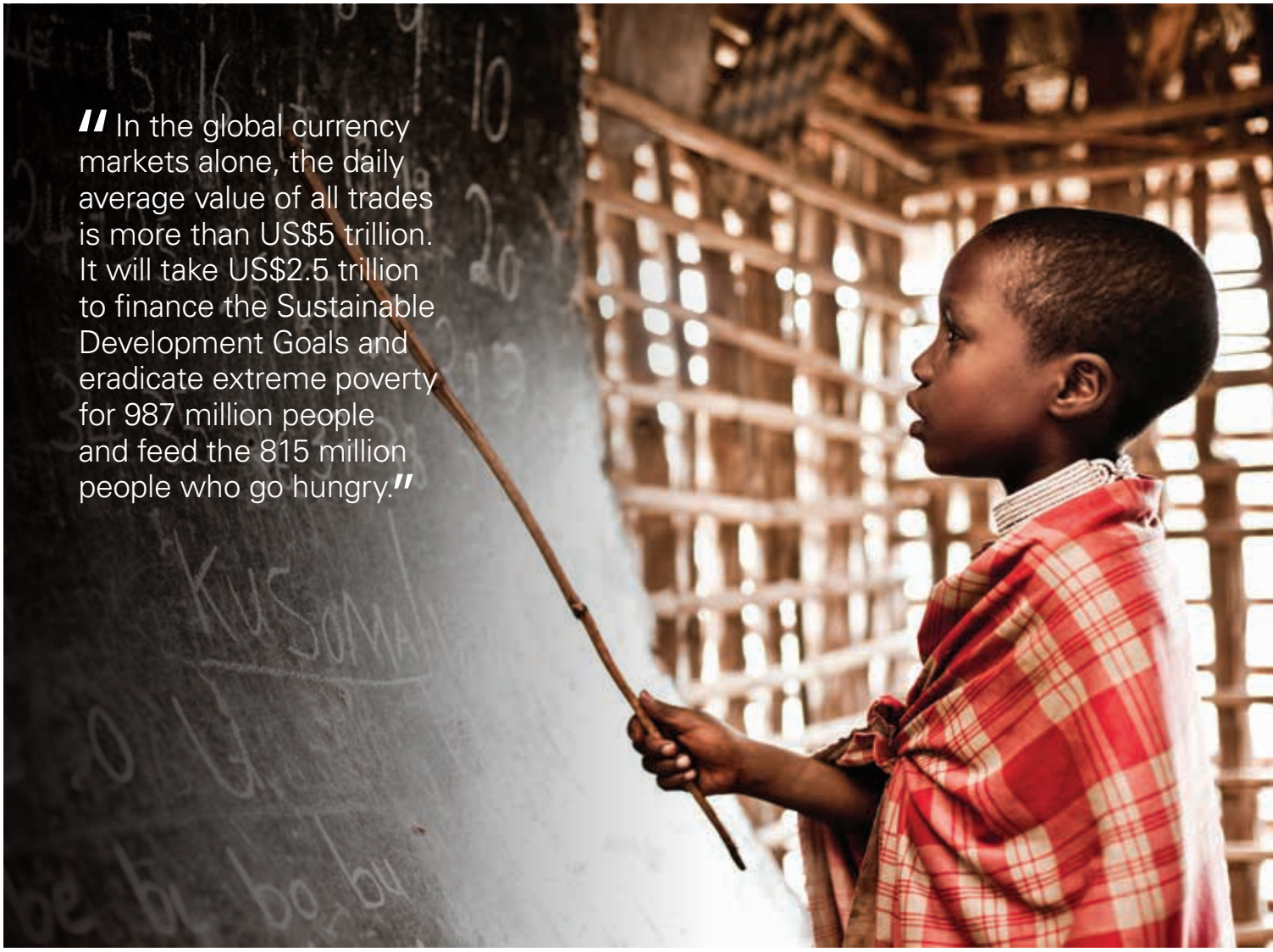
Inequality cannot be solved, let alone reduced in a meaningful way without taxing financial transactions. Capital gains taxes and corporate taxes do not go to the heart of what is required.

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



Source: Office of National Statistics

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



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

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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.

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."

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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 created 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.

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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 expenditure[12] 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.

