

Ten years of in-depth analysis on tax systems in 189 economies. A look at recent developments and historical trends.

Paying Taxes 2016



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Foreword



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**Augusto
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Welcome to this tenth edition of the *Paying Taxes* study which draws on up to eleven years' worth of data from 189 economies.

Since the first edition of *Paying Taxes*, and especially following the global financial crisis, the media, the public and many policymakers have become increasingly interested in how international tax systems operate. Most recently the focus has been the work initiated by the G20 and carried out by the Organisation of Economic Cooperation and Development (OECD) on Base Erosion and Profit Shifting (BEPS). The BEPS agenda however does not consider what some commentators would consider to be equally important issues for developing economies, including how to enhance the administrative capacities of tax authorities, reduce the informal economy and corruption while promoting growth and investment. The *Paying Taxes* study, with its emphasis on efficient tax compliance and straightforward tax regimes provides valuable insight into many of these developing country issues. It can be an invaluable source of information to decision-makers, providing an independent assessment of whether interventions are resulting in a simplified compliance process for a standardised domestic model business. Governments also often find it useful to be able to learn from the experience of economies in their peer group and to consider whether a measure adopted elsewhere might be relevant for their economy.

One area of tax compliance that *Paying Taxes* has not considered to date is post filing-compliance which covers the processes that take place once a tax return has been filed, including the paying of tax refunds, tax audits and tax appeals. This year we conducted a pilot project into this area and some initial qualitative findings are included in this publication. Further detail will be available in early 2016.

One of the strengths of *Paying Taxes* is that it provides data on a like-for-like basis, year after year with the fundamentals of the study staying unchanged since the start. It looks at a medium sized case study company that is owned and operates entirely domestically. For each economy in the study, three sub-indicators are assessed; the costs of all taxes borne by the company (the Total Tax Rate), the time required to comply with tax obligations and the number of tax payments made. Using these components, the study continues to provide an objective basis for governments to benchmark their tax systems.

Over the period of the study there has been a steady decrease in our three sub-indicators, as across the world the tax cost has gradually reduced and electronic systems have made tax compliance less burdensome. The rates of decrease have however slowed in recent years and this year in particular we have seen a mixed picture for the Total Tax Rate. While across the globe the average Total Tax Rate has fallen very slightly, it actually rose in more economies than it fell. We have also seen diametrically opposing instances of tax reform with, for example, one economy introducing a tax which another economy has abolished or one economy increasing a tax rate which another has reduced.

This suggests that economies are taking different approaches to tax policy in the face of similar economic pressures.

The compliance sub-indicators also continued to fall this year, though there remain significant differences between the regions. Indeed, over the ten editions of *Paying Taxes*, some of the least reformed economies and regions are those where tax compliance is the most burdensome, while in the last year the high-income OECD group of economies had the most reforms as counted by *Paying Taxes*. This suggests that there are many economies that still have considerable scope to reform the operation of their tax systems, and that challenges such as the availability of IT infrastructure may need to be addressed before the tax system can be significantly improved.

As well as our analysis of the *Paying Taxes* sub-indicators and reforms, we also look in this publication at the place of employment taxes in a balanced tax system, the role tax can play in reducing the informal economy and how to improve relationships between taxpayers and tax authorities. We also have some in-depth views from selected economies.

We hope that you enjoy reading this year's publication and we would encourage you to get in touch if you have any questions, comments or suggestions for future areas of research.



Andrew Packman



Augusto Lopez-Claros

Key findings from the Paying Taxes 2016 data

2014



Total Tax Rate
40.8%



Time to comply
261 hours



Number of payments
25.6

On average it takes our case study company 261 hours to comply with its taxes, it makes 25.6 payments and has an average Total Tax Rate of 40.8%.

2014



Total Tax Rate
-0.1%



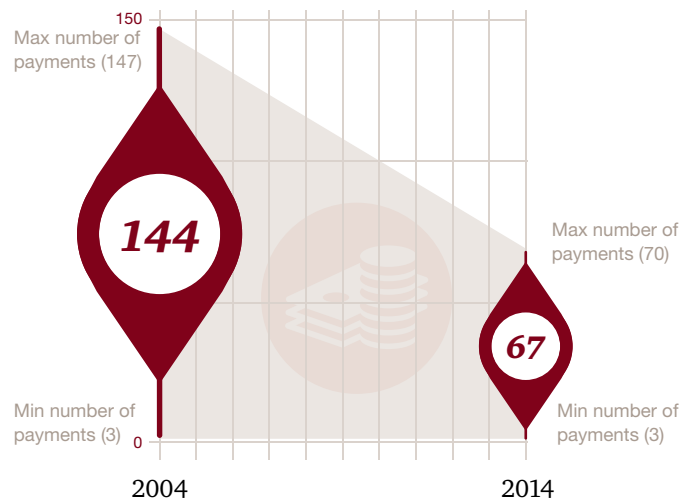
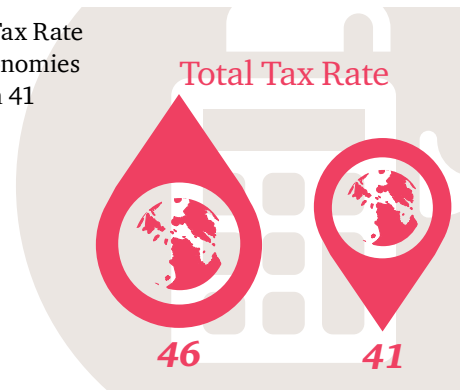
Time to comply
-2 hours



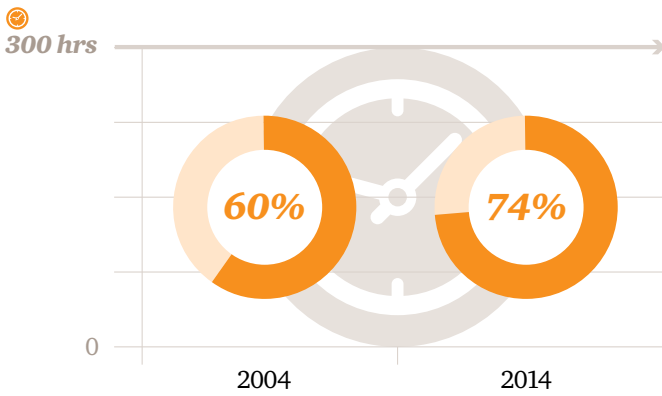
Number of payments
-0.6

All three sub-indicators (Total Tax Rate, time to comply and number of payments) have continued to fall in 2014.

In 2014, the Total Tax Rate increased in 46 economies while decreasing in 41 economies.

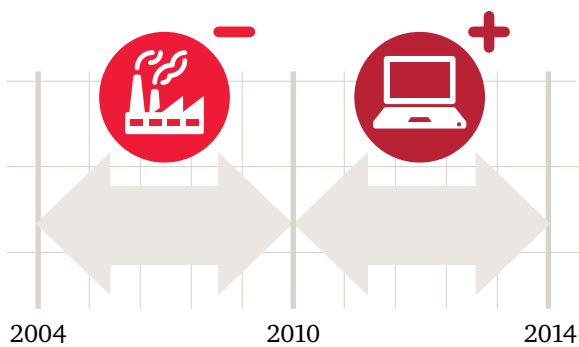


The range for the payments sub-indicator has narrowed over the 10 editions of *Paying Taxes*, from 144 payments in 2004 to 67 in 2014.

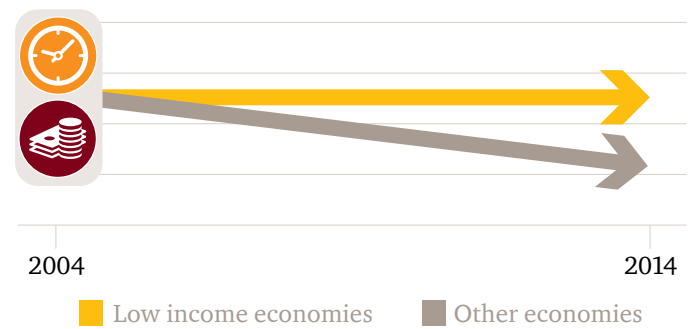


74% of economies now take less than 300 hours to comply with their tax obligations compared to 60% in 2004.

By 2014, 84 economies had fully implemented electronic filing and payment of taxes.



From 2004 – 2009 the most common reform was the reduction of profit taxes. From 2010 – 2014, the most common reform was the introduction and improvement of electronic systems.



The low income economies have shown the least reform on the compliance sub-indicators.

The regional picture

North America

Lowest payments indicator

The three countries in the region have fully implemented electronic filing and payment systems, resulting in efficient compliance processes. Mexico abolished a profit tax in 2014 reducing the region's time to comply still further.



Central America & the Caribbean

All three sub-indicators have continued to fall

The region experienced the greatest fall in the Total Tax Rate of all the regions for 2014. It remains the region where profit taxes account for the greatest share of the Total Tax Rate.



South America

Highest Total Tax Rate and time to comply

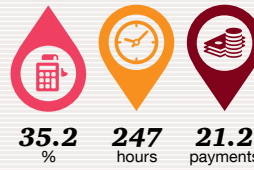
While the Total Tax Rate and time to comply sub-indicators have decreased since last year, the region still has the highest Total Tax Rate and the highest time to comply. It is also the region where 'other' taxes account for the largest share of the Total Tax Rate.



EU & EFTA

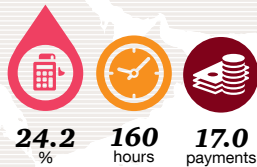
All three sub-indicators below the global average and still falling

Twenty economies in the region made reforms which affected their Total Tax Rates, mostly by small amounts. Labour taxes account for a greater share of the Total Tax Rate than in any other region.



Central Asia & Eastern Europe
Most reformed region since 2004

Since the first edition of *Paying Taxes*, the region has done the most to make tax compliance easier. However in 2014, for the first time since the study began, the region's Total Tax Rate increased.



Middle East

Still the easiest region in which to pay taxes

Despite a small increase in the Total Tax Rate in 2014, the region is the easiest in which to pay tax. It has the lowest Total Tax Rate and time to comply, and all of the sub-indicators have been very stable since 2004.



Asia Pacific

Apart from the Middle East it is the region with the lowest average Total Tax Rate

All three sub-indicators fell slightly in 2014. All are below the global average and have been since the study began. While the average time to comply fell in the latest period, this is a mix of large reductions in some economies offset by significant increases in others.

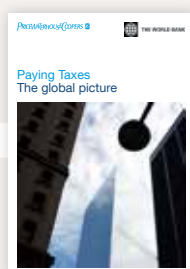


Africa

Greatest reduction in Total Tax Rate over ten years but has the highest payments sub-indicator

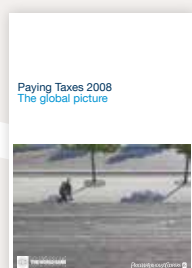
Although the region shows the greatest overall drop in the Total Tax Rate since 2004, it is still a very difficult region in which to pay tax. The Total Tax Rate increased this year, with time to comply and number of payments decreasing.

Ten editions of *Paying Taxes*



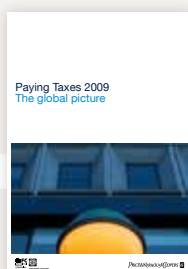
Paying Taxes 2007

- Businesses in the 175 economies covered by the study submit on average 35 pages of tax returns a year, equivalent to 100,000 trees a year, even after accounting for the few countries where business taxes can be filed electronically.²
- The most popular reform is reducing corporate income taxes.



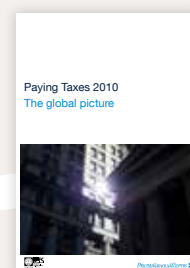
Paying Taxes 2008

- Data for Brunei Darussalam, Liberia, Luxembourg, Montenegro were published in the study for the first time.
- Corporate income taxes account for 37% of the Total Tax Rate, 26% of the number of hours spent on tax compliance and 12% of the number of tax payments made.



Paying Taxes 2009

- Data for The Bahamas, Bahrain and Qatar were published in the study for the first time
- Central Asia & Eastern Europe had the most reforms.
- Since the start of the study, 50% of economies have implemented reforms making it easier to pay taxes.



Paying Taxes 2010

- Data for Cyprus and Kosovo were published in the study for the first time.
- World average Total Tax Rate drops below 50% for the first time.
- World average for time to comply drops below 300 hours for the first time.
- The effect of the global financial crisis on tax policy begins to be felt as governments seek to protect revenues.

² A grown tree produces on average, 80,500 sheets of paper. There are about 250 million formal businesses in the world.



Paying Taxes 2011

- “The economic and financial crisis has caused fiscal constraints for many economies, yet many are still choosing to lower tax rates on businesses.”
- The highest ever Total Tax Rate of 339.7% is first recorded.



Paying Taxes 2012

- The first year that the introduction of electronic systems became the most popular reform.
- Global average number of payments sub-indicator drops below 30 for the first time
- On average around the world the case study company pays 9.3 taxes and in 31 economies it pays more than 12 taxes.



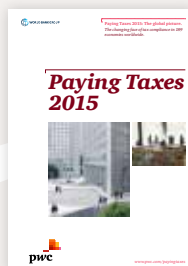
Paying Taxes 2013

- Data for Barbados and Malta were published in the study for the first time.
- Time to comply for Central Asia & Eastern Europe dips below the world average for the first time.
- Econometric analysis of *Paying Taxes* data shows that economies with a higher tax compliance burden have less economic growth.



Paying Taxes 2014

- Data for Libya, Myanmar, San Marino and South Sudan were published in the study for the first time.
- The study now includes data for 189 economies.
- New analysis shows for the first time that labour taxes account for a higher share of the Total Tax Rate than profit taxes.



Paying Taxes 2015

- South America overtakes Africa for the first time as the region with the highest Total Tax Rate.
- The case study company is brought up to date by updating the Gross National Income per capita used to determine the study parameters.
- For the 11 biggest economies, data is now collected for an additional city in each economy.



Paying Taxes 2016

- Central Asia & Eastern Europe is the most reformed region since the study began.
- A pilot project is launched to look at post-filing compliance.

The previous editions of *Paying Taxes* are available to download at our website: www.pwc.com/payingtaxes



***What does this
publication
cover?***



This is the tenth edition of *Paying Taxes* incorporating up to 11 years' worth of data on tax systems in 189 economies around the world. The study's databank provides a unique insight into how governments around the world choose to tax companies operating in their jurisdictions and the mechanisms by which those taxes are levied. While much of the global focus on tax in recent years has been on corporate income taxes, it must not be forgotten that the majority of tax revenues and the bulk of compliance time is spent on other taxes and *Paying Taxes* provides a broad overview that incorporates these. The ongoing interest in *Paying Taxes* is demonstrated by the fact that over 18,000 copies of the last publication have been distributed, there were 50,000 visits to dedicated websites, the results have been reported extensively by media around the world and meetings with senior officials within government have been convened to discuss the findings in numerous countries. A recent academic publication on tax and complexity also features a chapter on *Paying Taxes*.³

Paying Taxes is designed to measure the 'ease of paying taxes' and is part of the World Bank Group's *Doing Business* project which itself measures the 'ease of doing business' by looking at 11 indicators, including the *Paying Taxes* indicator. The study provides data on the tax systems of 189 economies around the world and facilitates a like-for-like comparison, stimulating a discussion between business, government, civil society and a range of other stakeholders regarding tax policy and its economic impact.

The data covers the years from 2004 to 2014 and so provides some useful insights on how tax systems have adjusted and developed throughout a turbulent period for the global economy. Increasingly we have seen governments recognise that tax is an important dimension of an economy's competitiveness with an ability to help encourage domestic growth and to help attract inward investment. And it is not just the rate of tax which is important here. The way in which the tax system collects and administers its taxes has an impact on businesses in terms of the time required and the costs associated with that time.

Paying Taxes remains a unique study, generating an unparalleled dataset that assesses taxes from the perspective of a tax paying business, based upon a case study company. It reflects all taxes and contributions that a standardised medium-sized domestic company pays, including corporate income taxes, employment taxes and mandatory contributions, indirect taxes and a variety of smaller payments such as municipal taxes. The *Paying Taxes* data shows that in 181 economies the case study company pays corporate income tax, consumption taxes are levied in 171 economies and a variety of labour taxes and mandatory contributions are borne by employers in 176 of the 189 economies assessed.

³ Tax Simplification, edited by C Evans, R Krever and P Mellor, Series on International Taxation, Kluwer Law International 2015.

The objectives of the study are to:

- compare domestic tax systems on a like-for-like basis;
- facilitate the benchmarking of tax systems within relevant economic and geographical groupings, which provides an opportunity to learn from peer group economies;
- analyse data and identify good tax practices and reforms;
- generate robust tax data on 189 economies around the world, including how they have changed over time, which then can be used to inform tax policy decisions.

Paying Taxes uses a case study company to measure the ease of paying taxes through the taxes and contributions paid by a medium sized company and the compliance burden imposed by the tax system. The case study scenario is based upon a standardised set of financial statements with all items in the financial statements calculated as a fixed multiple of gross national income per capita (GNIpc) for each economy. There are also standard assumptions about transactions, employees, cross-border transactions and ownership. The case study company is not intended to be a representative company, but has been constructed to facilitate a comparison of the world's financial systems on a like-for-like basis.

Data is gathered through a questionnaire which is completed by at least two tax specialists (contributors) within each economy, including PwC.⁴ The World Bank Group reviews and compares the data from the different contributors to reach a consensus view.

The contributors provide information which allows the study to evaluate both the cost of the taxes that are borne by the case study company and the administrative burden of taxes borne and collected using three sub-indicators:

- Total Tax Rate is the measure of tax cost, the total of all taxes borne as a percentage of commercial profit;⁵
- the time to comply with the three main taxes (corporate income taxes, labour taxes and mandatory contributions, and consumption taxes); this captures the time required to prepare, file and pay each tax type;

- the number of payments, which measures the frequency with which the company has to file and pay different types of taxes and contributions, adjusted for the manner in which those filings and payments are made.⁶

The sub-indicators evaluate the 'ease of paying taxes' by calculating the distance to frontier (DTF) score. The distance to frontier score benchmarks the sub-indicators to a measure of regulatory best practice – showing the gap between each economy's performance and the best practice for each sub-indicator. Details of how the DTF score is calculated are provided in Appendix 1. This is done in isolation, without considering the macro economy as a whole, but rather only the micro impact on a single business.

The sub-indicators only consider the tax compliance process up to the point at which tax returns are filed and the tax paid. In all economies there is a post-filing compliance period as returns are assessed and potentially challenged by tax authorities, any errors or mistakes corrected and refunds or further payments made. In many economies the post-filing compliance obligations may be significant and so this year data was collected from contributors on certain aspects of this process. This data has not been included in the sub-indicator data, but some initial findings are discussed in Chapter 1 and we expect to publish further data and analysis in early 2016.

This year's data for each economy, including the three sub-indicators, distance to frontier score, and the rankings, are included in Appendix 2 and Appendix 3 of this publication, including a breakdown by region. Further details are available on the PwC and World Bank websites.⁷

⁴ For a list of all the contributors see www.doingbusiness.org/contributors/doing-business

⁵ Commercial profit is essentially net profit before all taxes borne. It differs from the conventional profit before tax, reported in financial statements. In computing profit before tax, many of the taxes borne by a company are deductible. Commercial profit is calculated as sales minus cost of goods sold, minus gross salaries, minus administrative expenses, minus other expenses, minus provisions, plus capital gains (from the property sale), minus interest expense, plus interest income and minus commercial depreciation. To compute the commercial depreciation, a straight-line depreciation method is applied, with the following rates: 0% for the land, 5% for the building, 10% for the machinery, 33% for the computers, 20% for the office equipment, 20% for the truck and 10% for business development expenses. Commercial profit amounts to 59.4 times GNIpc in each economy, by assumption of the case study firm.

⁶ Where full electronic filing and payment is used by the majority of medium-size businesses in the economy and where there is no requirement to file hard copies of documentation following electronic submission, the number of payments is counted as one even if filings and payments are more frequent.

⁷ www.pwc.com/payingtaxes and www.doingbusiness.org

The full methodology of the study for the case study company, the sub-indicators, and some examples of how the sub-indicators are calculated are included in Appendix 1 to this publication. Some important points to note however are that:

1. The sub-indicators are calculated by reference to a particular calendar year. The effect of any change that takes place part way through the year is pro-rated. The most recent data in this study, *Paying Taxes 2016*, relates to the calendar year ended 31 December 2014.
2. For 2004 to 2011, the GNIpc figures used to construct the case study financial statements were based on 2005 values. For 2012, 2013 and 2014 the 2012 GNIpc values have been used. This has been done to ensure that the case study company reflects the economic growth that has been experienced over the period of the study, but means that care needs to be taken in the interpretation of some of the trends.
3. The ranking order is based on the DTF measure which is used by the World Bank Group to evaluate each economy's performance relative to the lowest and highest value of each sub-indicator rather than relative to the other economies. This means that economies can now see how far they have progressed towards best practice, rather than simply looking at how they compare to other economies. The distribution used to determine the distance to frontier score of the Total Tax Rate is non-linear. This means that movements in a Total Tax Rate that is already close to the lowest Total Tax Rate will have less of an impact on the DTF score. As in previous years, the lowest Total Tax Rate for the purposes of the ranking calculation is set at the 15th percentile of the overall distribution for all years included in the analysis up to and including *Doing Business 2015*, which is 26.1%. Economies with a Total Tax Rate below this value will therefore not be closer to the frontier than an economy with a Total Tax Rate equal to this value.
4. If in the course of collecting and analysing the data for 2014 it became apparent that data for previous years was incorrect, the necessary adjustments have been made and the sub-indicators recalculated for prior years. Any data that refers to 2013 and earlier years is therefore stated after such corrections have been made and so may differ from the data published in previous editions of this study including the global and regional averages.

Chapter 1 of this year's publication is the World Bank's commentary on the ongoing need for tax reform, the types of reform seen this year and over the last five years. The Chapter also includes an initial qualitative commentary on some of the findings from the post-filing compliance data that was collected for the first time this year.

Chapter 2 provides PwC's analysis and commentary with a focus on the results for the current year and over the 10 editions of the publication. We begin by looking at the global results for the year ending 31 December 2014. We then analyse the data points on the regions and how they compare to each other before looking back at some of the important trends since 2004. This is followed by a summary of each region's average sub-indicator movements for this year with details of the changes in the Total Tax Rate, time to comply and the number of payments in particular economies that drive the regional changes.

The chapter concludes with in-depth country case studies from PwC tax partners in Azerbaijan, Mexico, Poland, Uruguay and Zambia looking at how the tax systems in those countries have evolved over the ten editions of *Paying Taxes*.

Chapter 3 includes three views on different aspects of global tax policy and administration:

- Dr Andrew Sentance, PwC UK's Senior Economic Adviser looks at the burden imposed on employers and employees by labour taxes and the role of employment taxes in a balanced tax system.
- Amal Lahrlid and Nicholas O'Donovan of PwC's Global Tax Governance team look at the links between tax systems and the informal economy.
- Eelco van der Enden and Kuralay Baisalbayeva from PwC Netherlands address the issues around improving trust and transparency between taxpayers and tax authorities, especially in Africa.

Chapter 1: World Bank Group commentary

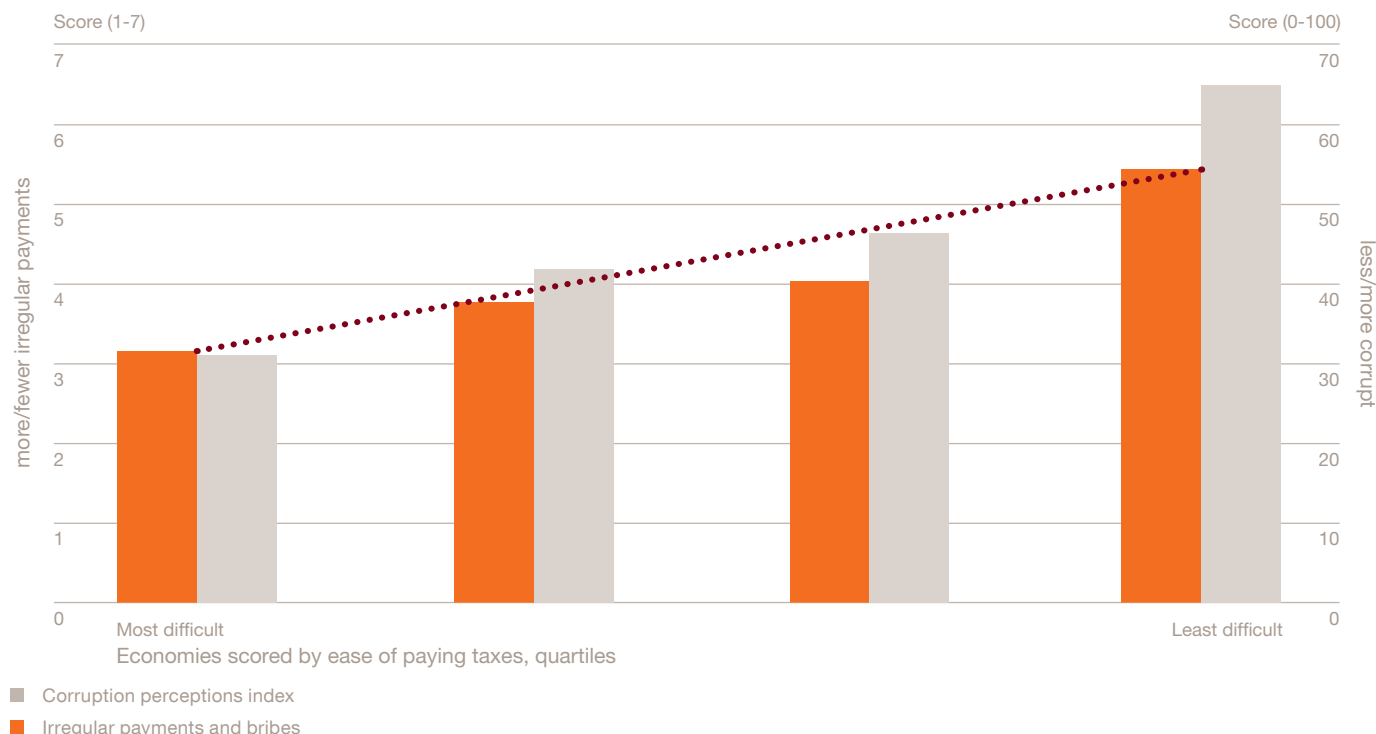
Recent developments in the *Paying Taxes* sub-indicators

Taxes are essential to finance public services. Governments need sustainable funding for social programs and public investments to promote economic growth and development. Programs providing health, education, infrastructure and other amenities are important to achieve the common goal of a prosperous, functional and orderly society. And they require that governments raise revenues. But the challenge is to design a tax system that will not discourage taxpayers from formally participating. The design of a tax system can influence firms' decisions on whether to operate in the formal sector as well as have other important economic effects. And analysis suggests that where the tax system makes compliance more difficult, firms are more likely to perceive corruption as a problem (Figure 1.1).

This is the 10th edition of *Paying Taxes: The Global Picture*. The core purpose of the *Doing Business* indicators on paying taxes remains unchanged: measuring the administrative and financial burden for firms of complying with tax obligations.⁸ In recent years, as more economies have directed efforts toward making tax compliance simpler and easier, the analysis has shifted to detailing features of reforms easing the administrative burden. And this year, for the first time, *Doing Business* is looking at the post-filing process, through a pilot study of procedures relating to value added tax (VAT) refunds, tax audits and tax appeals. Measures of these aspects are not part of the *Paying Taxes* sub-indicators set but are being considered for inclusion in future years.

Figure 1.1

The greater the difficulty of paying taxes, the more likely firms are to perceive corruption as a problem



Note: The sample comprises 144 economies. The economies are grouped into quartiles by their distance to frontier score for paying taxes, which captures the gap between each economy's performance on the *Doing Business* indicators on paying taxes and the best performance recorded on these indicators. The score for irregular payments and bribes is an average across five components of firms' perceptions of how common it is to make undocumented extra payments or bribes in connection with (1) imports and exports; (2) public utilities; (3) annual tax payments; (4) awarding of public contracts and licenses; and (5) obtaining favourable judicial decisions. The answers range from 1 (very common) to 7 (never occurs). The score for the corruption perceptions index relates to the degree to which corruption is perceived to exist among public officials and politicians by business people and country analysts. Score ranges between 100 (highly clean) and 0 (highly corrupt).

Sources: *Doing Business* database; World Economic Forum 2014, Transparency International 2014.

⁸ The *Paying Taxes* sub-indicators comprise three measures: Total Tax Rate as a percentage of commercial profit (a measure of the financial burden), number of tax payments and time in hours per year (measures of the administrative burden). See Appendix 1 for details.

Who reformed in 2014 and what did they do?

Doing Business recorded 40 reforms in 2014 making it easier or less costly for firms to pay taxes. OECD high-income economies accounted for the largest number, with nine. Globally, the most common feature of tax reforms in the past year was the introduction or enhancement of electronic systems for filing and paying taxes. Such changes were implemented by 18 economies: Costa Rica, Cyprus, Indonesia, Jamaica, Malaysia, Montenegro, Morocco, Mozambique, Peru, Poland, Rwanda, Serbia, the Slovak Republic, Spain, Tajikistan, Uruguay, Vietnam and Zambia. Businesses in these economies now file tax returns electronically, spending less time to prepare, file and pay taxes. Beyond saving businesses time, electronic filing helps prevent human errors in returns. And by increasing transparency, electronic filing limits opportunities for corruption and bribery.

Serbia improved the ease of paying taxes the most in 2014. The government initiated a 'consolidated billing project' that electronically centralised all communications between the taxpayer and the tax administration, including the filing and payment of taxes. The project consolidated the payment of different taxes into a single account and automated the exchange of data with banks (electronic banking). The majority of businesses now file and pay VAT and social security contributions online. This has reduced administrative costs both for businesses (in complying with tax obligations) and for the tax administration (in printing invoices). In addition, starting 1 January 2014, the government abolished the urban land usage fee – a fee that previously had to be paid monthly and in person. The changes reduced the time it takes to comply with tax obligations in a year by 34.75 hours and the number of payments by 25 (Figure 1.2).

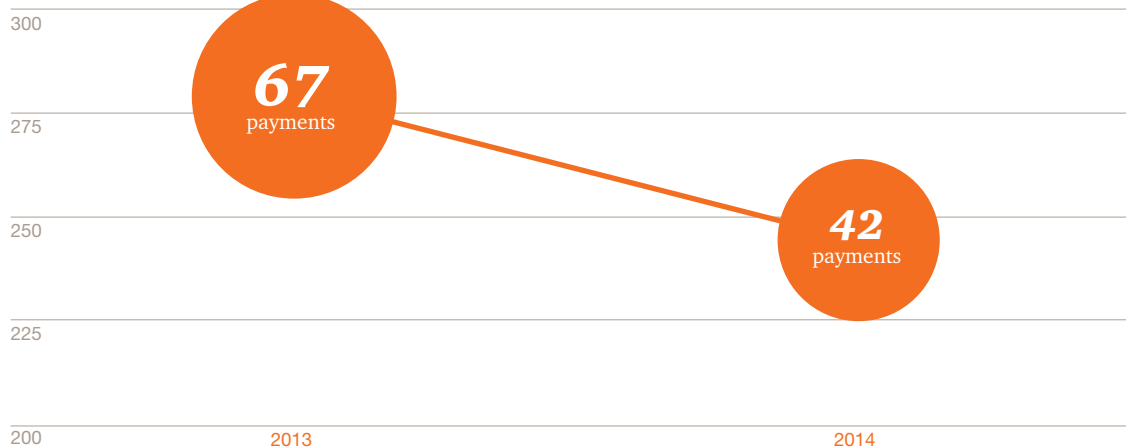
Spain was also among the economies that launched an integrated online platform for submitting tax returns. In addition, it simplified compliance with VAT obligations by introducing a single electronic form within the new online system and promoting the use of electronic invoices. The system enables taxpayers to electronically retrieve previous years' VAT forms and use them to automatically populate some of the fields in the current year's forms. Moreover, Spain reduced the corporate income tax rate for new companies incorporated on or after 1 January 2013, from a 30% flat rate to 15% for the first €300,000 and 20% thereafter. Spain also reduced the environmental tax rate. At the same time, however, Spain limited the deductibility of certain expenses with the aim of broadening the base for corporate income tax. These changes reduced the Total Tax Rate by 8.1 percentage points and the time required for tax compliance in a year by 9 hours.

Four economies – The Gambia; Hong Kong SAR, China; Maldives; and Vietnam – took other measures to simplify compliance with tax obligations. For example, The Gambia improved its bookkeeping system for VAT accounts to better track the input and output records required for filing VAT returns. Vietnam reduced the frequency of VAT filings from monthly to quarterly for companies with an annual turnover of 50 billion dong (about \$2.3 million) or less. Four other economies – Brunei Darussalam, Kosovo, Mexico and Serbia – merged or eliminated certain taxes. Mexico abolished the business flat tax on 1 January 2014. This tax had to be calculated alongside the corporate income tax liability, and the higher of the two would then be taken as the final income tax liability for the year. Calculating the business flat tax was a long process based on cash inflows and outflows, and the elimination of the tax reduced the time required for tax compliance in a year by 48 hours.

Figure 1.2

Serbia has made complying with tax obligations easier for companies

Time to comply (hours per year)



Source: *Doing Business* database.

Other economies directed efforts at reducing the financial burden of taxes on businesses and keeping tax rates at a reasonable level. Seventeen economies reduced profit tax rates in fiscal 2014 (Table 1.1). These economies span all income groups – high income (nine economies), upper middle income (three), lower middle income (four) and low income (one). Norway reduced the corporate income tax rate from 28% to 27%.

Portugal made paying taxes less costly by both lowering the corporate income tax rate and increasing the allowable amount of the loss carried forward.⁹ Brunei Darussalam, Greece, Jamaica, Mozambique, the Slovak Republic and Vietnam also effectively reduced the financial burden of profit taxes on companies by introducing changes to tax depreciation rules and tax deductions.¹⁰

The Bahamas, Greece, Malaysia, the Russian Federation and Spain reduced taxes other than profit and labour taxes. Malaysia reduced the property tax rate from 12% to 10% of the annual rental value for commercial properties for 2014. Greece made insurance premiums fully tax deductible in addition to reducing property tax rates.

In most economies where the authorities have opted to reduce the tax burden on the business community, they have also attempted to broaden the tax base and protect government revenue. In a few cases in recent years, particularly in economies where tax rates are very high, the motivation has been more closely linked to reducing distortions, such as high levels of tax evasion or a sizable informal sector.

Table 1.1
Who made paying taxes easier and less costly in 2014?

Easing compliance	Introduced or enhanced electronic systems	Costa Rica; Cyprus; Indonesia; Jamaica; Malaysia; Montenegro; Morocco; Mozambique; Peru; Poland; Rwanda; Serbia; Slovak Republic; Spain; Tajikistan; Uruguay; Vietnam; Zambia	Serbia introduced an online system for filing and paying VAT and social security contributions in 2014. Indonesia introduced an online system for filing and paying social security contributions.
	Merged or eliminated taxes other than profit tax	Brunei Darussalam; Kosovo; Mexico; Serbia	Mexico abolished the business flat tax on 1 January 2014. Serbia abolished the urban land usage fee starting 1 January 2014.
	Simplified tax compliance process	The Gambia; Hong Kong SAR, China; Maldives; Vietnam	The Gambia improved its bookkeeping system for VAT accounts to better track the requisite input and output records for filing VAT returns. Vietnam reduced the frequency of VAT filings from monthly to quarterly for companies with an annual turnover of 50 billion dong (about \$2.3 million) or less.
Reducing taxes	Reduced profit tax rate	Angola; Bangladesh; Brunei Darussalam; Finland; France; The Gambia; Guatemala; Hong Kong SAR, China; Jamaica; Norway; Portugal; Slovak Republic; Spain; Swaziland; Tunisia; United Kingdom; Vietnam	Norway reduced the corporate income tax rate from 28% to 27% for 2014. Tunisia reduced the corporate income tax rate from 30% to 25% for the same year. Spain reduced the corporate income tax rate for companies incorporated on or after 1 January 2013, from the standard rate of 30% to 15% for the first €300,000 and 20% thereafter.
	Reduced labour taxes and mandatory contributions	China (Shanghai); Colombia; France; Greece; Indonesia; Mexico; Romania; United Kingdom	Romania reduced the social security contribution rate paid by employers from 20.8% to 15.8% from 1 October 2014.
	Reduced taxes other than profit tax and labour taxes	The Bahamas; Greece; Malaysia; Russian Federation; Spain	Malaysia reduced the property tax rate from 12% to 10% of the annual rental value for commercial properties for 2014.
	Allowed more deductible expenses or depreciation	Brunei Darussalam; Greece; Jamaica; Mozambique; Portugal; Slovak Republic; Vietnam	Portugal allowed 100% of loss carried forward to be deducted for the calculation of taxable profit from 1 January 2014. Brunei Darussalam increased the initial capital allowance for industrial buildings from 20% to 40% and the annual allowance from 4% to 20% for 2014.

Note: The reforms shown are those recorded from 1 January 2014, to 31 December 2014.
Source: *Doing Business* database.

⁹ The corporate income tax was changed from a 25% flat rate to a progressive tax system, with the first €15,000 taxed at 17% and any amount above that taxed at 23%.

¹⁰ Tax deductions are expenses that a company is allowed to deduct from its income for the purpose of calculating corporate income tax.

What trends emerged in tax reforms over the past five years?

Over the past 11 years *Doing Business* recorded reforms making it easier or less costly for firms to pay taxes in 149 economies – around 36 reforms a year on average. For the first six years of this period (2004-09) the most common feature of the reforms was the reduction of profit tax rates. But in the past five years (2010-14) the introduction or enhancement of electronic systems for filing and paying taxes was the most common feature. This shift coincided with the financial crisis of 2008/09. In responding to the challenges of the economic downturn, many governments sought to strike the right balance between reducing the fiscal deficit and promoting growth. One study confirmed the importance of a greater focus on simplifying tax compliance, highlighting the need to increase the simplicity and homogeneity of fiscal systems so as to provide a stable and predictable environment for business.¹¹

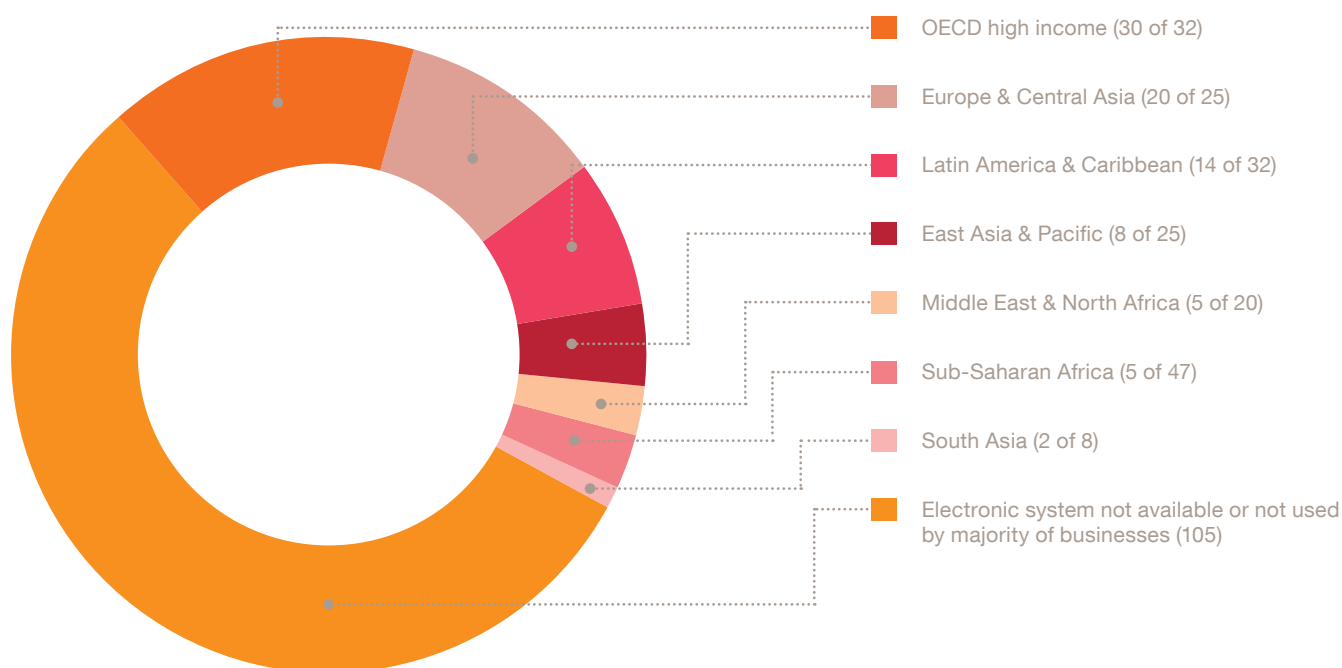
Using technology to simplify compliance

Electronic systems for filing and paying taxes, if implemented well and used by most taxpayers, benefit both tax authorities and firms. For tax authorities, electronic filing lightens the workload and reduces operational costs – such as the costs of processing, storing and handling tax returns. It also increases tax compliance and saves time. For taxpayers, electronic filing saves time by reducing calculation errors in tax returns and making it easier to prepare, file and pay taxes.¹² And it benefits both sides by reducing potential incidents of corruption, which are more likely to occur with more frequent contact between taxpayers and tax administration staff.

Rolling out an electronic filing and payment system and educating taxpayers in its use are not easy tasks for a government. The necessary infrastructure must be put into place, and this can be especially challenging where not everyone has broadband access. Yet by 2014, 84 economies had fully implemented electronic filing and payment of taxes (Figure 1.3). In the past five years *Doing Business* recorded 70 reforms in 53 economies introducing or enhancing electronic systems for filing and paying taxes. More than a third of these economies adopted an electronic system for the first time.

Figure 1.3

Eighty-four economies have a fully implemented electronic system for filing and paying taxes



Note: An electronic system is counted where both the filing and payment of taxes are done online and used by the majority of medium-size businesses.
Sources: *Doing Business* database.

¹¹ Hudson and Roy-Chowdhury 2010.

¹² Zolt and Bird 2008

Among OECD high-income economies, the Slovak Republic both fully implemented and further improved its electronic filing system in the past five years. The country's government has been focusing on modernising and increasing the efficiency of public administration.¹³ As part of this effort, it implemented multiple changes in tax administration, from rationalising the network of tax offices (reducing their number from 101 to 8 in January 2012) to improving tax filing and payment processes.

The Slovak Republic's first attempt to introduce electronic filing of taxes was in 2005. For the first several years, however, companies continued to prefer filing and paying taxes in person. But as the electronic system was improved, more taxpayers began to use it, and in 2011 the Slovak Republic made electronic filing mandatory for health and social insurance contributions for companies with more than 20 employees. By that time electronic payment of taxes was already widespread. Electronic filing was also expected to be made mandatory for VAT in 2011, but the deadline was postponed several times. Not until January 2014 did the majority of companies start filing VAT returns electronically.

The global trend toward greater use of electronic tax filing and payment systems is likely to continue. In the next few years many other OECD high-income economies, having introduced requirements for electronic filing and payment for larger businesses, plan to extend them to smaller ones. Economies in Europe & Central Asia implemented the most reforms (22) in electronic tax filing and payment in the past five years (Figure 1.4). Economies in South Asia had the fewest, with only three.

Figure 1.4

Europe and Central Asia accounted for the most reforms in electronic tax filing and payment in the past five years

	2010	2011	2012	2013	2014
East Asia & Pacific			1	3	3
Europe & Central Asia	3	6	3	6	4
Latin America & Caribbean	4	2	3	2	4
Middle East & North Africa	1	2	1		1
OECD high income	2	5			3
South Asia	1		2		
Sub-Saharan Africa		1	2	2	3

Reforms introducing or enhancing electronic system for filing and paying taxes

Note: The reforms shown for each year until 2014 are those recorded from 1 June of that year to 1 June of the following year. For 2014 the reforms shown are those recorded from 1 January to 31 December of that year.

Source: *Doing Business* database. *Doing Business* uses the World Bank regional and income group classifications, available at <http://data.worldbank.org/about/country-and-lending-groups>. Regional data averages presented in figures and tables in the *Doing Business* report include economies from all income groups (low, lower middle, upper middle and high income), though OECD high income economies are assigned the 'regional' classification.

¹³ OECD 2014b.

Reducing tax rates

The reduction of corporate income tax rates remains a very common feature of reforms making it easier or less costly to pay taxes – the second most common one over the past five years. Globally, the Total Tax Rate as calculated for the *Doing Business* case study company averages 40.76% of commercial profit. This is 4 percentage points lower than five years ago, thanks in large part to 55 reforms reducing profit tax rates in 42 economies. OECD high-income economies implemented the largest number of reforms reducing profit tax rates, followed by economies in Sub-Saharan Africa and in East Asia & the Pacific.

The United Kingdom, for example, reduced its corporate tax rate progressively and smoothly. In 2010 the corporate income tax rate was 28%. This rate dropped to 26% starting April 2011, then to 24% in 2012, 23% in 2013, 21% in 2014 and 20% in April 2015. The rate is expected to be further reduced to 19% in 2017 and to 18% by 2020. Efforts in many economies to reduce the tax burden on the corporate sector have often been accompanied by a broadening of the tax base and other measures to protect revenue levels, against the background of further attempts at fiscal consolidation following the emergence of large budget deficits after the global financial crisis.

Besides the profit tax, the Total Tax Rate also includes two other types of taxes: labour taxes and government-mandated contributions and ‘other’ taxes.¹⁴ Seventeen economies lowered labour taxes and mandatory contributions in the past five years. For example, Romania reduced the social security contribution rate paid by employers by 5 percentage points, from 20.8% to 15.8%, effective 1 October 2014. Colombia used a different approach, selectively lowering the labour tax burden. As of May 2013 companies were exempted from paying two types of contributions for employees earning less than 10 times the statutory minimum wage – the 3% contribution for the Colombian Family Welfare Institute and the 2% contribution for the National Apprenticeship Service (SENA). This reduced the payroll tax from 9% to 4%. In 2014 the exemption was extended to the 8.5% welfare contribution.

Thirteen economies have no requirement for employers to pay social security contributions or labour taxes – Afghanistan, Armenia, Bangladesh, Bhutan, Botswana, the Comoros, Eritrea, Georgia, Lesotho, the former Yugoslav Republic of Macedonia, Suriname, Timor-Leste, and West Bank and Gaza. In some economies the responsibility for paying labour taxes falls on the employee rather than the employer. Such cases are beyond the scope of the *Doing Business* analysis and are not captured by the *Paying Taxes* sub-indicators.

Globally, labour taxes and contributions paid by the employer account on average for almost 40% of the Total Tax Rate for the case study company. ‘Other’ taxes account for 20% on average.

Allowing more tax deductions and tax depreciation

The statutory tax rate provides the factor to be applied to the tax base. The tax base is therefore another factor affecting a company’s tax liability. For corporate income tax the tax base generally is taxable profits after accounting for tax-deductible expenses and the maximum allowed annual tax depreciation.

These allowed deductions can make a substantial difference for the effective total tax burden. In the Philippines, for example, the case study company would face a statutory rate for corporate income tax of 30% but pay an effective rate after allowable deductions of around 20% of its commercial profit. In New Zealand the same case study company would face a statutory rate of 28% but an effective tax rate of around 30% of the commercial profit. In some economies, however, the statutory rate is very close to the effective tax as a share of commercial profit. This is the case in Kenya, for example. In recent years some economies have increased allowable deductions.

In 2012, Cyprus increased the tax depreciation rate for industrial and hotel buildings purchased in 2012, 2013 and 2014 from 4% to 7%. In 2012, Belarus allowed 2% of operating loss occurred in previous periods to be tax deductible. Previously, operating losses were not tax deductible.

¹⁴ ‘Others’ include property taxes, turnover taxes, property transfer taxes, road taxes, environmental taxes and other small taxes (such as municipal fees and vehicle taxes).

Making tax compliance easier

Globally on average, complying with tax regulations would take 26 payments and 261 hours a year for the case study company. This reflects improvements, with tax compliance taking 4 fewer payments and 15 fewer hours today on average than five years ago. Indeed, 38 economies made compliance easier over the past five years by simplifying processes or by merging or eliminating some taxes. For example, in 2010 Mexico eliminated the requirement to file a yearly VAT return as well as the requirement to file the *dictamen fiscal* (tax certification), which amounted to more than 40 pages.

Instead, companies prepare and file a report with a 19-page annex. In 2012 the Republic of Congo introduced a single tax on salaries at a statutory rate of 7.5%, replacing three labour taxes that had been levied separately: the National Construction Fund contribution; the lump sum tax owed by employers and payers of a life annuity; and the tax on training.

Economies worldwide continue to introduce substantial improvements in their tax environment. As more economies have adopted the good practices of those with the best performance on the *Paying Taxes* sub-indicators, these efforts have eased the administrative burden of paying taxes for companies.

On average around the world, tax compliance takes 4 payments fewer and 15 hours less today than it did five years ago.



What's next for the Paying Taxes sub-indicators?

The existing *Paying Taxes* sub-indicators measure the cost of complying with tax obligations through the stage of filing the tax returns and paying the taxes. But this is not the end of the story. Businesses often have to complete post-filing procedures such as claiming a VAT refund or receiving a tax audit – and these can be the most difficult interactions that they might have with the tax authority. In recent years *Doing Business* has been asking respondents for their views on a range of aspects of tax administration, including how easy it is to deal with tax authorities, with tax audits and with other post-filing procedures. In the majority of economies the post-filing process is the aspect of the tax system that respondents felt was most in need of improvement.

Doing Business is expanding the analysis of *Paying Taxes* as a pilot this year to include three aspects of the post-filing process: settlement of VAT refund claims resulting from a large purchase of raw material; tax audits; and administrative tax appeals. This expanded analysis covers the full cycle of a taxpayer's interaction with tax authorities, encompassing all major transactions that generate external costs to the taxpayer. The new area of research matters because of the regressive nature of tax compliance costs, which fall disproportionately on lower-income people and small and medium-size enterprises.

