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Paying Taxes 2017

+1

Now including a new measure: the post-filing index.

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Contacts

PwC*

Stef van Weeghel
Leader, Global Tax Policy and
Administration Network
PwC Netherlands
+31 88 792 6763
stef.van.weeghel@nl.pwc.com

Andrew Packman
Tax Transparency and
Total Tax Contribution leader
PwC UK
+44 1895 522 104
andrew.packman@uk.pwc.com

Neville Howlett
Director External Relations, Tax
PwC UK
+44 20 7212 7964
neville.p.howlett@uk.pwc.com

Tom Dane
Senior Manager, Tax
PwC UK
+44 20 7804 7712
thomas.a.dane@uk.pwc.com

World Bank Group

Augusto Lopez-Claros
Director
Global Indicators Group
+1 202 458 8945
alopezclaros@ifc.org

Rita Ramalho
Manager
Doing Business Unit
+1 202 458 4139
rramalho@ifc.org

Joanna Nasr
Private Sector Development Specialist
Doing Business Unit
+ 1 202 458 0893
jnasr@worldbank.org

Hulya Ulku
Senior Economist
Doing Business Unit
+ 603 2263 4906
hulku@worldbank.org

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Foreword

Andrew Packman
Tax Transparency and Total Tax Contribution leader
PwC UK

Augusto Lopez-Claros
Director, Global Indicators Group
The World Bank Group

This eleventh edition of *Paying Taxes* comes at a time when, with low commodity prices and continued weak economic growth, there is an increasing need to broaden tax bases, increase voluntary compliance and build tax capacity, particularly in developing economies. Everyone benefits if tax systems are well understood and are effective and efficient. To achieve this, systems need to minimise the administrative burden that they place upon governments and taxpayers while raising the revenues that are needed to fund public services.

The *Paying Taxes* study looks at how easy it is for a standardised, medium-sized domestic company to pay its taxes. By gathering and analysing comprehensive quantitative data to compare business taxation over time and across economies, *Paying Taxes* encourages economies to move towards more efficient systems, offers measurable benchmarks for reform, and serves as a resource for academics, journalists, private sector researchers and others interested in tax systems.

How easy it is to pay taxes is not just about the amount of tax paid. It also concerns the compliance and administrative requirements necessary to determine and pay the amount due. As in previous years, the study measures the amount of tax that the case study company bears and the time and effort required to deal with preparing and filing its tax returns. We can now look at trends in these measures over an eleven year period. In addition, this year, for the first time, the study includes a 'post-filing index' which measures certain processes that might take place after a tax return has been filed. For many companies these can represent the most complex interactions with a tax authority and in many economies the process of agreeing the final tax liabilities and, potentially, obtaining refunds of taxes paid, can be complex and time-consuming.

In many economies, post-filing processes can be the most complex interactions between tax authorities and taxpayers.

The challenge has been to create some simple fact patterns which allow a like-for-like comparison to be made across as many economies as possible. To do this, we have created an index which measures two specific processes; obtaining a value-added tax (VAT) refund, and dealing with a voluntary correction of an inadvertent error in a corporate income tax (CIT) return, including dealing with an audit if applicable. Where these taxes do not exist in an economy, then the index simply does not measure the post-filing position for that type of tax in that economy.

Further details on how the new index is measured and its four components can be found in Appendix 1. For the VAT refund, the best performing economies are those which offer a cash refund in the shortest possible time, with the minimum amount of effort. Where the VAT refund claim is likely to trigger an audit, this is taken into account and will usually increase both the time to comply with the refund claim and the waiting time before the refund is received. For the correction of the CIT error, the best performing economies are those where the correction of the tax return is not expected to trigger an audit. In these cases, the index simply measures the time required to make the correction as there is no audit time to be taken into account.

Tax audits are an essential part of a properly functioning tax system as they help ensure that taxpayers meet their compliance obligations. There is however a balance to be struck between the extent and nature of a tax audit and the amounts of tax that are potentially being underpaid, to help ensure that the limited resources available to tax authorities are targeted at the areas which present the highest risk.

We have long advocated the introduction of good electronic systems for paying and filing tax returns. These benefit both taxpayers and tax authorities. Electronic systems provide vast amounts of data which tax authorities can analyse and correlate with other datasets to identify unusual transactions and patterns of behaviour and so assess the level of risk presented by individual companies.[1] In countries where such electronic data is unavailable, or is unreliable, then more audits may be required than in economies with large electronic datasets and sophisticated data analysis tools. Care should therefore be taken when comparing the post-filing index scores of different economies which are at varying stages of economic development and which have differing levels of sophistication in their tax systems.

The introduction of the new post-filing index has been a significant challenge, but we hope that it provides valuable insight to you and we welcome suggestions for how the index can be improved.

This publication also includes two articles which look beyond the case study. The first article considers that while paying taxes is an important part of how companies contribute to society, companies may have more to offer. We explore the role corporates can play in reforming tax systems and consider some of the barriers that inhibit this. The second article looks at the rising importance of consumption taxes to governments and the challenges of creating effective and efficient VAT systems.

We hope that this publication continues to generate data and different perspectives that you find useful. Your comments and feedback are always very welcome and we would be delighted to hear from you.

Andrew Packman **Augusto Lopez-Claros**

[1] Cleary, D. "Predictive Analytics in the Public Sector: Using Data Mining to Assist Better Target Selection for Audit" Electronic Journal of e-Government Volume 9 Issue 2 2011, (pp132 – 140), available online at www.ejeg.com/volume9/issue2

Key findings from the Paying Taxes 2017 data

On average it takes our case study company **251 hours** to comply with its taxes, it makes **25 payments** and has an average Total Tax Rate of **40.6%**.

Total Tax Rate
40.6%

Time to comply
251
hours

Number of payments
25

New!
Post-filing index

Down

Down

Down

0.1%

8

0.8

The three original sub-indicators have continued to fall in 2015; Total Tax Rate by 0.1 percentage points, time to comply by 8 hours, and the number of payments by 0.8.

Profit taxes ↑ *Labour taxes* ↑ *Other taxes* ↓ 44 38

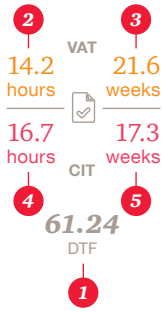
The small decrease in the Total Tax Rate results from 44 economies increasing taxes while 38 recorded a reduction. It also represents a combination of a decrease in 'other taxes' offset by small increases in both profit and labour taxes.

The reduction of 8 hours in the global average for the time to comply is higher than in recent years reflecting ongoing improvements in electronic tax systems, and in particular the adoption of reforms in Brazil.

8 24

The fall in the payments sub-indicator is the result of an overall decrease of 199 payments across 24 economies, largely due to the introduction and use of electronic filing and payment systems. Eight economies however, introduced new taxes without such systems, increasing payments by 36 in total.

The *Paying Taxes* study includes a new sub-indicator, the post-filing index. It measures two processes using four components. It is equally weighted with the three original sub-indicators.

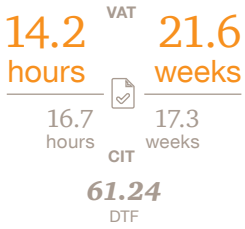


(1) The post-filing index distance to frontier score (DTF) measures (2) the time to comply with a VAT refund (hours), (3) the time to obtain a VAT refund (weeks), (4) the time to comply with a corporate income tax audit (hours), and (5) the time to complete a corporate income tax audit, if applicable (weeks).

In 2015, 162 economies had a VAT system. The post-filing index shows that our case study company will receive a VAT refund in 93 of these jurisdictions. The VAT refund is likely to trigger an audit in 65 economies of which 17 will be a comprehensive audit.

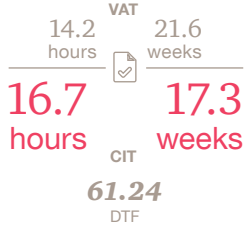
93

For those economies where a VAT refund is available, on average it takes our case study company 14.2 hours to comply with the necessary administration, and 21.6 weeks to receive the refund.



74

180 economies levied corporate income tax in 2015. The post-filing index shows that correcting a corporate income tax return is likely to lead to a tax audit in 74 of these, of which 38 will be a comprehensive audit.



On average, it takes the case study company 16.7 hours to correct the error in the corporate income tax return, including responding to an audit if one is triggered. For economies where the correction process triggers an audit, it takes on average 17.3 weeks to complete the audit.

Key findings from the post-filing index data

162

162 economies have a VAT system. The case study company files VAT on a monthly basis in 130 of them.

130

0 hrs

In 9 economies it takes zero hours to comply with a VAT refund. The longest time to comply with VAT refund requirements is in Fiji at 73 hours.

73 hours

3.2

The shortest time taken to receive a VAT refund is 3.2 weeks in Austria. The longest time to receive a VAT refund is 106.2 weeks in Cabo Verde.

106.2

14

If the case study company is unlikely to be audited, the global average time to obtain a VAT refund is just over 14 weeks. If there is likely to be an audit, it is almost 25 weeks.

25 weeks

High income =less time

On average it takes less time to comply with a VAT refund in high income economies, (almost 8 hours) than in low income economies (almost 27 hours).

More quickly

In high income economies, our case study company will on average obtain a VAT refund more quickly (in almost 16 weeks) than low income economies (just over 28 weeks).

180

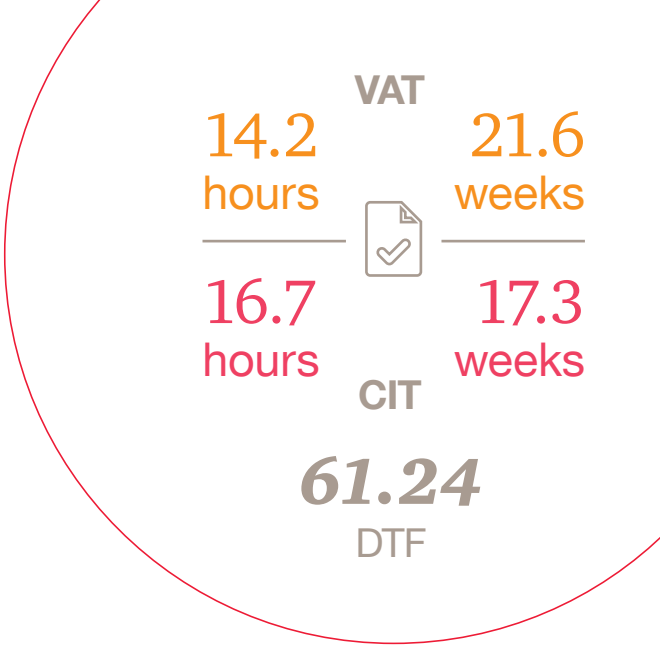
In 2015, 180 economies levied a corporate income tax.

6 hours

On average, the case study company spends 6 hours correcting an error in a corporate income tax return before an audit (if any) takes place.

59% of economies

Globally, in 59% of the economies with corporate income tax, the tax authority would not be expected to audit the case study company as a result of the corporate income tax error.



The post-filing index distance to frontier (DTF) score has four components.[2]

59%

For the case study company, the corporate income tax correction is likely to trigger an audit in 59% of low income economies, compared with 24% of high income economies.

24%

33 hours vs 5 hours

If a corporate income tax audit is triggered, for the case study company, the compliance time is almost 33 hours. If there is no audit, the compliance time is just over 5 hours.

13 hrs high income

28 hrs low income

On average, in high income economies the time to correct an error and comply with any corporate income tax audit is almost 13 hours which is less than half that in low income economies where it is almost 28 hours.

16 weeks low income

17 weeks high income

If a corporate income tax audit is triggered, the audit lasts on average almost 16 weeks in low income economies but almost 17 weeks in high income economies.

EU & EFTA =BEST

The EU & EFTA region performs the best, on average, across the post-filing index with just over 7 hours to claim a VAT refund, almost 15 weeks to receive the refund, and nearly 5 hours to correct a corporate income tax return and comply with any resulting audit.

AUDIT UNLIKELY

If a corporate income tax audit takes place, it will last almost 11 weeks. In 84% of the economies in the EU & EFTA region, the corporate income tax error is unlikely to trigger an audit.

Central America & the Caribbean

On average, in the Central America & the Caribbean region our case study company needs the most time to obtain a VAT refund with nearly 20 hours for compliance and an almost 35 week wait to receive the refund.

Most time

Asia Pacific

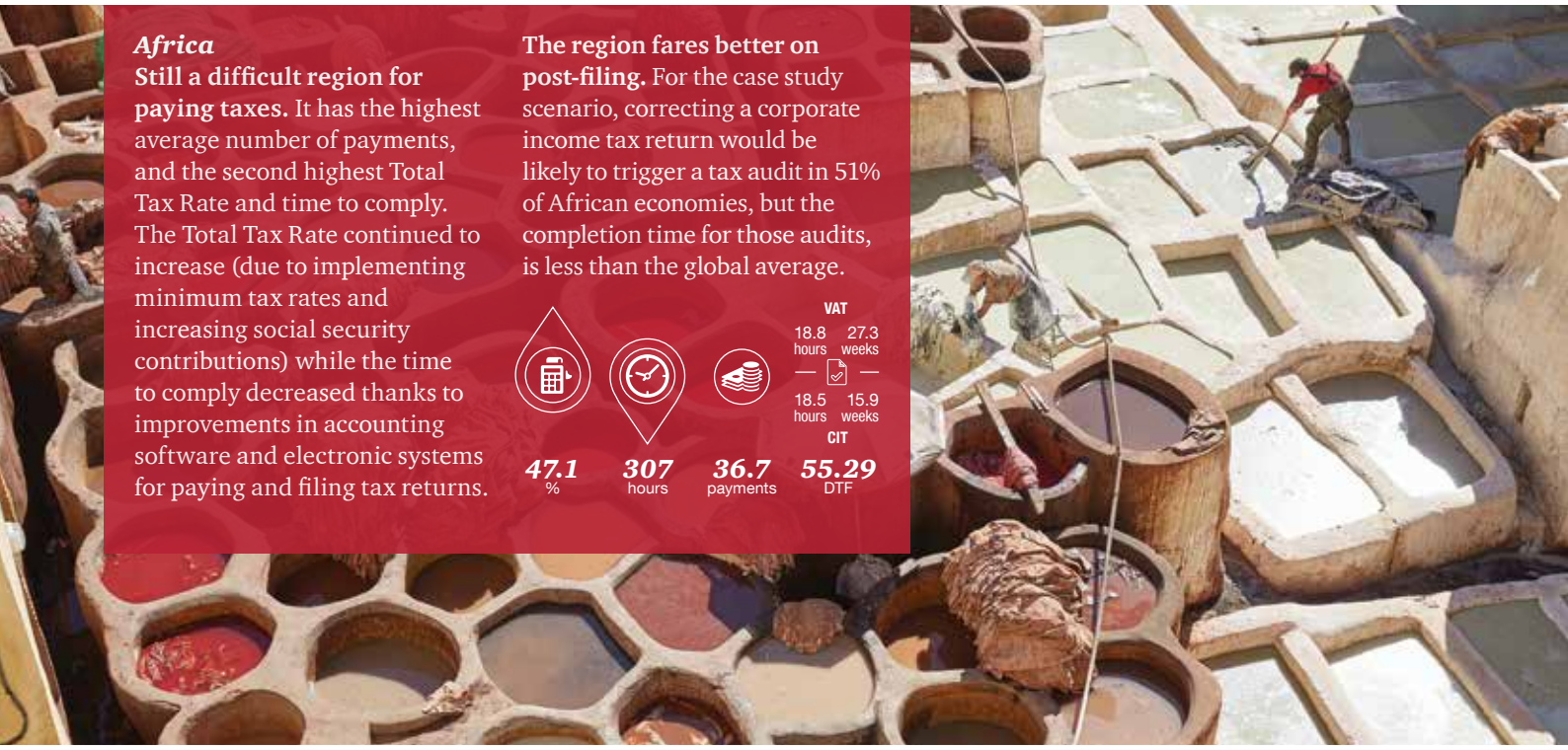
Economies in the Asia Pacific region take the longest to comply with a corporate income tax audit for the case study company requiring just over 24 hours.

Middle East

In the Middle East, if a corporate income tax audit is triggered, it will last almost 27 weeks – the longest of any region.

[2] See page 15 for more details.

Key findings – the regional picture[3]



Africa

Still a difficult region for paying taxes. It has the highest average number of payments, and the second highest Total Tax Rate and time to comply. The Total Tax Rate continued to increase (due to implementing minimum tax rates and increasing social security contributions) while the time to comply decreased thanks to improvements in accounting software and electronic systems for paying and filing tax returns.

The region fares better on post-filing. For the case study scenario, correcting a corporate income tax return would be likely to trigger a tax audit in 51% of African economies, but the completion time for those audits, is less than the global average.

47.1	307	36.7	55.29
%	hours	payments	DTF

VAT: 18.8 hours, 27.3 weeks — CIT: 18.5 hours, 15.9 weeks

Asia Pacific

The region performs better than the global average on all sub-indicators, apart from the new post-filing index. Time to comply and the number of payments continue to fall, but the Total Tax Rate has increased slightly. The time to comply and the number of payments fell due to electronic systems being introduced or improved. The Total Tax Rate increased slightly as labour taxes and business rates increased in the region.

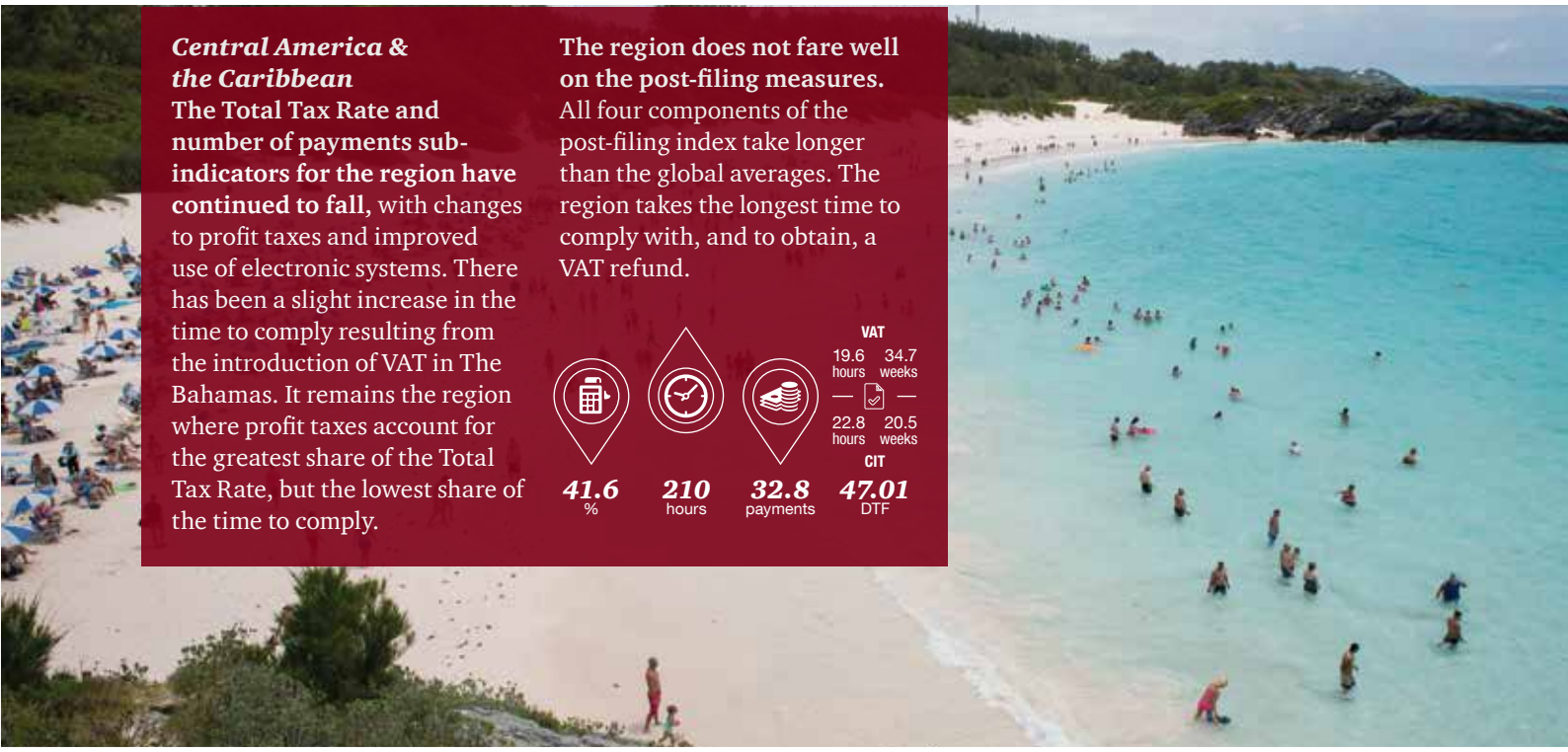
For the post-filing index, the processes take longer than the global average for all measures apart from the time to obtain a VAT refund. It has the longest average time of any region to comply with a corporate income tax audit and in 45% of economies a corporate income tax audit is expected.

36.2	212	23.5	58.53
%	hours	payments	DTF

VAT: 16.9 hours, 20.5 weeks — CIT: 24.4 hours, 18.3 weeks

[3] For a list of which economies are in which region, see the regional charts in Appendix 2.

Each region now has a post-filing distance to frontier score (DTF) from 0 (least efficient) to 100 (most efficient).[4]



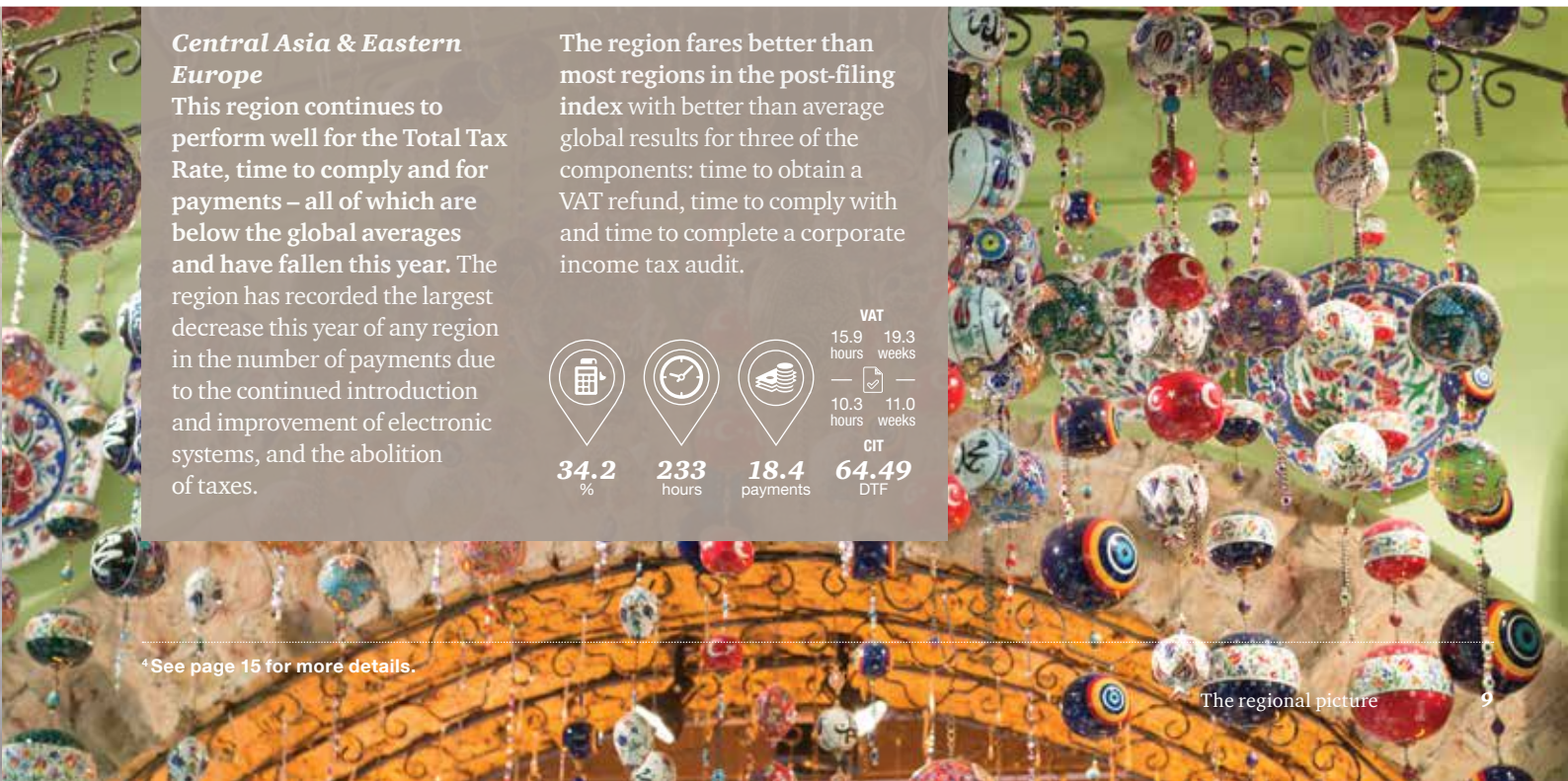
Central America & the Caribbean

The Total Tax Rate and number of payments sub-indicators for the region have continued to fall, with changes to profit taxes and improved use of electronic systems. There has been a slight increase in the time to comply resulting from the introduction of VAT in The Bahamas. It remains the region where profit taxes account for the greatest share of the Total Tax Rate, but the lowest share of the time to comply.

The region does not fare well on the post-filing measures. All four components of the post-filing index take longer than the global averages. The region takes the longest time to comply with, and to obtain, a VAT refund.

41.6	210	32.8	47.01
%	hours	payments	DTF

VAT: 19.6 hours, 34.7 weeks — CIT: 22.8 hours, 20.5 weeks



Central Asia & Eastern Europe

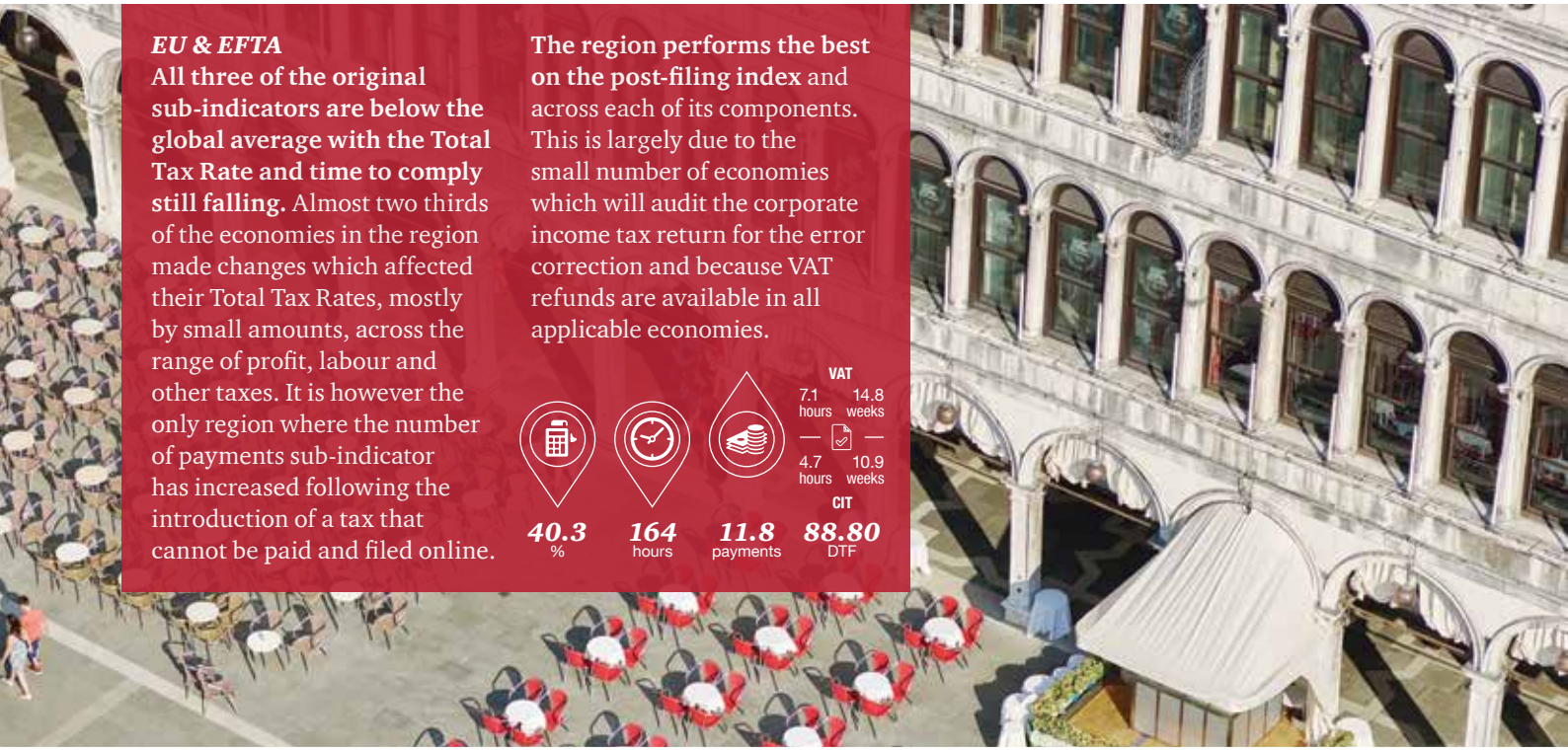
This region continues to perform well for the Total Tax Rate, time to comply and for payments – all of which are below the global averages and have fallen this year. The region has recorded the largest decrease this year of any region in the number of payments due to the continued introduction and improvement of electronic systems, and the abolition of taxes.

The region fares better than most regions in the post-filing index with better than average global results for three of the components: time to obtain a VAT refund, time to comply with and time to complete a corporate income tax audit.

34.2	233	18.4	64.49
%	hours	payments	DTF

VAT: 15.9 hours, 19.3 weeks — CIT: 10.3 hours, 11.0 weeks

[4] See page 15 for more details.



EU & EFTA

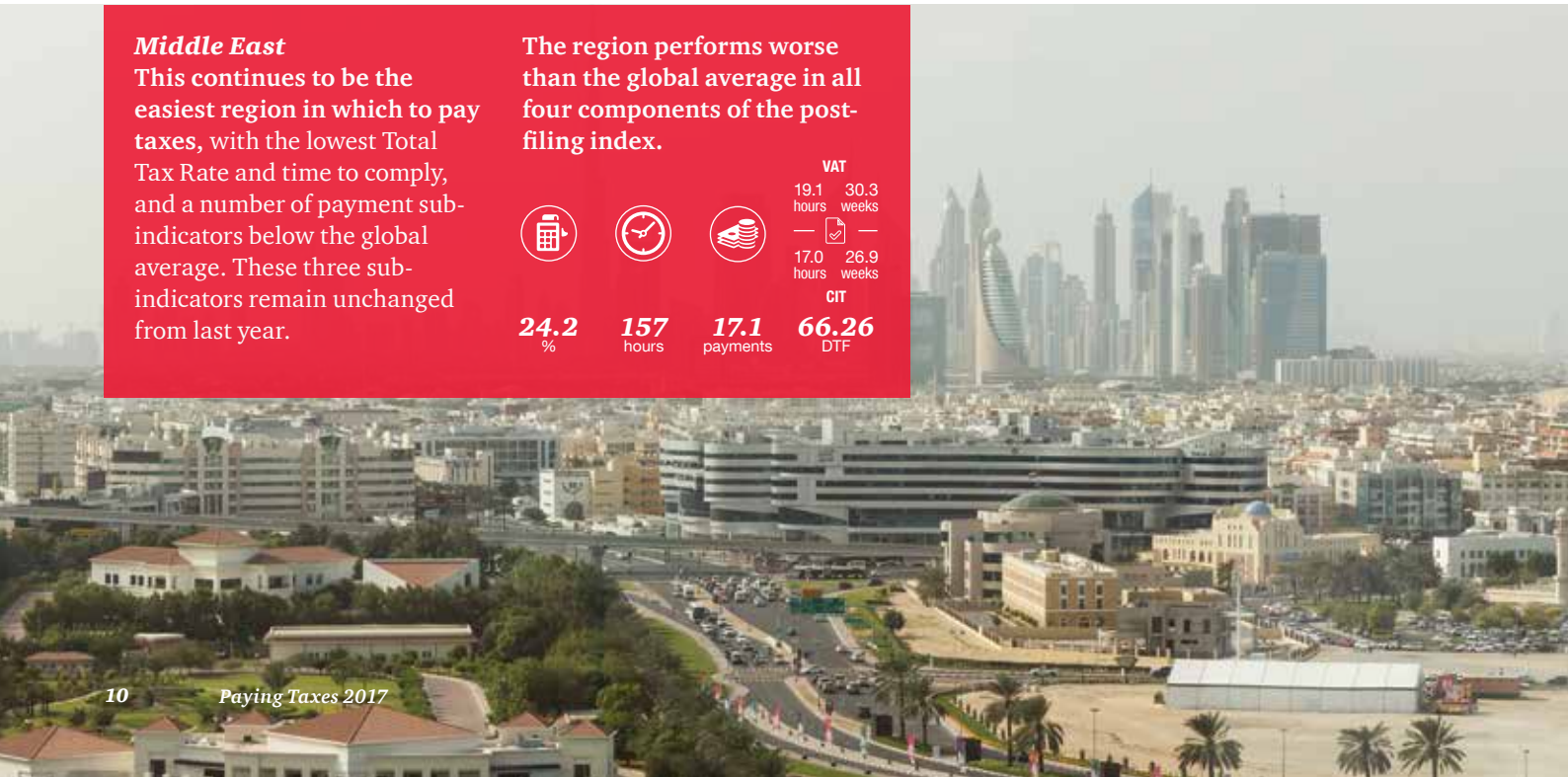
All three of the original sub-indicators are below the global average with the Total Tax Rate and time to comply still falling. Almost two thirds of the economies in the region made changes which affected their Total Tax Rates, mostly by small amounts, across the range of profit, labour and other taxes. It is however the only region where the number of payments sub-indicator has increased following the introduction of a tax that cannot be paid and filed online.

The region performs the best on the post-filing index and across each of its components. This is largely due to the small number of economies which will audit the corporate income tax return for the error correction and because VAT refunds are available in all applicable economies.

40.3	164	11.8	88.80
%	hours	payments	DTF

VAT: 7.1 hours, 14.8 weeks — 4.7 hours, 10.9 weeks

CIT



Middle East

This continues to be the easiest region in which to pay taxes, with the lowest Total Tax Rate and time to comply, and a number of payment sub-indicators below the global average. These three sub-indicators remain unchanged from last year.

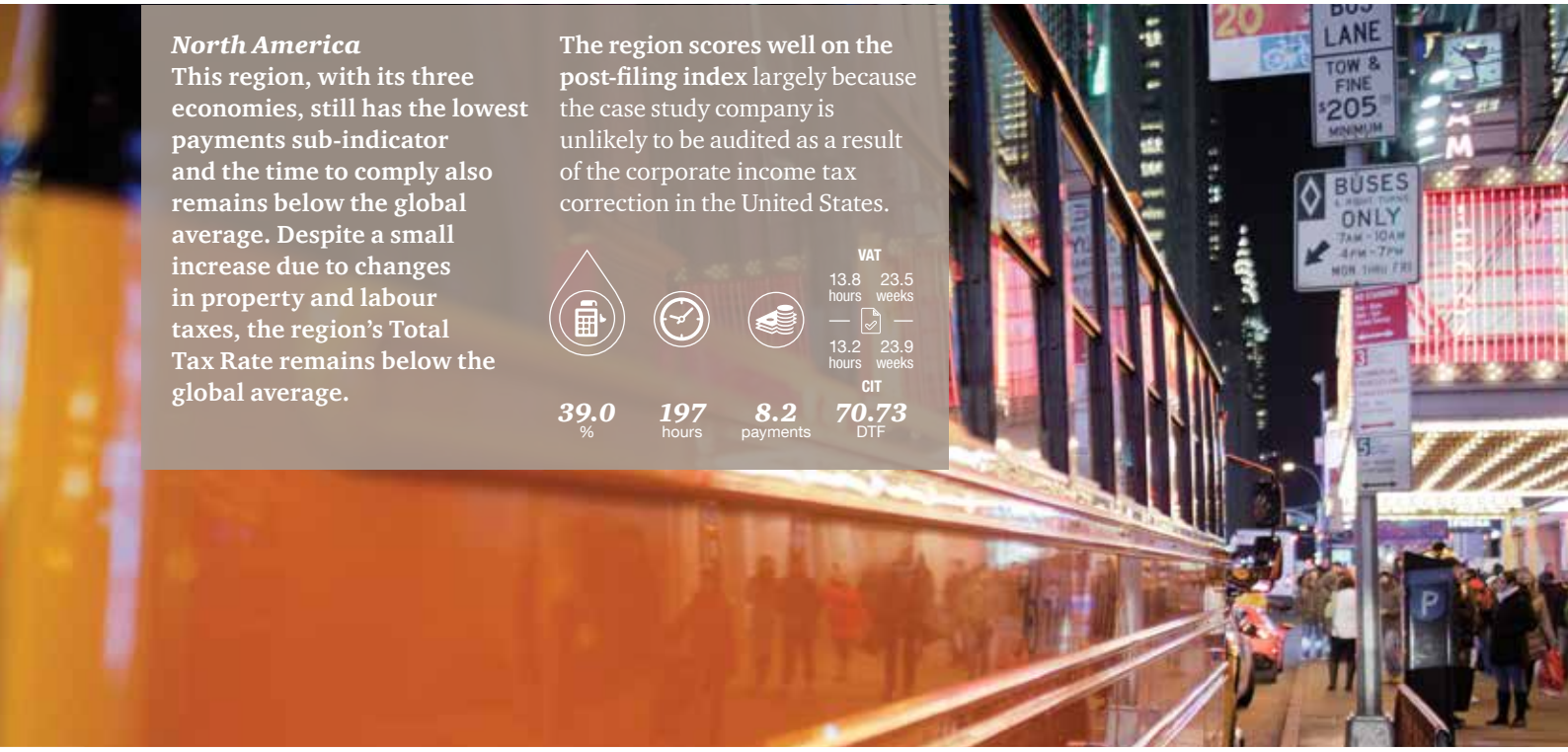
The region performs worse than the global average in all four components of the post-filing index.

24.2	157	17.1	66.26
%	hours	payments	DTF

VAT: 19.1 hours, 30.3 weeks — 17.0 hours, 26.9 weeks

CIT

The EU & EFTA region performs the best on the new post-filing index, and South America has the least efficient post-filing systems.



North America

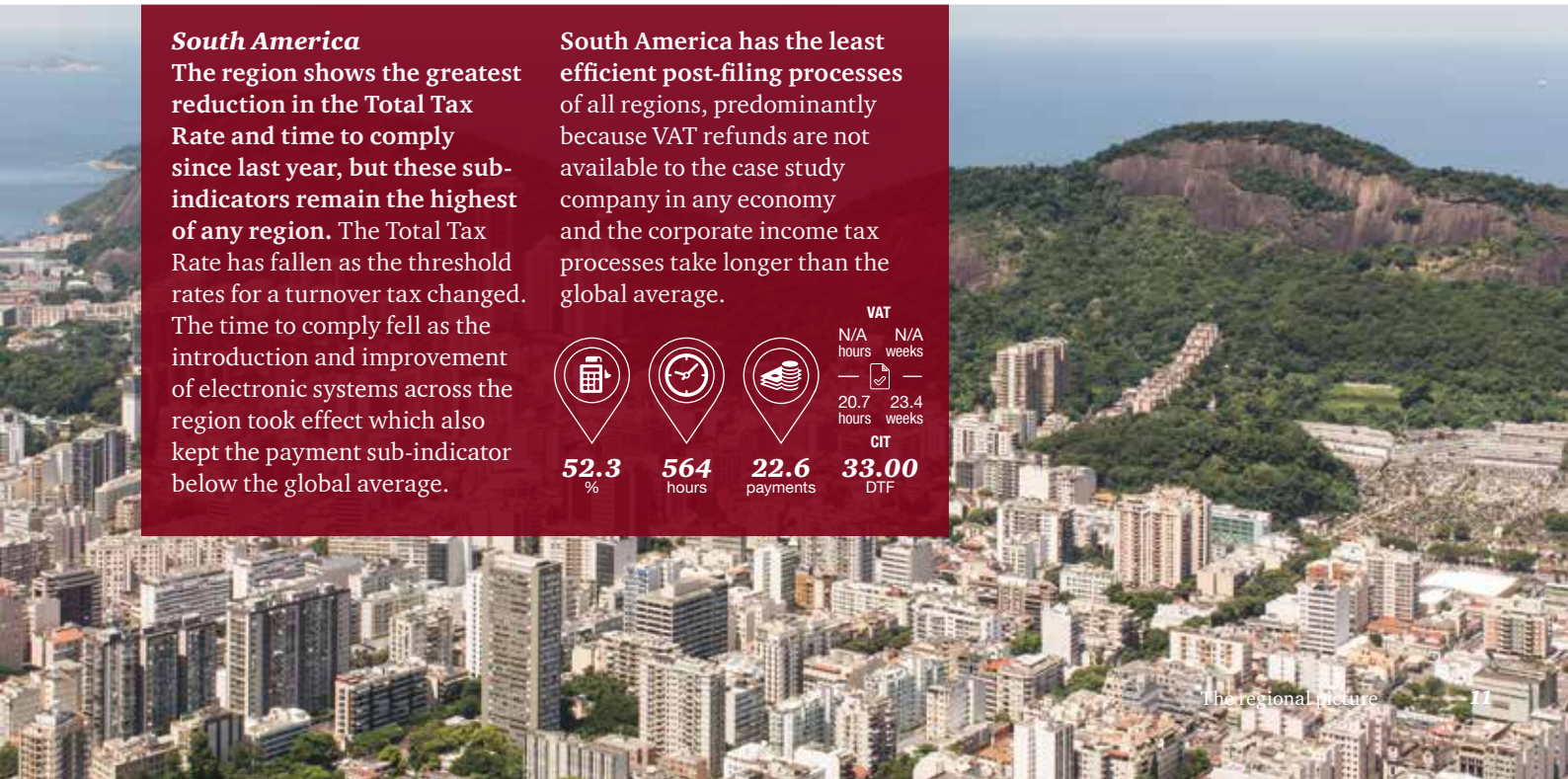
This region, with its three economies, still has the lowest payments sub-indicator and the time to comply also remains below the global average. Despite a small increase due to changes in property and labour taxes, the region's Total Tax Rate remains below the global average.

The region scores well on the post-filing index largely because the case study company is unlikely to be audited as a result of the corporate income tax correction in the United States.

39.0 %	***197*** hours	***8.2*** payments	***70.73*** DTF

VAT: 13.8 hours, 23.5 weeks — 13.2 hours, 23.9 weeks

CIT



South America

The region shows the greatest reduction in the Total Tax Rate and time to comply since last year, but these sub-indicators remain the highest of any region. The Total Tax Rate has fallen as the threshold rates for a turnover tax changed. The time to comply fell as the introduction and improvement of electronic systems across the region took effect which also kept the payment sub-indicator below the global average.

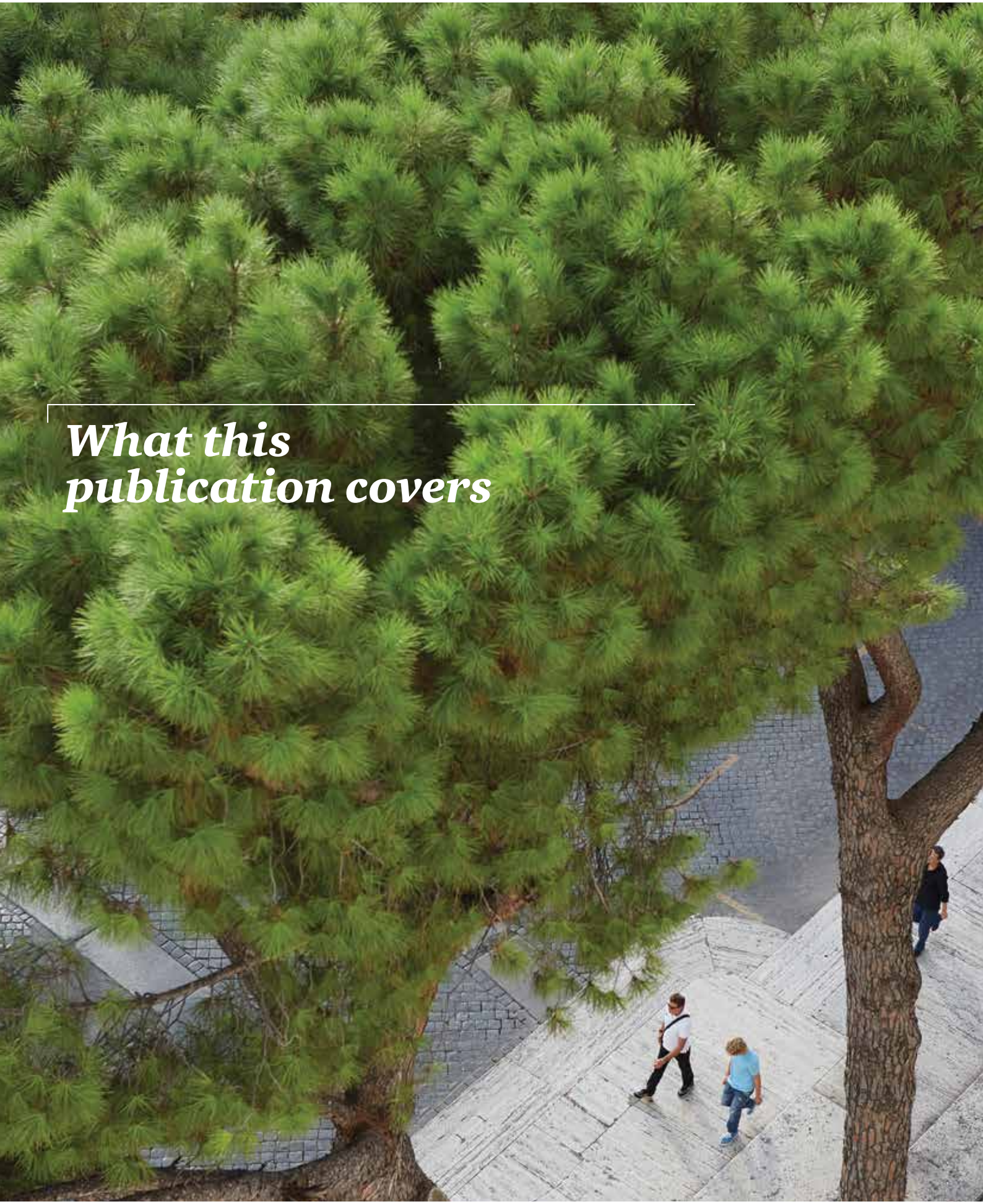
South America has the least efficient post-filing processes of all regions, predominantly because VAT refunds are not available to the case study company in any economy and the corporate income tax processes take longer than the global average.

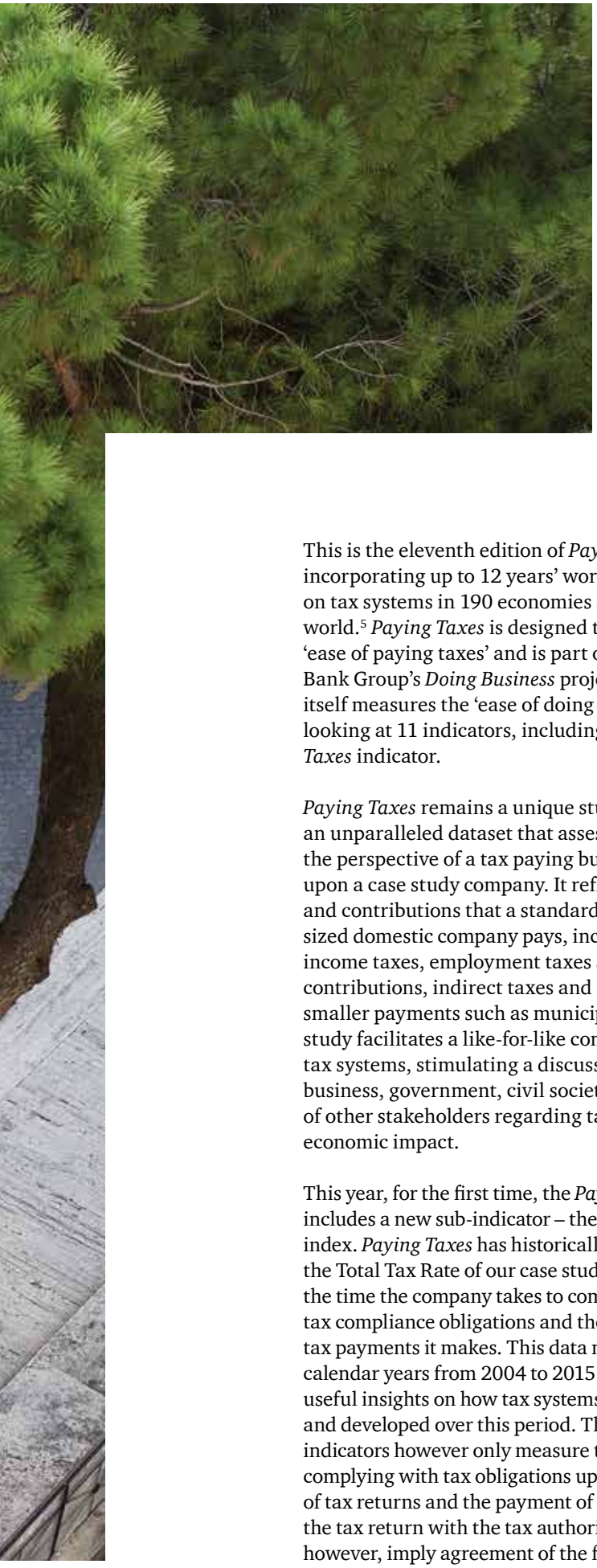
52.3 %	***564*** hours	***22.6*** payments	***33.00*** DTF

VAT: N/A hours, N/A weeks — 20.7 hours, 23.4 weeks

CIT

What this publication covers





A unique study with 12 years of tax data on 190 economies around the world.

This is the eleventh edition of *Paying Taxes* incorporating up to 12 years' worth of data on tax systems in 190 economies around the world.[5] *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.

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 study facilitates a like-for-like comparison of tax systems, stimulating a discussion between business, government, civil society and a range of other stakeholders regarding tax policy and its economic impact.

This year, for the first time, the *Paying Taxes* study includes a new sub-indicator – the post-filing index. *Paying Taxes* has historically measured the Total Tax Rate of our case study company, the time the company takes to comply with its tax compliance obligations and the number of tax payments it makes. This data now covers the calendar years from 2004 to 2015 and provides useful insights on how tax systems have adjusted and developed over this period. These sub-indicators however only measure the cost of complying with tax obligations up until the filing of tax returns and the payment of taxes due. Filing the tax return with the tax authority does not, however, imply agreement of the final tax liability.

Post-filing processes – such as claiming a value-added tax (VAT) or goods and services tax (GST) refund, undergoing a tax audit or appealing a tax assessment – can be the most challenging interactions that a business has with a tax authority and can vary markedly from one jurisdiction to another. For that reason, we have expanded the data for 2015 to include the post-filing index. The new index is summarised below, with further detail on the methodology being provided in Appendix 1.