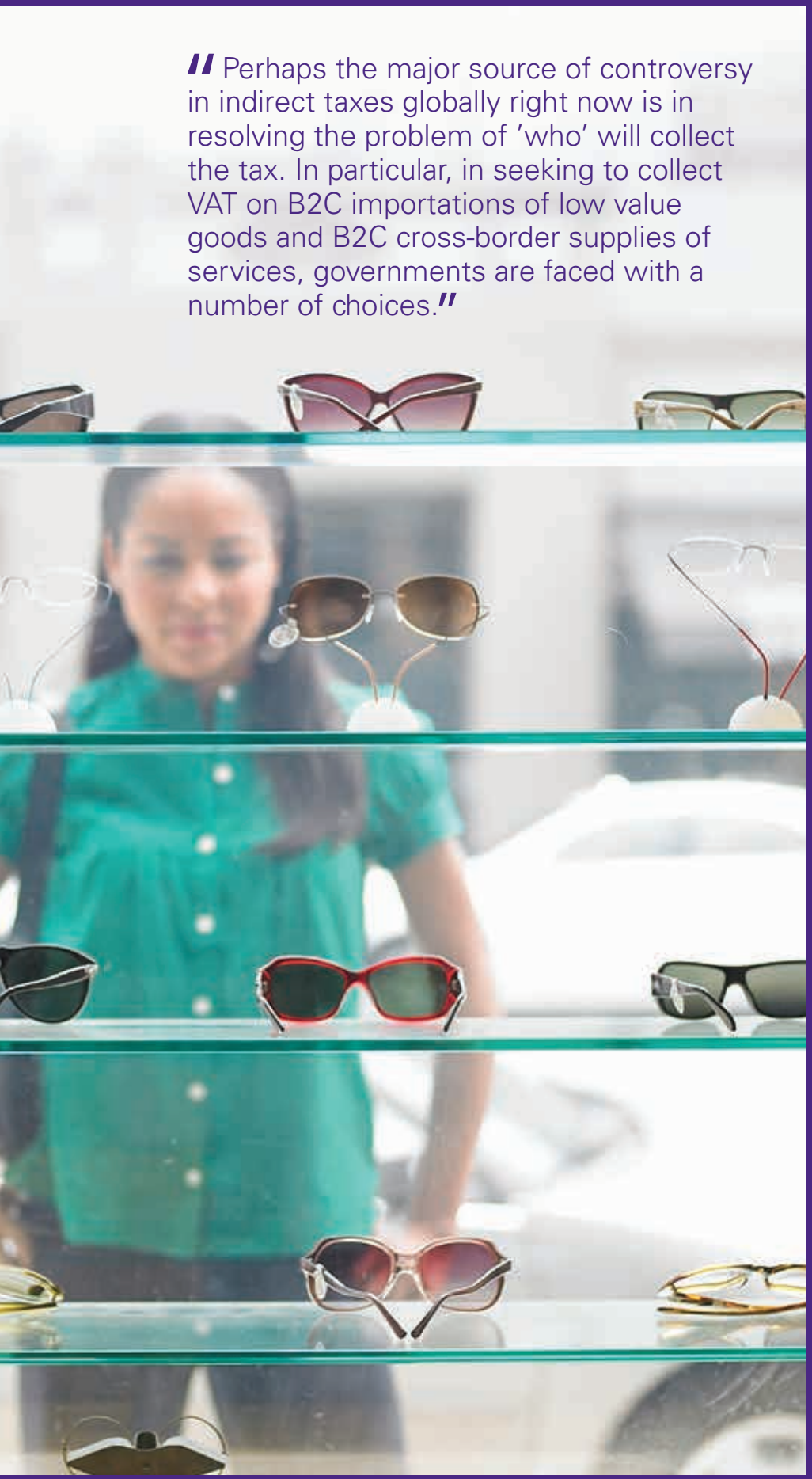
While many corporate tax commentators embark on a quest to identify the elusive concept of where value is created, and they vigorously debate whether to apply source or residence based taxation, Rebecca Millar's quote highlights the fact that there is near unanimity in the view that indirect taxes should 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.

The problem? The polluter doesn't pay

In my hometown of Utrecht, a 'miniature Amsterdam' in the centre of Holland, citizens loose 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]

In 2009, leaders of the G20 economies committed to 'phase out and rationalize fossil fuel subsidies'. But although fossil-fuel subsidies are on a downward trend, in 2016 they were still $260 billion — much higher than the $140 billion subsidies for renewables.[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] OECD (Accessed Sept 2018), OECD Companion to the Inventory of Support Measures for Fossil Fuels 2018. http://www.oecd.org/site/tadffss/publication/IEA (2017), Commentary: Fossil-fuel consumption subsidies are down, but not out. http://www.iea.org/newsroom/news/2017/december/commentary-fossil-fuel-consumption-subsidies-are-down-but-not-out.html?utm_content=buffera5c72&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