Settlement of VAT refund claims

VAT is largely designed to be borne by the final consumer, not by businesses, so VAT refunds are a natural part of a modern VAT system. According to OECD guidelines, a VAT system should be neutral and efficient.¹⁵ The main premise is that the burden of VAT should not fall on businesses. When businesses incur VAT that is not refunded, or that can be reclaimed only with long delays and large compliance costs, the principles of neutrality and efficiency are undermined. This alters the nature of VAT by making it in part a tax on production. Where this occurs, any irrecoverable tax and the resulting cascading effect on the final tax liability might distort market prices and competition and consequently affect growth.¹⁶

A 2005 International Monetary Fund (IMF) study that examined the VAT refund mechanism in 36 countries around the world showed that the refunding of credits was the “Achilles’ heel” of a VAT system.¹⁷ Even in countries where refund procedures are in place, businesses are often concerned about the complexity of the process. The study looked at the treatment of VAT credits by the tax authorities, the size of refund claims, the procedures followed by refund claimants and the time and arrangements for processing VAT refunds. The results show that statutory time limits for making refunds are crucial but are often not applied in practice.

The preliminary findings of the new research by *Doing Business* show that many economies have legal time limits for issuing a decision on a VAT refund claim and processing the payment if approved. These include Albania, Belarus, Cyprus, Georgia, Hungary, Iceland, Indonesia, Israel, Lithuania, Mexico, Moldova, the Netherlands, Norway, Rwanda and the Slovak Republic. In Albania, for example, the tax administration has 60 days to issue a decision from the time a taxpayer submits a request for a refund and 30 days to make a payment if approved. If a tax audit is conducted before the payment is made, however, the statutory timeline is put on hold during the audit. In Moldova, by contrast, the timeline includes time for tax inspections. The tax authority has a total of 45 days from the time the refund request is submitted, from which 37 days are available for conducting a tax inspection and issuing a decision and eight days for making the payment.

In some economies the time limits depend on the value of the claim. In Romania, for example, if the claim is less than lei 45,000 (about \$11,500), the time limit for issuing a decision is five days and the refund is paid automatically. If the claim is more than lei 45,000, the time limit for both approval and payment is 45 days.

¹⁵ OECD 2014a.

¹⁶ OECD 2014a.

¹⁷ Harrison and Krelove 2005.

According to respondents, the tax authority abides by the time limits in most cases. In Georgia, Greece, Romania and Rwanda, however, respondents reported significant delays. And in some countries – such as Australia, France, Germany and Japan – there are no legal time limits. In France, while there are no legal time limits, a claim is considered to be rejected if no response is received within six months.

To reduce the number of refunds, most VAT systems allow VAT credits to be carried forward for a specified period. The rationale for this arrangement is that a tax period in which a business has a VAT credit would normally be followed by periods in which it has net VAT liabilities that would absorb the credit brought forward, especially if the business is one producing and selling in the domestic market. A refund is then paid only if a credit remains to be recovered by the taxpayer at the end of the carry-forward period.

In a few economies the excess VAT input can be credited against other tax liabilities. In Singapore, for example, the tax authority can withhold a VAT refund to offset any outstanding tax liabilities (for both sales tax and corporate tax). In Germany in certain cases a company's excess VAT input can offset its income tax obligation. In Canada a taxpayer has to make a specific request in advance to have the Canada Revenue Agency transfer a VAT credit or part of a credit to other accounts if the taxpayer owes other taxes under the agency's jurisdiction.

In some economies taxpayers with excess VAT input arising entirely from domestic transactions are not entitled to a refund unless they are a zero-rated supplier (that is, an exporter). Instead, their excess VAT input is carried forward as an offset against future liabilities. This is the case in Antigua and Barbuda, Argentina, Guatemala, Maldives and Sri Lanka. In Sri Lanka excess VAT input from domestic transactions is carried forward to subsequent tax periods to offset VAT output or, if there will be no VAT liability in the future, to offset corporate income tax liability. In Antigua and Barbuda excess VAT input is carried forward to the next six consecutive tax periods. Any credit remaining after six months is then refunded within the following three months.

If the payment of a refund is delayed, the VAT laws in some economies require the tax authority to pay interest on the late refund. The interest usually begins to accrue the first day after the tax authority misses the deadline for the refund and continues to accrue until the day the funds are transferred to the taxpayer's account. In Albania the interest rate is 120% of the interbank interest rate. In Armenia, where the tax authority is required to pay VAT refunds within 90 days after their approval, interest is paid for each day of delay at a rate recalculated daily based on the central bank's published rate. The practice is similar in Indonesia, Lithuania, Luxembourg, Malta, Mauritius, Norway, Singapore and Slovenia. In Croatia taxpayers have to submit a separate request for interest payment. In practice, however, the tax authority usually rejects such requests for default interest for a delayed tax refund. In Argentina regulation provides for a 0.5% monthly interest rate from the day a refund claim is filed.

Several factors can contribute to delays in making VAT refunds. To begin with, delays could arise at the time a VAT refund claim is submitted if the tax authorities require supporting documents, such as copies of invoices, financial statements or contracts with suppliers. In some economies, however, no additional documents are required unless there is an investigation. And in some economies taxpayers are not required to submit a separate form to claim a VAT refund; instead, they need only check a box in the VAT return. This is the case in Antigua and Barbuda, Belgium, Croatia, the Czech Republic, the Arab Republic of Egypt and Germany.

Once the claim is submitted, delays might arise in inputting the information, checking the application and deciding whether an audit is needed. If an audit is needed, this would impose additional delays as the audit is arranged and conducted and reports are completed. Moreover, once the audit takes place, there are often delays as the audit teams seek additional information or as the auditors write up their reports and approve the claim for repayment.

Finally, some delays may arise in the finance division that checks and approves claims and makes payments. Once a claim has been approved, the finance division will be expected to make the payment, but there can be delays in transmission as well as additional procedural checks at this stage prompted by fear of fraud. To avoid delays in payments of VAT credits, it is important for tax authorities and finance ministries to provide for extra payments of VAT refunds in their budgets.

Tax audits

In some cases a claim for a VAT refund may automatically trigger an audit. These audits can be administratively costly, and they can undermine the effectiveness of a VAT system.¹⁸ An effective audit program and payment of VAT refunds are inseparable processes. The IMF recommends applying computerised risk-based checks to claims to select a certain share for audit verification before payment.¹⁹ Rather than screening claims and automatically clearing some of them, however, the VAT system in some economies subjects all claims to audit verification before payment. This ties up a large share of the audit resources, leaving fewer resources for potential cases of tax evasion.

While tax auditing of both VAT and corporate income tax may be a post-filing procedure, audit strategies can have a fundamental impact on how businesses file and pay taxes. An effective tax audit system begins with the selection process.²⁰ One study found that taxpayers are more likely to comply with tax obligations if they know that they may be audited.²¹ Random selection puts all firms equally at risk of being audited and instils a level of uncertainty that will lead to voluntary compliance if taxpayers believe that the auditing will be effective enough to detect evasion.²²

A risk-based selection strategy takes into consideration different aspects of a business, such as size, industry characteristics, historical tax compliance and debt-credit ratios for VAT-registered businesses. Firm characteristics are also used to assess which businesses are most prone to tax evasion. One study showed that a selection process using data-mining techniques, regardless of the technique, captured more noncompliant taxpayers than random audits.²³

One study stated that in economies using a risk-based approach, the exact criteria used to capture noncompliant firms should, in many cases, be concealed, to make it more difficult for taxpayers to devise a strategy for avoiding detection and to allow the uncertainty needed to encourage voluntary compliance.²⁴ The preliminary findings of the new *Doing Business* research show that most economies have in place a risk-assessment system for selecting companies for tax audits and do not disclose the criteria for selection. Even so, in some economies a VAT refund claim is very likely to trigger an audit. This is the case in Albania, Canada, Lithuania and the former Yugoslav Republic of Macedonia.

¹⁸ Harrison and Krelove 2005.

¹⁹ Harrison and Krelove 2005.

²⁰ Khwaja, Awasthi and Loeprick 2011.

²¹ Alm and McKee 2006.

²² Snow and Warren 2005.

²³ Gupta and Nagadevara 2007.

²⁴ Alm and McKee 2006.

Tax appeals

A certain number of tax disputes is a normal part of any system of taxation. But a serious backlog of tax cases threatens revenue collection.²⁵ So disputes between the tax authority and taxpayers need to be resolved in a fair, timely and efficient manner.²⁶ As a first step, taxpayers should try to settle the final tax assessment with the tax officials who first issued the assessment. If a dispute continues, taxpayers should have the opportunity, within a prescribed period of time, to appeal to a special administrative appeal board or department.

The creation of appeal boards within tax administrations can be an effective tool for addressing and resolving complaints and avoiding overcrowding in the courts. An internal administrative review by the tax authorities – through a process removed as much as possible from the original auditor and assessor – can ensure independence in handling complaint cases. Surprisingly, many economies do not separate the appeal board from the auditor. This is the case in Armenia, Bosnia and Herzegovina, the Arab Republic of Egypt, Germany, Israel, Moldova, Namibia, Rwanda and Switzerland

In addition to relying on a separate appeal board or division, there are other possible ways to conduct these internal reviews, such as through a senior official who does not directly supervise the original case auditor or through a new auditor with no previous knowledge of the case. To ensure that those conducting the reviews are qualified and unbiased, it is important to ensure that there are clearly defined criteria for their selection. Also recommended is that operational manuals be developed, decisions published and annual statistics on appeals reported. Most economies impose time frames (legislatively and sometimes administratively) on taxpayers and the internal review authority for each stage. The objective is quick resolution of a tax dispute. To ensure fairness, taxpayers who disagree with the outcome of the internal review should be able to appeal the decision to the courts.

The new research on settlement of VAT refund claims, tax audits and tax appeals provides a broader data set on the tax compliance process. In line with the core purpose of the existing *Paying Taxes* sub-indicators, the objective is to enable policy makers seeking to design an optimal tax system to benchmark their economy against others on the administrative burden of complying with post-filing procedures.

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²⁵ Gordon 1996.

²⁶ Thuronyi 2003.

Chapter 2: PwC commentary

While there is increasing recognition of the contribution that businesses make to the societies in which they operate, and an appetite by businesses to show how they make this contribution through the various taxes that they pay and collect, there is still a need for tax systems to be as straightforward and efficient as possible.

In PwC's 18th Annual Global CEO Survey,²⁷ tax remains in the top five of the perceived issues for business, with seven in ten CEOs (70%) somewhat or extremely concerned about the increasing tax levied on their businesses. For many business leaders, the primary tax focus is still often corporate income taxes, but for the operation of a business, other taxes such as VAT, sales taxes, labour taxes and social contributions and sundry other taxes including property taxes and environmental levies can increase compliance time and have a significant impact on the bottom line.

Paying Taxes takes into account all of the different business taxes that affect our case study company, and in this section we comment on how the cost and compliance burden of these taxes have changed around the world both in the last year and over the period covered by the ten editions of *Paying Taxes*. We also include in-depth case studies for Azerbaijan, Mexico, Poland, Uruguay and Zambia.

²⁷ <http://www.pwc.com/gx/en/ceo-agenda/ceo-survey.html>



The global results

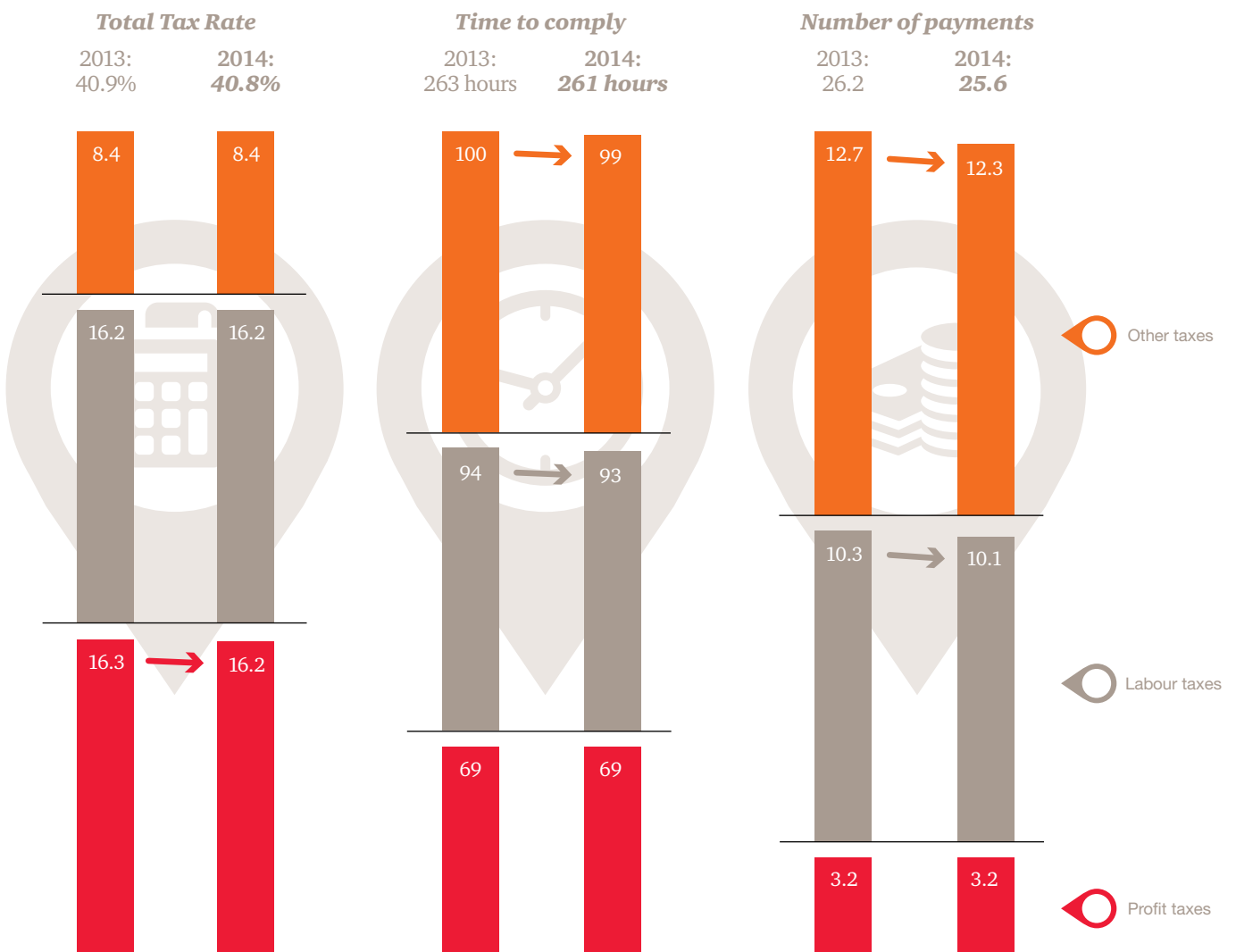


As shown in Figure 2.1, in the last year, the averages for the three *Paying Taxes* sub-indicators have continued to fall. On average across the world in 2014 our case study company paid taxes amounting to 40.8% of its commercial profit, took 261 hours to prepare, file and pay the three main taxes and made 25.6 tax payments.

Since last year the falls have been modest. The average global Total Tax Rate has fallen by 0.1 percentage points; the time to comply has reduced by 2 hours; and the number of payments has dropped by 0.6 payments on average. The relatively small falls at a global level however mask a much more varied picture at a regional and economy level, particularly for the Total Tax Rate.

Figure 2.1

Averages for the three *Paying Taxes* sub-indicators have fallen since last year



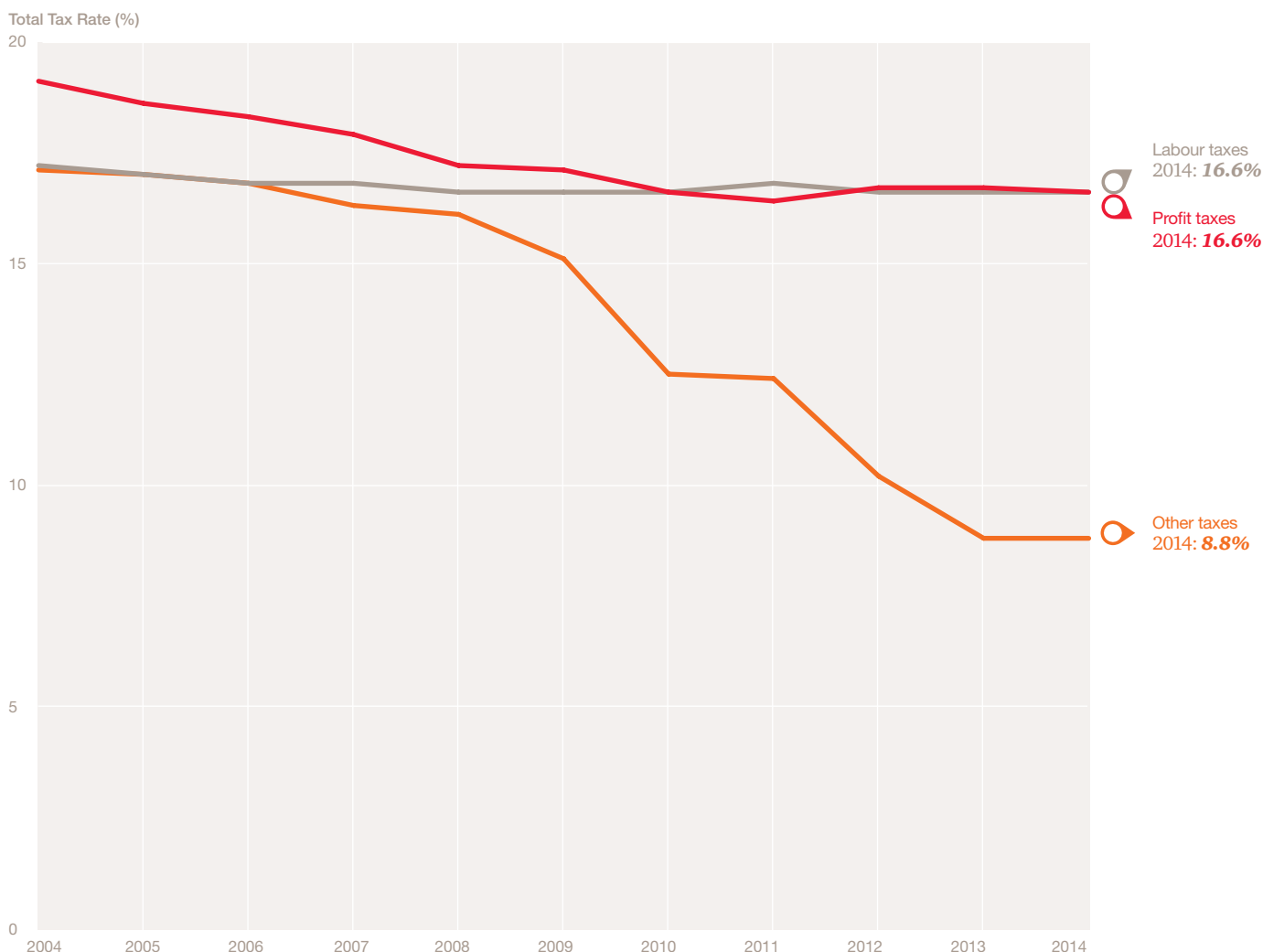
Source: PwC *Paying Taxes 2016* analysis.

While the average global Total Tax Rate fell between 2013 and 2014, in Africa, Central Asia & Eastern Europe and the Middle East, the Total Tax Rate rose due to various increases in labour taxes, social security contributions, corporate income taxes and property taxes. Indeed, 46 economies increased their Total Tax Rate in the period while only 41 showed a decrease.²⁸ The greatest increase in any one economy was in Liberia where the introduction of a minimum tax increased the Total Tax Rate by 14.6 percentage points to 47.8%. At the other end of the spectrum, the greatest fall in the Total Tax Rate was by 8.1 percentage points in Spain to 50.0% where a lower rate of corporate income tax was introduced for new companies.

As shown in Figure 2.2, labour and profit taxes continue to account on average for a very similar proportion of the global Total Tax Rate. As explained in the next section, there are some regions, notably the EU & EFTA, where there appears to be a decrease in profit taxes, compensated in part by increases in labour and 'other' taxes.

Figure 2.2

Movement in Total Tax Rate



Source: PwC *Paying Taxes 2016* analysis.

²⁸ The movements in Total Tax Rate refer to a movement exhibited by the Total Tax Rates when rounded to one decimal place. Where the economy's Total Tax Rate is the weighted average of the Total Tax Rate of two cities, the movements in the Total Tax Rates of the separate cities may differ. For example in Mexico, Mexico City's Total Tax Rate increased by 0.019 percentage points while Monterrey's decreased by 0.376 percentage points.

The story for the time to comply sub-indicator is more consistent than for the Total Tax Rate as in the last year 34 economies showed a decrease in time while eight economies increased their time to comply.

Many of the reductions in time to comply occurred following the introduction and enhancement of electronic systems. In some cases, the electronic systems had been introduced in previous years, but it took some time for the systems to start generating reductions in time, perhaps because teething problems needed to be rectified, access had to be made easier or simply because time was needed before the systems were adopted by the majority of taxpayers.

Notwithstanding the improvement in time to comply with taxes globally, some economies saw increases in the amount of time to comply owing to increased information or filing requirements (in Myanmar), or the introduction of new taxes for example the Fairness Tax in Belgium and the new VAT system in Kiribati.

Between 2013 and 2014 although the global average for the payments sub-indicator fell by 0.6 payments on average, the number of payments decreased in 12 economies, but increased in another 12. The reductions were largely due to the introduction and increased use of electronic payment and filing systems, most significantly for VAT, though reductions in the number of payments for labour taxes and corporate income taxes were also observed. Some of these decreases are due to reforms that had taken place in earlier years but where some time was needed before the systems were being used by the majority of taxpayers. There were some economies where, although electronic filing had been available for some time, it had taken taxpayers a while to become comfortable with making payments electronically. Other reasons for the fall in the number of payments sub-indicator relate to the reduced frequency of payments (e.g. from monthly to quarterly) and merging or abolishing taxes such as in Serbia and Brunei Darussalam.

The increases in payments were a result of the introduction of new taxes, or the separation of paying and filing requirements for certain types of tax such as separating local and national corporate income tax or splitting capital gains tax from corporate income tax.



Comparing the regions



Figure 2.3 shows the Total Tax Rate for all the geographic regions split between the three main types of tax; profit taxes, labour taxes and mandatory contributions and 'other' taxes. This chart allows us to compare not only the overall tax levied in each region, but also the extent to which this falls on these three types of tax. Figure 2.4 and Figure 2.5 show the regional splits of the time to comply and payments sub-indicators respectively.

In spite of some improvements in its Total Tax Rate and its time to comply, as explained in the next section, the South American region is still by far the region with the highest Total Tax Rate, 55.0%, and the greatest time to comply, 615 hours. To put this in perspective, the region which stands second, Africa, has a Total Tax Rate of 46.9% and a time to comply of 313 hours. On the other hand, South America fares well as far as the number of payments is concerned as the availability and use of electronic systems for filing and paying taxes is more prevalent than in some other regions.

From the charts in Appendix 2 it can be seen that the high average Total Tax Rate and time to comply in South America is due to it being a region of extremes. Brazil has the greatest time to comply in the world of 2,600 hours, while Suriname has the lowest time to comply for the region of just 199 hours. Similarly, Argentina's Total Tax Rate of 137.4% is the highest in the region and the second highest in the world while the lowest in the region is Suriname's at 27.9%.

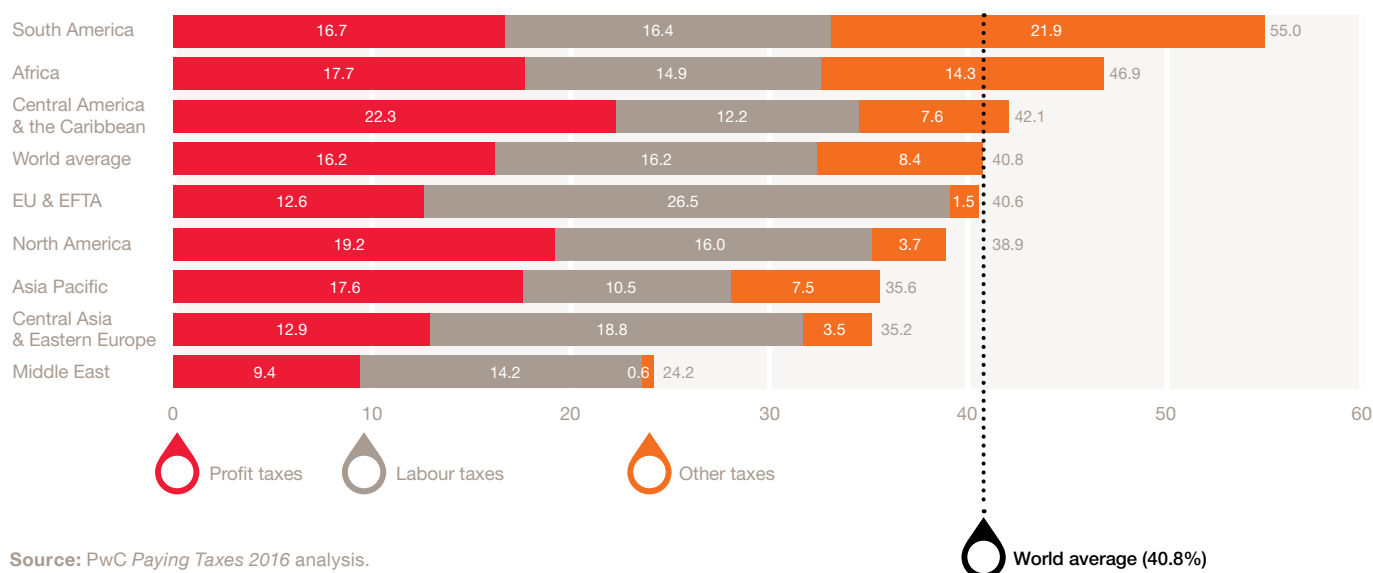
Total Tax Rate

South America is also the region where 'Other' taxes account for the greatest proportion, almost 40%, of the Total Tax Rate. 'Other' taxes account for 30% of the Total Tax Rate in Africa, now that all but one economy has replaced its cascading sales tax, and less than 21% in all other regions. The high reliance on 'other' taxes in South America is largely driven by the presence of municipal business taxes, which are calculated as a percentage of turnover, in Argentina, Colombia and the República Bolivariana de Venezuela. Bolivia has a similar national turnover-based business tax. These turnover-based taxes give rise to the high Total Tax Rates seen in South America.

While South America relies heavily on turnover taxes, labour taxes continue to make up the highest proportion of the Total Tax Rate in the EU & EFTA at 65% of the region's average Total Tax Rate and correspondingly the time to comply with labour taxes accounts for a larger share of the time to comply in the EU & EFTA than in many other regions.

Figure 2.3

Total Tax Rate by region (%) for 2014



Source: PwC Paying Taxes 2016 analysis.

The two regions where labour taxes and mandatory contributions account for the largest share of the Total Tax Rate – EU & EFTA and Central Asia & Eastern Europe – have shown marginal (0.1 percentage point) increases in the past year in their labour tax Total Tax Rates. EU & EFTA has however reduced its profit tax Total Tax Rate over the same period, while in Central Asia & Eastern Europe the profit tax Total Tax Rate has increased. It is hard to draw clear conclusions from these changes other than to say that individual economies in each region appear to be tailoring their tax policy based on their own particular circumstances and needs. While some reductions in profit taxes appear to be targeted at encouraging growth, as in Spain, or increasing headline rates that are at the low end of the global range, as in Albania, we are also seeing relatively low corporate income tax rates being reduced further as in Uzbekistan for example where the rate fell from 9% to 8%.

In Africa we have seen an example where a tax reform for a particular type of tax has been applied in opposite directions. Zambia doubled its property transfer tax from 5% to 10% while Mauritius did the reverse halving its land transfer tax from 10% to 5%. Similarly, Honduras, Jamaica and Liberia introduced a minimum corporate income tax while The Bahamas abolished the \$500,000 minimum flat fee for the business license tax. This again suggests that individual governments are reacting differently in the face of what might be expected to be similar economic pressures.

The Middle East remains the region with the lowest Total Tax Rate, as many governments in the region continue to rely on sources of revenue other than taxation. Nevertheless there are ongoing projects in the region aimed at increasing the tax base in a number of economies, particularly around VAT which does not affect the Total Tax Rate for our case study company.

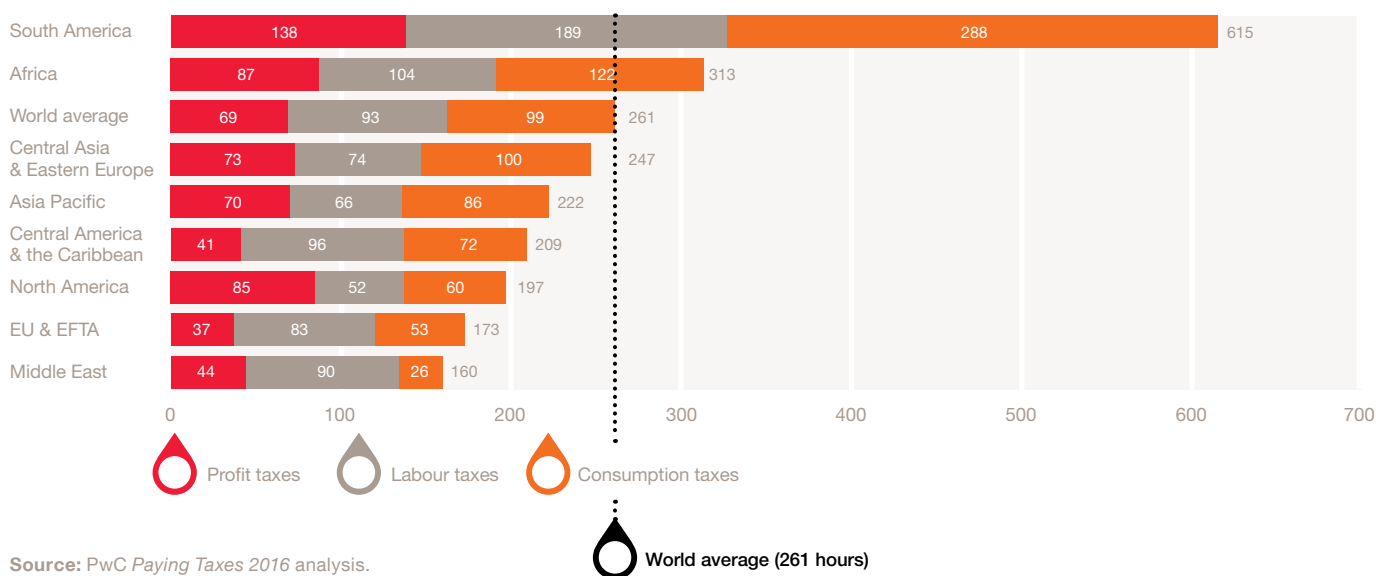
The compliance sub-indicators

The compliance sub-indicators for time to comply and the number of payments continue to display marked regional variation, with the variable availability of electronic systems for filing and paying tax being largely responsible.

It might be expected that the tax systems in North America and the EU & EFTA, being some of the most established, would also be the most complex and so the most time consuming. This is however counteracted by the extensive use of electronic systems in these regions which allow much of the tax process to be automated. This also allows for frequent changes to be made to tax systems without increasing the compliance burden. For example, there were a number of changes made to the rates and thresholds of labour taxes and social security contributions in France and in the UK in the year. These did not however affect the countries' relatively low compliance times as the changes were largely automatically applied.

Figure 2.4

Time to comply by region for 2014



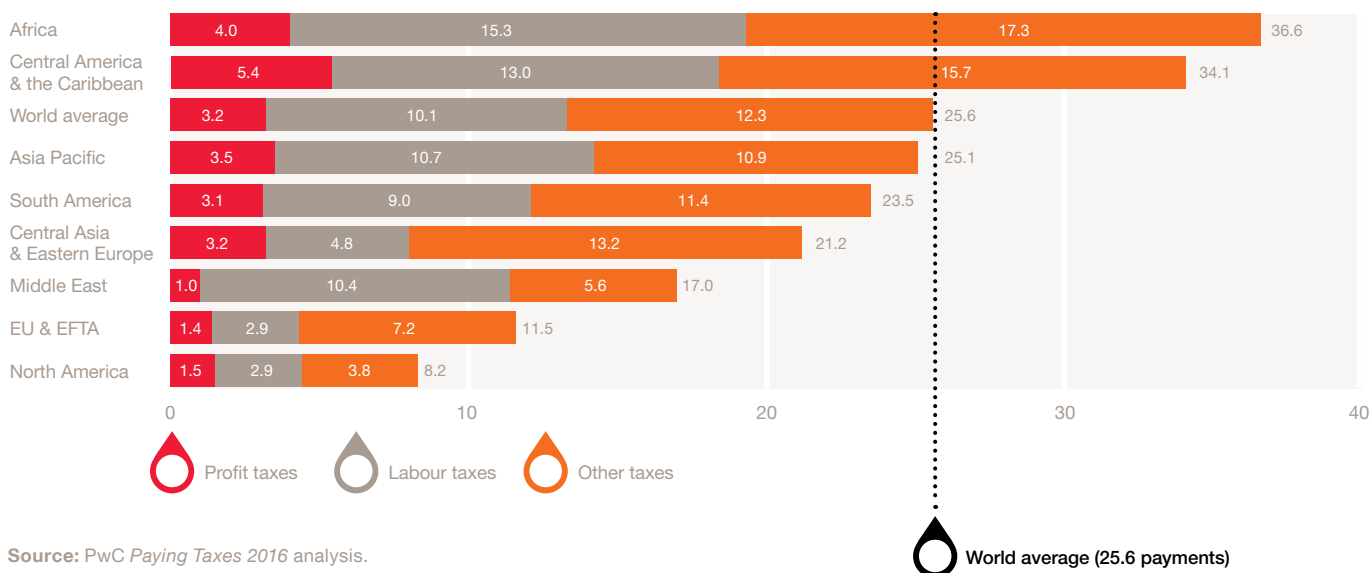
Source: PwC Paying Taxes 2016 analysis.

The payments sub-indicator is a function not only of electronic filing and payment, but also of the number of taxes in an economy and whether they can be filed and paid jointly. A number of economies introduced new taxes in the year that are filed and paid separately from any other tax. This also increased the number of payments in those economies and therefore added to the complexity of the tax system. There were also some economies that introduced new taxes that are filed and paid jointly with other taxes. In these cases there is no increase in the number of payments sub-indicator.

It could be argued that in some situations, introducing a new tax may be a politically more acceptable way of raising new revenue than increasing the rate of an existing tax, particularly where the revenue raised is to be spent on a specific measure. New taxes however are more likely to increase the compliance burden on taxpayers and on tax authorities and this should be considered by governments when deciding new tax policy. One reason for instigating a new tax, might be to link it clearly in the public mind with a new public benefit or to show clearly how funds will be raised for a new item of government spending. An alternative approach to this, which would avoid levying a new tax, might be for governments to be more transparent about the revenues that they raise from existing taxes and how that money is then spent to provide benefits to their citizens.

Figure 2.5

Number of payments by region for 2014



Source: PwC *Paying Taxes 2016* analysis.



***How has the
Paying Taxes
picture changed
over the ten
editions?***



Trends in the global sub-indicators since the first edition

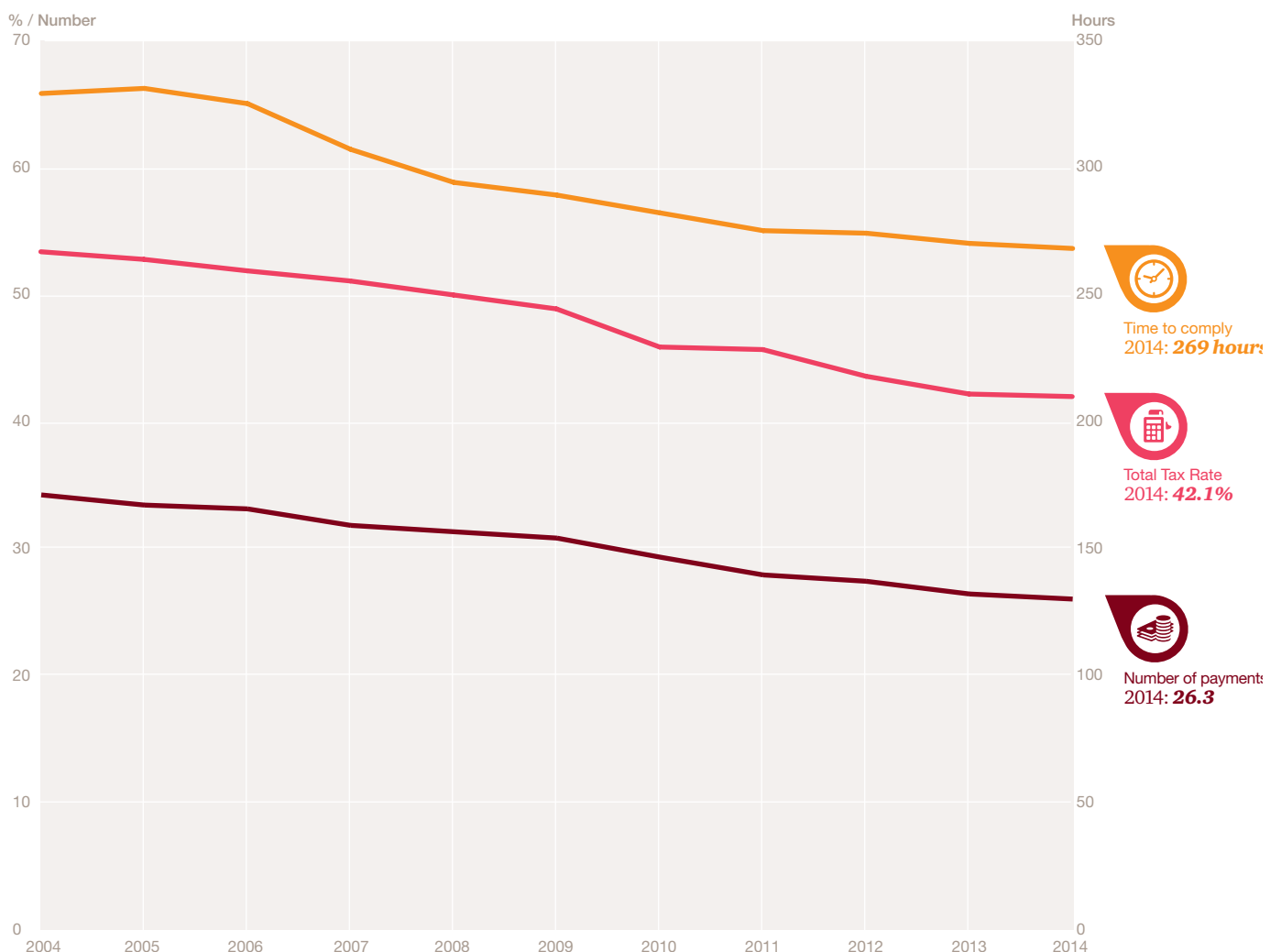
Figure 2.6 shows the trends in the global average for each of the *Paying Taxes* sub-indicators for the 174 economies and cities for which we have data for every year of the study. 15 economies and 11 cities have joined the study since its inception and so are not included in the 10 year trends. From 2004, the global averages for all three sub-indicators for the original 174 economies have decreased steadily in almost every year. We can see that the pace of change has slowed, but not stopped, and one of the reasons for this is the variation that we are now seeing in how tax reform is being applied in different economies and regions as discussed earlier, and in the detailed regional sections that follow.

Using the Figures 2.7, 2.9 and 2.12 we will take a look at the regional variation in the changes in each of the three sub-indicators over the course of the period of the study.

In addition, we will look at the trend in each of the three sub-indicators by income level of the economies as shown in Figures 2.8, 2.11 and 2.14.

Figure 2.6

Trends in the global sub-indicators since 2004



Source: PwC Paying Taxes 2016 analysis.

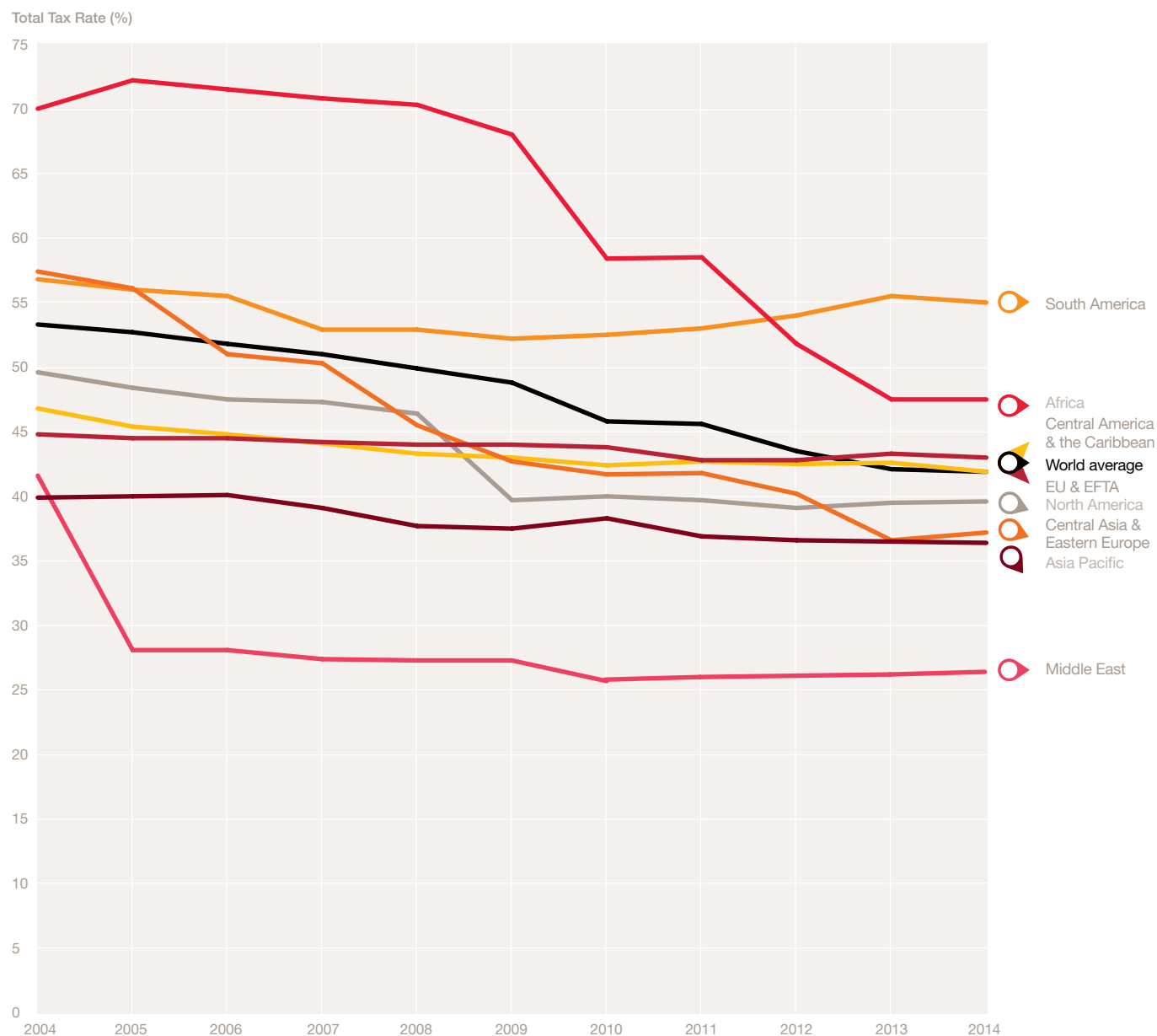
Total Tax Rate

Over the study period, Africa is clearly the region with the greatest reduction in its Total Tax Rate, which is largely the result of the abolition of cascading sales taxes in a number of economies. Over the ten editions of *Paying Taxes*, the Africa Total Tax Rate fell by 22.5 percentage points, falling below that of South America in 2012. In Africa, only Comoros still retains its cascading sales tax. Excluding the countries with this exceptional movement on the abolition of the cascading sales taxes, the average Total Tax Rate for Africa would have been much closer to the global average and the reduction would have been more in the order of 5 percentage points.

The next most significant fall in Total Tax Rate was by 19 percentage points in Central Asia & Eastern Europe largely owing to reforms in Belarus which reduced its Total Tax Rate from 137.3% in 2004 to 51.8% in 2014, Uzbekistan, which reduced its Total Tax Rate from 96.7% in 2004 to 41.4% in 2014, and Georgia, which reduced its Total Tax Rate from 57.0% in 2004 to 16.4% in 2014. This year however, the Total Tax Rate for Central Asia & Eastern Europe increased as a result of corporate income tax increases in several economies. The Middle East's Total Tax Rate fell dramatically by 13.4 percentage points between 2004 and 2005 when Yemen abolished its cascading sales taxes, but has remain largely unchanged since then.

Figure 2.7

Trends in the Total Tax Rate since 2004



Source: PwC *Paying Taxes 2016* analysis.

South America's Total Tax Rate has been high, but relatively stable, throughout the study, though it fell slightly in 2007, before increasing in 2010 and falling again in 2014.

Over time, the Total Tax Rates of the regions had appeared to be converging, but from about 2011, the convergence has stalled. The range of the Total Tax Rates between the economy with the highest Total Tax Rate and the economy with the lowest Total Tax Rate has however decreased from 280 percentage points in 2004 to 208 percentage points today.

Looking across the regions, not only does a wide range of Total Tax Rates still remain, but it is also apparent that some regions are more prone to change than others and in different directions. Table 2.1 below shows the proportion of economies within each region that exhibited increases and decreases in their Total Tax Rate between 2013 and 2014.

Table 2.1

Increases and decreases in Total Tax Rate by region between 2013 and 2014

	Total number of economies	Percentage of economies with decreased Total Tax Rate	Percentage of economies with no changes	Percentage of economies with increased Total Tax Rate
<i>Africa</i>	53	17%	60%	23%
<i>Asia Pacific</i>	37	22%	54%	24%
<i>Central America & the Caribbean</i>	20	25%	55%	20%
<i>Central Asia & Eastern Europe</i>	19	26%	37%	37%
<i>EU & EFTA</i>	32	38%	38%	24%
<i>Middle East</i>	13	0%	69%	31%
<i>North America</i>	3	33%	67%	0%
<i>South America</i>	12	17%	75%	8%
<i>World</i>	189	22%	54%	24%

Note: The table includes only changes exhibited by the Total Tax Rates when rounded to one decimal place.

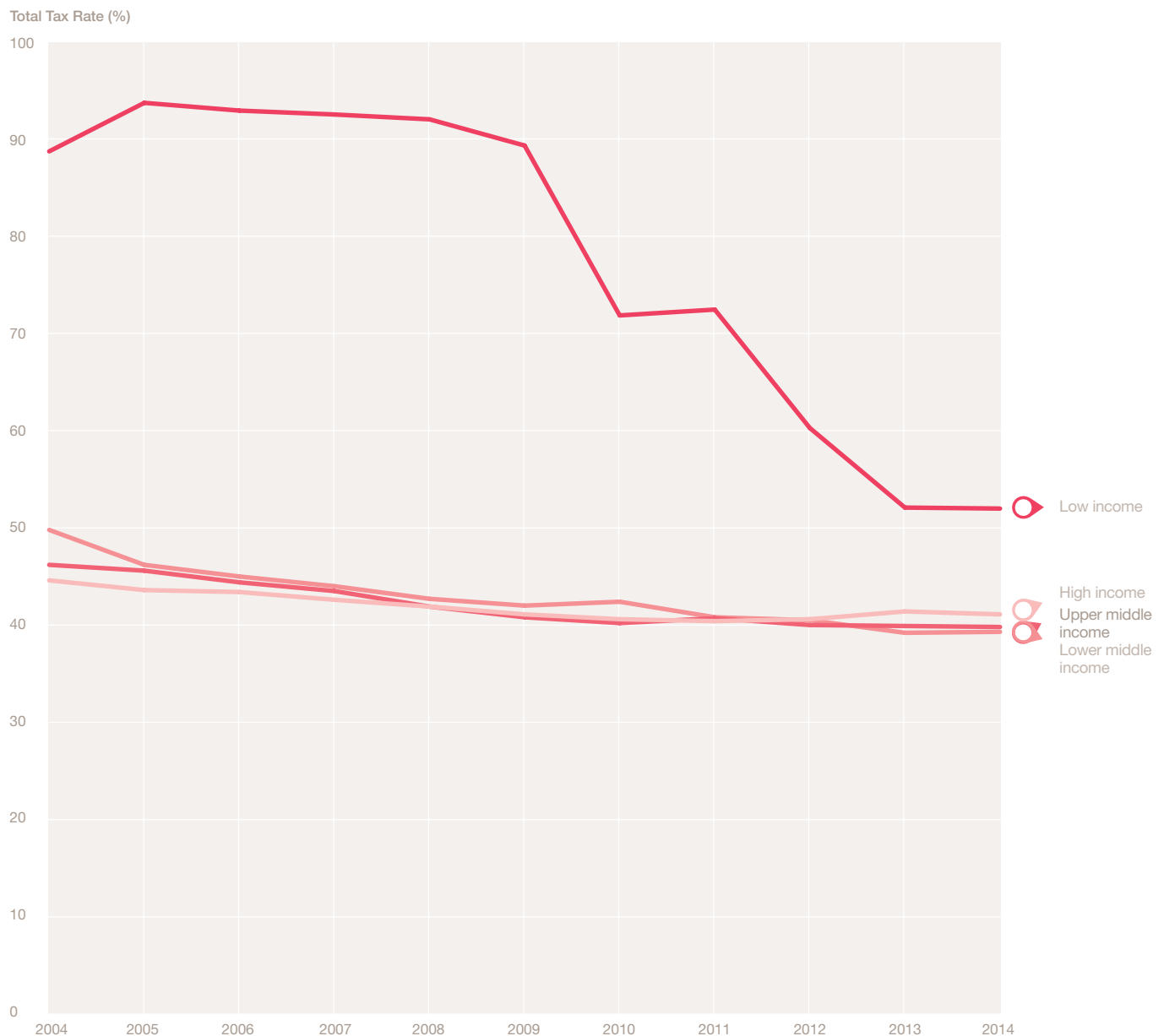
Source: PwC Paying Taxes 2016 analysis.

Generally speaking, in the regions with more established and more sophisticated tax systems there were more economies that showed changes in their Total Tax Rate. In Asia Pacific for example, 46% of economies in the region exhibited changes to their Total Tax Rates, while in EU & EFTA 62% of economies showed some changes in their Total Tax Rate, albeit that most of them were small. This difference could also reflect the fact that it is often easier for more developed systems to introduce changes as many changes will be made automatically through electronic systems. For less developed systems, changes are more likely to require greater manual intervention which could lead to more errors and longer implementation times.