Including post-filing processes within the study presented us with a number of challenges, one of the most significant being that, unlike filing and paying taxes, not all companies experience a VAT or a corporate income tax (CIT) audit every year. As our case study company is relatively simple and, from the point of view of many tax authorities, fairly low risk, it may be many years before it undergoes a tax audit. We therefore chose scenarios that could potentially trigger a tax audit, but for each economy the World Bank took the advice of the study's contributors as to whether in practice the case study scenarios were more likely than not to trigger an audit. We recognise that the decision as to whether an audit is likely or not for the given scenario is subjective, binary and could have a considerable impact on the results for each economy. We are however of the view that the like-for-like comparisons which this study is designed to facilitate can only be made where the same scenarios are applied in all economies. We would encourage readers of the study to consider the underlying reasons for the results in an economy, rather than focusing on individual data points. Where audits are efficient they may not have a significant adverse effect on an economy's overall *Paying Taxes* score.

[5] Somalia has been included in *Doing Business* for the first time this year. As there is no relevant practice in Somalia for *Paying Taxes*, it has been excluded from the *Paying Taxes* analysis which therefore covers 189 economies.

The objectives of the Paying Taxes study

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 190 economies around the world, including how they have changed over time, which then can be used to inform tax policy decisions.[6]

The case study and data collection process

Paying Taxes uses a case study company to measure the ease of paying taxes by evaluating 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 tax 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.[7] The World Bank Group reviews and compares the data from the different contributors to reach a consensus view.

The four Paying Taxes sub-indicators

For *Paying Taxes 2017*, the contributors provided 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 four sub-indicators:

The results are generated using four sub-indicators

- Total Tax Rate is the measure of tax cost, the total of all taxes borne as a percentage of commercial profit;[8]
- 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;[9]
- post-filing index, based on four equally weighted components:

    1. Time to comply with a VAT refund (hours),
    2. Time to obtain a VAT refund (weeks),
    3. Time to comply with a CIT audit (hours),
    4. Time to complete a CIT audit (weeks).

A distance to frontier score is calculated for each of the four sub-indicators. The simple average of these four scores then gives the overall Paying Taxes distance to frontier.[10]

The case study also looks at the structure of a first level administrative appeal process. The data regarding this process is however not included in the distance to frontier score for *Paying Taxes*, although a summary of the findings is included in Chapter 1: World Bank Group Commentary.

[6] As there is no relevant practice in Somalia for *Paying Taxes*, it has been excluded from the *Paying Taxes* analysis which therefore covers 189 economies.
[7] For a list of all the contributors see www.doingbusiness.org/contributors/doing-business
[8] 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 company.
[9] 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.
[10] See page 16 for an explanation of the distance to frontier score.

The post-filing index

The post-filing index is based on distance to frontier scores (see below) of 0-100 where 0 represents the least efficient process and 100 the most efficient. The index looks at two post-filing processes; claiming a VAT (or GST) refund and correcting a CIT return. Both processes may involve a tax audit. For each process there are two components giving the following four components in total:

1. **Time to comply with a VAT (or GST) refund (hours).** The time the company spends claiming a VAT (or GST) refund. If the refund is likely to trigger an audit, this also includes the time spent gathering and submitting information required by the tax authority as part of the audit.

2. **Time to obtain a VAT (or GST) refund (weeks).** The time that elapses between the submission of a VAT refund claim and either the receipt of the refund (plus an average waiting time before the refund can be submitted) or the time the audit, if applicable, is completed, if later.

3. **Time to comply with a CIT audit (hours).** The time the company spends correcting an error on the CIT return. If the correction is likely to trigger an audit, this also includes the time spent gathering and submitting information required by the tax authority as part of the audit. Where the correction is unlikely to trigger an audit, only the time needed to correct the error and make the additional payment of the balance due is included.

4. **Time to complete a CIT audit (weeks).** The time that elapses between the start of an audit process and its completion. If the correction is thought unlikely to trigger an audit, the time will be nil.

Each of the four components is converted to a distance to frontier score of 0-100 where 0 represents the least efficient process and 100 the most efficient. If both VAT and CIT apply, the post-filing index is the simple average of the distance to frontier scores for each of the four components.

If an economy has no VAT or CIT system, then the relevant components are ignored and the distance to frontier scores of the remaining components are averaged to give the post-filing index. If an economy has neither VAT nor CIT, then the post-filing index is ignored in determining the overall *Paying Taxes* distance to frontier score.

If a VAT (or GST) refund system does not exist in an economy, or is not available to the case study company, then the distance to frontier scores of the VAT components are each given a score of 0, being equal to the least efficient process. As explained in Chapter 1, an efficient refund system is a necessary element of a VAT system if the principle that the tax should be paid by consumers, but neutral for companies, is to be fully applied in practice.

Throughout this publication, the post-filing index and its components have been represented as shown in Figure 1 with the central number being the post-filing index score and the four underlying components included as shown.

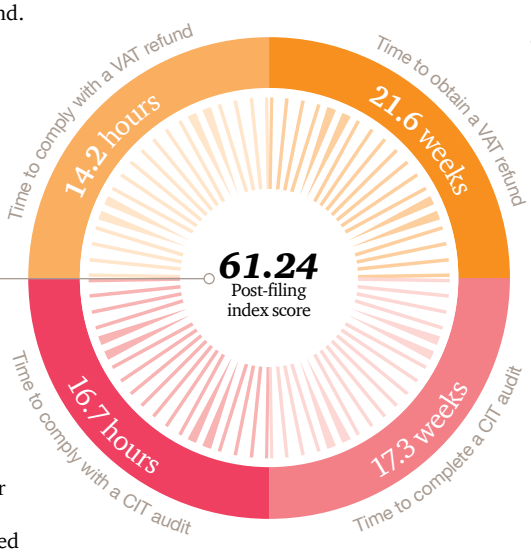
Figure 1

Representing the post-filing index

Time to comply with a VAT audit
The time spent claiming a VAT (or GST) refund. If the refund is likely to trigger an audit, this also includes the time spent gathering and submitting information required by the tax authority as part of the audit.

Time to obtain a VAT refund
The time that elapses between the submission of a VAT refund claim and either the receipt of the refund (plus an average waiting time before the refund can be submitted) or the time the audit, if applicable, is completed, if later.

The overall post-filing index distance to frontier score is a simple average of the distance to frontier scores for the components of the index. The score ranges from 0-100 where 0 is the least efficient process and 100 the most efficient.



Time to comply with a CIT audit
The time spent correcting an error on the CIT return. If the correction is likely to trigger an audit, this also includes the time spent gathering and submitting information required by the tax authority as part of the audit.

Time to complete a CIT audit
The time that elapses between the start of an audit process and its completion. Where the figure is an average, it includes the time only for those economies where an audit is likely to occur.

The distance to frontier scores

The sub-indicators are converted to distance to frontier (DTF) scores in order to calculate the 'ease of paying taxes'. The distance to frontier score benchmarks the four sub-indicators (Total Tax Rate, time to comply, number of payments and post-filing index) 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.

Important points on the methodology

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. 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 2017*, relates to the calendar year ended 31 December 2015.

2. For 2004 to 2011, the GNIpc figures used to construct the case study financial statements were based on 2005 values. For 2012 to 2015, 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 *Doing Business 2017*, 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. In Table 9 in Appendix 3 we list the overall *Paying Taxes* distance to frontier score which includes the new post-filing index score. We have also included, for ease of comparison, the *Paying Taxes* distance to frontier score and ranking based purely on the original three indicators. From this table, it can be seen whether the inclusion of the post-filing index moves an economy closer to or further away from the frontier, Care should be taken however in comparing the impact of the post-filing index between economies as some economies do not have a VAT and/or a CIT system as shown in Table 13 and therefore will not be scored on all the components of the post-filing index.

5. If in the course of collecting and analysing the data for 2015 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 2014 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.

Contents of the publication

Chapter 1 of this year's publication is the World Bank Group's commentary on the background to the inclusion of the post-filing index in the study and provides overview of the results for the post-filing index.

Chapter 2 provides PwC's analysis and commentary with a focus on the results for the current year across all four sub-indicators. We begin by looking at the global results for the year ending 31 December 2015. We then analyse the data points on the regions and how they compare with each other.

Chapter 3 provides country articles from PwC tax partners and staff in our regional launch locations; Costa Rica, Côte d'Ivoire, Ecuador, Hungary and Indonesia.

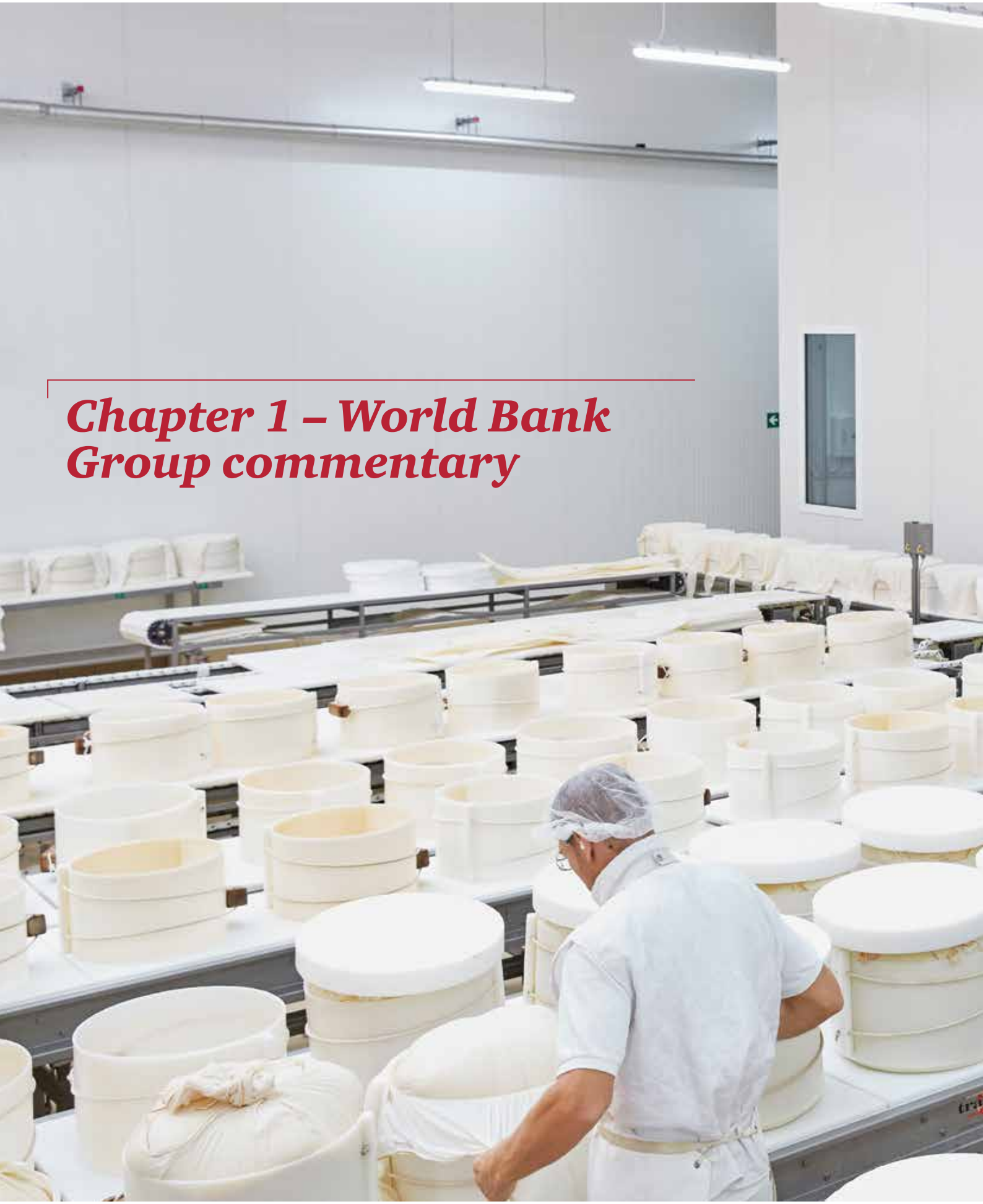
Chapter 4 includes two views on different aspects of global tax policy and administration:

- Amal Lahrlid and Simon Carey of PwC's Global Fiscal Policy Advisory team looks at corporate social responsibility and asks whether there is a role for corporates in assisting with tax policy and tax administration capability.

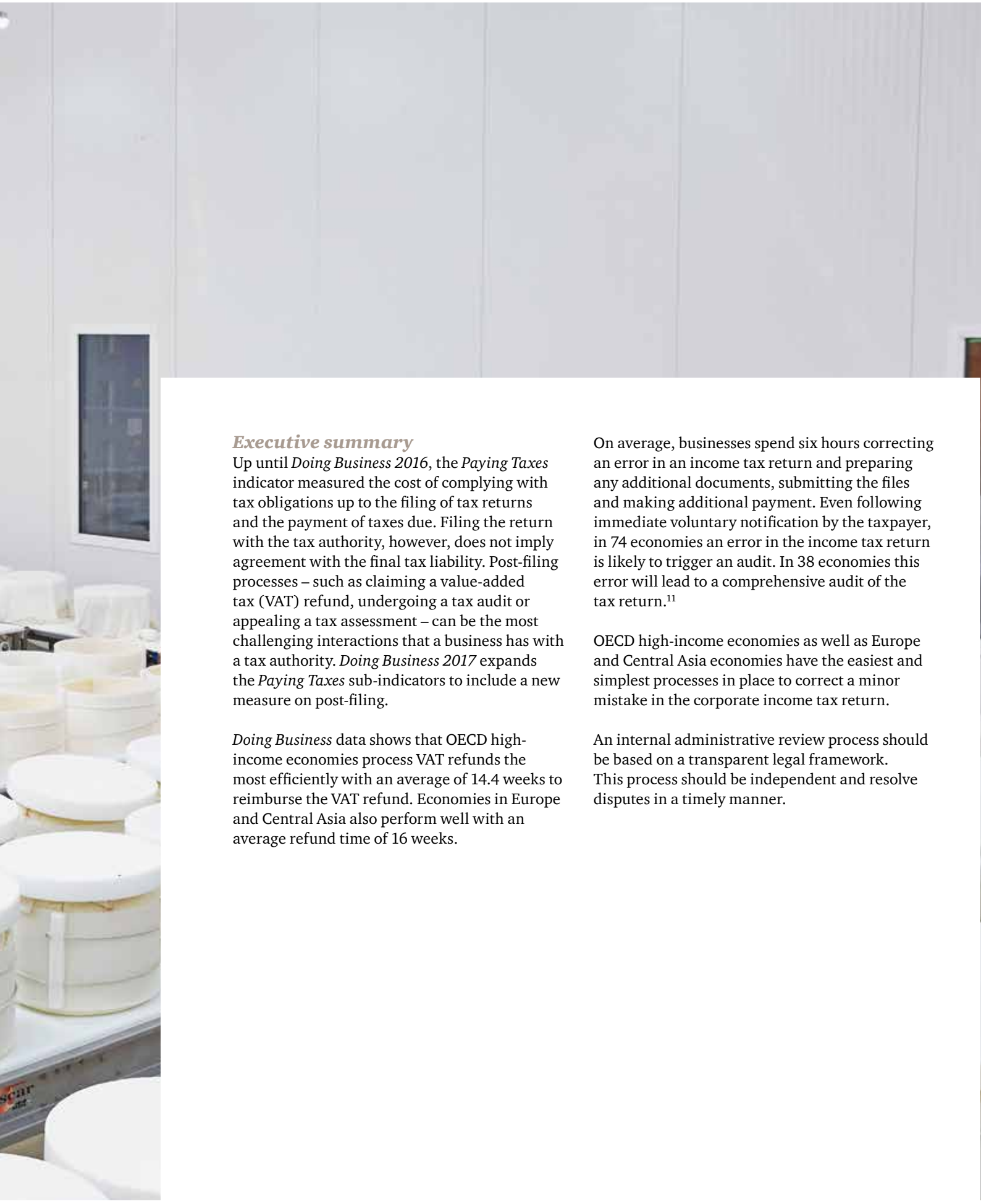
- Jo Bello, PwC's Global Indirect Tax Leader and Haider Hatteea, discuss trends in VAT, the increasing importance of VAT for government revenues, and an analysis of the way VAT compliance has an impact around the world.

Appendix 1 details the methodology of the study explaining the parameters of the case study company, what the sub-indicators measure (with examples) and explains how the raw data is converted into a distance to frontier score.

Appendix 2 and **Appendix 3** contain this year's data for each economy, including the four sub-indicators, distance to frontier score, and the rankings, along with a breakdown by region. Further details are available on the PwC and World Bank Group websites.



Chapter 1 – World Bank Group commentary



Executive summary

Up until *Doing Business 2016*, the *Paying Taxes* indicator measured the cost of complying with tax obligations up to the filing of tax returns and the payment of taxes due. Filing the return with the tax authority, however, does not imply agreement with the final tax liability. Post-filing processes – such as claiming a value-added tax (VAT) refund, undergoing a tax audit or appealing a tax assessment – can be the most challenging interactions that a business has with a tax authority. *Doing Business 2017* expands the *Paying Taxes* sub-indicators to include a new measure on post-filing.

Doing Business data shows that OECD high-income economies process VAT refunds the most efficiently with an average of 14.4 weeks to reimburse the VAT refund. Economies in Europe and Central Asia also perform well with an average refund time of 16 weeks.

On average, businesses spend six hours correcting an error in an income tax return and preparing any additional documents, submitting the files and making additional payment. Even following immediate voluntary notification by the taxpayer, in 74 economies an error in the income tax return is likely to trigger an audit. In 38 economies this error will lead to a comprehensive audit of the tax return.[11]

OECD high-income economies as well as Europe and Central Asia economies have the easiest and simplest processes in place to correct a minor mistake in the corporate income tax return.

An internal administrative review process should be based on a transparent legal framework. This process should be independent and resolve disputes in a timely manner.

[11] Comprehensive audits are those which are more extensive than limited scope audits or single issue audits.

Why does Paying Taxes include a post-filing index?

Taxes are important to the proper functioning of an economy. They are the main source of federal, state and local government revenues used to fund health care, education, public transport, unemployment benefits and pensions, among others. While the size of the tax cost imposed on businesses has implications for their ability to invest and grow, the efficiency of the tax administration system is also critical for businesses.[12] A low cost of tax compliance and efficient tax-related procedures are advantageous for firms. Overly complicated tax systems are associated with high levels of tax evasion, large informal sectors, more corruption and less investment.[13] Tax compliance systems should be designed so as not to discourage businesses from participating in the formal economy.

Modern tax systems seek to optimise tax collections while minimising administrative and taxpayer compliance costs. The most cost-effective tax collection systems are those that encourage the vast majority of taxpayers to meet their tax obligations voluntarily, thereby allowing tax officials to concentrate their efforts on non-compliant taxpayers and other services provided by tax administrations.[14] Taxpayers are more likely to comply voluntarily when a tax administration has established a transparent system that is regarded by taxpayers as being honest and fair.

Total tax compliance costs include all major transactions that generate external costs to the taxpayer. Up until *Doing Business 2016*, the *Paying Taxes* indicator set measured only the cost of complying with tax obligations up until the filing of tax returns and the payment of taxes due. However, filing the tax return with the tax authority does not imply agreement with the final tax liability. Post-filing processes – such as claiming a value-added tax refund, undergoing a tax audit or appealing a tax assessment – can be the most challenging interactions that a business has with a tax authority.

Doing Business 2017 expands the *Paying Taxes* indicators to include a new measure of the time businesses spend complying with two post-filing processes: claiming a VAT refund and correcting a mistake in the corporate income tax return. This case study examines these two post-filing procedures across 190 economies and shows where post-filing processes and practices work efficiently and what drives the differences in the overall tax compliance cost across economies. This case study also includes a section on the structure of a first level administrative appeal process. The data on first level administrative appeal process is not included in the distance to frontier score for *Paying Taxes*.

Taxpayers are more likely to comply voluntarily when a tax administration has established a transparent system that is regarded by taxpayers as being honest and fair.

[12] For more on the World Bank Enterprise Surveys, see the website at http://www.enterprisesurveys.org.
[13] Djankov, Simeon, Tim Ganser, Caralee McLiesh, Rita Ramalho and Andrei Shleifer. 2010. "The Effect of Corporate Taxes on Investment and Entrepreneurship." American Economic Journal: Macroeconomics 2 (3): 31-64.
[14] IMF (International Monetary Fund). 2015a. "Current Challenges in Revenue Mobilization: Improving Tax Compliance." IMF Staff Report. IMF: Washington DC.

Why does the post-filing index look at VAT refunds?

The VAT refund is an integral component of a modern VAT system. A discussion of the types of consumption tax systems is available in Chapter 4. In principle, the statutory incidence of VAT is on the final consumer, not on businesses. According to tax policy guidelines set out by the Organisation for Economic Co-operation and Development (OECD) a value-added tax system should be neutral and efficient.[15] Some businesses will incur more VAT on their purchases than they collect on their taxable sales in a given tax period and therefore should be entitled to claim the difference from the tax authorities. When businesses incur VAT which is not refunded at all – or reclaimed with delays and large compliance costs – then the principles of neutrality and efficiency are undermined. This alters the nature of VAT by effectively making it a tax on production. Any tax that cannot be recovered by the business could have a distortionary effect on market prices and competition and consequently constrain economic growth.[16]

Refund processes can be a major weakness of VAT systems. This was the finding of a study that examined the VAT administration refund mechanism in 36 economies around the world.[17] Even in economies where refund procedures are in place, businesses often find the complexity of the process challenging. The study examined the tax authorities' treatment of excess VAT credits, the size of refund claims, the procedures followed by refund claimants and the time needed for the tax authorities to process refunds. The results showed that statutory time limits for making refunds are crucial but often not applied in practice.

Most VAT systems allow credit to be carried-forward for a specific period of time and offset against future net liabilities to reduce the number of refunds processed. The rationale is that excess VAT credits in one tax period would be followed by periods when net liabilities would absorb the credit brought forward, especially for businesses producing and selling in the domestic market. A refund is paid only if an amount of excess credit remains to be recovered by the taxpayer at the end of the carry-forward period. Some systems also allow a VAT credit in a given tax period to be offset against other current tax liabilities such as income tax. While the option of carry-forward is allowed in most VAT systems, it is good practice for economies to put in place an adequate VAT refund system. Because considerable differences in the efficiency of processing VAT cash refunds exist between economies, the *Paying Taxes* indicators focus on assessing VAT refund systems.

The International Monetary Fund's (IMF) Tax Administration Diagnostic Assessment Tool (TADAT) provides an integrated monitoring framework to measure the performance of an economy's tax administration system across different functions, including the adequacy of its VAT refund system. It does this by measuring the time taken to pay (or offset) refunds.[18]

Like any tax, VAT is prone to fraud and its refund mechanism may be open to abuse by taxpayers.[19] Delays in processing refunds, therefore, may be the result of concerns over potential fraud. Even when claims reach the finance division responsible for approving them and making payment, there can be delays in transmission. Additional procedural checks at this stage – prompted by a fear of the system being abused – are common.

In some economies a claim for a VAT refund can automatically trigger a costly audit, undermining the overall effectiveness of the system.[20] Effective audit programs and VAT refund payment systems are inextricably linked. Tax audits (direct and indirect) vary in their scope and complexity, ranging from a full audit – which typically entails a comprehensive examination of all information relevant to the calculation of a taxpayer's tax liability in a given period – to a limited scope audit that is restricted to specific issues on the tax return or a single issue audit that is limited to one item.[21]

[15,16] OECD (Organisation for Economic Co-operation and Development). 2014. "International VAT/GST Guidelines." Global Forum on VAT. 17-18 April. OECD, Paris. Available at: http://drtp.ca/wp-content/uploads/2015/09/oecd-international-vat-gst-guidelines.pdf.

[17] Harrison, Graham and Russell Krelove. 2005. "VAT Refunds: A Review of Country Experience," IMF Working Paper 05/218, International Monetary Fund, Washington, DC..

[18] For more information on the Tax Administration Diagnostic Assessment Tool (TADAT), see the website at http://www.tadat.org/.

[19] Keen, Michael, and Stephen Smith. 2007. "VAT Fraud and Evasion: What Do We Know, and What Can Be Done?" IMF Working Paper 07/31, International Monetary Fund, Washington, DC.

[20] Harrison, Graham and Russell Krelove. 2005. "VAT Refunds: A Review of Country Experience," IMF Working Paper 05/218, International Monetary Fund, Washington, DC.

[21] OECD (Organisation for Economic Co-operation and Development). 2006. "Strengthening Tax Audit Capabilities: General Principles and Approaches." OECD, Center for Tax Policy and Administration, Paris, France: OECD.

The VAT refund scenario for *Paying Taxes*

The transactions that lead to substantial VAT refund claims typically include exports, capital expenses, extraordinary losses and start-up operations.[22] Through its *Paying Taxes* indicators, *Doing Business* measures the efficiency of VAT refunds by analysing the case of capital expenses.

The *Doing Business* case study company, TaxpayerCo, is a domestic business that does not participate in foreign trade. It performs a general industrial and commercial activity in the domestic market and is in its second year of operation. TaxpayerCo. meets the VAT threshold for registration and its monthly sales and operating expenses are fixed throughout the year resulting in a positive output VAT payable to the tax authorities within each accounting period. The case study scenario has been expanded to include a capital purchase of a machine in the month of June; this substantial capital expenditure results in input VAT exceeding output VAT in the month of June.

Availability of VAT refunds to TaxpayerCo.

In principle, when input VAT exceeds output VAT the amount should be paid as a refund to a registered business within the time period stipulated in the legislation. In practice, however, only 93 of the economies covered by *Doing Business* allow for a VAT cash refund in this scenario, as shown in Figure 2. Some economies restrict the right to receive an immediate cash refund to specific types of taxpayers such as exporters, embassies and non-profit organisations.

This is the case in 43 economies including Belarus, Bolivia, Colombia, the Dominican Republic, Ecuador, Kazakhstan, Kenya, Mali and the Philippines. In Ecuador, VAT refunds are limited to exporters, embassies, diplomatic missions, some specific non- government entities and international cargo companies. In Armenia, cash refunds are only allowed when zero-rated VAT transactions (primarily exports) exceed 20% of all transactions.

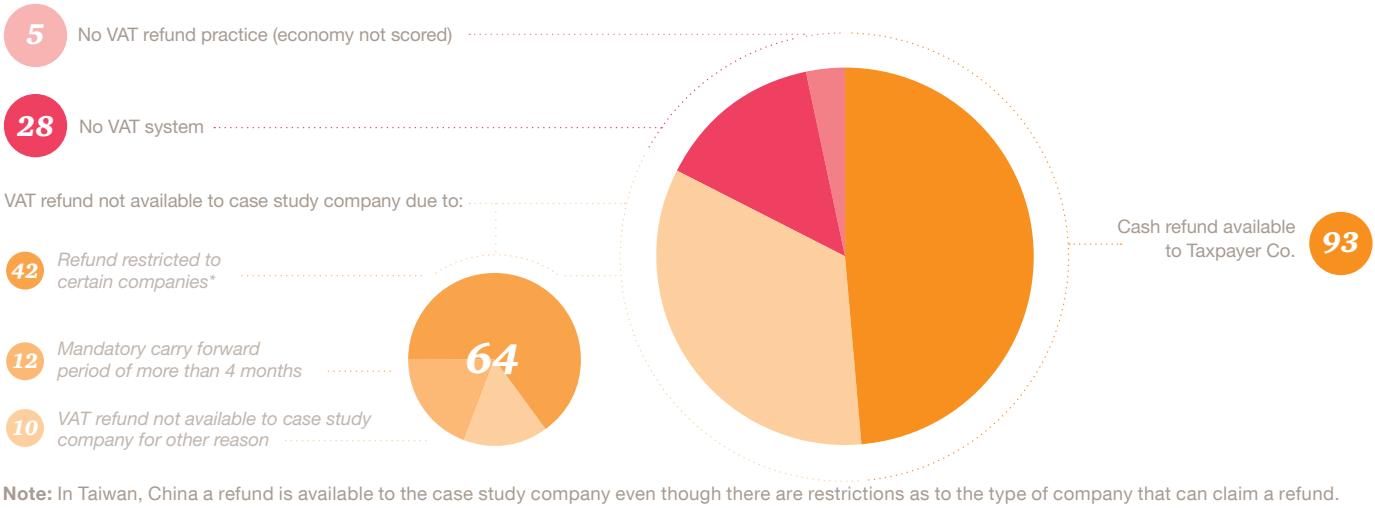
In some economies businesses are only allowed to claim a cash refund after rolling over the excess credit for a specified period of time (for example, four months). The net VAT balance is refunded to the business only when this period ends. This is the case in 21 economies included in *Doing Business*.[23] In Albania, Azerbaijan, Cambodia, The Gambia, Lesotho, Malawi and St. Lucia, businesses must carry forward the excess input VAT for three months before a cash refund can be given. In other economies – typically those with a weaker administrative or financial capacity to handle cash refunds – the legislation may not permit refunds outright. Instead, tax authorities require businesses to carry forward the claim and offset the excess amount against future output VAT. This is the case in Grenada, Guinea-Bissau, Sudan and República Bolivariana de Venezuela. In these two groups of economies it is common to make exceptions for exporters in relation to domestic supply. Twenty-eight economies do not levy VAT.

Some economies restrict the right to receive an immediate cash refund to specific types of taxpayers.

In some economies businesses are only allowed to claim a cash refund after rolling over the excess credit for a specified period of time.

Figure 2

Availability of VAT refunds to TaxpayerCo (number of economies)



Note: In Taiwan, China a refund is available to the case study company even though there are restrictions as to the type of company that can claim a refund.
Source: *Doing Business* database

[22] The key point for exports is that the supplies are taxable but zero-rated as they are taxed at the destination economy leading to input VAT being offset against zero output VAT. The notion of claiming a VAT refund immediately for substantial capital expenditure in an accounting period is that the recoverable amount of input VAT in that period could be large and result in excess input tax credit or a refund claim for the period. Extraordinary events – such as fire, flood or seasonal trends – may lower sales activities over periods of time or even halt sales while the business continues filing regular VAT returns. Lastly, new businesses would register for VAT based on the sales that they expect to make even before they start making actual sales. This means that new businesses could offset input VAT on start-up expenses against a minimal output VAT resulting in a VAT refund claim.

[23] These economies are Albania; Antigua and Barbuda; Azerbaijan; Bulgaria; Cambodia; Dominica; The Gambia; Guyana; Jordan; Kiribati; Lesotho; Malawi; Nepal; Pakistan; Seychelles; St. Kitts and Nevis; St. Lucia; Tanzania; Tonga; Tunisia; and Vietnam.

Complying with a VAT cash refund

In 68 of the 93 economies that allow for VAT cash refunds (as in the *Doing Business* case scenario) the legal framework includes a time limit to repay the VAT refund starting from the moment the refund was requested. As shown in Figure 3, these time limits are always applied in practice in only 29 economies (21 of these economies are high-income economies). In only 28 of the 93 economies, a claim for a VAT refund does not ordinarily lead to an audit being conducted.[24]

In 46 economies the VAT refund due is calculated and requested within the standard VAT return, which is submitted for each accounting period and without additional work. The main purpose of filing a VAT return is to provide a summary of the output and input VAT activities that result in the net VAT payable or due (as credit or refund). For these economies the compliance time to prepare and request a VAT refund is minimal because it simply requires ticking a box. Twenty-one of these economies are OECD high-income economies. Furthermore eight of the 14 economies where taxpayers will not face an audit – and therefore will not spend additional time complying with the requirements of the auditor – are OECD high-income economies. This partly explains the average low compliance time in the region (Figure 4).

In Germany, the Republic of Korea and the Netherlands, taxpayers request a VAT refund by simply ticking a box on the standard VAT return. Taxpayers do not need to submit any additional documents to substantiate the claim and it is unlikely that this specific case study scenario of a domestic capital purchase would trigger an audit. In all three economies, the standard VAT return is submitted electronically.

However, some economies require businesses to file a separate application, letter or form for a VAT refund or to complete a specific section in the VAT return as well as to prepare some additional documentation to substantiate the claim (for example, the contract with the supplier of the machine). This is the case in Azerbaijan, Bangladesh, Costa Rica, Cyprus, Mexico, Senegal, St. Lucia and Sweden, among others. In these economies businesses spend on average 5.2 hours gathering the required information, calculating the claim and preparing the refund application and other documentation before submitting them to the relevant authority.

The requirements in these cases vary from simply completing a specific section of the standard VAT return to submitting a specific refund application. In Switzerland, for example, taxpayers would need to complete a section of the VAT return. It takes taxpayers in Switzerland 1.5 hours to gather the necessary information from internal sources and to complete the relevant section. The VAT return is submitted electronically. In Moldova, however, taxpayers must submit a specific VAT refund form and it is highly likely that a field audit would be triggered by the refund request.

46

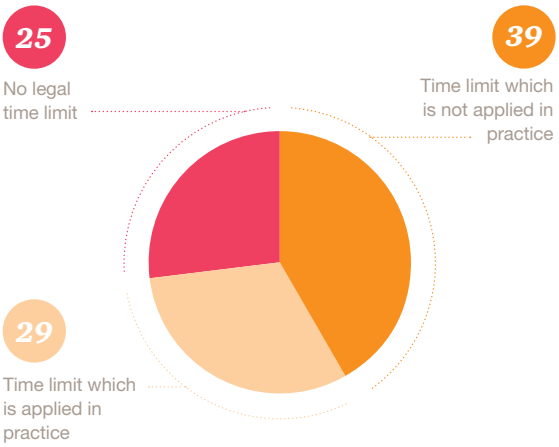
In 46 economies the VAT refund due is calculated and requested within the standard VAT return.

28

In only 28 of the 93 economies where a VAT refund is available, does a claim for a VAT refund not ordinarily lead to an audit being conducted.

Figure 3

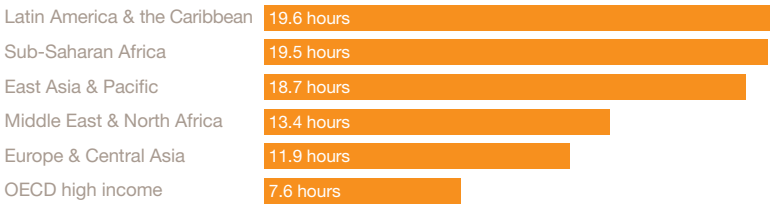
Legal time limits where VAT cash refunds are available (number of economies)



Source: *Doing Business* database

Figure 4

Complying with VAT refund processes is most challenging in Latin America and the Caribbean, followed closely by Sub-Saharan Africa



Source: *Doing Business* database
Note: South Asia is not included in the figure because VAT refunds are only available in one economy (Bangladesh)

[24] These economies are Austria; Barbados; Belize; Costa Rica; Croatia; Cyprus; Ethiopia; Finland; France; Germany; the Islamic Republic of Iran; Ireland; the Republic of Korea; Latvia; Lithuania; Malta; Netherlands; New Zealand; Papua New Guinea; Portugal; Samoa; Seychelles; Slovenia; Spain; Sweden; Switzerland; Taiwan, China; and the Republic of Yemen.

Completing a VAT refund process

A request for a VAT cash refund is likely to trigger an audit in 65 economies covered by *Doing Business*. As a general rule the refunds are paid upon completion of the audit and not at the end of the statutory period. This adds time and costs for businesses to comply with auditor requests and the payment of the cash refund is further delayed. Businesses in these economies spend on average 14.7 hours complying with the requirements of the auditor in terms of document preparation, engage in several rounds of interactions with the auditor that last on average 7.9 weeks and wait an additional 5.6 weeks until the final audit decision is made. As shown in Figure 5, of the 65 economies, businesses are likely to undergo a field audit in 34, a correspondence audit in 22 and an office audit in nine. Businesses subjected to a field audit would spend on average an additional 7 hours complying with the auditor's requirements compared to businesses subjected to a correspondence audit.

In Canada, Denmark, Estonia and Norway the request for a VAT refund is likely to trigger a correspondence audit, which requires less interaction with the auditor and less paperwork. By contrast, in most of the economies in Sub-Saharan Africa where an audit is likely to take place, taxpayers are exposed to a field audit in which the auditor visits the premises of the taxpayer. This is the case in Botswana, The Gambia, Malawi, Niger, Zambia and Zimbabwe.

The OECD high-income economies process VAT refunds most efficiently with an average of 14.4 weeks to reimburse a VAT refund (including some economies where an audit is likely to be conducted). Economies in Europe and Central Asia also perform well with an average refund processing time of 16 weeks (Figure 6). This implies that those economies provide refunds in a manner that is less likely to expose businesses to unnecessary administrative costs and detrimental cash flow impacts.

From the moment a taxpayer submits a VAT refund request in Austria, it takes only one week for the tax authority to issue a refund. And it is unlikely that the request would trigger an audit. The refund is processed electronically through online banking. In Estonia, despite the fact that the claim for a VAT refund per the case scenario is highly likely to trigger a correspondence audit, the process is efficient. The VAT refund is reimbursed in 1.7 weeks on average assuming the refund is approved. This includes the time spent by the taxpayer engaging with the auditor and the time waiting until the final tax assessment is issued.

65

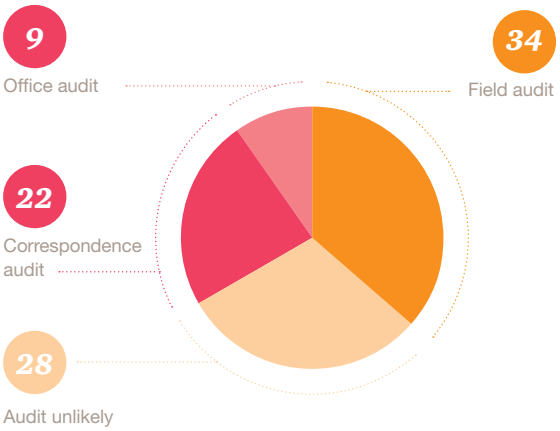
A request for a VAT cash refund is likely to trigger an audit in 65 economies.

7

Businesses subjected to a field audit would spend on average an additional 7 hours complying with the auditor's requirements compared to businesses subjected to a correspondence audit.

Figure 5

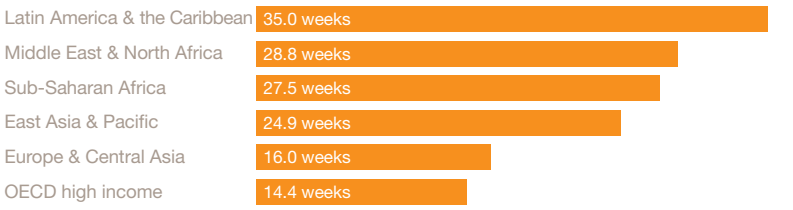
Types of audit triggered by a VAT refund (number of economies)



Source: *Doing Business* database

Figure 6

Time to obtain VAT refund (weeks) – the process of obtaining a VAT refund is most efficient in OECD high-income economies



Source: *Doing Business* database
Note: South Asia is not included in the figure because VAT refunds are only available in one economy (Bangladesh)

The experience in economies in other regions is less favourable. Obtaining a VAT refund in Latin America & the Caribbean takes on average 35 weeks. In the Middle East & North Africa and Sub-Saharan Africa it takes on average 28.8 and 27.5 weeks, respectively, to obtain a VAT refund. The sample for Latin America & the Caribbean includes only nine economies (the other economies do not allow for VAT cash refund per the case study scenario). The Middle East & North Africa sample consists of only six economies as most economies in the region do not levy any type of consumption tax. However, in Sub-Saharan Africa the story is different: the refund waiting time is longer because in most of the economies in the region where cash refund is allowed, taxpayers are likely to be audited before the refund is approved.

Why are some refund processes more efficient?

The efficiency of the VAT refund process in OECD high-income economies is partly attributable to the commitment of all OECD members to apply the OECD International VAT Guidelines.[25] Furthermore, the binding nature of the 2010 European Union (EU) Directives on VAT implementation ensures that refunds are processed fully and efficiently.

A major determinant of the ability of revenue authorities to provide good standards of service for the repayment of VAT refund claims is the availability and use of modern electronic services (such as electronic filing, pre-population and direct crediting of VAT refunds). VAT refunds are paid electronically in only 30 economies covered by *Doing Business*. Delays in VAT refund payments may arise if, for example, the finance division that is tasked with checking and approving the claim is forced to make additional procedural checks to guard against fraud before payment is made.[26]

Laws provide for interest to be paid on late VAT refunds by the tax authorities in 70 economies covered by *Doing Business*. However, the payment of interest is always applied in practice in only 32 economies. The prescribed interest period typically begins when the tax authority fails to refund VAT within the prescribed statutory deadlines.

There is a positive correlation between the time to comply with a VAT refund process and the time to comply with filing the standard VAT return and payment of VAT liabilities (Figure 7). This suggests that spending time up front to comply with the requirements of the tax system does not necessarily translate into an easier time post-filing. Indeed, in economies with tax systems that are more difficult to comply with when filing taxes, the entire process is more likely to be challenging.

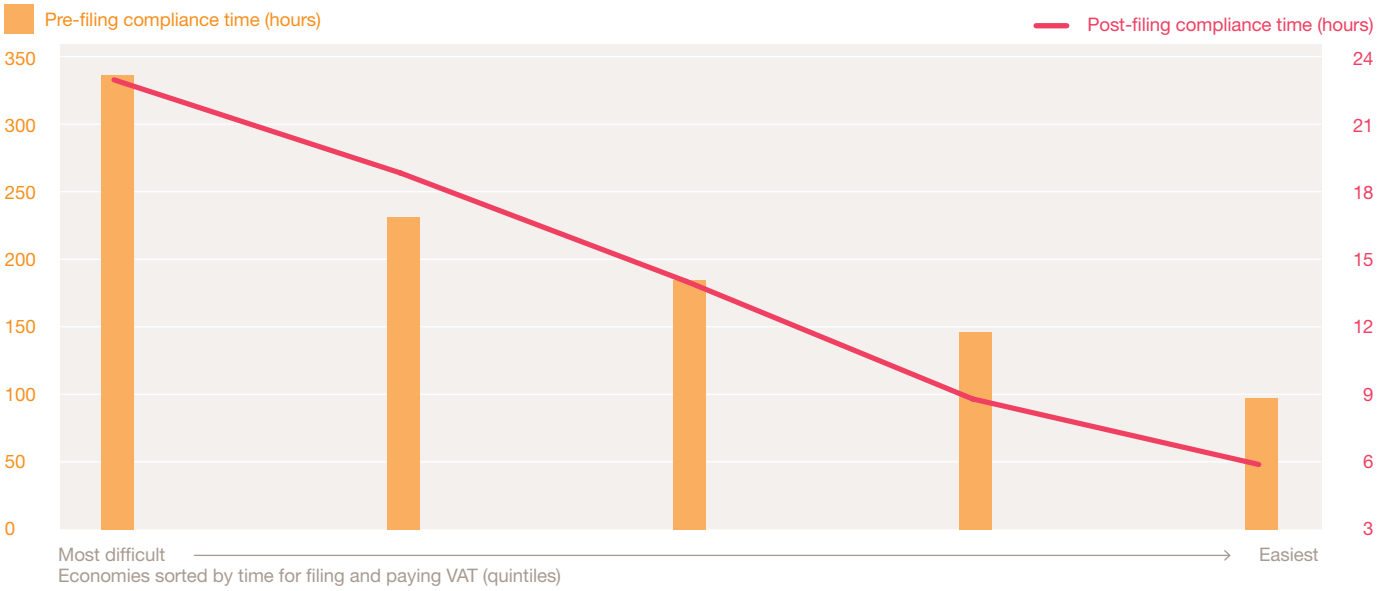
30

VAT refunds are paid electronically in only 30 economies.

In economies with tax systems that are more difficult to comply with when filing taxes, the entire process is more likely to be challenging.

Figure 7

Economies with complex VAT post-filing processes also tend to have high compliance times for VAT pre-filing



Source: *Doing Business* database

[25] OECD (Organisation for Economic Co-operation and Development). 2014. "International VAT/GST Guidelines." Global Forum on VAT. 17-18 April. OECD, Paris. Available at: http://drtp.ca/wp-content/uploads/2015/09/oecd-international-vat-gst-guidelines.pdf.
[26] Child, David. 2008. "VAT Administration: Addressing Private Sector Concerns." In VAT in Africa, edited by Richard Krever. Pretoria: Pretoria University Law Press.

Why does the post-filing index include corporate income tax audits?

A tax audit is one of the most sensitive interactions between a taxpayer and a tax authority. Although tax audits have a role in ensuring tax compliance, they impose a burden on the taxpayer to a greater or lesser extent depending on the number and type of interactions (field visit by the auditor or office visit by the taxpayer) and the level of documentation requested by the auditor. It is therefore essential that the right legal framework is in place to ensure integrity in the way tax authorities carry out audits.[27] Additionally, an audit must have defined start and end points and the taxpayer must be notified once the audit process is completed.

A risk-based approach takes into consideration different aspects of a business such as historical compliance, industry characteristics, debt-credit ratios for VAT-registered businesses and firm size. Characteristics of firms are also used to better assess which businesses are most prone to tax evasion. One study showed that data-mining techniques for auditing, regardless of the technique, captured more noncompliant taxpayers than random audits.[28] In a risk-based approach the exact criteria used to capture noncompliant firms, however, should be concealed to prevent taxpayers from purposefully planning how to avoid detection and to allow for a degree of uncertainty to drive voluntary compliance.[29] Most economies have risk assessment systems in place to select companies for tax audits and the basis on which these companies are selected is not disclosed. Despite being a post-filing procedure, audit strategies set by tax authorities can have a fundamental impact on the way businesses file and pay taxes.

The CIT audit scenario for *Paying Taxes*

To analyse audits of direct taxes, a supplementary *Doing Business* case study scenario was created to assume that TaxpayerCo. made a simple error in the calculation of its income tax liability, leading to an incorrect corporate income tax return and consequently an underpayment of income tax liability due. TaxpayerCo. discovered the error and voluntarily notified the tax authority.

Correcting a CIT return and complying with an audit

In all economies that levy corporate income tax – only 10 out of 190 do not – taxpayers can notify the authorities of the error, submit an amended return and any additional documentation (typically a letter explaining the error and, in some cases, amended financial statements) and pay the difference immediately. On average, businesses spend six hours preparing the amended return and any additional documents, submitting the files and making payment.

In 74 economies – even following immediate notification by the taxpayer – the error in the income tax return is likely to trigger an audit. On average taxpayers will spend 24.7 hours complying with the requirements of the auditor, spend 10.6 weeks going through several rounds of interactions with the auditor and wait 6.7 weeks for the auditor to issue the final decision on the tax assessment.

6

On average, businesses spend six hours preparing the amended return and any additional documents, submitting the files and making payment.

24.7

On average taxpayers will spend 24.7 hours complying with the requirements of the auditor, spend 10.6 weeks going through several rounds of interactions with the auditor and wait 6.7 weeks.

[27] OECD (Organisation for Economic Co-operation and Development). 2006. "Strengthening Tax Audit Capabilities: General Principles and Approaches." OECD, Center for Tax Policy and Administration, Paris, France: OECD.
[28] Gupta, M., and V. Nagadevara. 2007. "Audit Selection Strategy for Improving Tax Compliance–Application of Data Mining Techniques." In Foundations of E-government, edited by A. Agarwal and V. Venkata Ramana. Hyderabad, India: Computer Society of India.
[29] Alm, James and Michael McKee. 2006. "Audit Certainty, Audit Productivity, and Taxpayer Compliance." Andrew Young School of Policy Studies Research Paper 2006-43. Available at Social Science Research Network (SSRN). http://ssrn.com/abstract=897341. Khwaja, Munawer Sultan, Rajul Awasthi and Jan Loeprick. 2011. Risk-Based Tax Audits: Approaches and Country Experiences. Washington DC: World Bank

In 38 economies this error will lead to a comprehensive audit of the income tax return, requiring that additional time be spent by businesses. And in the majority of cases the auditor will visit the taxpayer's premises. OECD high-income economies as well as Europe & Central Asia economies have the easiest and simplest processes in place to correct a minor mistake in the income tax return (Figure 8). A mistake in the income tax return does not automatically trigger an audit by the tax authorities in 25 OECD high-income economies. Taxpayers need only to submit an amended return and, in some cases, additional documentation and pay the difference in balance of tax due. In Latin America & the Caribbean taxpayers suffer the most from a lengthy process to correct a minor mistake in an income tax return. In most cases this process will involve an audit imposing a waiting time on taxpayers until the final assessment is issued (Figure 9).

In Portugal and Estonia, taxpayers must only submit an amended tax return and make the necessary payment at the moment of submission. It takes taxpayers half an hour to prepare the amended return and another half an hour to submit it electronically. The payment is also made online. In these economies, the case study scenario of a minor mistake in the income tax return is not likely to trigger an audit. In New Zealand, taxpayers must submit a specific voluntary disclosure form – which takes on average three hours to prepare – with the submission and payment being made electronically. Similarly, taxpayers are unlikely to be exposed to an audit in the case measured in *Doing Business*.

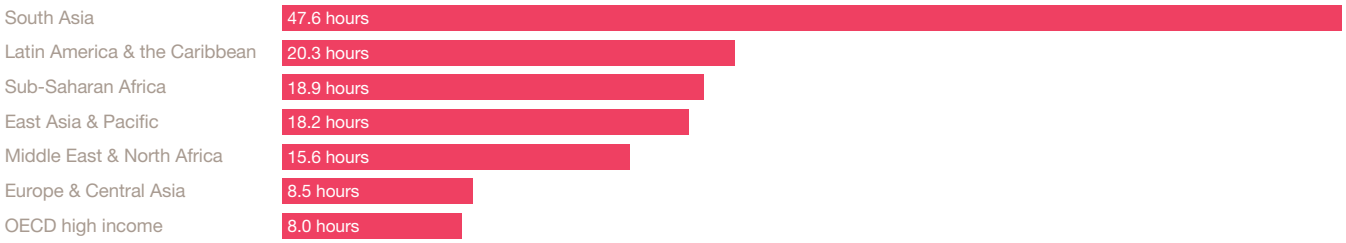
In Brazil, Honduras, Nicaragua and Peru the fact that taxpayers erroneously declared and underpaid their income tax liability would likely trigger a field audit by the tax authorities. In Peru taxpayers will undergo a comprehensive audit of all items on the income tax return, requiring interaction with the auditor for around six weeks and waiting an additional seven weeks for the auditor to issue the final assessment.

38

In 38 economies the corporate income tax error will lead to a comprehensive audit of the income tax return, requiring that additional time be spent by businesses.