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

[23] In 2014, green taxes raised 5.1% of total tax revenues in OECD countries. Asian economies also show modest green-tax revenues: 7.1% of total tax revenues in China; 5.1% in Japan and 1.3% in the Philippines for example. In Africa, South Africa raised 8.2% of budget through green taxes, Rwanda 7.4%, and Cameroon 5%. Labour tax revenues generally provide significant shares of revenues, and substantially more than environmental taxes. In 2014, labour taxes in Brazil provided 36% of total tax revenues, whereas green taxes raised less than 2% of revenues. In the US this ratio was 61:3, in Mexico 39:5, in Japan 59:5 and Korea 41:10. OECD (Accessed Sept 2018), The Global Revenue Statistics Database http://www.oecd.org/tax/tax-policy/about-global-revenue-statistics-database.pdf

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 shift[24] 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 billion[28] in revenues for the national coffers since the 1960s. These revenues have enabled investments in social security, education and infrastructure[29] 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.

> "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.

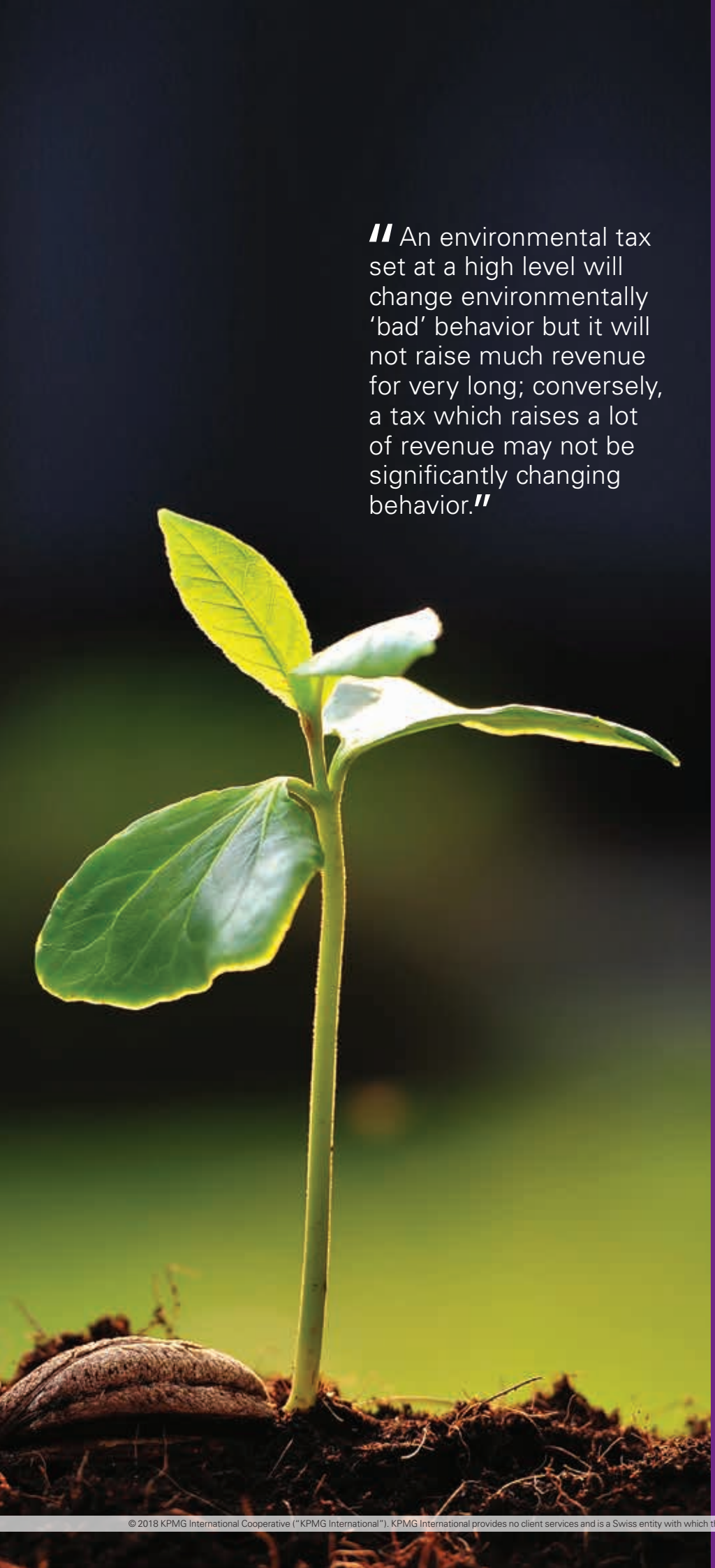
The ins and outs of green taxation

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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