We can also look at the average Total Tax Rate by income level, using the World Bank's classification of economies into high income, upper middle income, lower middle income and low income groups (Figure 2.8). The average Total Tax Rate for the low income economies has shown considerable reform since 2004, due mostly to the removal of cascading tax systems in Africa. Despite these reforms, the Total Tax Rate for the low income economies is still some way above the average Total Tax Rate of the other three income groups. These other groups have had very similar average Total Tax Rates throughout the study and for all three groups the Total Tax Rate has fallen slightly since 2004.

Figure 2.8

Trend in Total Tax Rate by income level of economies



Source: PwC Paying Taxes 2016 analysis.

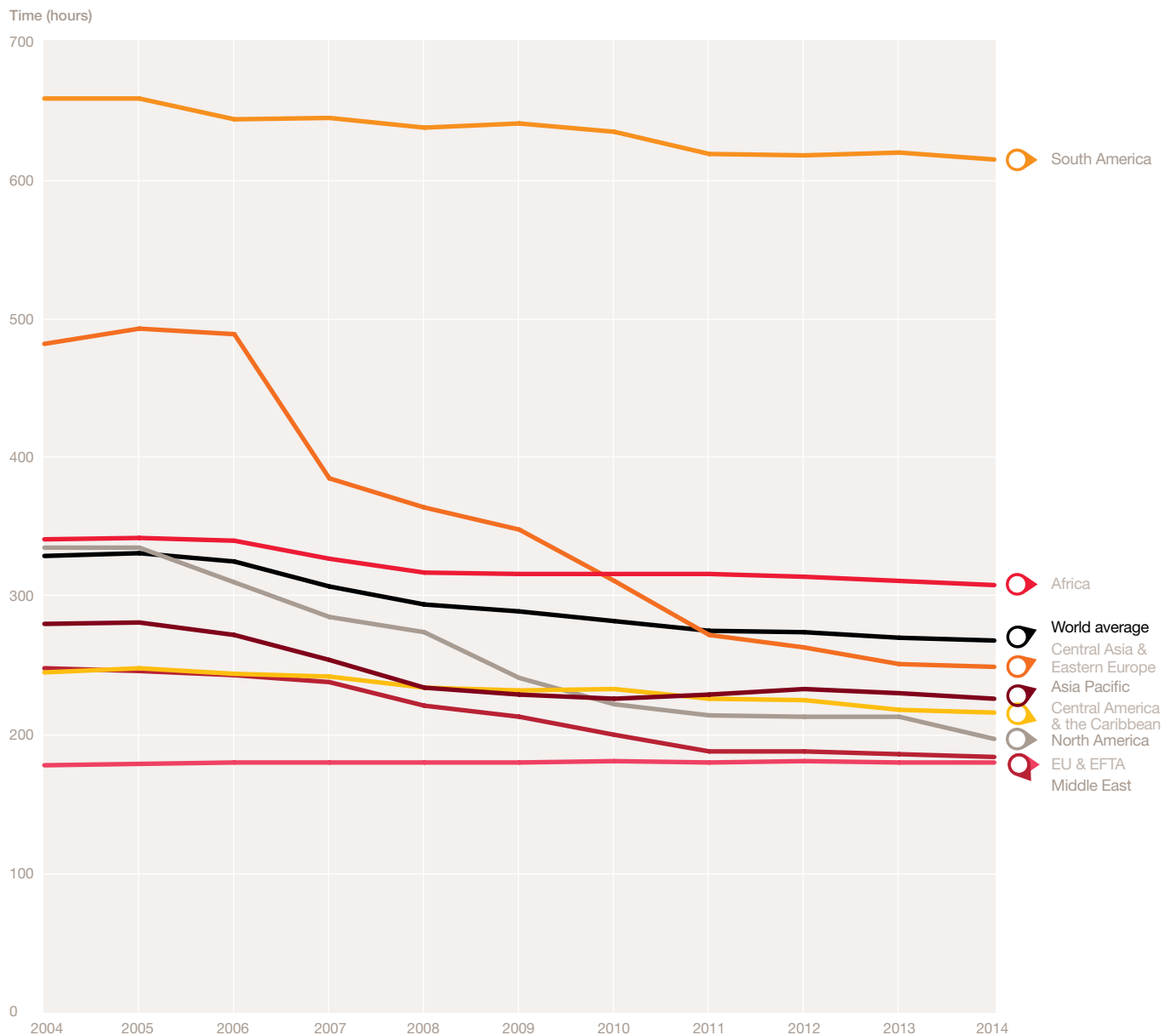
Time

As shown in Figure 2.9 over the period of the study from 2004 until 2014, Central Asia & Eastern Europe has shown the biggest improvement of all the regions in average time to comply, with a drop of 234 hours across the region. South America continues to be the outlier of the regions, largely due to Brazil's time to comply sitting at 2,600 hours, along with Bolivia's time to comply at 1025 hours which is the second highest in the world. Even taking these two countries out of the South America average, the region would still have the highest time to comply and it would have shown very little reduction over the period of the study.

All regions, except for the Middle East, have reduced their time to comply since 2004, but the Middle East has had the lowest time to comply throughout the study.

Figure 2.9

Trends in the time to comply since 2004

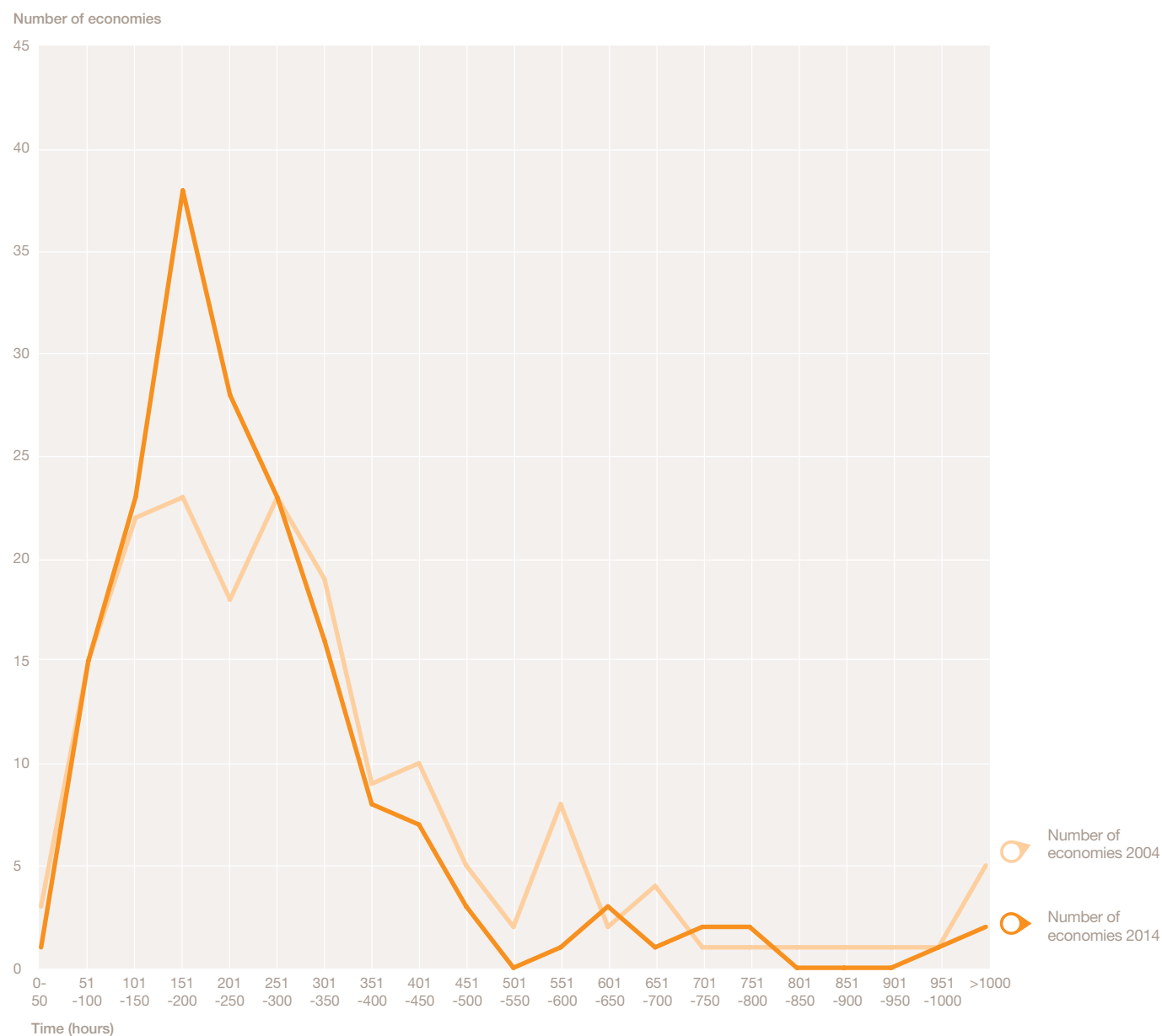


Source: PwC Paying Taxes 2016 analysis.

Looking at the distribution of the time to comply for the economies in both 2004 and 2014 (see Figure 2.10) 74% of economies now take less than 300 hours to comply with their tax obligations in 2014 compared to 60% in 2004. The number of economies with a very high time to comply has reduced, with the most common time to comply being in the range of 151 – 200 hours which is below the global mean average of 261 hours.

Figure 2.10

Distribution of the time to comply 2004 and 2014



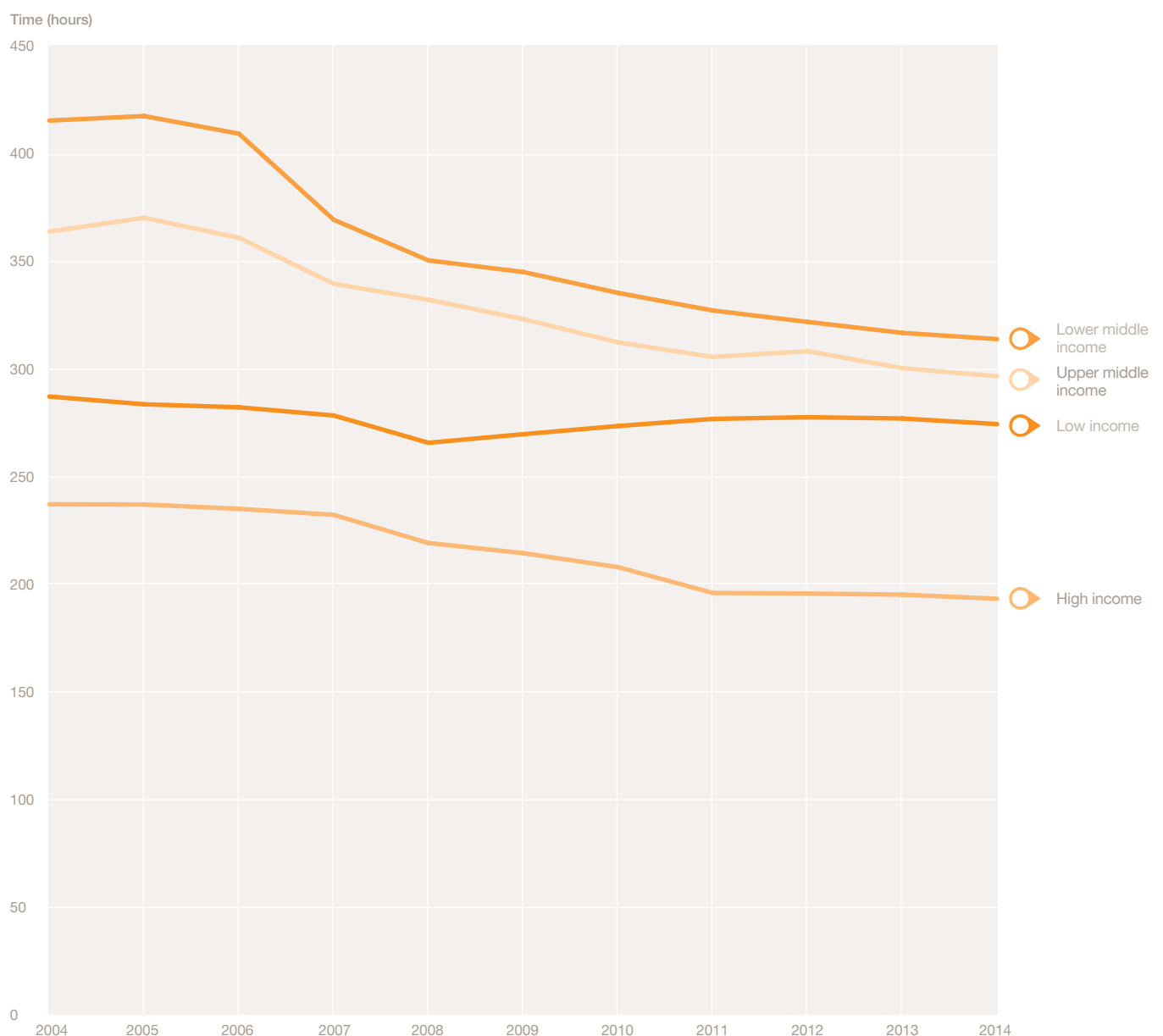
Source: PwC Paying Taxes 2016 analysis.

Looking at the trend in the time to comply by income level (see Figure 2.11) we can see that the low income economies have reformed the least since 2004. On average, economies in the high income group have significantly lower times to comply than in the other groups, but the high income group's average time to comply has still fallen over the course of the study. The relative lack of improvement in the low income group might suggest that while reform is clearly still necessary, there are some challenges that are yet to be overcome and these may include issues, such as the availability of IT and communications infrastructure and the level of technical skills in the workforce.

The introduction and enhancement of electronic filing and payment systems is by far the biggest factor in the downward trend for the average time to comply with tax obligations. We would expect this trend to continue as technology improves in the future and if tax authorities continue to invest in this area.

Figure 2.11

Trend in the time to comply by income level of economies



Source: PwC Paying Taxes 2016 analysis.

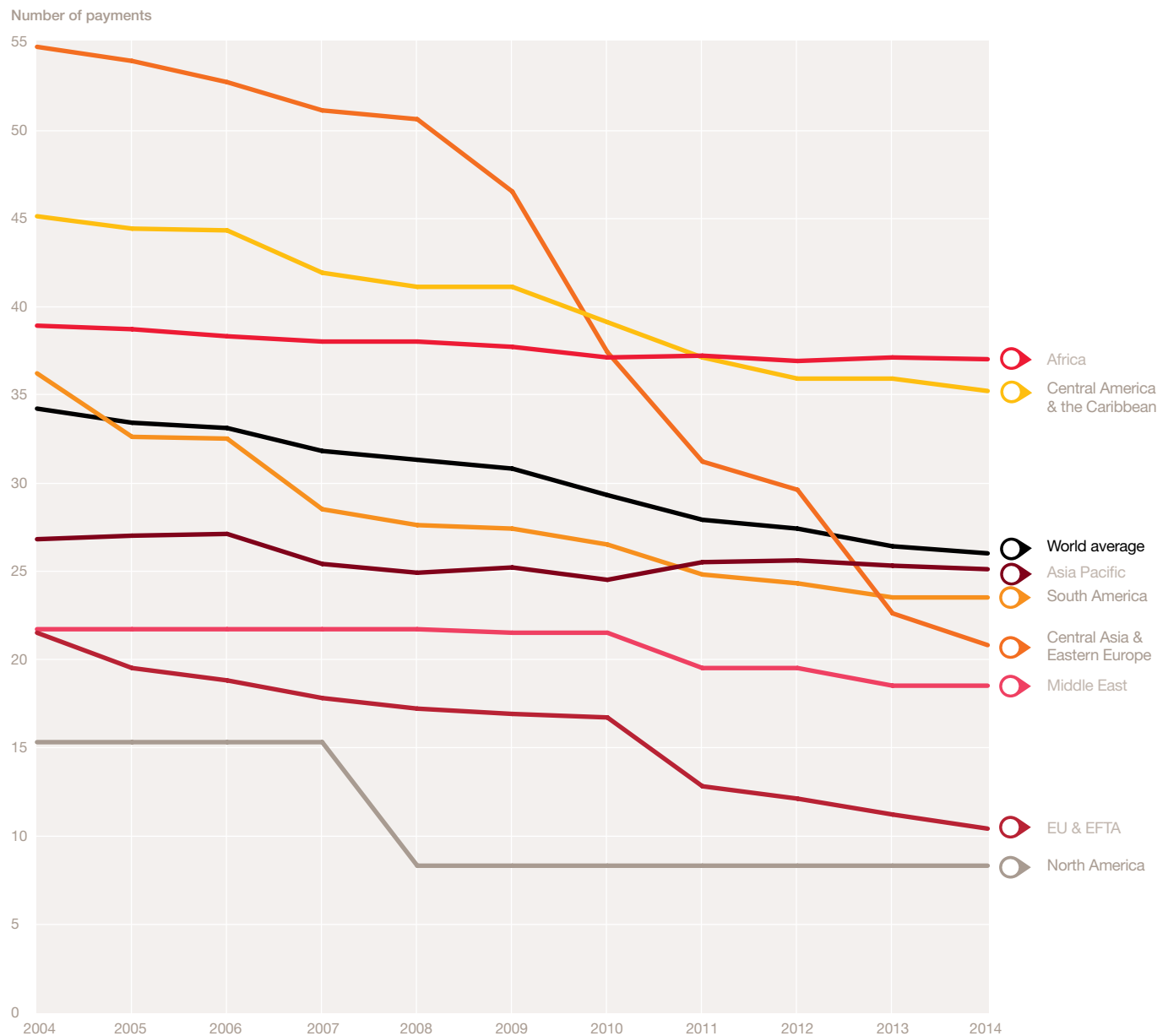
Payments

As shown in Figure 2.12, when it comes to the number of payments sub-indicator, Central Asia & Eastern Europe is the most reformed region since 2004, with Ukraine and Belarus being the most improved economies globally. In Ukraine, the number of payments sub-indicator fell from 147 to 5 payments and in Belarus it fell from 125 to 7 payments over the course of the study. South America and the EU & EFTA were next with a drop of 12.7 payments and 11 payments respectively.

The range for the payments sub-indicator has decreased from 144 in 2004 to 67 in 2014, but there are still very marked regional variations with Africa and Asia Pacific having shown very little change since 2004. Electronic filing and payment is by far the most significant contributor to the reduction in payments and, as discussed earlier, some economies will find this more difficult to achieve than others due to a lack of technology, skills and infrastructure.

Figure 2.12

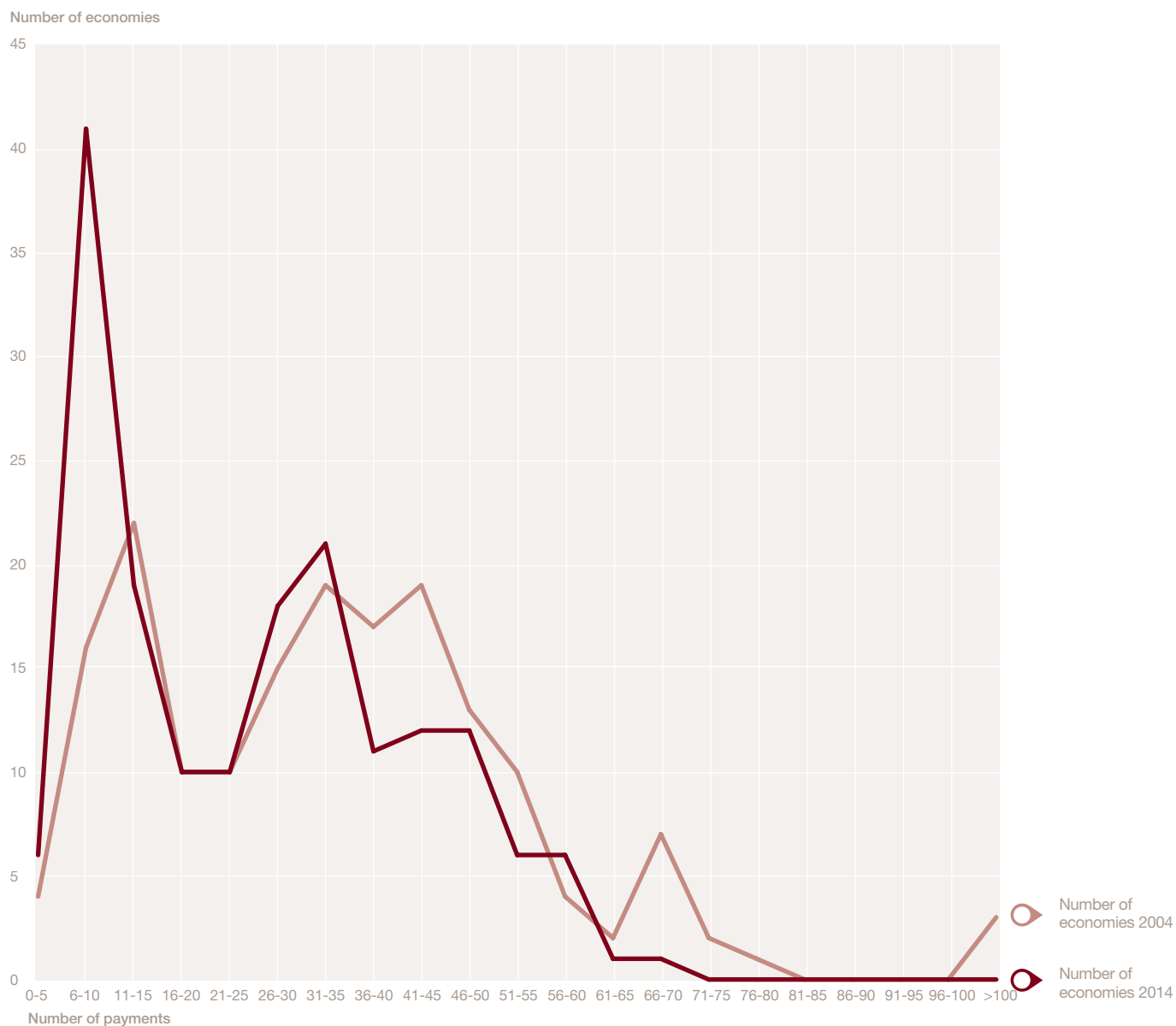
Trends in the number of payments since 2004



Source: PwC Paying Taxes 2016 analysis.

Looking at the distribution of the payments sub-indicator across the economies (see Figure 2.13), 59% of economies had a payments sub-indicator of 30 or less in 2014, compared to 43% of economies in 2004. In addition, we can see that in 2014 the distribution of the payments sub-indicator has moved towards the lower end of the range compared to 2004 and that the most common value for the sub-indicator is in the range of 6 – 10 payments, compared to 31 – 35 payments in 2004.

Figure 2.13
Distribution of the number of payments sub-indicator 2004 and 2014

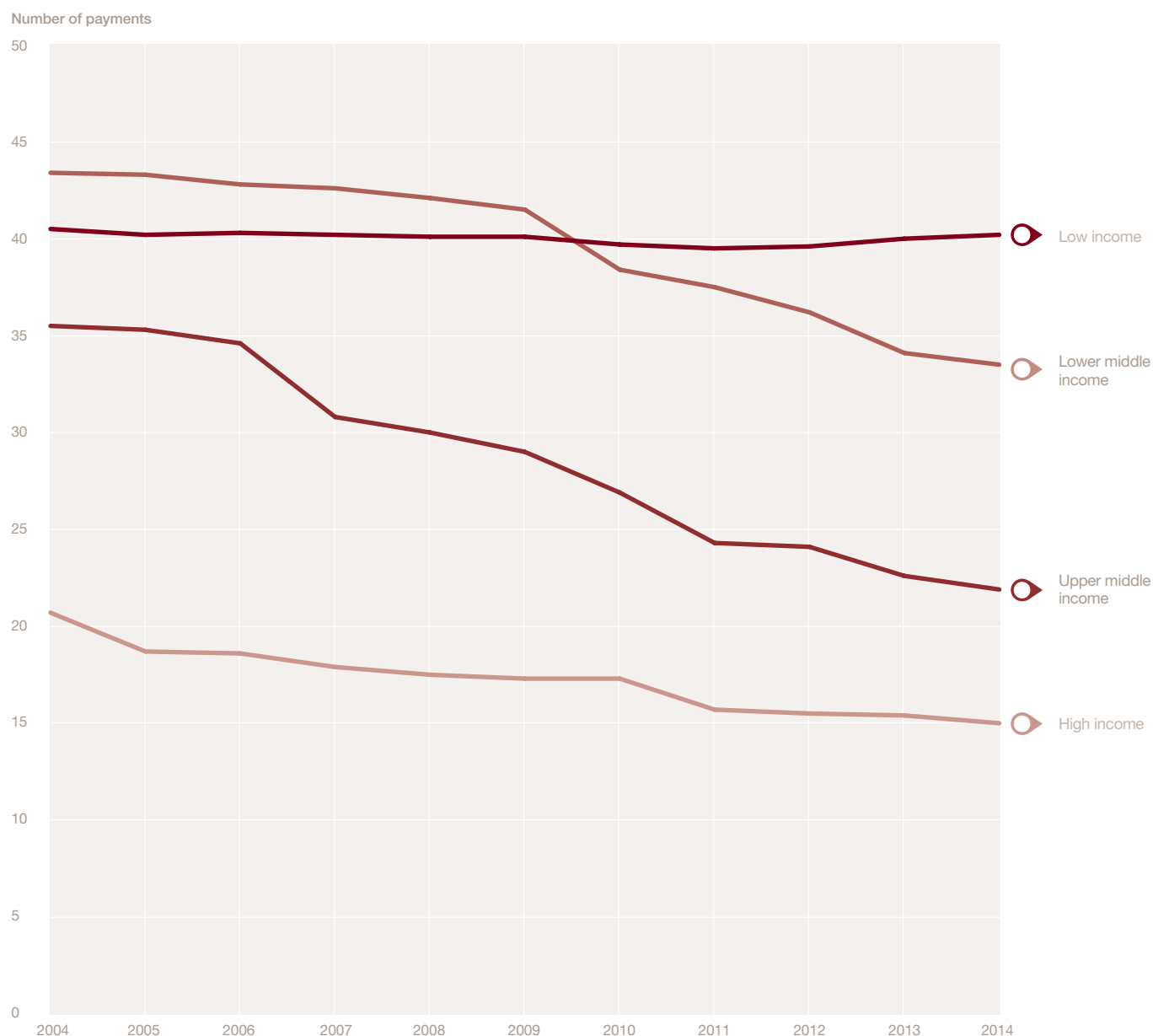


Source: PwC Paying Taxes 2016 analysis.

Figure 2.14 shows the change in the average payments sub-indicator by income group since 2004. From 2010, the low income economies have had the highest average payments sub-indicator and the region has also shown the least reform over the period of the study. As with the time to comply trends, this suggests that while there is a need for further reforms in the low income economies, challenges such as the need for improvements in the availability and reliability of internet connections and other communications infrastructure may need to be addressed before there can be significant improvements in the operation of the tax system.

Figure 2.14

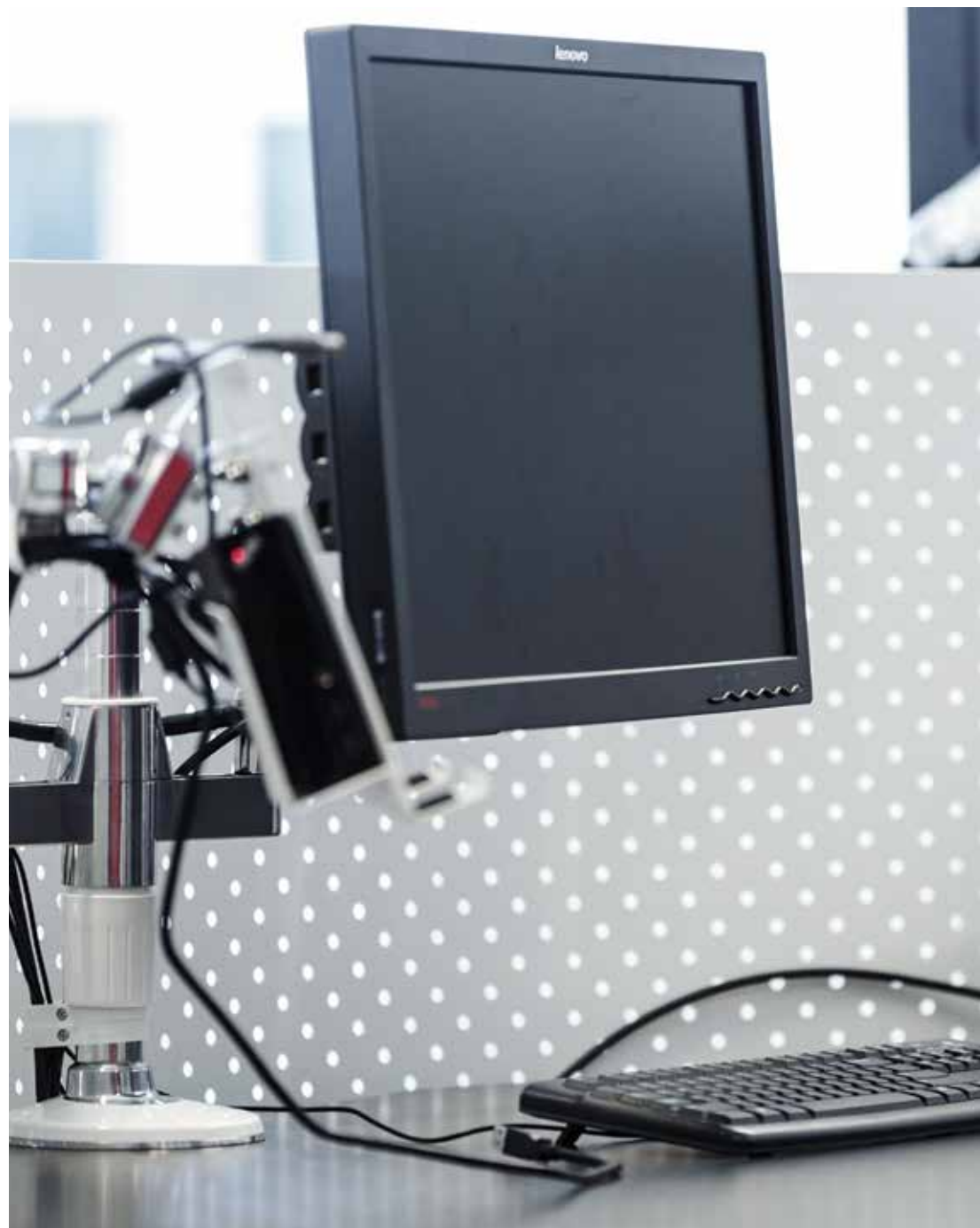
Trend in number of payments sub-indicator by income level of economies



Source: PwC Paying Taxes 2016 analysis.

For those economies that do introduce electronic systems there is often a time lag between the introduction of a system and it reaching its full operational capability. It may also take time for taxpayers to embrace the system and the methodology of *Doing Business* requires the systems to be used by the majority of taxpayers before there is an impact on the sub-indicators. There are therefore a number of economies where electronic filing and payment systems exist, but where this is not yet reflected in the number of payments and time sub-indicators.

Where a country fully embraces electronic filing and payment systems, so that a tax is filed and paid online by the majority of taxpayers, then the number of payments effectively represents the number of taxes to which the case study company is subject.

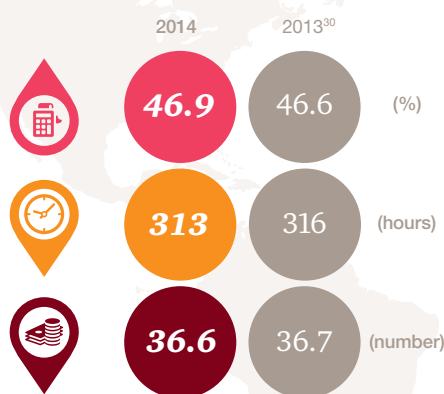




***Regional
analysis of the
sub-indicators***

Figure 2.15

Africa²⁹



Africa

As shown in Figure 2.15, there was a mixed story with regards to Africa, with the average Total Tax Rate increasing by 0.3 percentage points (only Central Asia & Eastern Europe had a larger increase at 0.5 percentage points) and the compliance sub-indicators falling; time to comply fell by 3 hours and the number of payments decreased by 0.1 percentage points.

As regards the Total Tax Rate, across the region changes in profit taxes were the most significant, though there was a very mixed picture, with some economies raising their corporate income tax liabilities while others reduced theirs. Another good example of the varied picture is in other taxes where Zambia has doubled its property transfer tax from 5% to 10% while Mauritius did the reverse, halving its land transfer tax from 10% to 5%.

The single largest change was Liberia's profit tax Total Tax Rate increasing by 14.6 percentage points to 47.8% due to the introduction of a minimum corporate income tax. Companies in Liberia must now pay 2% of turnover as a monthly advance tax and the final income tax liability cannot be lower than the amount already paid in advance.

The next biggest increases in Total Tax Rates were:

- An increase of 5.1 percentage points to 45.7% in Gabon as a result of a reduction in depreciation rates.

- An increase of 3.0 percentage points to 18.6% in Zambia as the rate of property transfer tax was doubled from 5% to 10% (as mentioned earlier).
- An increase of 2.2 percentage points to 47.3% in Senegal as there was a fourfold increase in the alternative maximum corporate income tax payable by companies; the case study company therefore now pays corporate income tax at the full 30% rate rather than being limited by the cap.

In total, 12 of the 53 economies in the region increased their Total Tax Rates, though other than those mentioned earlier, the impact in any one economy was 1.1 percentage point or less. On the other hand, 9 economies reduced their Total Tax Rates. The most significant reductions were:

- Angola's Total Tax Rate fell by 3.6 percentage points to 48.4% as the corporate income tax rate fell from 35% to 30%.
- Tunisia's Total Tax Rate fell by 2.6 percentage points to 59.9% as the corporate income tax rate fell from 30% to 25%.
- Swaziland's Total Tax Rate fell by 2.1 percentage points to 34.7% as the corporate income tax rate fell from 30% to 27.5%, though the provident fund contributions paid by employer slightly increased.
- Mauritius's Total Tax Rate fell by 2.1 percentage points to 22.4% as the land transfer tax rate halved from 10% to 5% though the social security contributions paid by employer increased slightly.

A mixed picture in Africa – the Total Tax Rate increases while compliance sub-indicators fall.

²⁹ The following economies are included in our analysis of Africa: Algeria; Angola; Benin; Botswana; Burkina Faso; Burundi; Cabo Verde; Cameroon; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Congo, Rep.; Côte d'Ivoire; Djibouti; Egypt, Arab Rep.; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia, The; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Libya; Madagascar; Malawi; Mali; Mauritania; Mauritius; Morocco; Mozambique; Namibia; Niger; Nigeria; Rwanda; São Tomé and Príncipe; Senegal; Seychelles; Sierra Leone; South Africa; South Sudan; Sudan; Swaziland; Tanzania; Togo; Tunisia; Uganda; Zambia; Zimbabwe.

³⁰ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

The average time to comply for the region decreased by 3 hours overall, with a drop of 50 hours in The Gambia accounting for more than a third of the overall change in the region. In 2013, The Gambia replaced its sales tax with a VAT system and while this was reflected in the country's Total Tax Rate last year, the improvement in the time to comply took a little longer to materialise as companies have needed to adapt to the new systems and improve their bookkeeping for VAT.

Other reductions in the time to comply sub-indicator for Africa are listed below in Figure 2.16 and show a range of causes for the change in the sub-indicator.

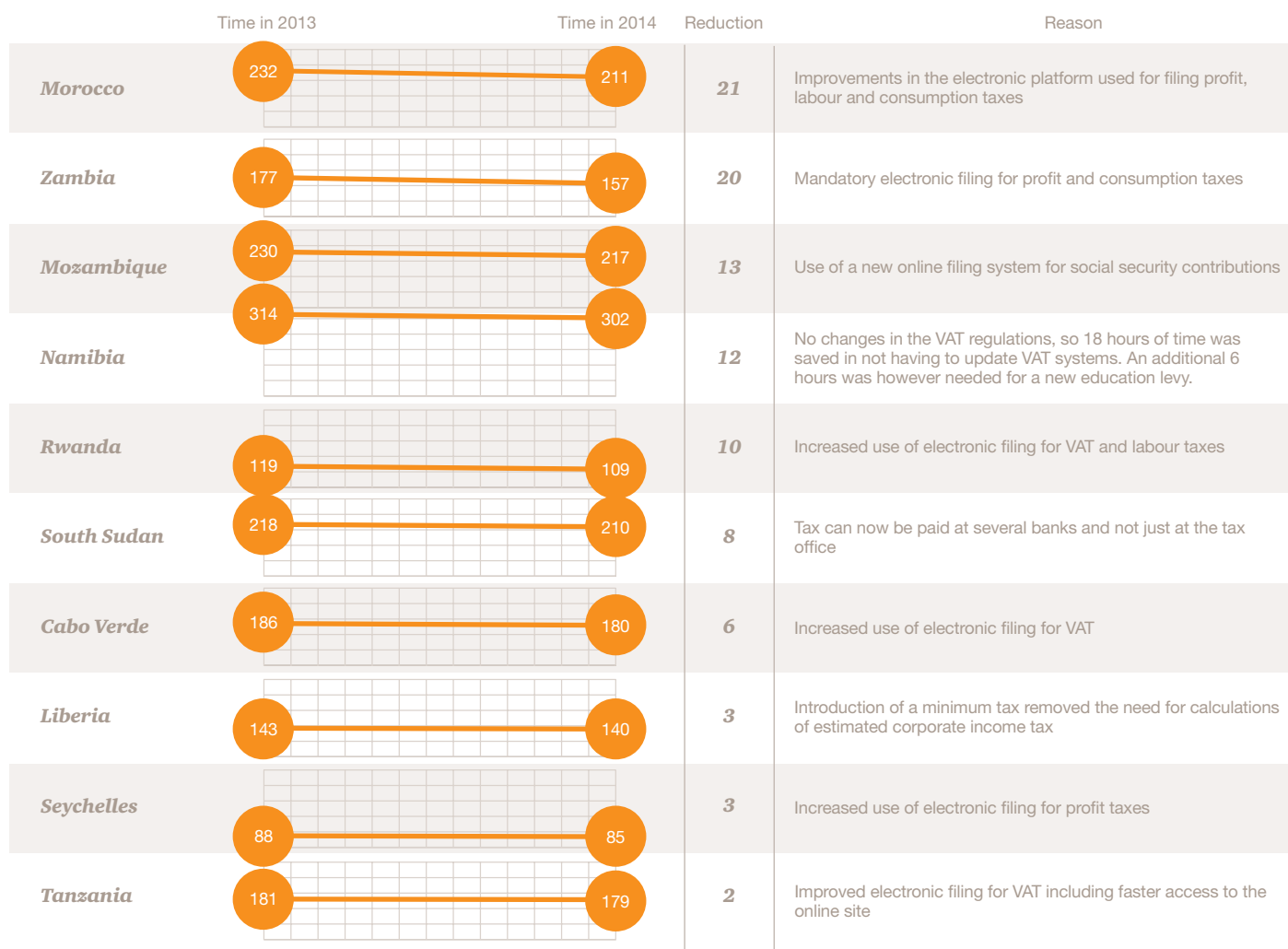
Other than the reductions in time to comply mentioned earlier, a new social contribution was introduced in Democratic Republic of Congo that added 6 hours to the time required to comply with tax obligations as it is filed and paid separately from other taxes.

The largest decrease in the payments sub-indicator among the African economies was in Zambia, where full implementation of an electronic system for filing and paying VAT reduced the payments sub-indicator by 11. This was partially offset by increases in the number of payments arising from new taxes in five other economies:

- Benin – 2 payments, one for a radio tax and one for a TV tax both of which are levied on all persons subject to income tax.
- Democratic Republic of Congo – 2 payments due to a new social security contribution that is not filed and paid online.
- Republic of Congo – 1 payment due to a new tax on the occupancy of buildings which is paid separately from other taxes and replaces a tax on rental value (which was paid jointly with business tax).
- Namibia – 1 payment for the new Vocational Education and Training Levy described earlier.
- Sierra Leone – 1 payment as capital gains tax is now separate from corporate income tax.

Figure 2.16

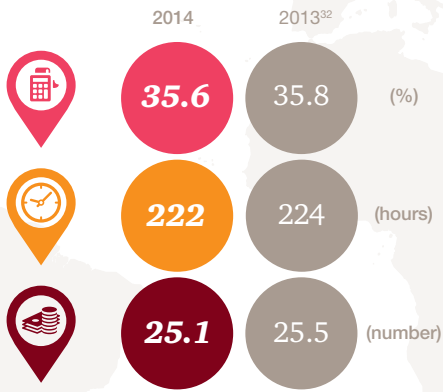
Reductions in the time to comply sub-indicator for Africa



Source: PwC Paying Taxes 2016 analysis.

Figure 2.17

Asia Pacific³¹



Asia Pacific

The Asia Pacific economies showed improvements across the board with reductions in all three sub-indicators. Brunei Darussalam, Indonesia and Vietnam improved the most overall in this region.

The Total Tax Rate for the Asia Pacific region decreased by 0.2 percentage points on average with the greatest reduction being in Brunei Darussalam where the Total Tax Rate decreased by 7.1 percentage points, mainly as a result of changes to the capital allowance provisions. The reduction in the Total Tax Rate generated by the changes in capital allowances was partially offset by the taxable profits of our case study company becoming fully subject to corporate income tax; previously some of the taxable profit had been exempt from tax. Furthermore, the rate of corporate income tax reduced from 20% to 18.5% in the year.

Indonesia reduced social security contributions paid by the employer from 6% to 4% of salaries, but imposed an additional health insurance contribution on employees of 0.5% rising to 1% of salary in 2015. This change in the employer's contributions reduced the Total Tax Rate by 1.7 percentage points to 29.7%, while the change in employees' contributions does not affect the Total Tax Rate.

Vietnam's Total Tax Rate fell by 1.4 percentage points to 39.4% as a result of the corporate income rate dropping from 25% to 22% and increased deductions available in respect of insurance premiums. The impact of these reductions in the Total Tax Rate was partially offset by the rate of employer's social security contributions increasing by 1 percentage point. A further reduction in the corporate income tax rate to 20% is planned for next year.

There were also reductions in the Total Tax Rate in Bangladesh and Myanmar, though they were smaller than those in Brunei Darussalam, Indonesia and Vietnam. Bangladesh reduced its corporate income tax rate from 37.5% to 35%, thereby reducing its Total Tax Rate by 0.9 percentage points to 31.6%. Myanmar's Total Tax Rate fell by 0.9 percentage points to 31.4% due to increases in tax depreciation rates for fixed assets. The reduction was partially offset by increases in employers' social security contributions.

The average time to comply for the region fell by 2 hours, though some of the economies in the region were responsible for both the biggest reduction and the biggest increase in time to comply across the world.

³¹ The following economies are included in our analysis of the Asia Pacific: Afghanistan; Australia; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Fiji; Hong Kong SAR, China; India; Indonesia; Japan; Kiribati; Korea, Rep.; Lao PDR; Malaysia; Maldives; Marshall Islands; Micronesia, Fed. Sts.; Mongolia; Myanmar; Nepal; New Zealand; Pakistan; Palau; Papua New Guinea; Philippines; Samoa; Singapore; Solomon Islands; Sri Lanka; Taiwan, China; Thailand; Timor-Leste; Tonga; Vanuatu; Vietnam.

³² The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

Vietnam showed the greatest reduction in time of any economy reducing its time to comply by 102 hours to 770 hours. The reduction occurred across all three types of tax as follows:

- Labour tax time fell by 62 hours as fewer supporting documents are required, new software was introduced, rules for calculating the tax liability were simplified and communications with tax authorities are now being carried out by email.
- VAT time fell by 27 hours as the company can now file on a quarterly rather than a monthly basis and fewer supporting documents are required.
- Corporate income tax time fell by 13 hours as, instead of a requirement to file quarterly, the tax return is now filed annually, with quarterly advance payments being made throughout the year.

Other significant reductions in time to comply in the region were in Indonesia (20 hours), Maldives (19 hours) and Malaysia (15 hours). In Indonesia and Malaysia the reduction was due to improved electronic systems for social security contributions while Maldives decreased its time by increasing the number of counters at the tax office, especially at peak times, which means shorter waiting times for taxpayers seeking to file their returns and make payments.

While Vietnam was the economy that decreased its time to comply the most, Myanmar and Kiribati increased theirs the most by 34 and 36 hours respectively. Despite the increase however, they both have a lower time to comply than the global average. Myanmar now requires corporate income tax to be estimated and paid quarterly and also increased the administration required around the documentation of VAT on purchases.

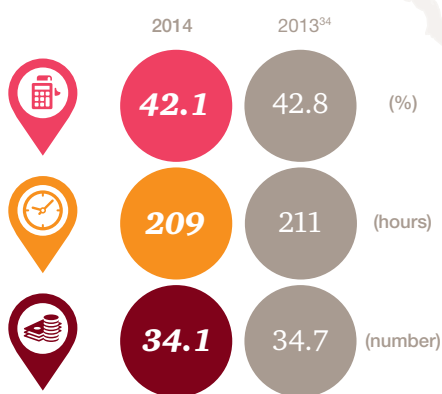
Kiribati introduced a VAT system in the year which accounts for the increase in its time to comply and also added 3 payments to its payments sub-indicator.

The number of payments decreased overall, with Indonesia reducing its payments by 11 due to social security contributions being paid and filed electronically; Brunei Darussalam reduced its payments by 9 by merging two of its labour taxes; and Vietnam decreased its payments by 2 as VAT payments are now made quarterly.

In addition to the new VAT payments in Kiribati, Tonga now has an additional payment following the reintroduction of business licences and the Republic of Korea also has an extra payment as local and national corporate income taxes are now paid and filed separately.

Figure 2.18

Central America & the Caribbean³³



Central America & the Caribbean

The Central America & the Caribbean region has continued to improve in all three sub-indicators. The average Total Tax Rate for the region has decreased by more than other regions with a fall of 0.7 percentage points. Of the twenty economies in the region, four increased their Total Tax Rates and five decreased them.

The decrease in the average Total Tax Rate was mainly driven by reforms in The Bahamas, Jamaica, and Guatemala. The Bahamas reduced the business licence tax from 1.5% to 1.25% of turnover and abolished the \$500,000 minimum liability; as the case study company had been paying the \$500,000 minimum in previous years this change resulted in a significant 7.4 percentage point decrease in the economy’s Total Tax Rate. On the other hand, the wage ceiling used for calculating employers’ social security contributions was raised slightly resulting in a marginal increase in the labour tax Total Tax Rate for The Bahamas.

There were several changes to taxes in Jamaica in the last year including increases in stamp duty, property transfer tax, property tax and labour taxes paid by the employer, but these were outweighed by a decrease in corporate income tax following the introduction of an Employment Tax Credit. The credit is equal to the amount of social security costs paid up to 30% of taxable trading profits. It could effectively reduce the headline rate of corporate income tax from 25% to 17.5%. For the case study company it decreased the Total Tax Rate by 6.4 percentage points. Furthermore, Jamaica increased the tax depreciation rate for buildings, which also contributed slightly to the reduction in the Total Tax Rate.

³³ The following economies are included in our analysis of Central America & the Caribbean: Antigua and Barbuda; Bahamas, The; Barbados; Belize; Cost Rica; Dominica; Dominican Republic; El Salvador; Grenada; Guatemala; Haiti; Honduras; Jamaica; Nicaragua; Panama; Puerto Rico (U.S); St. Kitts and Nevis; St. Lucia; St. Vincent and the Grenadines; Trinidad and Tobago.

³⁴ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

Guatemala's Total Tax Rate fell by 2.4 percentage points following the reduction of the corporate income tax rate from 31% to 28%.

While The Bahamas abolished its minimum tax, Honduras and Jamaica both introduced a minimum tax. For Honduras its Total Tax Rate increased by 2.6 percentage points. Companies must now pay tax based on the higher of 1.5% of gross income, or 25% of net income. For the case study company, the tax on gross income is the higher. As a further example of how a minimum tax can operate, in Jamaica, the minimum tax of J\$60,000 is creditable against the corporate income tax. For the case study company, the actual corporate income tax payable by the case study company exceeds the minimum tax, so the minimum tax had no effect on Total Tax Rate, but increased the time to comply by 2 hours and the payments by 1.

Across the region, there was a small drop of 2 hours in the time to comply sub-indicator; the introduction of widely used electronic filing and/or payment systems led to reductions in administrative compliance burdens in Costa Rica, Jamaica and El Salvador.

For Costa Rica, the reduction in time of 12 hours and 14 payments was due to taxpayers, who already filed their corporate income tax and sales tax returns online, now also being able to use electronic payments rather than paying in person at a bank.

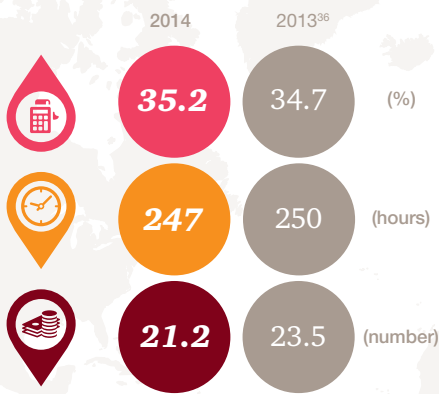
In Jamaica, the overall change to time to comply was a reduction by 10 hours. As electronic payment is now being more widely used, due in part to the charges now levied by banks on cheque transactions, this reduced the time to comply by 12 hours. However, this has not affected the payments sub-indicator as issues with the electronic filing system have meant that it is not yet used by the majority of taxpayers. The reduction in time was partially offset by the introduction of the minimum business tax mentioned earlier which increased time to comply by 2 hours, leaving a net reduction for Jamaica of 10 hours to comply.

El Salvador now requires that corporate income taxes are filed electronically, which reduced the time to comply by 8 hours, but there has as yet been no impact on the payments sub-indicator as payments are not made electronically by the majority of companies.

Finally, Barbados introduced a municipal solid waste tax, increasing its payments by 1.

Figure 2.19

Central Asia & Eastern Europe³⁵



Central Asia & Eastern Europe

Since the first edition of *Paying Taxes*, the Central Asia & Eastern Europe region has done the most to reduce its compliance sub-indicators and this has continued this year as shown in Figure 2.19. The Total Tax Rate sub-indicator for the region has also been falling steadily since the first edition, but this year that trend reversed with a 0.5 percentage point increase due to reforms in a number of the economies in the region. Of the 19 countries in the region, seven increased their Total Tax Rate, five decreased it and seven showed no change.