Figure 8

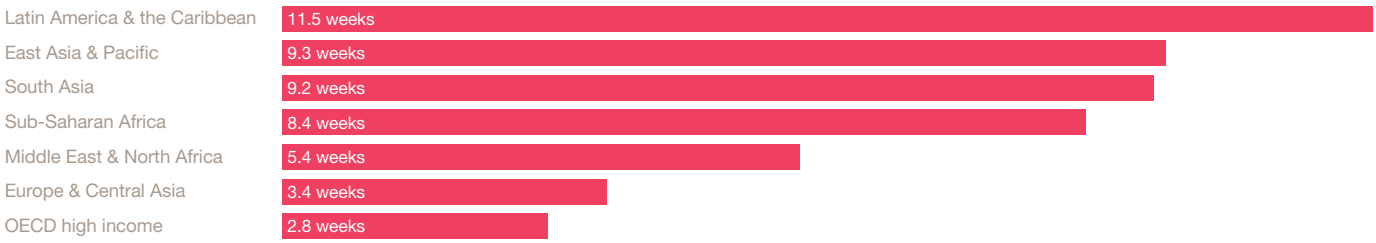
Correcting an income tax return is easiest in OECD high-income economies, followed closely by Europe & Central Asia economies



Source: *Doing Business* database

Figure 9

The audit time resulting from a simple mistake in an income tax return is the longest in Latin America & the Caribbean



Note: The averages include those economies where the correction is unlikely to trigger an audit and which therefore have an audit time of zero.
Source: *Doing Business* database

Administrative tax appeals

Tax disputes are common in any tax system. Disputes between a tax authority and taxpayers must be resolved in a fair, timely and efficient manner.[30] In the first instance, taxpayers should attempt to settle their final tax assessment with the tax authority. If a dispute continues, however, taxpayers should have the opportunity – within a prescribed period of time – to seek resolution from a special administrative appeal board or department. The creation of boards of appeal within tax administrations is considered by the OECD as an effective tool for addressing and resolving complaints and avoiding the overburdening of the courts.[31] A serious backlog of tax cases threatens revenue collection.[32]

Resolving tax disputes in a way that is independent, fast and fair is important. The IMF's TADAT tool also assesses the adequacy of tax dispute resolution by looking at whether an appropriately graduated mechanism of administrative and judicial review is available, whether the administrative review mechanism is independent of the audit process and whether information on the appeal process is published. An internal administrative review process must safeguard a taxpayer's right to challenge an assessment resulting from a tax audit. The process should be based on a legal framework that is known by taxpayers, is easily accessible and independent and resolves disputed matters in a timely manner. Internal reviews can be achieved through a separate appeals division, a senior official that does not directly supervise the original case auditor or a new auditor with no previous knowledge of the case. Operational manuals should be developed, decisions should be published and annual appeal statistics should be reported – helping to create a positive public perception of the tax administration's integrity.

Through the *Paying Taxes* indicators, *Doing Business* conducts research on what kind of first level administrative appeal process exists in an economy following a corporate income tax audit where a taxpayer disagrees with the tax authority's final decision. The data on first level administrative appeal process are not included in the distance to frontier score for *Paying Taxes*. In 123 economies the first level administrative appeal authority is an independent department within the tax office (Figure 10).

Appeal guidelines are available to taxpayers either through a printed publication, online or in person at the tax office in the 171 of the 180 economies covered by *Doing Business* that levy corporate income tax. In 102 economies the legal framework imposes timeframes on the taxpayer and the appeal authority for each stage of the appeal process. In only 47 economies, however, respondents reported that the time limits are consistently applied in practice.

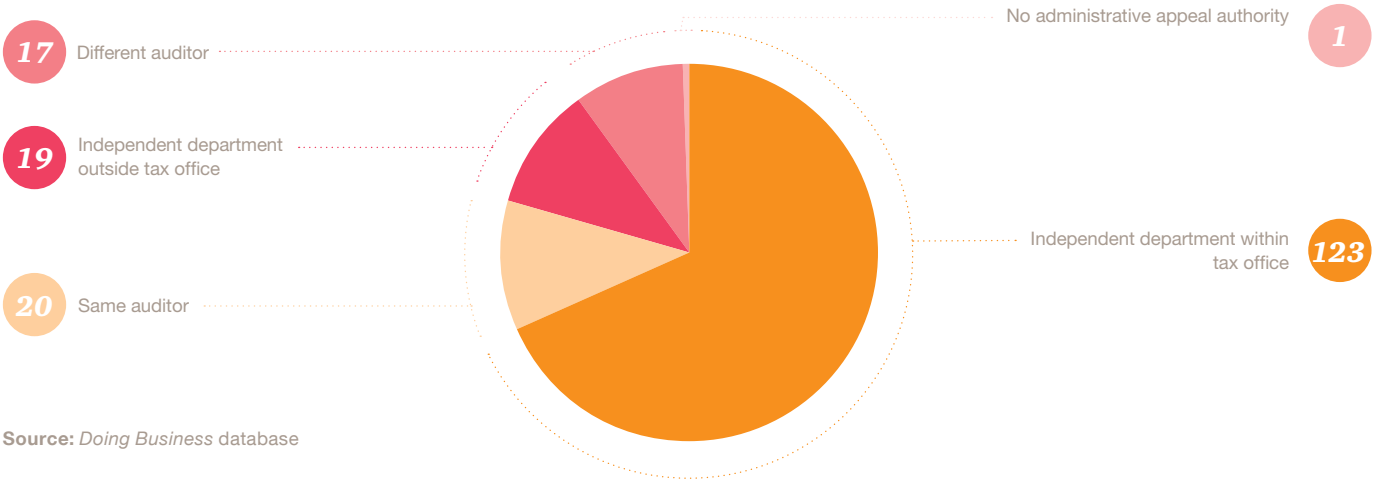
In Chile a taxpayer can appeal to the regional director of the Chilean Internal Revenue Service (SII) following a corporate income tax audit where the taxpayer disagrees with the tax authority's final decision. Guidelines on how to appeal the decision and the timeframe to conclude the process are easily accessible to the public through the SII's website. By law, the Chilean Tax Code sets a time limit of 50 days for the SII's regional director to issue a decision on the appeal. This time limit is applied in practice.

47

In only 47 economies, however, respondents reported that the time limits for appeals are consistently applied in practice.

Figure 10

Most economies have an independent department within the tax office for taxpayer appeals (number of economies)



Source: *Doing Business* database

[30] Thuronyi, Victor. 2003. "How Can an Excessive Volume of Tax Disputes Be Dealt With?" Legal Department, International Monetary Fund, Washington, DC.
[31] OECD (Organisation for Economic Co-operation and Development). 2010. "Chapter 6: Compliance, Enforcement, Appeals." In Better Regulation in Europe. Paris, France: OECD.
[32] Gordon, Richard. 1996. "Chapter 4: Law of Tax Administration and Procedure." In Tax Law Design and Drafting, edited by Victor Thuronyi. Washington, DC: International Monetary Fund.

Conclusion

Little is known about the tax compliance cost of post-filing procedures. This analysis is therefore intended to generate new research to better understand firms' decisions and the dynamics in developing economies, to highlight which processes and practices work – and which do not – and, eventually, to induce governments to reform and enhance their post-filing processes.

The new indicator on the adequacy of post-filing processes provides policy makers who are dealing with the challenge of designing an optimal tax system with a broader dataset that allows them to benchmark their economy against others on the administrative burden of complying with post-filing procedures.

This analysis is intended to generate new research to better understand firms' decisions and the dynamics in developing economies.

Authors

This case study was written by Emily Jane Bourke, Joanna Nasr, Nadia Novik and Rodrigo A. Sarmento de Beires.

Chapter 2 – PwC commentary

This chapter starts with a consideration of the three original sub-indicators of Total Tax Rate, time to comply and the number of payments. We look at significant changes in the global averages for sub-indicators over the last year and at the trends since 2004. We also look at how they compare between regions.

We then focus on the new post-filing index, comparing how the different geographic regions perform on each component of the index, and on the overall index. We also examine the differences in the post-filing processes exhibited by economies in different income groupings.

The averages for the original three Paying Taxes sub-indicators have continued to fall in the most recent year.

The global results

On average around the world in 2015 our case study company paid taxes amounting to 40.6% of its commercial profit, took 251 hours to prepare, file and pay its three main taxes and had a number of payments sub-indicator of 25.0. As shown in Figure 11, the averages for these three *Paying Taxes* sub-indicators have continued to fall in the most recent year. The rate of decline for the compliance sub-indicators has increased compared to the previous year.

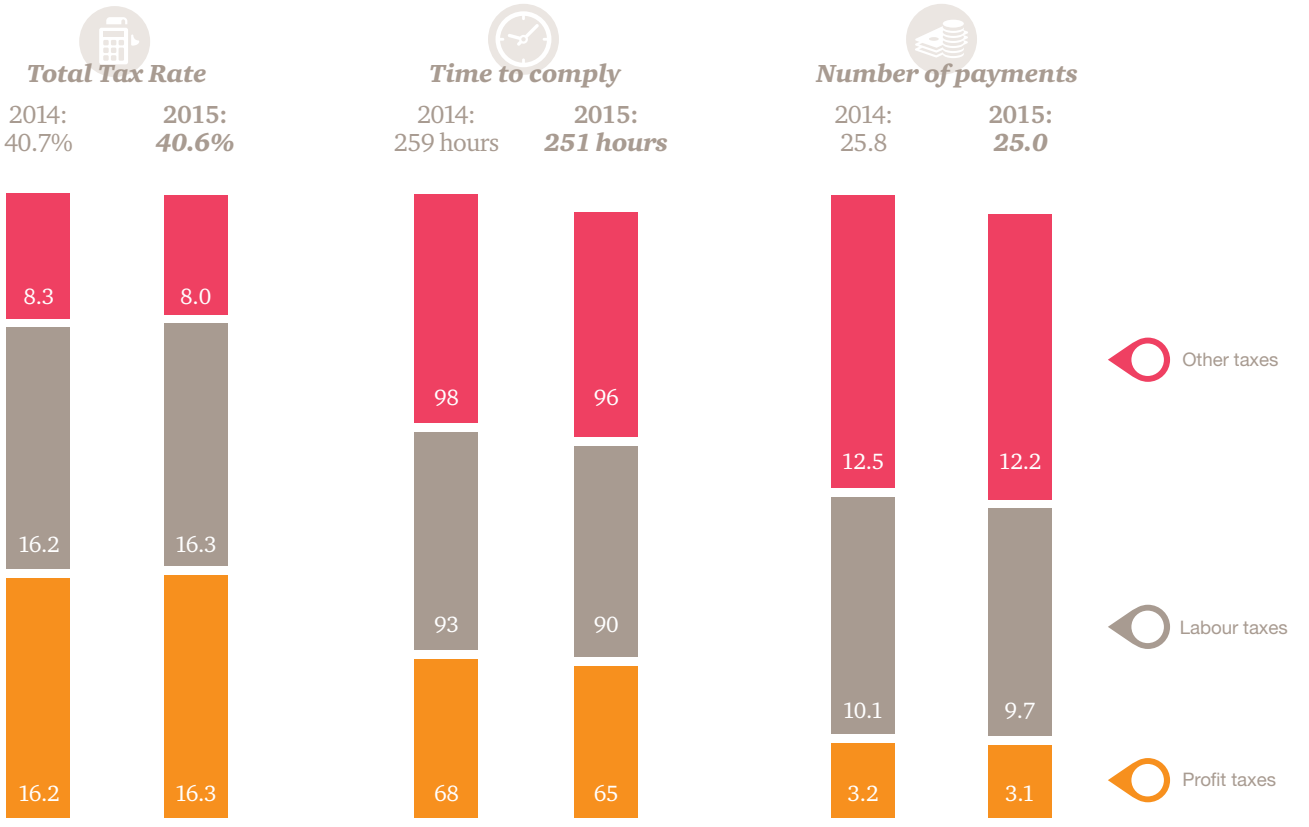
Down ***0.1%***

Down ***8 hours***

Down ***0.8 payments***

Figure 11

The global results



Source: PwC *Paying Taxes 2017* analysis.

Total Tax Rate

In 2015, the Total Tax Rate fell by 0.1 percentage points, reinforcing the trend seen in previous years that overall the rate has stabilised.[33] The small decrease in the Total Tax Rate masks a varied underlying picture as 44 economies actually increased their Total Tax Rate in the year while 38 economies implemented measures which caused their Total Tax Rate to fall.

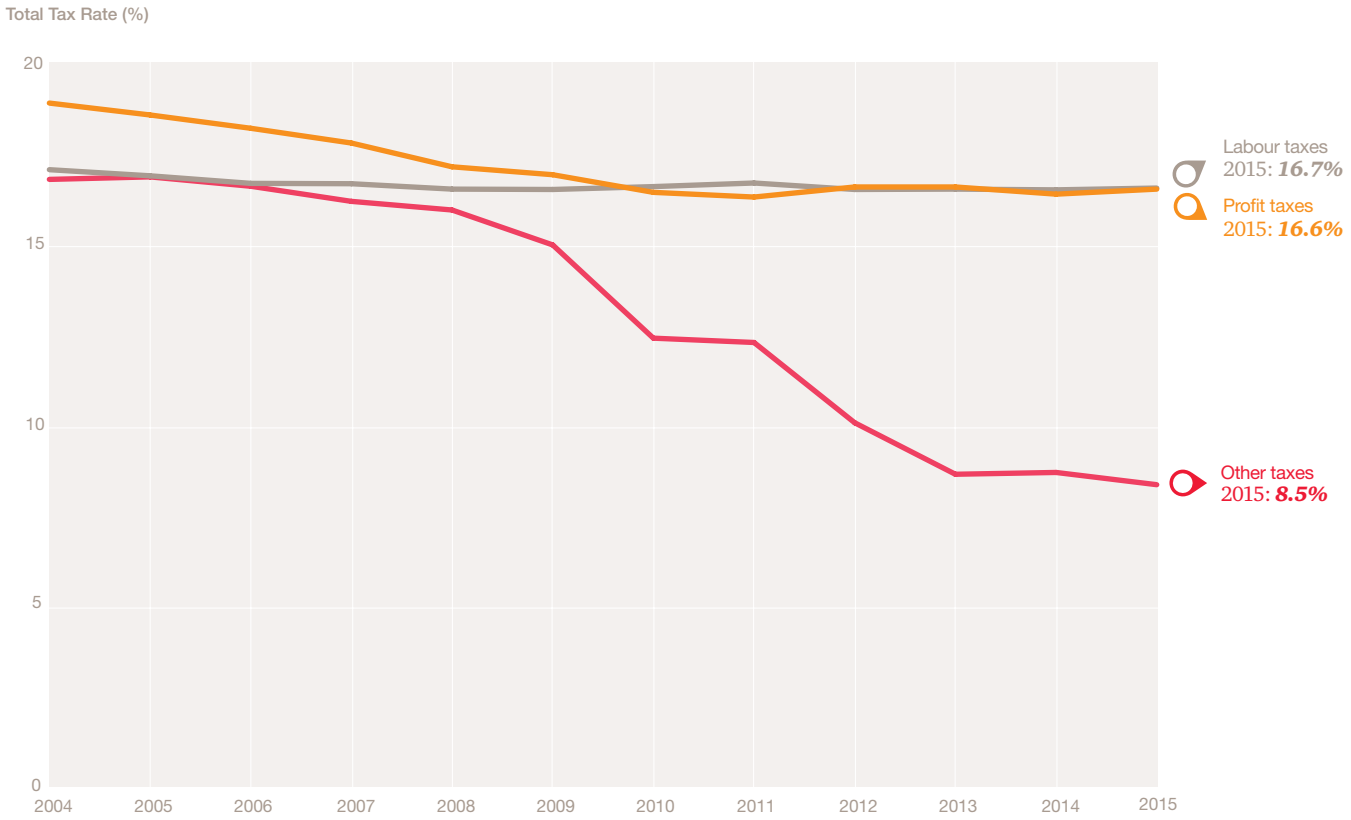
While tax competition clearly still exists in the international tax system, governments are making a variety of choices as to how they use their tax systems to raise the tax revenues they need to fund public finances. For example, Chile increased its statutory corporate income tax rate from 21% in 2014 to 22.5% in 2015 and it will increase further in both 2016 and 2017, while Denmark did the reverse, reducing its statutory rate of corporate income tax from 24.5% to 23.5%. We also see the overall rate of social security payments for employers being raised from 17% to 18% in Nicaragua, whereas Romania chose to cut its social security rate from 20.8% to 15.8%. Another good example of how the picture varies is in 'other taxes' where South Africa's property tax increased from 1.7% to 1.8% while in Canada it was reduced from 2.9% to 2.8%.

The taxes which have been adjusted most by governments in the last year are corporate income tax and social security contributions. The EU & EFTA region was most active, with 21 out of 32 economies changing their Total Tax Rates. In comparison, in the Middle East region, only three economies (out of 13) changed their Total Tax Rates.

Figure 12 shows the 11 year trend for the three tax categories within the Total Tax Rate. The rate for all three has fallen since 2004. 'Other' taxes continue to account for the smallest proportions of the Total Tax Rate with the remainder shared broadly equally between profit and labour taxes, as has been the case since 2012. Interestingly, the average rate for both profit and labour taxes increased slightly in 2015, while the rate for other taxes has fallen this year after a small increase in the previous year.

Figure 12

Movement in global average Total Tax Rate by type of tax



Note: *Paying Taxes 2017* considers 190 economies. Analysis of historical trend data considers only the 174 economies that have been included in the study since *Paying Taxes 2007*.
Source: PwC *Paying Taxes 2017* analysis.

[33] 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 China, Shanghai recorded an increase of 0.5% in the Total Tax Rate, whereas Beijing's Total Tax Rate did not change.

Biggest decreases in the Total Tax Rate

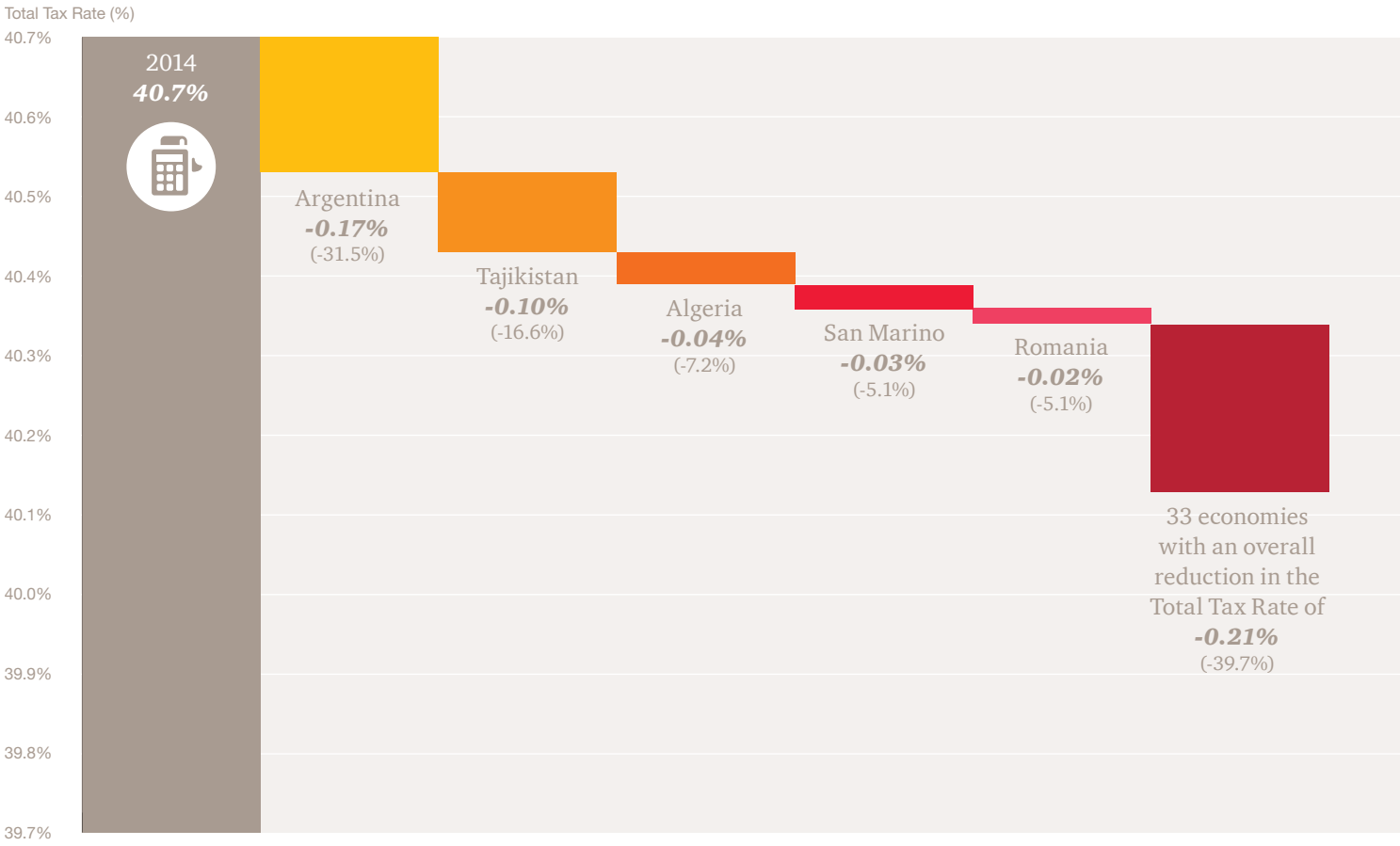
As shown in Figure 13, **Argentina was the economy with the largest reduction in its Total Tax Rate** for the case study company. It fell by 31.5 percentage points to 106.0% as the threshold for the 5% rate of turnover tax was raised to ARS49 million. Since the case study company's turnover was ARS46 million, it now falls into the lower 3% band for turnover tax. In Argentina, profit taxes now account for only 4% of the its Total Tax Rate while other taxes account for 69%.

Other significant reductions in the Total Tax Rate were:

- **Tajikistan's Total Tax Rate** fell by 16.6 percentage points to 65.2% as a result of halving the road tax rate from 2% to 1%. The reduction was partially offset by the increase in the rate of land tax from TJS 722 to TJS 804 per hectare. While regulations were finally implemented in 2015 which reduced the corporate income tax rate for the manufacturing sector from 15% to 14%, there was no impact on the Total Tax Rate as the case study company is subject to a minimum tax rather than corporate income tax.
- **The Total Tax Rate in Algeria** fell by 7.2 percentage points to 65.6% due to a decrease in tax on commercial activities ('Taxe sur l'Activité Profissionelle') from 2% to 1% of turnover.
- **San Marino's Total Tax Rate** fell by 5.1 percentage points to 35.4% as newly incorporated companies can benefit from a 50% corporate income tax reduction for the first six years of business activity.
- **The Total Tax Rate in Romania** fell by 3.6 percentage points to 38.4% as the rate of social security contributions paid by employers was reduced from 20.8% to 15.8%.

Figure 13

Significant decreases in the global average Total Tax Rate (as explained by movements in the individual economies)



Source: PwC *Paying Taxes 2017* analysis.

Biggest increases in the Total Tax Rate

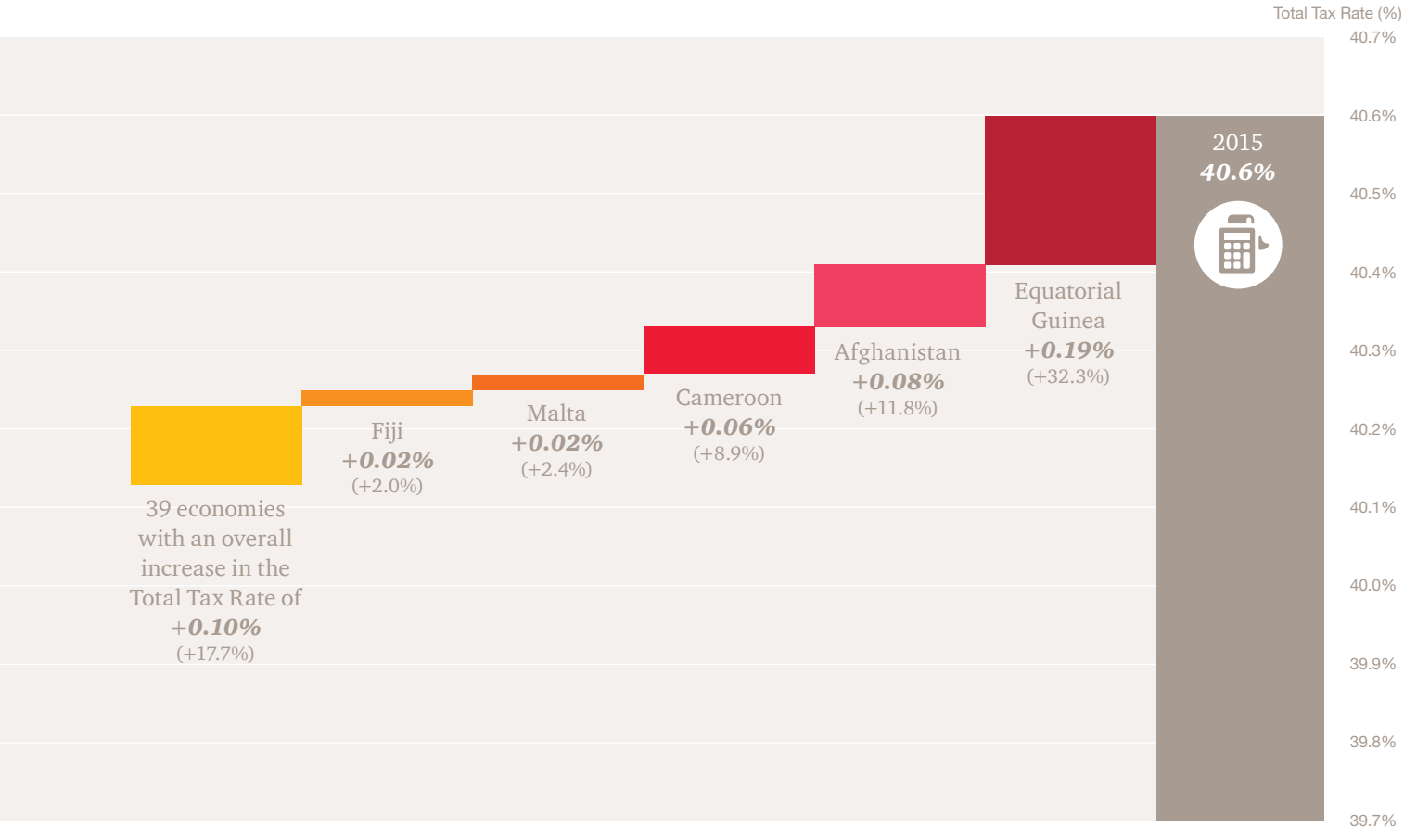
Equatorial Guinea had the biggest increase in the Total Tax Rate in the world, as shown in Figure 14. It increased by 32.3 percentage points to 79.4% as a result of raising the minimum corporate income tax from 1% to 3% of turnover. As a result, profit tax now accounts for 67% of the country's Total Tax Rate, compared to 44% in 2014. This is the main driver for the 0.6 percentage point increase in Total Tax Rate observed for the Africa region.

Other large increases in the Total Tax Rate were as follows:

- An increase of 11.8 percentage points to 48.3% in **Afghanistan** due to the rate of business receipt tax levied on income from profit generating activities doubling from 2% to 4%.
- An increase of 8.9 percentage points to 57.7% in **Cameroon** as the minimum corporate income tax rate was doubled from 1% to 2%. This was partially offset by a reduction in the statutory rate of corporate income tax from 35% to 30%.
- An increase of 2.4 percentage points to 43.8% in **Malta** as the capital gains tax on the sale of immovable property situated in Malta was replaced by a property transfer tax levied at a higher rate of 8% on the property value, the social security contributions paid by employers also increased slightly and a new maternity leave fund contribution was introduced.
- An increase of 2.0 percentage points to 33.1% in **Fiji** because the superannuation fund contribution paid by employers was increased from 8% to 10% of gross salaries and a change in tax authority's position to impose both corporate income tax and withholding tax on interest incomes.

Figure 14

Significant increases in the global average Total Tax Rate (as explained by movements in the individual economies)



Regional comparison of the Total Tax Rate

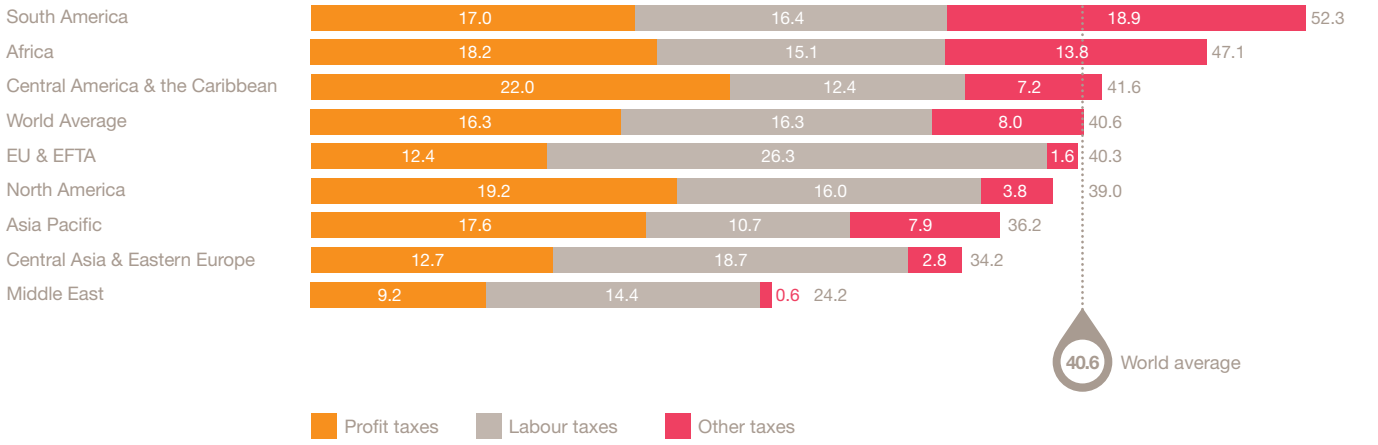
As shown in Figure 15 South America is the region with the highest Total Tax Rate and the Middle East is the region with the lowest Total Tax Rate. The order of the regions has not changed since last year despite movements in the Total Tax Rates of the different regions. For four of the regions, the Total Tax Rate has decreased, with South America recording the largest reduction of 2.7 percentage points. Central Asia & Eastern Europe (1.0 percentage points), EU & EFTA (0.4 percentage points), and Central America & the Caribbean (0.4 percentage points) also recorded reductions. Africa exhibited the largest increase in Total Tax Rate at 0.6 percentage points, whilst Asia Pacific (0.4 percentage points) and North America (0.1 percentage points) also recorded small increases.

2.7

South America recorded the largest Total Tax Rate reduction of 2.7 percentage points.

Figure 15

Regional comparison of the Total Tax Rate (%)



Source: PwC *Paying Taxes 2017* analysis.

Time to comply

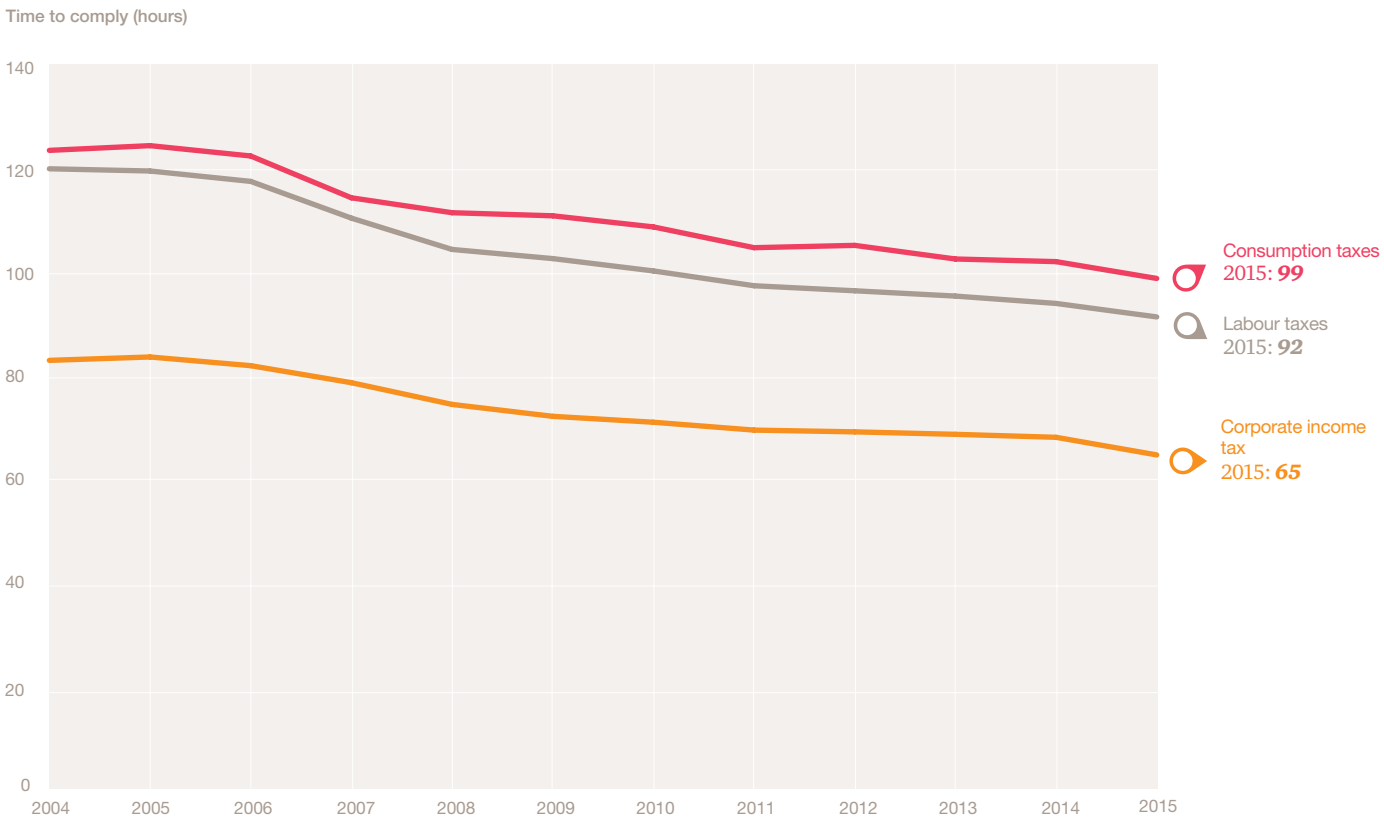
The global average for time to comply has reduced significantly by 8 hours compared to a 5 hour reduction last year. The reduction was spread evenly across the three taxes covered as shown in Figure 16. The overall movement is the result of decreases in the time to comply for 41 economies and increases for 22 economies.

Improvements in electronic tax systems and in information technology more generally continue to play a key role in reducing the time needed by taxpayers to file and pay taxes. In economies where electronic filing and payment have already been implemented, efforts continue to improve the systems further, for example by fixing bugs or integrating tax systems with accounting systems to reduce preparation time. In addition, some economies like Kenya and Fiji have reduced the administrative work required to prepare and file tax returns by simplifying or cutting the number of tax procedures, by allowing taxes to be filed and paid jointly, and by requiring taxpayers to submit less information and fewer supporting documents.

Where the time to comply increased, this was largely due to the introduction of new taxes (e.g. in The Bahamas and Malaysia). When a new tax is introduced, there is inevitably a period of time when processes take longer while businesses understand and get used to the new regulations. As these processes become integrated into day to day compliance and as teething issues are resolved, it is likely that the time needed to comply with the new tax will fall. Other increases in the time to comply arose from amendments to existing tax regulations which required taxpayers to perform additional administrative work (such as using new forms or systems or filing more frequently). There were also instances of increased audit activity by tax authorities.

Figure 16

Movement in the global average time to comply by tax type



Note: *Paying Taxes 2017* considers 190 economies. Analysis of historical trend data considers only the 174 economies that have been included in the study since *Paying Taxes 2007*.
Source: PwC *Paying Taxes 2017* analysis.

Biggest decreases

Brazil, **Vietnam**, **Senegal**, **Algeria**, and **Albania** recorded the largest reductions in their time to comply as shown in Figure 17.

Brazil reduced its time by 562 hours to 2,038, the biggest reduction of any economy. This resulted from electronic systems being used more widely for filing, preparing, and paying all of its main taxes; VAT, taxes related to corporate income and social security contributions. Also, certain VAT and corporate income tax returns were eliminated as well as other ancillary obligations. As explained on page 40, this is the first time that the time to comply for Brazil has fallen since the *Paying Taxes* study began, but the country still has the highest time to comply. The reduction in time to comply for Brazil is the result of electronic systems that were introduced some years ago having now bedded down resulting in more efficient tax compliance processes with more improvements expected in the future.

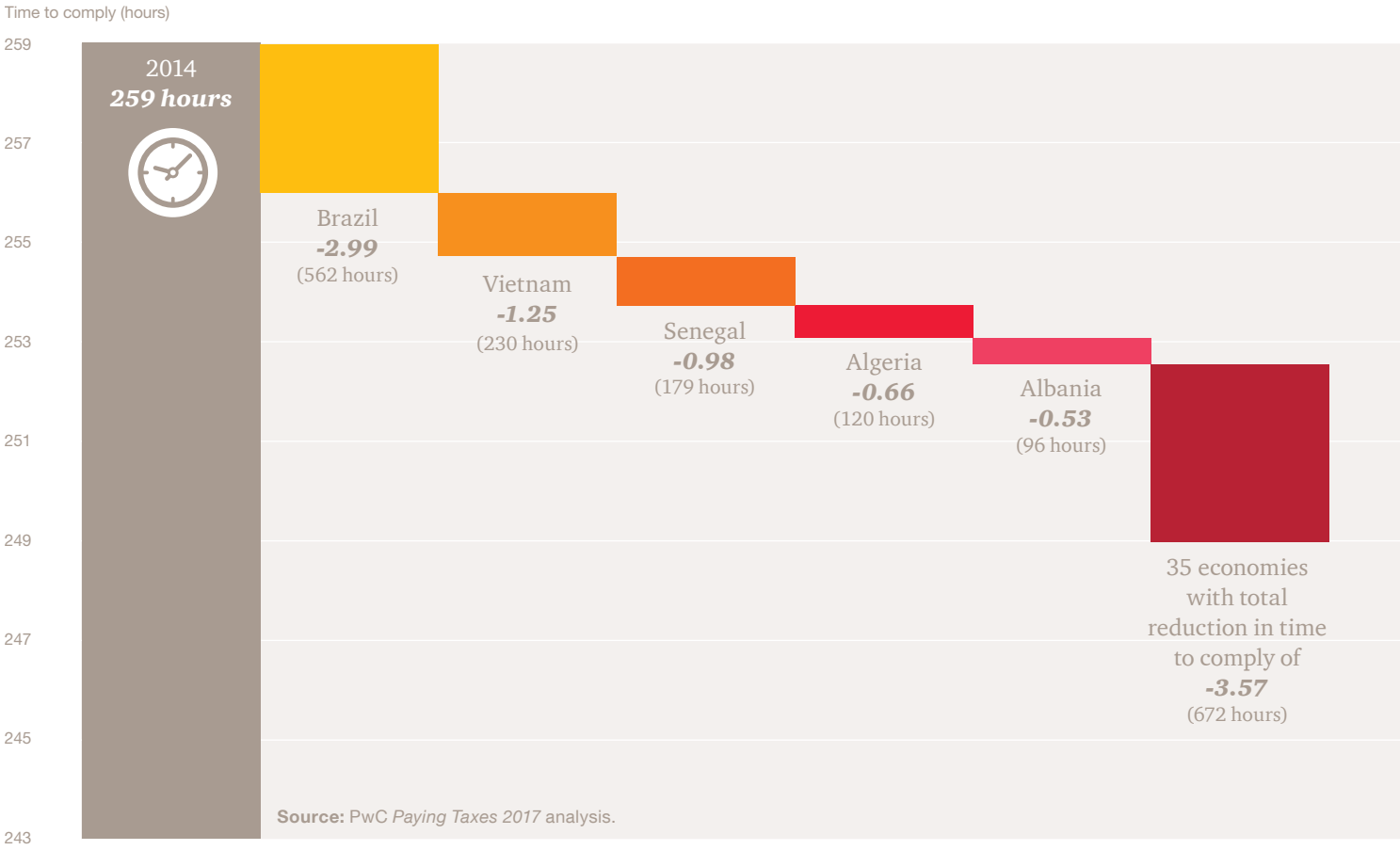
Vietnam continued to implement measures that reduced the time to comply, and in 2015 recorded the second greatest reduction of the economies in the study. The time dropped by 230 hours to 540 hours. The reduction was seen across all three types of tax as follows:

- Labour tax time fell by 84 hours as procedures for social security were reduced, fewer supporting documents were required, new software was introduced, rules for calculating the tax liability were simplified and taxpayers can now use email to communicate with the tax authorities.
- VAT time fell by 74 hours as the company can now file on a quarterly rather than a monthly basis, procedures to comply with VAT obligations were simplified, and fewer supporting documents are now required.
- Corporate income tax time fell by 72 hours as, instead of a requirement to file quarterly, the tax return is now filed annually. Also various adjustments to accounting figures that were required for tax purposes were eliminated, and efforts were made to align tax and accounting rules.

Other significant reductions in time to comply were seen in **Senegal** (179 hours), **Algeria** (120 hours), and **Albania** (96 hours). In Senegal and Algeria, the reduction was due to improvements made to the accounting systems used for preparing and filing taxes, while Albania decreased its time by upgrading the information technology infrastructure, requiring businesses to file VAT, CIT and labour contributions online, and integrating its tax platform with accounting software.

Figure 17

Significant decreases in the global average time to comply (as explained by movements in the individual economies)



Biggest increases

Figure 18 shows that **the time to comply increased most in The Bahamas**, by 175 hours to 233 hours. A VAT system was introduced which requires monthly filing for our case study company. Even though the tax was introduced with electronic systems, as it is new, there is inevitably a transition period while businesses understand and get used to the new system. Additionally, in The Bahamas, there was an increase in the time required to comply with social security contributions. The contributions are now paid and filed monthly, but more time is spent re-entering data as the online form does not permit information to be saved and rolled forward from month to month.

Malaysia's time to comply increased by 46 hours to 164 hours. This was the second largest increase in time across the economies in the study. Malaysia has replaced its sales tax with a goods and services tax system. As discussed elsewhere in this publication (see Chapter 4) goods and services taxes can offer advantages over a sales tax. Similar to the experience in The Bahamas, it may be some time until businesses fully understand the new tax system and are able to comply with it in the most efficient way.

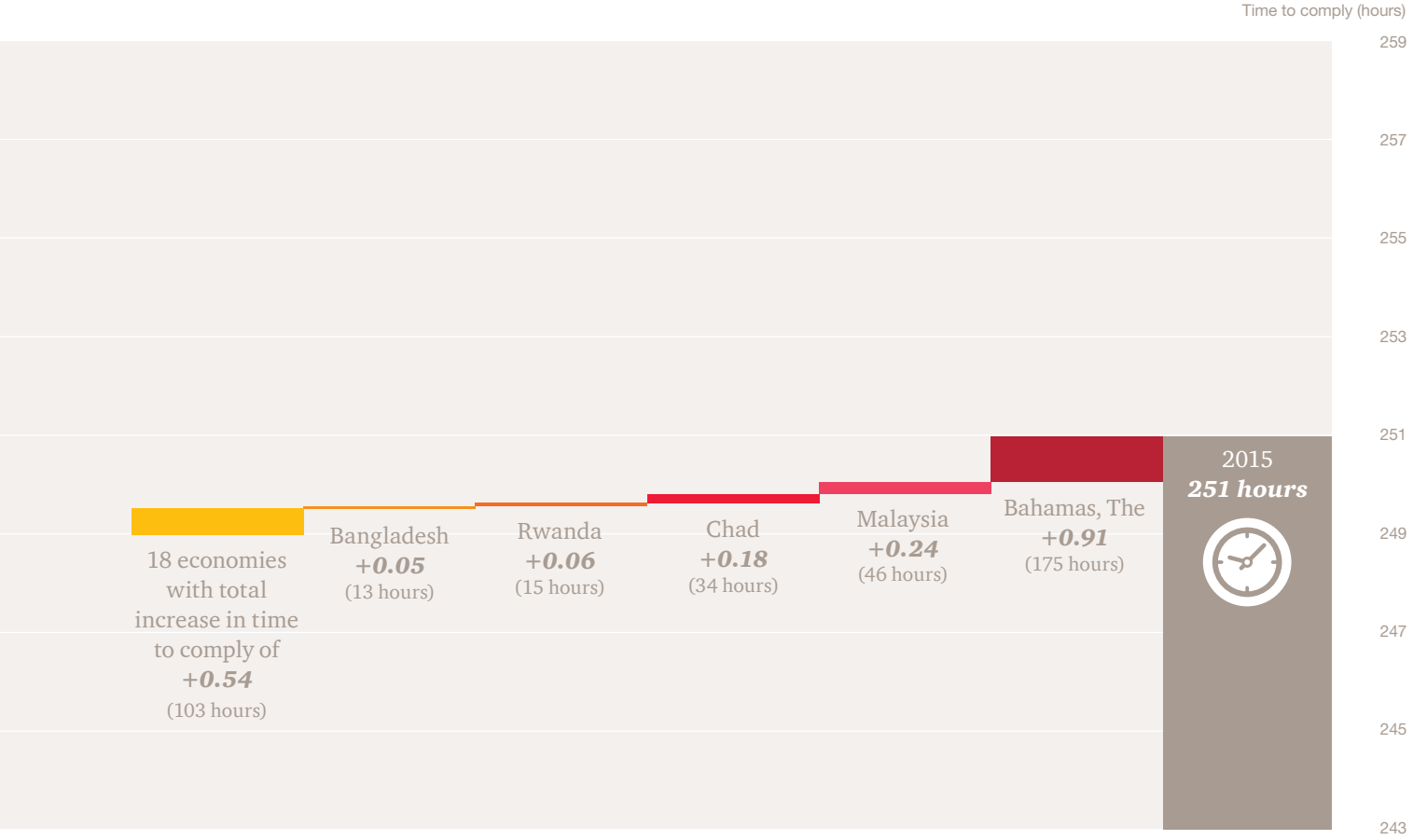
As the goods and services tax can be filed and paid online there are already some efficiencies inherent in the new tax system. Improvements were also made in the period to the system for paying and filing employment provident fund contributions.

Chad introduced a new tax management system which requires taxpayers to visit the tax authority's office after they have filed the tax returns to obtain a notice of tax assessment before they can make VAT and corporate income tax payments. They must visit the tax authority's office again to collect tax payment receipts. This added 34 hours to the time to comply.

Rwanda and **Bangladesh** have additional time to comply of 15 hours and 13 hours respectively. Rwanda now requires employers to submit social security returns on a monthly basis instead of quarterly, while Bangladesh now scrutinises the taxpayer's VAT calculation and documentation more rigorously, which prompted taxpayers to spend more time checking their tax calculations and documentation.

Figure 18

Significant increase in the global average time to comply (as explained by movements in the individual economies)



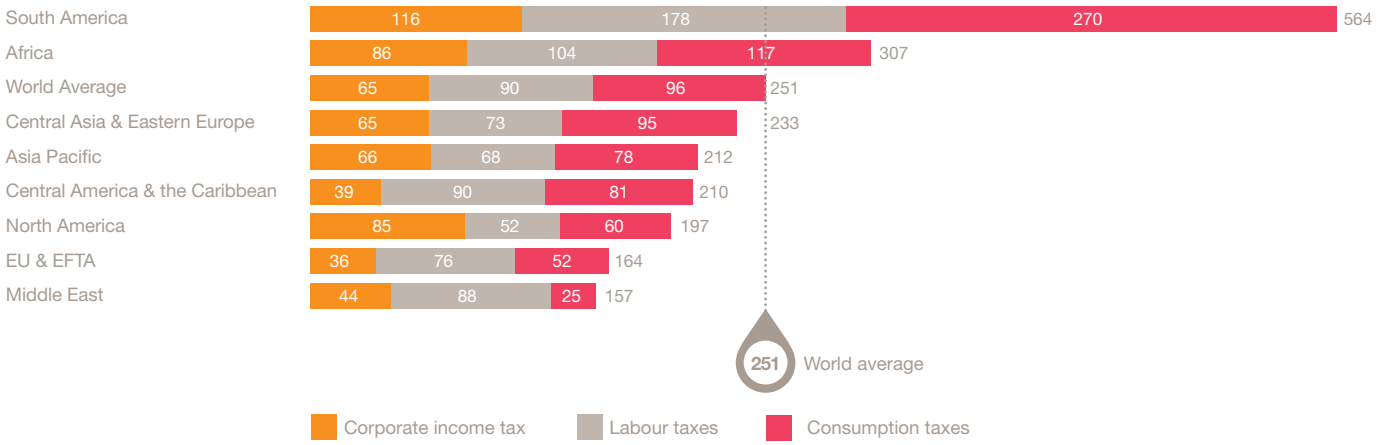
Source: PwC *Paying Taxes 2017* analysis.

Regional comparison of the time to comply

As shown in Figure 19, South America is the region with the longest average time to comply and the Middle East has the shortest time to comply. Similarly to the Total Tax Rate, the order of the regions stayed the same compared to last year. Driven by the changes in Brazil, South America had the largest decrease in the time to comply (50 hours), whilst there were also decreases in Central Asia & Eastern Europe (13 hours), Africa (7 hours), Asia Pacific (6 hours) and EU & EFTA (3 hours). Central America & the Caribbean increased its time to comply by 5 hours.

Figure 19

Regional analysis of the time to comply (hours)



Source: PwC *Paying Taxes 2017* analysis.

Brazil
Time to comply drops by 22%

Since the first edition of *Paying Taxes* over 10 years ago, the time to comply for Brazil has stubbornly remained at 2,600 hours. This year, for the first time, the time to comply for Brazil has reduced to 2,038 hours.

The *Paying Taxes* study requires the World Bank to consider submissions made by a number of contributors including PwC. For the first time there has been a consensus amongst these contributors on a reduction of the time to comply that seems to confirm the growing maturity of the electronic tax reporting systems introduced by the Public Digital Bookkeeping System or SPED for both federal and state taxes over the past five years.

The time recorded of 2,038 is the median of the range of estimates made by contributors. The figure estimated by PwC Brazil is at the lower end of this range, noting that the case study company has a simple fact pattern and is designed to facilitate international comparisons, but recognising that the actual time to comply for a "real life" company might be different. We hope that the reduction in the time to comply continues in the future, with the Brazilian tax authorities keeping their commitment to simplifying and facilitating reporting requirements, without triggering additional compliance associated costs for taxpayers.

This year, the *Paying Taxes* study includes a new sub-indicator, the post-filing index. As is set out in other sections of this publication, this aims to measure and compare two post filing processes, a VAT refund and the correction of an inadvertent corporate income tax error. The first results for Brazil show a score of 8.03 on a scale of between 0 and 100, which is well below the average for the South American region of 33.00. There is clearly room for improvement and simplification of the post-filing processes examined by the study. As regards the measure for VAT, it is of note that Brazil receives a score of zero. This is because the case study company and the scenario used to make comparisons under the study (a simple excess of input VAT over output VAT as a consequence of a capital purchase of machinery) is not eligible for an ordinary VAT refund under Brazilian tax legislation. Nevertheless, other forms of tax credits are available and are commonly used by companies with a range of commercial operations. Even in these other cases, where a VAT refund mechanism is available and commonly used by Brazilian taxpayers, the monies claimed can take considerable time to be refunded.

562

Brazil has reduced it's time to comply for the first time – by 562 hours.