The greatest increase in the Total Tax Rate was by 5.2 percentage points in Albania where the rate of corporate income tax increased from 10% to 15% and the property tax doubled.

Although Macedonia's Total Tax Rate increased by 4.5 percentage points, it remains relatively low at 12.9%. The increase results from a fundamental reform to the country's corporate income tax system. As a consequence of the reform, corporate income tax is now due on realised profits calculated in accordance with relevant accounting and tax rules; previously corporate income tax was only due on distributed profits and certain expenses that could not be deducted for tax purposes.

Israel increased its corporate income tax rate from 25% to 26.5%, as well as increasing municipal taxes and the rate of employer's social security contributions for the upper income bracket. Altogether, these changes increased the country's Total Tax Rate by 1.4% points. Serbia changed its method of valuing properties for the property tax and slightly increased its environmental taxes, which jointly increased the economy's Total Tax Rate by 1.0 percentage point.

The greatest reduction in Total Tax Rate in the region was by 1.9 percentage points in Russia due largely to movable assets being excluded from property tax. Uzbekistan also reduced its land tax and reduced its headline rate of corporate income tax from 9% to 8%; the overall reduction in the country's Total Tax Rate was 1.0 percentage points. Another reduction in corporate income tax rates was seen in Ukraine where the rate fell from 19% to 18% resulting in a 0.5 percentage point drop in Total Tax Rate.

³⁵ The following economies are included in our analysis of Central Asia & Eastern Europe: Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Georgia; Israel; Kazakhstan; Kosovo; Kyrgyz Republic; Macedonia, FYR; Moldova; Montenegro; Russian Federation; Serbia; Tajikistan; Turkey; Ukraine; Uzbekistan.

³⁶ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

As with the Middle East and EU & EFTA regions, in Central Asia & Eastern Europe labour taxes paid by employer account for the highest proportion of the Total Tax Rate. This year within the region we have seen several small increases in labour taxes paid by employers, though the impact is less than that attributable to changes in profit taxes. Most significantly, Turkey increased its social security contribution rate paid by employers from 14.5% to 15.5% and the rate of Moldova's health insurance contribution paid by employers rose from 3.5% to 4%.

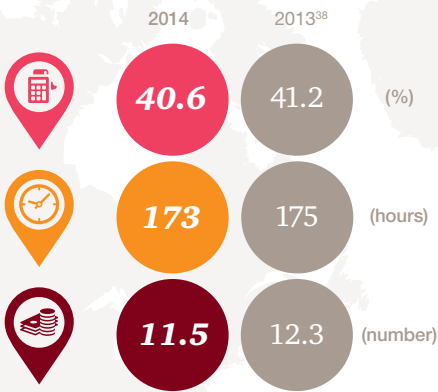
Central Asia & Eastern Europe has an average time to comply of 247 hours which is below the global average of 261 hours. The time to comply has reduced every year since 2005 and is the most improved of any region since the first edition of *Paying Taxes*. This year, the region saw a further reduction in compliance time and in the payments sub-indicator driven by reforms in 5 of the 19 economies in the region. Serbia recorded the highest reduction of 35 hours mainly as a result of full implementation of electronic filing systems for VAT and social security contributions, and it increased the use of existing electronic payment systems. Serbia's payments sub-indicator also fell by 13 as a consequence. The abolition of the urban land usage fee reduced Serbia's payment sub-indicator by a further 12 payments. As the fee was small, its abolition had a negligible impact on the country's Total Tax Rate.

Belarus reduced its compliance time by 7 hours by changing its quarterly corporate income tax compliance structure from a calculation based on forecast tax liability to one based on actual results, as well as by eliminating some differences in expense recognition for VAT and corporate income tax purposes, and further streamlining tax accounting rules. Montenegro's time reduced by 6 hours and its payments by 11 as taxpayers' use of electronic payment systems caught up with their use of electronic filing systems, and now the majority of companies fully uses electronic systems for social security contributions. In Tajikistan, the problems associated with the electronic systems introduced last year were remedied and as a consequence the time to comply reduced by 5 hours and the payments by 8. In contrast, Bosnia and Herzegovina's compliance time increased by 13 hours as taxpayers must now provide additional information as part of their VAT filings. Much of the increase in time is expected to be temporary as additional time was needed to make changes in companies' systems to be able to meet the new requirements.

Kosovo abolished the payment of business licence taxes reducing its payments by 1, while Kazakhstan increased its payments by 1 following the introduction of a contribution to the National Chamber of Entrepreneurs.

Figure 2.20

EU & EFTA³⁷



EU & EFTA

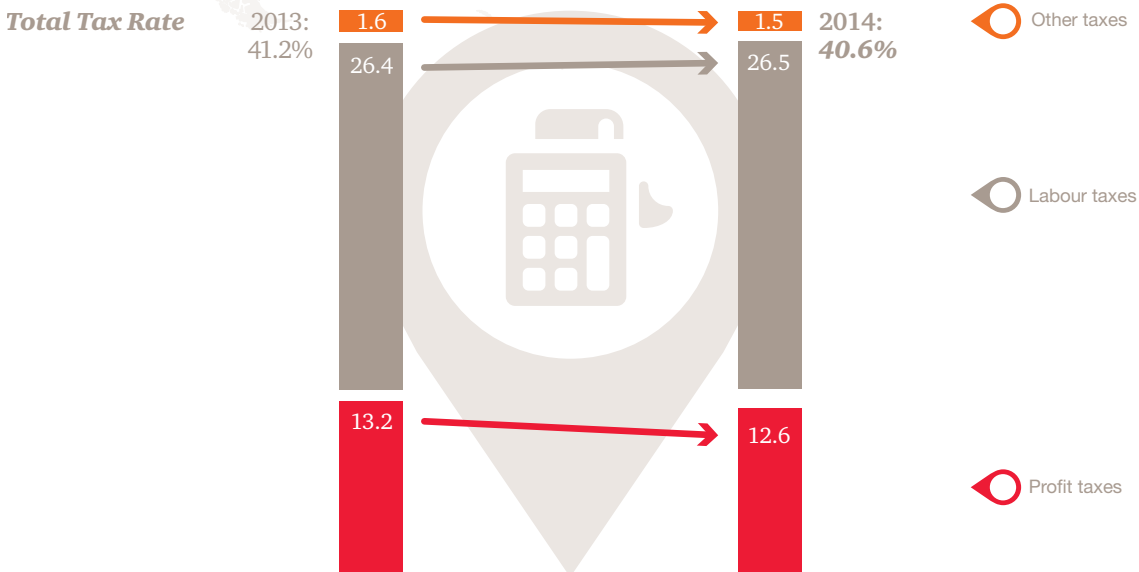
Since last year all three sub-indicators for the EU & EFTA region have decreased slightly.

Twenty economies in the region made reforms which affected their Total Tax Rates resulting in an overall reduction in the regional average from 41.2% to 40.6%. The picture however is mixed with 12 economies showing a decrease in their Total Tax Rates and 8 economies showing an increase. As shown in Figure 2.21 the reduction in the Total Tax Rate is attributable to profit taxes, though there is a slight increase in the labour tax Total Tax Rate.

Last year France had the highest Total Tax Rate in the region, but this has reduced by 6.2 percentage points to 62.7% and is now the second highest in the region after Italy. The greatest change was to corporate income taxes owing to the introduction of a tax credit amounting, in 2014, to 6% of salaries paid up to a certain limit. This reduced the Total Tax Rate by almost 6 percentage points. Between 2013 and 2014 there were also changes to several of the different types of social security contribution and payroll taxes paid by employers, resulting in a small overall decrease in the labour tax Total Tax Rate.

Figure 2.21

Movement in the Total Tax Rate in the EU & EFTA



Source: PwC *Paying Taxes 2016* analysis.

³⁷ The following economies are included in our analysis of the EU & EFTA: Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Norway; Poland; Portugal; Romania; San Marino; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; United Kingdom.

³⁸ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

Other significant decreases in profit taxes occurred in Spain and Finland following the reduction in corporate income tax rates from a flat rate of 30% to progressive rates of 15% to 20% in Spain, and 24.5% to 20% in Finland. These, together with other smaller changes implemented in each of the two economies resulted in decreases of 8.1 percentage points and 2.1 percentage points to their Total Tax Rates respectively. In the case of Spain, the change in the headline tax rate is a targeted reduction that applies to companies in their first two years of operation. For Finland, the change was to the general headline rate of corporate income tax.

Other notable reductions in the profit tax Total Tax Rate include:

- In order to promote growth and investment, Denmark increased to 115% the tax depreciation that can be claimed in respect of assets bought between 30 May 2012 and December 2013. Furthermore, the Danish corporate income tax rate is gradually decreasing from 25% in 2013 to 24.5% in 2014, and further to 23.5% in 2015 and 22% in 2016. These changes resulted in a decrease of 1.6 percentage points in the country's Total Tax Rate for 2014.
- The United Kingdom's Total Tax Rate fell by 1.5 percentage points largely as a result of the corporation tax rate falling from 23% to 21%, with further reductions planned for the future. There were several other changes to the rates and thresholds for business tax and social security contributions paid by employers.
- Portugal moved from a flat corporate income tax rate of 25%, to taxing small and medium-sized companies at 17% on the first €15,000 of profit and 23% on the remaining profit. Largely as a result of this, the Total Tax Rate fell by 1.4 percentage points.

The most significant increases in the Total Tax Rate in the region were in the Netherlands, Croatia and Cyprus, and were mostly changes to employers' labour taxes that increased the rates at which social security contributions are levied or affected the bands for these charges. These changes were partially offset by decreases in employers' social security contributions in Greece and Romania, leaving a small overall increase in the labour tax Total Tax Rate for the region.

Last year, EU & EFTA was already the second most efficient region in terms of the time needed to comply with tax obligations, but this fell by a further 2 hours this year. The 2 hour drop in the average time to comply across the region resulted mainly from the introduction or enhancement of electronic filing and payment of VAT in the Slovak Republic (19 hours decrease), Poland (17 hours decrease), Spain (9 hours decrease), and the Czech Republic (8 hours decrease). Croatia also reformed the process of calculating the advance payment on corporate income tax which reduced the time to comply by 2 hours.

In the Slovak Republic, it has been possible for some time for companies to file and pay their VAT online and many companies have been using the system. Online payment and filing is now used by the majority of taxpayers and as a result the time to comply has been reduced by 19 hours. One notable feature of the system is that online payments are automatically linked to the relevant tax return using a coding system.

The 17 hour reduction in Poland is also due to the use of an online system for filing and paying VAT. Although the system has been available since 2012, it was only in 2014 that it began to be used by the majority of companies, resulting in the reduction in time being recorded.

In 2014 the time to comply with tax obligations in the EU & EFTA fell by 2 hours on average.

Spain's 9 hour reduction results from improvements to data submission and retrieval within its already widely used VAT system, while in the Czech Republic the system used to submit and store VAT reports was linked to the Ministry of Finance's web portal. This improved connection between different government systems reduced the time to comply by 8 hours.

Ireland's time to comply increased by 2 hours as the case study company now has to file financial statements in machine readable format as part of its tax return.

In Belgium the time increased by 1 hour following the introduction of a 'Fairness Tax' that applies to companies paying dividends and making use of tax losses brought forward and certain interest reliefs. While the case study company doesn't actually make a payment in respect of this tax, and the additional compliance time is low, the addition of a new tax increases the complexity inherent in the Belgian tax system as a whole.

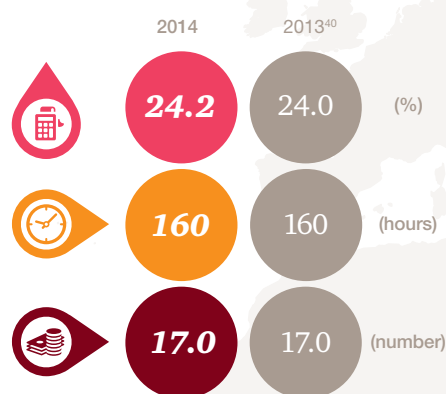
The changes in both Belgium and Ireland could be seen as being connected with the current tax debates where additional scrutiny is being demanded to ensure that companies are paying the 'right' amount of tax.

The reduction in payments for the region is closely linked to the changes in time to comply and the developments in electronic systems for VAT. Poland and the Slovak Republic both reduced their number of payments sub-indicator by 11 due to the implementation of online VAT systems. In Poland, the electronic system for transport tax shaved a further payment off the country's total payment sub-indicator. In Cyprus, online filing of corporate income tax has been mandatory for some time, but it was only in the last year that the majority of companies started making their payments online resulting in a drop of 2 payments and a reduction in time by 1 hour.

A new municipal tax was introduced in Italy increasing its payments by 1.

Figure 2.22

Middle East³⁹



Middle East

The Middle East still remains the region in which it is the easiest to pay taxes, with both the lowest average Total Tax Rate and the lowest average time to comply of all the regions. Most of the economies in the Middle East region have a Total Tax Rate below the threshold of 26.1% that is used for the distance to frontier calculation. Economies with a Total Tax Rate that is on or below this threshold are treated for the distance to frontier and ranking calculations as having reached the frontier. Any reductions in Total Tax Rate below 26.1% therefore have no further impact on the distance to frontier score or the overall ranking.

The Middle East region's time to comply is just 160 hours, some 455 hours lower than South America which is the region where it takes the longest on average for companies to comply with their tax obligations.

Perhaps unsurprisingly given its relatively low Total Tax Rate, the average Total Tax Rate has increased slightly by 0.2 percentage points due to reforms in some of the economies. In part, the low average Total Tax Rate in the region can be explained by a number of the economies deriving much of their revenues from the extraction of oil and gas and therefore needing to raise less revenue through taxation than many other economies in other regions. The Total Tax Rate of the United Arab Emirates increased by 1.1 percentage points due to an increase in the rate of the land transfer and registration tax from 2% to 4% (split equally between the buyer and the seller) and increases in business licence renewal fees. Both of these are counted as 'other' taxes. Jordan and Saudi Arabia increased employers' labour and social security contributions resulting in increases in their Total Tax Rates of 0.5 percentage points and 0.4 percentage points respectively.

There were no reforms that had an effect on the time to comply or the payments sub-indicators between 2013 and 2014.

³⁹ The following economies are included in our analysis of the Middle East: Bahrain; Iran, Islamic Republic; Iraq; Jordan; Kuwait; Lebanon; Oman; Qatar; Saudi Arabia; Syrian Arab Republic; United Arab Emirates; West Bank and Gaza; Yemen, Rep.

⁴⁰ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

Paying Taxes across the Middle East: a tale of divergent experiences.

Jeanine Daou, PwC Middle East Indirect Tax and Fiscal Reform Leader

Often any headline concerning taxes and the Middle East region is focussed around the relatively low taxation levels. And for some economies in the Middle East, this is reflected in their *Paying Taxes* results. However this headline does not tell the whole story. While paying tax is shown to be easy in the UAE, Qatar, Saudi Arabia, Bahrain, Oman and Kuwait, in the rest of the economies in the region including Lebanon, Jordan, Iraq and Iran, the results show a very different picture with a variety of tax rates as well as quite a range in the time required to fulfil the various compliance obligations.

Some economies across the region have been slow to adopt electronic filing technologies and self-assessment mechanisms, and it is also the case that post-filing obligations can be cumbersome, drawn out and time consuming.

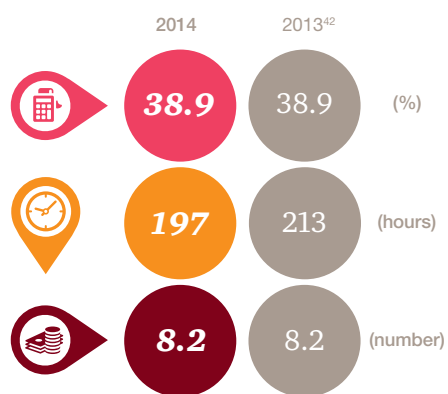
The pace of change in those Middle East economies where paying taxes is currently more burdensome, (including Iraq, Jordan and Lebanon) is slower and the *Paying Taxes* sub-indicators have remained largely the same as in previous years, so that now where reforms have been undertaken to improve tax systems by economies in other regions of the world they are now outperforming these Middle East economies.

A final issue to watch for the future for this region is that the oil exporting economies, given continued lower oil prices, appear increasingly likely to introduce new taxes, such as VAT, and this as a consequence will increase the necessary documentation and other compliance requirements.

As governments across the Middle East consider tax reform there remains significant opportunity to enhance collection mechanisms, providing greater certainty and reduced complexity for taxpayers through reform of administration practices.

Figure 2.23

North America⁴¹



North America

At 38.9%, North America's average Total Tax Rate is slightly below the global average of 40.8%. Although the regional average did not change, small movements in the Total Tax Rates were recorded in the USA and Mexico. For Mexico, the biggest change was to the minimum wage index which is used to calculate the social security contributions paid by employer. Combined with other minor changes, the overall impact of the changes in Mexico was, however, small, resulting in a decrease in the Total Tax Rate of less than 0.1 percentage points. In the USA, changes were observed only in New York City, where there was an increase in the base for calculating payroll taxes paid by employers and also in the rate of New York City and State property taxes. Again, the overall impact on the Total Tax Rate was 0.1 percentage points.

Since last year, the North American region's time to comply sub-indicator has reduced significantly by 16 hours due entirely to reforms in Mexico, where the business flat tax was abolished.

While the case study company did not pay the flat tax prior to its abolition, it would still have had to have performed lengthy calculations to determine the amount, compare this to the corporate income tax and then pay the larger of the two. For the case study company, the business flat tax therefore created a substantial administrative burden without affecting the company's tax liability.

Compared to the rest of the world, the proportion of time spent complying with profit taxes in North America is still the largest, with 43% of the time devoted to profit taxes. Across all the taxes, however, at 197 hours, the total time to comply with all taxes is still lower than the global average of 261 hours.

The average number of payments for the region remained unchanged at 8.2 payments and is still the lowest of all the regions.

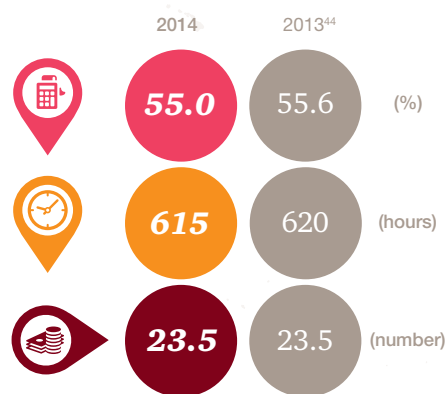
Compared to the rest of the world, the proportion of time spent complying with profit taxes in North America is still the largest.

⁴¹ The following economies are included in our analysis of North America: Canada; Mexico; United States.

⁴² The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

Figure 2.24

South America⁴³



South America

Compared to last year, the average Total Tax Rate for the South American region has fallen by 0.6 percentage points and the average time to comply sub-indicator has dropped by 5 hours. The average number of payments sub-indicator remains unchanged at 23.5 payments.

The reduction in the Total Tax Rate is largely driven by changes to labour taxes paid by companies in Colombia which resulted in a decrease of 7.6 percentage points in the country's Total Tax Rate. From 2013, employers of workers who earn less than 10 times the statutory minimum wage are exempt from the Welfare Security Tax, and from employers' contributions to the Colombian Family Welfare Institute and to the National Apprenticeship Service. As these changes came into effect part way through 2013, the full impact of the changes was only felt in 2014. Even after these reductions, Colombia has a labour tax Total Tax Rate of 18.6% which is higher than both the regional average of 16.4% and the global average of 16.2%.

The regional impact of the reduction in the Total Tax Rate in Colombia was slightly offset by an increase in the headline corporate income tax rate in Chile from 20% to 21%. The Chilean corporate income tax rate is due to increase steadily over the next three years to 27% in 2017.

Of the 12 economies in the region, only Uruguay and Peru experienced a reduction in time to comply of 35 and 33 hours respectively. In Peru, there are mandatory electronic systems which allow a single record of employees to be kept and used for all labour taxes and the data can be rolled forward on the system from month to month. These systems have been in place for a number of years, but they have been continuously improved which has led to the reduction in the time to comply seen this year. This shows that it can take several years for electronic systems to generate real benefits for taxpayers.

There is a similar story in Uruguay where electronic systems for corporate income tax, social security contributions and for VAT have been in place for a couple of years. Continued improvements to these systems, including standardisation and simplification of forms and the increased use of electronic invoicing, have resulted in a reduction in the time to comply for 2014.

Reduction in Total Tax Rate driven by change to employers' labour taxes in Colombia.

⁴³ The following economies are included in our analysis of South America: Argentina; Bolivia; Brazil; Chile; Colombia; Ecuador; Guyana; Paraguay; Peru; Suriname; Uruguay; Venezuela, RB.

⁴⁴ The information for 2013 has been updated to include any corrections made to the underlying data since the publication of the previous edition of *Paying Taxes*.

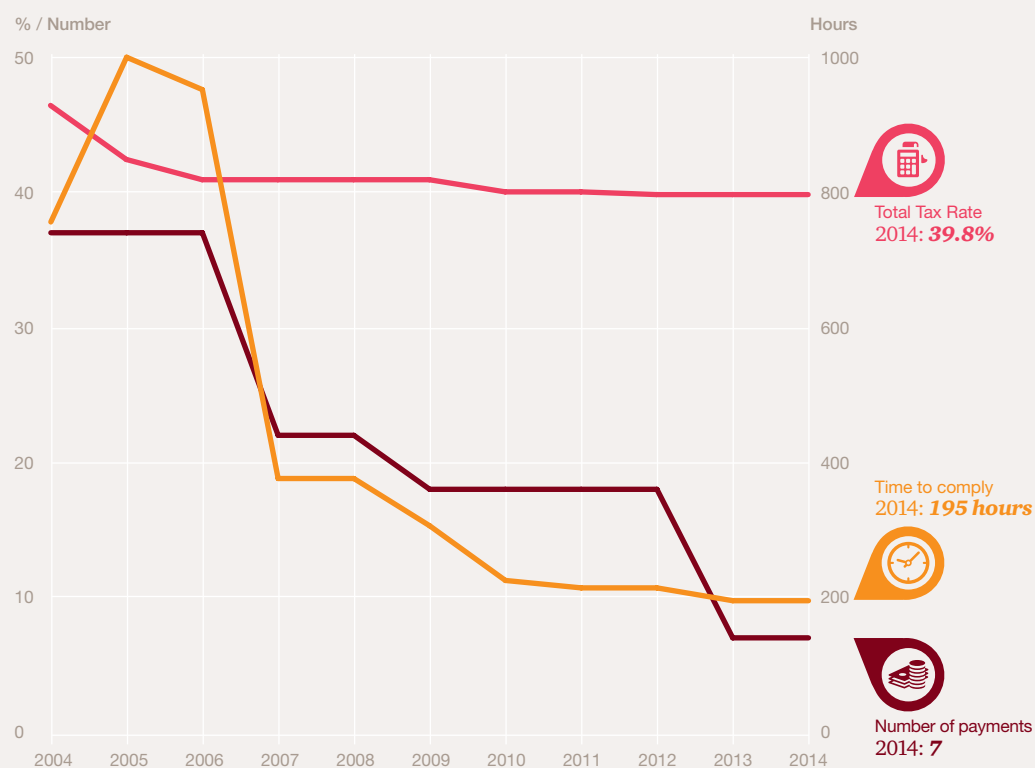
Azerbaijan

An improved tax system, but a more diverse tax base may be needed

Movlan Pashayev, PwC Azerbaijan

Figure 2.25

Trend in the *Paying Taxes* sub-indicators for Azerbaijan since 2004



Source: PwC *Paying Taxes 2016* analysis

Since Azerbaijan gained its independence in 1991, the country's tax system has made steady progress to a more modern tax system.

The transition period after independence lasted about ten years with the creation of a new tax administration and a focus on creating an environment to help promote foreign direct investment. The entry of many foreign oil and gas companies, who expected a certain level of service and transparency from the tax authorities, meant that the tax system in Azerbaijan required further reforms and structural changes.

As a result the country adopted a new tax code in 2001, which not only introduced new concepts, but also provided a catalyst for a change in the policy and approach of the entire tax administration.

The journey was however not without its challenges as Azerbaijan became increasingly dependent on oil and gas for its revenues. The decline in the share of indirect taxes from non-oil revenues reflected two main issues; first, VAT fraud and evasion reportedly intensified during 2004 – 2006, but this later declined. Second, consumption, which gives rise to VAT, grew more slowly than the population's nominal incomes and corporate profits, which are the bases for personal and corporate income taxes, respectively.

At this point around ten years ago, in the context of the country's economic and political development, the outstanding tax policy and administration issues that needed to be addressed were related to the projected decline in oil revenues in the next decade which, if not addressed, would lead to a slump in tax revenues. Therefore, in the last ten years, the focus of reforms has been on increasing tax revenues from the non-oil sector and modernising the tax administration system.

Overall, other than changes to the headline tax rates, Azerbaijan's tax legislation has remained largely unchanged over the past ten years. During this period, excise taxes were increased regularly while the corporate income tax rate was lowered from 24% to 20% to increase the competitiveness of the country for foreign direct investment as other countries in the region had reduced their rates. Furthermore, the combined social security contributions for employers and employees were reduced from 28% to 25%, while interest rates on unpaid tax fell from 0.5 % to 0.1%.

Since 1991, Azerbaijan has made steady progress towards a more modern tax system.

Over the same ten year period, tax collections in Azerbaijan have increased dramatically as shown in Figure 2.26.

For 2014 Azerbaijan's Total Tax Rate is 39.8% which is above the average for the Central Asia & Eastern Europe region of 35.2% though below the global average of 40.8%. Labour taxes and social contributions constitute the most significant part of the tax cost being 62% of the Total Tax Rate compared to 53% and 40% for the region and the world respectively.⁴⁵

On the compliance indicators, Azerbaijan fares considerably better than the world and the regional averages with just 7 payments and 195 hours, compared to 21.2 payments and 247 hours for the region and 25.6 payments and 261 hours globally.

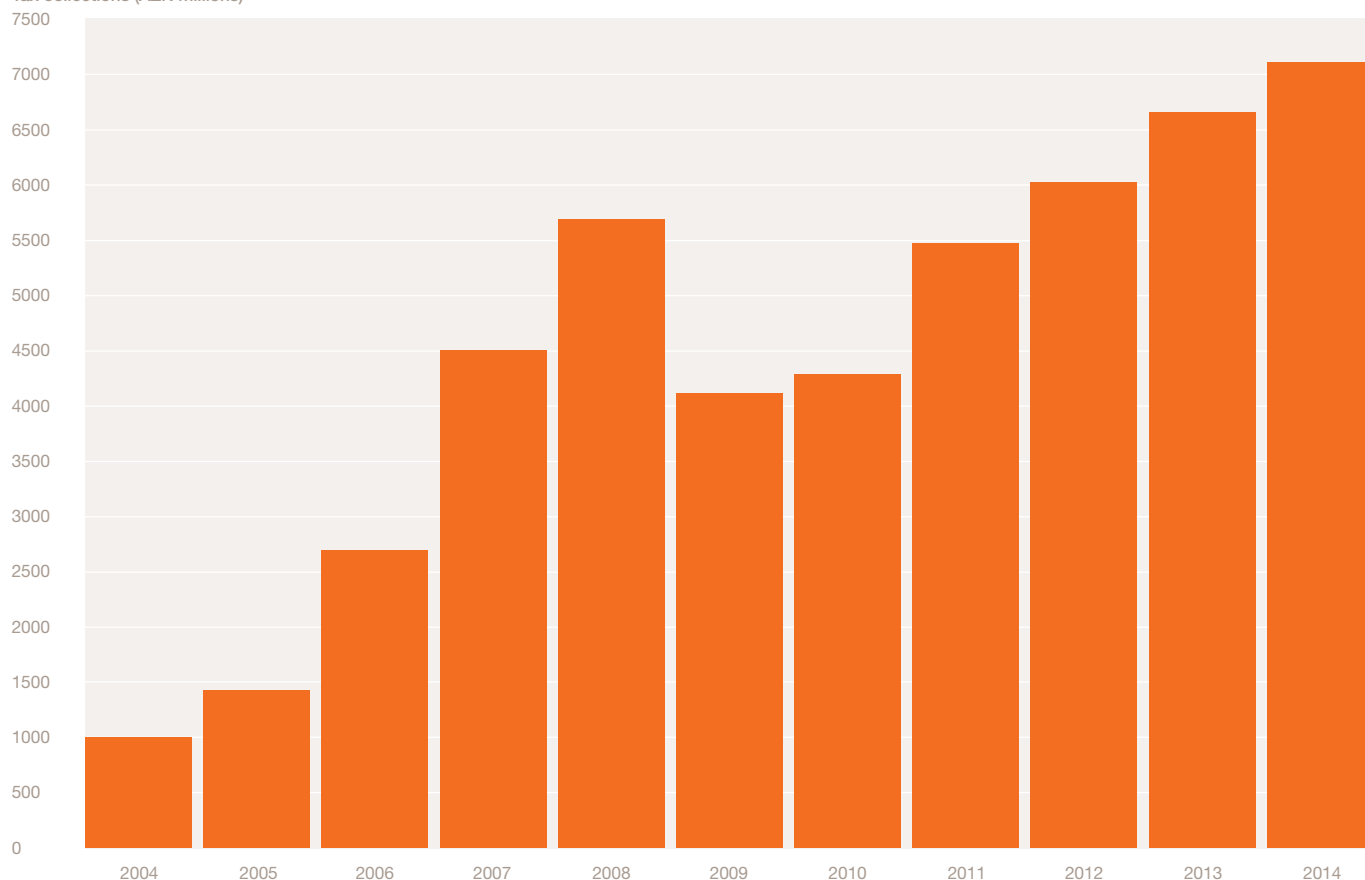
Since 2006, the country's Total Tax Rate has not fallen significantly, while the two compliance sub-indicators have improved substantially following the reforms the government began implementing in 2005. The reforms were aimed at establishing a strong foundation for a modern tax administration. The reforms included: the adoption of automated systems in several functions, and the creation of a taxpayers' services program.

The modernisation process continued in 2007 and 2008 with: (i) the tightening of the VAT registration controls; (ii) the implementation of an integrated computer system for all taxes; (iii) the introduction of electronic filing with a special webpage created for the taxpayers to have the possibility to write and send or receive all documents to/from the tax authorities in electronic form; (iv) the establishment of a one-stop shop business registration in 2008; and (v) the strengthening of human resources management and performance measurement.

Figure 2.26

Tax collections in Azerbaijan

Tax collections (AZN millions)



Source: Azerbaijan Ministry of Taxes, <http://www.azstat.org/MESearch/details?lang=az&type=2&id=238&departament=15>

⁴⁵Please refer to the regional breakdown in Appendix 2 to see Azerbaijan's rates amongst the Central Asia and Eastern Europe region.

Many of these changes have had a direct impact on the compliance sub-indicators, with the payments sub-indicator having reduced from 37 in 2004 to 7 in 2014 and the time to comply from 756 to 195 over the same period.

There have also been reforms to post-filing compliance. The tax dispute resolution process has been enhanced by the establishment of a Tax Appeals Board, the creation of new audit procedures that are more focussed on risk-management and the implementation of e-audit software.

The country does however face a number of challenges including the existence of a large cash-based informal economy which increases the difficulties associated with collecting taxes from industries outside the oil sector. The absence of records for cash transactions can cause a significant erosion of the tax base, especially for VAT.

The main tax administration problems related to VAT collection have however been largely corrected in recent years. Action has been taken to reduce a widely used fraudulent practice consisting of the establishment of fictitious businesses with the sole purpose of requesting VAT refunds and non-compliance with registration procedures.. These problems have been tackled by cleaning up the VAT register, which halved the number of registered VAT taxpayers and at the same time, registration controls were strengthened, including a system of special VAT bank accounts which became effective on 1 January 2008.⁴⁶ In addition, the Customs Committee has implemented a 'single window' facility for customs clearance and card payments, with a view to increasing transparency in the implementation of customs regulations and reducing face to face interactions between importers and customs officials. Such face to face interactions can provide an opportunity for instances of corruption and so replacing such transactions with electronic systems can help to reduce the number of irregular payments and bribes.

What is next ?

Currently one of most significant fiscal challenges for Azerbaijan is to increase the performance of the non-oil sectors and thereby increase the share of tax revenues coming from industries other than oil and gas. The drastic fall in global oil prices, as well as a decrease in the country's oil production, contributed to a significant economic slowdown in 2014. Azerbaijan's GDP grew by only 2.8 % in 2014 compared to 5.8% in 2013. A similar rate of GDP growth is expected in 2015 and, possibly, in 2016.⁴⁷

To some extent the impact of falling oil prices is being mitigated by a stronger performance in Azerbaijan's non-energy related industries. Non-oil GDP, including construction, agriculture, transport and communications sectors, grew by 7% in 2014, while oil-related GDP contracted by 2.9%.⁴⁸ Azerbaijan was also able to rely on its sovereign wealth fund, SOFAZ.⁴⁹

While on-going diversification and the resources of its oil fund may mean Azerbaijan will weather the drop in oil prices, non-oil tax revenues are currently regarded by many as being below their potential and so expanding the tax base and providing better tax and customs administration are important tasks for the Government and Ministry of Taxes.

For 2015, Azerbaijan is projected to grow by 1.5 percent based on conservative oil prices of \$55 per barrel, though government funding in investment projects has been cut by more than 50 percent in the 2016 fiscal budget.⁵⁰ The growth rate is a slowdown compared to 2014, which had a budgeted price of \$90 per barrel. This forecast indicates that Azerbaijan's economy is facing considerable challenges and underlines the need to continue to maximise tax revenues from non-oil and gas sectors. To support this, substantial institutional reforms may be necessary.

Future reforms should look at how to widen the tax base and promote transparency and trust in the revenue administration system thereby increasing public revenue collection. Such changes would support the government in developing a sustainable source of revenues with which to finance its development plans, including public service delivery, in the long term. This should form a core part of the governance strategy to improve state institutions, promote accountability and target corruption.

Future reforms should look at how to widen the tax base and promote transparency.

⁴⁶ For more information relating to VAT accounts, please see here: <http://www.iota-tax.org/content/view/379/39/>.

⁴⁷ <http://www.worldbank.org/content/dam/Worldbank/document/Azerbaijan-Snapshot.pdf>

⁴⁸ Source: <http://data.worldbank.org/country/azerbaijan>

⁴⁹ SOFAZ has assets of over \$37 billion. For more information, see: http://www.oilfund.az/uploads/annual_2014en.pdf

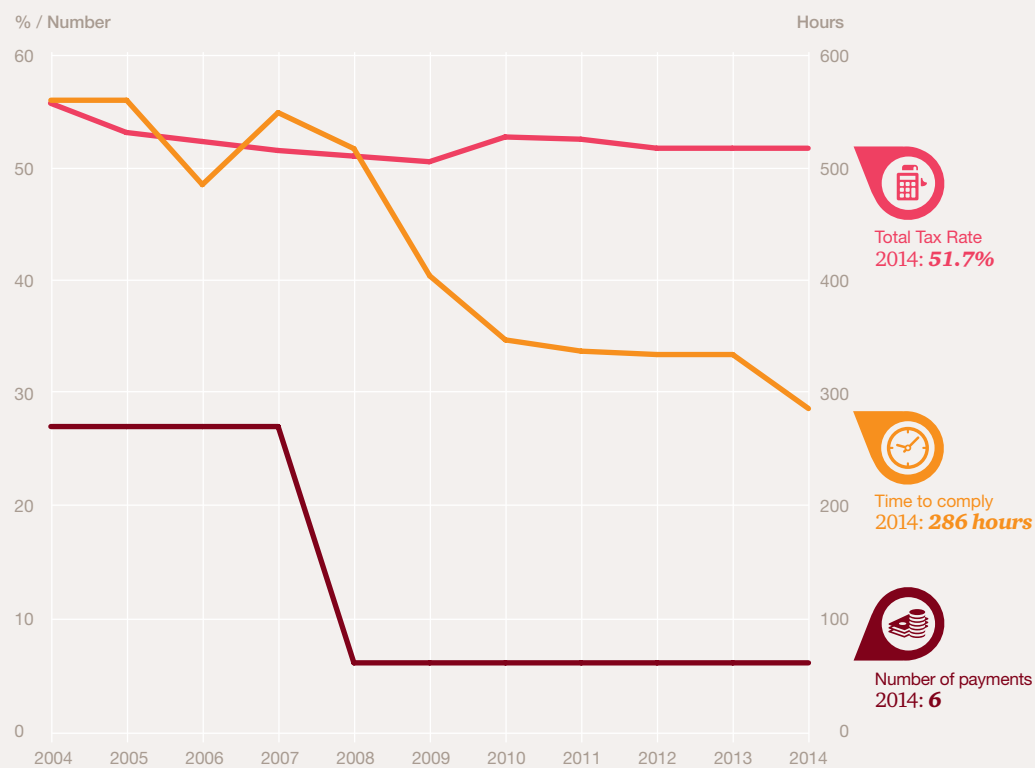
⁵⁰ http://data.worldbank.org/country/azerbaijan#cp_wdi

Mexico

Changing the tax system to address the informal economy

Mauricio Hurtado de Mendoza, PwC Mexico

Figure 2.27
Trend in the *Paying Taxes* sub-indicators for Mexico since 2004



Source: PwC *Paying Taxes 2016* analysis

Mexico has always been an important market for foreign investors with an economy which is becoming increasingly diverse. The service sector is significant, the commercial sector (including hotels and restaurants) also accounts for a large percentage of Mexico's Gross Domestic Product (GDP), while approximately one quarter of the total working population is employed in agriculture, cattle ranching, forestry, and fishing.⁵¹ In recent years, manufactured goods have surpassed oil as the principal export item.⁵²

Against this background, the tax system and how it operates has presented many challenges for the Mexican government. These include a significant informal economy and the cost of tax evasion, driving a need to find the correct balance between offering an attractive environment for investors and establishing an efficient tax system that delivers sufficient revenue for the country's needs. The government also has a need to adapt its legal framework to work alongside the new initiatives around international cooperation including the OECD BEPS programme.

The challenge of the informal economy

Parts of the Mexican economy are still characterised by informal employment with unregistered employees who operate outside usual government regulations and who lack access to stable incomes, a good education, comprehensive healthcare and affordable financial services. The main reasons for this informality is financial, including tax evasion. Measuring the actual extent of informality in the economy is very difficult, but worldwide, it is estimated that the informal sector represents between 10% and 20% of global output in developed countries, but more than a third of the output of developing countries.⁵³ According to Mexico's National Institute of Statistics and Geography, the informal economy accounted for an average of 26% of Mexico's GDP between 2000 and 2009.⁵⁴ The challenge for the government is to try and convince this large informal workforce to pay taxes in return for the benefits of social security. In 2014 Mexico introduced an 'incorporation regime' to encourage those in the informal economy into paying taxes over a period of time. Under this regime they only become fully tax paying ten years after enrolling into the program. In return, they would receive social security from the start, including public healthcare cover.

⁵¹ BOLETÍN DE PRENSA NÚM. 155/15 27 DE ABRIL DE 2015 AGUASCALIENTES, AGS. PÁGINA 1/2 INDICADORES DE OCUPACIÓN Y EMPLEO CIFRAS OPORTUNAS DURANTE MARZO DE 2015.

⁵² BOLETÍN DE PRENSA NÚM. 154/15 27 DE ABRIL DE 2015 AGUASCALIENTES, AGS. PÁGINA 1/2 INFORMACIÓN OPORTUNA SOBRE LA BALANZA COMERCIAL DE MERCANCÍAS DE MÉXICO DURANTE MARZO DE 2015.

⁵³ Informal Economy and the World Bank. Nancy Benjamin with Kathleen Beegle, Francesca Recanatini and Massimiliano Santini. The World Bank Poverty Reduction and Economic Management Network, Economic Policy and Debt Department, May 2014.

⁵⁴ <http://www.inegi.org.mx/est/contenidos/proyectos/cn/informal/>

For any jurisdiction, a tax system needs to be both fast and efficient, while at the same time being able to meet the revenue needs of that jurisdiction. A fast and efficient administration for tax collection can be beneficial for both business and government – less time consuming and less costly for businesses, and often with higher revenue for governments. An overriding principle for governments to consider (among a number of other factors) is that simple tax systems coupled with fast and efficient administrations can help promote economic growth by creating a predictable environment from which both businesses and governments can benefit in the long run. In a competitive global market, the design of a tax system can influence multinational enterprises when deciding where to invest, or the timing for a decision to make a long term commitment to a specific country.

Changes in the operation of the tax system

Although electronic filing and payment of the main taxes has been available in Mexico for several years, and accounts in large for the reductions in the compliance sub-indicators between 2004 and 2010, there have been more recent developments in the electronic systems for tax compliance.

In order for the Mexican Tax Authority (Servicio de Administración Tributaria or SAT) to carry-out real time audits, it is now a requirement for corporations and individuals operating in Mexico, not only to issue electronic invoices, but also to file accounting information through its mailbox system. Information required includes the chart of accounts, as well as monthly transaction details with identification of third parties involved. By mandating the use of electronic invoices in 2013, Mexico's audit capability continues to evolve as the tax authority now has insight into each invoice exchanged within the country. The main reason for the government to implement electronic invoicing (Comprobante Fiscal Digital por Internet or CFDI) across the business community and to request the company's entire financial statements, including the detail book entries, is to reduce tax evasion. Such an approach is common for the region: Brazil has the Notas Fiscais and Sistema Público de Escrituração Digital (SPED); Chile has the Documentos Tributarios Electrónicos (DTE) and Reporte de Libros (Libro de Boletas, Libro de Guías, Libro de Venta and Libro de Compra); Mexico has the CFDI and electronic accounting.

In an effort to facilitate complying with this obligation, particularly for small businesses, in 2014 the Mexican government introduced rules that expand the use of electronic means to facilitate tax compliance through My Accounts; this is an application on its website which taxpayers can use to issue their electronic invoices for free. The tax mailbox is also accessed through this route. These applications also include the requirement to upload electronic receipts for payroll. The introduction of this system is beneficial but it is important to keep in mind that the introduction of any new system or tax obligation brings with it a steep learning curve with a consequent impact on costs and time required.

Major reforms have been made to most types of taxes over the period covered by the *Paying Taxes* study, including profit, consumption, energy and other taxes. In terms of corporate taxation, limits on depreciation allowances were imposed and the Impuesto Empresarial a Tasa Única (IETU) flat tax, was eliminated. Consumption taxation was broadened by applying the same tax rates across the entire country. New excise taxes have been imposed on fossil fuels (except natural gas). For personal taxation, the top marginal rate was raised to 35%, and limits were imposed on the deductions available. Finally, a carbon tax and taxes on high-calorie foods and sweetened beverages were introduced. Despite these changes, and in particular those that relate to taxes covered by the *Paying Taxes* study, Mexico's Total Tax Rate has remained at broadly the same level for several years.

Certain measures which have been introduced by the tax authorities have increased the pressure on taxpayers, including:

- Auditing several fiscal years at the same time.
- In certain circumstances, the SAT has seized taxpayers' bank accounts and removed them from the Importers Registry (which means taxpayers can no longer import merchandise) to put pressure on taxpayers to pay unpaid taxes.
- In some cases, delaying the reimbursement process for tax credits and refunds or not making the refund at all in some cases

In 2013 the Mexican government had expressed that simplicity is a desirable attribute for the tax system and that the less complex the design tax of the tax system, the more affordable it would be for taxpayers, with the expectation that this should result in a higher level of compliance, increased collection and a more equitable tax burden distribution among taxpayers. Reference was also made to the fact that in addition to the burden on time, complexity in the system required companies to hire specialists whose time could otherwise be used for more productive purposes in the economy. The cost of complex regimes extends further to a high cost of control and audit by the tax authority.

With these principles around simplicity in mind, the Mexican government decided to repeal of the IETU. Since the 1980s Mexico had included as part of the domestic tax rules the requirement to determine an Alternative Minimum Tax (AMT) of which IETU is an example. This was a mechanism created to ensure that individuals and corporations pay at least some minimum amount of tax, regardless of deductions, credits or exemptions. Prior to the abolition of IETU, the *Paying Taxes* case study company did not in fact pay the minimum tax as it paid sufficient corporate income tax, but still had to calculate the amount of IETU in 2014 to which it could have been liable. Removing this obligation reduced the time to comply by 48 hours.

What's next for the Mexican tax system?

But not all the reforms announced have been increases in tax or changes to deduction/disallowance rules; in 2014, the Mexican Ministry of Finance announced an agreement stating that there will be no further tax modifications initiated by the executive power until November 2018, placing trust in the implementation of measures already approved and in the strength of the technological platform which supports the tax administration.

It seems likely, however, notwithstanding the current commitment of the Mexican government to make no further tax law changes for the rest of its six year administration, that the Mexican Congress or the States could initiate changes to the tax system to further promote economic development or benefit the business community. Such changes might include measures to promote investment and employment, as well as people development and innovation. This could be achieved by offering benefits such as simplified tax incentives for investments, the creation of jobs, actions to support innovation and enhance productivity.

A well designed tax system can bring about the additional public revenues which are needed to finance extra spending on strategic areas such as education and infrastructure. Cutting public spending to ensure budget discipline in the face of revenue deceleration is becoming more recurrent in Mexico. Proper reforms will be crucial to guarantee a sustainable recovery. This will require maintaining a strong political commitment and further strengthening of administrative capacity going hand-in-hand with an efficient tax program.

In 2013, Mexico abolished its alternative minimum tax.

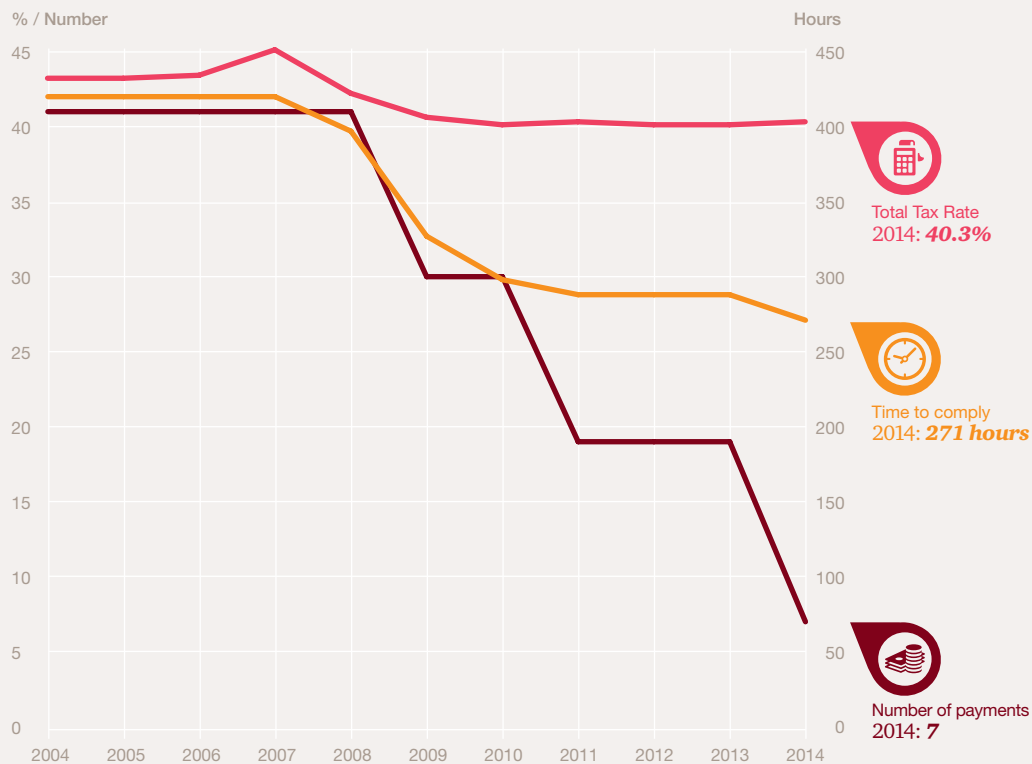
Poland

The Polish tax system: heading in the right direction

Tomasz Baranczyk, PwC Poland

Figure 2.28

Trend in the *Paying Taxes* sub-indicators for Poland since 2004



Source: PwC *Paying Taxes 2016* analysis

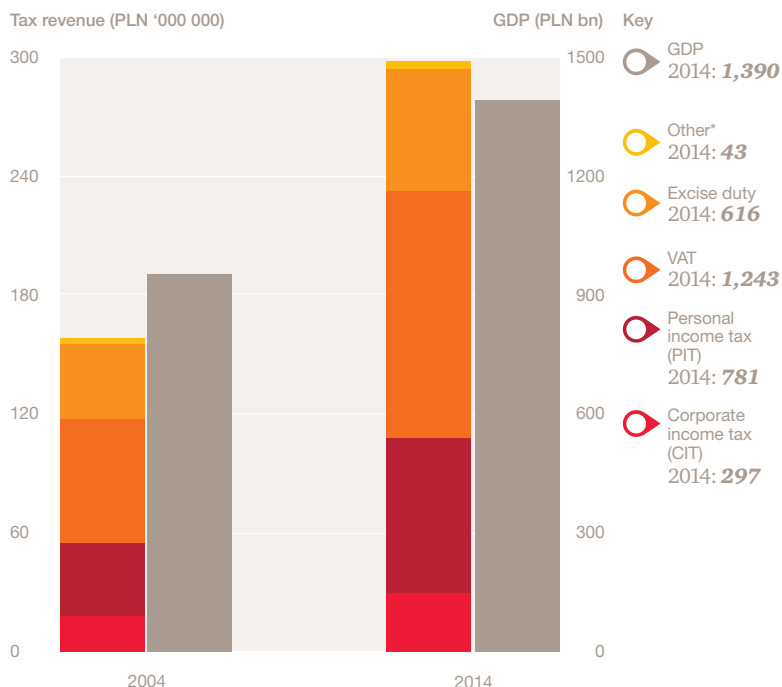
The Polish economy has evolved significantly over the time period covered by the ten editions of *Paying Taxes*. The transition to a market economy, accession to the European Union and the gradual implementation of commonly applied global tax and legal practices have all had a significant effect on the Polish tax system. Many of these changes have had an impact on the *Paying Taxes* sub-indicators for Poland while others, although they go beyond what the study measures, have nevertheless resulted in real changes for businesses.