Number of payments

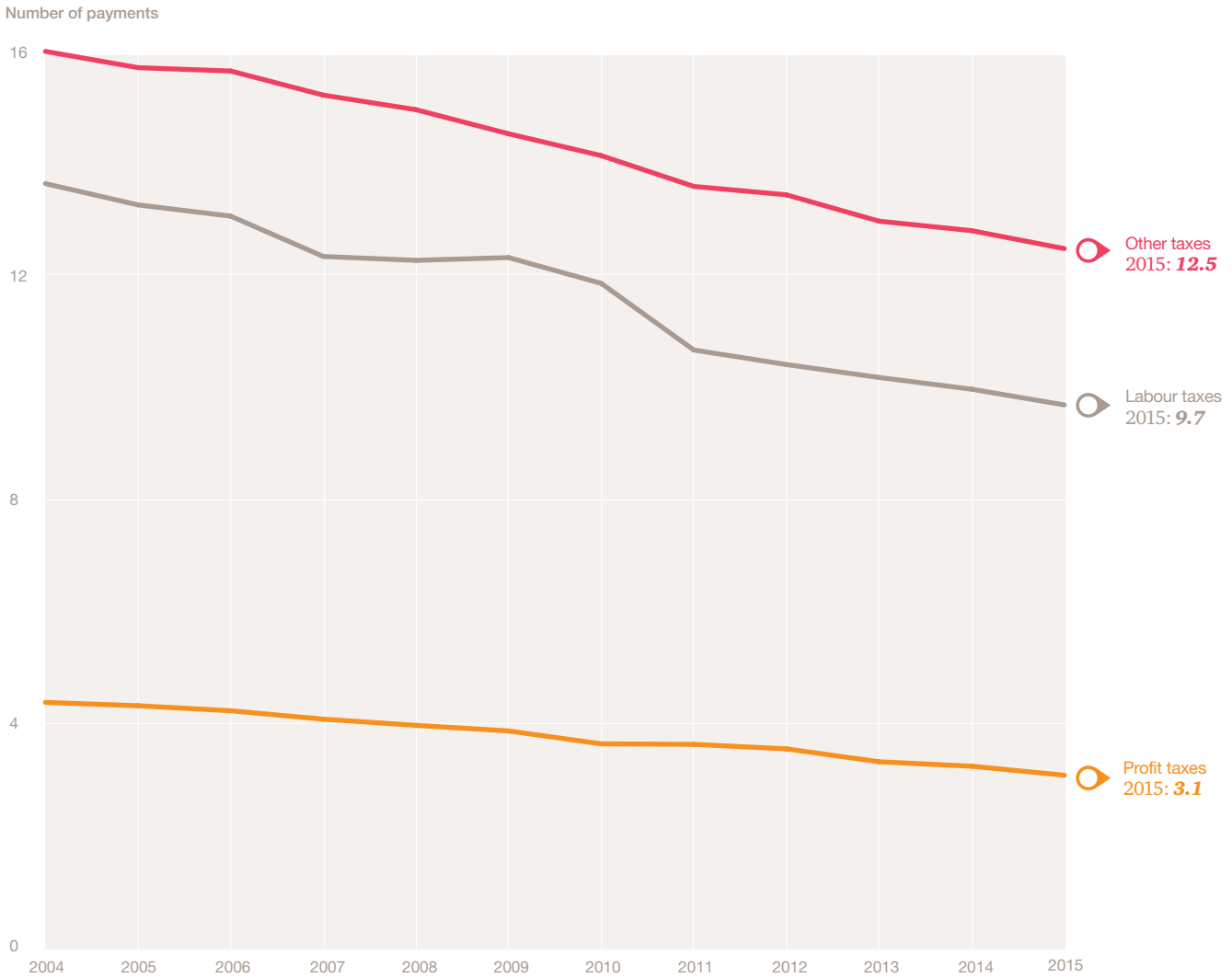
The global average for the number of payments sub-indicator has reduced by 0.8, compared to a reduction of 0.6 last year. Similarly to time to comply, the proportion across the main categories of taxes has stayed roughly the same as can be seen from Figure 20. There was a reduction in the sub-indicator in 24 economies. This was mainly driven by the introduction and use of electronic filing and payment systems. If a tax is paid and filed online by the majority of medium-sized companies in an economy, then that tax is counted on the sub-indicator as having one payment, even though the tax may be paid more frequently. In some economies taxes were eliminated, e.g. Azerbaijan abolished its vehicle tax while New Zealand removed its cheque duty. However, eight economies recorded an increase in the number of payments due to taxes needing to be filed more frequently, and also due to the introduction of new taxes without widespread electronic filing and payment systems.

24

economies saw a reduction in their number of payments sub-indicator.

Figure 20

Global average number of payments sub-indicator by tax type



Note: *Paying Taxes 2017* considers 190 economies. Analysis of historical trend data considers only the 174 economies that have been included in the study since *Paying Taxes 2007*.
Source: PwC *Paying Taxes 2017* analysis.

Biggest decreases in the number of payments

As shown in Figure 21, **Jamaica showed the greatest improvement on the number of payments sub-indicator**, reducing the number of payments for 2015 by 26 to 11. Electronic tax filing was introduced several years ago, but it was only in 2015 that taxpayers were required to file tax returns electronically, so the systems are now used more widely. This is similar to the position in **Mongolia** and **Kosovo**, both having a reduction of 22 in the sub-indicator to 19 and 10 respectively.

Following Kosovo and Mongolia, **Tajikistan's number of payment sub-indicator** fell by 16 to 12. Starting from July 2015, taxpayers are allowed to maintain and file VAT invoices electronically while previously, they were required to file a hard copy of the invoices. In addition, the majority of taxpayers filed and paid road tax electronically in 2015.

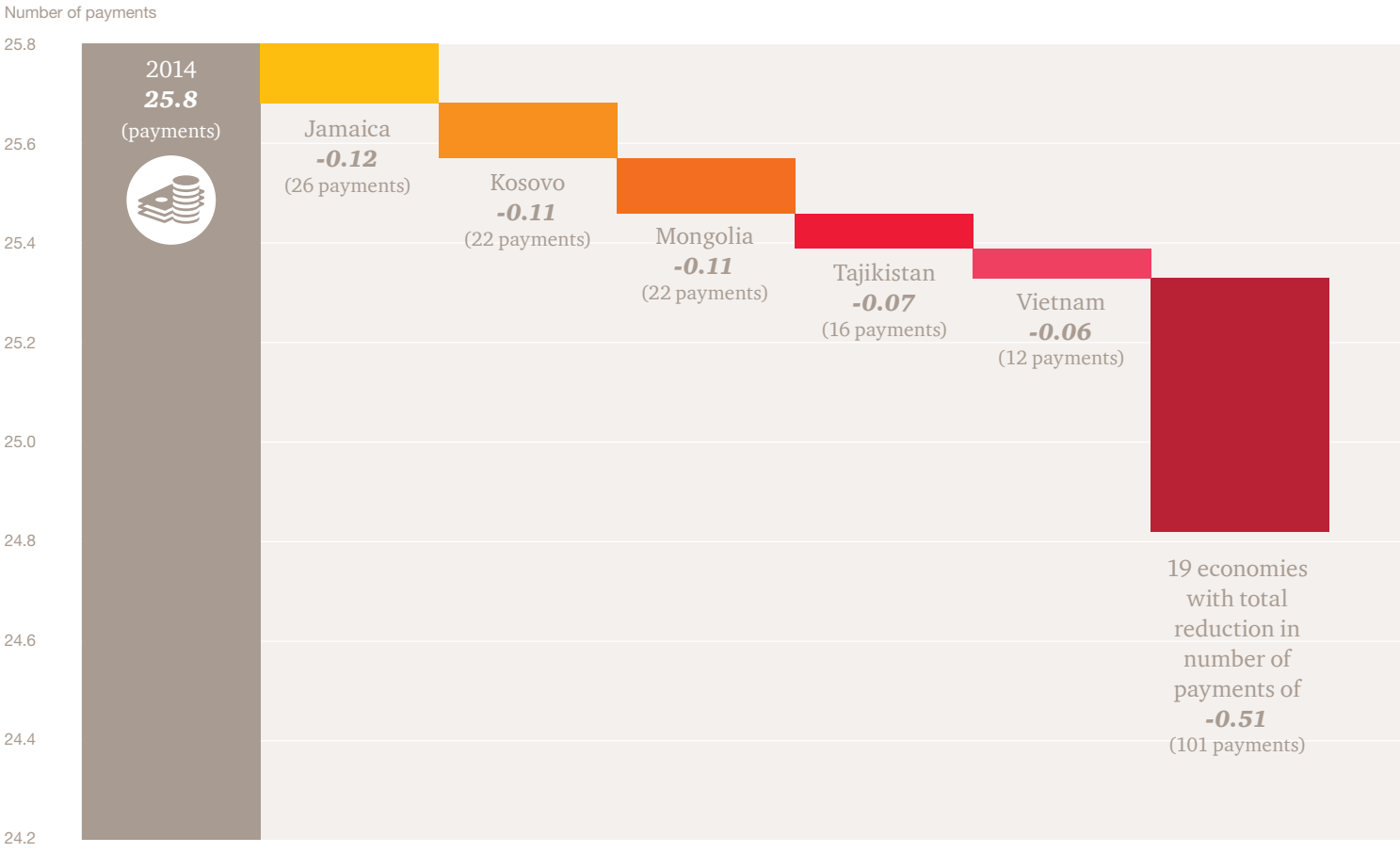
Lastly, for **Vietnam the sub-indicator dropped by 12 to 31** because quarterly VAT filing and payment were introduced for taxpayers with a turnover below 50 billion VND. Also, environmental protection fees were removed when enterprises were made responsible for treating their own waste and scrap.

26

Jamaica reduced the number of payments sub-indicator by 26.

Figure 21

Significant decreases in the global average number of payments (as explained by movements in the individual economies)



Source: PwC *Paying Taxes 2017* analysis.

Biggest increases in the number of payments

The most significant increases in the number of payments sub-indicator were in **The Bahamas** and **Croatia** which both had increases of 12 as shown in Figure 22. In The Bahamas, the change was due to the introduction of a VAT system, as mentioned earlier, while in Croatia, a radio and television fee was enforced in 2015. The fee must be paid monthly to Croatia Radio and Television. While the amount of the radio and television fee is small, it was not implemented electronically so adding a disproportionate administrative burden.

Rwanda and **Tanzania** both increased their sub-indicator result by 4 payments. In Rwanda, employers are now required to submit social security returns on a monthly instead of a quarterly basis. The Workers Compensation Act 2008 was enforced in Tanzania, and accordingly the workers compensation tariff was introduced, increasing payments. On the other hand, the abolition of the excise levy reduced the number of payments.

The number of payments sub-indicator increased by one in each of the following economies:

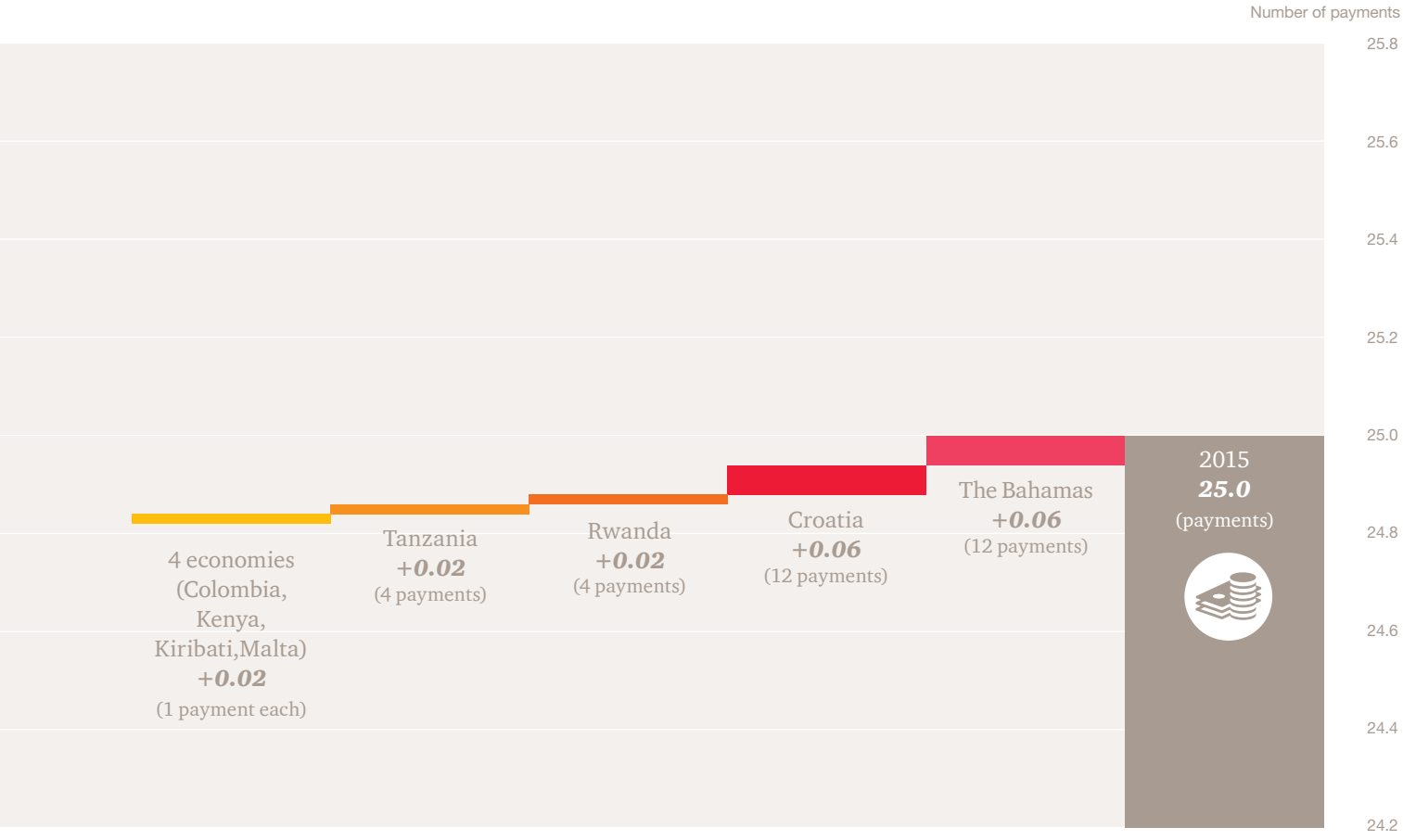
- **Colombia** has introduced a net wealth tax, which is levied at a progressive rate ranging from 0.2% to 1.15% on net wealth exceeding COP 1,000,000,000. The tax is paid by companies and individuals and can be paid electronically.
- **Kenya** has introduced a capital gains tax at 5% which is treated separately from corporate income tax.
- **Kiribati** has introduced a VAT system to replace customs duties. The VAT rate is 12.5% and is due on a quarterly basis (pro-rated for 2015).
- **Malta** has introduced a tax on property transfers, in respect of immovable property situated in Malta. The new final withholding tax is 8% on the value of the property transferred. One payment is now recorded as this tax is withheld by the notary at the moment the agreement is registered.

12

Two economies increased their number of payments sub-indicator by 12.

Figure 22

Significant increases in the global average number of payments (as explained by movements in the individual economies)



Source: PwC *Paying Taxes 2017* analysis.

Regional comparison of the number of payments sub-indicator

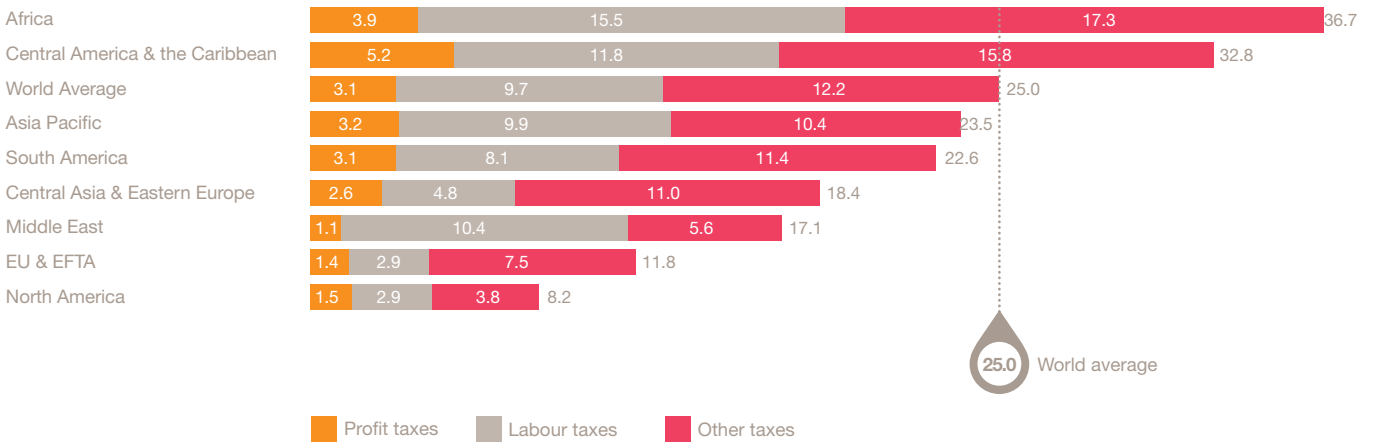
As shown in Figure 23, Africa is the region with the largest number of payments, and North America has the lowest number. The order of the regions is unchanged from last year. Between 2015 and 2014, Central Asia & Eastern Europe had the largest reduction in the number of payments (4.3 payments). Asia Pacific (1.9 payments), South America (0.9 payments) and Central America & the Caribbean (0.7 payments) also recorded a decrease in the number of payments sub-indicator. EU & EFTA was the only region which recorded an increase in payments (0.3 payments).

4.3

Central Asia & Eastern Europe had the largest reduction in the number of payments sub-indicator (4.3).

Figure 23

Regional comparison of the number of payments sub-indicator



Source: PwC *Paying Taxes 2017* analysis.

Post-filing index

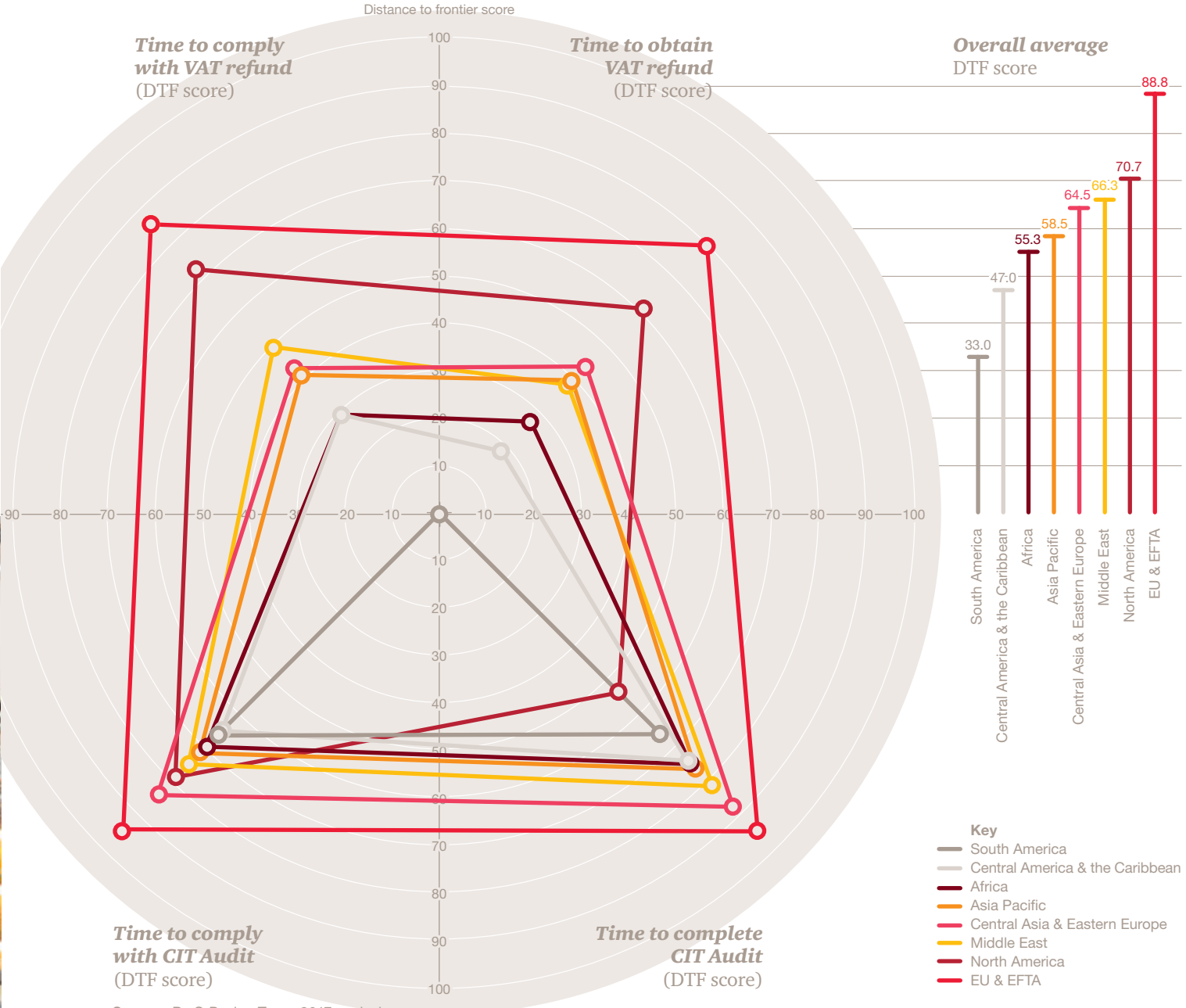
As explained in Chapter 1, this year the *Paying Taxes* study includes a new post-filing index that looks at the time taken to prepare and receive a VAT or goods and services tax (GST) refund claim[34] and the time required to correct a corporate income tax (CIT) return and deal with any subsequent tax audits. In this section we look at the results for the four components of the post-filing index:

1. Time to comply with a VAT refund
2. Time to obtain a VAT refund
3. Time to comply with a CIT audit (including time to correct the CIT return)
4. Time to complete a CIT audit (if applicable)

In Figure 24 below we show the average post-filing index score for the geographic regions. The score is from 0-100 with 0 being the least efficient and 100 the most efficient. We also show for each region the average score for each component of the index. It can therefore be seen from Figure 24 that EU & EFTA is the highest scoring region overall and for each of the components. South America has the worst overall score, scoring 0 for both VAT components as our case study company would be unable to claim a VAT refund in any economy in the region.

Figure 24

Post-filing index distance to frontier score by region and component



Source: PwC *Paying Taxes 2017* analysis.

[34] Throughout this section, references to VAT should be taken include GST systems.

Securing a VAT refund

Is a VAT refund available to the case study company?

In 2015, 162 economies of the 190 economies in the study had a VAT (or GST) system.[35]

Our model scenario presupposes that our case study company invests in a large piece of machinery. As a result, in the 162 economies where VAT or GST systems exist, the VAT incurred on the purchase is considerably larger than the VAT that it receives on its sales in that month. As mentioned in Chapter 1, ideally a VAT system should aim to be neutral and efficient, so where a business incurs more VAT on its purchases than it collects on its taxable sales in a given tax period, it should be entitled to claim the difference from the government. The amount of VAT owed to a business by the government is known as excess input VAT.

This study considers whether the company can make a claim to receive a cash payment of the excess input VAT. In most cases, regardless of the availability of VAT refund, the company would be able to carry forward the excess VAT and offset it against the VAT it receives on future sales.

For our case study, after four months of being carried forward, the excess input VAT would have been reduced to nil.

The post-filing index shows that our case study company would be able to receive a VAT (or GST) refund in 93 economies as shown in Figure 25.[36] In 64 economies it would not receive a refund.

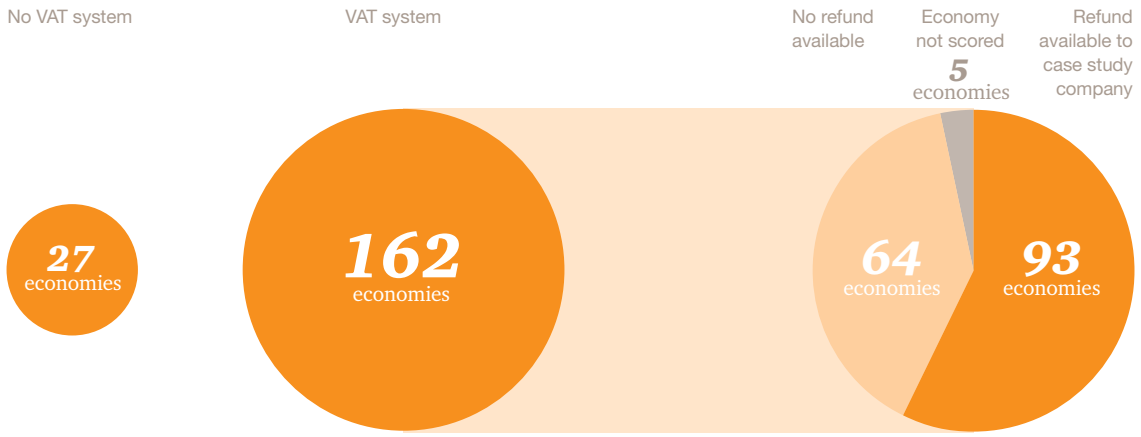
Reasons for the case study company not receiving a refund include:

- the ability to claim a refund is restricted to specific categories of taxpayers that do not include the case study company;
- the case study company is eligible to claim a refund but cash refunds do not occur in practice;
- there is no refund mechanism in place;
- input tax on a capital purchase is considered a cost on the business; and
- legislation requires taxpayers to carry forward the excess input tax for four months or more before a cash refund can be requested.

In line with the principles of neutrality and efficiency, in those economies where our case study company does not receive a refund automatically (or where the carry forward period is more than four months), the economy will receive the lowest possible score on the distance to frontier for this element of the post-filing index. While our case study company would recover its excess input VAT after four months of it being carried forward, without a refund process some companies may wait months or even years to recover their excess input VAT and some may never recover it fully. Typical examples might be companies with large upfront capital costs or companies that supply goods that are not subject to VAT but which are entitled to recover VAT on their purchases.

Figure 25

VAT systems and the availability of a VAT refund to the case study company (Number of economies)



Source: PwC *Paying Taxes 2017* analysis.

[35] Somalia is excluded from the analysis as there is no practice documented yet.
[36] There are 162 economies with a VAT system. There are 5 of these economies which are not scored: Malaysia and The Bahamas are not scored as there is insufficient evidence of current practice due to new systems. In Morocco, Sierra Leone and Equatorial Guinea, VAT does not apply to the case study purchase and so these economies are not scored.

Figure 26 shows the availability of a VAT refund to our case study company analysed by income group. 87% (40) of the high income economies that have a VAT system have a refund mechanism available to the case study company, but this is the case in only 39% (9) of low income economies.[37] VAT refunds may be less common in lower income economies as they are less likely to have sufficient financial resources or the administrative capacity to operate a VAT refund system in a timely fashion.

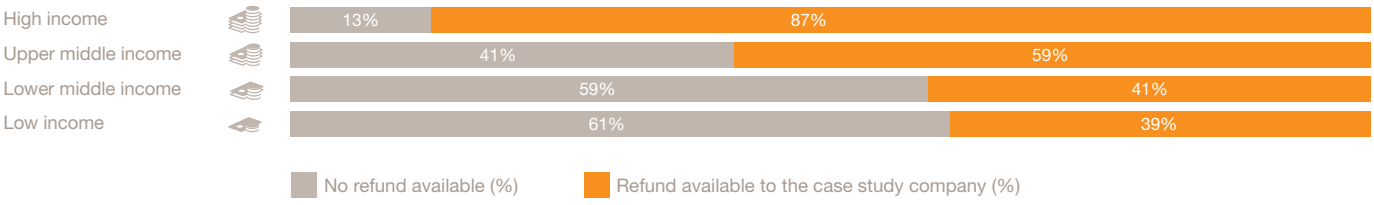
If we analyse the availability of a VAT refund by geographic region, we can see that refunds are not available to the case study company in any South American economy,[38] but conversely they are available in all the economies in EU & EFTA and North America that have a VAT system as shown in Figure 27.

87%

of high income economies with a VAT system have a refund available to the case study company.

Figure 26

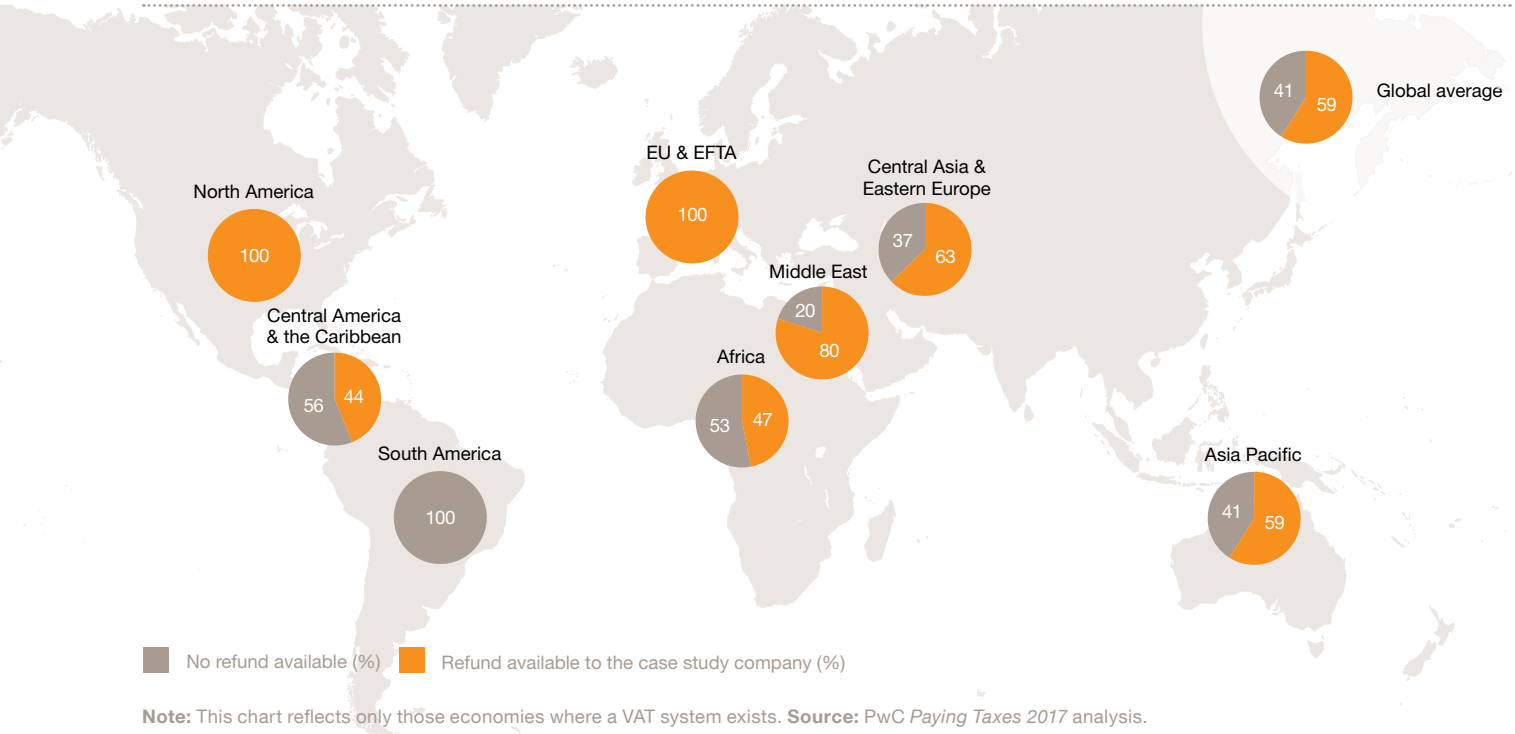
VAT refund availability by income group for the case study company



Note: This chart reflects only those economies where a VAT system exists and there is a VAT score (157 economies).
Source: PwC *Paying Taxes 2017* analysis.

Figure 27

VAT refund availability by region for the case study company



Note: This chart reflects only those economies where a VAT system exists. **Source:** PwC *Paying Taxes 2017* analysis.

[37] For the current 2017 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of $1,025 or less in 2015; lower middle-income economies are those with a GNI per capita between $1,026 and $4,035; upper middle-income economies are those with a GNI per capita between $4,036 and $12,475; high-income economies are those with a GNI per capita of $12,476 or more.

[38] VAT refunds are not available to the case study company in the South American region, however, we recognise that VAT refunds may be available in practice in the region in other scenarios.

How long does it take to comply with a VAT refund process?

For those 93 economies in which a VAT refund is available, the average compliance time required to make the refund claim and respond to any resulting audit is 14.2 hours. In 52 economies (56%) less than 10 hours is needed to comply with a VAT refund as can be seen in Figure 28.

On average, as shown in Figure 29 it generally takes less time to comply with a VAT refund in high income economies (7.9 hours) compared to low income economies (26.9 hours).

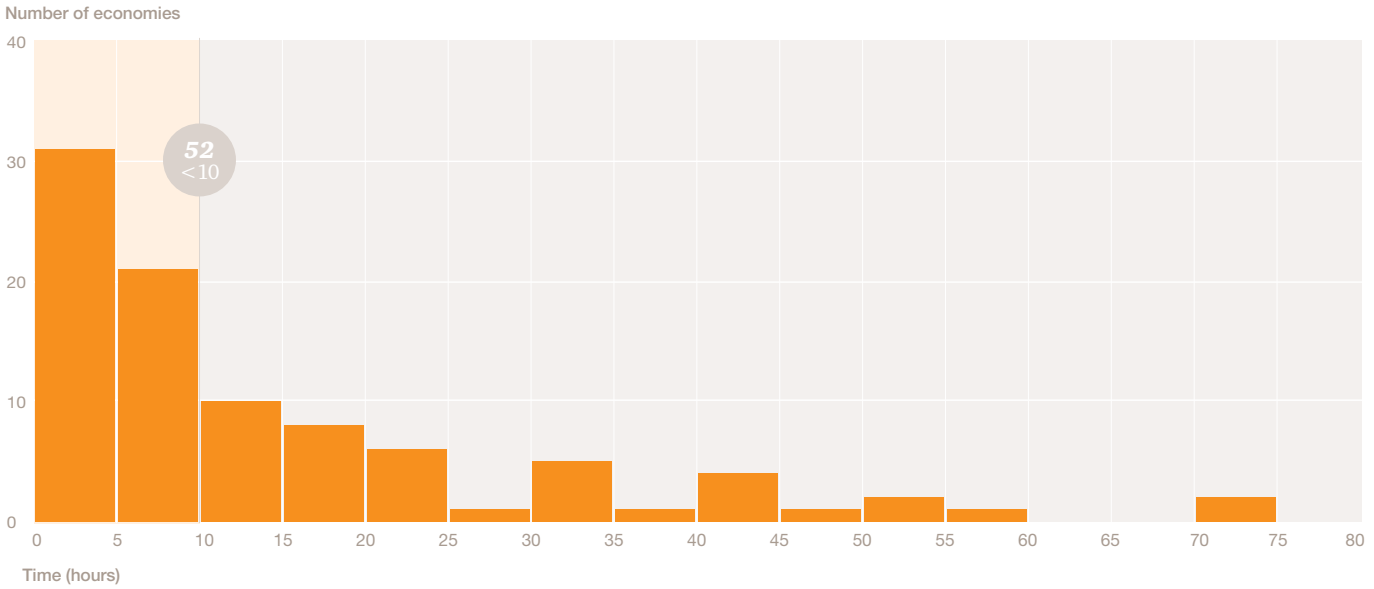
As the time to comply with a VAT refund includes not just the time to claim a VAT refund, but also the time needed to prepare and submit additional information if the refund triggers a tax audit, the likelihood of an audit can have a significant impact on the time needed to comply with a VAT refund. If the case study company is unlikely to be audited, the average time to comply is just 3.0 hours as it is simply the time needed to make the claim. For those economies where an audit is judged to be likely, the time increases to 19.0 hours as shown in Figure 30.

14.2

hours is the average compliance time required to make a VAT refund claim.

Figure 28

Distribution of the time to comply with a VAT refund



Source: PwC *Paying Taxes 2017* analysis.

Figure 29

VAT refund compliance time by income group, regardless of the likelihood of audit (hours)

Source: PwC *Paying Taxes 2017* analysis.

Figure 30

VAT refund compliance time – global average by likelihood of audit (hours)

Source: PwC *Paying Taxes 2017* analysis.

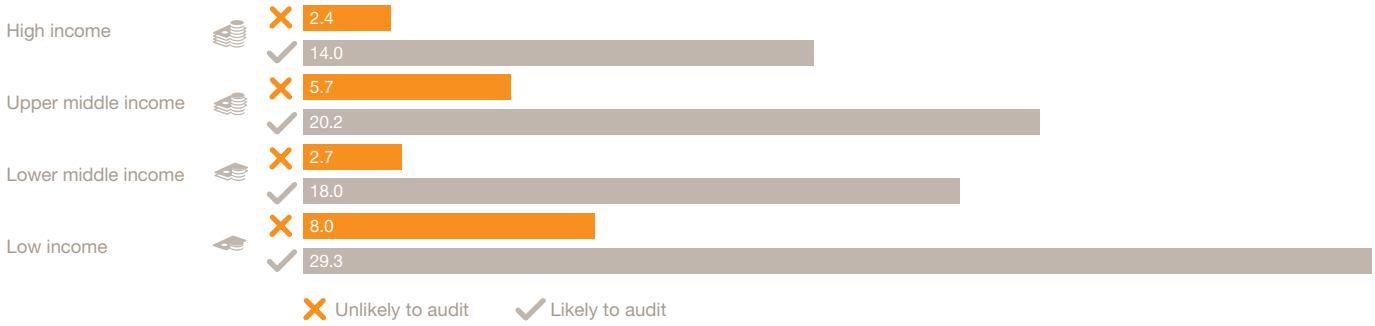
When this is broken down further into income groups as shown in Figure 31, high income economies require 14 hours of compliance time if there is an audit, compared to 2.4 hours without an audit. In low income economies where there is no audit there is a compliance time of 8 hours. This is due to Ethiopia which is the only economy that falls into this category.

For the remaining low income economies, all of which would be likely to have an audit, the compliance time is 29.3 hours. In both the lower middle and upper middle income economies, there are only three economies without an audit.

The EU & EFTA region performs the best for time to comply with a VAT refund, with 7.1 hours as shown in Figure 32. South America scores the worst for the time to comply with a VAT refund as the refund is not available to the case study company in any economy in the region and hence it has a distance to frontier score of nil, and no VAT compliance time is shown in Figure 32. Central America & the Caribbean has the longest time to comply of 19.6 hours.

Figure 31

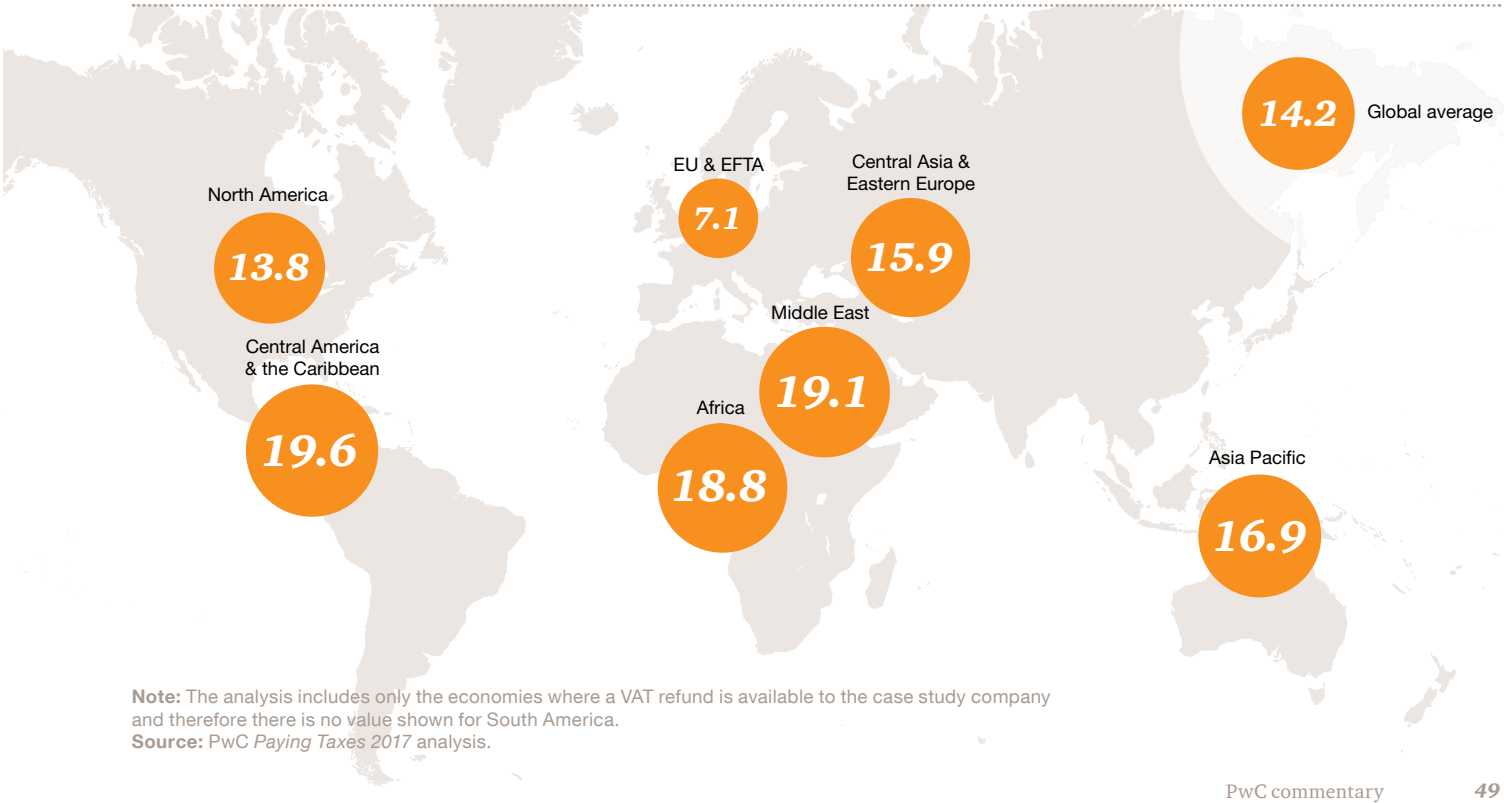
Time to comply with a VAT refund by income group and likelihood of audit (hours)



Note: In the low income economies only Ethiopia is unlikely to have an audit. In upper middle income and lower middle income economies, only three economies are unlikely to have an audit.
Source: PwC *Paying Taxes 2017* analysis.

Figure 32

Time to comply with a VAT refund by region (hours)



Note: The analysis includes only the economies where a VAT refund is available to the case study company and therefore there is no value shown for South America.
Source: PwC *Paying Taxes 2017* analysis.

How long does it take to obtain a VAT refund?

If a VAT refund is not paid within a reasonable time-frame, or if there are unexpected delays in the payment, this can have a serious impact on a company's cashflow, especially for smaller companies.

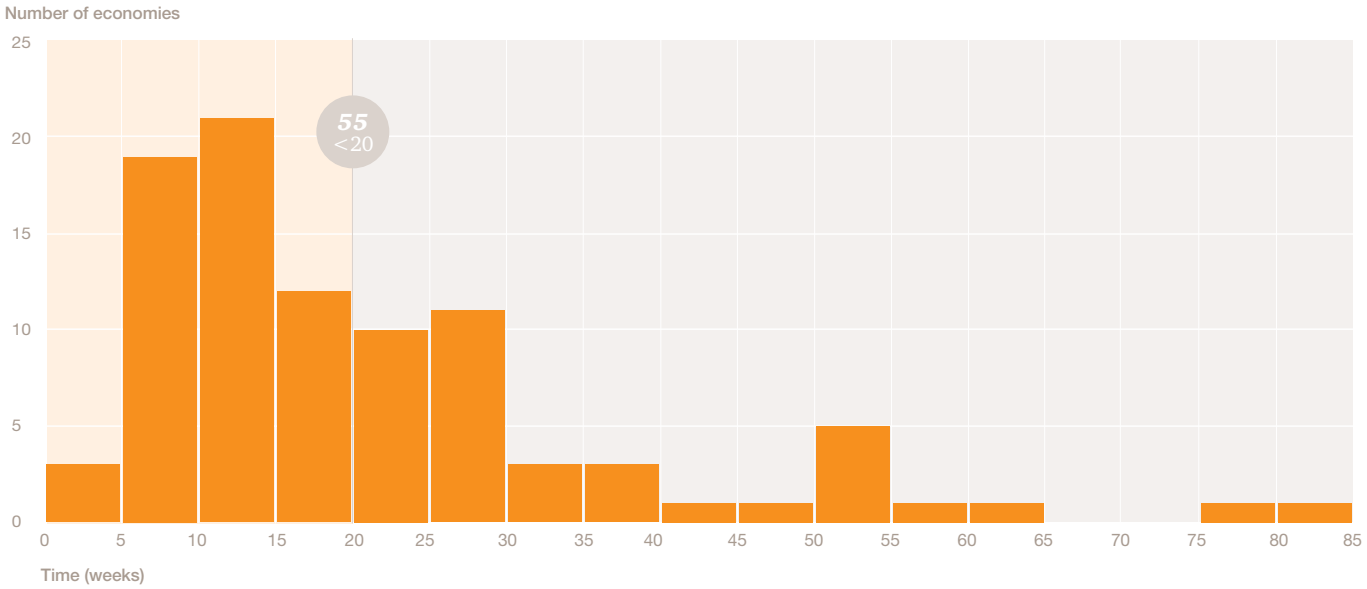
The time taken to obtain a VAT refund under the post-filing index is the time from the submission of the VAT refund claim to the later of the date when the company receives the cash or the date any audit concludes. The time also includes an average time spent waiting before the refund claim can be submitted. The time to obtain a VAT refund, averages 21.6 weeks across the economies where a VAT refund is available, with the case study company in 55 economies (59%) taking less than 20 weeks to obtain the VAT refund as shown in Figure 33.

Comparing the various income groups, as in Figure 34, in high income economies, our case study company will on average only wait 15.6 weeks to obtain a VAT refund compared with 28.3 weeks in low income economies. As for the time to comply with a VAT refund, this may be due to low income economies potentially having less administrative capacity and insufficient fiscal resources to pay the refunds efficiently.

Similarly to the time to comply, in those economies where the case study company is likely be audited, the time required for the audit has a large impact on the time to obtain a VAT refund. If the case study company is unlikely to be audited, the global average time to obtain a VAT refund is 14.2 weeks as shown in Figure 35. If there is likely to be an audit, it is 24.8 weeks. The incidence of an audit does not always imply a longer refund process perhaps due to the audits having a narrower focus and/or being conducted in a more efficient manner. In the case of Hungary, for example, the VAT refund claim is likely to trigger an audit, but it only takes just under 14 weeks to obtain the refund. This is shorter than the overall average for high income economies.

Figure 33

Distribution of the time to obtain a VAT refund



Source: PwC *Paying Taxes 2017* analysis.

Figure 34

Time to obtain a VAT refund by economic grouping regardless of the likelihood of audit (weeks)

Source: PwC *Paying Taxes 2017* analysis.

Figure 35

Time to obtain a VAT refund – global averages by likelihood of audit (weeks)

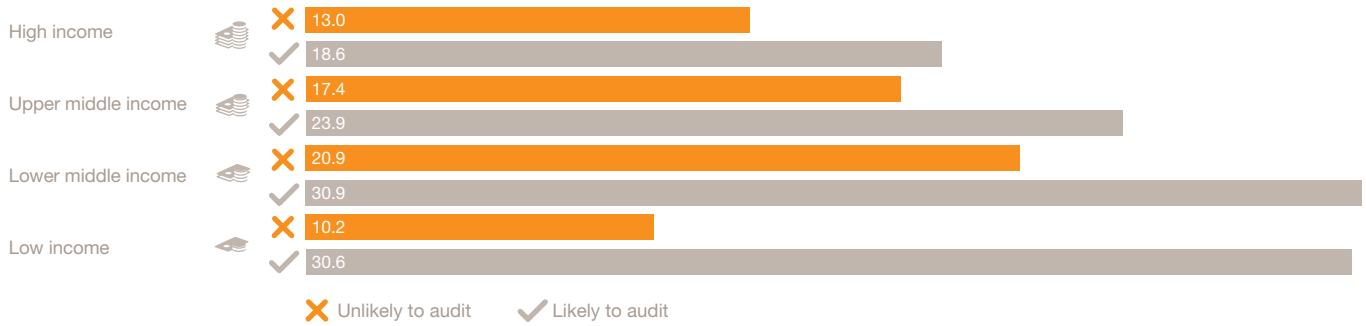
Source: PwC *Paying Taxes 2017* analysis.

Looking at the impact of an audit by income groups, in those high income economies where an audit is unlikely, our case study company will only wait 13 weeks on average to obtain a VAT refund, compared to 18.6 weeks in high income economies where the refund is likely to trigger an audit as shown in Figure 36. The difference in time for low income economies is higher. There is only one low income economy, Ethiopia, where an audit is unlikely. The case study company in Ethiopia will only wait 10.2 weeks on average to receive its refund. This triples to 30.6 weeks in those economies where an audit is expected and thus the time spent waiting for a refund will be affected by the audit process.

Figure 37 shows the time to obtain a VAT refund by geographic region. As for the time to comply with a VAT refund, the EU & EFTA region performs the best on the time to obtain a refund, with an average time of 14.8 weeks. Again, South America scores the worst as the refund is not available to the case study company in any economy in the region (hence there is no value shown in Figure 37 for South America as the time to obtain a VAT refund cannot be measured for the case study company). Central America & the Caribbean has the longest waiting time requiring 34.7 weeks on average to obtain the VAT refund.

Figure 36

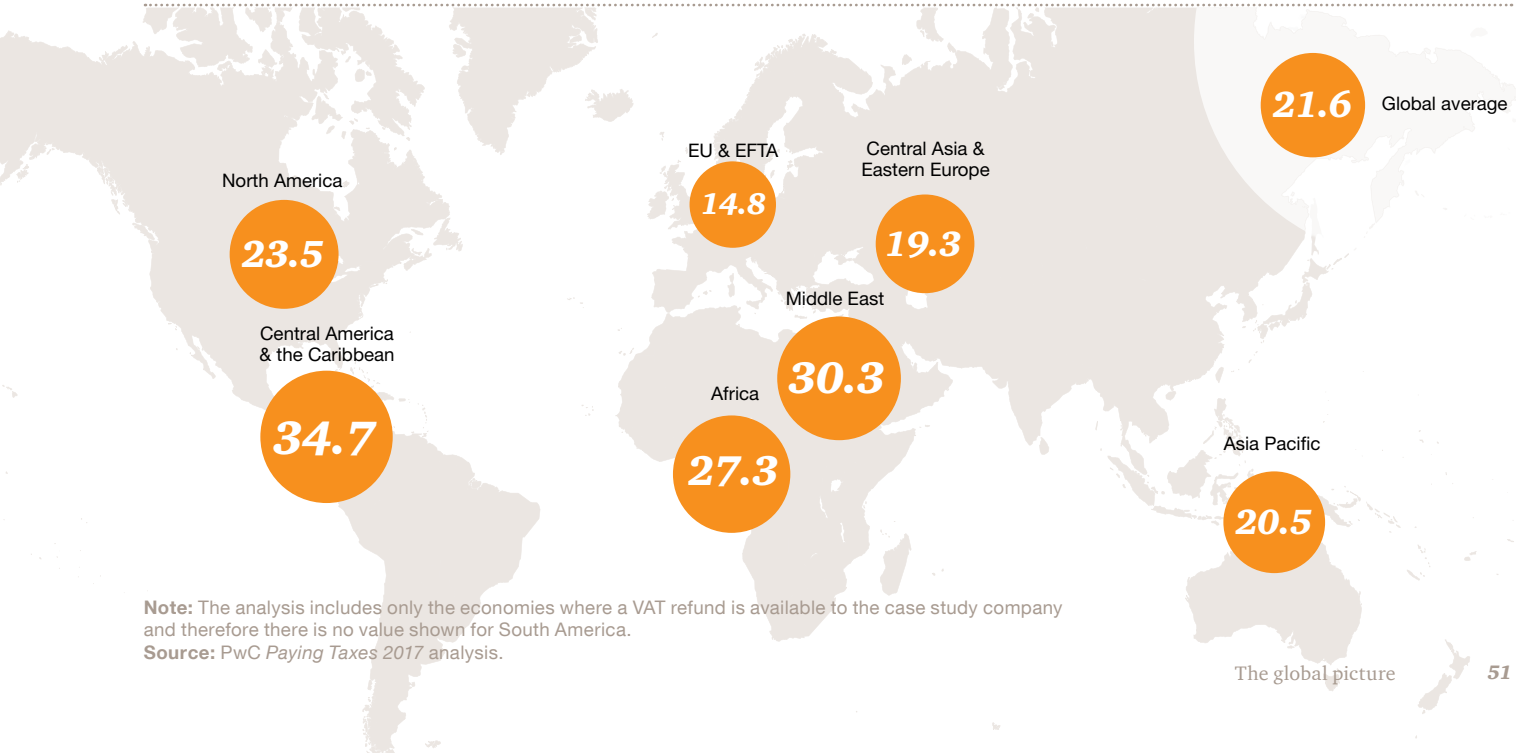
Time to obtain a VAT refund by income group and likelihood of audit (weeks)



Note: In the low income economies only Ethiopia is unlikely to have an audit. In upper middle income and lower middle income economies, only three economies are unlikely to have an audit.
Source: PwC *Paying Taxes 2017* analysis.

Figure 37

Time to obtain a VAT refund by region (weeks)



Note: The analysis includes only the economies where a VAT refund is available to the case study company and therefore there is no value shown for South America.
Source: PwC *Paying Taxes 2017* analysis.

Correcting a corporate income tax error

Our model scenario for a CIT error is that our case study company makes an inadvertent error in its corporate income tax return that results in it underpaying its CIT liability by 5%. The error is spotted by the company and notified to the tax authority after the deadline for filing the return, but before the end of the deadline for the tax authority to audit the company. This scenario applies in the 180 economies (95%) in which CIT was levied in 2015, as shown in Figure 38.

The time to comply with a CIT audit includes the time taken to correct the error in the tax return. If the correction is likely to trigger an audit, the time required to prepare and submit data required by the auditor is also included in the time to comply component of the post-filing index. The time to complete a CIT audit is the time that elapses between the start of any audit arising from the error and the time the company received formal notification that the audit has been concluded.

If the correction of the error in the CIT return is unlikely to trigger an audit, then the time to comply with a CIT audit will be lower as it will reflect only the time needed to amend the CIT return and not to audit it. The time to complete a CIT audit will be zero if an audit is thought unlikely to take place. The judgement of the World Bank and the contributors to the study as to whether an audit is likely or not for the given scenario therefore has a significant impact on the results.

On the one hand, tax audits are necessary to help ensure that taxpayers meet their compliance obligations. On the other, it is reasonable in many cases to expect the tax authority to trust a taxpayer's unprompted disclosure. The balance between these two elements will vary from economy to economy and company to company.

Getting the balance right allows tax authorities to focus often limited resources on the areas where the risk of underpaying taxes is greatest. *Paying Taxes 2016* included an article on co-operative compliance models for tax in African countries. It outlined some practical measures that could enable the effective and efficient implementation of sustainable co-operative compliance models in Africa, which could be used to alleviate difficult post–filing compliance regimes.

Globally, the post-filing index shows that, for our case study, correcting a CIT return is likely to lead to a tax audit in 74 (41%) of the 180 economies that have a CIT system. In 106 economies (59%) the correction was judged unlikely to trigger an audit. Those economies that are unlikely to impose an audit receive the best score on the distance to frontier for this component of the post-filing index. As for our simple case study scenario, it will often be reasonable to expect the tax authority to trust the taxpayer's disclosure given the size of the company, the straightforward nature of its business, and the voluntary nature of the disclosure. In many economies however, there may be good reasons why the company should be audited and in such cases the audit should be as targeted and as efficient as possible. In Lithuania, Estonia, Portugal and Georgia, the correction is unlikely to lead to an audit and the total compliance time is 1.5 hours. In Bhutan, where an audit is likely, the total compliance time (including audit) is 3 hours, whilst the time to complete the audit is 1.7 weeks. At the other end of the scale, the longest compliance time where there is an audit, is in Afghanistan with a total compliance time of 211.5 hours. Jamaica has the longest time to complete the CIT audit of 61.1 weeks.

Figure 38

Economies with corporate income tax systems which would audit the CIT correction (number of economies)

Note: Somalia is excluded from the analysis as there is no practice documented yet and therefore Figure 38 includes only 189 economies.
Source: PwC *Paying Taxes 2017* analysis.

Figure 39 shows that, for economies with a CIT system, the CIT correction is likely to trigger an audit in 59% of low income economies, but only in 24% of high income economies.

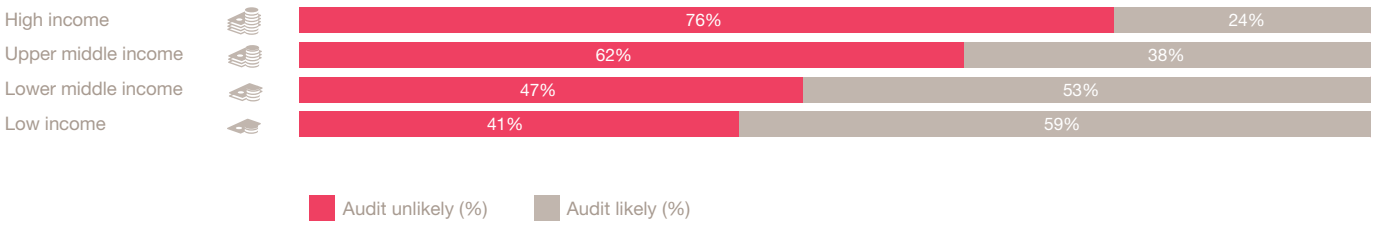
Across our geographic regions, as shown in Figure 40, the EU & EFTA region again performs the best, as the case study company would be unlikely to be subjected to an audit in 84% of economies.

84%

In EU & EFTA, the case study company would be unlikely to be subjected to an audit in 84% of economies.

Figure 39

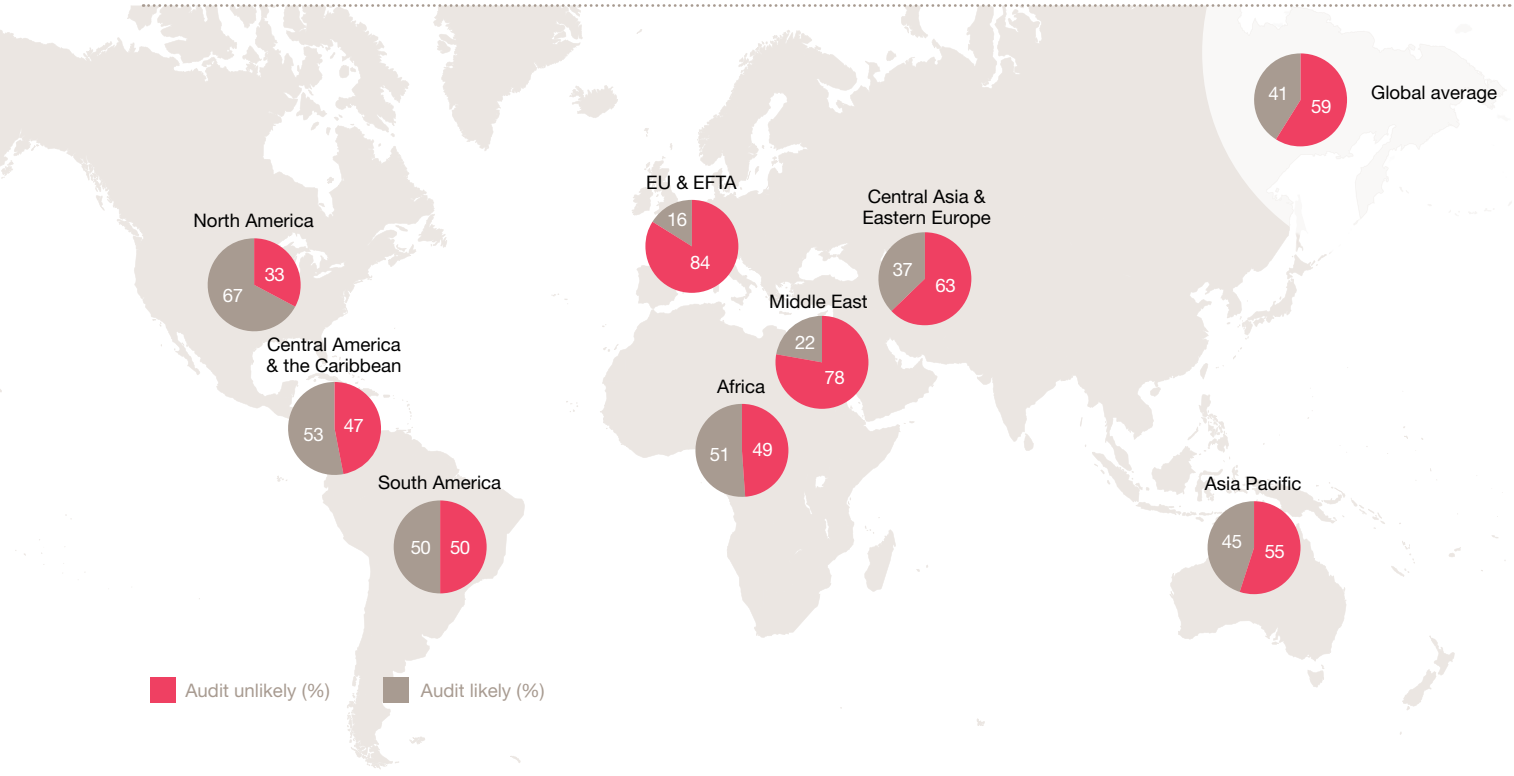
Likelihood of a CIT audit by income group (%)



Source: PwC *Paying Taxes 2017* analysis.

Figure 40

Likelihood of a CIT audit by region (%)



Source: PwC *Paying Taxes 2017* analysis.

Time to comply with a CIT audit

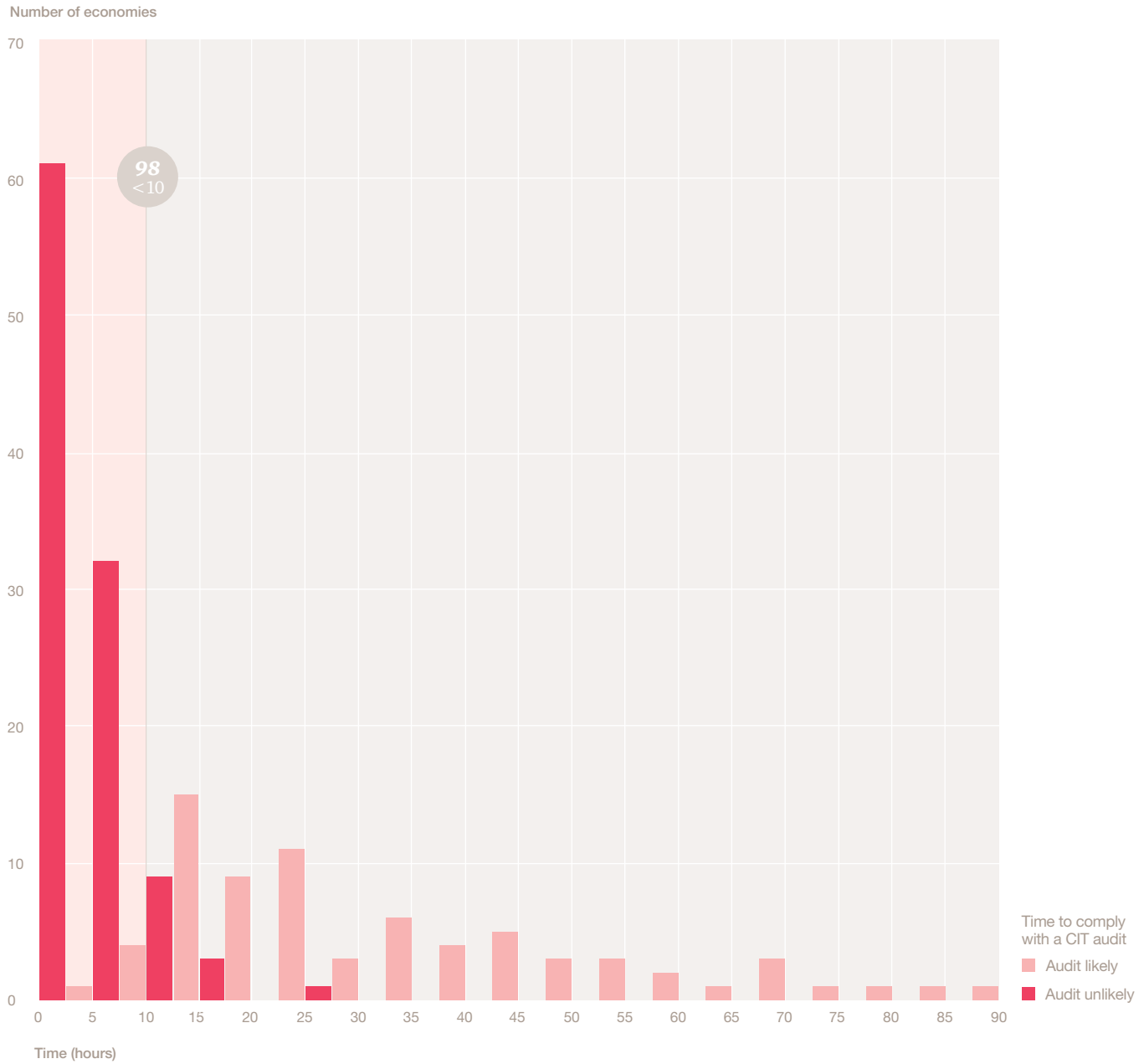
On average around the world, it takes the case study company 16.7 hours to comply with a CIT audit. Figure 41 shows that 98 of the 180 economies with a CIT system require less than 10 hours compliance time to correct the error and comply with any resulting audit. In 93 of these economies of those that require less than 10 hours compliance time, an audit is unlikely to be triggered and so the time is only that which is needed to correct the tax return and pay the amount of tax due. In the remaining five of these economies, an audit will be triggered and the time includes complying with the auditor's requirements.

50%

Over 50% of economies with a CIT system require less than 10 hours to correct a CIT return and comply with any resulting audit.

Figure 41

Distribution of the time to comply with a CIT audit



Source: PwC *Paying Taxes 2017* analysis.

On average, as shown in Figure 42, whether or not there is an audit will impact the time to comply quite significantly. Globally, on average, in takes 5.4 hours to comply with a CIT audit if an audit is unlikely as the company only has to correct its CIT return and pay the additional amount of tax that is due. If an audit is likely, it takes 32.8 hours on average to comply with the CIT audit, including the time spent correcting the CIT return.

Figure 43 also shows that in high income economies the time to comply with a CIT audit (12.7 hours) is less than half that in low income economies (27.8 hours). This is driven by the fact that, as mentioned above, the case study company is much less likely to be subject to audit in higher income economies. Furthermore, in those economies where there is an audit, tax authorities in lower income economies may require further information through field audits or comprehensive audits.

As shown in Figure 44, across our geographic regions, the EU & EFTA region performs best in respect of the time to comply with a CIT audit, only requiring 4.7 hours on average in comparison to the Asia Pacific region which requires 24.4 hours of compliance time. Again, this is driven by the fact that in 84% of economies in the EU & EFTA region there is unlikely to be an audit, whereas for Asia Pacific, only in 55% of economies is an audit thought unlikely.

Figure 42

Time to comply with a CIT audit (hours)

Source: PwC *Paying Taxes 2017* analysis.

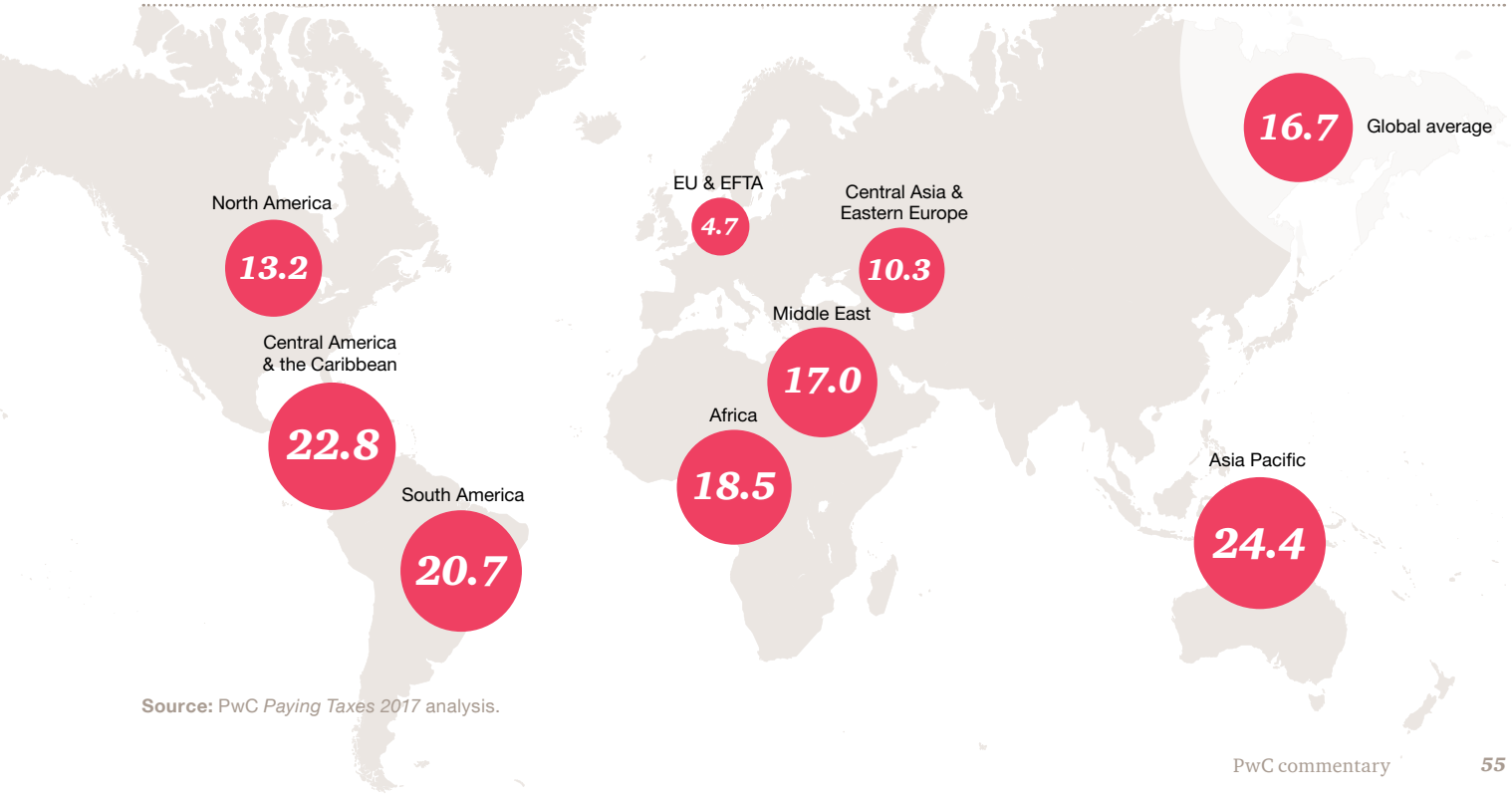
Figure 43

Time to comply with a CIT audit by income grouping regardless of the likelihood of audit (hours)

Source: PwC *Paying Taxes 2017* analysis.

Figure 44

Time to comply with a CIT audit by region (hours)



Source: PwC *Paying Taxes 2017* analysis.

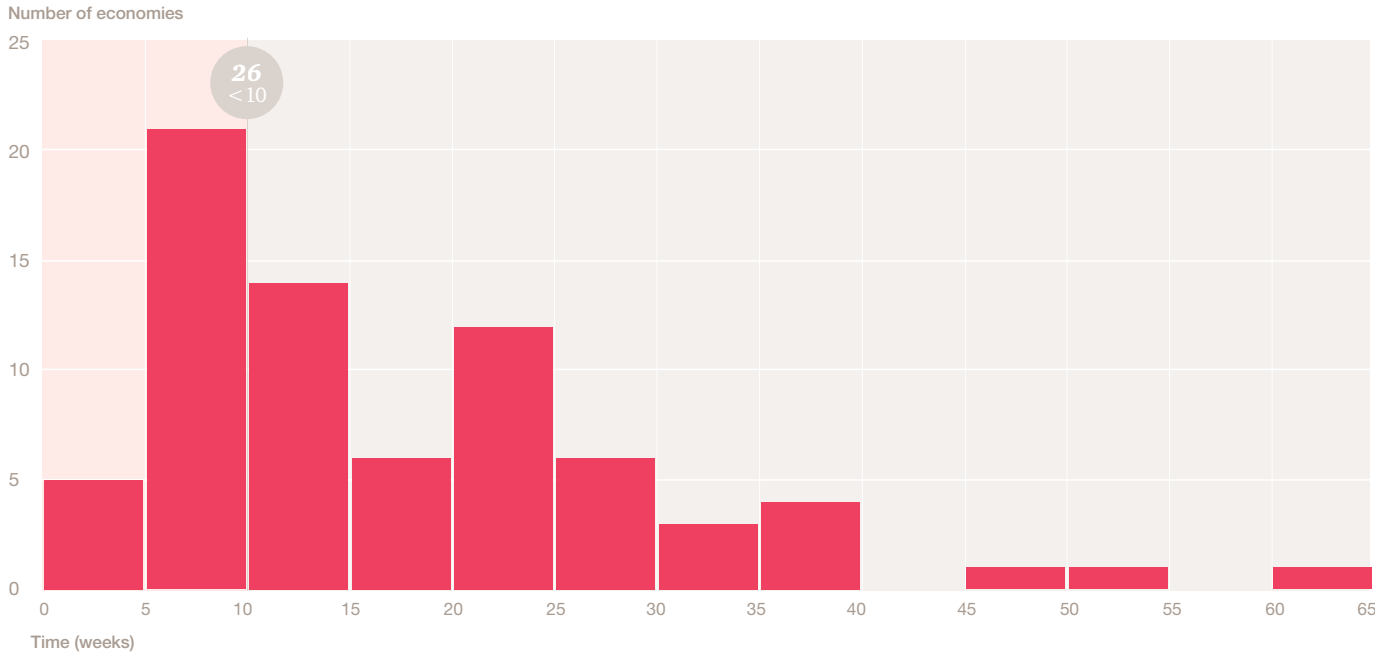
Time to complete a CIT audit

Across the 74 economies in which the CIT correction is thought likely to trigger an audit, it takes on average 17.3 weeks to complete the audit. For 26 economies (35%), as shown in Figure 45, the audit will take no more than 10 weeks on average to complete. This might suggest that in many cases the audit can be performed in a relatively short timeframe, provided the audit is scoped to address the specific risks presented by the company and the error. There are however several economies where the audit is expected to last more than six months, and in one case over a year, suggesting that there is considerable room to improve audit procedures in some economies.

As shown in Figure 46, in the 17 low income economies where an audit is anticipated, it takes on average 15.7 weeks to complete. This is less than in the 13 high income economies where it takes 16.9 weeks on average. Of the four components of the post-filing index, it is only on the time to complete a CIT audit that low income economies perform better than high income ones. While an audit is less likely in high income economies, it appears that when audits do occur, they take more time than in low income economies. The reasons for this are not clear and more work is needed to explain the findings. One possibility might be that while filing and paying taxes can, to a large extent, be automated, an audit is still very much a process that requires human intervention. Thus electronic systems, which are generally more developed in high income economies, are less effective when it comes to shortening the time needed for audits.

Figure 45

Distribution of the time to complete a CIT audit, where applicable



Note: The data in the chart is only for those economies where a CIT audit is likely to take place following a correction to the CIT return.
Source: PwC *Paying Taxes 2017* analysis.

Figure 46

Time to complete a CIT audit, where applicable, by income group (weeks)

Note: The data in the chart is only for those economies where a CIT audit is likely to take place following a correction to the CIT return.
Source: PwC *Paying Taxes 2017* analysis.

Looking at the geographic regions in Figure 47, for those economies where an audit is triggered, EU & EFTA performs the best at 10.9 weeks on average which is marginally better than Central Asia & Eastern Europe. A CIT audit would last the longest in the Middle East at 26.9 weeks, however there are only two economies in the region where an audit is likely to be triggered.

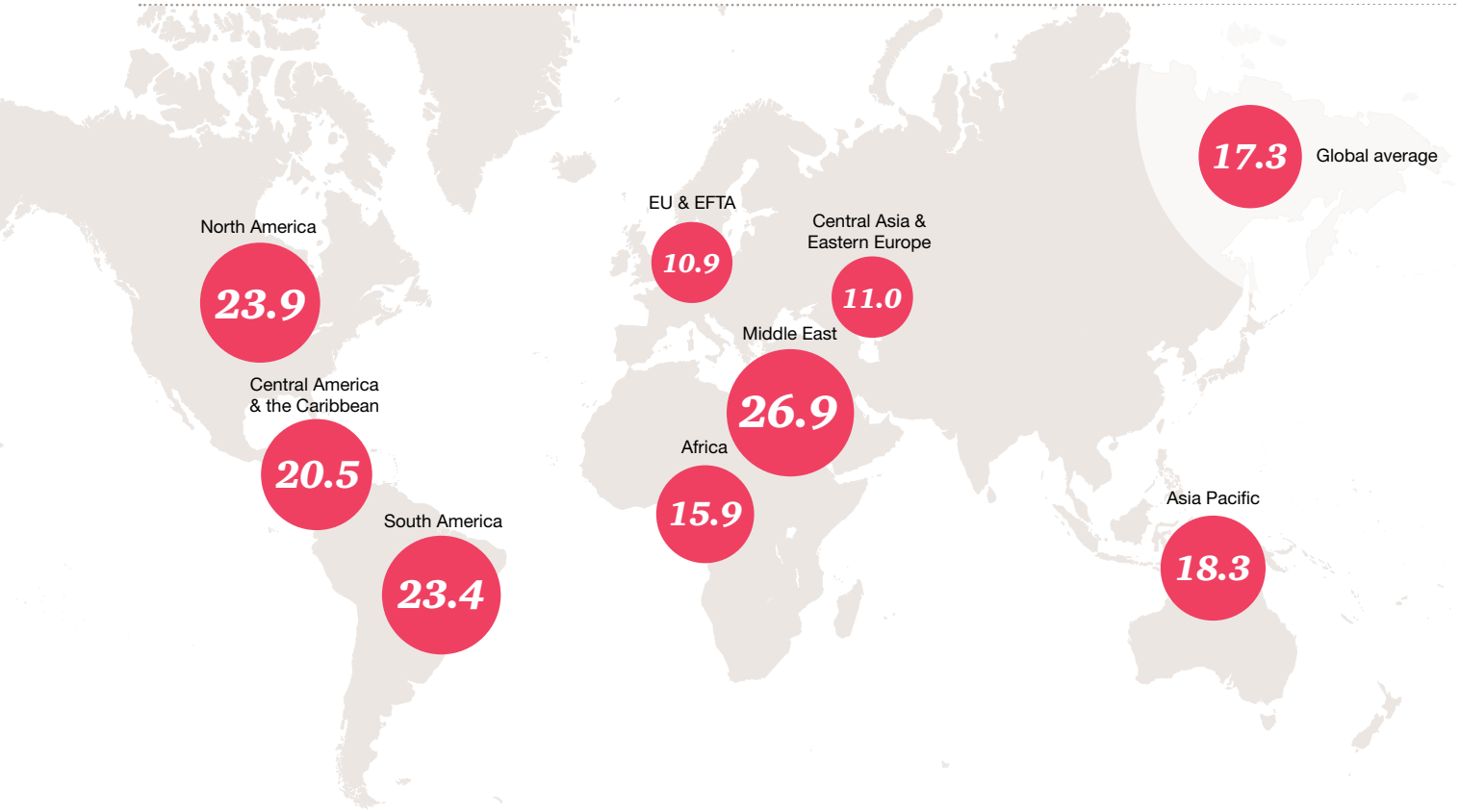
The new post-filing index has yielded a wealth of new information about tax systems around the world. While further work is needed to explain some of the findings, it is clear that there are significant differences in post-filing processes, whether considered by individual economy, income grouping or geographic region. There is considerable variation in the availability of a VAT refund to our case study company as well as in the likelihood of a VAT or a CIT audit. There is also quite a range in the length of time that the various post-compliance processes can take in different economies. The data suggests that while there are some very good examples of efficient post-filing processes, there are a number of economies where there is considerable potential for improvement.

26

26 economies take no more than 10 weeks on average to complete a CIT audit for the case study company scenario.

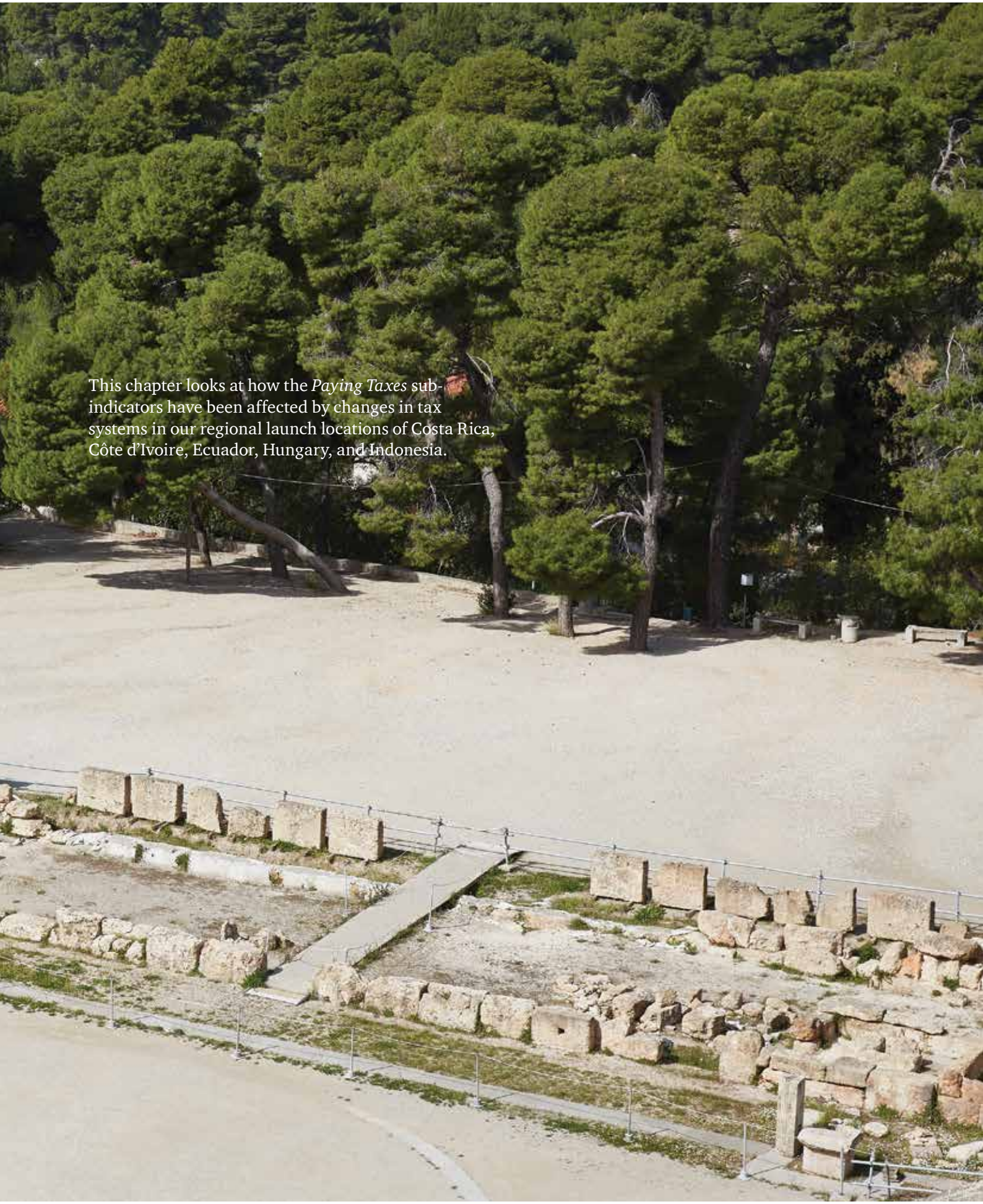
Figure 47

Time to complete CIT audit, where applicable (weeks)



Note: The data in the chart is only for those economies where a CIT audit is likely to take place following a correction to the CIT return.
Source: PwC *Paying Taxes 2017* analysis.

Chapter 3 – Country articles



This chapter looks at how the *Paying Taxes* sub-indicators have been affected by changes in tax systems in our regional launch locations of Costa Rica, Côte d'Ivoire, Ecuador, Hungary, and Indonesia.

Costa Rica

Digital innovation to increase voluntary compliance

Luis Diego Barahona, PwC Costa Rica

From 2003, the Costa Rican tax administration has made increasing use of electronic systems to facilitate voluntary tax compliance by taxpayers. This has helped to achieve greater efficiency and effectiveness in the collection of taxes which is reflected in the *Paying Taxes* sub-indicators from 2007 onwards. Standardising, simplifying and accelerating certain processes such as filing returns and electronic payments of taxes have all played a part in significantly reducing the time to comply and the number of payments.

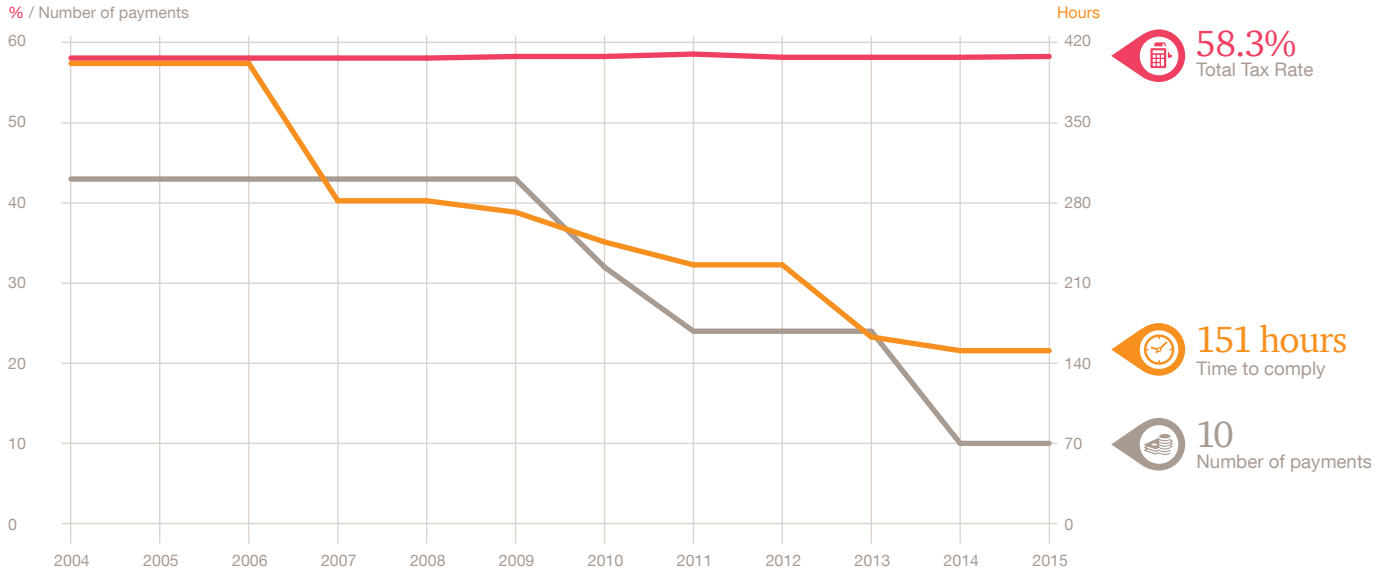
Digital tax management has been gradually developed and implemented in Costa Rica in phases, depending on the capacity of the tax administration. The first phase, between 2002 and 2003, was the introduction of mandatory electronic filing and payment for large taxpayers. As the system was optimised by being used by this small group of taxpayers, and the tax administration gained experience and skills, the system was rolled out to cover other taxpayers.

33

Average number of payments sub-indicator decreased from 43 to 10 between 2004 and 2015.

Figure 48

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



In 2006, a new law dealing with digital signatures and electronic documents further facilitated the direct delivery of services by the tax authorities allowing them to receive and process documents signed electronically by the taxpayer's representatives. This encouraged the use of digital systems within all public agencies. In 2008, the Costa Rican tax administration introduced standardised tax returns, which were made available to taxpayers through the Digital Taxation website. Paying taxes was made easier in 2013 by the implementation of electronic tax payments, though the National System of Electronic Payments (Sinpe).

In 2015, the tax administration developed a new advanced technology platform, which offered taxpayers electronic services via the Virtual Tax Administration website. A number of electronic services, which allow taxpayers to comply with their tax obligations, are available on the site. The creation of the platform and website was driven by the tax administration's desire to maximise voluntary tax compliance from those responsible for declaring and paying tax.

The benefits of this digital innovation are apparent from the movements in the time to comply and number of payments sub-indicators. Between 2004 and 2015, the average time to comply with tax obligation has fallen significantly from 402 to 151 hours and the average number of payments decreased from 43 to 10 payments.

The enhancement of electronic systems has made paying and filing taxes less time consuming and less involved. Under the previous old fashioned, paper-based system, tax returns had to be printed and signed, and payments had to be made during business hours at a specific bank, using only cheques for that bank. Now there is an online system for preparing and filing tax returns and, with the assistance of several banks, for making payments.

Companies in Costa Rica have also benefitted from a very stable tax system. Whenever tax legislation changes, taxpayers have to spend time understanding the new rules. A stable tax system also provides companies with more certainty, which is good for business more generally as it is easier for companies to make investment decisions. In Costa Rica the corporate income tax rate has been 30% since 2003 while over the same period social security contributions have stood at 26.17% with an increase to 26.33% from January 2015.

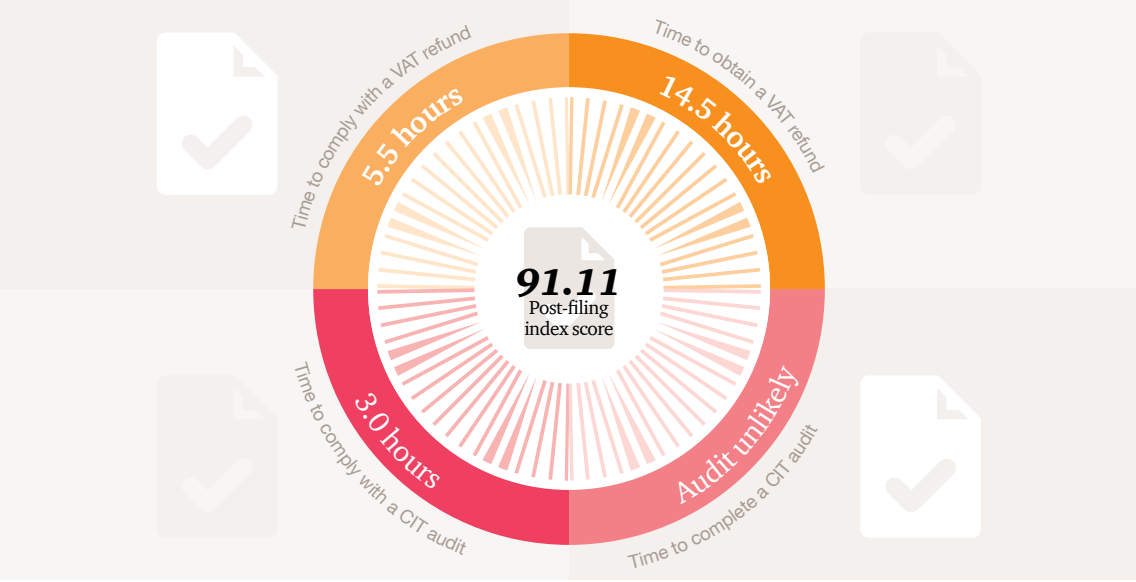
Costa Rica also scores well on the new post-filing index, suggesting that not only is it relatively easy to pay and file taxes in Costa Rica, but getting a refund and agreeing tax liabilities is also reasonably straight forward. Our case study company would need to spend less than six hours requesting a VAT refund, wait less than 15 weeks to receive the refund, and the refund request would be unlikely to trigger an audit. The company would need only three hours to correct an inadvertent error in a corporate income tax return and similar to the VAT refund, it would be unlikely to trigger an audit. On both of these post-filing processes therefore Costa Rica scores not only better than the global average, but better than the average for EU & EFTA which is the best performing region for post-filing processes.

Despite the improvements so far to the Costa Rican tax system, there is scope for further efficiencies. This would help the tax administration to reduce the amount of tax that is not paid and also to bring into full compliance those companies that participate in the informal economy. This, in turn, would give those companies better access to the national banking system.

The enhancement of electronic systems has made paying and filing taxes less time consuming and less involved.

Figure 49

Post-filing index and components for Costa Rica for 2015



Côte d'Ivoire

Achieving tax reform and broadening the taxable base

Dominique Taty, PwC Côte D'Ivoire

The *Paying Taxes 2017* launch in Côte d'Ivoire comes at a time when the country is increasingly recognised as an economic force in West Africa. Since 2012, Côte d'Ivoire has had an average GDP growth rate of 8%, and against this backdrop the ability for the country to raise tax revenues, but in an efficient and effective way, has become an important priority for government in pursuing its ambitions for future growth.

Although it has significantly expanded its tax system during the past twenty years, the country has not been able to demonstrate that it has an attractive tax system through competitiveness indicators which are often reviewed by foreign investors.

Since 2004, the three original *Paying Taxes* sub-indicators assessed by the World Bank have remained almost constant, suggesting a lack of substantial reform of the tax system and a poor result when compared with other economies.

After more than a decade, the Total Tax Rate has only reduced by a little over two percentage points from 53.4% (in 2004) to 51.3% (in 2015).

The government significantly reduced the corporate income tax (CIT) rate from 35% to 25% between 2006 and 2008. However, the impact of this reduction was largely neutralised by increases in social security contributions paid by companies. The case study company in Côte d'Ivoire has 11 taxes that contribute to its Total Tax Rate.

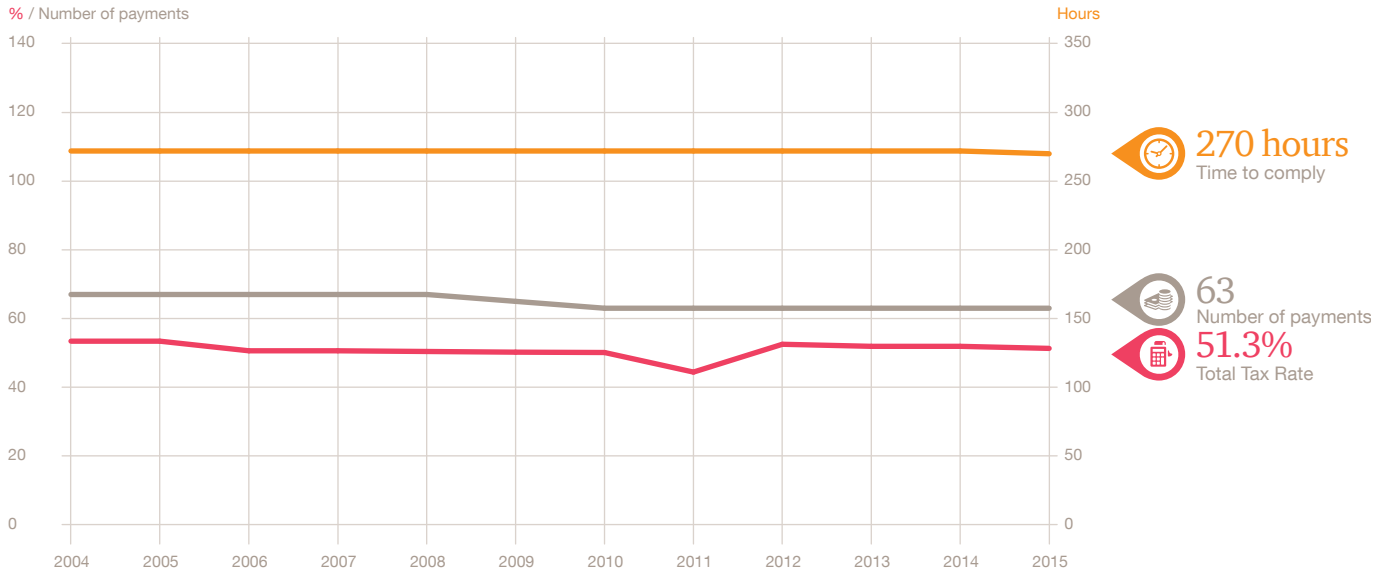
Moreover, it is important to note that during the socio-political crisis from 1999 to 2011, there was a lack of financial support from donor countries, and foreign investment fell. Collection of tax revenues became an increasing challenge for public funding, so that the number of taxes was maintained along with high tax rates.

11

The case study company in Côte d'Ivoire has 11 taxes that contribute to its Total Tax Rate.

Figure 50

Trend in the *Paying Taxes* sub-indicators for Côte d'Ivoire since 2004



The time to comply sub-indicator had been 272 hours since the start of the study, but has fallen slightly to 270 hours this year. With a view to addressing the issues that lie behind this number of hours, which has remained consistently above the global average, in December 2015 the tax administration implemented a single tax return form, the Formulaire Unique. This represents a first step towards simplifying the compliance obligations and it is intended that this will be followed by the implementation of an online filing (e-filing) facility. In practice this form has not yet provided all the benefits that were expected. Its introduction in December 2015 means that it could not impact the results now being released in this publication. While the form may have some benefits for taxpayers in future years, currently it remains a paper declaration which covers most of the main taxes and so it will not significantly reduce the burden without further enhancements.

The number of payment sub-indicator (63) measures the number of taxes, the frequency of filings and payments made in relation to those taxes and the method of payment. The single tax return has attempted to provide a solution for multiple payments by consolidating certain taxes, but the implementation of electronic filing and payment systems will be needed to help lower the frequency of interactions with the tax authority and ease the compliance burden on taxpayers.

As regards the new post-filing index, results are mixed. For CIT post-filing, the compliance time is lower than the world average and the fact that an audit is not likely to happen in connection with a CIT correction benefits the result. For VAT, the lack of a refund being available for our case study company (as refunds are only available for international traders) results in a poor score. Reforms have however been introduced in recent years regarding VAT refunds for exporters and international traders and these have been welcomed. Since 2006, a state financial body has been established which is responsible for VAT refunds for companies involved in such trade so that VAT credit management is more efficiently handled than in the past.

Generally speaking, the *Paying Taxes* results for Côte d' Ivoire do not currently match the country's ambitions. In the Government National Development Plan (PND) for the coming years, the improvement of the business climate is a key priority.

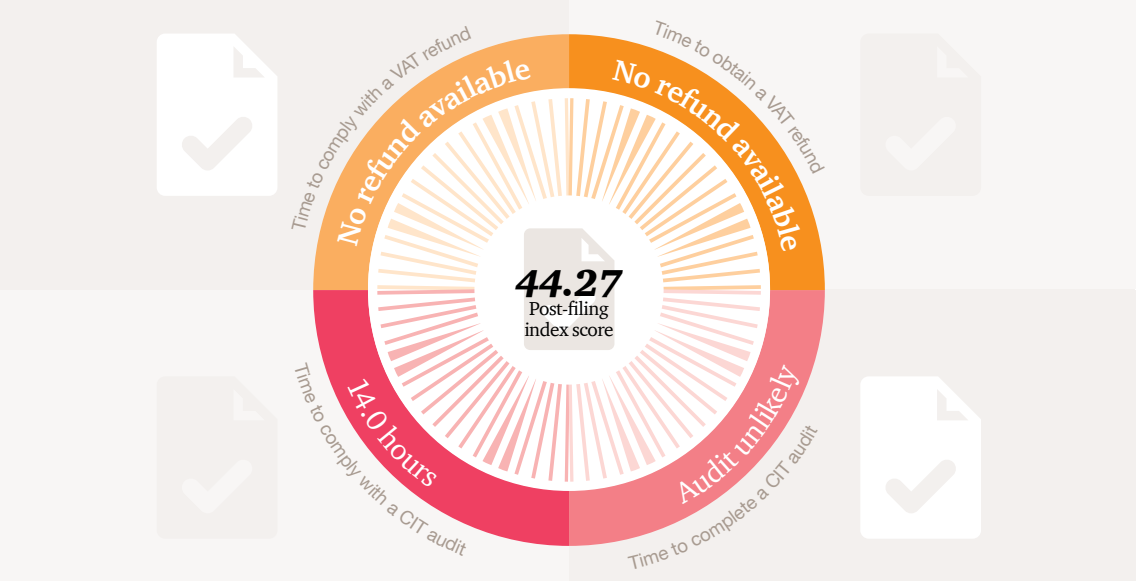
On 5 September 2014, the Prime Minister set up a tax reform commission bringing together stakeholders from the public and private sectors. They were asked to review the Ivorian tax system with the objective of aligning it with the country's overall development objectives.

The Prime Minister has also created a working group which is responsible for improving Côte d' Ivoire's position in the World Bank Doing Business ranking, with reform to the tax system being an important element. It is clear that the government and the private sector have an appetite and high ambition to improve the Ivorian tax system. We would encourage the government to continue its reflection on the mechanisms to reduce tax rates and to examine certain taxes which may be considered unattractive for investment. The ultimate aim is to make Côte d'Ivoire more attractive for investors, to increase investment and to improve taxes revenues by broadening the taxable base.

Generally speaking, the Paying Taxes results for Côte d' Ivoire do not currently match the country's ambitions.

Figure 51

Post-filing index and components for Côte d'Ivoire for 2015



Ecuador

Pressures on government finances leading to increased tax regulation

Pablo Aguirre, PwC Ecuador

With a time to comply of 664 hours, but a number of payments sub-indicator of just 8, the Paying Taxes results for Ecuador continue to reflect a tax system that is difficult to comply with, despite the availability of electronic systems for filing and paying taxes. The current economic backdrop may however present barriers to improving the system.

Ecuador's fiscal revenue depends greatly on its oil exports which have been significantly affected by the global oil price crisis that hit at the end of 2015. The drop in oil prices directly impacted the country's trade balance as well as the capacity of the Government to sustain and finance its infrastructure and socio-economic agenda. In addition, a sizeable earthquake seriously affected the coast of Ecuador.