In general, the *Paying Taxes* sub-indicators show that in Poland it is becoming easier for businesses to pay their taxes. The number of hours needed to comply with tax obligations decreased from 420 in 2004 to 271 in 2014; the number of payments sub-indicator has reduced from 41 to 7, and the Total Tax Rate has reduced from 43.2% to 40.3% over the same period. The changes with the greatest impact on the sub-indicators are largely a result of the *E-podatki* (E-taxes) programme which has been under way for several years and which is aimed at increasing contact between taxpayers and the tax administration. As part of the programme the electronic Tax Portal was recently launched and a pre-populated tax return has now been made available. From 2015, all but the smallest companies are required to file their tax returns using an electronic format.

Also in 2015, a new Tax Administration Act entered into force, the main purpose of which is to facilitate settlements and communication with the tax authorities. For example, taxpayer service centres are expected to be opened where taxpayers will be able to file certain returns irrespective of the local jurisdiction to which they relate, and tax assistants will be made available as required to assist people who are new to starting up a business. These practical changes, along with applying the principle of giving the taxpayer the benefit of the doubt, should provide further benefits for many taxpayers in the future. It is of note that alongside these improvements to the tax system there is evidence that the effectiveness of the Polish tax system has increased – according to the Ministry of Finance, proceeds from taxation almost doubled from approximately PLN 158 billion in 2004 to approximately PLN 298 billion in 2014. Over the same period the average annual inflation rate was less than 2.5%.⁵⁵

Figure 2.29

Polish tax revenue profile 2004 vs 2014: tax collection and GDP



* Other includes gambling tax, duty and other taxes

Source: Polska w Unii Europejskiej 2004-2014, page 115 available at: <http://stat.gov.pl/dla-mediow/konferencje-prasowe/konferencja-prasowa-prezesa-gus-z-24-kwietnia-2014-r-5,1.html#>

Source: Polish Tax revenues, available at: http://www.finanse.mf.gov.pl/budzet-panstwa/wplywy-budzetowe/-/document_library_display/u2GC/view/3406416

⁵⁵ See <http://www.inflation.eu/inflation-rates/poland/historic-inflation/cpi-inflation-poland.aspx>

Taking each of the three *Paying Taxes* sub-indicators in turn, what follows is a look at the changes that have occurred over the ten editions of *Paying Taxes*, highlighting some of the most important reforms.

1. Time to comply

Paying Taxes shows that the average time needed by the case study company to meet its tax compliance obligations decreased from 420 to 271 hours since 2004 – a reduction of 35%. The reduction is due to both new regulatory measures and advances in technology. The increasingly modern systems that companies have in place to prepare and file their taxes have allowed them to reduce the amount of time needed for the compliance process. In addition, online money transfers are more and more popular and have significantly reduced the payment time in the hours needed to comply. Most businesses now pay their taxes electronically, even though there is no legal requirement to do so.

The introduction in December 2008 of quarterly tax filing for VAT has also contributed to the reduction in the amount of time needed.

There have however been some factors that have had an adverse effect on the amount of time needed to prepare, file and pay taxes. These include the frequent changes made to the tax return forms, frequent changes in secondary legislation and general changes in the tax law (e.g. concerning tax exemptions). Keeping up to date with current trends in judicial decisions can also affect the amount of time needed to prepare tax returns. Even though Polish law is not based formally on judicial interpretation or precedents, in practice court and tribunals often refer to previous interpretations and judicial decisions. In particular, decisions of the Supreme Administrative Court (SAC) play an important role and time is required to keep abreast of these developments.

For many taxpayers, the introduction of payment backlog regulations in 2013 imposed an additional compliance burden. The aim of these regulations was to help businesses maintain financial liquidity, however, in practice they increased the administrative burden quite significantly. In accordance with these regulations, a business which fails to settle its liabilities within the statutory deadlines is obliged to increase its taxable profits by the amount left unpaid. The regulations have been strongly criticised by businesses and they are expected to be revoked as of 1 January 2016.

2. Payments

Since 2004, the number of payments has also reduced significantly from 41 in 2004 to 19 in 2011 and just 7 in 2014. This is mostly the result of the introduction and widespread adoption of electronic filing and payment of taxes for corporate income tax, social security contributions and, in the last year, for VAT. Under the *Paying Taxes* methodology, where a tax is filed and paid electronically by the majority of taxpayers, it is counted as one payment even though in practice a business may make more frequent payments. The growing popularity of electronic filing and payment systems has therefore led to a reduction in the sub-indicator for payments.

The decrease in the number of payments was also due to:

- The reduction of frequency of filing and payment of the property tax from monthly to annual, and
- The use of computerised settlement systems by taxpayers to accelerate the payment process.

3. Total Tax Rate

The Total Tax Rate for Poland has remained relatively stable over the ten editions of *Paying Taxes*. It is worth noting, however, that a significant decrease in the corporate income tax rate did take place in 2003, before the data collection on *Paying Taxes* started, when the 27% rate was abolished and the 19% rate was introduced.

For personal income tax there has been an important change in the tax bands; three tax bands of 19%, 30% and 40% were in force until the end of 2008, but these were changed to two bands of 18% and 30% as of 2009. While this change does not affect the Total Tax Rate for our case study company, as personal income tax is borne by employees rather than the company, it is nevertheless a significant change in the Polish tax system which illustrates the wider reforms being implemented.

In 2011, all four VAT rates were increased by 1 percentage point to 0%, 5%, 8% and 23%, although the government has stated that this increase is temporary. Again, this has not affected the Total Tax Rate as VAT is a tax borne by customers rather than companies, but the move in rate contrasts with the reductions in the corporate and personal income tax rates.

Finally, while minor changes in local tax rates and social insurance contributions are normally introduced every year, they have not resulted in significant changes to the Total Tax Rate.

4. Changes in the law and issues still to address

Over the past ten years, a number of changes have been made to improve the application of tax regulations. The appeals process has been a key element of this. As of 2004, a new appeals process was introduced whereby taxpayers can file 'cassation' appeals to the Supreme Administrative Court in relation to earlier decisions of lower courts. From 2005, taxpayers have been able to request binding individual tax rulings and the structure of these tax rulings was changed further in 2007 with the aim of providing better protection to the taxpayer. In 2015, specialisms have been introduced within the tax authorities, again with a view to improving the speed of the appeal process.

Since Poland's accession to the EU in 2004, Polish taxpayers have also had to take into account EU law. While this means there is more legislation to consider, it also provides access to some of the best practices available elsewhere in the EU. In recent years, the Polish tax system has been in the process of adapting and adopting the solutions prevailing in most other European countries concerning, for example, the taxation of CFC income, preparing transfer pricing documentation, thin capitalisation rules, or pre-filled tax returns. The introduction of the principle of giving the taxpayer the benefit of the doubt in disputes with the tax authorities is also planned for the future. These changes will mean that the Polish tax system is more in line with those in the rest of Europe and should make life easier for many businesses, especially those that also operate in other EU countries.

There are however some aspects of the Polish tax system that could be improved further. These include a reduction in the very frequent changes in tax law (e.g. in secondary legislation, particularly concerning VAT, and in the area of tax reliefs) and in the frequent changes to tax returns. There is also a lack of a uniform approach at a local level. An example is the lack of a common real estate tax form, which in practice means that a single real estate tax return cannot be filed for multiple properties located in a single municipality.

The approach and attitude of the tax authorities is also a factor that can affect the ease of paying taxes for companies. This can include unnecessarily onerous tax inspections and different interpretations of the same regulations applied by different tax authorities.

5. Summary

The *Paying Taxes* data over the period of the study suggests that the Polish tax system is heading in the right direction. Positive changes include in particular creating a transparent appeals process in relation to individual tax rulings, the reasonably stable tax rate structure, and the popularisation of electronic communication with the tax authorities including electronic filing of returns and making electronic payments. Introducing the principle of giving the taxpayer the benefit of the doubt in disputes with the tax authorities is also likely to make life easier for many taxpayers in the future. It should however be noted that some of the changes discussed here will not come into effect until 2015 at the earliest and so any potential impact will only be reflected in future editions of *Paying Taxes*.

The approach and attitude of the tax authorities can affect the ease of paying taxes for companies.

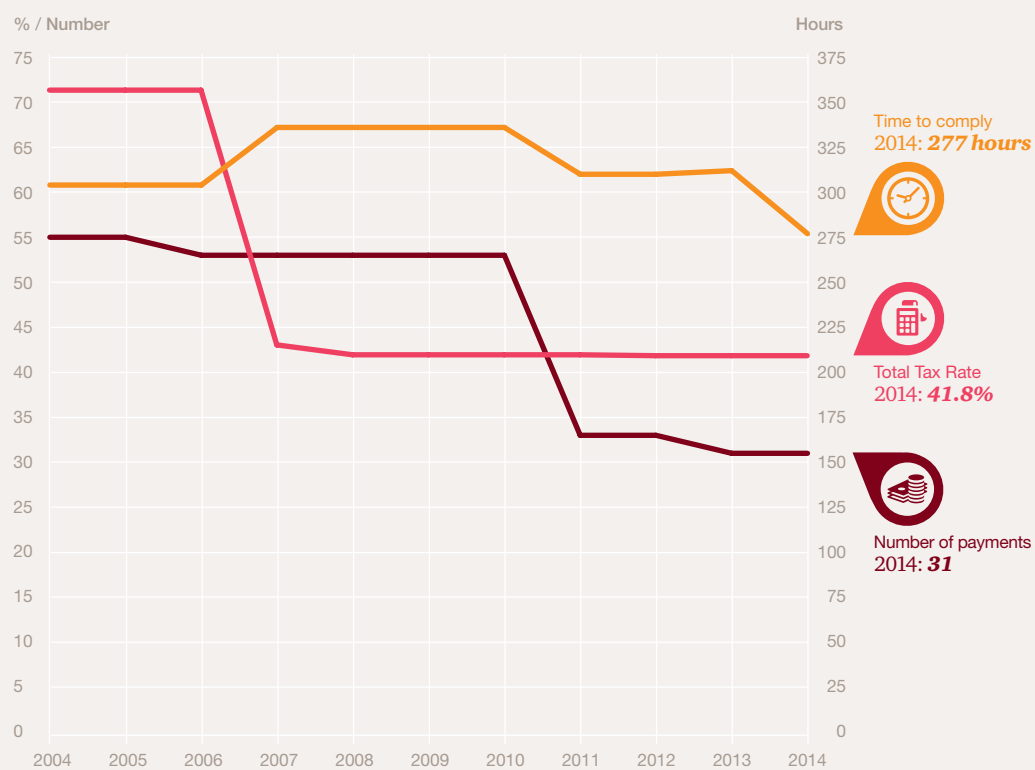
Uruguay

A reformed tax system with more registered taxpayers

Daniel Garcia, PwC Uruguay

Figure 2.30

Trend in the *Paying Taxes* sub-indicators for Uruguay since 2004



Source: PwC *Paying Taxes 2016* analysis

Since 2003, the Uruguayan economy has grown steadily and foreign direct investment has increased dramatically in different sectors of the economy. Furthermore, numerous measures have been taken to improve and develop the country, with the purpose of consolidating it as a preferred location in which to do business and make investments in South America.

In line with this objective, the three *Paying Taxes* sub-indicators – time to comply with tax obligations, the number of tax payments and the Total Tax Rate – have fallen steadily during this period following changes to the tax system. The foundation of these changes was laid by the most significant tax reform experienced by Uruguay in the last 30 years.

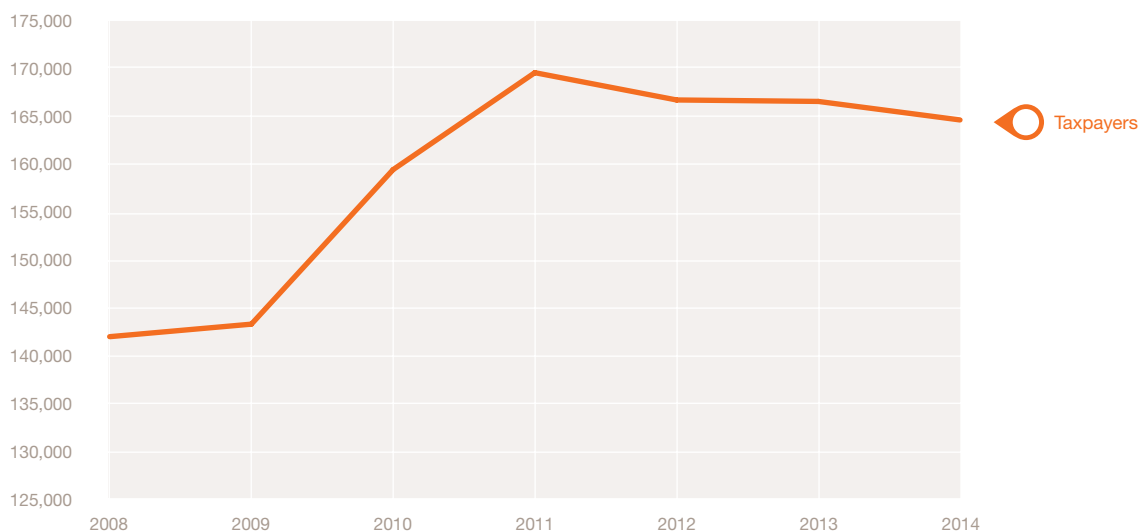
The reform pursued three major objectives: better quality, greater efficiency and an increase in productive investment and employment. To achieve these goals, the new tax rules focussed on: (i) simplifying and modernising the structure of the tax system (eliminating taxes which contributed little to overall tax revenues such as commissions tax, telecommunications tax and credit cards tax); (ii) reducing the importance of consumption taxation in the total tax burden by increasing direct taxation (mainly through the introduction of personal income tax);

(iii) rationalising corporate taxation (through the inclusion of certain types of income that had previously not been subject to tax), as well as extending this tax to all activities. The business community was consulted during the drafting of the tax reforms and different stakeholders had the opportunity to give feedback to the government on the proposed changes. These changes entered into force in July 2007.

This significant tax reform was not limited to modifying the rules, but also changed and improved the systems and processes for administering them. The initial move was the modernisation of the Tax Office, initially enhancing the recruitment and retention of staff and then creating specialised divisions focussed on the different characteristics of taxpayers and industries. Within the formal economy, tax compliance is now easier and more procedures are automated (such as the registration and collection of tax payments). Assistance, both online and on site, is widely available for new taxpayers and as a result it is not surprising that the number of registered taxpayers increased by 16% since the implementation of the reforms (Figure 2.31).

Figure 2.31

Number of taxpayers in Uruguay



Source: Uruguayan Tax Office, Statistics Division

The introduction of technology and the discarding of manual processes has also had a considerable impact. The last and most iconic aspect of this process is the introduction of an electronic invoicing regime, into which taxpayers have been gradually incorporated since it was launched in 2011. It is believed that the quantity, quality and timeliness of the information received by the Tax Administration improved as a consequence of this regime, enabling more and better tax compliance control. The use of electronic invoicing occurs within the broader context of e-government, which Uruguay has progressively undertaken over the last decade.

As a result of this transition to improved tax structures and systems, further reductions in the informal economy are expected following on from the positive effects already seen to date. For example, data regarding the collection of VAT (still the main source of tax revenues) shows that the evasion rate decreased from 30% (2006) to 10% (2014).⁵⁶

The Financial Inclusion Act (effective as from 2014) has also played a key role in increasing the formal economy, by providing regulation for e-money and making it mandatory for companies and individuals to perform a wide variety of transactions through the banking system.

The government's support for and the protection of private investment has been demonstrated by the upholding of tax benefits granted to Free Zone (FZ) users. FZ companies are those exempt from all national taxes, including those for which a specific legal exemption is required, in connection with the activities performed within the FZ. Other sectors of the economy in which promotional benefits were granted are the forestry and the logistics industry. Additionally, to improve technology, increase exports and generate employment, in 2010 adjustments were introduced to enhance the investment law regulations.

The agricultural sector has also seen changes in the last decade with the gradual elimination of sector specific tax reliefs granted at the beginning of this century (such as the exemption of net wealth tax for rural assets and land). The additional revenues generated from these measures have been used to finance improvements in road infrastructure that will benefit this sector.

⁵⁶ Uruguayan Tax Office, Statistics Division, private correspondence

In the international arena, an important development has been the government's willingness to implement global standards for transparency and the exchange of information. Uruguay has begun to conclude double tax treaties and tax information exchange Agreements, following the OECD's guidelines and including some elements of the UN Model Treaty that are usually included in agreements with developing countries. Today Uruguay has more than 30 treaties. In order to make the exchange of information effective, it was necessary to amend domestic law provisions, moving from bearer titles towards nominative titles to identify individuals or legal entities holding titles in the capital of Uruguayan entities. Also in this line, banking secrecy relief is now possible (under certain particular circumstances), as a consequence of which relevant financial information can now be revealed to interested third parties.

The OECD Global Forum on Transparency and Exchange of Information for Tax Purposes issued a favourable report on Uruguay for Phase 1 of its program for monitoring compliance with international tax transparency standards. Later in 2012, Uruguay moved into Phase 2 of the program at which point the focus shifted to the verification of the application of the rules and to the existence of effective exchange of information. Phase 2 concluded successfully in 2014.

In this regard, in March 2015 the OECD Global Forum announced that Uruguay largely complies with the relevant international standard on transparency and information exchange. This recognition was the result of a process that started in 2009, and has been marked by the successful achievement of a number of milestones. The latest news on this issue was the commitment assumed by the Uruguayan government to adhere to the automatic exchange of information system in the near future (on the occasion of the seventh Forum meeting in Berlin in October 2014).

Although Uruguay has experienced all these changes over a relatively short period of time, economic stability, adherence to general economic principles, transparency and respect for contracts have always been traditional qualities of the Uruguayan political system and go beyond the specific programs of the different administrations throughout this period. In this regard, the Executive Branch has recently submitted for the consideration of Congress the bill for the national budget for 2015-2019.

It may not be a coincidence that despite the recent global economic difficulties, Uruguayan GDP has grown steadily, being one of the few countries in the Americas that did not experience a recession between 2007 and 2009.⁵⁷ In addition to the fragile economic situation in Europe, Uruguay's regional trading partners have experienced economic decline and trade barriers have significantly affected certain activities. Nevertheless, in Uruguay relevant social indicators such as unemployment reached a record low and exports markets have been diversified in order to reduce dependency on certain business partners. Likewise, the *Paying Taxes* sub-indicators have also shown an improvement over the recent period. This is undoubtedly the product of social, economic and political stability as well as the ongoing need to develop, enhance and sustain a pro-business agenda through a favourable investment climate.

Despite the measures and policies taken to this end, the Uruguayan government still has a long way to go. Further exploitation of the country's geography and natural characteristics could help to build its position as a regional hub and to establish it as a model country in relation to renewable energy.

Uruguay, as a developing country, has much work to do on these matters but has laid good foundations for its future development.

⁵⁷ <http://www.ine.gub.uy/web/guest/cuentas-nacionales>.

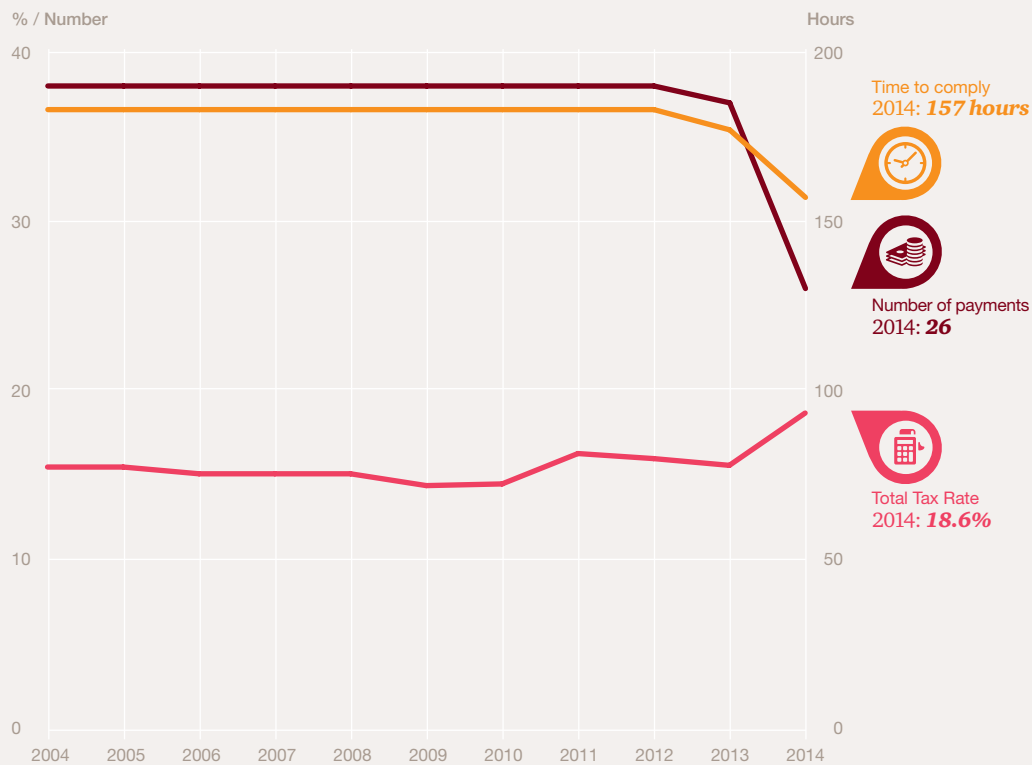
Zambia

Recent progress on compliance costs, but long-term tax policy still a challenge

Jyoti Mistry, PwC Zambia

Figure 2.32

Trend in the *Paying Taxes* sub-indicators for Zambia since 2004



Source: PwC *Paying Taxes 2016* analysis

Having remained fairly stable for the period from 2004 to 2012, Zambia's performance on the *Paying Taxes* sub-indicators has recently seen significant changes.

Total Tax Rate

The Total Tax Rate has increased from 15.5% in 2013 to 18.6% in 2014. Despite the increase, Zambia still has one of the lowest Total Tax Rate in Africa.

The low Total Tax Rate is largely attributable to a more favourable tax treatment afforded to the manufacturing and agricultural sectors. For instance, unlike other industry sectors, entities operating in the manufacturing and agricultural sectors can claim capital allowances at a rate of 50% on a straight line basis on the cost of plant or machinery purchased, as is the case for our case study company.

Zambia is largely dependent on earnings from mining of copper and other minerals and is vulnerable to movements in commodity markets. To reduce dependency on copper mining, the government is seeking to diversify the economy by developing other sectors. The government's key focus is to develop the agriculture and manufacturing sectors together with any other industries that add value. Hence, in addition to accelerated relief for capital expenditure in these sectors, investment in manufacturing, agriculture and other value adding sectors can also benefit from tax concessions (including corporate tax, withholding tax and import duty exemptions) granted by the Zambia Development Agency (ZDA), a body which promotes and facilitates trade and investment in Zambia. Taxpayers in these and other value adding sectors can further benefit from a reduced rate of corporate tax of 15% on non-traditional exports.

Given that the tax treatment in Zambia largely depends on the sector in which a company operates, the *Paying Taxes* Total Tax Rate for Zambia may not be reflective of the tax cost in other industry sectors such as telecommunications, financial services and mining. In these other sectors, the total taxes borne by companies tend to be higher.

Launch of TaxOnline

In October 2013, the Zambia Revenue Authority (ZRA) made progress on its commitment to address the high tax compliance costs for taxpayers with the introduction of 'TaxOnline', an electronic tax filing and tax payment system.

With the launch of TaxOnline, it is no longer necessary to physically go to the ZRA offices to register for taxes, file tax returns or make tax payments. Following the introduction of the web-based tax filing and payment system, the time taken to comply with tax obligations dropped by 3% in 2013, and by a further 11% in 2014. While these reductions in time are encouraging, there may be room for further improvements as not all teething problems have been fully ironed out and the ZRA may need to make a concerted effort to resolve any remaining issues before the benefit of the online system can be fully realised.

The story in the case of number of tax payments sub-indicator is more positive. The introduction of a web-based payment system reduced the payments sub-indicator by 11 payments between 2013 and 2014 as the majority of taxpayers now file and pay their VAT online. Online filing and payment is also available for corporate income tax, but many companies still prefer to pay this tax by cheque and so the payments sub-indicator does not yet reflect online filing and payment for corporate income tax.

It is also worth mentioning that in addition to rolling out an electronic tax filing and payment system for the key taxes, namely corporate income tax, VAT, withholding tax and personal income tax and social security contributions, the ZRA in 2014 also launched ASYCUDAWorld which automates the whole import and export customs declarations and payment process, thereby expediting customs clearance at the border post.

The modernisation of the tax administration and compliance system is to continue. The Minister of Finance in his 2016 budget speech announced that VAT registered suppliers will be required to use electronic fiscal registers which will be interfaced with the TaxOnline system. Whilst the primary aim of this measure may be to widen the tax base and minimise tax fraud, it should also provide the government and the ZRA with up to date information on the levels of business activity in the retail and wholesale sectors.

In order to improve efficiency and increase revenue collection, the last few years have seen various measures undertaken by both the government and the ZRA to improve capacity and reduce tax compliance and administration costs for taxpayers and the ZRA alike. In addition to introducing an electronic tax filing and payment system, there has been significant investment in building knowledge and capacity by the ZRA.

It is hoped that the recent reforms in tax administration will not be limited to the measures described earlier, but will be extended to improving the quality of tax legislation drafting and the frequency with which the various amendments to the Tax Acts are consolidated.

Additionally, following the recent downturn in investor confidence, which may be partly attributable to the uncertainty created by several significant changes in the mining tax regime within a short space of time, it is hoped that the government will adopt a longer term outlook when determining any tax policy changes.



Chapter 3: Tax policy and administration

Having looked in the previous chapters at the results from the *Paying Taxes* study since 2004 and in detail at the reforms made in 2014, this chapter looks at some broader issues of tax policy and administration

The first section considers the role of employment taxes in creating a balanced tax system, the next looks at how good tax systems can help reduce the informal economy and finally we consider how co-operation between tax authorities and taxpayers can be improved, especially in Africa.



Uncovering the impact of hidden taxes on employment

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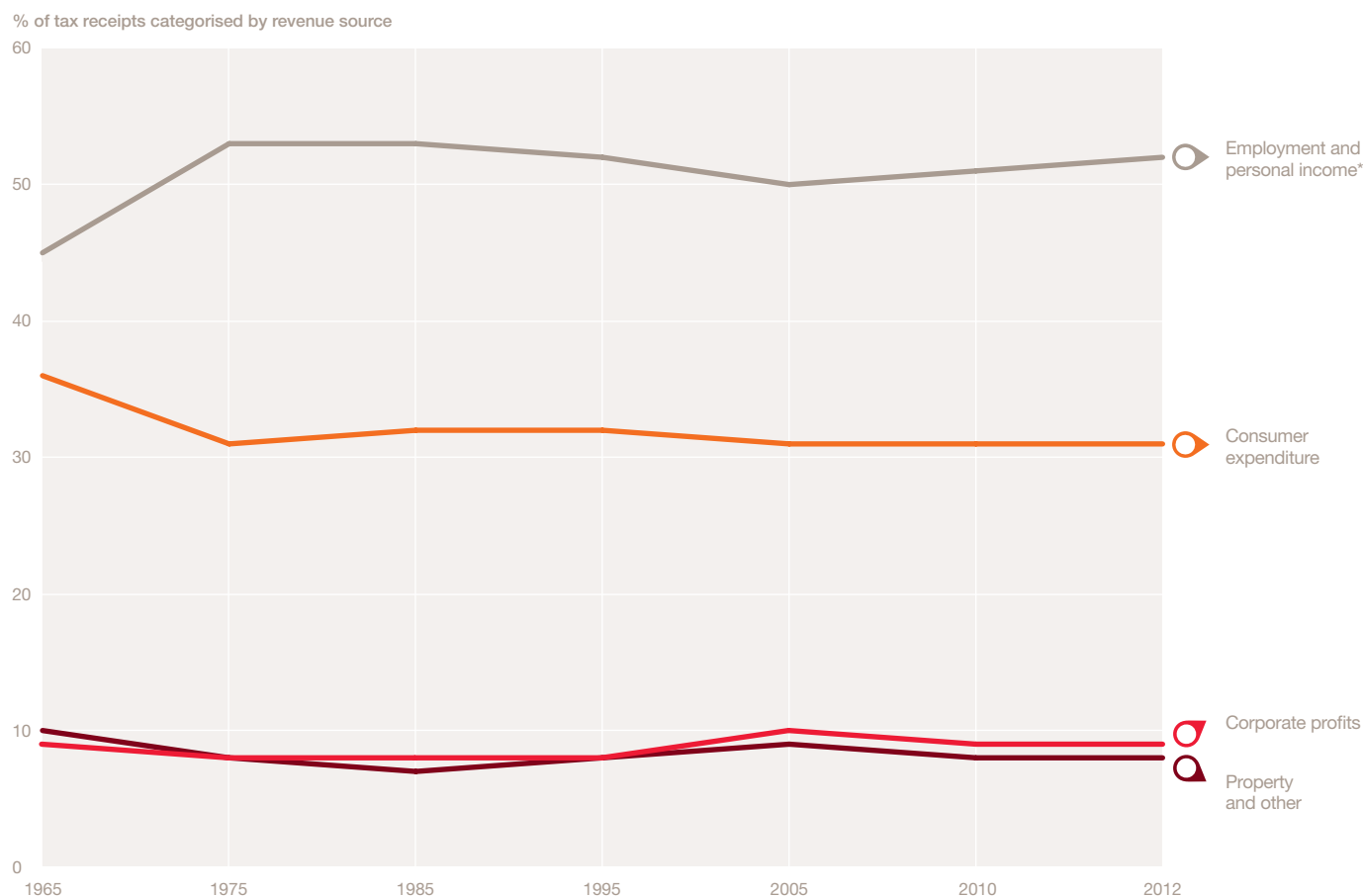
This year's *Paying Taxes* report confirms a pattern in the structure of business taxation which has been evident for a number of years. Certain amounts paid by firms in labour taxes, levied on employment income, are just as significant as profits taxes. In the latest survey both labour taxes and profit taxes averaged 16.2% of commercial profits worldwide. These two components of the Total Tax Rate account for four-fifths of the taxes paid directly by businesses according to the latest *Paying Taxes* results. Taxes on employment income represent a hidden tax on business, as significant as the more direct taxes levied on company profits.

The *Paying Taxes* survey measures just one component of the total tax levied on income and employment – the amounts paid directly by employers, normally in the form of social security contributions. The two other main components are social security contributions paid by employees (and the self-employed) and income taxes paid by individuals. However, businesses act as major tax collectors in all aspects of employment income taxes – by deducting the amounts due from the pay of their employees.

In the OECD countries, total taxes on personal income, payroll taxes, plus social security contributions paid by employers and employees accounts for just over half of the total revenue raised in the OECD countries. As Figure 3.1 shows, this has been a consistent feature of the tax structures in the advanced industrialised economies since the 1970s. By contrast, taxes on company profits have raised around 8 to 10% of total revenue while consumption taxes have generated just over 30% of tax receipts since the 1970s. The relative stability of these shares over four decades is quite remarkable.

Figure 3.1

Tax structures in OECD economies



*Personal income tax and social security contributions
 Source: OECD Revenue Statistics, 2014

This article discusses the impact that taxes on employment income can have on economic growth and employment, and how these effects might be mitigated. This is a particularly important issue for European countries, where both the amounts paid by business in terms of labour taxes and the overall level of tax on employment income is high relative to other regions in the world.

Economic impact of taxes on employment income

The effect of taxes on employment income is to create a 'wedge' between the amount that the employer pays and the amount that the employee receives. Imagine an economy with a 30% income tax rate and social security contributions of 10% of employment income from both employers and employees. In such an economy, an extra \$1 earned by an employee would cost the employer \$1.10 and the employee would receive 60 cents. The other 50 cents goes to the taxman, creating an effective tax rate or 'tax wedge' of over 45 percent (50/110).

There are two reasons why this might have adverse employment and economic effects. First, the tax wedge acts as a disincentive to employment. The employer has to come up with substantially more in wage payments than the employee receives – in the example earlier nearly twice as much. This raises the cost of labour across the economy and makes employment less attractive. Taxes or social security payments which are levied specifically on the employer may have particularly damaging effects on employment.

Second, employees may be disincentivised from working extra hours or even taking a job at all. If tax rates are moderate, these disincentive effects may not be very great for the majority of workers. But they can bite quite hard for low income workers when they face relatively high taxes on their earnings.

If taxes have a negative impact on employment, they are likely to hamper growth. A lower level of employment will have adverse consequences for GDP as there are fewer workers adding to the output of the economy. High unemployment and low rates of labour force participation are normally associated with disappointing economic growth. However, changes in labour market and employment structures are making the disincentive effects of taxes on employment income more complex to analyse and to take into account in policy decisions. The percentage of self-employed and part-time workers is increasing in many economies. In the UK, around 37% of working people are either self-employed or part-time – up from less than 30% in the mid-1980s.⁵⁸ So the design of tax and benefit systems needs to take into account not only the impact on regular full-time workers but also the way it affects these more flexible employment patterns. If tax and benefit systems do not adapt to accommodate more flexible labour market patterns, employment may be significantly constrained.

⁵⁸ Data from the UK Labour Force Survey, published by the Office for National Statistics

A European problem?

The *Paying Taxes* survey shows that labour taxes paid directly by business are a particularly large element of the taxes levied in Europe. From a historical perspective, this is perhaps not a great surprise. Income tax was levied originally in Britain in 1799 to pay for the war against Napoleon and social security contributions were first introduced in Germany in the late 19th Century.

In Europe, labour taxes paid by employers are the largest component of the Total Tax Rate, equivalent to 26.5% of commercial profits. The global average is 16.2% and in other regions the labour taxes (including mandatory contributions) component of the Total Tax Rate paid by employers is in the range 10 to 19%. Broader measures of the tax wedge on employment income tell the same story. Figure 3.2 shows the OECD's latest measure of the tax wedge on an employee on average earnings in selected OECD countries. In a number of major EU economies, the tax wedge is close to 50% or above. In North America, it is just over 30%. In the Asia-Pacific region and Latin America, the labour tax wedge is generally below 30%.

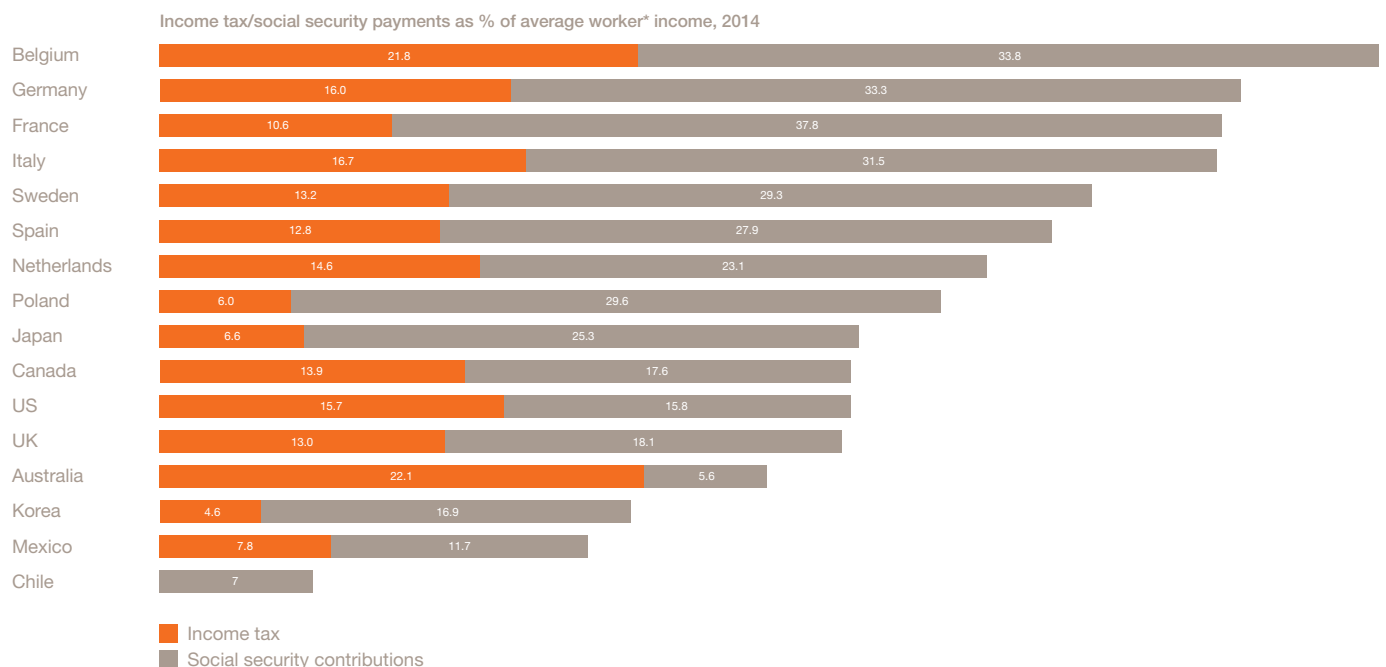
One reason for these high employment income tax wedges in Europe is the high level of public spending. In the Eurozone, government spending as a percentage of GDP in 2014 was 49%, compared to an OECD average of just over 40%.⁵⁹ With taxes on income and earnings from employment such an important source of revenue, it is not surprising that this higher spending pattern is reflected in a higher taxes levied on employment income.

This high tax wedge in a number of continental European economies appears to be one of a number of factors contributing to their high unemployment. Spain, Italy and France have the highest unemployment rates of the major EU economies, and they have relatively high employment income tax wedges.⁶⁰ Clearly many other factors are at work in contributing to the labour market problems in these economies. But their relatively high taxes on labour are not helping to support employment.

By contrast, countries with a lower tax wedge – of around 30% or below – seem to have a much better employment experience. In the UK and US, the unemployment rate is just above 5%. In Japan and Korea it is around 3.5%, and in Mexico and Chile 5 to 6%.⁶¹

Figure 3.2

Tax wedges in major OECD economies



*Single individual with no children

Source: OECD Taxing Wages Report, 2015

⁵⁹ Data from OECD Economic Outlook, June 2015. The Eurozone contains 19 EU members, of which Germany, France, Italy, Spain, Netherlands and Belgium are the most significant economies.

⁶⁰ Eurostat report that in September 2015 the unemployment rate in Spain was 21.6%, in Italy it was 11.8% and in France 10.8%. The EU average unemployment rate in September 2015 was 9.8%

⁶¹ OECD Economic Outlook, June 2015, projections for 2015. National definitions of unemployment.

Potential for policy change and tax reform

How can countries which are heavily reliant on taxes on employment income, especially the high-spending EU economies, improve their economic and employment prospects? There are three potential avenues for policy change and tax reform, and a successful strategy is likely to need to include all three components to some extent.

The first potential policy lever is the level of public spending. European economies with high spending levels need to raise the revenue to fund their expenditure programmes, and this can often fall on employment income taxes. Finding efficiencies in government spending programmes, using technology to improve the delivery of public services, and welfare reforms – aimed at capping and limiting the availability of benefit payments – can all help to ease the amount of tax which falls on labour income.

A second policy lever is to shift the burden of tax to other areas of the economy. The three other main revenue-generating areas for government, as Chart 1 shows, are taxes on profits, spending and property. Environmental taxes represent an additional source of revenue which governments can tap. In Europe, expenditure taxes are already high with VAT rates in the range 19 to 24% – though there may be some scope for narrowing the range of items which carry a zero or lower rate of VAT. The mobility of business across international borders constrains the ability of governments to raise significant extra sums through profits taxes. Higher rates are likely to undermine the tax base by encouraging businesses to invest elsewhere. Taxes on profits also penalise wealth-creation and investment so also have potentially adverse consequences for economic growth. This leaves property taxes and new environmental taxes as the most promising avenues for shifting where tax is levied away from employment income.

The third policy lever is the structure of the taxes and social security contributions which are applied to employment income. It was noted earlier that these levies can have the biggest adverse impacts on low-paid workers and flexible forms of employment. So governments can target these potentially disadvantaged sectors of the workforce – raising the threshold for paying tax and social security contributions and easing the burden on part-time workers and the self-employed.

The UK is an example of an economy where all these approaches are being applied or considered. Public spending is being constrained and welfare reform is now being embraced by the government. The VAT rate has been raised from 17.5% to 20%. Property taxes have been increased – mainly through raising the tax rate of property transactions (Stamp Duty), which is not necessarily the most economically efficient route – as it may discourage housing moves and labour mobility. The personal tax threshold has been raised significantly and is set to rise further. And the interaction between personal income tax and social security contributions (National Insurance) is being reviewed and considered. Within Europe, the UK has one of the lowest tax wedges on employment income, as Figure 3.2 shows.

Growth and employment prospects within Europe would probably be helped by more countries following a similar path of public spending and tax reform, and reducing the employment income tax wedge, particularly for lower-paid workers.

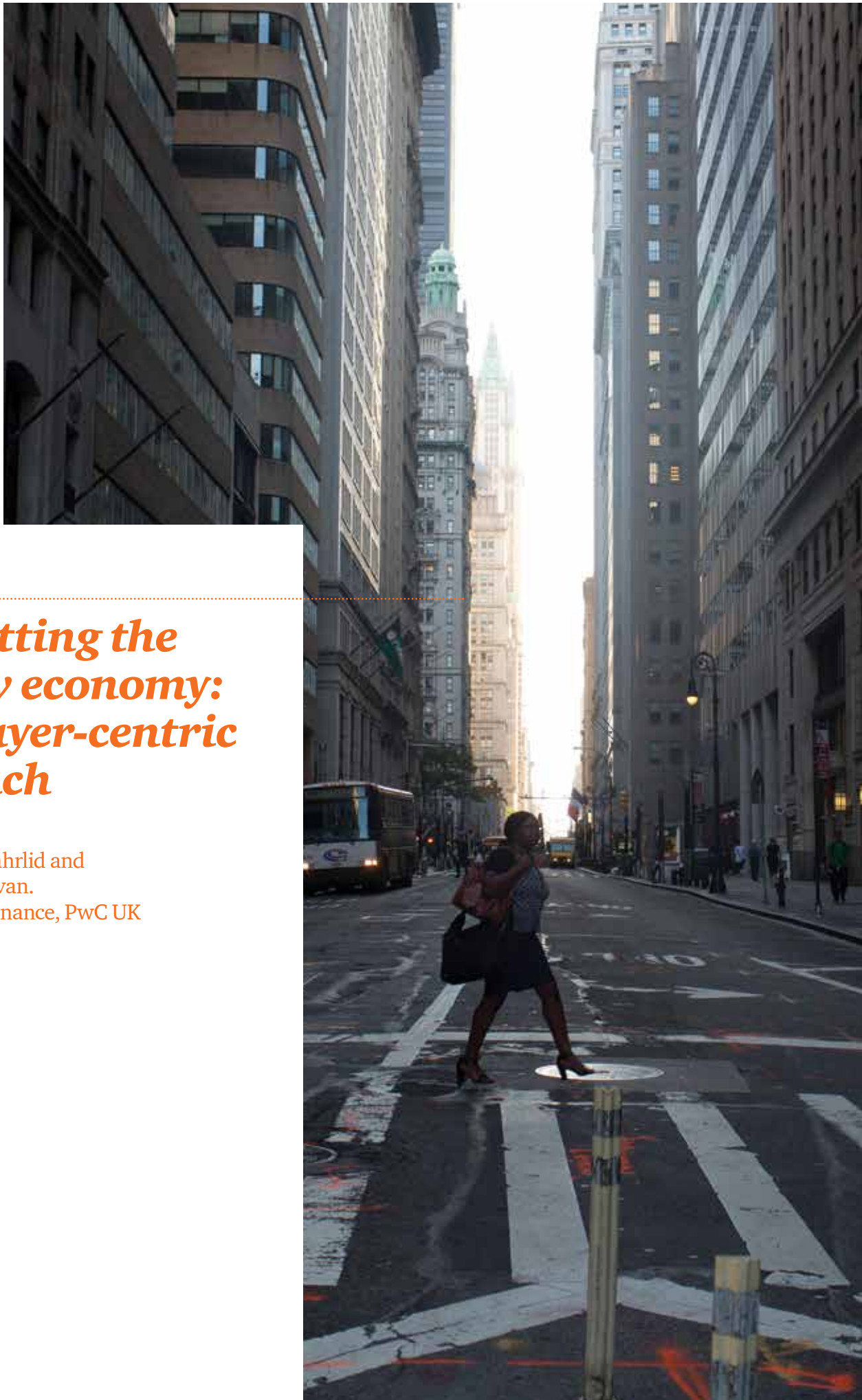
Conclusion – it's a question of balance

Taxes on employment earnings and other forms of income play a key role in financing vital public services and benefit payments. Across the OECD they raise more than half of total revenue. These are taxes which governments will need to rely on in many countries for the foreseeable future. The issue is to ensure they play their role in a balanced tax system which supports a well-functioning economy, supportive of growth and employment.

These labour taxes are particularly high in some parts of Europe, and there is evidence – from economic theory and from recent experience of high unemployment in countries with large tax wedges on labour income – that this has not been good for employment. But there is no single lever which can be pulled to address this problem. It requires control of the overall levels of public spending, a shift to other sources of tax revenue, and changes to the structure of income taxes and social security contributions so new employment opportunities can develop – particularly in the more flexible aspects of the labour market – among part-time workers and the self-employed.

The flow of employment income is a major contributor to income and wealth generation in most economies. So it is natural that it should be a key part of the revenue-generating tax base. But we need to get the balance right, so that labour income is not taxed too heavily, other parts of the tax system bear a reasonable share of revenue-raising, and the structure of taxation reflects the changing structure of the economy and an increasingly flexible labour market.

The structure of taxation should reflect the changing structure of the economy and an increasingly flexible labour market.



Combating the shadow economy: a taxpayer-centric approach

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Informal economic activity is described through a diverse range of terms: commentators refer variously to the shadow sector, hidden work, concealed employment, or the underground economy (to mention but a few examples) to describe fundamentally similar phenomena. What unites these concepts is the idea of otherwise licit remunerated activity that is carried out beyond the full scrutiny of the state. Informal economic activity is distinct from criminal activity (for instance, drug-trafficking) as its illegality consists only in the fact that it is not adequately declared to the relevant authorities for tax, social security and/or labour law purposes. It is distinct from the domestic or family economy, as work that occurs in this sphere is generally unpaid.⁶² This definition includes the market trader who finds it too costly or burdensome to meet the requirements of the tax system, particularly if the risks of discovery and prosecution seem remote; well-educated professionals otherwise operating on a legitimate footing, such as the doctor who does not declare cash receipts from certain patients; and large enterprises that have the understanding and capacity to comply but choose to avoid some or all of the burdens involved, for example by keeping employees off the books and out of the reach of labour laws, or by only putting part of their salaries through the formal payroll system.

Bringing economic activity out of the shadow economy is an important objective for governments across the world. From a revenue authority perspective, the focus of formalisation efforts is usually on increasing revenue yields, but combatting informality can advance a diverse range of public policy objectives. Formalisation can drive economic efficiency by ensuring that all businesses compete on a level playing field, under the same tax and regulatory burdens; it can improve quality of life for employees by guaranteeing minimum working conditions and salary levels; it can enhance growth by offering businesses better access to finance; and it can strengthen civic engagement, as citizens demand a say in how their taxes are spent.

This is not to say that the shadow economy is entirely without value, either for those who participate in it or for society more broadly. Some commentators have suggested that the informal sector is home to a dynamic and vibrant entrepreneurial culture, though the low productivity levels associated with informality suggest a more nuanced picture.⁶³ Informal economic activity also acts as a valuable source of employment, helping people to enter the labour market who might otherwise be excluded, benefiting them and increasing the productive capacity of the economy as a whole. Many of the informally employed are drawn from marginalised groups, such as the low-skilled, young people, female workers, and migrants (legal and otherwise). Clearly, however, undeclared work can be a mixed blessing for these individuals: often exposing the already vulnerable to insecure jobs, exploitative practices, and dangerous working conditions.

⁶² Colin C. Williams and Jan Windebank (1998) *Informal employment in the advanced economies: implications for work and welfare*, Routledge.

⁶³ International Labor Office (2002) *Decent Work and the Informal Economy*, International Labor Office; Colin C. Williams and Alvaro Martinez (2014) "Is the informal economy an incubator for new enterprise creation? A gender perspective", *International Journal of Entrepreneurial Behavior & Research*, 20(1), 4-19; Colin C. Williams & John Round (2007) "Entrepreneurship and the informal economy: a study of Ukraine's hidden enterprise culture", *Journal of developmental entrepreneurship*, 12(1), 119-136.

From a public policy perspective, informal economic activity constitutes one of the more intractable problems facing governments. While most countries have seen a downward trend in informality over the last decade, the gains have been gradual. Convergence with the level of informality enjoyed by leading countries is slow, with corresponding implications for the development of public services and the economy as a whole. Moreover, even countries with highly developed economies and tax administrations show surprisingly high residual levels of informal economic activity. Figure 3.3 illustrates the persistence of informality, limited convergence, and gradual pace of change by reference to EU15 countries and new member states acceding to the European Union in 2004 and 2007.

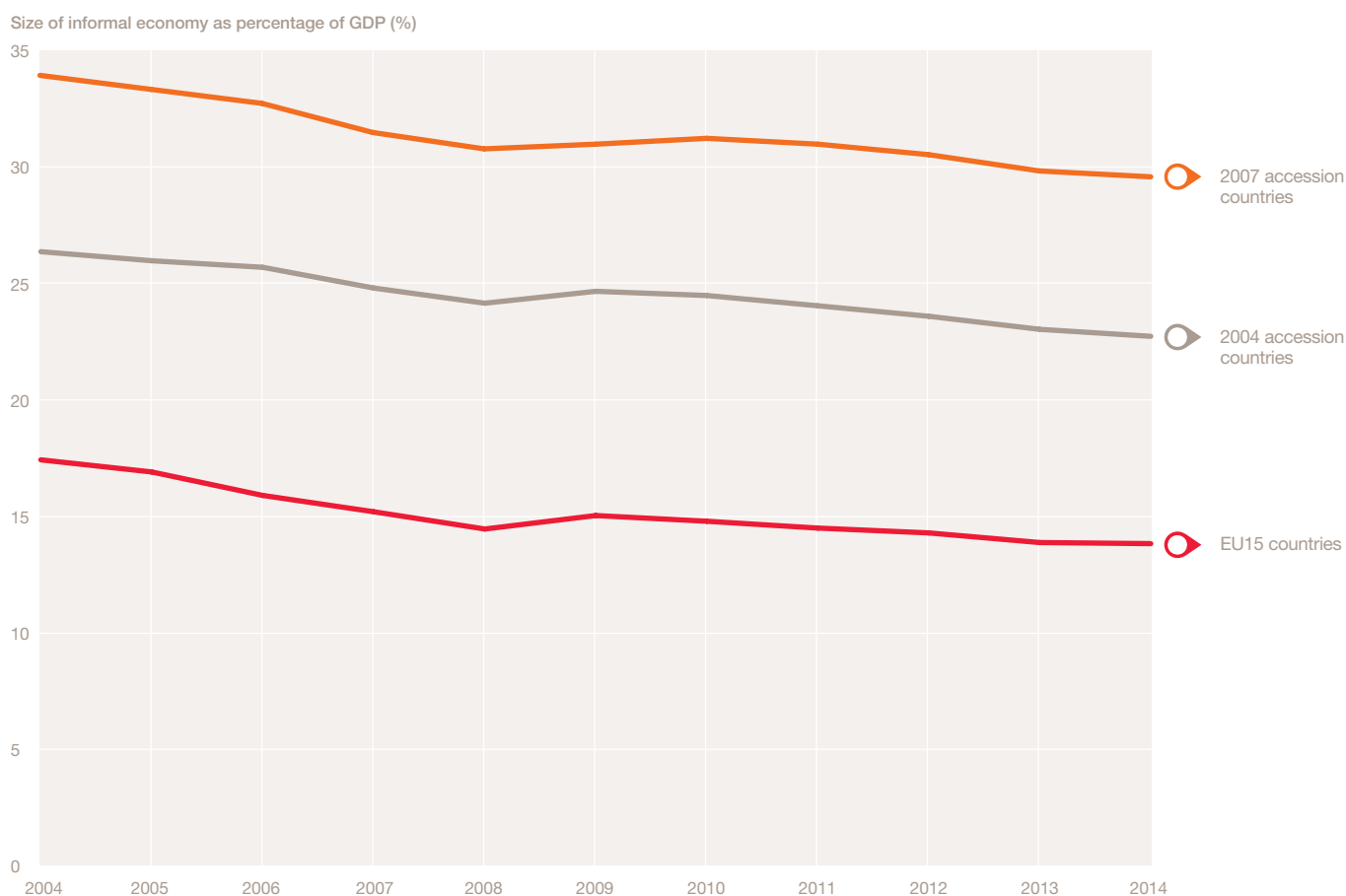
Paying Taxes and the informal economy

One of the key drivers of informality is taxation: both tax policy, and how that policy is administered. Perhaps the most often-cited reason for operating informally is the desire to avoid paying taxes, and the associated compliance costs.

Traditionally, revenue authorities have adopted a repressive approach to bringing the informal economy into the tax net: focusing on effective penalties and improving detection and enforcement rates. In recent years, however, greater emphasis has been placed on facilitating formalisation, reducing the costs of compliance that can deter businesses from exiting the shadow economy.⁶⁴ This has led to a proliferation of initiatives, including the introduction of online tax returns, investment in improving taxpayer services, information campaigns designed to boost tax morale, tax amnesties to encourage movement out of the undeclared sphere, and simplified tax regimes for smaller sized businesses.

Figure 3.3

Trends in the size of the informal economy as a percentage of GDP in selected EU member states, 2004-2014 (unweighted averages of national-level data).



Source: Friedrich Schneider, Konrad Raczkowski & Bogdan Mróz (2015) "Shadow economy and tax evasion in the EU", *Journal of Money Laundering Control*, 18(1), 34-51.

⁶⁴ Colin C. Williams, Jan Windebank, Marijana Baric & Sara Nadin, (2013) "Public policy innovations: the case of undeclared work", *Management Decision*, 51(6), 1161-1175.

Here, the *Paying Taxes* sub-indicators can be an invaluable source of information to decision-makers, providing an independent assessment of whether interventions are resulting in a simplified compliance process for a standardised model business, and highlighting instances of best practice internationally.⁶⁵ For example, Turkey and Romania are countries where informal economic activity accounts for a substantial proportion of GDP, but which have also seen a higher reduction in these levels over the last decade than many of their peers. Examining their *Paying Taxes* sub-indicators, we find that in both countries the Total Tax Rate and time to comply have fallen dramatically over the same time period.

Understanding the formalisation choice

Nevertheless, it is important to recognise that correlation does not equate to causation, and the decision to formalise or operate in the shadow economy is affected by much more than tax compliance costs alone. By adopting a taxpayer-centric perspective on the informal economy, policy-makers become better able to understand the drivers of informal economic activity, and thereby appreciate the diverse range of measures that they can deploy to improve compliance (See Table 3.1). These include measures to reduce the costs of formalisation, enhance deterrence, increase the benefits of formalisation, and improve tax morale.

The centrality of tax policy and administration to the problem of informality is particularly evident in the first two of these four categories. Reducing the costs of formalisation might involve reductions in both the direct financial burden of tax (for example, through lower or zero-rated bands for smaller enterprises) and the indirect burden of tax compliance (for example, through simplifying and consolidating taxes, streamlining the administration of tax, improving online services, or offering information and support throughout the compliance process). Enhancing deterrence increases the costs of non-compliance – primarily, non-compliance with the tax regime – for any given taxpayer, by making it more likely that they will be caught and punished. This category might include novel uses of data and technology, strengthening tax investigations and enforcement proceedings, or closing off opportunities for tax inspectors to grant exemptions in return for bribes. One of the more innovative schemes to deter VAT avoidance has been the introduction of VAT lotteries, whereby consumers can submit sales receipts to a government-sponsored competition offering prizes such as luxury cars, as well as other benefits such as income tax reductions.⁶⁶ Following the introduction of a VAT lottery in Portugal in 2014, a 4% increase in VAT revenue has been reported, against only a 2% rise in private consumption.⁶⁷

Table 3.1

Taxpayer perspective	Measures to combat the informal economy
Reduce costs of formalisation	<ul style="list-style-type: none"> • Improve tax policy and administration • Improve taxpayer services • Improve wider business environment
Enhance deterrence	<ul style="list-style-type: none"> • Improve detection and enforcement • Review penalty regime • Combat corruption in revenue collection
Increase benefits of formalisation	<ul style="list-style-type: none"> • Access to property rights/contract enforcement • Access to welfare entitlements/labour rights • Access to finance/business support
Improve tax morale	<ul style="list-style-type: none"> • Minimise inefficient uses of public funds • Provide high quality public goods and services • Increase tax compliance in population as a whole

⁶⁵ Friedrich Schneider, Konrad Raczkowski & Bogdan Mróz (2015) "Shadow economy and tax evasion in the EU", *Journal of Money Laundering Control*, 18(1), 34-51.

⁶⁶ Joe Stanley-Smith (2015) "VAT lotteries – driving up compliance from the consumer's end", *International Tax Review*.

⁶⁷ Patricia Kowsmann (2015) "Get Receipts, Win a Car: How Greece's VAT Lottery Plan Worked in Portugal", *The Wall Street Journal*.

However, it is also clear from a taxpayer-centric approach that taxation is not the sole factor influencing the decision to operate on a formal or informal basis. The wider benefits of formalisation have a significant impact on the attractiveness of compliance for any given business or individual. Businesses operating on a legitimate footing generally enjoy better legal protection than their informal counterparts; conversely, where even formal businesses struggle to access justice due to an inefficient or corrupt court system, the incentive to formalise is reduced. Finance is another key area where formal businesses tend to have an advantage, as they offer a more secure prospect to lenders; but again, a lack of finance or financial institutions serving particular regions or market sectors may undermine the potential incentive effect. From an employee perspective, legal protections and welfare entitlements will make formal employment preferable to informal employment, other things being equal. However, without industrial representation workers may find they have limited capacity to demand formalisation from their employers.

The fourth category of measures focuses on tax morale. To a large extent, this is a function of the level of compliance in the population as a whole: it is very easy to rationalise non-compliance when no-one else appears to pay tax either, and especially so when paying tax puts individuals and businesses at a disadvantage vis-à-vis their competitors. However, it is also important to look at the other side of the fiscal contract between citizens and the state, and scrutinise how tax revenues are spent. High quality public goods and services will increase tax morale, whereas money lost to poor political decisions and corruption will tend to decrease it. Initiatives such as participatory budgeting and increased transparency may help to improve the allocation of resources and the efficiency of public spending.

Finally, it is crucial to note that the public needs to be aware of these measures for them to have the desired behavioural impacts. Initiatives targeted at raising public awareness should be understood as an integral component of any reform intended to combat informal economic activity. For example, in 2010 and 2011 the Estonian Tax and Customs Board launched a series of public information campaigns, linking the payment of tax to the provision of prominent public services such as ambulances and kindergarten places.⁶⁸

The role of revenue authorities

Public servants working in the field of taxation have limited control over many of the policy areas outlined above. Generally speaking, they cannot directly influence the wider business policy agenda, let alone factors such as the justice system or the overall efficiency of public spending. While improvements in tax policy and administration can remove many of the obstacles to compliance, and a well-constructed investigation and enforcement regime can help to compel compliant behaviours, the best efforts of revenue authorities and tax policy-makers may be undermined by poor decision-making in other parts of government.

Nevertheless, a taxpayer-centric approach to the problem of formalisation highlights the importance of coordinated cross-governmental action as part of efforts to increase tax compliance and reduce the scale of the informal economy. Given their investigative remit and overall responsibility for revenues, tax authorities have a unique insight into the informal economy that leaves them well-placed to play a constructive or even coordinating role in developing and evaluating policy ideas.

⁶⁸ European Monitoring Centre on Change (2013) "Information campaign on tax compliance, Estonia", European Foundation for the Improvement of Living and Working Conditions (Eurofound).

Conclusion

The informal economy poses a complex set of problems for revenue authorities, and for governments more broadly. Viewed over a longer time horizon, informal economic activity tends to reduce as countries develop, and as populations shift from agriculture to industry, from rural settings to large cities. Yet the rates of change are not uniform, and even over relatively short periods of time, policy interventions can have a tangible impact.⁶⁹

Improving both tax policy and tax administration is central to any action plan intended to tackle informality. While the formalisation process takes place against a baseline that is conditioned by many social, cultural, economic and historical factors that are unrelated to taxation, reductions in the financial and administrative burdens of taxation do appear to be associated with increases in the level of compliance. Moreover, adopting a taxpayer-centric approach to the shadow economy can help policymakers to appreciate the wealth of options that are available to promote compliance. These options are not limited to repressive measures intended to enhance detection and enforcement. Rather, they include reforms aimed at reducing the financial and administrative costs of formalisation, encouraging individuals and businesses to operate on a formal basis from the outset, enhancing the wider social, legal and economic benefits available to those who do operate on a formal footing, and assisting vulnerable individuals currently dependent on undeclared employment to transition to the formal sector. Taken in aggregate, these reforms have real potential to improve taxpayer morale and drive forward formalisation. Convergence with the low rates of informality seen in some countries cannot be achieved overnight, but there are many ways to speed up the journey.

The informal economy poses a complex set of problems for revenue authorities, and for governments more broadly... Improving both tax policy and tax administration is central to any action plan intended to tackle informality.

⁶⁹ Timothy Besley and Torsten Persson (2014) "Why do developing countries tax so little?", *Journal of Economic Perspectives*, 28 (4), 99-120.



The relevance and sustainability of co-operative compliance models for tax in African countries⁷⁰

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⁷⁰ This paper is an extract of the paper presented at the African Tax Research Network (ATRN), 1st Annual Congress, Contemporary Tax Challenges for African Countries, 02 – 04 September 2015, Cape Town, South Africa.



Introduction

Tax authorities have always felt the pressure ‘to do more with less’ due to budget constraints and limited capacity within tax administrations; these issues are increasingly becoming a common challenge for many countries, but especially in the developing world. To improve their position, many countries have already incorporated a co-operative compliance model into their tax enforcement strategies, along with a traditional command-and-force manner. Co-operative compliance is a new way to effective tax compliance management based on transparency, ‘justified trust’ and a better understanding of the taxpayer’s business and risk profile. If properly designed and executed, it has proved capable of enabling tax authorities and taxpayers to build a sustainable tax compliance infrastructure.

In the previous edition of *Paying Taxes* we introduced the idea of co-operative compliance and its history. This paper investigates the relevance and sustainability of co-operative compliance models for tax in African countries. Given the culture and challenges faced by both businesses and the tax authorities in these countries,⁷¹ we suggest some practical measures that can enable the effective and efficient implementation of sustainable co-operative compliance models in Africa. Although co-operative compliance is generally targeted at large companies, often operating across country borders, the underlying principles are relevant for companies of all sizes.

⁷¹ African tax administrations: a Dutch multinationals perspective. In a recent study by the Dutch Association of Investors for Sustainable Development (VBDO, 2015), tax directors of the Dutch listed companies have identified the following challenges to taxation in developing countries:

- Opportunistic / aggressive behaviour of local tax authorities towards MNEs;
- Overly hierarchical and bureaucratic tax organisation, difficult to get a single point of contact;
- Time-consuming and costly appeal procedures;
- Multi-interpretable, complex and fast-changing tax laws;
- Corruption within governmental bodies;
- Lack of capacity and skills of local tax authorities;
- Different perspectives, difficult to establish an open and transparent relationship with local tax authorities.

Businesses struggle to establish the right dialogue and good working relations with local tax authorities in many developing countries. However, MNEs are crucial for the financial development and economic sustainability of these countries with an estimated annual contribution of 750 billion dollars to local economies (UNCTAD, 2015). *Paying Taxes* refers to a medium sized enterprise, however we believe that the concepts outlined in this paper remain relevant.

Co-operative compliance – what, how and why?

The co-operative compliance concept can be best described as a means to effective tax compliance management based on mutual transparency, justified trust and a better understanding of the taxpayer's business and risk profile. The objective is improved tax compliant behaviour – payment of the right amount of tax due on time, at lower costs of compliance for both tax administrations and businesses.

In 2006 the OECD's Forum on Tax Administrations (FTA)⁷² concluded that tax authorities should have effective risk-management processes in place, enabling them to effectively allocate their resources to those taxpayers with a higher risk profile. Tax authorities were prompted to create solid relationships with taxpayers by:

- understanding the business based on commercial awareness,
- being impartial,
- acting in a proportionate manner,
- being prepared to be open (transparent), and
- being responsive.

In theory, if tax authorities could demonstrate these attributes, taxpayers from their side should be more likely to engage in “a relationship with revenue bodies based on co-operation and trust with both parties going beyond their statutory obligations” (OECD, *Study into the Role of Tax Intermediaries*, 2008, p. 5).

Since 2008 many tax authorities have implemented compliance risk management strategies and co-operative approaches to businesses. In addition, increased attention has been given to the concept of a ‘tax control framework’ (TCF) ‘as a key tool to disclosure and transparency’ (OECD, *Co-operative Compliance: A Framework – From Enhanced Relationship to Co-operative Compliance*, 2013, p.13). In May 2013, the OECD published the report ‘Co-operative Compliance: A Framework, From Enhanced Relationship to Co-operative Compliance’, thus providing more practical guidance on how to achieve improved compliance. ‘How do I know as a tax administration that I can trust a tax payer?’ was a question that was raised by many tax officials. The trust element of the relationship between tax authorities and a taxpayer has to be justified. This justification can be found if a taxpayer has an internal control system in place that assures the accuracy and completeness of the tax returns submitted by the taxpayers. In other words, if the taxpayer has a functional TCF in place.

Co-operative compliance in African countries

This section is based on the results of a survey of telecommunications operators and PwC offices in Botswana, Cameroon, Democratic Republic of the Congo, Ghana, Kenya, Namibia, Nigeria and South Africa. The selection of countries from all over Africa represents a comprehensive approach to studying compliance practices on the African continent.

To date, only one of the surveyed countries has incorporated a co-operative compliance model in its risk management strategies – South Africa. The South African Revenue Service has introduced a formal co-operative compliance program – ‘taxpayers engagement strategy’. It involves compliance enforcement activities to mitigate prioritised risks and adjust the audit strategy depending on the taxpayer's compliance profile. Whilst Botswana, Kenya and Namibia have taken steps to enhance the relationships with some taxpayers, still a majority of tax authorities in African countries perform detailed testing of almost all underlying records of the tax returns and rely on the taxpayer's audited financial statements to a certain extent.

The survey respondents identified the following specific challenges in complying with their tax obligations:

- lack of suitably qualified and experienced tax officials;
- poor quality record keeping at the tax authority;
- delays in tax assessments and audits, obtaining clarifications and responses to issues;
- burdensome tax system, time demanding for preparation and submission of tax returns;
- lack of IT infrastructure at the tax authorities;
- lack of transparent guidelines from the tax authorities;
- high rate of tax evasion;
- no timely revision of tax legislation.

⁷² The OECD Forum on Tax Administration (FTA) for Commissioners from 45 OECD and non-OECD countries, including every member of the G20, was created in 2002 with the aim to improve taxpayer services and tax compliance by helping tax administrations increase the efficiency, effectiveness and fairness of tax administration and reduce the costs of compliance. See OECD / FTA website <http://www.oecd.org/site/ctpfta/>

Faced with these challenges many businesses struggle to establish the right dialogue and good working relations with local tax authorities. However, businesses are crucial for the financial development and economic sustainability of African countries. If tax authorities want to improve their relations with businesses, as well as assure their proper tax compliance, introducing a co-operative compliance model could be an effective solution. A number of suggestions for how to apply the co-operative compliance models in practice are provided below.

Suggestions for African countries on co-operative compliance models

1. Set up clear measurable key performance indicators

Defined measurement parameters will enable the tax authorities to evaluate its effectiveness afterwards. This could for example be measured in terms of reduced compliance costs and hours.⁷³

2. Define the benefits for taxpayers – quid pro quo

Co-operative compliance requires ultimate transparency and providing information beyond formal legal obligations. Taxpayers should know what the benefits are and which value add it derives in return from the tax authorities, e.g. lower costs of compliance and/or greater certainty on tax positions.

3. Define the concept of trust – Tax Control Framework

A TCF is the basis for establishing an open dialogue and justified trust between tax authorities and taxpayers. The focus of the TCF is “to be ... able to detect, document and report any relevant tax risks to the revenue body in a timely way” (OECD, *Co-operative Compliance: A Framework – From Enhanced Relationship to Co-operative Compliance*, 2013, p.59).

4. Define an auditing standard for TCF

A TCF should be auditable and based on clearly defined and communicated standards or guiding principles. There may be a need for additional certainty – assurance on the reliability of the taxpayer’s ‘in control’ statement, e.g. by auditing TCF on the basis of existing internationally recognised auditing standards.

5. Managing disputes within co-operative compliance programs

If disputes arise, co-operative compliance helps ensure that disputes are managed in the most effective and efficient way. It is also very important to demonstrate impartial treatment of all taxpayers within and outside co-operative compliance relations.

6. Enable tax authorities employees

It is of great importance to train tax administration employees on the co-operative compliance concept. It is based on a broad ‘system’ type of approach and it involves understanding business processes and assessing the TCF, including the quality of the technological infrastructure; these are not within most tax administrations’ traditional data testing approach.

7. Leverage on technology to ensure compliance

Many tax authorities are beginning to understand the value of leveraging technology to achieve compliant behaviour in the most efficient way. As shown by the sustained falls in the *Paying Taxes* time to comply and payments sub-indicators, taxpayers are increasingly using advanced digital self-services, which make it easier and more efficient to comply with tax obligations.

Conclusion

The search for new and effective ways to assure tax compliance is becoming a common issue for many countries worldwide. In African countries, capacity building of tax authorities and domestic resource mobilisation are among the top priorities for many economies. Taking steps to create a culture that builds on the principles of co-operative compliance may be a way forward for many African countries, with the potential to instigate pilot projects using the co-operative compliance model.

⁷³ *Paying Taxes* identifies the time to comply with tax systems in 189 economies.

***Methodology and
example calculations for
each of the Paying Taxes
sub-indicators***

Paying Taxes records the taxes and mandatory contributions that a medium-size domestic company must pay in a given year as well as measuring the administrative burden of paying taxes and contributions. The project was developed and implemented as part of the *Doing Business* project by the World Bank Group in co-operation with PwC. Taxes and contributions measured include corporate income and other profit taxes, social contributions and labour taxes paid by the employer, property taxes, property transfer taxes, dividend tax, capital gains tax, financial transactions tax, waste collection taxes, vehicle and road taxes, and any other small taxes or fees.

Paying Taxes measures all taxes and contributions that are government mandated (at any level – federal, state or local) and that apply to the standardised business and have an impact in its financial statements. In doing so, *Paying Taxes* goes beyond the traditional definition of a tax. As defined for the purposes of government national accounts, taxes include only compulsory, unrequited payments to general government. *Paying Taxes* departs from this definition because it measures imposed charges that affect business accounts, not government accounts, with the main difference relating to labour contributions. The *Paying Taxes* measure includes government-mandated contributions paid by the employer to a required private pension fund or workers' insurance fund. The indicator includes, for example, Australia's compulsory superannuation guarantee and workers' compensation insurance. For the purpose of calculating the Total Tax Rate (defined later on), only taxes borne are included.

For example, value added taxes are generally excluded (provided they are not irrecoverable) because they do not affect the accounting profits of the business – that is, they are not reflected in the income statement. They are, however, included for the purpose of the compliance measures (time and payments), as they add to the burden of complying with the tax system.

The *Paying Taxes* study uses the *Doing Business* case study scenario to measure the taxes and contributions paid by a standardised business and the complexity of an economy's tax compliance system. This case study scenario uses a set of financial statements and assumptions about transactions made over the course of the year. In each economy tax experts from a number of different firms (including PwC) compute the taxes and mandatory contributions due in their jurisdiction based on the standardised case study facts. Information is also compiled on the frequency of filing and payments, as well as on the time taken to comply with tax laws in an economy. To make the data comparable across economies, several assumptions about the business and the taxes and contributions are used.

Assumptions about the business

The business:

- Is a limited liability, taxable company. If there is more than one type of limited liability company in the economy, the limited liability form most common among domestic firms is chosen. The most common form is reported by incorporation lawyers or the statistical office.
- Started operations on 1 January 2013. At that time the company purchased all the assets shown in its balance sheet and hired all its workers.
- Operates in the economy's largest business city and the second largest business city for large economies, defined as those with a population of more than 100 million. These economies include: Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, the Russian Federation, and the United States.
- Is 100% domestically owned and has five owners, all of whom are individuals.
- At the end of 2013, has a start-up capital of 102 times income per capita.
- Performs general industrial or commercial activities. Specifically, it produces ceramic flowerpots and sells them at retail. It does not participate in foreign trade (no import or export) and does not handle products subject to a special tax regime, for example, alcohol or tobacco.
- At the beginning of 2014, owns two plots of land, one building, machinery, office equipment, computers and one truck and leases one truck.
- Does not qualify for investment incentives or any benefits apart from those related to the age or size of the company.
- Has 60 employees – four managers, eight assistants and 48 workers. All are nationals, and one manager is also an owner. The company pays for additional medical insurance for employees (not mandated by any law) as an additional benefit. In addition, in some economies reimbursable business travel and client entertainment expenses are considered fringe benefits. Where applicable, it is assumed that the company pays the fringe benefit tax on this expense or that the benefit becomes taxable income for the employee. The case study assumes no further salary additions for meals, transportation, education or others. Therefore, even when such benefits are frequent, they are not added to or removed from the taxable gross salaries to arrive at the labour tax or contribution calculation.
- Has a turnover of 1,050 times income per capita.
- Makes a loss in the first year of operation.
- Has a gross margin (pre-tax) of 20% (that is, sales are 120% of the cost of goods sold).
- Distributes 50% of its net profits as dividends to the owners at the end of the second year.
- Sells one of its plots of land at a profit at the beginning of the second year.
- Is subject to a series of detailed assumptions on expenses and transactions to further standardise the case study. All financial statement variables are proportional to income per capita. For example, the owner who is also a manager spends 10% of income per capita on travelling for the company (20% of these owner's expenses are purely private, 20% are for entertaining customers and 60% for business travel).

Assumptions about the taxes and contributions

- All the taxes and contributions recorded are those paid in the second year of operation (calendar year 2014). A tax or contribution is considered distinct if it has a different name or is collected by a different agency. Taxes and contributions with the same name and agency, but charged at different rates depending on the business, are counted as the same tax or contribution.
- The number of times the company pays taxes and contributions in a year is the number of different taxes or contributions multiplied by the frequency of payment (or withholding) for each tax. The frequency of payment includes advance payments (or withholding) as well as regular payments (or withholding).

The Paying Taxes sub-indicators Tax payments

The tax payments sub-indicator reflects the total number of taxes and contributions paid, the method of payment, the frequency of payment, the frequency of filing and the number of agencies involved for this standardised case study company during the second year of operation. It includes taxes withheld by the company, such as sales tax, value added tax and employee-borne labour taxes. These taxes are traditionally collected by the company from the consumer or employee on behalf of the tax agencies. Although they do not affect the income statements of the company, they add to the administrative burden of complying with the tax system and so are included in the tax payments measure.

The number of payments takes into account electronic filing. Where full electronic filing and payment is allowed and it is used by the majority of medium-size businesses, the tax is counted as paid once a year even if filings and payments are more frequent. For payments made through third parties, such as tax on interest paid by a financial institution or fuel tax paid by a fuel distributor, only one payment is included even if payments are more frequent.

Table A1.1

Azerbaijan: Number of payments

Tax type	World Bank indicator	Actual payments	Notes
Corporate income tax	1	4	Paid and filed online
Value added tax (VAT)	1	12	Paid and filed online
Employer paid – social security contribution	1	12	Paid and filed online
Property tax	1	4	Paid and filed online
Land tax	1	2	Paid and filed online
Vehicle tax	1	1	
Fuel tax	1	1	
Employee paid – social security contributions	0	12	Paid jointly
Employee paid – labour tax	0	12	Paid jointly
Total	7	60	

Time

Time is recorded in hours per year. The sub-indicator measures the time taken to prepare, file and pay three major types of taxes and contributions: corporate income tax, value added or sales tax, and labour taxes, including payroll taxes and social contributions. Preparation time includes the time to collect all information necessary to compute the tax payable and to calculate the amount payable. If separate accounting books must be kept for tax purposes – or separate calculations made – the time associated with these processes is included.

This extra time is included only if the regular accounting work is not enough to fulfil the tax accounting requirements. Filing time includes the time to complete all necessary tax return forms and file the relevant returns at the tax authority. Payment time considers the hours needed to make the payment online or in person. Where taxes and contributions are paid in person, the time includes delays while waiting.

Table A1.2

Zambia: Time to comply

Tax type	Corporate income tax	Labour taxes	Consumption tax	Total
Compliance process				
Preparation				
Data gathering from internal sources (for example accounting records) if held	16	10	6	
Additional analysis of accounting information to highlight tax sensitive items	12	-	4	
Actual calculation of tax liability including data inputting into software/spreadsheets or hard copy records	6	-	-	
Time spent maintaining/updating accounting systems for changes in tax rates and rules	1	-	-	
Preparation and maintenance of mandatory tax records if required	3	-	-	
Total	38	10	10	58
Filing				
Completion of tax return forms	6	8	6	
Time spent submitting forms to tax authority, which may include time for electronic filing, waiting time at tax authority office etc.	9	36	9	
Total	15	44	15	74
Payment				
Calculations of tax payments required including if necessary extraction of data from accounting records	-	-	15	
Analysis of forecast data and associated calculations if advance payments are required	4	6	-	
Time to make the necessary tax payments, either online or at the tax authority office (include time for waiting in line and travel if necessary)*	-	-	-	
Total	4	6	15	25
Grand total	57	60	40	157

*The time required to make tax payments is negligible and is included within the filing time.

Total Tax Rate

The Total Tax Rate measures the amount of taxes and mandatory contributions borne by the business in the second year of operation, expressed as a share of commercial profit. *Paying Taxes 2016* reports the Total Tax Rate for calendar year 2014. The total amount of taxes borne is the sum of all the different taxes and contributions payable after accounting for allowable deductions and exemptions. The taxes withheld (such as personal income tax) or collected by the company and remitted to the tax authorities (such as value added tax, sales tax or goods and service tax) but not borne by the company are excluded. The taxes included can be divided into five categories: profit or corporate income tax, social contributions and labour taxes paid by the employer (in respect of which all mandatory contributions are included, even if paid to a private entity such as a required pension fund), property taxes, turnover taxes and other taxes (such as municipal fees and vehicle and fuel taxes).

The Total Tax Rate is designed to provide a comprehensive measure of the cost of all the taxes a business bears. It differs from the statutory tax rate, which merely provides the factor to be applied to the tax base. In computing the Total Tax Rate, the actual tax payable is divided by commercial profit.

Commercial profit is essentially net profit before all taxes borne. It differs from the conventional profit before tax, reported in financial statements. In computing profit before tax, many of the taxes borne by a firm are deductible. In computing commercial profit, these taxes are not deductible. Commercial profit therefore presents a clear picture of the actual profit of a business before any of the taxes it bears in the course of the fiscal year.

Commercial profit is computed as sales minus cost of goods sold, minus gross salaries, minus administrative expenses, minus other expenses, minus provisions, plus capital gains (from the property sale), minus interest expense, plus interest income and minus commercial depreciation.

To compute the commercial depreciation, a straight-line depreciation method is applied, with the following rates: 0% for the land, 5% for the building, 10% for the machinery, 33% for the computers, 20% for the office equipment, 20% for the truck and 10% for business development expenses. Commercial profit amounts to 59.4 times income per capita.

Table A1.3

Poland: Total Tax Rate

	PLN '000	PLN '000
Profit before tax (PBT)		1,743
Add back above the line taxes borne		
Social security contributions	448	
National disabled fund	67	
Labour fund and guarantee employee fund	68	
Transport tax	1	
Property tax	22	
		606
Commercial profit (profit before all taxes borne)		2,349
Corporate income tax on PBT after necessary adjustments	(340)	
Above the line taxes borne	(606)	
Total taxes borne		(946)
Profit after tax		1,403
Total Tax Rate = Total taxes borne/commercial profit		40.3%

The methodology for calculating the Total Tax Rate is broadly consistent with the Total Tax Contribution framework⁷⁴ developed by PwC and the calculation within this framework for taxes borne. But while the work undertaken by PwC is usually based on data received from the largest companies in the economy, *Doing Business* focuses on a case study for a standardised medium-size company.

From *Paying Taxes 2014*, fuel tax has not been considered for the purpose of the Total Tax Rate calculations because of the difficulty of computing these taxes in a consistent way across all of the economies covered. The amounts involved are also in most cases very small. Fuel taxes continue to be counted in the number of payments.

The base for the financial statements and GNIpc

The case study company's financial statements are based upon the gross national income per capita (GNIpc) in each economy. Turnover, for example, is assumed to be 1,050 times GNIpc giving, after deducting various expenses, a commercial profit of 59.4 times GNIpc. For the years 2004 to 2011 the GNIpc value for 2005 has been used. For the years 2012, 2013 and 2014 the 2012 value in each economy has been used so that the study reflects more accurately the current economic conditions. In the future the GNIpc will be updated every three years.

In some economies updating the GNIpc to the 2012 value was not sufficient to bring the salaries of all the case study employees up to the minimum wage thresholds that exist in those economies. In those instances an additional multiple of two or three times the GNIpc has been used.

Expanding the sample of cities covered for large economies

Since its inception the World Bank Group's *Doing Business* study has focused on the largest business city of each economy. Depending on the indicator and the size of the economy, this focus can be a limitation in extrapolating results to the economy level. As the subnational *Doing Business* reports prepared by the World Bank have shown, the indicators measuring the procedures, time and cost to complete a transaction (such as the dealing with construction permits indicators) tend to show more variation across cities within an economy than do indicators capturing features of the law applicable nationwide (such as the protecting minority investors or resolving insolvency indicators). Moreover, this limitation is likely to be more important in larger economies – where the largest business city is likely to represent a smaller share of the overall economy – and in those with greater regional diversity in business practices.

⁷⁴ www.pwc.com/totalexcontribution

To address this issue, from 2015, *Doing Business* including the *Paying Taxes* indicator has expanded its sample of cities in large economies, defined as those with a population of more than 100 million in 2013. These include: Bangladesh, Brazil, China, India, Indonesia, Japan, Mexico, Nigeria, Pakistan, the Russian Federation and the United States. For each of these economies the sample now includes the second largest business city. Population size was used as the criterion for selecting these economies for two main reasons: First, economies with a large population, because of their size and diversity, are more likely to have differences in performance on indicators. Second the larger the population in an economy, the larger the number of people who can benefit from improvements in business regulation.

Within each economy the second city was also selected on the basis of population size and must be in a different metropolitan area from the largest business city (see Table A1.4).⁷⁵

For an economy represented by two cities, both sets of data for the sub-indicators are available and are disclosed in Appendix 3. Both cities are also included in the economy's ranking calculation.

Table A1.4

Economy	Cities
Bangladesh	Dhaka, Chittagong
Brazil	Sao Paulo, Rio de Janeiro
China	Shanghai, Beijing
India	Mumbai, Delhi
Indonesia	Jakarta, Surabaya
Japan	Tokyo, Osaka
Mexico	Mexico City, Monterrey
Nigeria	Lagos, Kano
Pakistan	Karachi, Lahore
Russian Federation	Moscow, St. Petersburg
USA	New York City, Los Angeles

⁷⁵ Where the second and third largest cities were very close in population size, the GDP of the city or relevant state was used to determine which city was the second largest business city.

Calculation of scores and ranking for economies with two cities covered

For each of the 11 economies for which a second city is included, the distance to frontier score is calculated as the population-weighted average of the distance to frontier scores for the two cities covered (Table A1.5). This is done for the scores for each of the component sub-indicators: number of payments, time and Total Tax Rate.

The table below shows the city data for the eleven economies.

Table A1.5

Economy	Population	Weight	Total Tax Rate (%)	Time to comply (hours)	Number of payments
Bangladesh Dhaka	14,730,537	78%	31.6	302	21.0
Bangladesh Chittagong	4,106,060	22%	31.6	302	21.0
Bangladesh	-	-	31.6	302	21.0
Brazil Sao Paulo	19,659,808	61%	69.1	2600	10.0
Brazil Rio de Janeiro	12,373,884	39%	69.4	2600	9.0
Brazil	-	-	69.2	2600	9.6
China Shanghai	19,979,977	55%	67.2	261	9.0
China Beijing	16,189,572	45%	68.5	261	9.0
China	-	-	67.8	261	9.0
India Mumbai	19,421,983	47%	60.6	243	33.0
India Delhi	21,935,142	53%	60.6	243	33.0
India	-	-	60.6	243	33.0
Indonesia Jakarta	9,629,953	78%	29.7	234	54.0
Indonesia Surabaya	2,768,199	22%	29.7	234	54.0
Indonesia	-	-	29.7	234	54.0
Japan Tokyo	36,833,979	65%	51.3	330	14.0
Japan Osaka	19,491,722	35%	51.4	330	14.0
Japan	-	-	51.3	330	14.0
Mexico Mexico City	20,131,688	83%	51.7	286	6.0
Mexico Monterrey	4,112,643	17%	51.7	286	6.0
Mexico	-	-	51.7	286	6.0
Nigeria Lagos	10,780,986	77%	33.4	956	59.0
Nigeria Kano	3,220,929	23%	33.3	747	59.0
Nigeria	-	-	33.3	908	59.0
Pakistan Karachi	14,080,737	65%	32.5	594	47.0
Pakistan Lahore	7,487,415	35%	32.8	594	47.0
Pakistan	-	-	32.6	594	47.0
Russian Federation Moscow	11,461,264	70%	47.1	168	7.0
Russian Federation Saint Petersburg	4,871,556	30%	46.8	168	7.0
Russian Federation	-	-	47.0	168	7.0
United States New York	18,365,262	60%	45.9	175	11.0
United States Los Angeles	12,160,151	40%	40.9	175	10.0
United States	-	-	43.9	175	10.6

Source: United Nations, Department of Economic and Social Affairs, Population Division, World Urbanization Prospects, 2014 Revision, "File 12: Population of Urban Agglomerations with 300,000 Inhabitants or More in 2014, by Country, 1950-2030 (thousands)." Available at <http://esa.un.org/unpd/wup/CD-ROM/Default.aspx>.

Ranking calculation and the distance to frontier measure

Prior to *Paying Taxes 2015*, the economies were ranked using a simple average of the percentile rankings for each of the sub-indicators, but with a threshold applied to the Total Tax Rate.

From *Paying Taxes 2015*, the ease of paying taxes ranking is based on the distance to frontier score rather than on the percentile rank. The distance to frontier score benchmarks economies with respect to a measure of regulatory best practice – showing the gap between each economy’s performance and the best performance on each indicator. The frontier is set at the lowest number that has occurred in the study for each sub-indicator with the exception of the Total Tax Rate, for which a threshold has been established (more details below). For time, the frontier is defined as the lowest time recorded among all economies in the *Doing Business* sample that levy the three major taxes – profit tax, labour tax including mandatory contributions and VAT or sales tax. The ranking based on the distance to frontier score is highly correlated with that based on the percentile rank, but the distance to frontier score captures more information than the percentile rank as it shows not only how economies are ordered but also how far apart they are.

The ranking of economies on the ease of paying taxes is determined by sorting their distance to frontier scores on paying taxes, rounded to 2 decimals. These scores are the simple average of the distance to frontier scores for each of the sub-indicators (number of payments, time and Total Tax Rate) with a threshold being applied to the Total Tax Rate sub-indicator. The threshold is defined as the total tax rate at the 15th percentile of the overall distribution for all years included in the analysis up to and including *Doing Business 2015*, which is 26.1%. All economies with a total tax rate below this threshold receive the same score as the economy at the threshold. Additionally, above the threshold the Total Tax Rate is included in the ranking in a non-linear fashion (see below).

The threshold is not based on any economic theory of an ‘optimal tax rate’ that minimises distortions or maximises efficiency in an economy’s overall tax system. Instead, it is mainly empirical in nature, set at the lower end of the distribution of tax rates levied on medium-size enterprises in the manufacturing sector as observed through the paying taxes indicators. This reduces the bias in the total tax rate indicator toward economies that do not need to levy significant taxes on companies like the *Doing Business* standardised case study company because they raise public revenue in other ways – for example, through taxes on foreign companies, through taxes on sectors other than manufacturing or from natural resources (all of which are outside the scope of the methodology).

The World Bank Group distance to frontier measure

This report presents in Appendix 3 the results for two aggregate benchmark measures: the distance to frontier measure and the ease of doing business ranking, which since *Paying Taxes 2015*, has been based on the distance to frontier measure. The ease of doing business ranking, including the ranking for *Paying Taxes*, compares economies with one another; while the distance to frontier score benchmarks economies with respect to regulatory best practice, showing the absolute distance to the best performance on each *Doing Business* indicator. Both measures can be used for comparisons over time. When compared across years, the distance to frontier measure shows how much the regulatory environment for local entrepreneurs in each economy has changed over time in absolute terms, while the ease of paying taxes ranking can show only how economies have changed relative to one another.

The frontier is a score derived from the most efficient practice or highest score achieved on the *Paying Taxes* sub-indicators by any economy for all years included in the analysis up to and including *Doing Business 2015*. In *Paying Taxes*, for example, Hong Kong SAR, (China) and Saudi Arabia have achieved the highest performance on the number of payments (3 payments), Singapore on time (49 hours) and Solomon Islands on the Total Tax Rate (26.1%).

Calculating the distance to frontier for each economy involves two main steps. First, two of the *Paying Taxes* sub-indicators, number of payments and time, are rescaled to a common unit using a linear transformation: $(\max - y)/(\max - \min)$, with the minimum value (min) representing the frontier – the highest performance on that sub-indicator across all economies for all years included in the analysis up to and including *Doing Business 2015*. For the time to pay taxes the frontier is defined as the lowest time recorded among all economies that levy the three major taxes: profit tax, labour taxes and mandatory contributions, and value added tax (VAT) or sales tax. For the Total Tax Rate, consistent with the use of a threshold in calculating the rankings on this sub-indicator, the frontier is defined as the Total Tax Rate at the 15th percentile of the overall distribution of Total Tax Rates for all years included in the analysis up to and including *Doing Business 2015*.

Second, for each economy the scores obtained are aggregated through simple averaging into one distance to frontier score. An economy's distance to frontier is indicated on a scale from 0 to 100, where 0 represents the lowest performance and 100 the frontier. To mitigate the effects of extreme outliers in the distributions of the rescaled data, the worst performance (i.e. the max) is calculated after the removal of outliers.

The worst performance is defined as the 95th percentile for each component of the pooled data for all economies for all the years included in the analysis. All distance to frontier calculations are based on a maximum of five decimals. However, the ease of paying taxes ranking calculation is based on two decimals.

The difference between an economy's distance to frontier score in any previous year and its score on the *Paying Taxes* indicator for 2014 illustrates the extent to which the economy has closed the gap to the frontier over time. And in any given year the score measures how far an economy is from the highest performance. The distance to frontier measure can also be used for comparisons across economies in the same year, complementing the ease of paying taxes ranking.

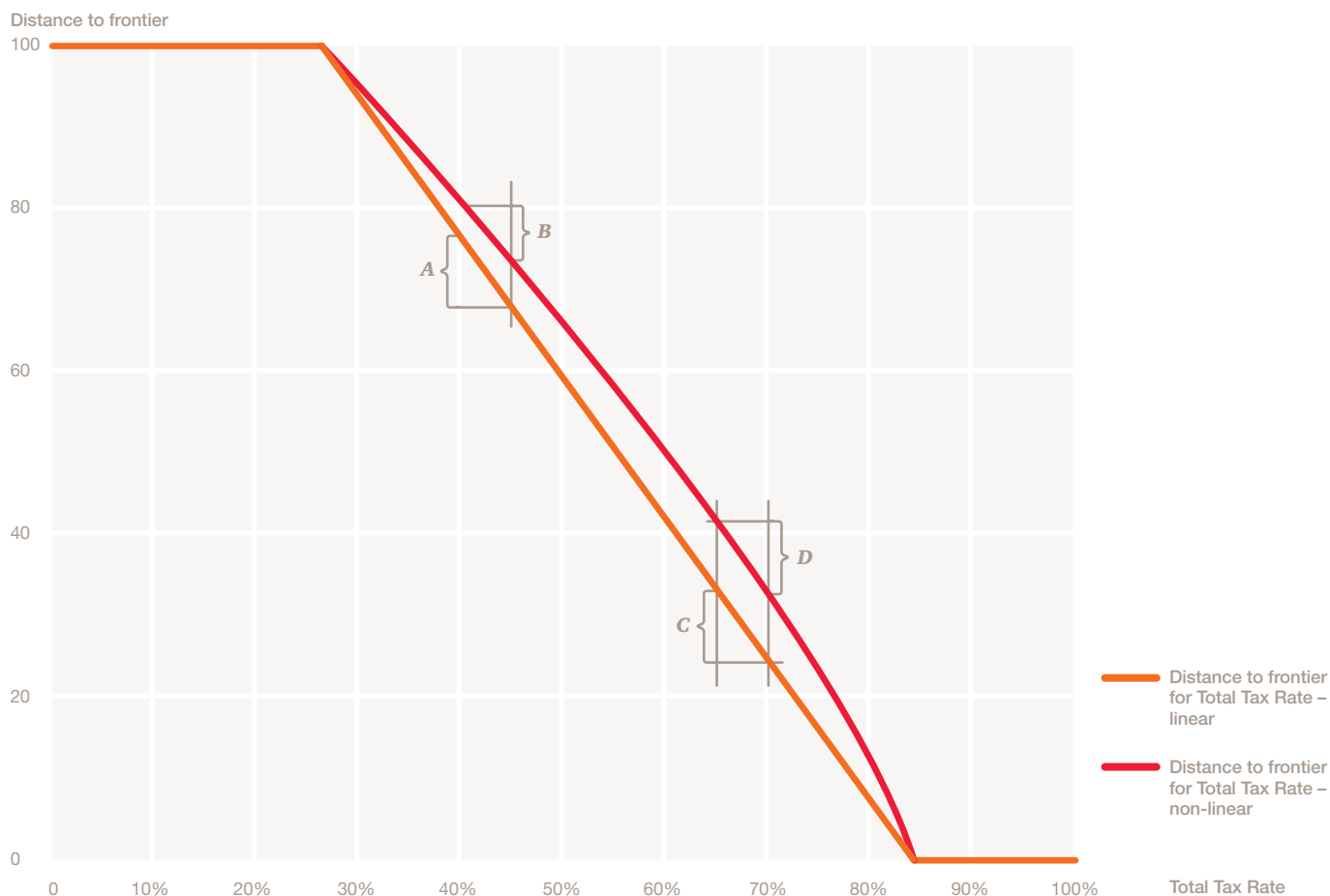
Treatment of the Total Tax Rate

Since *Paying Taxes 2015*, the Total Tax Rate component of the paying taxes indicator is transformed in a non-linear fashion before it enters the distance to frontier score for paying taxes. As a result of the non-linear transformation, an increase in the Total Tax Rate has a smaller impact on the distance to frontier score for the Total Tax Rate – and therefore on the distance to frontier score for paying taxes – for economies with a below-average Total Tax Rate than it would have in the calculation done in previous years (line B is smaller than line A in figure A1.1). And for economies with an extreme Total Tax Rate (a rate that is very high relative to the average), an increase has a greater impact on both these distance to frontier scores than before (line D is bigger than line C in Figure A1.1).

The non-linear transformation is not based on any economic theory of an 'optimal tax rate' that minimises distortions or maximises efficiency in an economy's overall tax system. Instead, it is mainly empirical in nature. The non-linear transformation along with the threshold reduces the bias in the indicator toward economies that do not need to levy significant taxes on companies like the *Doing Business* standardised case study company because they raise public revenue in other ways – for example, through taxes on foreign companies, through taxes on sectors other than manufacturing or from natural resources (all of which are outside the scope of the methodology). In addition, it acknowledges the need of economies to collect taxes from firms.

Figure A1.1

How the non-linear transformation affects the distance to frontier score for the Total Tax Rate



Note: The non-linear distance to frontier for the Total Tax Rate is equal to the distance to frontier for the Total Tax Rate to the power of 0.8.

Source: Doing Business database.

Distance to frontier (DTF)

DTF for the time to comply and the number of payments is computed as:

$$100 * (max - y) / (max - min)$$

Where y := sub-indicator value for a given economy

DTF for the Total Tax Rate (TTR) is computed as:

$$TTR^{DTF} = 100 * [(max - y) / (max - min)]^{0.8}$$

For a TTR value below the 15th percentile, TTR^{DTF} is set at 100.

The overall *Paying Taxes* DTF will then take the form;

$$Paying\ Taxes^{DTF} = 1/3 [TTR^{DTF} + Time_{DTF} + Payments_{DTF}]$$

Economy sub-indicator results by region

Which economies are most relevant to you? Use our comparative modeller, www.pwc.com/payingtaxesmodeller to create your own comparisons from all the economies and regions.