With GDP growth of less than 1% for 2015, and negative growth projected for 2016, the Ecuadorean Government has sought, in part, to compensate the loss of its oil revenues and the impact of the earthquake with increased tax collection activities through the implementation of tax reforms including temporarily increasing the VAT rate from 12% to 14%, raising taxes to support people and areas affected by the earthquake, providing incentives to attract foreign and local investment and enacting several clarifying regulations. This has created the current environment of increased regulation for taxpayers and foreign investors.

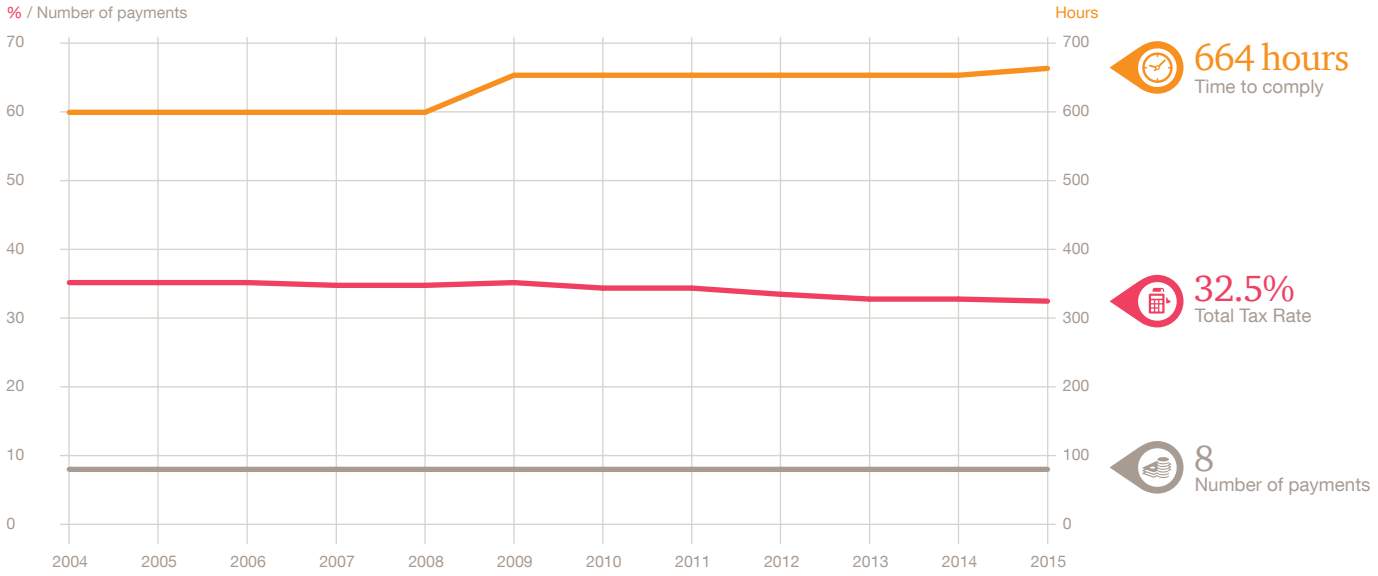
Whilst the increased regulatory activity in Ecuador is partly driven by the economic situation of the country, it is also a consequence of the Tax Authority's overall strategy to align itself with global tax positions relating to anti-avoidance provisions, interest deductibility changes, transfer pricing, transparency and double non-taxation together with the promotion of long term and transparent foreign investment.

664 hours

Ecuador has a time to comply of 664 hours, but a number of payments sub-indicator of just 8.

Figure 52

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



Tax compliance: More than just an administrative function

This year's study showed a slight increase of 10 hours in the time to comply from 654 in 2014 to 664 for 2015 as taxpayers spend more time computing their corporate income tax liability because of the new regulations. This change is particularly important in that it is a quantitative reflection of the impact on the taxpayer's administrative burden of the tax laws that came into effect in 2015. This increase has occurred even though most taxes are filed electronically. New laws and compliance obligations have also been enacted in 2016 which may affect the Paying Taxes sub-indicators in future years.

These changes in tax regulation mean that companies need to adjust their view of their tax compliance activities from simply completing and filing tax returns to being able to thoroughly substantiate the economic essence of their operations and provide adequate documentary support to the Tax Authority when required. Other obligations include statutory filings, such as the Shareholders Annex, which requires local taxpayers to disclose detailed information regarding their shareholders (local and foreign), corporate structure, and inter-company relationships.

The integration of the tax function into a company's overall business strategy is likely to require a shift in the mindset of many taxpayers – an approach that, whilst intuitive to taxpayers in more sophisticated tax jurisdictions, is likely to prove challenging within Ecuadorean business culture.

Anti-avoidance rules: increasing the Total Tax Rate?

With new limits on tax deductions for certain costs of transactions with related parties for fiscal year 2015 on, as well as the enforcement of limitations on the automatic application of benefits under double taxation treaties, the corporate income tax cost for multinational and local enterprises operating in Ecuador will be impacted significantly as taxpayers register increased levels of non-deductible expenses arising from their intra-group operations. This is likely to result in higher Total Tax Rates for many companies in Ecuador that conduct cross-border trade. These changes however will not be reflected in Paying Taxes which considers only domestic transactions.

The Ecuadorean Tax Authorities have however sought to offset the increase in the corporate tax burden by introducing benefits and incentives to benefit new investment, foreign financing and companies commencing economic activities in Ecuador.

A new measure for post-filing

With regard to the new post-filing index, Ecuador has a mixed performance. In common with the rest of South America, a VAT refund would not be available to the case study company as VAT refunds are available only to exporters and certain other types of company. On the corporate income tax correction and underpayment, however, Ecuador performs very well as it would take three hours to correct the tax return and make the additional payment and it would be unlikely to give rise to an audit.

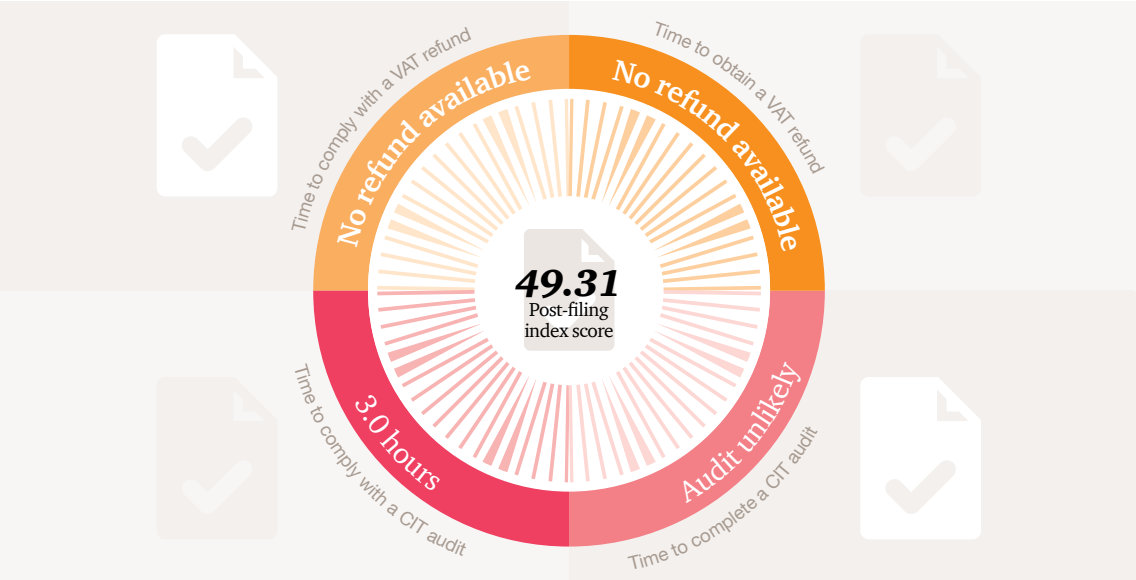
Looking forward

The on-going challenge for the Tax Authority will be to find a balance between continuing to enact its strategy (increase and improve revenue collection) and stabilising and reducing tax costs and administrative burdens for taxpayers.

This shift in the taxpayer's mindset reflects the integration of the tax function into a company's overall business strategy.

Figure 53

Post-filing index and components for Ecuador for 2015



Hungary

Slow but steady improvements to the tax system

Dora Mathe, PwC Hungary

Between 2004 and 2015, the *Paying Taxes* sub-indicators for Hungary have shown slow but steady improvement. As a result of the Hungarian government's efforts to make the tax system more competitive and efficient, Hungary is moving closer to the EU & EFTA average for Total Tax Rate, time to comply and number of payments sub-indicators.

Hungary's Total Tax Rate decreased from 56.6% in 2004 to 46.5% in 2015; above the average of 40.3% for the EU & EFTA region. In the last six years, the stated goal of the government has been to shift the focus of taxation from income tax to consumption taxes.

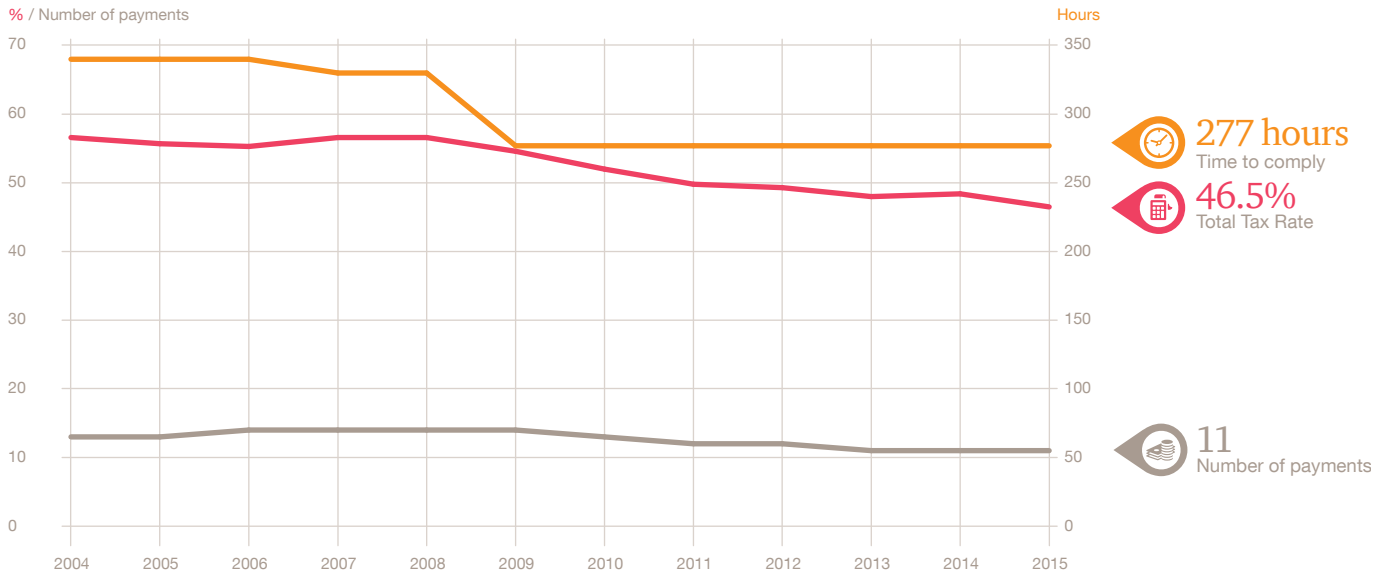
For corporate income tax, the first HUF 500 million is now taxed at 10% (raised from HUF 50 million) while the general VAT rate has been increased from 25% to 27% in 2012. The direction of the shift in the tax burden is not expected to change in the near future, but ultimately the government's goal is to decrease both the number and the rates of taxes.

The Government is also using the tax system to tackle several demographic challenges which are outside the scope of our case study. Tax incentives have been introduced for families with children to help combat issues presented by an aging population and to acknowledge the importance of families.

2004
56.6%
2015
46.5%
Decrease in the Total Tax Rate.

Figure 54

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



Other recent tax related measures seek to address the lack of skilled workers in certain sectors and regions including permitting tax deductions for investments in employee accommodation and new cafeterias and subsidising employees' mortgage costs.

Hungary's time to comply has fallen by 19% since the start of the study, largely due to the introduction and enhancement of an electronic tax compliance portal. At 277 hours it does, however, remain more than 100 hours above the EU & EFTA average of 164 hours.

At 11, the number of payments sub-indicator is slightly below the EU & EFTA average of 11.8.

Sector specific 'austerity taxes' have, however, been introduced in recent years, for banks, insurance companies, energy companies, retailers and telecommunications companies. These new taxes are not reflected in the study as they do not apply to the case study company. The government has announced its intention to reduce the number of taxes levied in Hungary.

Post-filing index

Overall, Hungary's post-filing index of 75.79 is better than the world average, but worse than the regional (EU & EFTA) average. EU & EFTA is however the best performing region for the post-filing index and so sets a high benchmark.

The VAT refund process is likely to trigger an audit in Hungary. This may account for the time to comply with a VAT refund being longer than the world average and almost twice the regional average. On average though it takes less time to obtain the VAT refund than in other economies globally or in EU & EFTA. Our experience is that an audit would, in many cases, not extend the time a company has to wait for a VAT refund in Hungary.

Correcting a CIT return, as per the case study scenario, is thought likely to trigger an audit in Hungary. Despite this, the time to comply with a CIT audit is lower than the world average. It is higher than the EU & EFTA average, but this is not surprising as in many economies in the EU & EFTA the correction does not trigger an audit. The resultant audit would on average be quicker in Hungary than in other economies globally or in the EU & EFTA.

While the *Paying Taxes* data shows improvements in recent years and the new post-filing index is relatively good, there is room for further improvement and the government is making efforts to speed up tax administration processes and audits. From 2016, the National Tax and Customs Authority is able to classify taxpayers as "reliable" or "risky" and the two categories have different legal consequences. "Reliable" taxpayers may benefit from less detailed and shorter audits. Taxpayers that are not assigned to either category will continue to be subject to the general rules.

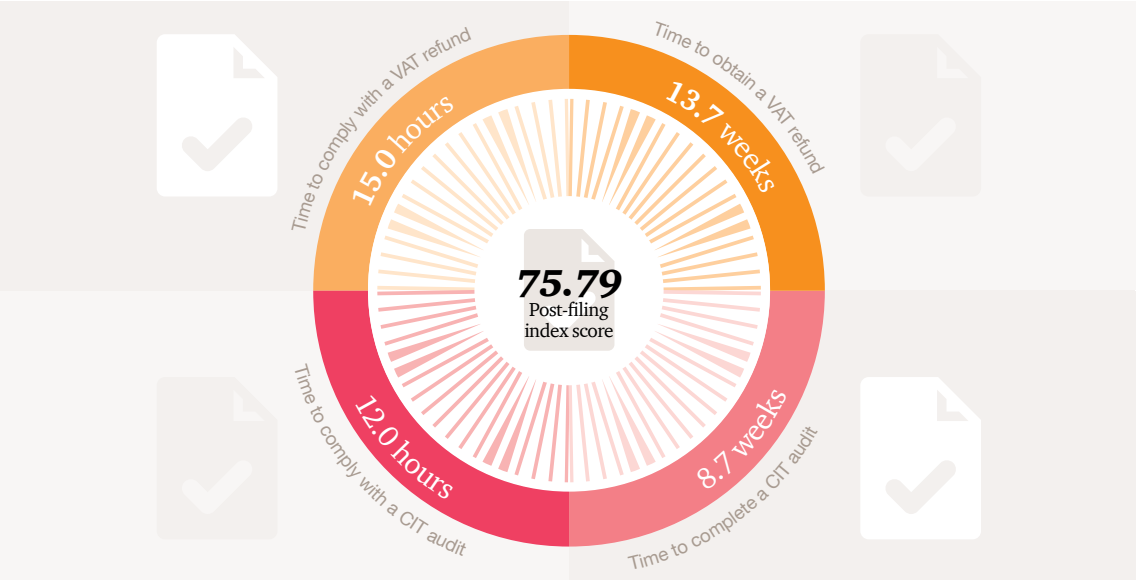
We are expecting further improvements to electronic systems, as the tax authority is requesting more and more online information from taxpayers. Electronic tills and invoicing software will soon have to be connected to the tax authorities' system in real time. More transactional information is collected via the VAT return process, which can be used for automatic cross checks.

75.79

Hungary's post-filing index of 75.79 is better than the world average.

Figure 55

Post-filing index and components for Hungary for 2015



Indonesia

Improvements realised and more to come

Ay Tjhing Phan, PwC Indonesia

Indonesia has been stepping up its tax reform drive. Tax reforms resulted in the country moving up the *Paying Taxes* ranking by 11 places when looking at the reforms introduced in 2015, but an improvement of over 40 places when compared with the published position last year in view of the implementation of the new post-filing index and the recognition of efficient post-filing processes.

In 2015, Indonesia's number of payments and time to comply sub-indicators improved to 43 payments and 221 hours respectively, thanks to the use of electronic social security systems. Indonesia's Total Tax Rate marginally increased from 29.7% to 30.6% due to the addition of a new pension contribution with 2% paid by employers.

As for the new post-filing index, Indonesia has a favourable score of 76.49, which is above the average for the Asia Pacific region of 58.53.

Indonesia operates a self-assessment system. The tax office generally relies on clarifications from taxpayers and tax audits to assess the quality of tax compliance, though tax audits are not applied in all scenarios. For instance, the correction of an error in a company's corporate income tax return, which had led to a tax underpayment (as is included in the corporate income tax components of the post-filing index) would not generally be expected to trigger an automatic tax audit.

Indonesia

76.49

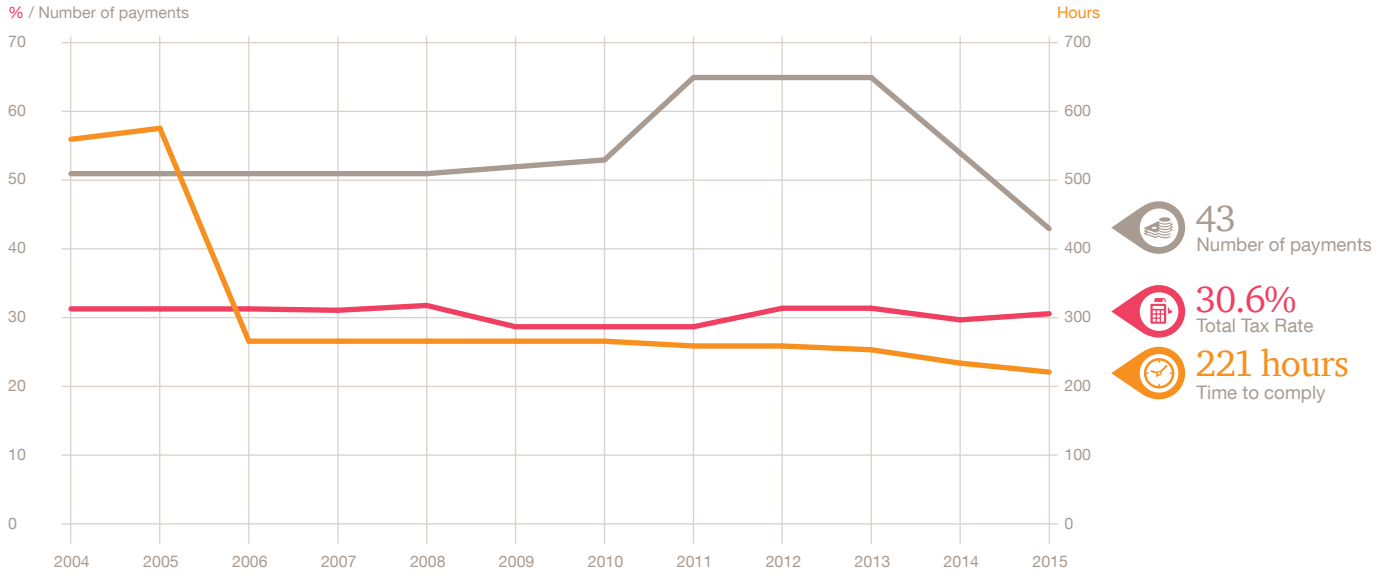
Asia Pacific

58.83

Indonesia has a favourable post-filing index score of 76.49, which is above the average for Asia Pacific.

Figure 56

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



Efforts to streamline the ease of paying taxes are not new. There has however been a renewed focus since President Joko Widodo took office in 2014. Given the ongoing efforts, the impact of reforms in 2016 and later, such as compulsory e-payment for tax liabilities, are not yet included in the current year's *Paying Taxes* data which relates to the calendar year ending on 31 December 2015. The effect of these recent reforms may however be seen in future years.

The impact of other key reforms, while far reaching, are not reflected in the study as they do not apply to the case study company. For example, regulations were introduced in 2013 for very small taxpayers (below the case study threshold) with qualifying turnover of below IDR 4.8 billion (about USD 370 thousand) to apply a 1% final tax to turnover. Targeted measures like this reduce the burden for corporate income tax calculations and minimise future disputes for small taxpayers.

In July 2016, Indonesia launched its highly anticipated Tax Amnesty Program. Over IDR 3,793 trillion (about USD 291.8 billion) of assets previously undeclared was reported in the first trimester of a nine month long program – approximately 95% of an IDR 4,000 trillion target. More than 392,000 taxpayers participated in the same period. This provides a substantial one-off redemption receipt for the government. It also drastically improves tax literacy among taxpayers and widens the tax base of declared assets to improve the quality and coverage of future tax compliance.

The success of the Tax Amnesty Program reflects the growing trust of taxpayers in the current Indonesian government. Credit must also be given to comprehensive communication campaigns nationwide. To date, Indonesia's tax-to-GDP ratio remains low (averaging 11%-12%) relative to the target of 16% by year 2019. To achieve this goal, Indonesia has to widen and stabilise its tax net through reform and public education to encourage more and better tax compliance.

Changes to Indonesia's tax system should take into account the complexities and wide range of taxpayers in its dynamic economy. Continuing regular engagement with business communities and practitioners to receive industry feedback is therefore key.

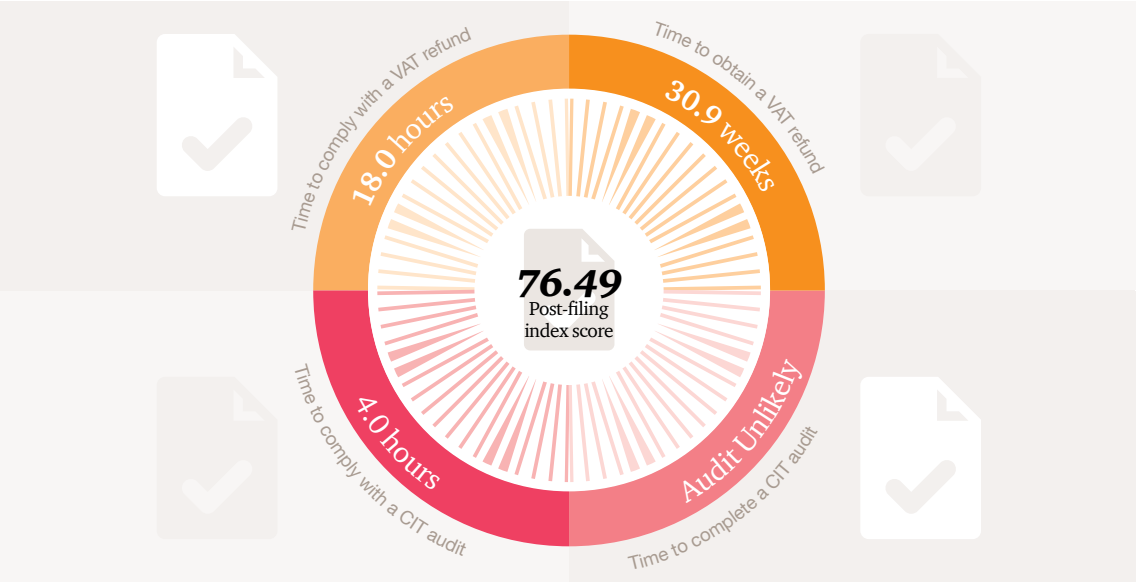
Reforms to the general tax administration law, income tax law and VAT law (among others) are expected to be debated in the coming months. On-going professionalism of tax authority staff has been helpful in improving and increasing their knowledge of commercial trends and international tax practices. Additional data collection and improved processing for more targeted tax enforcement is another priority area. Further measures, if adopted, such as the mandatory use of electronic tax filing could also further ease the administrative burden of complying with tax obligations.

We remain encouraged that the government will be able to build on momentum from the Tax Amnesty Program and maintain their focus on the ease of paying taxes to further improve tax compliance in Indonesia.

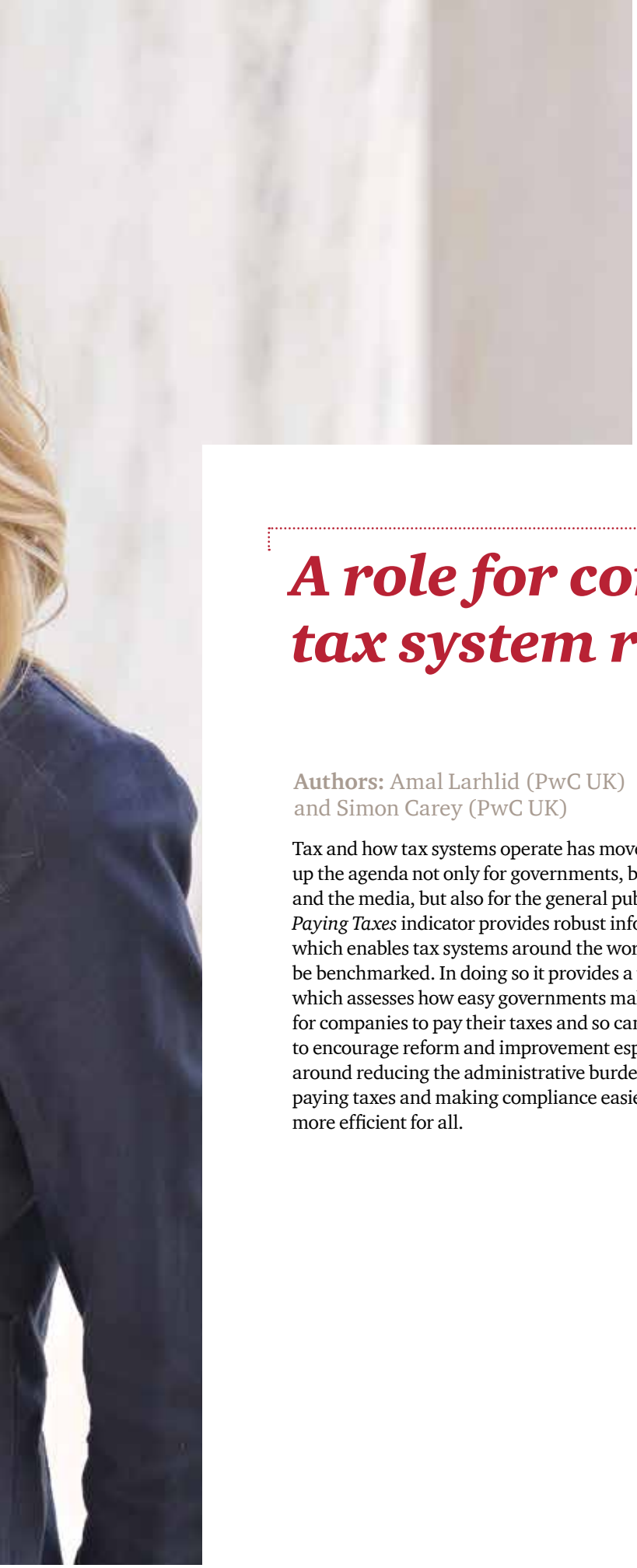
The success of the Tax Amnesty Program reflects the growing trust of taxpayers in the current Indonesian government.

Figure 57

Post-filing index and components for Indonesia for 2015



Chapter 4 – Beyond Paying Taxes: Tax policy and administration



A role for corporates in tax system reform

Authors: Amal Larhlid (PwC UK) and Simon Carey (PwC UK)

Tax and how tax systems operate has moved firmly up the agenda not only for governments, business and the media, but also for the general public. The *Paying Taxes* indicator provides robust information which enables tax systems around the world to be benchmarked. In doing so it provides a tool which assesses how easy governments make it for companies to pay their taxes and so can help to encourage reform and improvement especially around reducing the administrative burden of paying taxes and making compliance easier and more efficient for all.

But governments, particularly in the developing world, need assistance to make these reforms and to build effective, efficient tax systems. The private sector has the potential to offer this assistance and to play a much greater role in the worldwide development of strong tax systems; to do more than just paying its taxes. The private sector has access to resources, expertise and networks that can make a valuable contribution to the development of tax systems and the effective collection of tax revenues, but for this to happen there needs to be an appetite to offer such assistance and an acceptance by other stakeholders that such help is appropriate.

In this article we explore some aspects of corporate social responsibility and the role it can play in tax system reform. We identify the main barriers to effective cooperation in this area and some of the approaches to overcoming these barriers. This is based on international literature and insights gleaned from a series of interviews conducted with experts from multinational corporations, international financial institutions, tax authorities and non-governmental organisations (NGOs) during 2016. The authors are very grateful for the valuable insights these interviews provided.

"The field of CSR … is not a static set of practices, but a constantly evolving field which has been largely driven by business. CR used to be an "add-on," but has evolved to become a more integrated and disciplined field, increasingly managed and assessed as any other business function." [39]

Camilla Drejer, Corporate Responsibility Group

What do we mean by corporate social responsibility?

Corporate social responsibility (CSR) is "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis".[40]

Over the years, prevailing views on corporate responsibility have evolved. Companies continue to search for a competitive edge whilst trying to respond to new stakeholder demands and to demonstrate that the two need not be contradictory. A wider group of stakeholders now take a closer interest in companies' impacts and can influence how company brands are regarded.

Part of this evolution in CSR can be attributed to significant shifts in public sentiment. Many companies now have sophisticated, comprehensive and publicised CSR strategies, often with a particular focus on issues like supply chain working conditions, and some have gone so far as to make advocacy for social responsibility a key point of differentiation.

Businesses can be powerful agents of change and their influence can be significant for economic and social development. For developing countries in particular, businesses provide 60% of economic output and 90% of jobs.[41] The Addis Ababa Action agenda, agreed at the United Nations Third International Conference on Financing for Development in 2015, re-emphasised what they regard as the need for improved domestic resource mobilisation to "widen the revenue base, improve tax collection and combat tax evasion and illicit financial flows"[42] and highlighted the need for private business investment to help drive inclusive economic growth and job creation.

Why would companies get involved?

Many corporations are adopting and strengthening their CSR strategies in recognition of a range of benefits for companies; "ultimately, corporates can do well by doing good".[43] There can be lower costs to firms through greater operational efficiencies, reducing waste and costly energy consumption and removing inefficient capital expenditure. For example, in 2006 Wal-Mart reduced transportation costs by $3.5 million through one initiative to reduce packaging on toys.[44] CSR strategies that focus on employees' wellbeing and training can help retain more workers, enhance overall productivity, mitigate health and safety issues and other risks to the business.

By promoting and adopting considerate and responsible business attitudes, companies can engage positively with stakeholders, regulators and governments which can help with risk management and mitigation.[45] In addition this can help change a reputation and can differentiate the business, lead to greater customer loyalty, stronger client relationships and create an attractive workplace for employees which are all indirectly linked to sustainable business success.[46]

For developing countries in particular, businesses provide 60% of economic output and 90% of jobs.

"Ultimately, corporates can do well by doing good."

[39] Department for Business, Innovation and Skills 2014. See page 79 for bibliography.
[40] European Commission 2011.
[41] OECD 2016a.
[42] United Nations 2015.
[43] OECD 2016b.
[44] Wal-Mart 2006.
[45] Kytle and Ruggie 2005.
[46] IISD 2016a.

What role does tax play in corporate social responsibility?

A company's tax strategy can play an important part in their approach to social responsibility. Tax raised in a particular country is an important source of finance for the government, enabling them to meet economic and social objectives and helping to secure overall prosperity and stability. While tax is a cost to business, some say that it could also be regarded an investment in the societies in which a company operates.[47]

In some parts of the world, companies are increasingly being asked to consider their strategic approach to tax taking into account a broader social responsibility agenda. Through social media and greater financial disclosure there has been increasing pressure from citizens, governments, NGOs and the media for companies to think more broadly when planning their tax affairs to consider the wider impacts of their decision-making, and to explain publically the taxes they pay.

This is a particular focus in the developing world, where tax provides the funds to expand much-needed public services such as healthcare and education, and to alleviate deprivation. This should also be complemented by reforms to combat corruption and inefficiency in the public sector, to help ensure the benefits of taxation are accruing to those most in need.

Companies may have more to contribute than just paying their taxes

Companies potentially have more to offer than the contribution they make through paying taxes. They can also bring significant expertise and resource to bear on some of society's biggest issues, which includes contributing to the development of effective tax systems and the building of capability in developing world tax administrations. This should be possible without compromising their commercial competitive advantage, provided certain barriers to their involvement can be overcome. We consider these barriers and how they could be addressed in the final section of this article.

By promoting and adopting considerate and responsible business attitudes, companies can engage positively with stakeholders, regulators and governments which can help with risk management and mitigation.

[47] Action Aid 2015.

The different perspectives on CSR

Many parties have an interest in corporate social responsibility – including businesses, the media, professional bodies, trade associations, universities, research institutes, NGOs, governments, employees and other groups of citizens – and these diverse groups all have different expectations of what corporate social responsibility should entail. The analysis below briefly explores some of these different perceptions with regard to tax.

Governments

The government's responsibility is to look after the collective interests of its citizens, providing an enabling environment for responsible business and making sure that it is equitably enforced.[48] Governments cannot provide for all their citizen's needs alone and must partner with other actors to leverage key resources. Some have an expectation that governments should create a responsible and attractive business environment – often a key factor in a company's decision on whether or not to start doing business in a country.

In return, governments expect corporates to comply with their tax obligations. In some developed countries the input of corporates to the debate around tax policy is sought although to varying degrees, and in many developing and emerging countries governments will also seek the input of the private sector (either directly, or through international institutions and aid agencies) to advise on, and support, major tax system reforms.[49]

Non-governmental organisations (NGOs)

NGOs play a role in international development and help to draw attention to the impact of businesses on society and the environment, in some cases campaigning against businesses that, in their view, could operate differently. The work of some NGOs has impacted consumer and governmental expectations on companies with regard to their approach to tax: "Multinational brands have been acutely susceptible to pressure from activists and from NGOs eager to challenge a company's labour, environmental or human rights record".[50] This doesn't just impact businesses that are directly manufacturing or selling highly visible branded goods it can also affect a broader range of companies and their stakeholders.[51]

A common perception among NGOs is that the role of corporates in supporting tax systems should be limited to paying taxes in accordance with the spirit of the law, and should not extend to support with setting and developing policies that corporates themselves will eventually have to comply with. The practical impact of this view is to discourage the potentially valuable involvement of corporates in other ways, such as the provision of expertise, technical assistance and resources.

The international community

The international community – the United Nations, the OECD, the IMF and the World Bank, to name a few – have identified a major role for the private sector. International agencies themselves play a vital role in setting expectations for corporates to contribute to developing the countries in which they operate through responsible business practices. They play a key role in reshaping traditional perceptions of public and private sector roles by creating the conditions and tools for increased cooperation, such as common standards and best practice fora, in order to increase the access to expertise and information for governments and businesses to make informed decisions.

There is a risk that NGOs support too narrow a view of the role of corporates and discourage them from supporting tax development to their full extent.

[48] OECD 2016c.
[49] See, for example the work programmes of domestic aid agencies DFID, DANIDA and USAID, and international organisations such as the World Bank and European Commission.
[50] IISD 2016b.
[51] IISD 2016b.

The international community also plays a key role in identifying global trends in foreign investment and aid, and coordinating global responses to policy priorities.

The international community also plays a key role in identifying global trends in foreign investment and aid, and coordinating global responses to policy priorities. International organisations expect companies to support development by respecting "both the letter and spirit of the tax laws and regulations of the countries in which they operate"[52] and they may actively seek the input of the private sector to support tax system reforms.

Companies

Companies contribute to the societies in which they operate in a number of ways. In terms of public finances, it is not just taxes on corporate profits that support public expenditure, but also other taxes made possible by the economic activity they generate – such as value-added taxes and personal income taxes. There is now pressure from some stakeholders that they comply with the spirit and letter of relevant tax laws, and in many cases this means an expectation around both tax payments and the disclosure of relevant financial information.

A potential barrier to companies also contributing their expertise and resources to improve the local business environment in the developing world may be that the benefits of improvements will be shared with all other businesses (the free rider problem). However, evidence suggests that these barriers can be overcome.[53] Acting collectively to provide support and capacity building can diminish the problem, also providing an opportunity to strengthen relationships. The reputational benefits of providing support can also be significant, and promoting a clear, public CSR strategy can ensure these reputational benefits are captured by the firm or firms actually providing the support.

How can companies better support tax reform in developing countries?

A number of tax administrations in the developing world are looking for financial and expert support in reforming and strengthening their tax systems. Some corporates are interested in supporting these types of reforms but find that it is not always easy to know how to offer their support in a way that isn't misinterpreted. These corporate stakeholders often have interests very closely aligned with those of the governments and donors, as it is in their shared interests for countries to have well-functioning tax and public finance systems – where the infrastructure is properly managed, people have money to spend and invest, and corruption is minimised. They also have expertise and financial resources that can be applied to help tax reform including the drafting and strengthening of tax policy, legislation and administration.

Companies' involvement with governments of developing countries has historically been sensitive due to issues such as perceived conflicts of interest, criticism for interfering in developing countries' tax affairs, and accusations of corruption and bribery. These barriers are not insurmountable, and as we describe below, companies are already beginning to overcome some of these obstacles in innovative ways, acknowledging the positive impact that they can have if involved in the right way.

[52] OECD 2016c.
[53] Porter and Kramer 2002.

The table below outlines the main barriers and potential solutions to cooperation on tax administration and policy. The list is by no means exhaustive, but it highlights the extent to which companies may be deterred from making a valuable contribution, as well as the ease with which some of these barriers may be overcome.

Barriers

Procedural barriers

Internal rules and/or legislation designed to prevent conflicts of interest may prevent corporates from being involved.

Lack of access

No natural forum or platform for engaging on issues of tax development may exist.

The free rider problem

Companies may be reluctant to support tax development in a context where non-contributors also benefit.

Mutual lack of understanding

Businesses, governments, NGOs and international financial institutions may not understand each other sufficiently.

Potential solutions

- Revise internal risk procedures to allow cooperation by putting in place appropriate safeguards (e.g. clear codes of conduct, rigorous relationship checking, understanding the details of services proposed and parties involved/impacted, and examining and documenting the nature of the relationship between entities for the delivery of the services).
- Implement processes/standards for cooperation developed by international organisations such as the OECD (e.g. on Responsible Business Conduct) or the Business and Industry Advisory Committee (BIAC) framework for stakeholder engagement.[54]

- Build relationships with the help of facilitators or business advisers.
- Set up fora for dialogue and cooperation with representatives of different parties, including NGOs, tax authorities and other corporates.
- Work with, or through, international financial institutions and the international community.

- Facilitate collaboration between corporates, to encourage a collective approach across an industry, or even more widely.
- Ensure that the reputational benefits of the company supporting tax development are realised (e.g. through the publication of a clear CSR strategy).

- Frequent and constructive multi-stakeholder policy dialogue to improve understanding and build trust between stakeholders.
- Formal submissions (written and verbal) on potential tax changes.
- Secondments of tax staff from companies to tax authorities (and vice versa), with appropriate safeguards.

[54] BIAC 2006.

Barriers

Lack of trust

Stakeholders may not trust one another sufficiently to cooperate on issues of tax development.

Corruption

Companies may be deterred from working with governments due to real or perceived corruption within the bureaucratic or political levels.

The perception of lobbying

Businesses may be deterred from providing support in case it is perceived by stakeholders as a lobbying exercise.

Costs to the business

The cost of providing support for tax development may be prohibitive. This includes financial costs, staff time and management resource.

Potential solutions

- Improve corporate transparency and consider what voluntary disclosure can be made in order to build trust.
- Ensure any interactions with the authorities around tax development, and the company's intentions, are publically disclosed.
- Assess and address the developmental impacts of tax behaviour.

- Ensure all interactions and arrangements with the government are made on a fully transparent basis.
- Cooperate with international organisations or other independent bodies to mitigate the risks.
- Provide technical assistance to support the government in the fields of governance and anti-corruption.
- Ensure strong procurement procedures to protect the company from problematic conflicts of interest arising through its interactions with government tax bodies.

- Transparent public disclosure of the aims and outcomes of cooperation around tax and development issues.
- Payment by results approaches can – if well executed – provide a mechanism for aligning incentives between the provider of a service/ program and the contracting authority. These contracts involve a "success fee", which is subject to the realisation of pre-defined objectives related to the project.
- Work with, or through, international organisations or wider industry groups.

- For some companies this may be a perceived, rather than actual, barrier, as the improvements to the business environment and flow-on implications for the company's operations can far outweigh the costs of providing support.
- Companies may be able to provide support in ways that alleviate their main pressure points – i.e., providing opportunities for staff secondments where financial support is not possible.
- Companies can encourage others to participate through the sharing of best-practice cooperation examples and the impact these have had on the firms themselves.

This demonstrates that the barriers to corporates supporting the development of sound, well-functioning tax systems are not insurmountable, and a number of these potential solutions are already being utilised by companies and tax administrations around the world. As a final point, we highlight two of the key tools being used to overcome these constraints below.

A number of industry groups have been set up to overcome these obstacles in a collective way. One example of this is the Africa Industry Tax Association (AITA), a group of multinational corporations with significant operations in Africa. This group was formed as a structured, collective platform for engaging with African governments and revenue authorities on issues around tax policy, systems and administration, and has an active working relationship with the African Tax Administration Forum (ATAF). These groups may even be formally incorporated into the consultation processes of other stakeholders as is the case with the Business and Industry Advisory Committee to the OECD (BIAC), a group of multinational businesses who operate as a trusted partner to the OECD and other international institutions. Groups like these can be a powerful tool for promoting dialogue and building trust between governments and industry around tax affairs, mitigating the free rider concern and reducing the perception of lobbying for the advancement of company-specific benefits.

Blended finance is another collaborative approach to overcoming these barriers. It is defined by the World Economic Forum and OECD as "the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets".[55] At its core it is a way to channel private investment into sectors where the development needs are the greatest, by combining it with development finance and philanthropic funds to mitigate risk and ensure commercial returns. International financial institutions are already operating models like this as a way to mobilise resources for their global programmes, including specific funds established to assist with tax development. Both these approaches – as well as the tools and approaches listed above – are available to companies and governments looking to overcome the constraints to greater cooperation around issues of tax development.[56]

Concluding remarks

Governments worldwide are looking to their tax systems to generate the funds necessary to support vibrant, inclusive societies, but many countries remain unable to harness the revenues needed to provide even basic needs for their populations. Tackling corruption, improving the tax system, and making it easier for companies and individuals to pay their taxes are important roles of government, while companies are expected to pay their tax when and where it is due.

In addition to the taxes that a company pays, there is potential for companies to work in cooperation with governments and other stakeholders in support of broader development goals as well, including a role in the worldwide development of strong tax systems. The potential barriers to this cooperation, if addressed properly, need not prevent the experience, influence and resourcefulness of the private sector from playing their part in fulfilling these important goals.

Tackling corruption, improving the tax system, and making it easier for companies and individuals to pay their taxes are important roles of government, while companies are expected to pay their tax when and where it is due.

[55] OECD and World Economic Forum 2015.

[56] Examples include a series of multi-donor funds operated by the World Bank, and the IMF's Tax Policy and Administration Topical Trust Fund, launched in 2011 to help meet increased demand for technical assistance from developing countries in the area of revenue policy and administration (see IMF 2016b).

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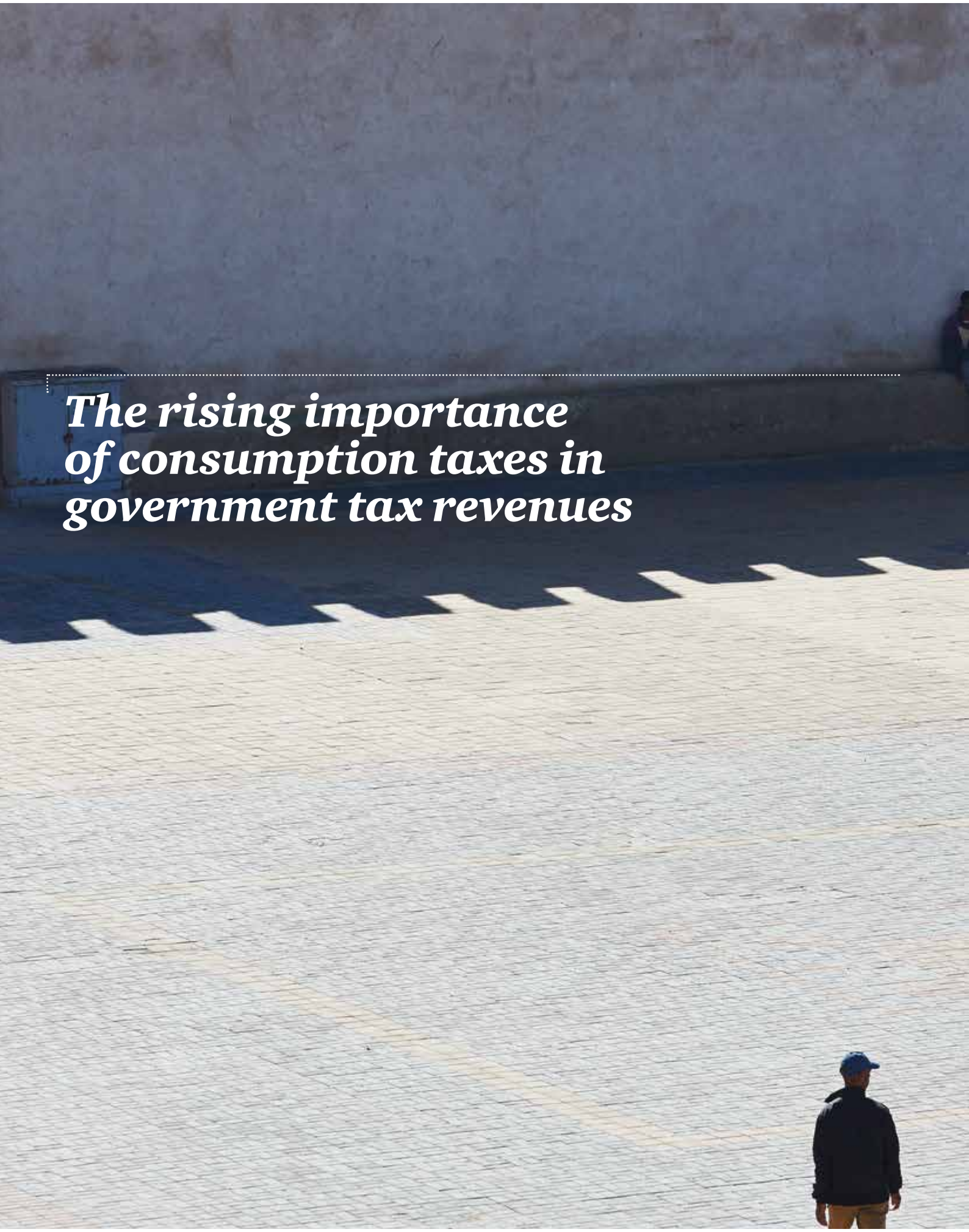
The rising importance of consumption taxes in government tax revenues



Authors: Jo Bello (PwC UK)
and Haider Hatteea (PwC UK)

Executive Summary

- Corporate income tax as a percentage of governments' tax revenues is continuing to fall at the same time as tax revenues from indirect taxes such as value-added tax (VAT)[57] are increasing. This reflects a global trend of governments focusing on the certainty of revenues from VAT and using indirect taxation to achieve objectives beyond just raising tax revenue.

- The number of countries around the world with a VAT system is increasing. VAT in the OECD countries now accounts for around 20%[58] of total tax revenues, a 70% greater share than in the mid-eighties.[59]

- Comparing VAT systems across the world shows that there is a clear tension between the need to reduce the possibility of non-compliance and ensuring that the burden of administration on taxpayers does not impair businesses' competitiveness. There is some evidence to suggest that more recently implemented VAT systems in OECD countries have higher levels of compliance. This is because a single VAT rate is used with a broader VAT base with few exemptions. More research is needed to explore this further.

- Technology is playing an increasingly important role in the creation of efficient indirect tax systems and in improving their effectiveness by reducing the cost and administrative burden for both taxpayers and tax authorities. Examples of this will be seen next year in India where they will introduce a new goods and services tax and in Spain which will increase the use of 'real time' VAT reporting.

- Post-filing interactions with tax authorities for VAT can complicate the compliance process and increase costs for business. The new *Paying Taxes 2017* post-filing index enables a comparison of these processes around the world.

[57] We have used VAT (value-added tax) to cover similar consumption tax systems such as goods and services tax (GST). The US system of sales and use taxes is not a VAT (as not collected on the value added at each stage and is essentially collected at a single stage (retail)) however it remains a tax on consumption and not income.
[58] OECD (2015), "*Revenue Statistics: Comparative tables*", OECD Tax Statistics (database).
[59] OECD (2014), *Consumption Tax Trends 2014 – Fig 1.3.*

The EU member states, as well as a number of countries in Africa, America and Asia-Pacific currently have VAT systems. The Gulf Cooperation Council (GCC) countries in the Middle East are also looking to implement VAT over the next few years, and India is still on track to implement a new GST system to replace its current multiple VAT and sales tax systems early in 2017.

Consumption taxes, primarily in the form of value-added tax, goods and services tax (GST) as well as sales and use tax (SUT), have grown to be a major source of tax revenues for governments across the globe as they begin to appreciate that taxing consumption provides a more certain tax revenue stream than taxing income or profit. Governments worldwide are looking to raise more of their taxes from indirect taxes, which from a business perspective should be more neutral than direct taxes. See Figure 58 which shows that almost 30% of tax revenues are raised from indirect taxes (VAT raising around 20% and other indirect taxes such as excise duties making up the balance) versus tax revenues from corporate profits at around 10%.[60]

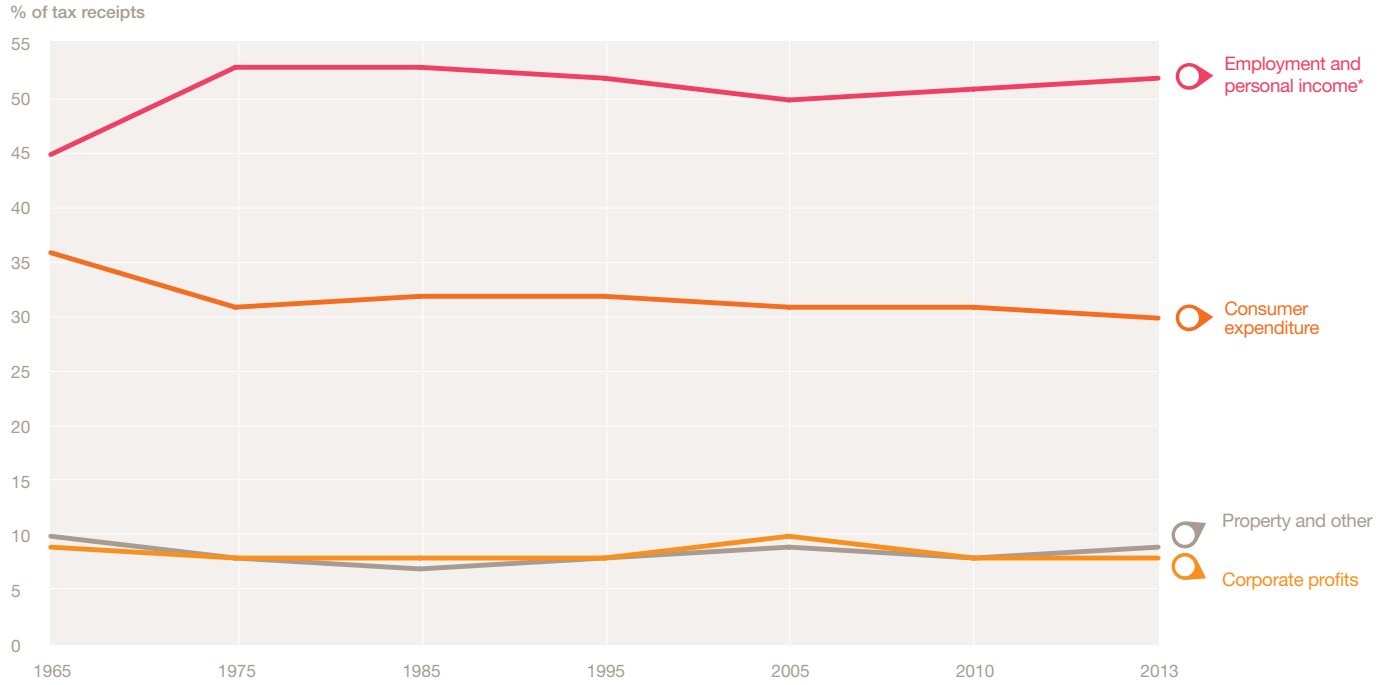
VAT is now the most common form of consumption tax used around the world with a growing number of countries moving from a sales tax to a VAT system. With 162 economies in the *Paying Taxes 2017* study employing VAT today,[61] it is attracting an increased focus from governments as it is viewed as an efficient and effective method of providing tax revenues that governments need without stifling business growth. Whereas high rates of corporate income tax (or a very extensive tax base) can discourage investment and provide an incentive to shift income to lower tax jurisdictions, VAT is generally neutral in terms of business location decisions (except where VAT recoveries take too long or are impossible to achieve).

162 economies

in the Paying Taxes 2017 study employing VAT today.

Figure 58

Tax Structures in OECD economies – % of tax receipts categories by revenue source



Source: OECD Revenue Statistics, 2015 * personal income tax and social security contributions

[60] OECD (2015), "Revenue Statistics: Comparative tables", OECD Tax Statistics (database).

[61] The OECD records 164 economies with VAT systems in its 2014 edition of Consumption tax trends. This includes economies that are not in the *Paying Taxes 2017* study.

What are the differences between the types of consumption taxes, VAT, GST and SUT?

VAT and GST are designed to be a tax on final consumption. They are collected throughout the supply chain through a staged collection process. VAT and GST are levied on the supply of goods and services, as well as on the importation of goods and services. As a general principle, VAT and GST are imposed at every stage of the economic process and allow deduction of taxes on purchases by all but the final consumer, subject to some exceptions. The net effect of this is to spread the collection of the tax as buyers, suppliers, and consumers contribute only the incremental value they have provided in the supply chain under a credit or debit system where VAT/GST incurred on purchases is offset against the VAT/GST due on sales.

The EU member states, as well as a number of countries in Africa, America and Asia-Pacific currently have VAT systems. The Gulf Cooperation Council (GCC) countries in the Middle East are also looking to implement VAT over the next few years, and India is still on track to implement a new GST system to replace its current multiple VAT and sales tax systems early in 2017.

In comparison to mature VAT systems, such as in the EU, where newer VAT systems have been introduced, for example in Australia, New Zealand and Singapore, these countries apply VAT at a single rate of tax to a broad base of consumer spending, with few exemptions, and as a result are characterised by having a higher degree of compliance (and by implication a reduced cost of compliance for the taxpayer, i.e., the business) and sustained revenue raising.[62] The EU VAT model has been part of the tax landscape in Europe since the first VAT Directive was adopted on 11 April 1967, and is characterised by having a far narrower tax base (due to the high use of exemptions and zero-ratings) which renders the EU VAT system more complex for business and tax administrations and increases the costs of compliance for both. It should be noted however that the *Paying Taxes 2017* study's simple fact pattern is not able to provide support for this position; further work will be undertaken to investigate this.

Whilst a VAT system requires all parties in the supply chain to collect and remit (a part of) the tax, this indirect tax system is often viewed as less open to fraud than retail sales taxes such as SUTs, for example, as in the US, which are collected in their entirety at the point of sale on the last sale in the supply chain (i.e., the retailer to consumer). In this regard, although both VAT and SUT are designed to tax the final consumption of a wide range of products, in practice, SUT places reliance on either the final supplier or end consumer remitting the entirety of the tax. To reduce the 'cascade' effect of such taxes, an exemption certification is often required through the supply chain. As a result of the non-compliance risks associated with the sales tax system, this can result in the tax revenue being at risk if either party is unaware of or does not fulfil its reporting obligations particularly in the case of the final transaction with the end consumer. The US is currently the only OECD country which employs SUTs as its principal tax on consumption.

[62] The Anatomy of the VAT – Michael Keen IMF paper 13/111.

The spread of VAT/GST systems globally

The number of VAT systems in the *Paying Taxes 2017* study has continued to increase, rising from 153 economies in 2010 to 162 economies in 2015.[63] Some of these are a new tax and some a replacement for other narrower forms of consumption tax. Some examples of how VAT systems are developing include China's accelerated transition from business tax to a VAT system from 2012 which was substantially completed in 2016, the introduction of VAT in Malaysia on 1 April 2015 (which replaced its Sales and Services Tax system), and Egypt's transition to a full VAT system in September 2016. VAT in the OECD countries now accounts for around 20% of total tax revenues, a 70% greater share than in the mid-eighties.

With the new GST expected to be implemented in India in April 2017 and the introduction of VAT in the GCC countries expected to occur in 2018, the number of countries with a VAT based system will continue to rise in the coming years. This will present a number of challenges as businesses operating in these markets adapt to a new tax system and consider the need to introduce automated tools to help them comply.

This need for "bedding-in a new VAT system" is evidenced in the *Paying Taxes 2017* study by the introduction of VAT in The Bahamas in January 2015, where the time to comply for the case study company in dealing with consumption taxes increased the most by 157 hours as businesses adjusted to a new tax regime and the inherent additional processes. Similarly, Malaysian businesses' time to comply for consumption taxes also increased by 58 hours and demonstrates the many challenges businesses can initially face when tax authorities change existing tax regimes.

There is also a rising number of countries with existing VAT based systems which have raised their standard rate at least once since 2010 (in the period 2008-2010, 13 countries out of the then 27 member states in the EU increased their rates)[64] due to financial consolidation pressures caused by the global financial crisis. This resulted in businesses being required to adapt their IT systems and prices in advance of these changes creating additional compliance burdens.

The VAT compliance burden

It is inherent in the way VAT is collected that businesses are unpaid tax collectors, as all parties in the supply chain are responsible for the extra VAT accounting required. This burden includes the cost of raising VAT invoices (in a VAT system) for each supply made, the cost of preparation and submission of VAT returns, and the frequent payment of the VAT due.

Variations in the time to comply (and the complexity of the compliance process) can even arise within a region where countries share the same underlying framework and compliance requirements. For example, in EU member states, where there is a common legal framework for the VAT system,[65] the time needed annually to comply with the VAT obligations varies in the *Paying Taxes 2017* study. The range is from 30 hours in Ireland to complete, submit and file a VAT return to 96 hours in Hungary. This may in part be explained by the difference in the level of information reported on the VAT return, where there is only a requirement to report VAT on sales and purchases and trade with other EU member states on the Irish VAT return, compared to up to 99 boxes to complete on the Hungarian VAT return. The amount of information and data on a VAT return may not just reflect the complexity of the system itself but in addition the use to which tax administrations put the data collected, e.g. desk based reviews and risk analyses.

24hrs

It is interesting that the global average time to comply with consumption taxes in the Paying Taxes study has fallen from 123 hours in 2004 to 99 hours in 2015, for the case study company.

[63] *Paying Taxes 2017.*
[64] The Anatomy of the VAT – Michael Keen IMF paper 13/111.
[65] Directive 2006/112/EC

Whilst the complexity of the legislative regime has to be absorbed by businesses and the actual time taken to comply will vary with the size of the organisation, it should be welcomed that an increasing number of tax authorities are implementing ways to reduce the compliance and administration costs falling on business.

It is interesting that the global average time to comply with consumption taxes in the *Paying Taxes 2017* study has fallen from 123 hours in 2004 to 99 in 2015 while the number of payments sub-indicator for 'other' taxes (which includes consumption taxes) has fallen from 16.1 to 12.5. These falls reflect the introduction and increased use of electronic filing and payment systems and also changes to the frequency of filing returns and the supporting information required.

In the most recent year of the study, 2015, the most significant reductions in the time to comply in relation to consumption taxes were seen in Brazil, Vietnam, Senegal, Algeria and Albania, while in Tajikistan the payments sub-indicator fell significantly by 5. All of these countries made changes to their tax systems to assist in making it easier to comply with their consumption tax obligations:

- Brazil has benefitted from the introduction of electronic systems which are being used more widely for preparing, filing, and paying VAT. Albania has also introduced an on-line platform for the submission of VAT returns.
- Improvements to supporting accounting software have been seen in Senegal and Algeria. Albania has also enabled accounting software to be integrated with the online platform mentioned above.
- In Tajikistan taxpayers now have the ability to maintain and file VAT invoices electronically.
- In Vietnam it is now possible to file VAT returns on a quarterly basis.[66]

There is also a rising number of countries with existing VAT based systems which have raised their standard rate at least once since 2010.

[66] Note however, the burden of compliance must be balanced with the neutrality of the VAT system when determining the frequency of filing and the increased fraud risk.

The Paying Taxes 2017 study has shown this year that governments around the world continue to implement reforms to improve how easy it is to comply with VAT systems.

Post-filing information

VAT is attracting more attention from tax authorities across the world due to its potential to be a simple and efficient means of tax collection and an important source of revenue for governments. SUT has its limits as it is not, unlike VAT, self-controlling and this explains in part why most SUT rates are far lower than VAT rates. Tax authorities are, in addition, increasing and improving their audit procedures in order to ensure that the correct amount of tax is paid at the right place and at the right time.

Whilst businesses have an element of control over the preparation and submission of VAT returns depending on the effectiveness of their tax function and the optimisation of the VAT technology used, the interactions which can potentially take place with a tax authority, for example, following a VAT refund claim can significantly complicate the compliance process and increase costs for businesses. In this regard, it is common in a number of jurisdictions that businesses seeking a refund of VAT can expect to be subject to an audit. With this in mind the fourth sub-indicator, the post-filing index, has been introduced to the *Paying Taxes 2017* study this year which in part looks at VAT and dealing with a VAT refund claim.

VAT refund mechanism

It is common for the majority of VAT registered businesses to be in a VAT payment position. There are however occasions where businesses may be in a VAT repayment position. This can arise for a variety of reasons ranging from businesses being involved in export transactions where zero-rating or exemption from charging VAT is available or when companies make one-off large capital investments resulting in input taxes on purchases exceeding the tax on sales for one or several periods.

The mechanism by which VAT is refunded is an essential part of the VAT system. It is interesting to note, however, from the analysis carried out in *Paying Taxes 2017* that of the 162 economies identified which had a VAT system in 2015, only 93 gave the facility for a VAT refund under the case study company scenario where VAT is payable on the purchase of capital equipment.

In 22 of the 162 economies which have VAT, taxpayers are required to carry forward the excess input tax for at least two months before a cash refund can be requested. In these 22 economies the average period of time needed before a request can be made for a cash refund is nearly five months, ranging from two months in Bulgaria, Seychelles and Tonga to twelve months in Vietnam.

In general, the ability to receive a VAT refund is challenging or, non-existent in certain countries in Africa, Asia Pacific, South America, Central America and the Caribbean. This primarily arises either because:

- the ability to claim a refund is restricted to specific categories of taxpayers such as international businesses involved in export transactions; or
- there is no mechanism to refund the VAT.

7.9 hrs

is the average time it takes the case study company to comply with a VAT refund in high income economies compared with

26.9 hrs

in low income economies.

Where a business is unable to obtain a VAT refund, there is a clear cost to the business. Our practical experience of this is that the cost can be so significant as to make transactions uncommercial and thus, business will often move, stop or change the transaction they carry out in a country where VAT recovery is potentially a problem or impossible.

On average, the *Paying Taxes 2017* study finds that the EU performs the best on the post-filing index which includes 7.4 hours as the average time needed to comply with VAT refund requirements and 14.7 weeks to receive the refund.[67] This can be attributed to the existing legal framework in place and the work undertaken by the EU Commission to both simplify the VAT system and ensure refunds are processed in a timely manner – even to taking legal action. Also of note is that the EU is one of the few regions which allows non-resident businesses (both other EU Member States and non-EU territories) to recover VAT incurred there (in certain circumstances).

Notwithstanding that 46% of the economies in the EU do not systematically undertake an audit as part of the VAT refund request procedure, the time to comply and the time to obtain the VAT refund are lower than the global average. This can be contrasted with the position in the Central America & the Caribbean region where, on average, it takes the longest time to obtain a VAT refund with businesses having to spend 19.6 hours on compliance and waiting 34.7 weeks to receive the refund.

Austria is shown to have the most efficient VAT refund system: the likelihood of receiving a VAT audit is low for our case study company in Austria and the time frame in which a VAT refund can expect to be received is also the shortest across all countries (approximately 3.2 weeks). This may, in part, be attributable to the Austrian Ministry of Finance being one of the first tax authorities to use a standard audit file format (Standard Audit File for Tax (SAF-T)) for the electronic exchange of reliable accounting data from organisations to a national tax authority.

When comparing the VAT refund process across the levels of economic development around the world, on average it takes less time to comply with a VAT refund in high income economies where it takes 7.9 hours for the case study company compared with 26.9 hours in low income economies. Furthermore, it takes 15.6 weeks to receive the refund in high income economies compared with 28.3 weeks in low income economies.

Some conclusions, and what next

Indirect taxation is increasingly being seen by governments as a cost effective way to raise taxation and has (as compared to corporate taxation) less of an impact on business performance and the relative attractiveness of a location.

The *Paying Taxes 2017* study has shown this year that governments around the world continue to implement reforms to improve how easy it is to comply with VAT systems, but there continues to be a wide variety of complexity in VAT systems even between neighbours. There is also a general correlation between the efficiency and speed of the repayment of refund claims and a country's general level of economic development.

There appears to be a correlation between a broad based single rate system and the level of compliance by business, with newer systems often inherently less complex thereby being easier to comply with. However further research is required to provide evidence of this as it is currently beyond the scope of the *Paying Taxes 2017* study scenario due to its simple fact pattern.

Overall the aim should be to have simple systems which make the best use of information technology to minimise compliance times and the data elements required to find the right balance between reducing the burden of data provision requirements and the opportunity for fraud. There are many questions to consider as VAT systems evolve and governments seek to find the right balance – is all data collected by authorities actually effective in the fight against fraud? Is some data more important than others? Does a high quantity and frequency of data collection increase or reduce fraud in a country? What kind of automation and technology introduced by tax authorities will help reduce the time to comply and can it help in reducing fraud? Over the coming months we will be conducting further research to address these questions.

[67] Please note that these averages are for the EU only. *Paying Taxes 2017* refers to EU & EFTA which includes Iceland, Norway, Switzerland and San Marino.

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 and complying with post-filing processes. The project was developed and implemented as part of the *Doing Business* project by the World Bank Group in cooperation 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 mandated by government (at any level – federal, state or local) and that apply to the standardised business and have an impact on 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 requited 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 and method of filing and payments, as well as on the time taken to comply with tax laws in an economy, the time taken to request and process a VAT refund claim and the time taken to correct a minor error in the corporate income tax return including audit, if applicable. 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 2014. 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 comprise: 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 2014, 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 2015, owns two plots of land, one building, machinery, office equipment, computers and one truck and leases one truck.

Paying Taxes measures all taxes and contributions that are mandated by government (at any level – federal, state or local) and that apply to the standardised business and have an impact on its financial statements.

- 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 2015). 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. Costa Rica is used as an example in Table 1.

Table 1

Costa Rica: Number of payments

Tax type	World Bank indicator	Actual payments	Notes
General sales tax (GST)	1	12	online
Corporate income tax	1	4	online
Employer paid – social security contributions	1	12	online
Employee paid – social security contributions	0	12	jointly
Employer paid – workers' insurance contribution	1	1	
Municipal patent licence	1	4	online
Tax on land property	1	4	online
Highway tax	1	1	
Property transfer tax	1	1	
Stamp duty	1	1	
Total	**9**	**52**	

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, social contributions and personal income tax. 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. Ecuador is used as an example in Table 2.

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 2017* reports the Total Tax Rate for calendar year 2015. 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 requited 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.

Table 2

Ecuador: Time to comply (hours)

Tax type	Corporate income tax	Labour taxes	Consumption tax	Total
Compliance process				
Preparation				
Data gathering from internal sources (for example accounting records) if held	5	25	30	
Additional analysis of accounting information to highlight tax sensitive items	5	25	30	
Actual calculation of tax liability including inputting data into software/ spreadsheets or hard copy records	15	50	30	
Time spent maintaining/updating accounting systems for changes in tax rates and rules	5	-	30	
Preparation and maintenance of mandatory tax records, if required	10	50	20	
Other activities undertaken to comply with tax regulations in local economy: Transactional annex to be filed on a monthly basis	48	6	0	
Total	**88**	**156**	**140**	**384**
Filing				
Completion of tax return forms	18	81	55	
Time spent submitting forms to tax authority, which may include time for electronic filing, waiting time at tax authority office etc.	2	24	15	
Total	**20**	**105**	**70**	**195**
Payment				
Calculations of tax payments required including, if necessary, extraction of data from accounting records	4	23	10	
Analysis of forecast data and associated calculations if advance payments are required	4	20	10	
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)	2	2	10	
Total	**10**	**45**	**30**	**85**
Grand total	**118**	**306**	**240**	**664**

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. Côte d'Ivoire is used as an example in Table 3.

The methodology for calculating the Total Tax Rate is broadly consistent with the Total Tax Contribution framework[68] 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 an economy, *Doing Business* focuses on a case study for a standardised medium-size company.

Since *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 payments sub-indicator.

Table 3

Côte d'Ivoire: Total Tax Rate

	CFA '000	CFA '000
Profit before tax (PBT)		20,786
Add back above the line taxes borne		
Tax on money market account interest	153	
Social security contributions paid by employer	7,519	
Payroll tax paid by employer	913	
Tax on insurance premium	121	
Business licence tax	3,761	
Real estate tax on developed land	460	
Real estate tax on undeveloped land	274	
Advertising tax	192	
Special tax on equipment	639	
Real estate transfer tax	1,314	
		15,346
Commercial profit (profit before all taxes borne)		36,132
Corporate income tax on PBT after necessary adjustments	(3,194)	
Above the line taxes borne	(15,346)	
Total taxes borne		**(18,540)**
Profit after tax		**17,592**
Total Tax Rate = total taxes borne/commercial profit		**51.31%**

[68] www.pwc.com/totaltaxcontribution

Post-filing index

The post-filing index measures two processes based on four components – time to comply with a VAT or GST refund, time to obtain VAT or GST refund, time to comply with the correction of an inadvertent corporate income tax error and the time to complete a corporate income tax audit if required. If both VAT (or GST) and corporate income tax apply, the post-filing index is the simple average of the distance to frontier scores for each of the four components. If only VAT (or GST) or corporate income tax applies, the post-filing index is the simple average of the scores for only the two components pertaining to the applicable tax. If neither VAT (or GST) nor corporate income tax applies, the post-filing index is not included in the ranking of the ease of paying taxes.

The value of each component is transformed into a distance to frontier score between 0 and 100 as explained later in this section. A score of 100 represents the most efficient process and a score of 0 the least efficient process. The overall post-filing index distance to frontier score is the average of the component scores.

The index is based on two additional separate scenarios for the case study with the following assumptions.

Assumptions about the VAT refund process

- In June 2015, TaxpayerCo. makes a large capital purchase: one additional machine for manufacturing pots.
- The value of the machine is 65 times income per capita of the economy.
- Sales are equally spread per month (that is, 1,050 times income per capita divided by 12).
- Cost of goods sold are equally expensed per month (that is, 875 times income per capita divided by 12).
- The seller of the machinery is registered for VAT or goods and services (GST).
- Input VAT will exceed output VAT in June 2015.
- Excess input VAT incurred in June will be fully recovered after four consecutive months if the VAT rate is the same for inputs, sales and the machine and the tax reporting period is every month.

Assumptions about the corporate income tax audit process

- An error in the calculation of the income tax liability (for example, use of incorrect tax depreciation rates, or incorrectly treating an expense as tax deductible) leads to an incorrect income tax return and consequently an underpayment of corporate income tax.
- TaxpayerCo. discovered the error and voluntarily notified the tax authority of the error in the corporate income tax return.
- The value of the underpaid income tax liability is 5% of the corporate income tax liability due.
- TaxpayerCo. submits the corrected information after the deadline for submitting the annual tax return, but within the tax assessment period.

Time to comply with a VAT refund

Time is recorded in hours and covers two elements:

- **The process of claiming a VAT or GST refund**, including time spent by TaxpayerCo. on:
  - gathering VAT information from internal sources;
  - any additional analysis of accounting information;
  - calculating the VAT refund amount;
  - preparing the VAT refund claim;
  - preparing any additional documents needed to substantiate the VAT refund claim;
  - making representation at the tax office, if required; and
  - completing any other mandatory activities or tasks associated with the VAT or GST refund.

- **The process of an audit (if the case scenario is likely to trigger an audit),** including time spent by TaxpayerCo.in:
  - gathering information required by the tax auditor;
  - preparing any documentation (information such as receipts, financial statements, pay stubs) as required by the tax auditor; and
  - submitting the documents requested by the auditor.

Some specific points to note:
A total estimate of zero hours is recorded if the process of claiming a VAT or GST refund is done automatically within the standard VAT or GST return without the need to complete any additional section or part of the return, no additional documents or tasks are required as a result of the input tax credit and the case scenario is unlikely to trigger an audit. Where taxpayers are required to submit a specific form or additional documents for a VAT refund request, it is assumed that these are submitted at the same time as the VAT return.

Where an audit is thought likely to take place, an estimate of half an hour is recorded if documents are submitted electronically in a matter of minutes. An estimate of zero hours is recorded if documents are submitted in person at the taxpayer's premises during a field audit.
See Indonesia as an example of compliance time for a VAT refund in Table 4.

Time to obtain a VAT refund

Time is recorded in weeks. Time measures the total waiting time to receive a VAT or GST refund from the moment the request has been submitted.

The time includes an average waiting time to submit the refund claim. This is equal to half the time between the filing of VAT returns. For example, the waiting time is half a month if the VAT or GST return is filed monthly, and three months if the VAT or GST return is filed every six months.

Time includes the mandatory carry forward time before a VAT refund in cash can be paid. The carry forward time is zero if there is no mandatory carry forward period.

If the case scenario is likely to trigger an audit, time also includes:

- time spent by TaxpayerCo. interacting with the auditor from the moment an audit begins until there are no further interactions between TaxpayerCo. and the auditor (including the various rounds of interactions between TaxpayerCo. and the auditor); and
- time spent waiting for the tax auditor to issue the final tax assessment from the moment TaxpayerCo. has submitted all relevant information and documents and there are no further interactions between TaxpayerCo. and the auditor.

As an example, Table 5 shows the calculation of the time to obtain a VAT refund for Indonesia.

Table 4

Indonesia, Jakarta: Time to comply with a VAT refund	(hours)
Time spent gathering information from internal sources, including analysis of accounting information and calculation of the VAT refund amount	0
Preparing the refund claim	0
Preparing documents to substantiate the claim for the refund	4
Time spent making representations at the tax office	0
Completing any other mandatory activities or tasks associated with the refund including responding to any resultant audit	0
If the refund triggers an audit:	
Gathering information and preparing documentation as required by the tax auditor	12
Time spent submitting documents requested by the tax auditor	2
Total	**18**

Table 5

Indonesia, Jakarta: Time to obtain a VAT refund	(weeks)
Time waiting for submitting the refund claim (monthly)	2.2
Mandatory carry forward period	0
Interacting with the tax auditor since the audit begins until there are no further interactions	25.7
Waiting for the tax auditor to issue the final tax assessment from the moment there are no further interactions between the taxpayer and the tax authority	3.0
Total	**30.9**

As for the other components of the post-filing index, the time to obtain a VAT refund is converted into a distance to frontier score between 0 and 100. A score of 100 represents the most efficient process and a score of 0 the least efficient process.

Economies that are not scored for the VAT post-filing components

There are some instances where the case study company is not scored on the two components for a VAT or GST refund process:

- If an economy does not have a VAT or GST;
- If an economy has a VAT or GST, but the purchase of a machine is not subject to VAT; or
- If an economy has a VAT or GST that was introduced in calendar year 2015, but there is insufficient data to assess the refund process.

Economies that receive a score of zero for the VAT post-filing components

There are some instances where an economy has a VAT or GST system, but the refund will not be available to TaxpayerCo. for one of the following reasons:

- the ability to claim a refund is restricted to specific categories of taxpayers that do not include TaxpayerCo.;
- TaxpayerCo. is eligible to claim a refund, but cash refunds do not occur in practice;
- There is no refund mechanism in place;
- Input tax on a capital purchase is a cost on the business; and
- TaxpayerCo. must carry forward the excess input tax for four months or more before a cash refund can be requested.

If any of these scenarios apply, the economy will receive a distance to frontier score of zero for both VAT components of the post-filing index.

Economies will also receive a distance to frontier score of zero for a component if the time for that component falls within the top (most time-consuming) 5% of data for that component.

Time to comply with corporate income tax audit

Time is recorded in hours. The indicator has two parts:

- **The process of notifying the tax authorities of the error, amending the return and making additional payment,** including time spent by TaxpayerCo.:
  - gathering information;
  - preparing the documents required to notify the tax authorities;
  - submitting the documents; and
  - making the additional tax payment.

- **The process of an audit (if the case scenario is likely to trigger an audit)**, including time spent by TaxpayerCo.:
  - gathering information as required by the tax auditor;
  - preparing any documentation (information such as receipts, financial statements, pay stubs) as required by the tax auditor; and
  - submitting the documents requested by the auditor.

An estimate of half an hour is recorded for submission of documents or payment of the income tax liability due if the submission or payment is done electronically and takes several minutes. An estimate of zero hours is recorded in the case of a field audit if documents are submitted in person and at the taxpayer's premises. Table 6 shows an example of a calculation for Hungary.

Table 6

Hungary: Time to comply with a CIT audit	(hours)
Information gathering and document preparation required to notify the tax authorities	3
Submission of relevant documents required for the correction	0.5
Time spent making payments	0.5
If the correction triggers an audit, time is spent on:	
Gathering information and preparing documents as required by the tax auditor	8
Submission of documents requested by the tax auditor	0
Total	**12**

Time to complete a corporate income tax audit, where applicable

Time is recorded in weeks. Time includes the time spent by TaxpayerCo. interacting with the auditor from the moment an audit begins until there are no further interactions between TaxpayerCo. and the auditor (including the various rounds of interactions between TaxpayerCo. and the auditor). Time also includes the time spent waiting for the tax auditor to issue the final tax assessment – from the moment TaxpayerCo. has submitted all relevant information and documents and there are no further interactions between TaxpayerCo. and the auditor.

If an economy does not levy corporate income tax, the economy will not be scored on the two corporate income tax components.

Time to complete a corporate income tax audit is recorded as zero if the case study scenario is unlikely to trigger an audit. Table 7 shows an example for Hungary.

Ranking calculation and the distance to frontier measure

This report presents in Appendix 3 the results for two aggregate benchmark measures: the World Bank's distance to frontier (DTF) measure and the ease of doing business ranking, which since *Paying Taxes 2015*, has been based on the DTF measure.[69] The ease of doing business ranking, including the ranking for *Paying Taxes*, compares economies with one another; while the DTF 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 DTF 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 ranking of economies on the ease of paying taxes is determined by sorting their DTF 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, Total Tax Rate, and post-filing index) with a threshold being applied to the Total Tax Rate sub-indicator as explained below.

The frontier underlying each DTF score is 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), United Arab Emirates on time (12 hours) and Vanuatu on the Total Tax Rate (8.5%). For the distance to frontier score of the post-filing index, Barbados, Croatia and several other economies have the highest score for time to comply with VAT refund (100), Austria on the time to obtain a VAT refund (100), and Estonia, Lithuania, and several other economies on the time to comply with the corporate income tax return audit and time to complete the corporate income tax audit (100).

Calculating the distance to frontier score for each economy involves rescaling the four sub-indicators to a common unit as show below. The four scores are then averaged to give the overall DTF score.

Table 7

Hungary: Time to complete CIT audit	(weeks)
Interacting with the tax auditor from the start of the audit until there are no further interactions	0.7
Waiting for the tax auditor to issue the final tax assessment from the moment of the last interaction between the taxpayer and the tax authority	8
Total	**8.7**

[69] We have also included the distance to frontier score and the ease of doing business ranking without post-filing so as to provide an easier comparison with last year's scores and rankings.

The worst performance for each sub-indicator 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 2015 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.

The DTF score for the number of payments and time to comply sub-indicators

The *Paying Taxes* sub-indicators for the number of payments and time to comply 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.

The DTF score for the Total Tax Rate

For the Total Tax Rate, 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*, 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.

The Total Tax Rate threshold and the non-linear transformation are 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, they are largely empirical in nature, with the threshold 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. These calculations reduce the bias in the Total Tax Rate sub-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). They also take into account the needs of governments to collect taxes from all firms.

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 59). 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 59).

Distance to frontier (DTF)

The overall DTF for the time to comply, the number of payments and each of the four components of the post-filing index 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 post-filing index DTF takes the form:[3]

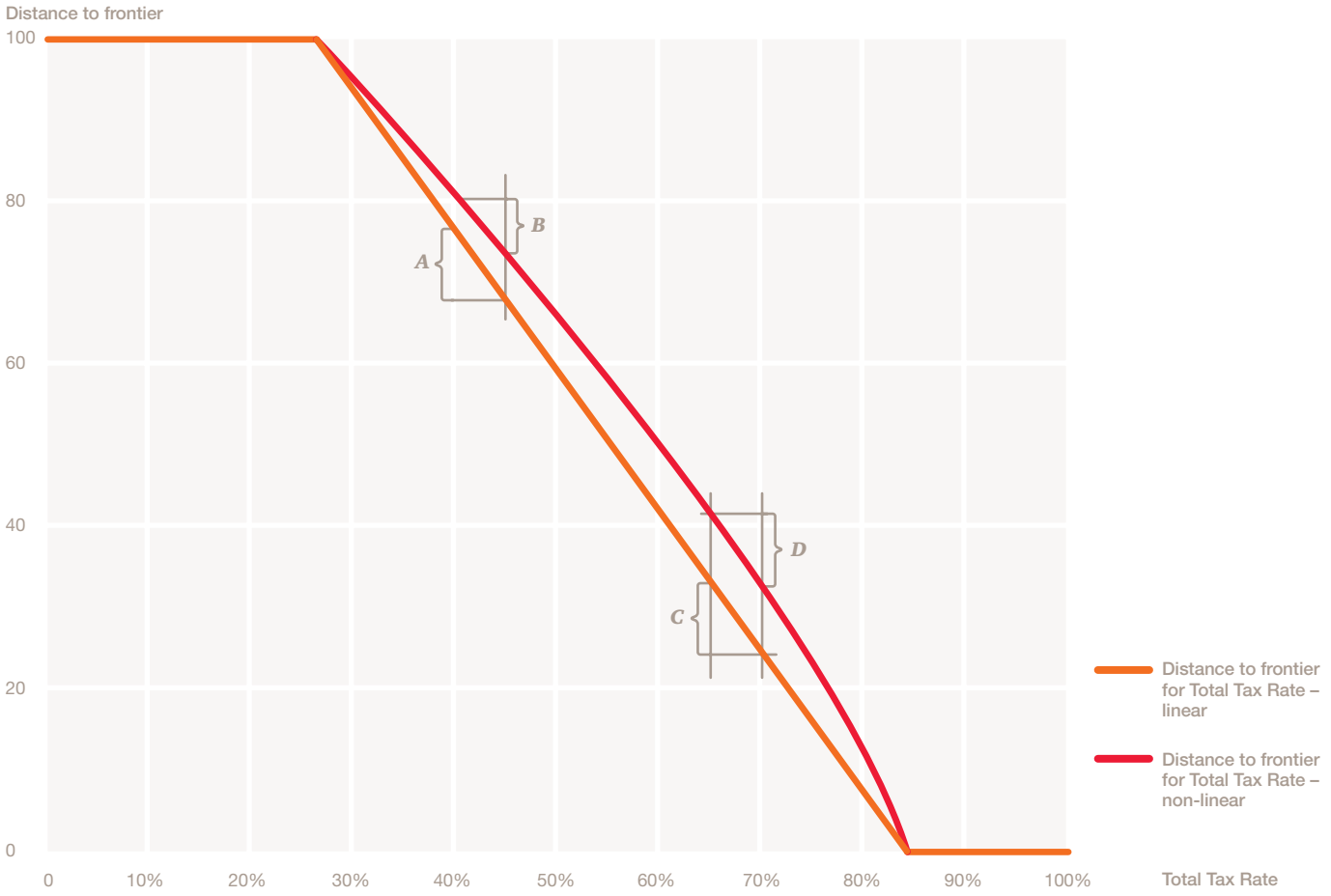
$Post\text{-}filing\ Index^{DTF} = 1/4 [VAT\ Comply^{DTF} + VAT\ Obtain^{DTF} + CIT\ Comply^{DTF} + CIT\ Complete^{DTF}]$

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

$Paying\ Taxes^{DTF} = 1/4 [TTR^{DTF} + Time^{DTF} + Payments^{DTF} + Post\text{-}filing\ Index^{DTF}]$

Figure 59

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.

The DTF score for the post-filing index

Each of the four components of the post-filing index is 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 component.

For each economy the scores obtained for the four indicators are aggregated through simple averaging into one distance to frontier score. An economy's distance to frontier score 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 which are defined as being in excess of the 95th percentile. This year, the max is defined as follows for the four components of the index:

- Time to comply with a VAT refund: 50 hours
- Time to obtain a VAT refund: 55 weeks
- Time to comply with a CIT audit: 56 hours
- Time to complete a CIT audit: 32 weeks

Changes to Paying Taxes methodology over time

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 to 2015, 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
- and in those with greater regional diversity in business practices.

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.[70]

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.

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 8). This is done for the scores for each of the component sub-indicators: number of payments, time, Total Tax Rate, and post-filing index. The table below shows the city data for the 11 economies (see the data table appendix for the weighted average number of each economy).

Table 8

Economy		Population	Weight
Bangladesh	Dhaka	14,730,537	78%
	Chittagong	4,106,060	22%
Brazil	Sao Paulo	19,659,808	61%
	Rio de Janeiro	12,373,884	39%
China	Shanghai	19,979,977	55%
	Beijing	16,189,572	45%
India	Mumbai	19,421,983	47%
	Delhi	21,935,142	53%
Indonesia	Jakarta	9,629,953	78%
	Surabaya	2,768,199	22%
Japan	Tokyo	36,833,979	65%
	Osaka	19,491,722	35%
Mexico	Mexico City	20,131,688	83%
	Monterrey	4,112,643	17%
Nigeria	Lagos	10,780,986	77%
	Kano	3,220,929	23%
Pakistan	Karachi	14,080,737	65%
	Lahore	7,487,415	35%
Russian Federation	Moscow	11,461,264	70%
	Saint Petersburg	4,871,556	30%
United States	New York	18,365,262	60%
	Los Angeles	12,160,151	40%

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.orh/unpd/wup/CD-ROM/Default.aspx

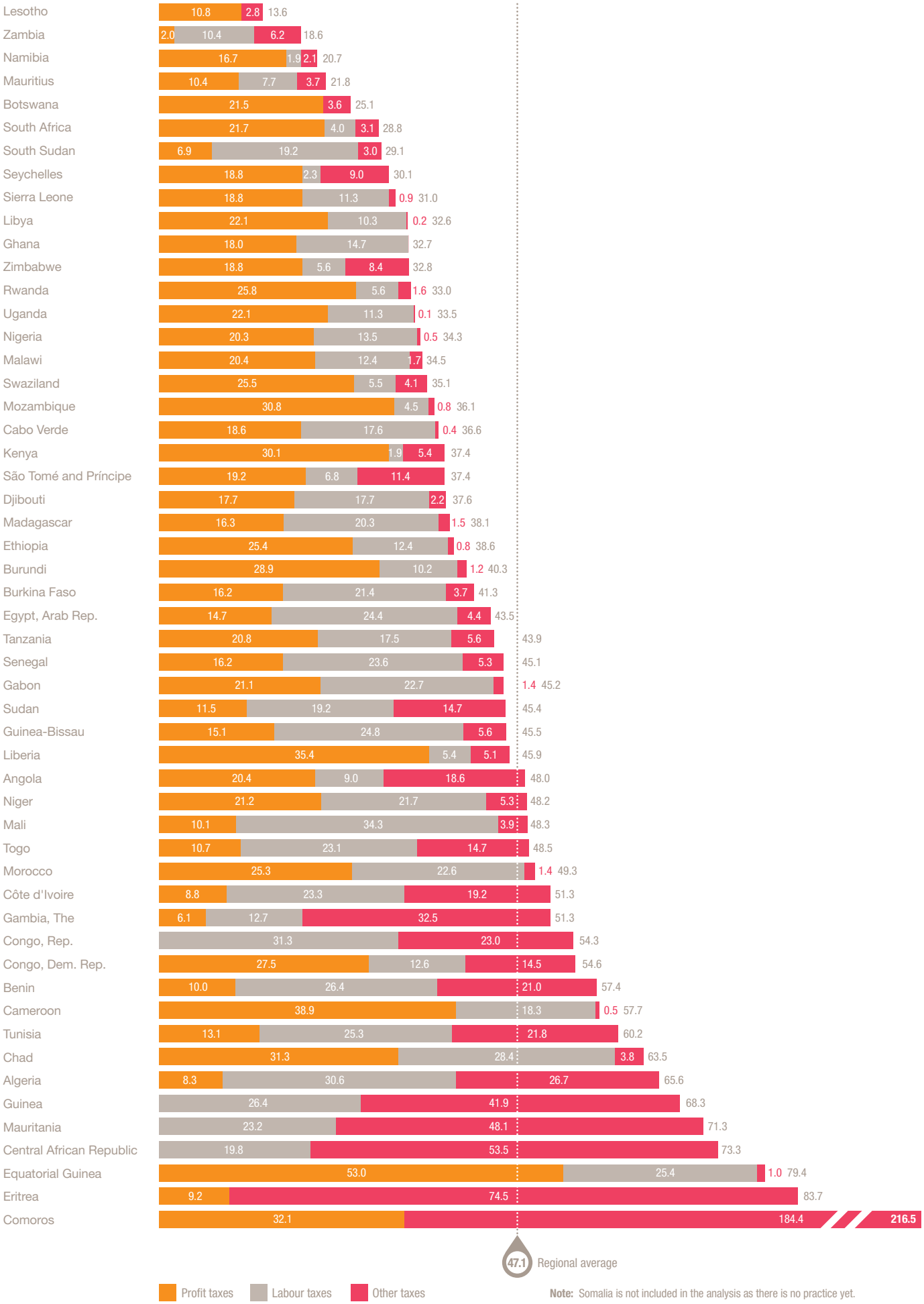
[70] Where the second and third largest cities were very close in population size, the GDP of the city or relevant state was used to determine which city was the second largest business city.

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 60: Africa

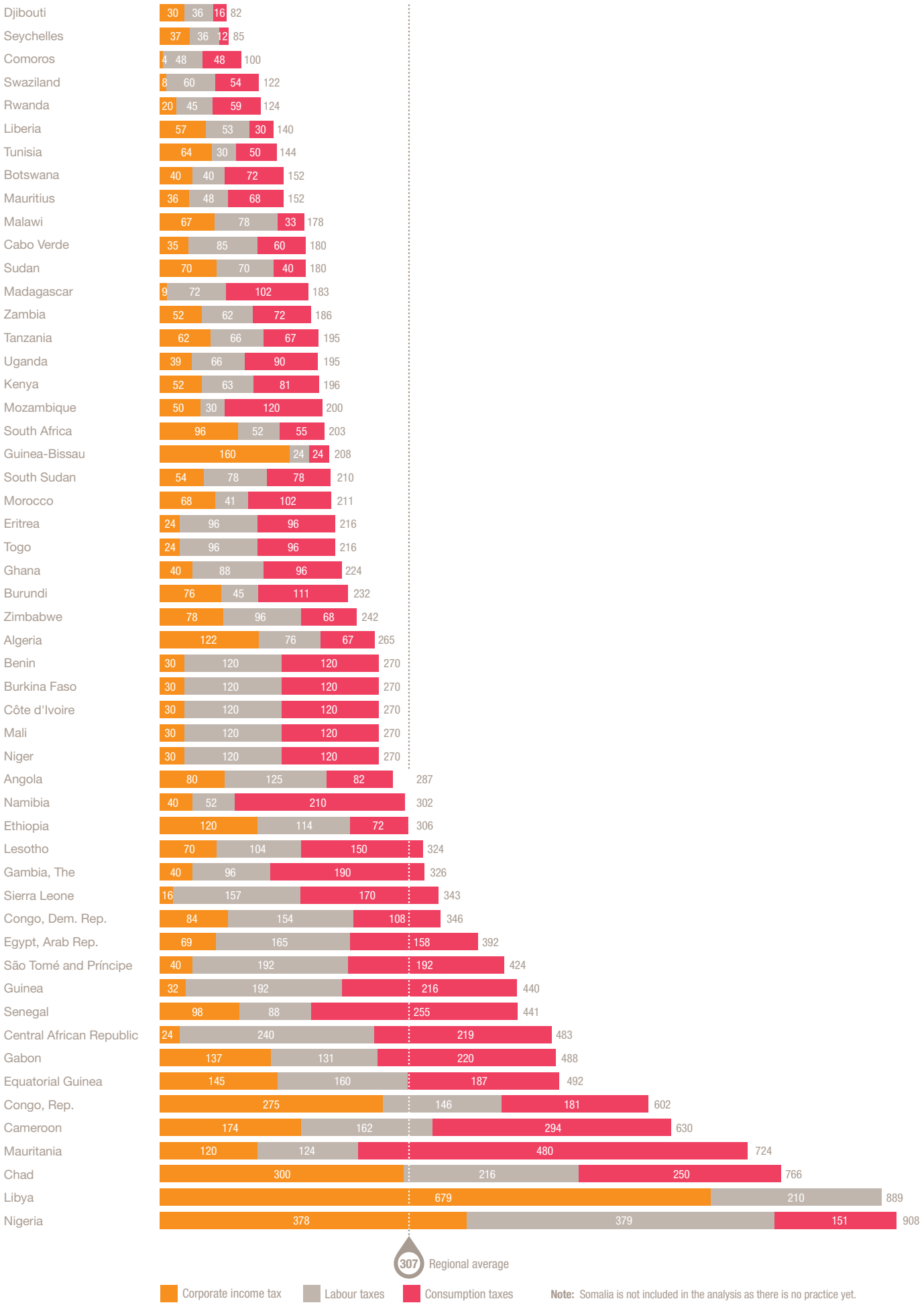
Total Tax Rate (%)



Note: Somalia is not included in the analysis as there is no practice yet.

Figure 61: Africa

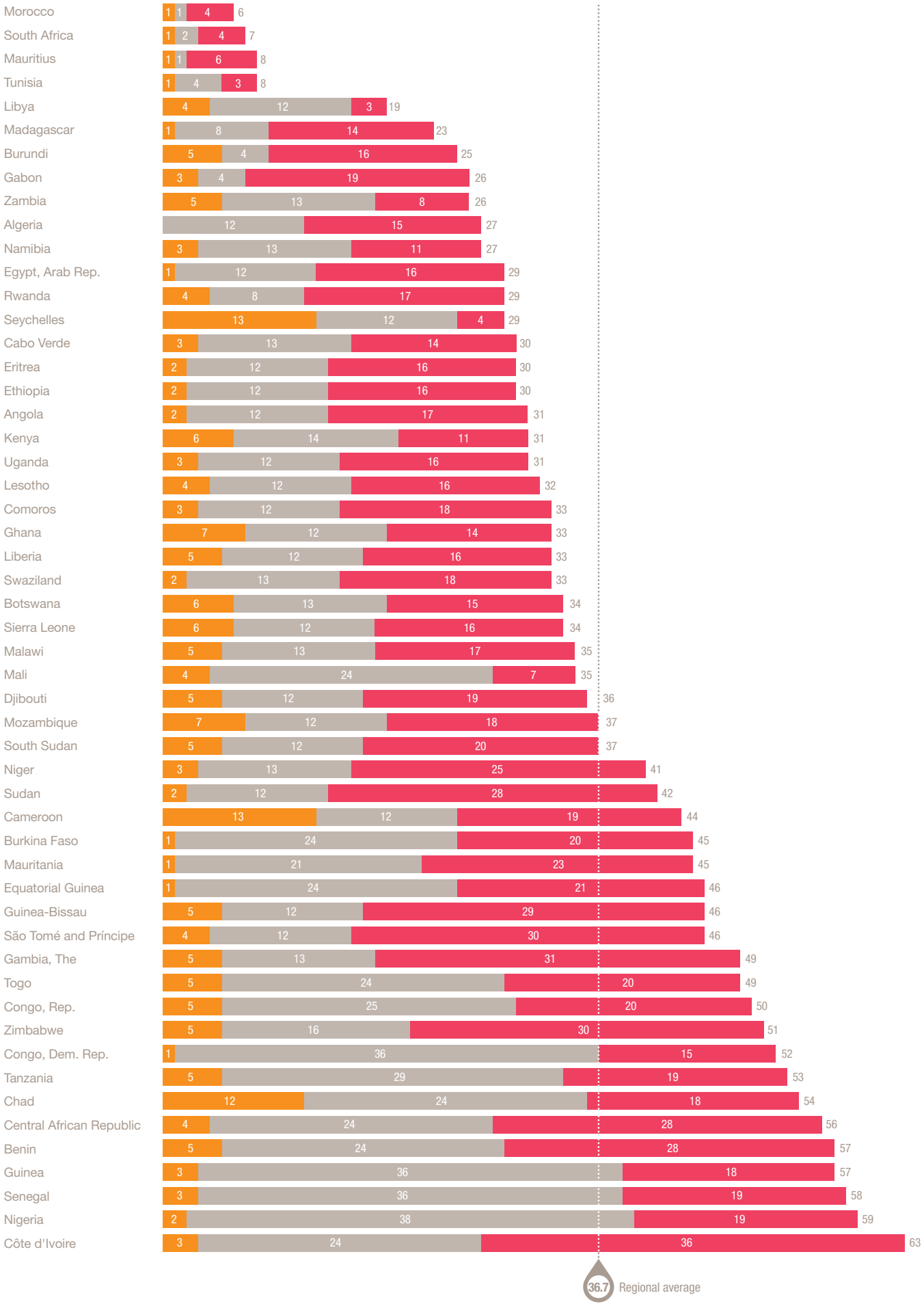
Time to comply (hours)



Note: Somalia is not included in the analysis as there is no practice yet.

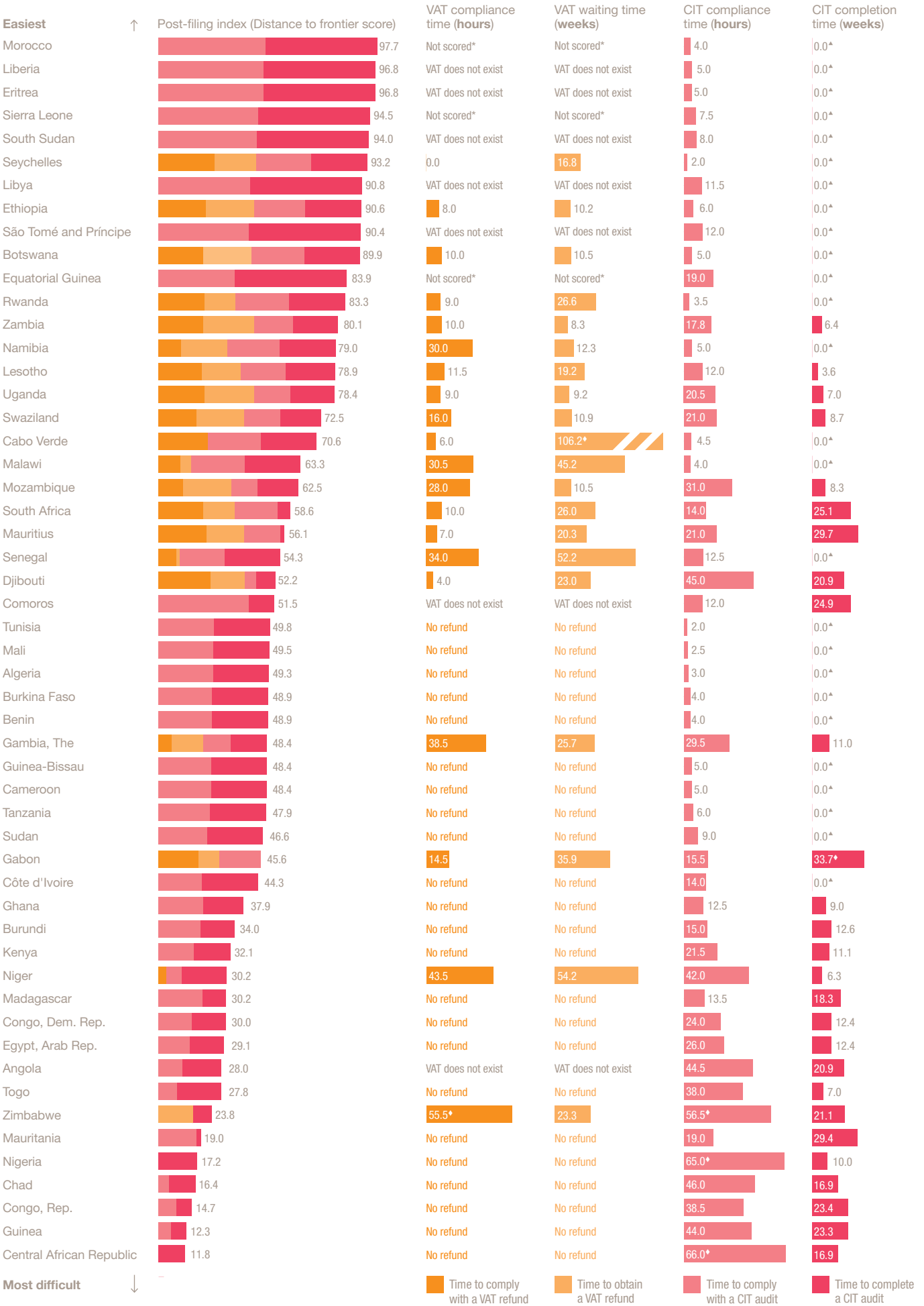
Figure 62: Africa

Number of payments



Note: Somalia is not included in the analysis as there is no practice yet.