Figure A2.1: Africa

Total Tax Rate (%)

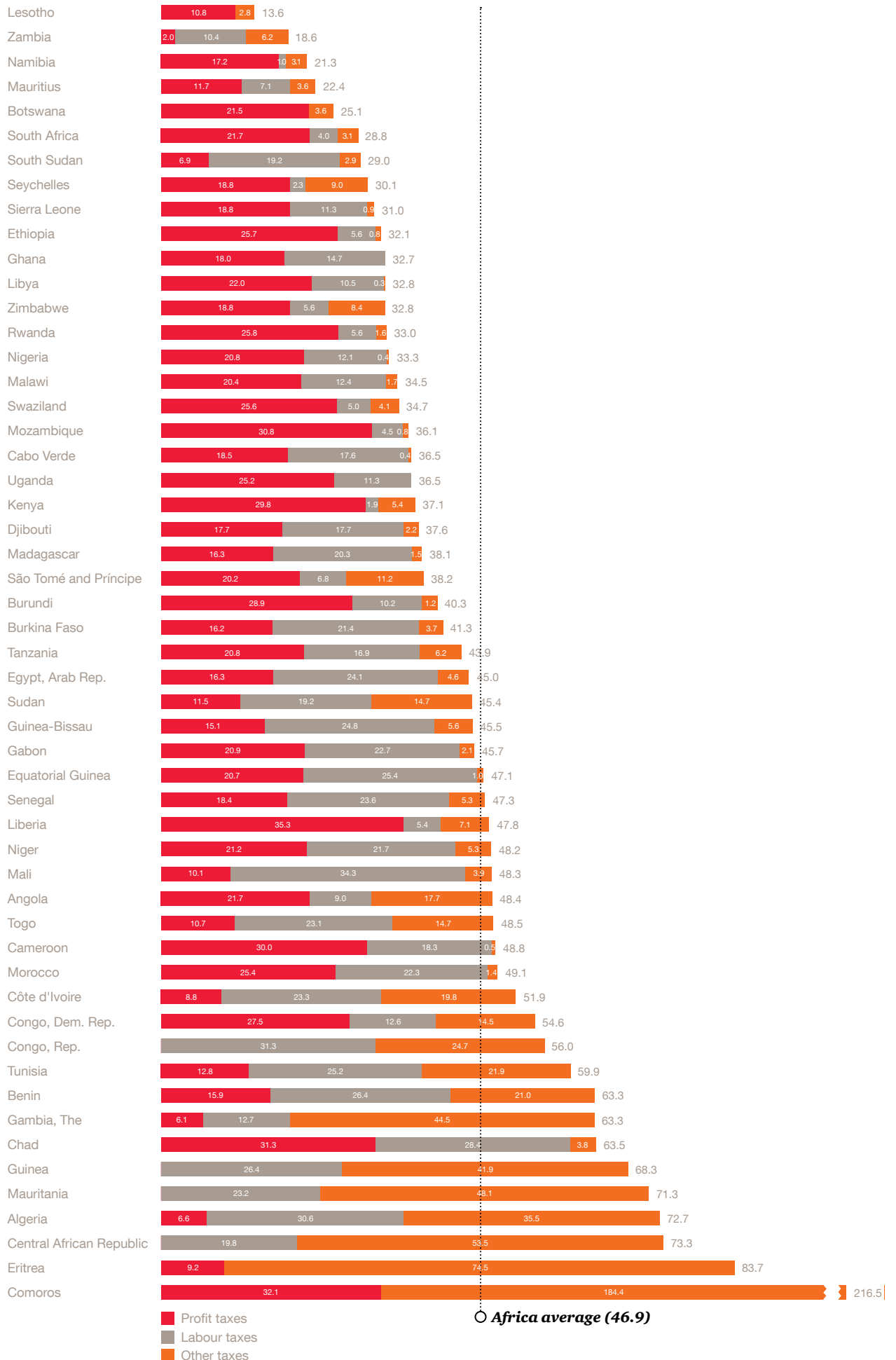


Figure A2.2: Africa

Time to comply (hours)

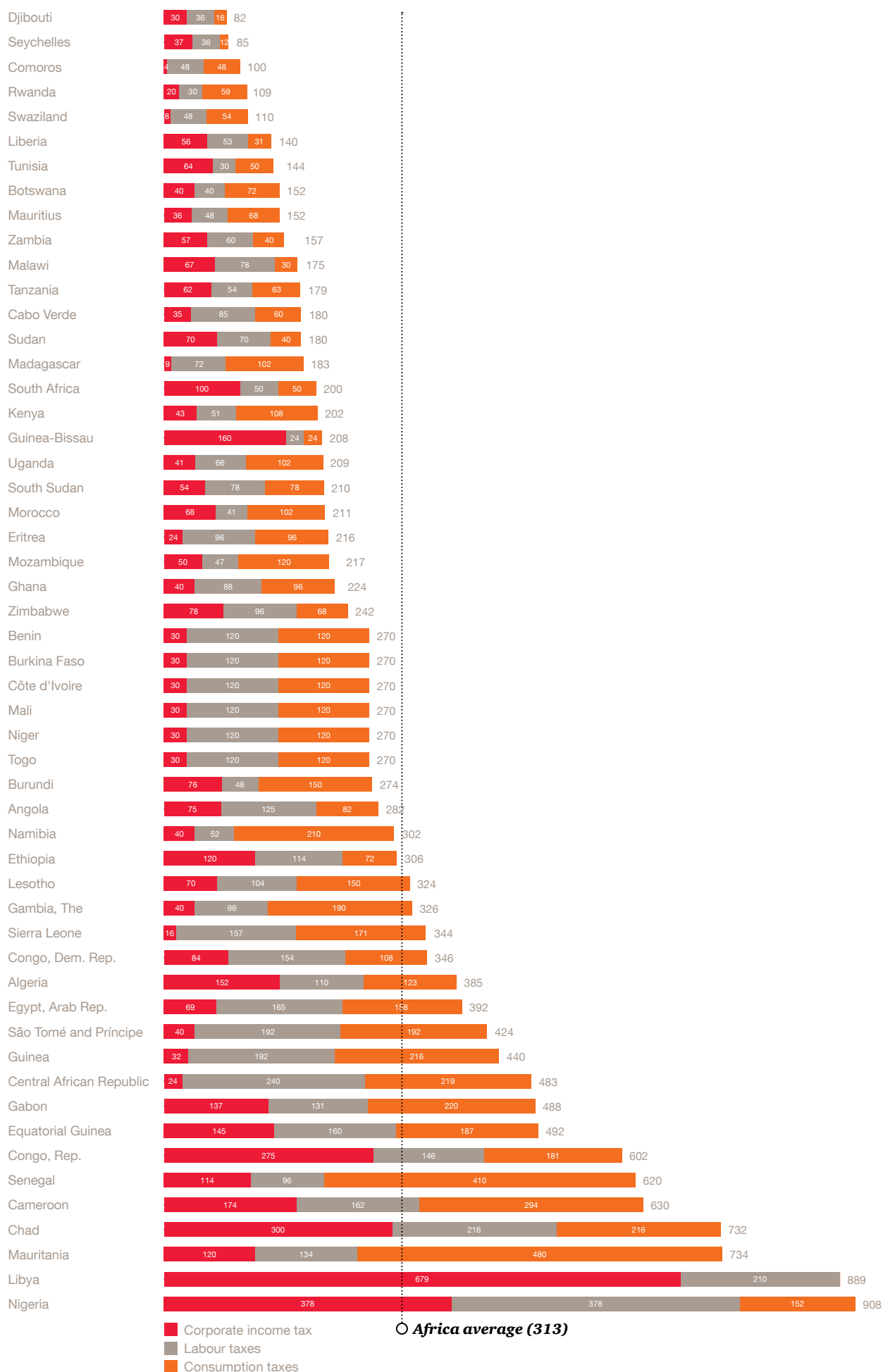


Figure A2.3: Africa

Number of payments

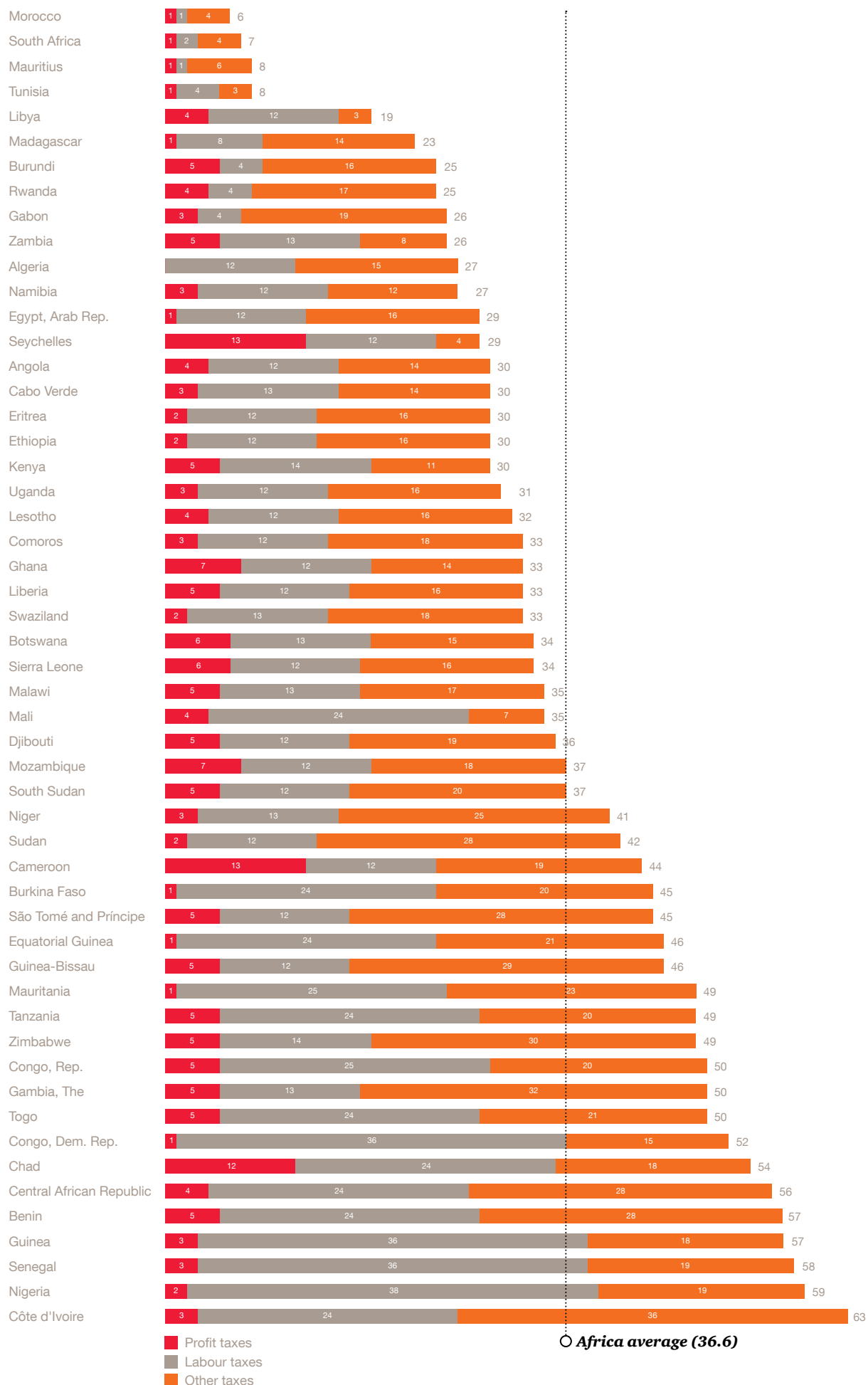


Figure A2.4: Asia Pacific

Total Tax Rate (%)

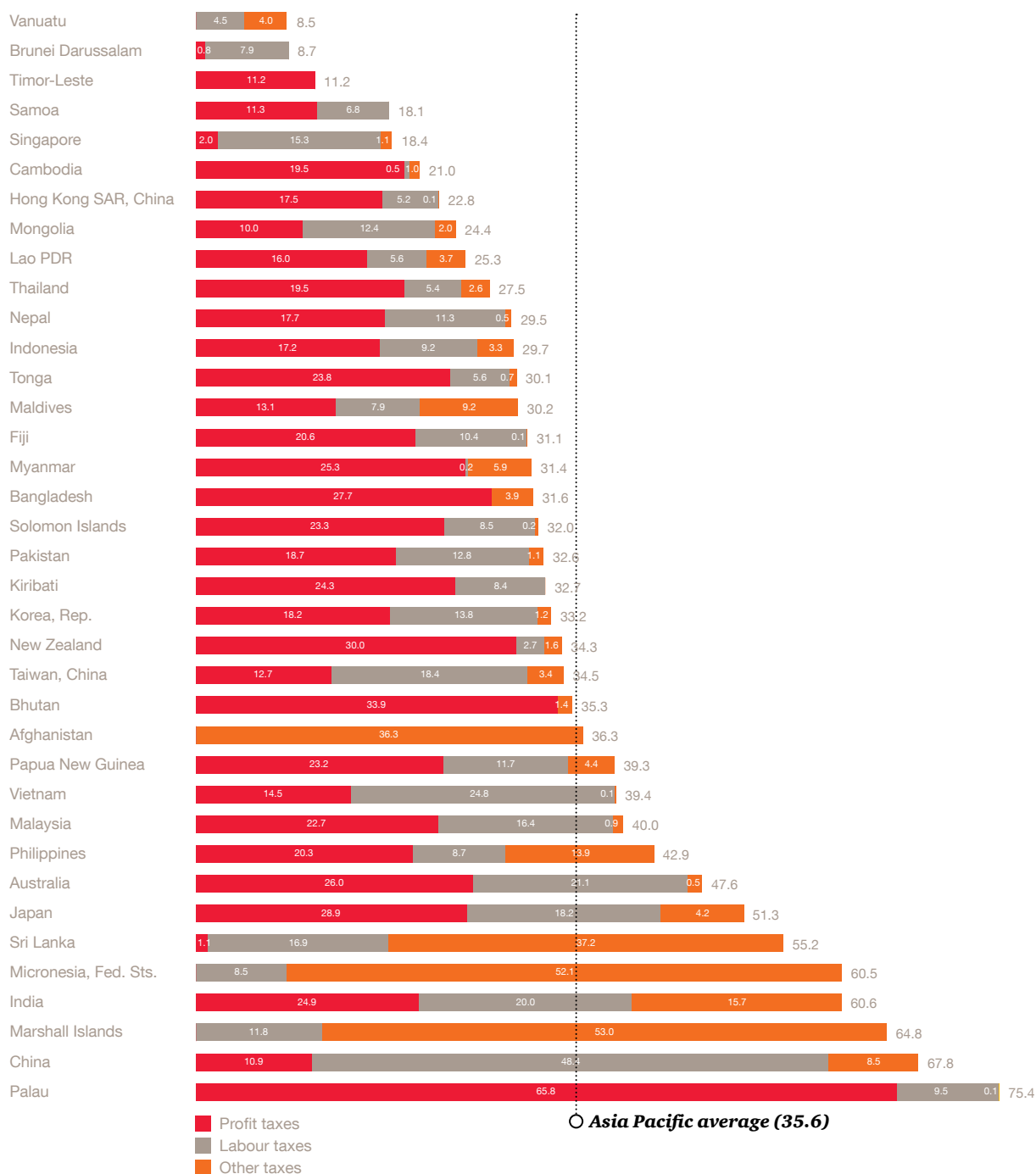


Figure A2.5: Asia Pacific

Time to comply (hours)

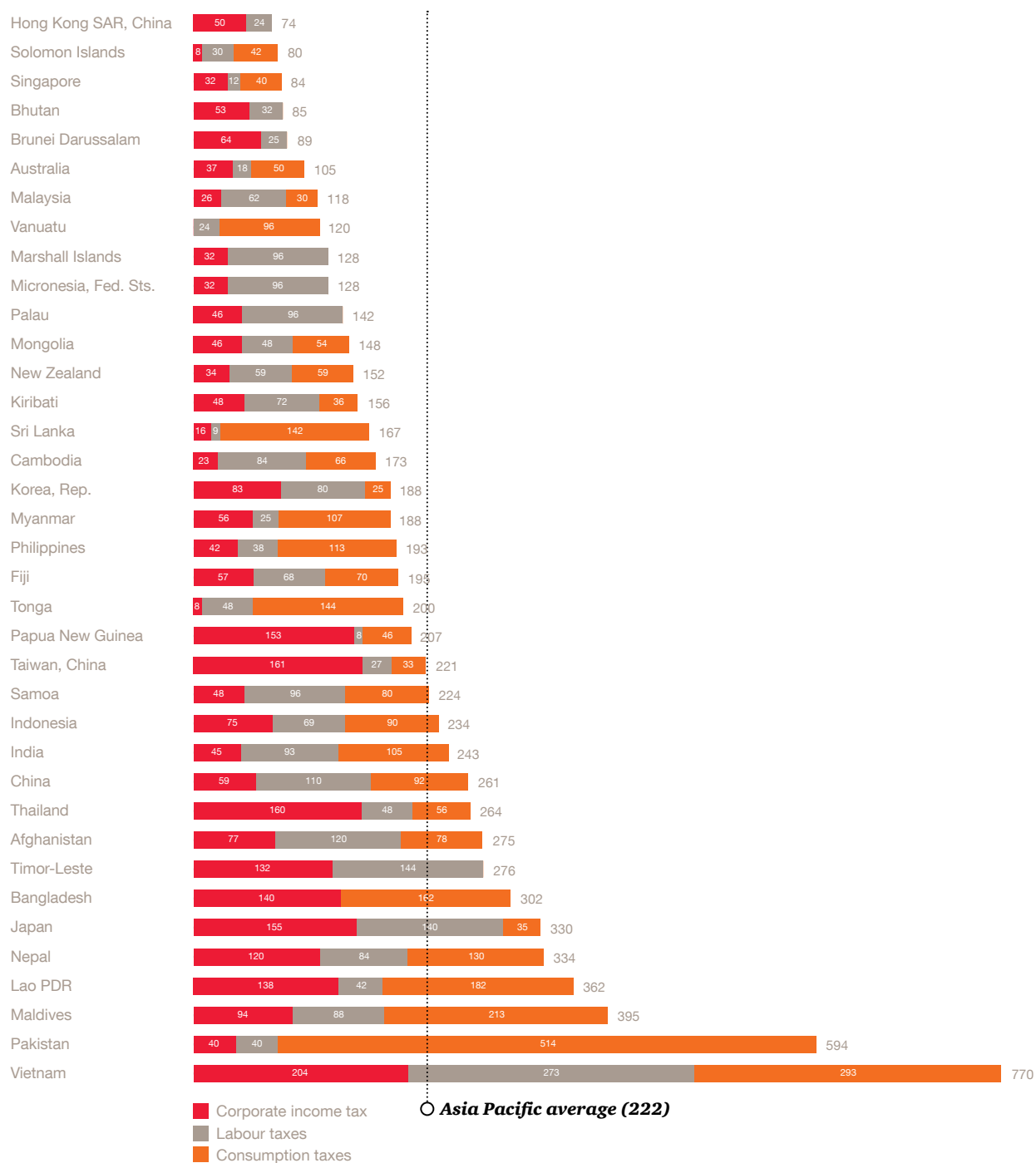


Figure A2.6: Asia Pacific

Number of payments

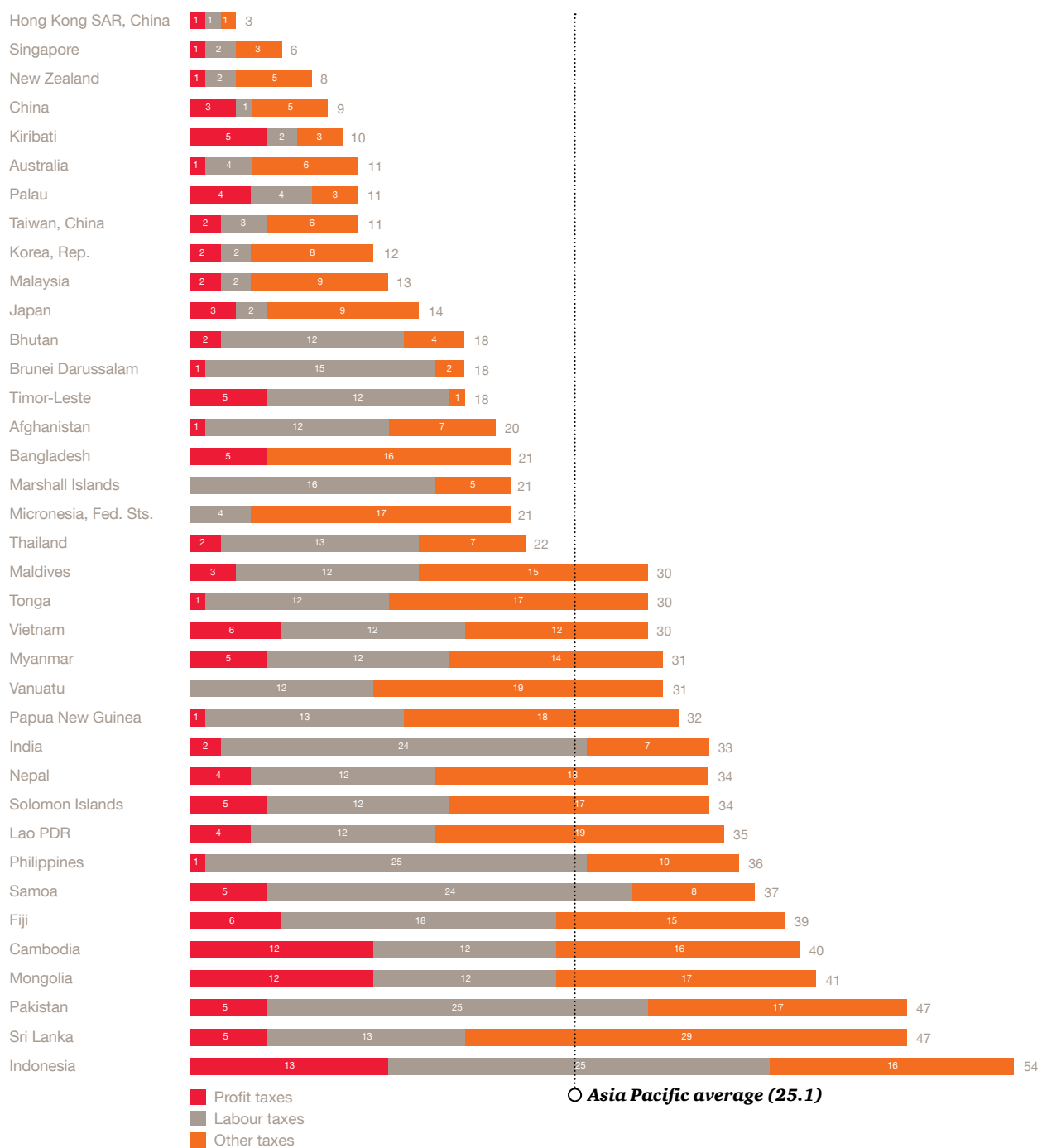


Figure A2.7: Central America & The Caribbean

Total Tax Rate (%)

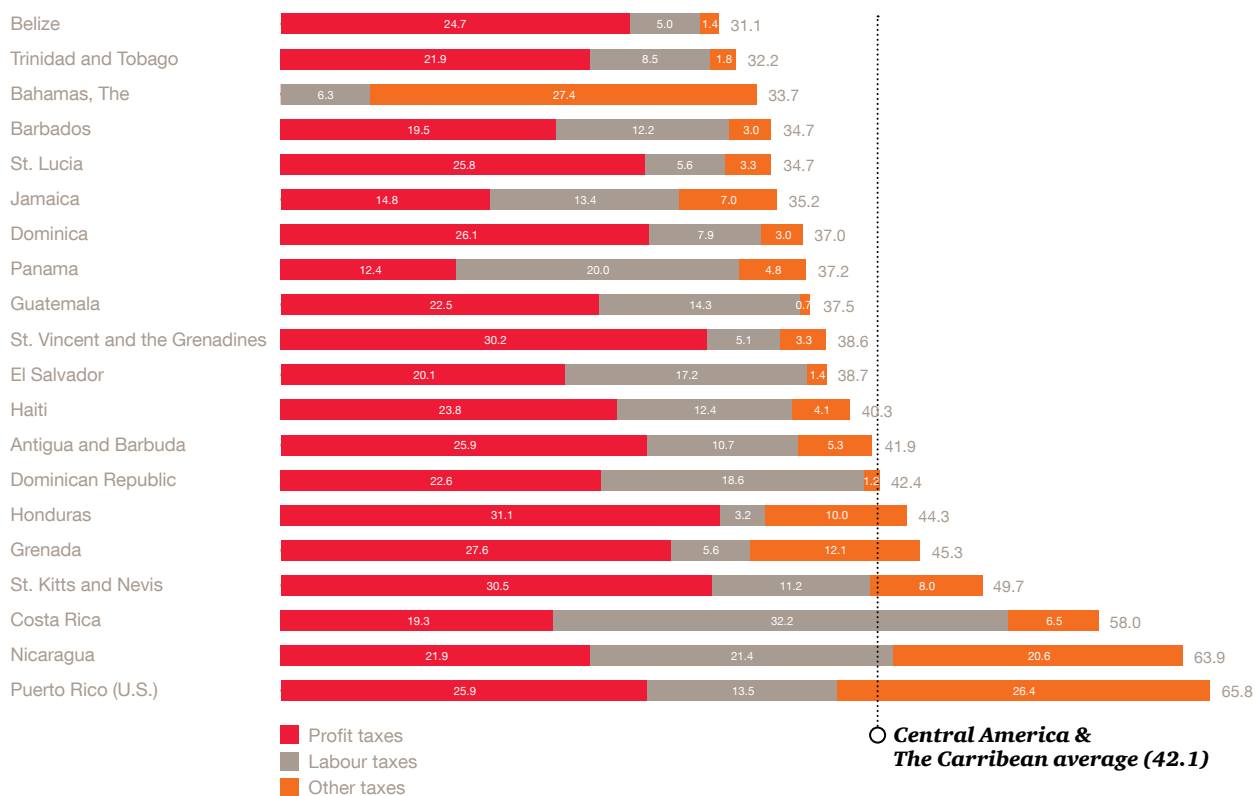


Figure A2.8: Central America & The Caribbean

Time to comply (hours)

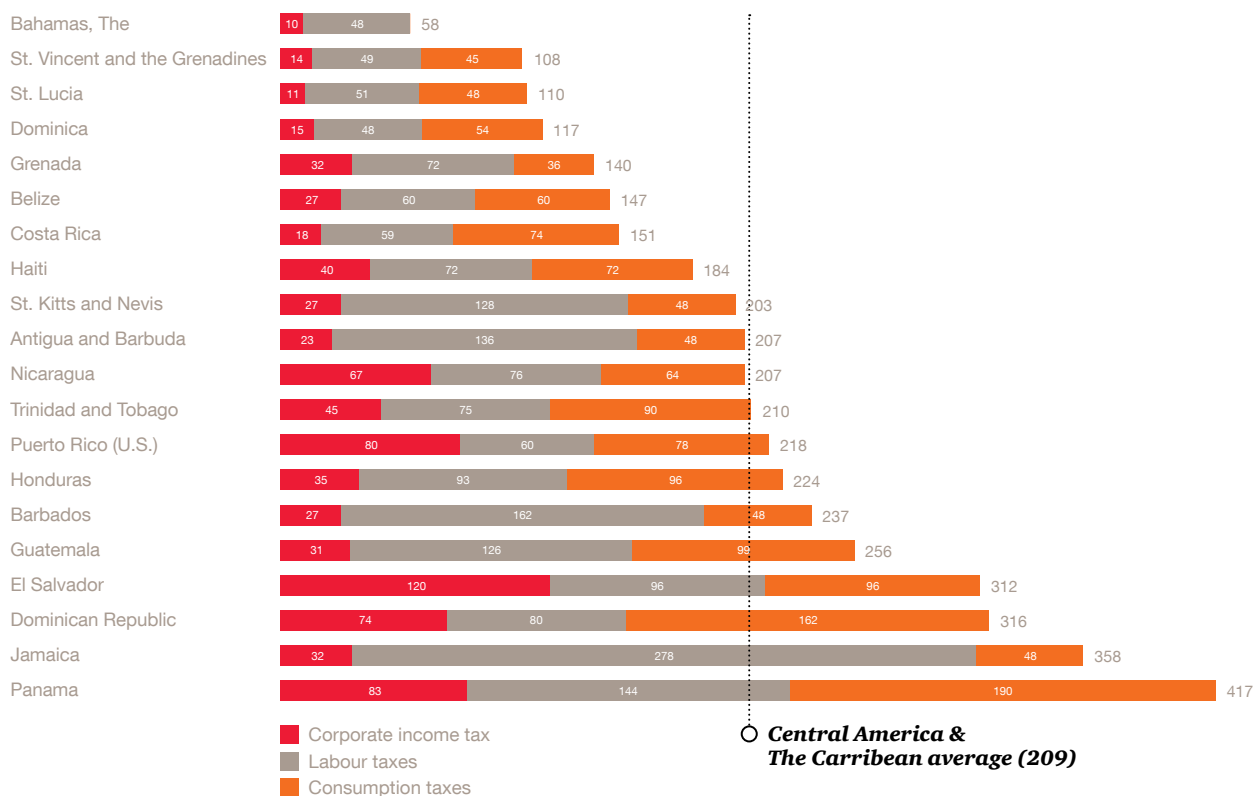


Figure A2.9: Central America & The Caribbean

Number of payments

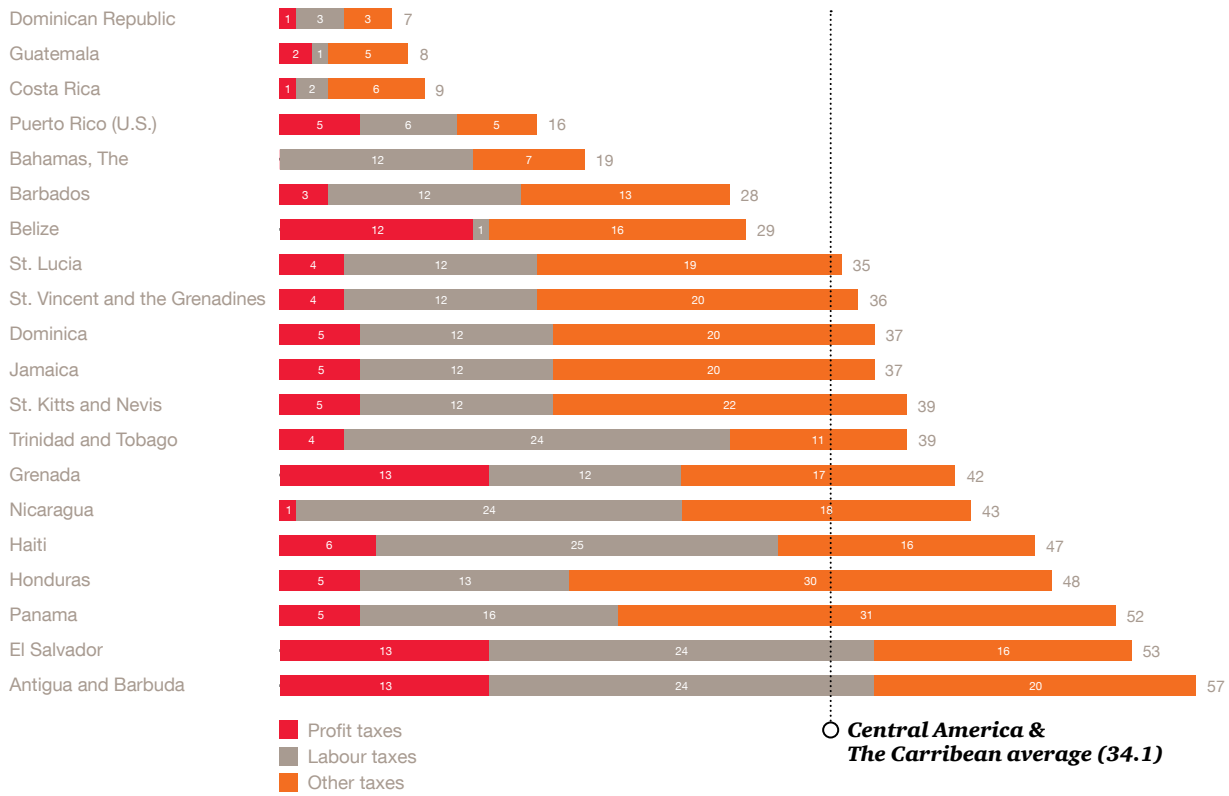


Figure A2.10: Central Asia & Eastern Europe

Total Tax Rate (%)

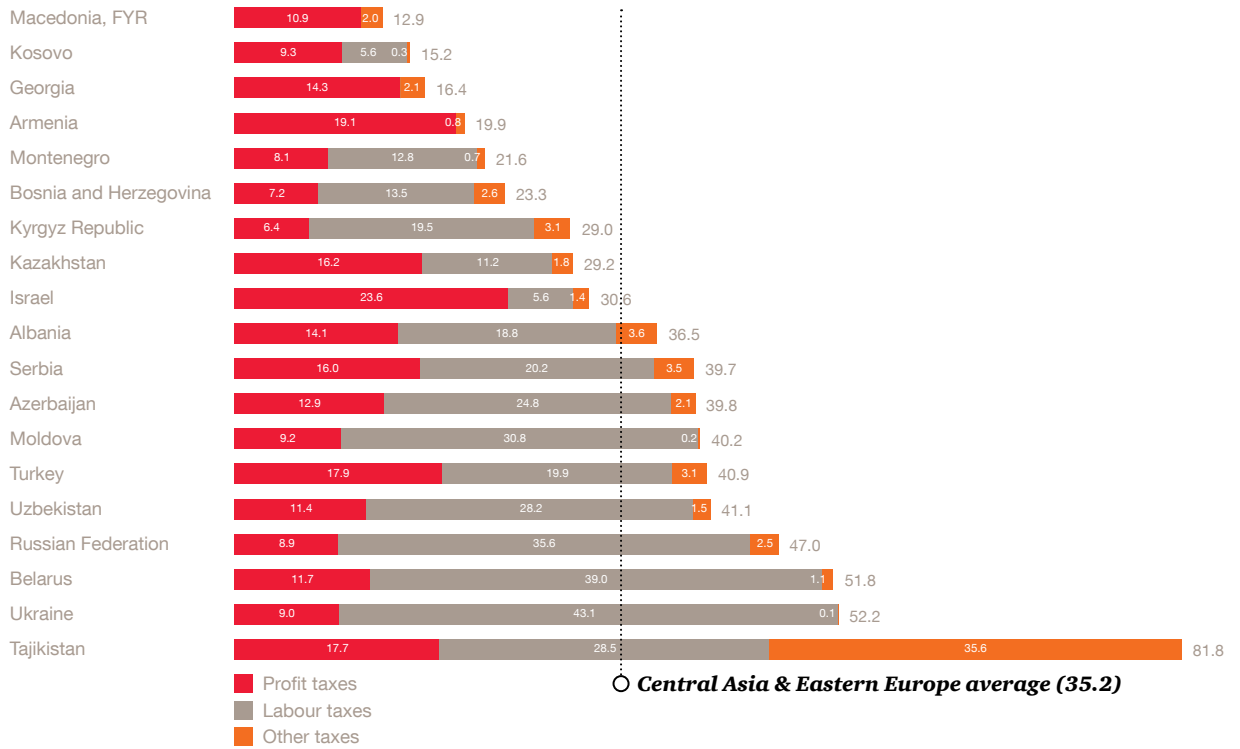


Figure A2.11: Central Asia & Eastern Europe

Time to comply (hours)

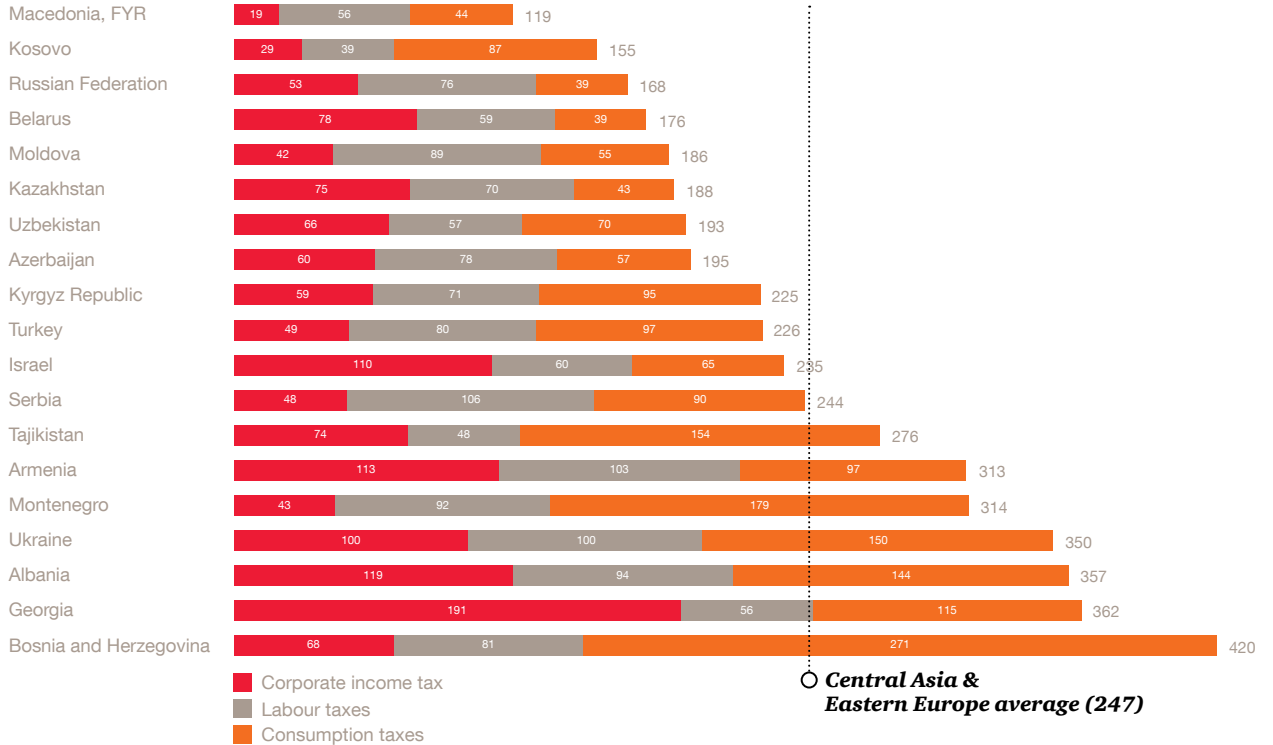


Figure A2.12: Central Asia & Eastern Europe

Number of payments

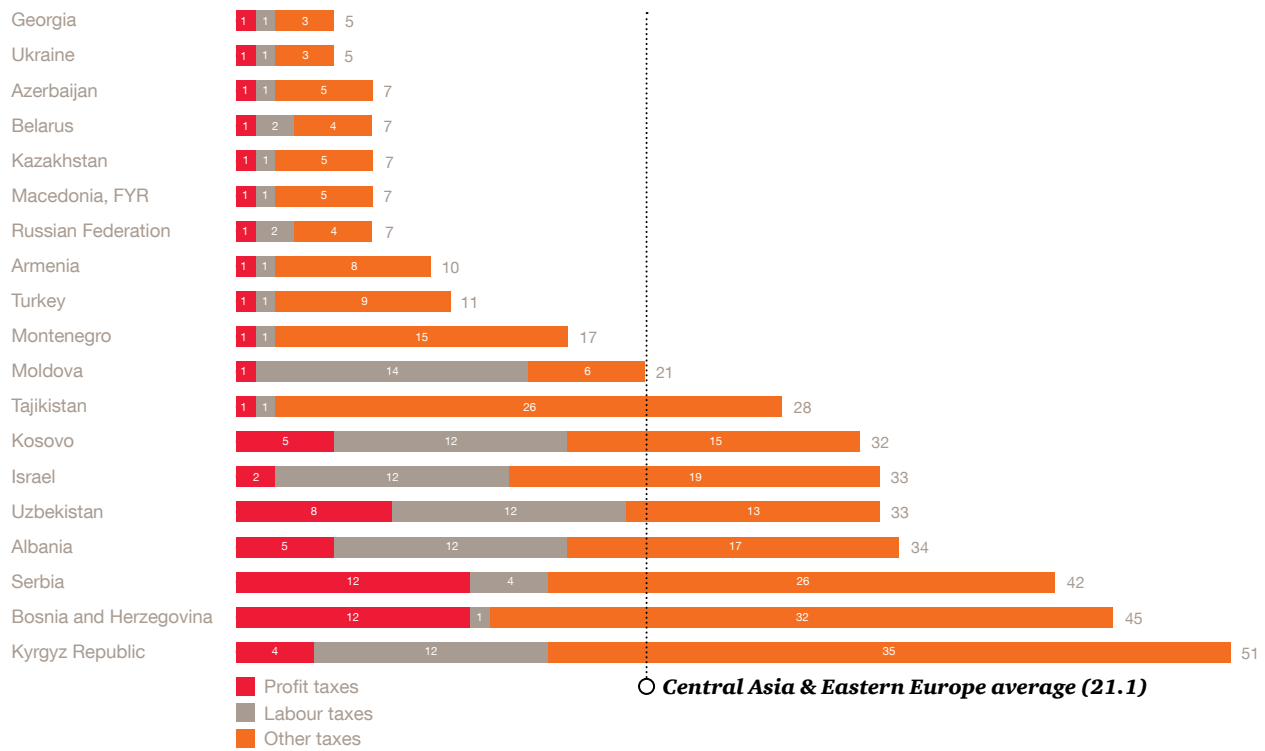


Figure A2.13: EU & EFTA

Total Tax Rate (%)

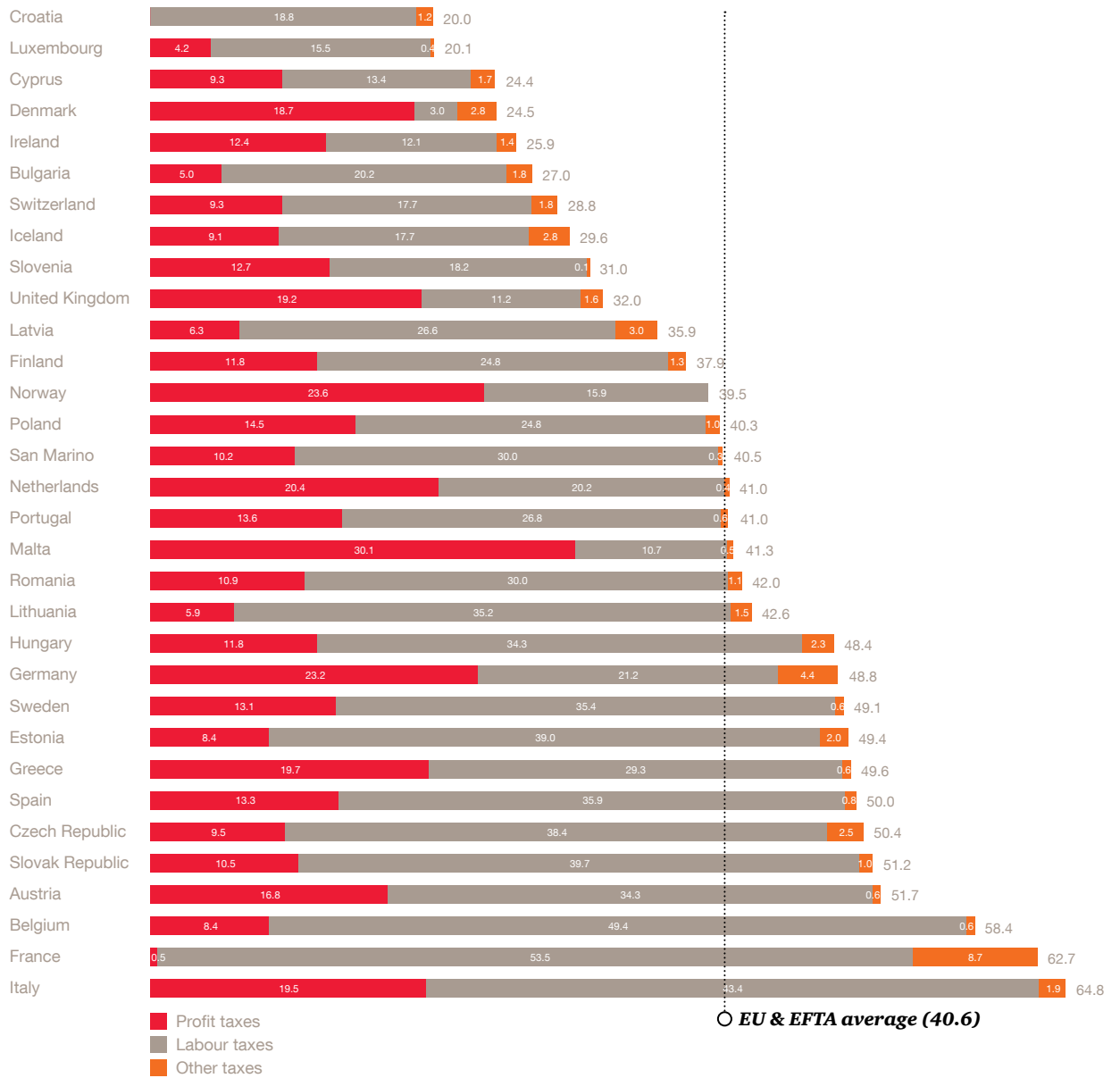


Figure A2.14: EU & EFTA

Time to comply (hours)

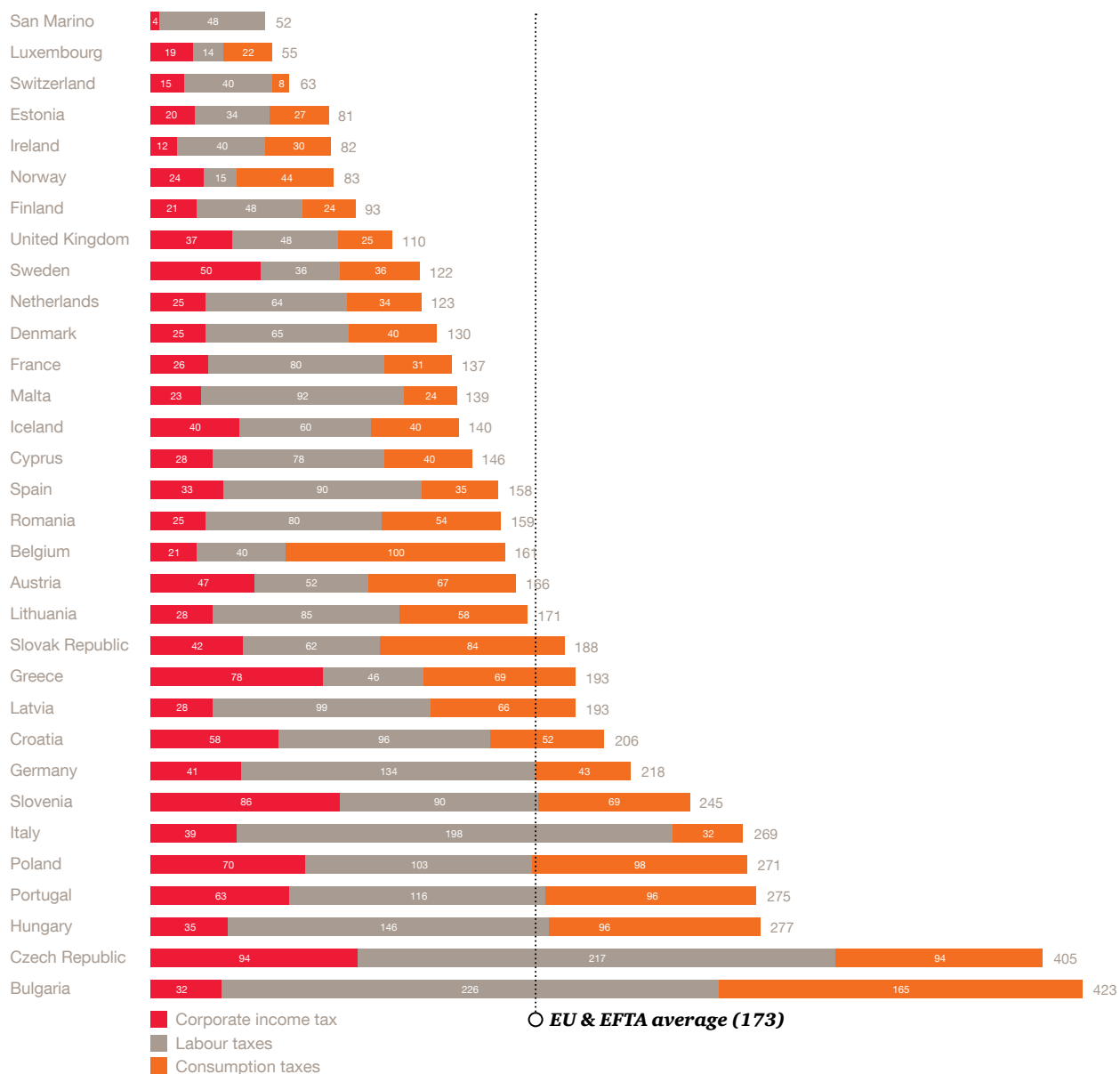


Figure A2.15: EU & EFTA

Number of payments

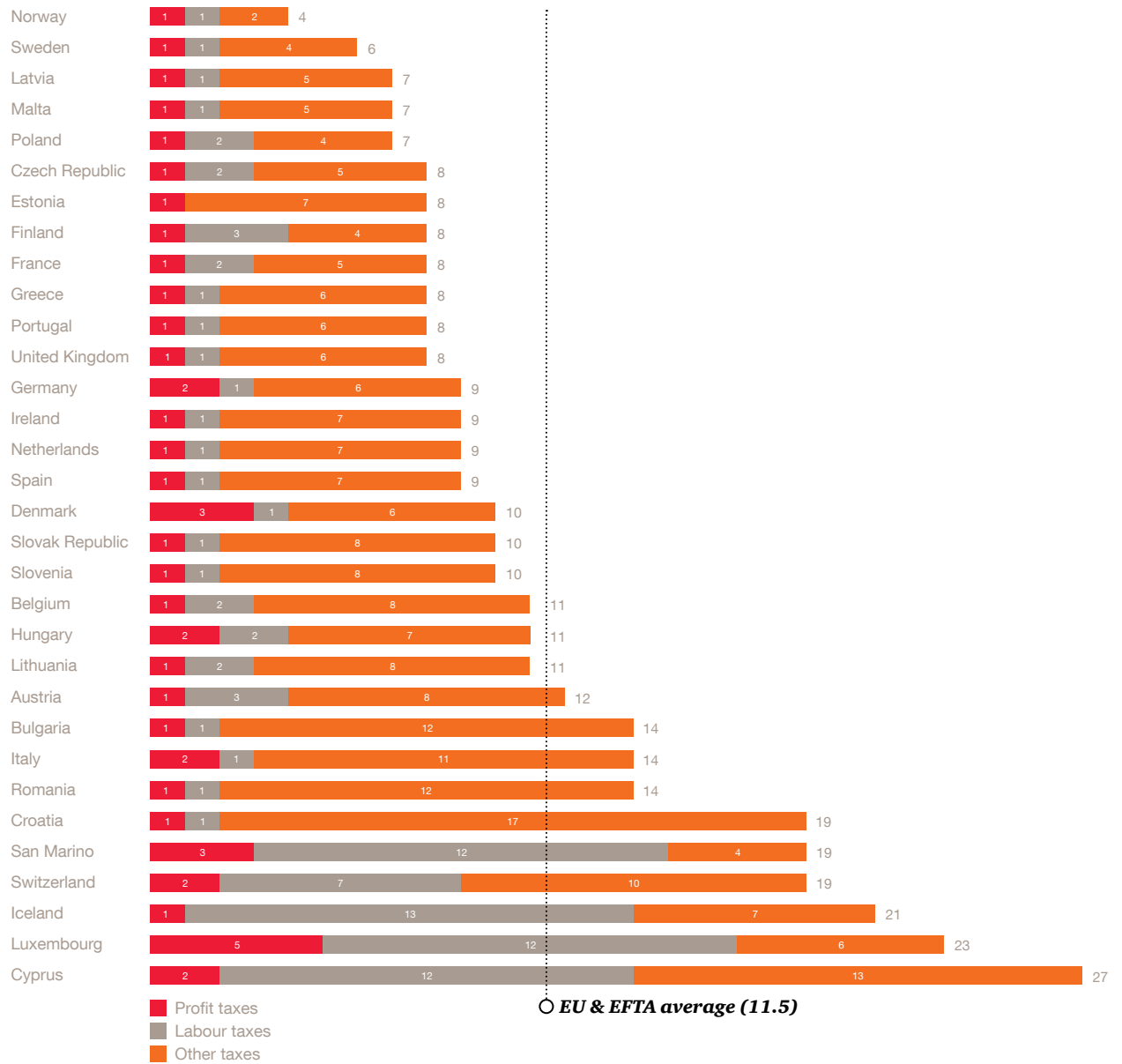


Figure A2.16: Middle East

Total Tax Rate (%)

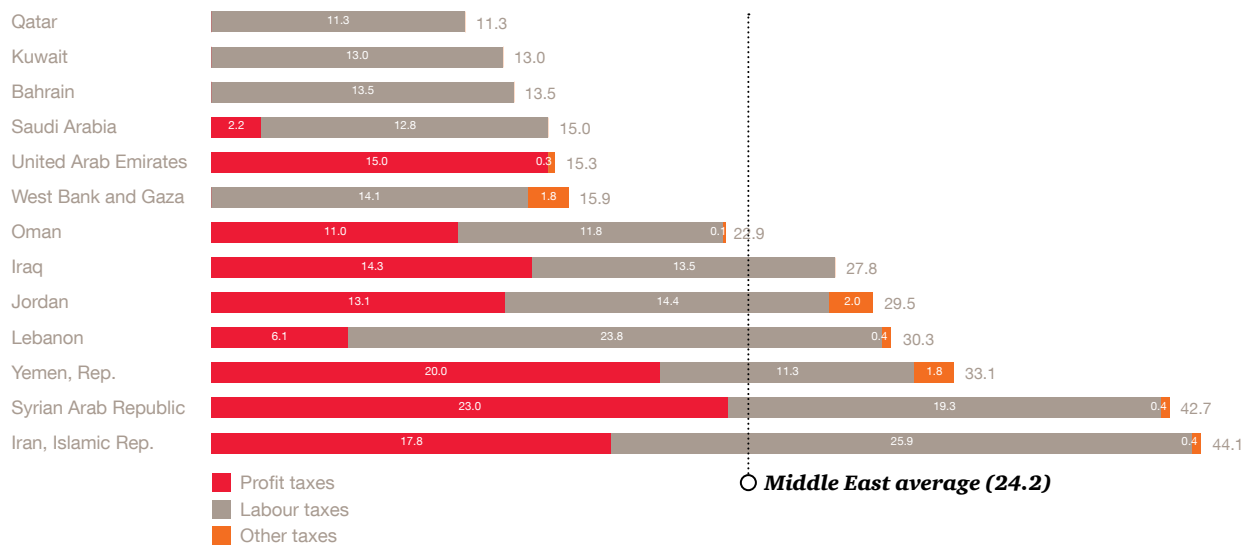


Figure A2.17: Middle East

Time to comply (hours)

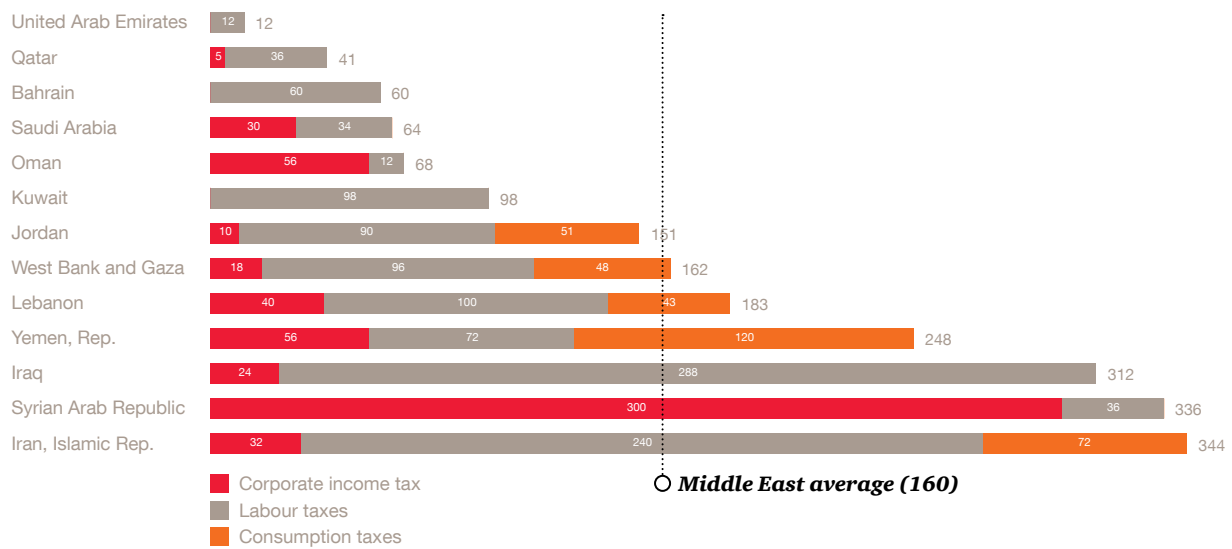


Figure A2.18: Middle East

Number of payments

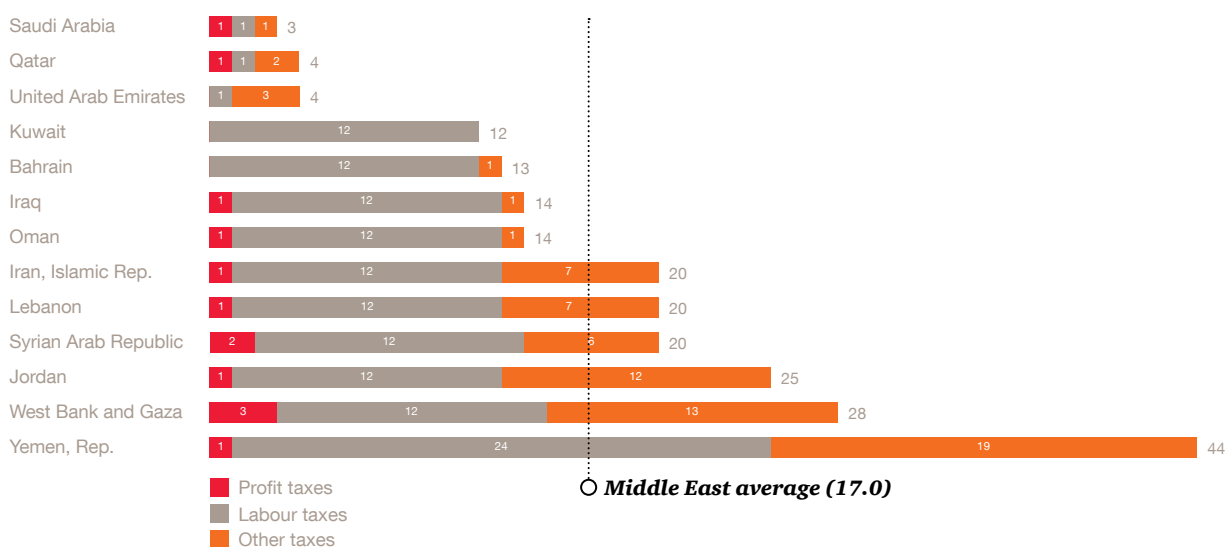


Figure A2.19: North America

Total Tax Rate (%)

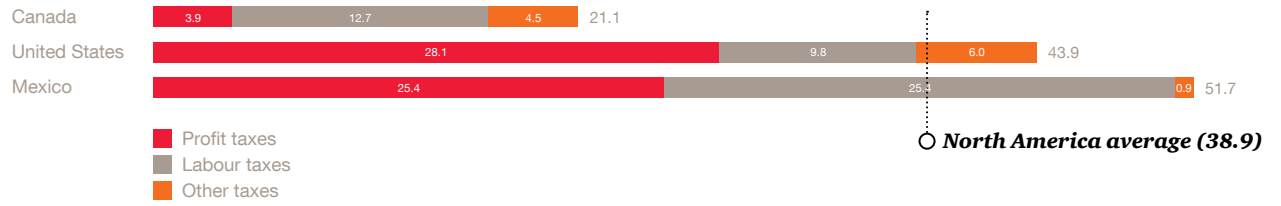


Figure A2.20: North America

Time to comply (hours)

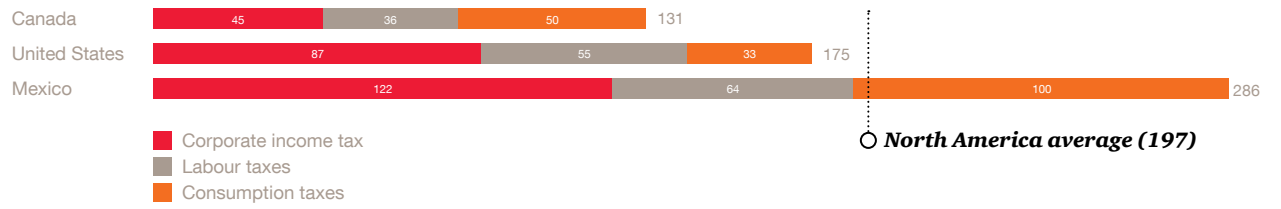


Figure A2.21: North America

Number of payments

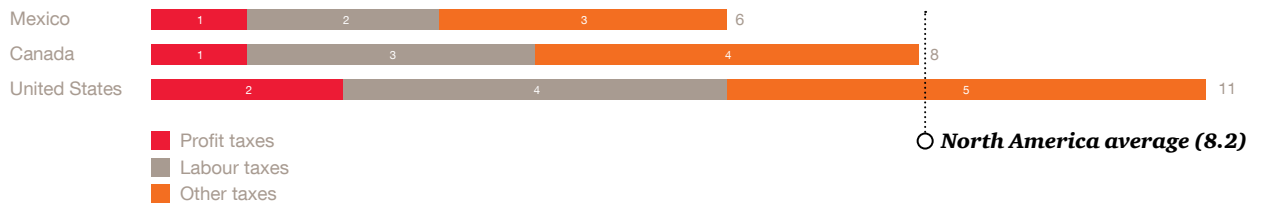


Figure A2.22: South America

Total Tax Rate (%)

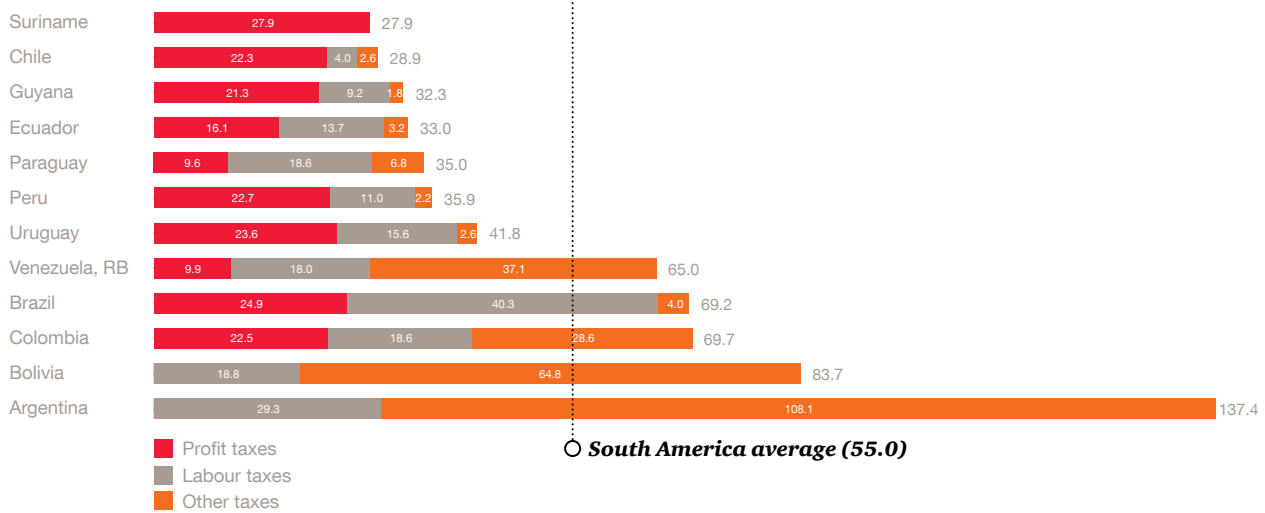


Figure A2.23: South America

Time to comply (hours)

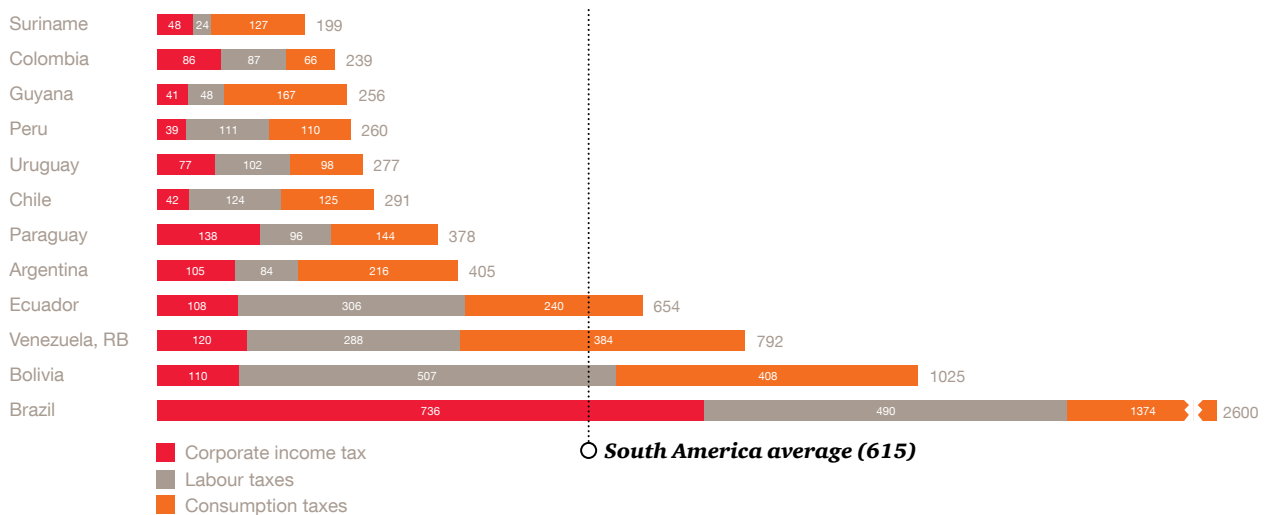
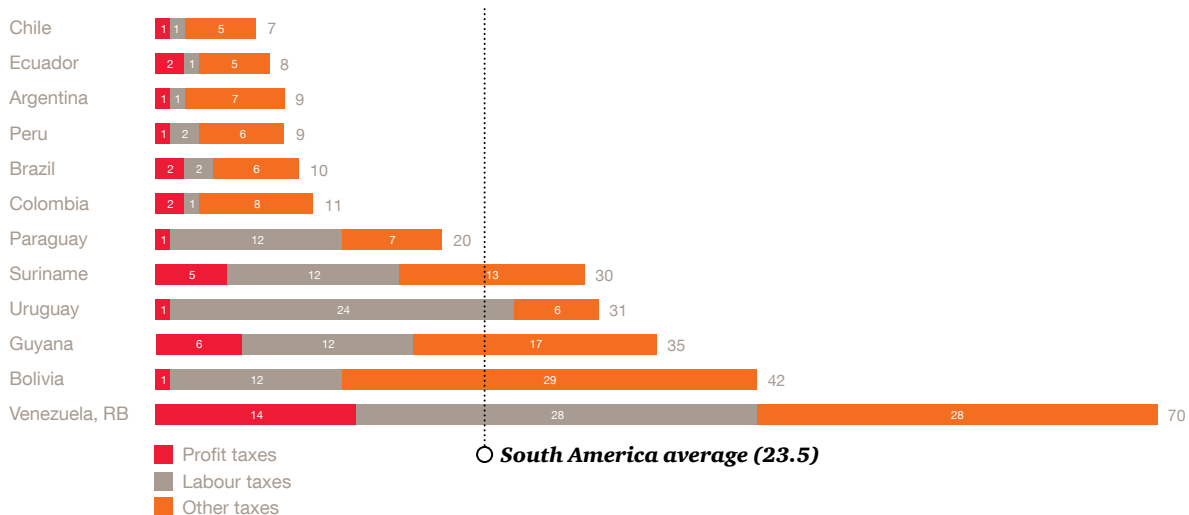


Figure A2.24: South America

Number of payments



The data tables

Table 1: Overall *Paying Taxes* ranking and distance to frontier

Table 2: Total Tax Rate

Table 3: Time to comply

Table 4: Tax payments

Table A3.1: Overall *Paying Taxes* ranking

Economy	Distance to frontier	Rank
Afghanistan	74.14	89
Albania	62.01	142
Algeria	45.03	169
Angola	62.25	141
Antigua and Barbuda	54.35	161
Argentina	44.99	170
Armenia	82.51	41
Australia	82.35	42
Austria	76.53	74
Azerbaijan	83.77	34
Bahamas, The	87.09	24
Bahrain	93.88	8
Bangladesh	74.42	86
Barbados	72.42	99
Belarus	78.74	63
Belgium	73.80	90
Belize	78.17	69
Benin	39.91	179
Bhutan	85.50	28
Bolivia	12.18	189
Bosnia and Herzegovina	57.55	154
Botswana	77.47	71
Brazil	40.85	178
Brunei Darussalam	89.61	16
Bulgaria	74.19	88
Burkina Faso	58.08	153
Burundi	69.45	111
Cabo Verde	73.36	94
Cambodia	73.06	95
Cameroon	36.34	180
Canada	93.00	9
Central African Republic	23.47	185
Chad	19.54	186
Chile	84.00	33
China	64.46	132
Colombia	63.32	136
Comoros	47.37	167
Congo, Dem. Rep.	43.50	173
Congo, Rep.	30.68	182
Costa Rica	75.67	80
Côte d'Ivoire	42.73	176
Croatia	83.02	38
Cyprus	81.70	44
Czech Republic	67.09	122
Denmark	91.94	12
Djibouti	74.56	85
Dominica	72.49	98
Dominican Republic	76.29	77
Ecuador	62.84	139
Egypt, Arab Rep.	58.87	151
El Salvador	52.73	162
Equatorial Guinea	43.21	175
Eritrea	43.49	174
Estonia	84.33	30
Ethiopia	68.95	113
Fiji	70.17	108
Finland	89.38	17
France	74.31	87
Gabon	55.23	158
Gambia, The	40.94	177
Georgia	82.76	40
Germany	77.00	72
Ghana	71.24	106

Table A3.1: Overall *Paying Taxes* ranking

Economy	Distance to frontier	Rank
Greece	78.45	66
Grenada	64.46	132
Guatemala	81.18	50
Guinea	28.27	184
Guinea-Bissau	58.65	152
Guyana	68.69	117
Haiti	61.87	143
Honduras	57.28	155
Hong Kong SAR, China	98.71	4
Hungary	73.06	95
Iceland	83.67	36
India	56.14	157
Indonesia	60.46	148
Iran, Islamic Rep.	66.78	123
Iraq	79.53	59
Ireland	94.97	6
Israel	71.65	103
Italy	62.98	137
Jamaica	60.95	146
Japan	67.16	121
Jordan	80.96	52
Kazakhstan	89.18	18
Kenya	71.96	101
Kiribati	87.51	23
Korea, Rep.	84.53	29
Kosovo	78.43	67
Kuwait	92.48	11
Kyrgyz Republic	62.94	138
Lao PDR	66.10	127
Latvia	85.76	27
Lebanon	81.69	45
Lesotho	69.72	109
Liberia	68.21	118
Libya	54.68	160
Lithuania	81.42	49
Luxembourg	88.58	21
Macedonia, FYR	94.17	7
Madagascar	76.32	76
Malawi	71.82	102
Malaysia	84.31	31
Maldives	65.31	128
Mali	60.16	149
Malta	85.91	25
Marshall Islands	66.38	125
Mauritania	17.71	187
Mauritius	91.92	13
Mexico	73.67	92
Micronesia, Fed. Sts.	68.78	116
Moldova	76.28	78
Mongolia	73.79	91
Montenegro	78.57	64
Morocco	78.91	62
Mozambique	67.78	120
Myanmar	74.80	84
Namibia	73.63	93
Nepal	66.50	124
Netherlands	85.81	26
New Zealand	88.06	22
Nicaragua	50.59	165
Niger	56.87	156
Nigeria	32.17	181
Norway	91.36	14
Oman	92.91	10

Table A3.1: Overall *Paying Taxes* ranking

Economy	Distance to frontier	Rank
Pakistan	44.46	171
Palau	64.65	131
Panama	48.60	166
Papua New Guinea	69.50	110
Paraguay	69.45	111
Peru	81.18	50
Philippines	66.23	126
Poland	79.63	58
Portugal	78.54	65
Puerto Rico (U.S.)	63.93	134
Qatar	99.44	1
Romania	80.69	55
Russian Federation	81.60	47
Rwanda	81.48	48
Samoa	72.10	100
San Marino	84.14	32
São Tomé and Príncipe	51.65	164
Saudi Arabia	99.23	3
Senegal	29.83	183
Serbia	61.87	143
Seychelles	81.82	43
Sierra Leone	65.29	129
Singapore	96.56	5
Slovak Republic	76.79	73
Slovenia	83.74	35
Solomon Islands	78.42	68
South Africa	88.75	20
South Sudan	71.45	104
Spain	79.48	60
Sri Lanka	55.23	158
St. Kitts and Nevis	60.64	147
St. Lucia	75.04	83
St. Vincent and the Grenadines	72.76	97
Sudan	62.34	140
Suriname	76.45	75
Swaziland	76.16	79
Sweden	83.46	37
Switzerland	89.13	19
Syrian Arab Republic	67.89	119
Taiwan, China	82.78	39
Tajikistan	43.53	172
Tanzania	59.25	150
Thailand	77.70	70
Timor-Leste	79.97	57
Togo	51.70	163
Tonga	75.37	82
Trinidad and Tobago	68.89	114
Tunisia	75.53	81
Turkey	79.44	61
Uganda	71.32	105
Ukraine	70.69	107
United Arab Emirates	99.44	1
United Kingdom	91.34	15
United States	80.81	53
Uruguay	65.25	130
Uzbekistan	68.83	115
Vanuatu	80.79	54
Venezuela, RB	13.64	188
Vietnam	45.41	168
West Bank and Gaza	80.29	56
Yemen, Rep.	63.72	135
Zambia	81.66	46
Zimbabwe	61.39	145

Table A3.2: Total Tax Rate

Economy	Total Tax Rate, % of commercial profit			
	Total Tax Rate	Profit taxes Total Tax Rate	Labour taxes Total Tax Rate	Other taxes Total Tax Rate
Afghanistan	36.3	0.0	0.0	36.3
Albania	36.5	14.1	18.8	3.6
Algeria	72.7	6.6	30.6	35.5
Angola	48.4	21.7	9.0	17.7
Antigua and Barbuda	41.9	25.9	10.7	5.3
Argentina	137.4	0.0	29.3	108.1
Armenia	19.9	19.1	0.0	0.8
Australia	47.6	26.0	21.1	0.5
Austria	51.7	16.8	34.3	0.6
Azerbaijan	39.8	12.9	24.8	2.1
Bahamas, The	33.7	0.0	6.3	27.4
Bahrain	13.5	0.0	13.5	0.0
Bangladesh	31.6	27.7	0.0	3.9
<i>Bangladesh (Dhaka)</i>	31.6	27.7	0.0	3.9
<i>Bangladesh (Chittagong)</i>	31.6	27.7	0.0	3.9
Barbados	34.7	19.5	12.2	3.0
Belarus	51.8	11.7	39.0	1.1
Belgium	58.4	8.4	49.4	0.6
Belize	31.1	24.7	5.0	1.4
Benin	63.3	15.9	26.4	21.0
Bhutan	35.3	33.9	0.0	1.4
Bolivia	83.7	0.0	18.8	64.9
Bosnia and Herzegovina	23.3	7.2	13.5	2.6
Botswana	25.1	21.5	0.0	3.6
Brazil	69.2	24.9	40.3	4.0
<i>Brazil (São Paulo)</i>	69.1	24.9	40.3	3.9
<i>Brazil (Rio de Janeiro)</i>	69.4	24.8	40.3	4.3
Brunei Darussalam	8.7	0.8	7.9	0.0
Bulgaria	27.0	5.0	20.2	1.8
Burkina Faso	41.3	16.2	21.4	3.7
Burundi	40.3	28.9	10.2	1.2
Cabo Verde	36.5	18.5	17.6	0.4
Cambodia	21.0	19.5	0.5	1.0
Cameroon	48.8	30.0	18.3	0.5
Canada	21.1	3.9	12.7	4.5
Central African Republic	73.3	0.0	19.8	53.5
Chad	63.5	31.3	28.4	3.8
Chile	28.9	22.3	4.0	2.6
China	67.8	10.9	48.4	8.5
<i>China (Shanghai)</i>	67.2	11.1	47.4	8.7
<i>China (Beijing)</i>	68.5	10.7	49.6	8.2
Colombia	69.7	22.5	18.6	28.6
Comoros	216.5	32.1	0.0	184.4
Congo, Dem. Rep.	54.6	27.5	12.6	14.5
Congo, Rep.	56.0	0.0	31.3	24.7
Costa Rica	58.0	19.3	32.2	6.5
Côte d'Ivoire	51.9	8.8	23.3	19.8
Croatia	20.0	0.0	18.8	1.2
Cyprus	24.4	9.3	13.4	1.7
Czech Republic	50.4	9.5	38.4	2.5
Denmark	24.5	18.7	3.0	2.8
Djibouti	37.6	17.7	17.7	2.2
Dominica	37.0	26.1	7.9	3.0
Dominican Republic	42.4	22.6	18.6	1.2
Ecuador	33.0	16.1	13.7	3.2
Egypt, Arab Rep.	45.0	16.3	24.1	4.6
El Salvador	38.7	20.1	17.2	1.4
Equatorial Guinea	47.1	20.7	25.4	1.0
Eritrea	83.7	9.2	0.0	74.5
Estonia	49.4	8.4	39.0	2.0
Ethiopia	32.1	25.7	5.6	0.8
Fiji	31.1	20.6	10.4	0.1

Table A3.2: Total Tax Rate

Economy	Total Tax Rate, % of commercial profit			
	Total Tax Rate	Profit taxes Total Tax Rate	Labour taxes Total Tax Rate	Other taxes Total Tax Rate
Finland	37.9	11.8	24.8	1.3
France	62.7	0.5	53.5	8.7
Gabon	45.7	20.9	22.7	2.1
Gambia, The	63.3	6.1	12.7	44.5
Georgia	16.4	14.3	0.0	2.1
Germany	48.8	23.2	21.2	4.4
Ghana	32.7	18.0	14.7	0.0
Greece	49.6	19.7	29.3	0.6
Grenada	45.3	27.6	5.6	12.1
Guatemala	37.5	22.5	14.3	0.7
Guinea	68.3	0.0	26.4	41.9
Guinea-Bissau	45.5	15.1	24.8	5.6
Guyana	32.3	21.3	9.2	1.8
Haiti	40.3	23.8	12.4	4.1
Honduras	44.3	31.1	3.2	10.0
Hong Kong SAR, China	22.8	17.5	5.2	0.1
Hungary	48.4	11.8	34.3	2.3
Iceland	29.6	9.1	17.7	2.8
India	60.6	24.9	20.0	15.7
<i>India (Mumbai)</i>	60.6	24.9	20.0	15.7
<i>India (Delhi)</i>	60.6	24.9	20.0	15.7
Indonesia	29.7	17.2	9.2	3.3
<i>Indonesia (Jakarta)</i>	29.7	17.2	9.2	3.3
<i>Indonesia (Surabaya)</i>	29.7	17.2	9.2	3.3
Iran, Islamic Rep.	44.1	17.8	25.9	0.4
Iraq	27.8	14.3	13.5	0.0
Ireland	25.9	12.4	12.1	1.4
Israel	30.6	23.6	5.6	1.4
Italy	64.8	19.5	43.4	1.9
Jamaica	35.2	14.8	13.4	7.0
Japan	51.3	28.9	18.2	4.2
<i>Japan (Tokyo)</i>	51.3	28.9	18.2	4.2
<i>Japan (Osaka)</i>	51.4	28.9	18.3	4.2
Jordan	29.5	13.1	14.4	2.0
Kazakhstan	29.2	16.2	11.2	1.8
Kenya	37.1	29.8	1.9	5.4
Kiribati	32.7	24.3	8.4	0.0
Korea, Rep.	33.2	18.2	13.8	1.2
Kosovo	15.2	9.3	5.6	0.3
Kuwait	13.0	0.0	13.0	0.0
Kyrgyz Republic	29.0	6.4	19.5	3.1
Lao PDR	25.3	16.0	5.6	3.7
Latvia	35.9	6.3	26.6	3.0
Lebanon	30.3	6.1	23.8	0.4
Lesotho	13.6	10.8	0.0	2.8
Liberia	47.8	35.4	5.4	7.0
Libya	32.8	22.0	10.5	0.3
Lithuania	42.6	5.9	35.2	1.5
Luxembourg	20.1	4.2	15.5	0.4
Macedonia, FYR	12.9	10.9	0.0	2.0
Madagascar	38.1	16.3	20.3	1.5
Malawi	34.5	20.4	12.4	1.7
Malaysia	40.0	22.7	16.4	0.9
Maldives	30.2	13.1	7.9	9.2
Mali	48.3	10.1	34.3	3.9
Malta	41.3	30.1	10.7	0.5
Marshall Islands	64.8	0.0	11.8	53.0
Mauritania	71.3	0.0	23.2	48.1
Mauritius	22.4	11.7	7.1	3.6
Mexico	51.7	25.4	25.4	0.9
<i>Mexico (Mexico city)</i>	51.7	25.4	25.4	0.9
<i>Mexico (Monterrey)</i>	51.7	25.4	25.4	0.9

Table A3.2: Total Tax Rate

Economy	Total Tax Rate, % of commercial profit			
	Total Tax Rate	Profit taxes Total Tax Rate	Labour taxes Total Tax Rate	Other taxes Total Tax Rate
Micronesia, Fed. Sts.	60.5	0.0	8.5	52.0
Moldova	40.2	9.2	30.8	0.2
Mongolia	24.4	10.0	12.4	2.0
Montenegro	21.6	8.1	12.8	0.7
Morocco	49.1	25.4	22.3	1.4
Mozambique	36.1	30.8	4.5	0.8
Myanmar	31.4	25.3	0.2	5.9
Namibia	21.3	17.2	1.0	3.1
Nepal	29.5	17.7	11.3	0.5
Netherlands	41.0	20.4	20.2	0.4
New Zealand	34.3	30.0	2.7	1.6
Nicaragua	63.9	21.9	21.4	20.6
Niger	48.2	21.2	21.7	5.3
Nigeria	33.3	20.8	12.1	0.4
<i>Nigeria (Lagos)</i>	33.4	20.8	12.1	0.5
<i>Nigeria (Kano)</i>	33.3	20.8	12.1	0.4
Norway	39.5	23.6	15.9	0.0
Oman	22.9	11.0	11.8	0.1
Pakistan	32.6	18.7	12.8	1.1
<i>Pakistan (Karachi)</i>	32.5	18.7	12.7	1.1
<i>Pakistan (Lahore)</i>	32.8	18.6	13.0	1.2
Palau	75.4	65.8	9.5	0.1
Panama	37.2	12.4	20.0	4.8
Papua New Guinea	39.3	23.2	11.7	4.4
Paraguay	35.0	9.6	18.6	6.8
Peru	35.9	22.7	11.0	2.2
Philippines	42.9	20.3	8.7	13.9
Poland	40.3	14.5	24.8	1.0
Portugal	41.0	13.6	26.8	0.6
Puerto Rico (U.S.)	65.8	25.9	13.5	26.4
Qatar	11.3	0.0	11.3	0.0
Romania	42.0	10.9	30.0	1.1
Russian Federation	47.0	8.9	35.6	2.5
<i>Russian Federation (Moscow)</i>	47.1	8.9	35.6	2.6
<i>Russian Federation (Saint Petersburg)</i>	46.8	9.0	35.6	2.2
Rwanda	33.0	25.8	5.6	1.6
Samoa	18.1	11.3	6.8	0.0
San Marino	40.5	10.2	30.0	0.3
São Tomé and Príncipe	38.2	20.2	6.8	11.2
Saudi Arabia	15.0	2.2	12.8	0.0
Senegal	47.3	18.4	23.6	5.3
Serbia	39.7	16.0	20.2	3.5
Seychelles	30.1	18.8	2.3	9.0
Sierra Leone	31.0	18.8	11.3	0.9
Singapore	18.4	2.0	15.3	1.1
Slovak Republic	51.2	10.5	39.7	1.0
Slovenia	31.0	12.7	18.2	0.1
Solomon Islands	32.0	23.3	8.5	0.2
South Africa	28.8	21.7	4.0	3.1
South Sudan	29.0	6.9	19.2	2.9
Spain	50.0	13.3	35.9	0.8
Sri Lanka	55.2	1.1	16.9	37.2
St. Kitts and Nevis	49.7	30.5	11.2	8.0
St. Lucia	34.7	25.8	5.6	3.3
St. Vincent and the Grenadines	38.6	30.2	5.1	3.3
Sudan	45.4	11.5	19.2	14.7
Suriname	27.9	27.9	0.0	0.0
Swaziland	34.7	25.6	5.0	4.1
Sweden	49.1	13.1	35.4	0.6
Switzerland	28.8	9.3	17.7	1.8
Syrian Arab Republic	42.7	23.0	19.3	0.4
Taiwan, China	34.5	12.7	18.4	3.4
Tajikistan	81.8	17.7	28.5	35.6

Table A3.2: Total Tax Rate

Economy	Total Tax Rate, % of commercial profit			
	Total Tax Rate	Profit taxes Total Tax Rate	Labour taxes Total Tax Rate	Other taxes Total Tax Rate
Tanzania	43.9	20.8	16.9	6.2
Thailand	27.5	19.5	5.4	2.6
Timor-Leste	11.2	11.2	0.0	0.0
Togo	48.5	10.7	23.1	14.7
Tonga	30.1	23.8	5.6	0.7
Trinidad and Tobago	32.2	21.9	8.5	1.8
Tunisia	59.9	12.8	25.2	21.9
Turkey	40.9	17.9	19.9	3.1
Uganda	36.5	25.2	11.3	0.0
Ukraine	52.2	9.0	43.1	0.1
United Arab Emirates	15.9	0.0	14.1	1.8
United Kingdom	32.0	19.2	11.2	1.6
United States	43.9	28.1	9.8	6.0
<i>United States (New York City)</i>	45.9	27.4	9.9	8.6
<i>United States (Los Angeles)</i>	40.9	29.3	9.5	2.1
Uruguay	41.8	23.6	15.6	2.6
Uzbekistan	41.1	11.4	28.2	1.5
Vanuatu	8.5	0.0	4.5	4.0
Venezuela, RB	65.0	9.9	18.0	37.1
Vietnam	39.4	14.5	24.8	0.1
West Bank and Gaza	15.3	15.0	0.0	0.3
Yemen, Rep.	33.1	20.0	11.3	1.8
Zambia	18.6	2.0	10.4	6.2
Zimbabwe	32.8	18.8	5.6	8.4

Table A3.3: Time to comply

Number of hours

Economy	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
Afghanistan	275	77	120	78
Albania	357	119	94	144
Algeria	385	152	110	123
Angola	282	75	125	82
Antigua and Barbuda	207	23	136	48
Argentina	405	105	84	216
Armenia	313	113	103	97
Australia	105	37	18	50
Austria	166	47	52	67
Azerbaijan	195	60	78	57
Bahamas, The	58	10	48	0
Bahrain	60	0	60	0
Bangladesh	302	140	0	162
<i>Bangladesh (Dhaka)</i>	302	140	0	162
<i>Bangladesh (Chittagong)</i>	302	140	0	162
Barbados	237	27	162	48
Belarus	176	78	59	39
Belgium	161	21	40	100
Belize	147	27	60	60
Benin	270	30	120	120
Bhutan	85	53	32	0
Bolivia	1025	110	507	408
Bosnia and Herzegovina	420	68	81	271
Botswana	152	40	40	72
Brazil	2600	736	490	1374
<i>Brazil (São Paulo)</i>	2600	736	490	1374
<i>Brazil (Rio de Janeiro)</i>	2600	736	490	1374
Brunei Darussalam	89	64	25	0
Bulgaria	423	32	226	165
Burkina Faso	270	30	120	120
Burundi	274	76	48	150
Cabo Verde	180	35	85	60
Cambodia	173	23	84	66
Cameroon	630	174	162	294
Canada	131	45	36	50
Central African Republic	483	24	240	219
Chad	732	300	216	216
Chile	291	42	124	125
China	261	59	110	92
<i>China (Shanghai)</i>	261	59	110	92
<i>China (Beijing)</i>	261	59	110	92
Colombia	239	86	87	66
Comoros	100	4	48	48
Congo, Dem. Rep.	346	84	154	108
Congo, Rep.	602	275	146	181
Costa Rica	151	18	59	74
Côte d'Ivoire	270	30	120	120
Croatia	206	58	96	52
Cyprus	146	28	78	40
Czech Republic	405	94	217	94
Denmark	130	25	65	40
Djibouti	82	30	36	16
Dominica	117	15	48	54
Dominican Republic	316	74	80	162
Ecuador	654	108	306	240
Egypt, Arab Rep.	392	69	165	158
El Salvador	312	120	96	96
Equatorial Guinea	492	145	160	187
Eritrea	216	24	96	96
Estonia	81	20	34	27
Ethiopia	306	120	114	72
Fiji	195	57	68	70
Finland	93	21	48	24

Table A3.3: Time to comply

Economy	Number of hours			
	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
France	137	26	80	31
Gabon	488	137	131	220
Gambia, The	326	40	96	190
Georgia	362	191	56	115
Germany	218	41	134	43
Ghana	224	40	88	96
Greece	193	78	46	69
Grenada	140	32	72	36
Guatemala	256	31	126	99
Guinea	440	32	192	216
Guinea-Bissau	208	160	24	24
Guyana	256	41	48	167
Haiti	184	40	72	72
Honduras	224	35	93	96
Hong Kong SAR, China	74	50	24	0
Hungary	277	35	146	96
Iceland	140	40	60	40
India	243	45	93	105
<i>India (Mumbai)</i>	243	45	93	105
<i>India (Delhi)</i>	243	45	93	105
Indonesia	234	75	69	90
<i>Indonesia (Jakarta)</i>	234	75	69	90
<i>Indonesia (Surabaya)</i>	234	75	69	90
Iran, Islamic Rep.	344	32	240	72
Iraq	312	24	288	0
Ireland	82	12	40	30
Israel	235	110	60	65
Italy	269	39	198	32
Jamaica	358	32	278	48
Japan	330	155	140	35
<i>Japan (Tokyo)</i>	330	155	140	35
<i>Japan (Osaka)</i>	330	155	140	35
Jordan	151	10	90	51
Kazakhstan	188	75	70	43
Kenya	202	43	51	108
Kiribati	156	48	72	36
Korea, Rep.	188	83	80	25
Kosovo	155	29	39	87
Kuwait	98	0	98	0
Kyrgyz Republic	225	59	71	95
Lao PDR	362	138	42	182
Latvia	193	28	99	66
Lebanon	183	40	100	43
Lesotho	324	70	104	150
Liberia	140	56	53	31
Libya	889	679	210	0
Lithuania	171	28	85	58
Luxembourg	55	19	14	22
Macedonia, FYR	119	19	56	44
Madagascar	183	9	72	102
Malawi	175	67	78	30
Malaysia	118	26	62	30
Maldives	395	94	88	213
Mali	270	30	120	120
Malta	139	23	92	24
Marshall Islands	128	32	96	0
Mauritania	734	120	134	480
Mauritius	152	36	48	68
Mexico	286	122	64	100
<i>Mexico (Mexico city)</i>	286	122	64	100
<i>Mexico (Monterrey)</i>	286	122	64	100
Micronesia, Fed. Sts.	128	32	96	0
Moldova	186	42	89	55

Table A3.3: Time to comply

Economy	Number of hours			
	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
Mongolia	148	46	48	54
Montenegro	314	43	92	179
Morocco	211	68	41	102
Mozambique	217	50	47	120
Myanmar	188	56	25	107
Namibia	302	40	52	210
Nepal	334	120	84	130
Netherlands	123	25	64	34
New Zealand	152	34	59	59
Nicaragua	207	67	76	64
Niger	270	30	120	120
Nigeria	908	378	378	152
<i>Nigeria (Lagos)</i>	956	398	396	162
<i>Nigeria (Kano)</i>	747	310	320	117
Norway	83	24	15	44
Oman	68	56	12	0
Pakistan	594	40	40	514
<i>Pakistan (Karachi)</i>	594	40	40	514
<i>Pakistan (Lahore)</i>	594	40	40	514
Palau	142	46	96	0
Panama	417	83	144	190
Papua New Guinea	207	153	8	46
Paraguay	378	138	96	144
Peru	260	39	111	110
Philippines	193	42	38	113
Poland	271	70	103	98
Portugal	275	63	116	96
Puerto Rico (U.S.)	218	80	60	78
Qatar	41	5	36	0
Romania	159	25	80	54
Russian Federation	168	53	76	39
<i>Russian Federation (Moscow)</i>	168	53	76	39
<i>Russian Federation (Saint Petersburg)</i>	168	53	76	39
Rwanda	109	20	30	59
Samoa	224	48	96	80
San Marino	52	4	48	0
São Tomé and Príncipe	424	40	192	192
Saudi Arabia	64	30	34	0
Senegal	620	114	96	410
Serbia	244	48	106	90
Seychelles	85	37	36	12
Sierra Leone	344	16	157	171
Singapore	84	32	12	40
Slovak Republic	188	42	62	84
Slovenia	245	86	90	69
Solomon Islands	80	8	30	42
South Africa	200	100	50	50
South Sudan	210	54	78	78
Spain	158	33	90	35
Sri Lanka	167	16	9	142
St. Kitts and Nevis	203	27	128	48
St. Lucia	110	11	51	48
St. Vincent and the Grenadines	108	14	49	45
Sudan	180	70	70	40
Suriname	199	48	24	127
Swaziland	110	8	48	54
Sweden	122	50	36	36
Switzerland	63	15	40	8
Syrian Arab Republic	336	300	36	0
Taiwan, China	221	161	27	33
Tajikistan	276	74	48	154
Tanzania	179	62	54	63
Thailand	264	160	48	56

Economy	Number of hours			
	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
Timor-Leste	276	132	144	0
Togo	270	30	120	120
Tonga	200	8	48	144
Trinidad and Tobago	210	45	75	90
Tunisia	144	64	30	50
Turkey	226	49	80	97
Uganda	209	41	66	102
Ukraine	350	100	100	150
United Arab Emirates	12	0	12	0
United Kingdom	110	37	48	25
United States	175	87	55	33
<i>United States (New York City)</i>	175	87	55	33
<i>United States (Los Angeles)</i>	175	87	55	33
Uruguay	277	77	102	98
Uzbekistan	193	66	57	70
Vanuatu	120	0	24	96
Venezuela, RB	792	120	288	384
Vietnam	770	204	273	293
West Bank and Gaza	162	18	96	48
Yemen, Rep.	248	56	72	120
Zambia	157	57	60	40
Zimbabwe	242	78	96	68

Table A3.4: Tax payments

Economy	Number of payments			
	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Afghanistan	20	1	12	7
Albania	34	5	12	17
Algeria	27	0	12	15
Angola	30	4	12	14
Antigua and Barbuda	57	13	24	20
Argentina	9	1	1	7
Armenia	10	1	1	8
Australia	11	1	4	6
Austria	12	1	3	8
Azerbaijan	7	1	1	5
Bahamas, The	19	0	12	7
Bahrain	13	0	12	1
Bangladesh	21	5	0	16
<i>Bangladesh (Dhaka)</i>	21	5	0	16
<i>Bangladesh (Chittagong)</i>	21	5	0	16
Barbados	28	3	12	13
Belarus	7	1	2	4
Belgium	11	1	2	8
Belize	29	12	1	16
Benin	57	5	24	28
Bhutan	18	2	12	4
Bolivia	42	1	12	29
Bosnia and Herzegovina	45	12	1	32
Botswana	34	6	13	15
Brazil	10	2	2	6
<i>Brazil (São Paulo)</i>	10	2	2	6
<i>Brazil (Rio de Janeiro)</i>	9	2	2	5
Brunei Darussalam	18	1	15	2
Bulgaria	14	1	1	12
Burkina Faso	45	1	24	20
Burundi	25	5	4	16
Cabo Verde	30	3	13	14
Cambodia	40	12	12	16
Cameroon	44	13	12	19
Canada	8	1	3	4
Central African Republic	56	4	24	28
Chad	54	12	24	18
Chile	7	1	1	5
China	9	3	1	5
<i>China (Shanghai)</i>	9	3	1	5
<i>China (Beijing)</i>	9	3	1	5
Colombia	11	2	1	8
Comoros	33	3	12	18
Congo, Dem. Rep.	52	1	36	15
Congo, Rep.	50	5	25	20
Costa Rica	9	1	2	6
Côte d'Ivoire	63	3	24	36
Croatia	19	1	1	17
Cyprus	27	2	12	13
Czech Republic	8	1	2	5
Denmark	10	3	1	6
Djibouti	36	5	12	19
Dominica	37	5	12	20
Dominican Republic	7	1	3	3
Ecuador	8	2	1	5
Egypt, Arab Rep.	29	1	12	16
El Salvador	53	13	24	16
Equatorial Guinea	46	1	24	21
Eritrea	30	2	12	16
Estonia	8	1	0	7
Ethiopia	30	2	12	16
Fiji	39	6	18	15
Finland	8	1	3	4

Table A3.4: Tax payments

Economy	Number of payments			
	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
France	8	1	2	5
Gabon	26	3	4	19
Gambia, The	50	5	13	32
Georgia	5	1	1	3
Germany	9	2	1	6
Ghana	33	7	12	14
Greece	8	1	1	6
Grenada	42	13	12	17
Guatemala	8	2	1	5
Guinea	57	3	36	18
Guinea-Bissau	46	5	12	29
Guyana	35	6	12	17
Haiti	47	6	25	16
Honduras	48	5	13	30
Hong Kong SAR, China	3	1	1	1
Hungary	11	2	2	7
Iceland	21	1	13	7
India	33	2	24	7
<i>India (Mumbai)</i>	33	2	24	7
<i>India (Delhi)</i>	33	2	24	7
Indonesia	54	13	25	16
<i>Indonesia (Jakarta)</i>	54	13	25	16
<i>Indonesia (Surabaya)</i>	54	13	25	16
Iran, Islamic Rep.	20	1	12	7
Iraq	14	1	12	1
Ireland	9	1	1	7
Israel	33	2	12	19
Italy	14	2	1	11
Jamaica	37	5	12	20
Japan	14	3	2	9
<i>Japan (Tokyo)</i>	14	3	2	9
<i>Japan (Osaka)</i>	14	3	2	9
Jordan	25	1	12	12
Kazakhstan	7	1	1	5
Kenya	30	5	14	11
Kiribati	10	5	2	3
Korea, Rep.	12	2	2	8
Kosovo	32	5	12	15
Kuwait	12	0	12	0
Kyrgyz Republic	51	4	12	35
Lao PDR	35	4	12	19
Latvia	7	1	1	5
Lebanon	20	1	12	7
Lesotho	32	4	12	16
Liberia	33	5	12	16
Libya	19	4	12	3
Lithuania	11	1	2	8
Luxembourg	23	5	12	6
Macedonia, FYR	7	1	1	5
Madagascar	23	1	8	14
Malawi	35	5	13	17
Malaysia	13	2	2	9
Maldives	30	3	12	15
Mali	35	4	24	7
Malta	7	1	1	5
Marshall Islands	21	0	16	5
Mauritania	49	1	25	23
Mauritius	8	1	1	6
Mexico	6	1	2	3
<i>Mexico (Mexico city)</i>	6	1	2	3
<i>Mexico (Monterrey)</i>	6	1	2	3
Micronesia, Fed. Sts.	21	0	4	17
Moldova	21	1	14	6

Table A3.4: Tax payments

Economy	Number of payments			
	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Mongolia	41	12	12	17
Montenegro	17	1	1	15
Morocco	6	1	1	4
Mozambique	37	7	12	18
Myanmar	31	5	12	14
Namibia	27	3	12	12
Nepal	34	4	12	18
Netherlands	9	1	1	7
New Zealand	8	1	2	5
Nicaragua	43	1	24	18
Niger	41	3	13	25
Nigeria	59	2	38	19
<i>Nigeria (Lagos)</i>	59	2	38	19
<i>Nigeria (Kano)</i>	59	2	38	19
Norway	4	1	1	2
Oman	14	1	12	1
Pakistan	47	5	25	17
<i>Pakistan (Karachi)</i>	47	5	25	17
<i>Pakistan (Lahore)</i>	47	5	25	17
Palau	11	4	4	3
Panama	52	5	16	31
Papua New Guinea	32	1	13	18
Paraguay	20	1	12	7
Peru	9	1	2	6
Philippines	36	1	25	10
Poland	7	1	2	4
Portugal	8	1	1	6
Puerto Rico (U.S.)	16	5	6	5
Qatar	4	1	1	2
Romania	14	1	1	12
Russian Federation	7	1	2	4
<i>Russian Federation (Moscow)</i>	7	1	2	4
<i>Russian Federation (Saint Petersburg)</i>	7	1	2	4
Rwanda	25	4	4	17
Samoa	37	5	24	8
San Marino	19	3	12	4
São Tomé and Príncipe	45	5	12	28
Saudi Arabia	3	1	1	1
Senegal	58	3	36	19
Serbia	42	12	4	26
Seychelles	29	13	12	4
Sierra Leone	34	6	12	16
Singapore	6	1	2	3
Slovak Republic	10	1	1	8
Slovenia	10	1	1	8
Solomon Islands	34	5	12	17
South Africa	7	1	2	4
South Sudan	37	5	12	20
Spain	9	1	1	7
Sri Lanka	47	5	13	29
St. Kitts and Nevis	39	5	12	22
St. Lucia	35	4	12	19
St. Vincent and the Grenadines	36	4	12	20
Sudan	42	2	12	28
Suriname	30	5	12	13
Swaziland	33	2	13	18
Sweden	6	1	1	4
Switzerland	19	2	7	10
Syrian Arab Republic	20	2	12	6
Taiwan, China	11	2	3	6
Tajikistan	28	1	1	26
Tanzania	49	5	24	20
Thailand	22	2	13	7

Economy	Number of payments			
	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Timor-Leste	18	5	12	1
Togo	50	5	24	21
Tonga	30	1	12	17
Trinidad and Tobago	39	4	24	11
Tunisia	8	1	4	3
Turkey	11	1	1	9
Uganda	31	3	12	16
Ukraine	5	1	1	3
United Arab Emirates	4	0	1	3
United Kingdom	8	1	1	6
United States	11	2	4	5
<i>United States (New York City)</i>	11	2	4	5
<i>United States (Los Angeles)</i>	10	3	3	4
Uruguay	31	1	24	6
Uzbekistan	33	8	12	13
Vanuatu	31	0	12	19
Venezuela, RB	70	14	28	28
Vietnam	30	6	12	12
West Bank and Gaza	28	3	12	13
Yemen, Rep.	44	1	24	19
Zambia	26	5	13	8
Zimbabwe	49	5	14	30

The Total Tax Rate included in the survey by the World Bank has been calculated using the broad principles of the PwC methodology. The application of these principles by the World Bank Group has not been verified, validated or audited by PwC, and therefore, PwC cannot make any representations or warranties with regard to the accuracy of the information generated by the World Bank Group's models. In addition, the World Bank Group has not verified, validated or audited any information collected by PwC beyond the scope of *Doing Business* Paying Taxes data, and therefore, the World Bank Group cannot make any representations or warranties with regard to the accuracy of the information generated by PwC's own research.

The World Bank Group's *Doing Business* tax ranking indicator includes two components in addition to the Total Tax Rate. These estimate compliance costs by looking at hours spent on tax work and the number of tax payments made in a tax year. These calculations do not follow any PwC methodology but do attempt to provide data which is consistent with the tax compliance cost aspect of the PwC Total Tax Contribution framework.

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