Figure 63: Africa. Post-filing index (distance to frontier) and components (hours/weeks)



*VAT does not exist for the case study purchase ▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component. ♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet" or "VAT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Somalia is not included in the analysis as there is no practice yet.

Figure 64: Asia Pacific

Total Tax Rate (%)

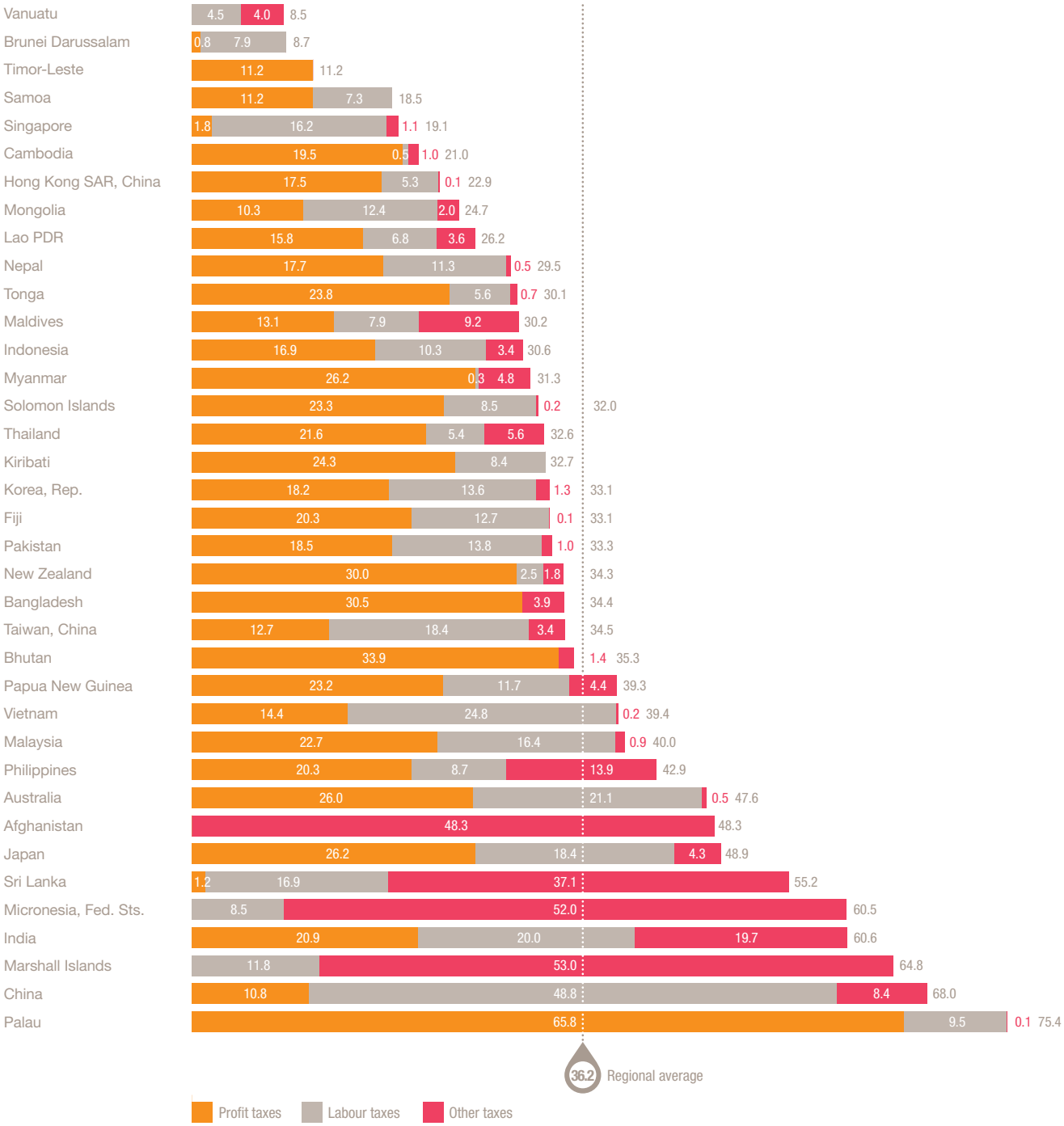


Figure 65: Asia Pacific

Time to comply (hours)

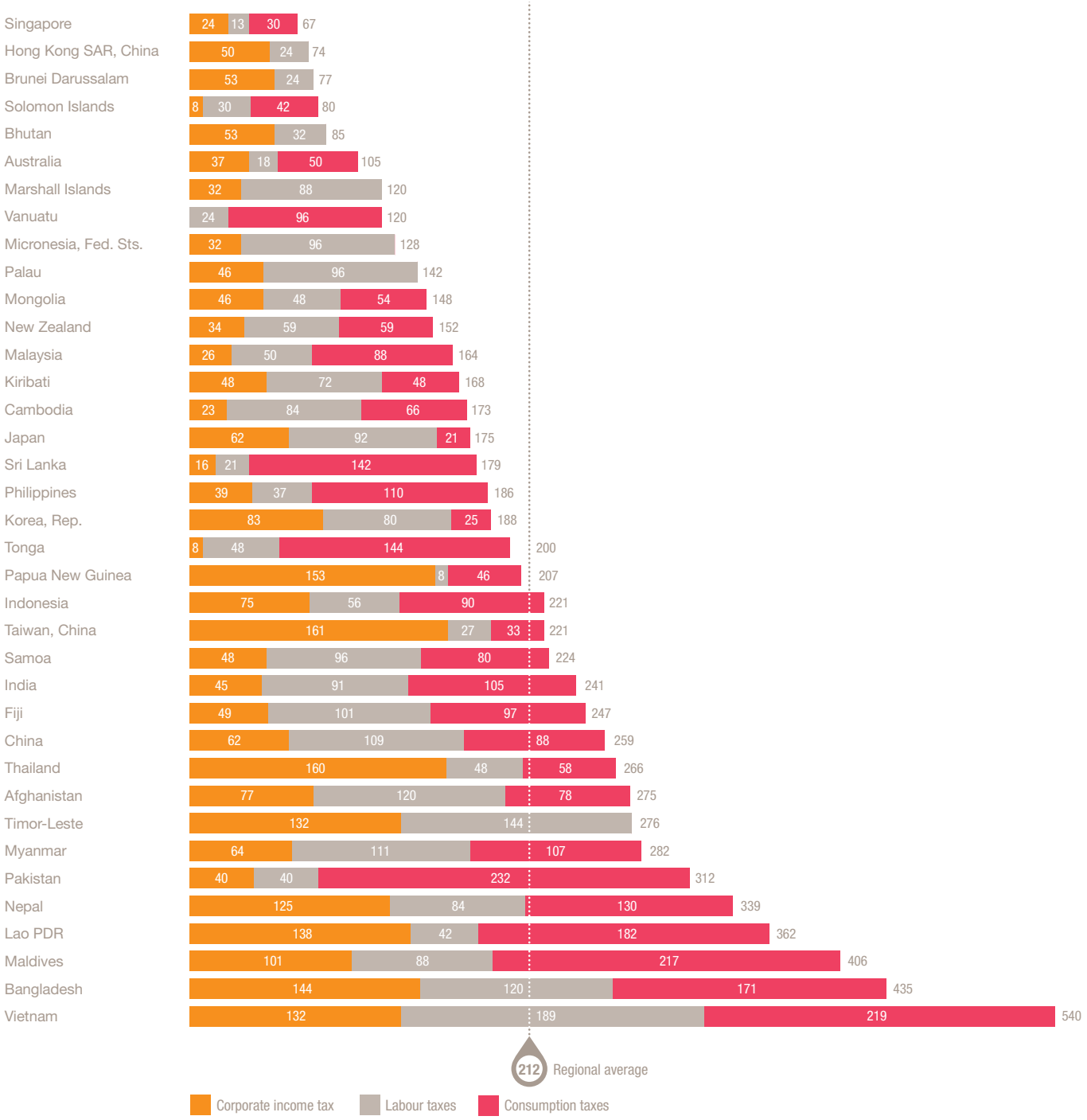


Figure 66: Asia Pacific

Number of payments

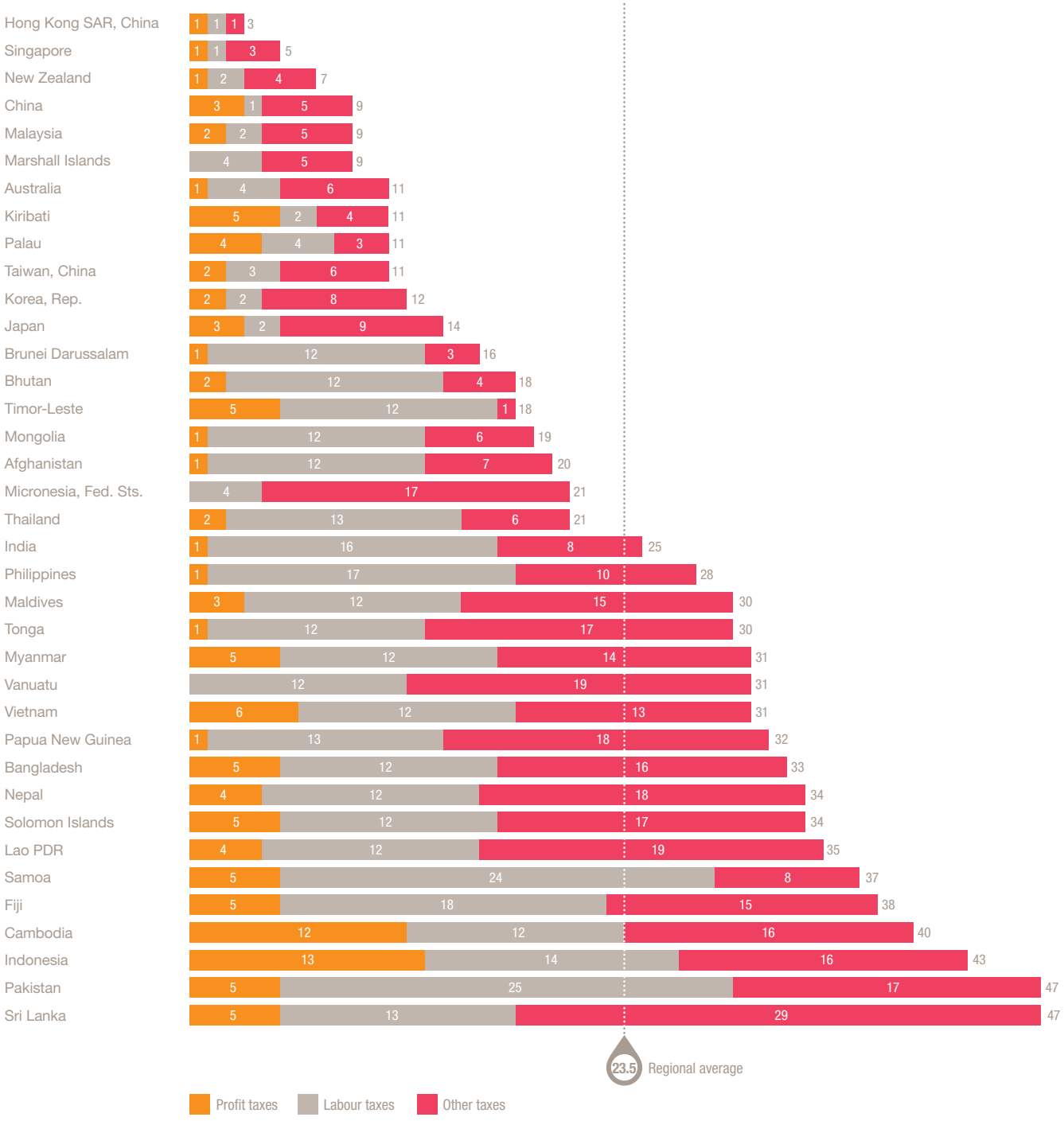
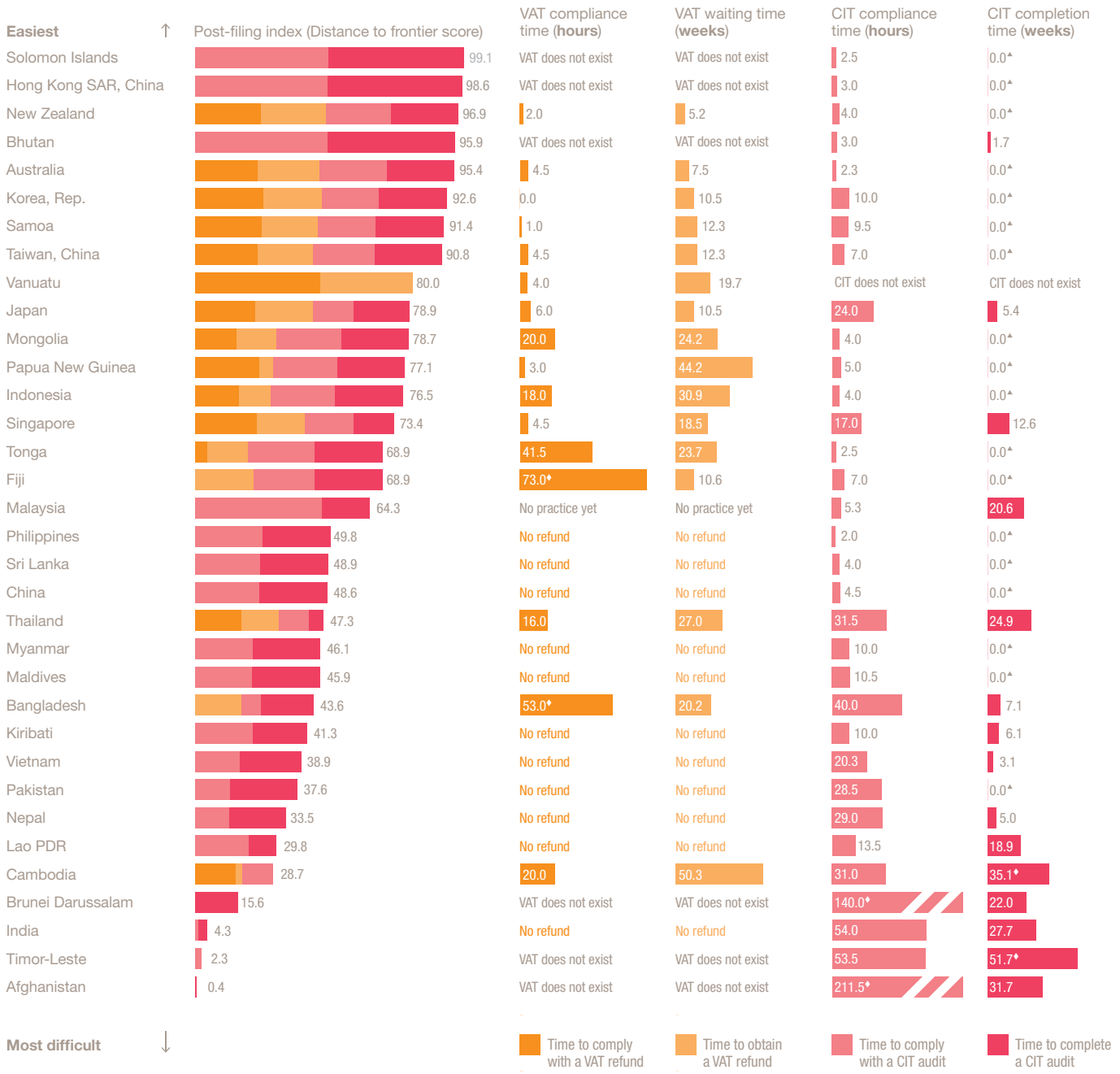


Figure 67: Asia Pacific

Post-filing index (distance to frontier) and components (hours/weeks)



*0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index. Micronesia, Fed. Sts., Marshall Islands and Palau have neither a VAT nor a CIT system. They therefore are not scored on the post-filing index and are omitted from the chart.

Figure 68: Central America & the Caribbean

Total Tax Rate (%)

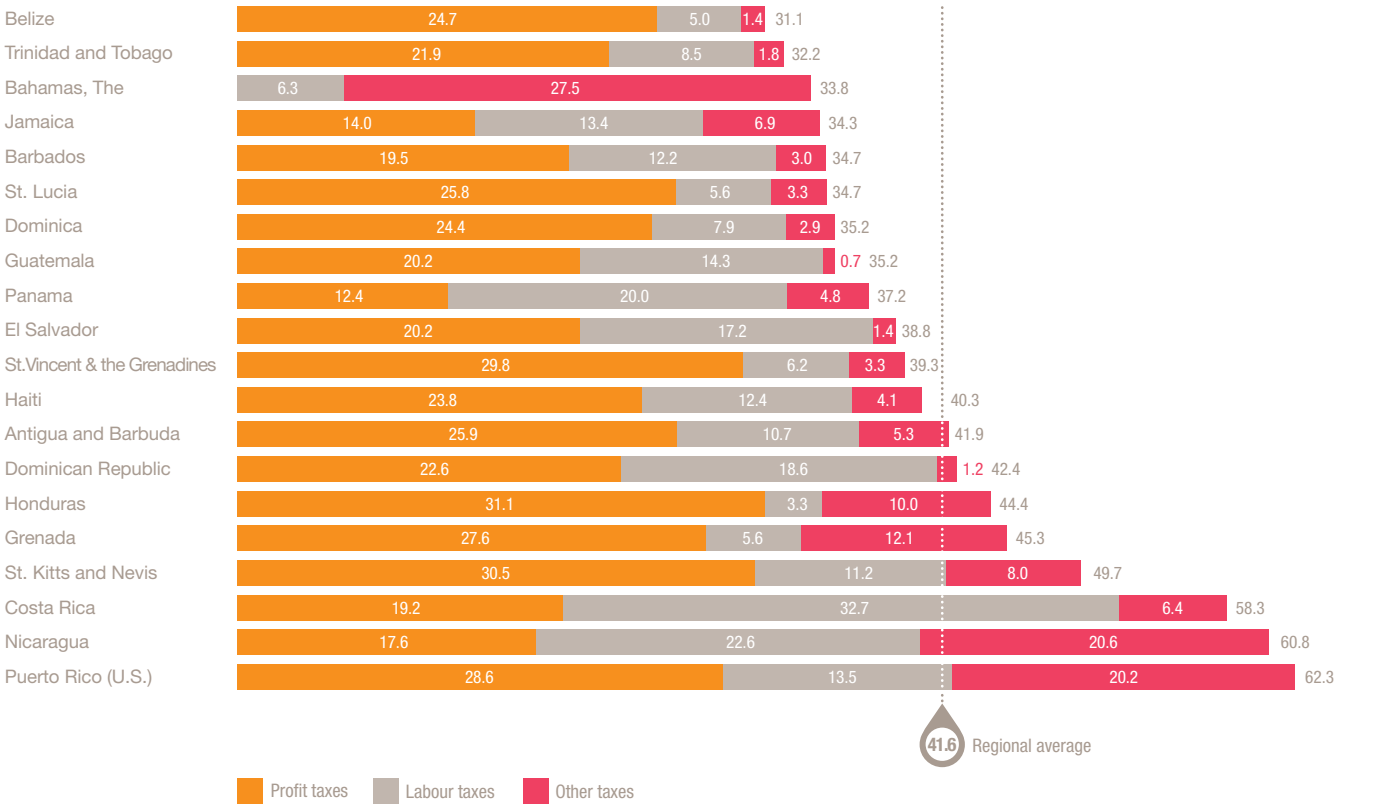


Figure 69: Central America & the Caribbean

Time to comply (hours)

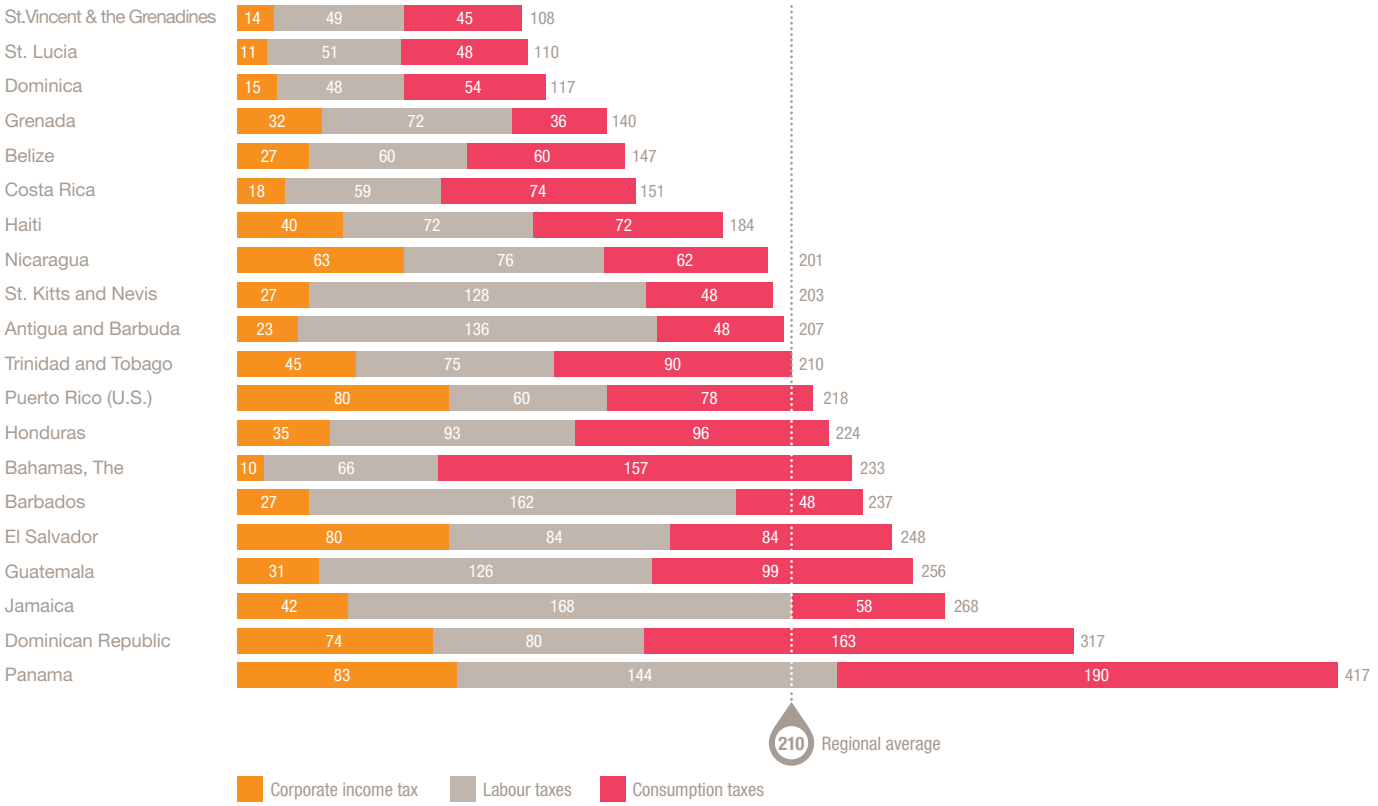


Figure 70: Central America & the Caribbean

Number of payments

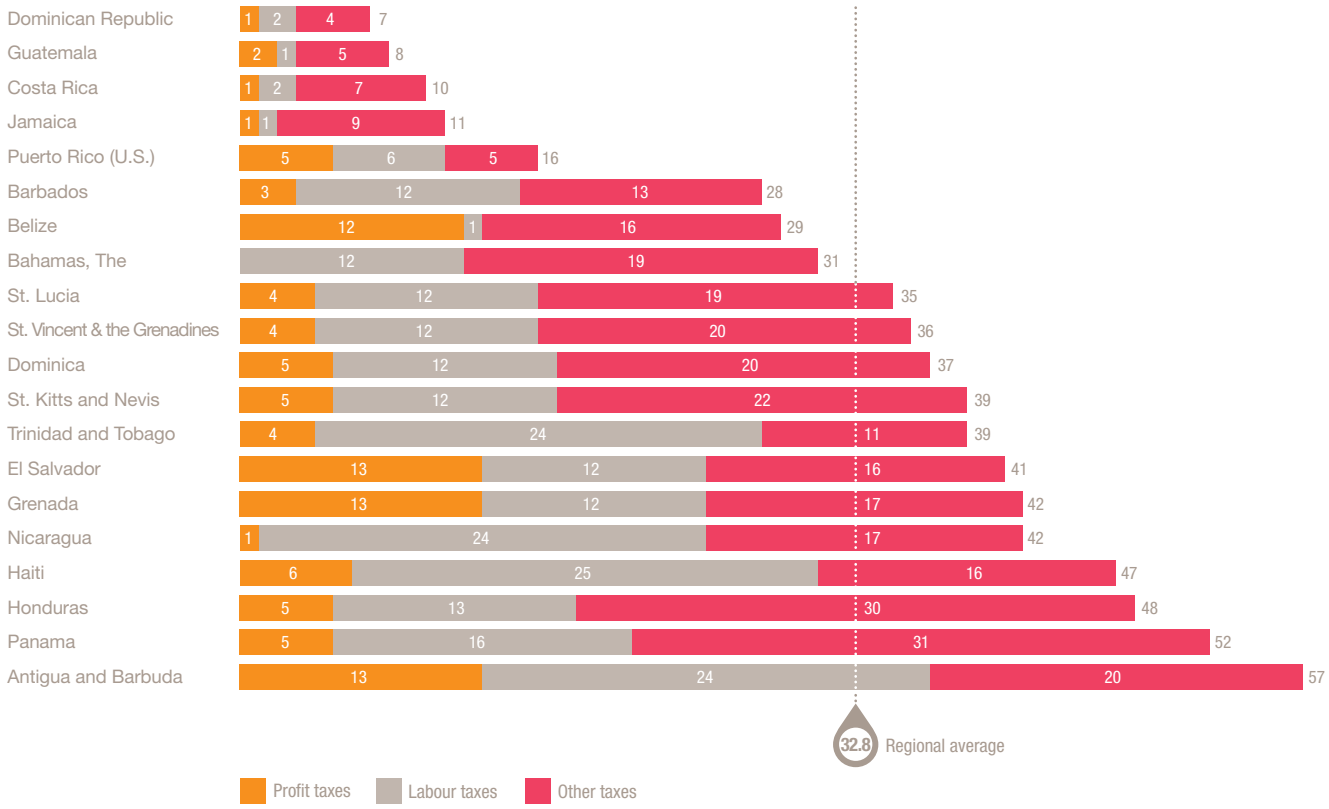
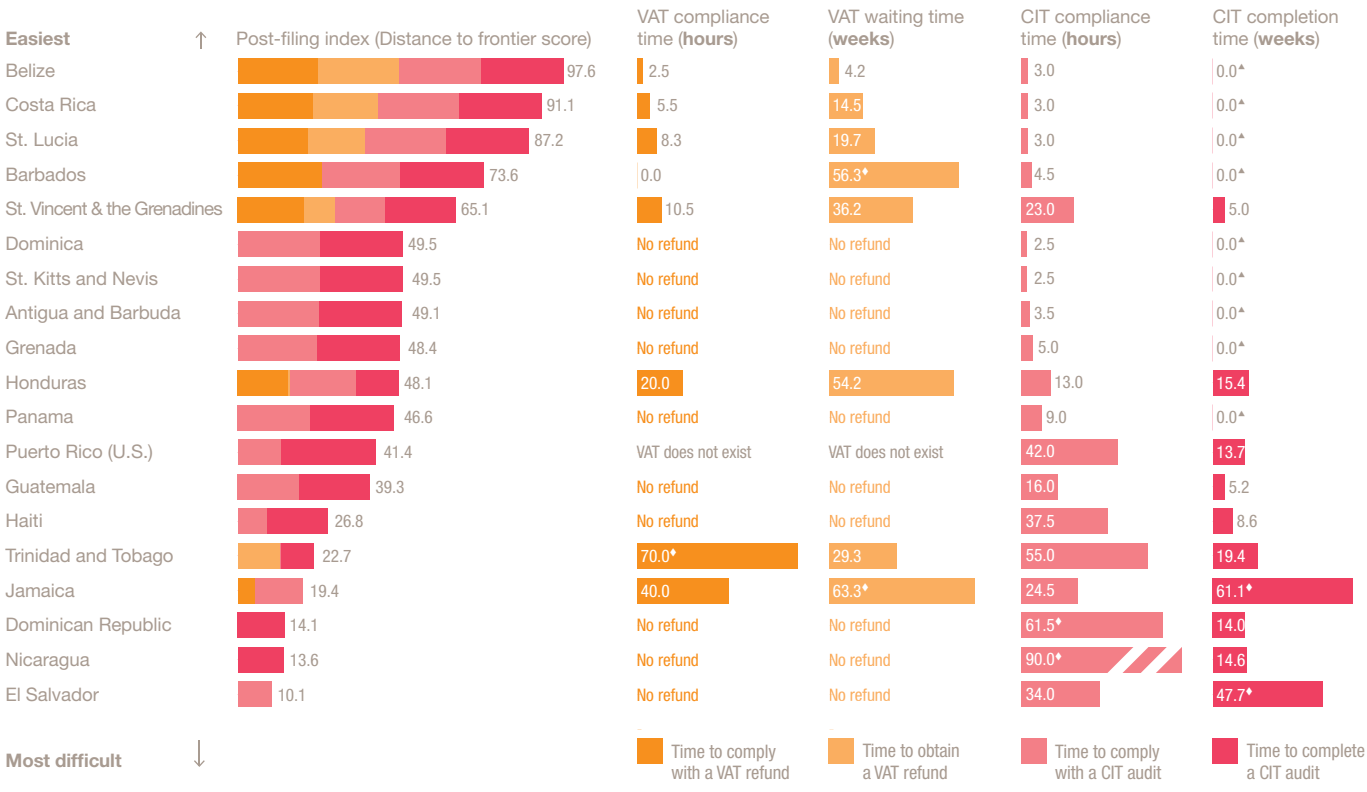


Figure 71: Central America & the Caribbean

Post-filing index (distance to frontier) and components (hours/weeks)



▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index. Bahamas, The has neither a VAT nor a CIT system. It is therefore not scored on the post-filing index and is omitted from the chart.

Figure 72: Central Asia & Eastern Europe

Total Tax Rate (%)

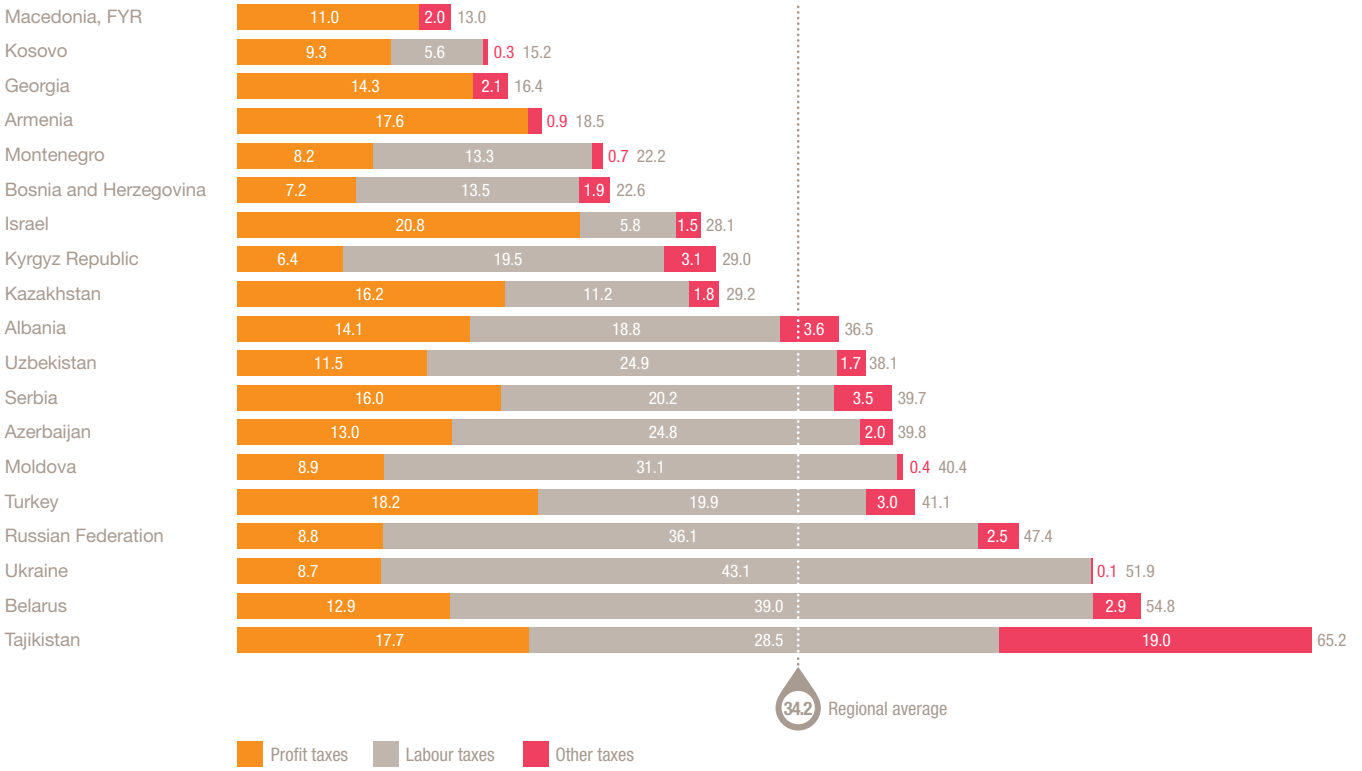


Figure 73: Central Asia & Eastern Europe

Time to comply (hours)

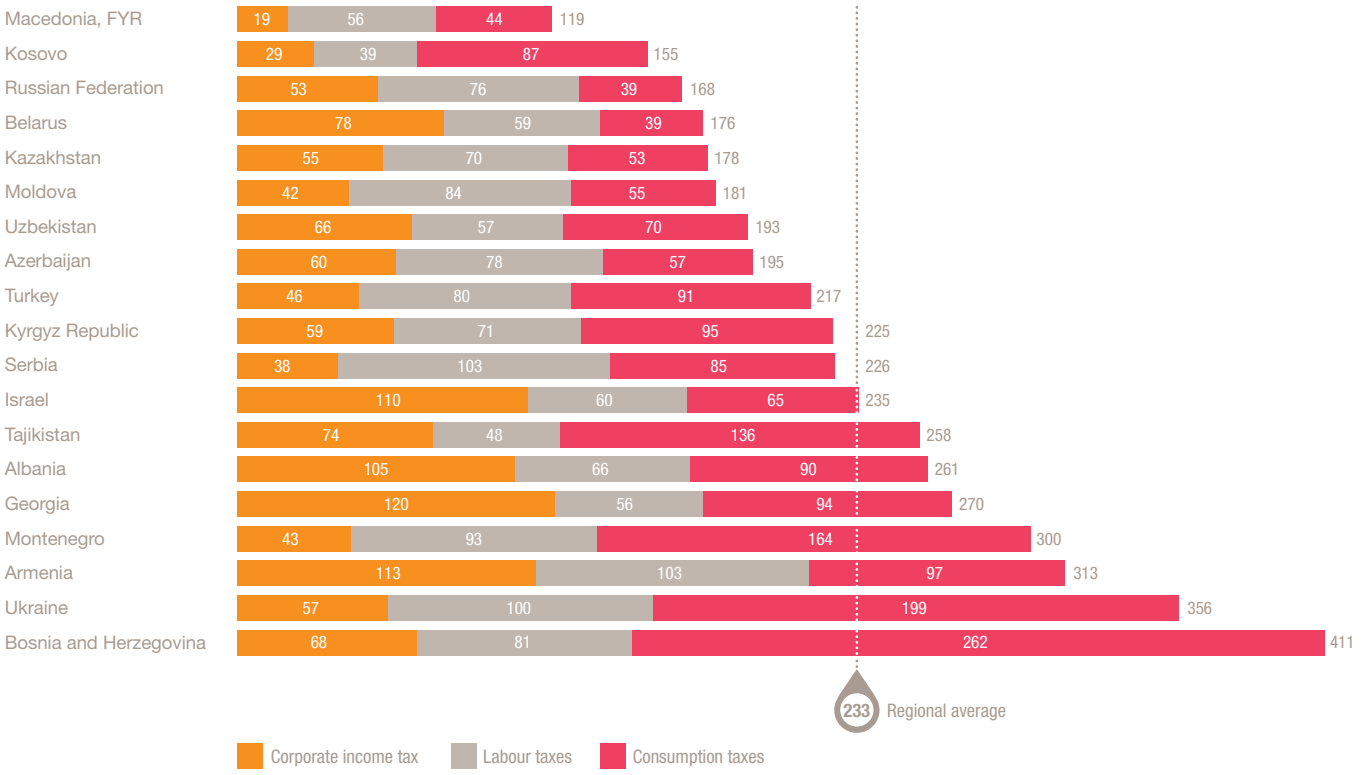


Figure 74: Central Asia & Eastern Europe

Number of payments

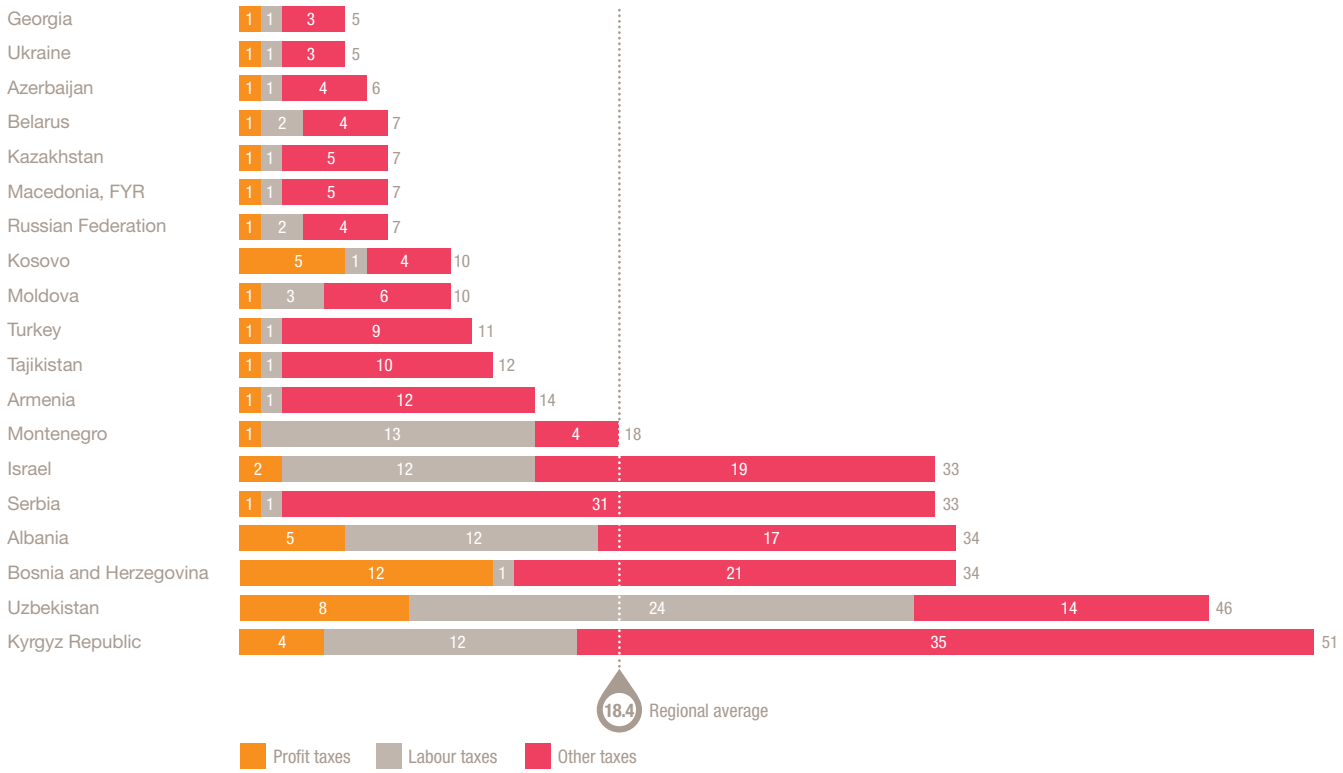
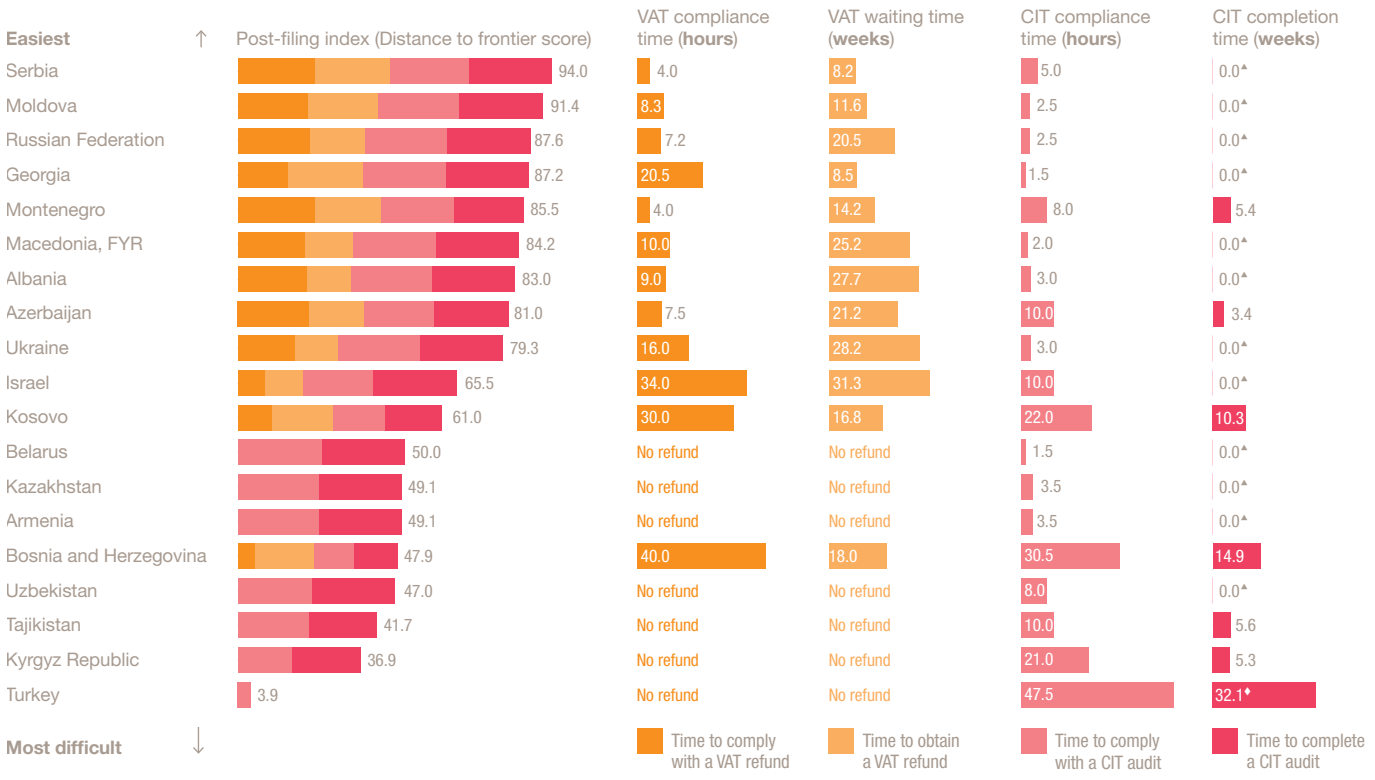


Figure 75: Central Asia & Eastern Europe

Post-filing index (distance to frontier) and components (hours/weeks)



▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Figure 76: EU & EFTA

Total Tax Rate (%)

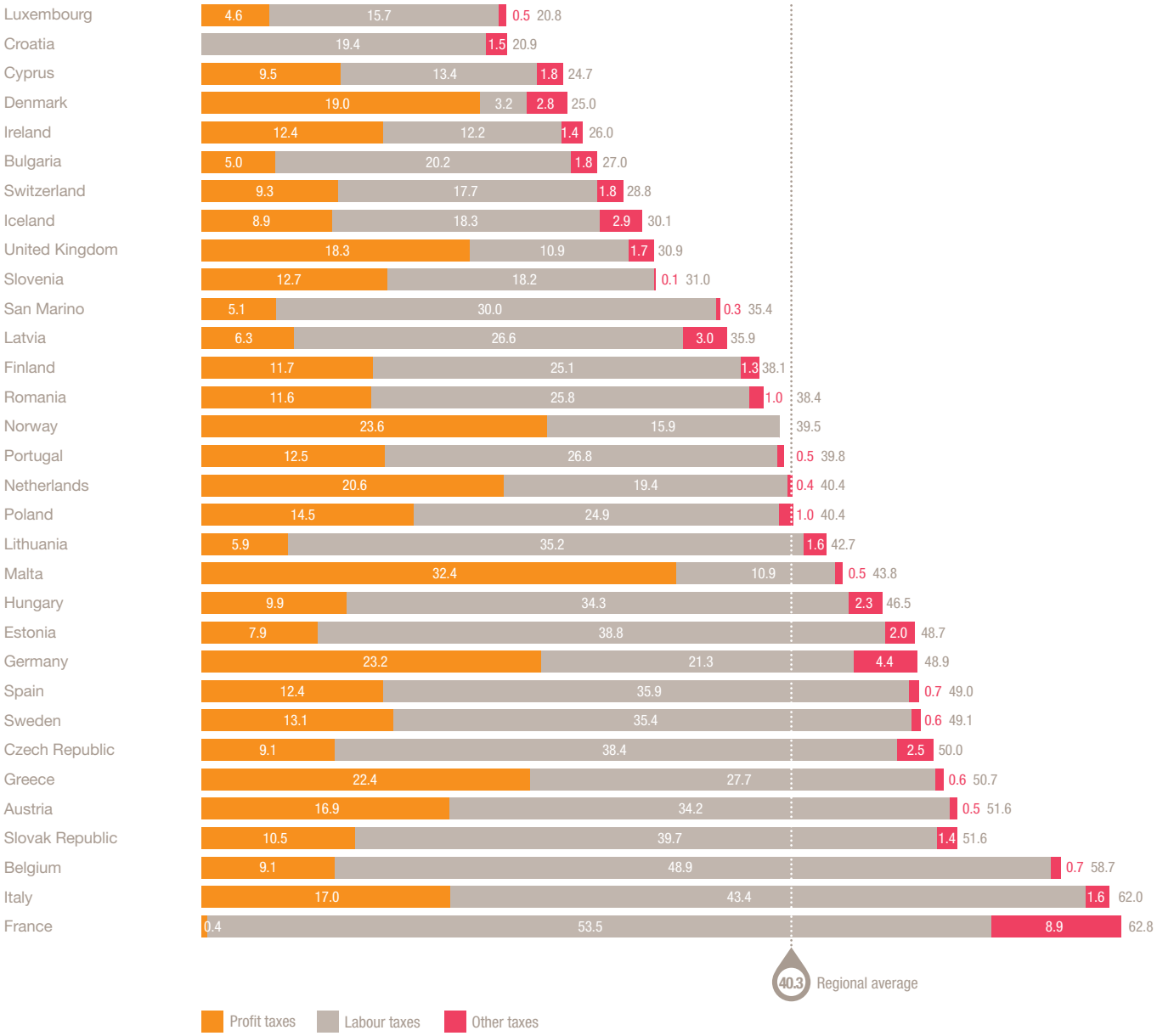


Figure 77: EU & EFTA

Time to comply (hours)

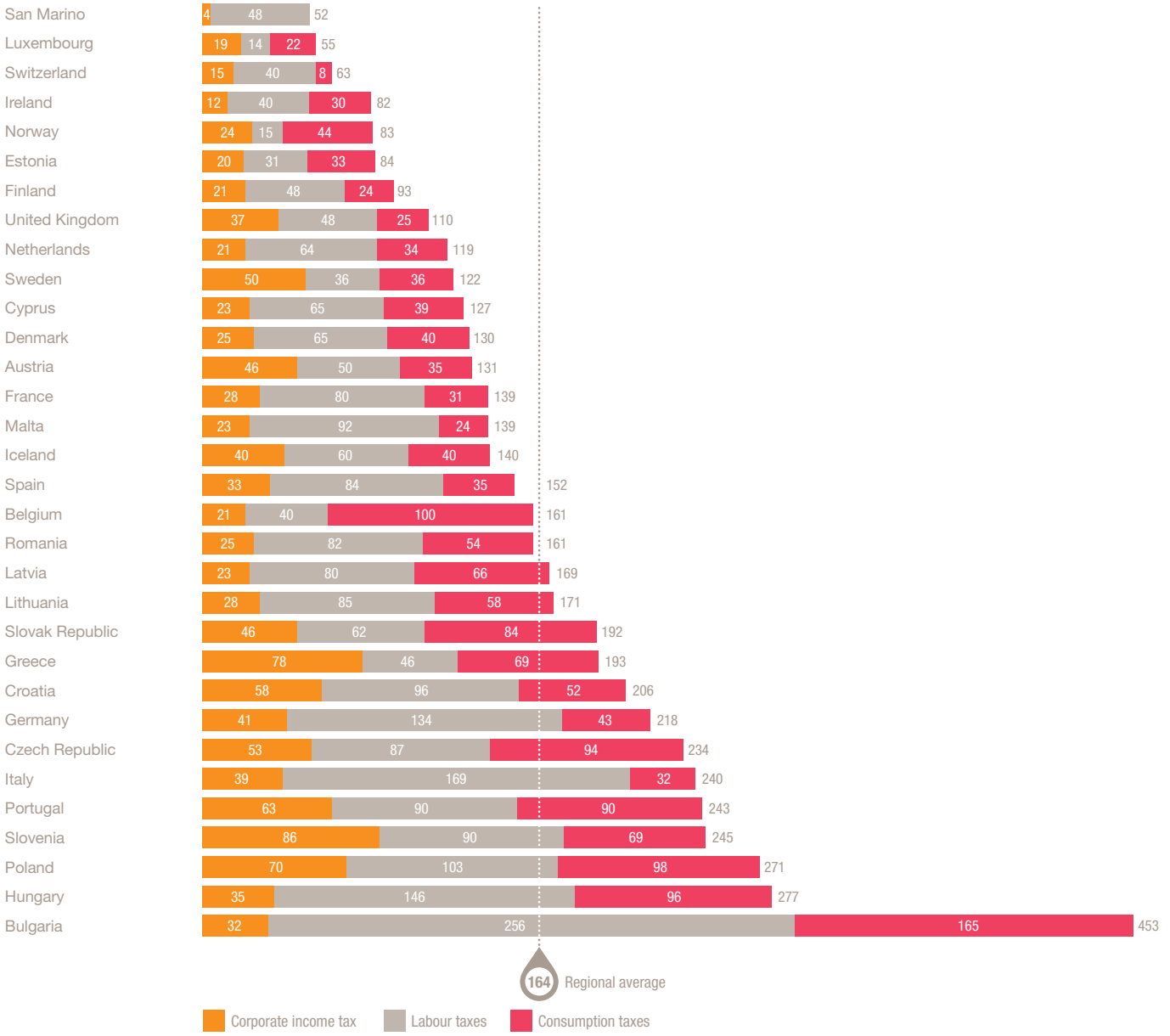


Figure 78: EU & EFTA

Number of payments

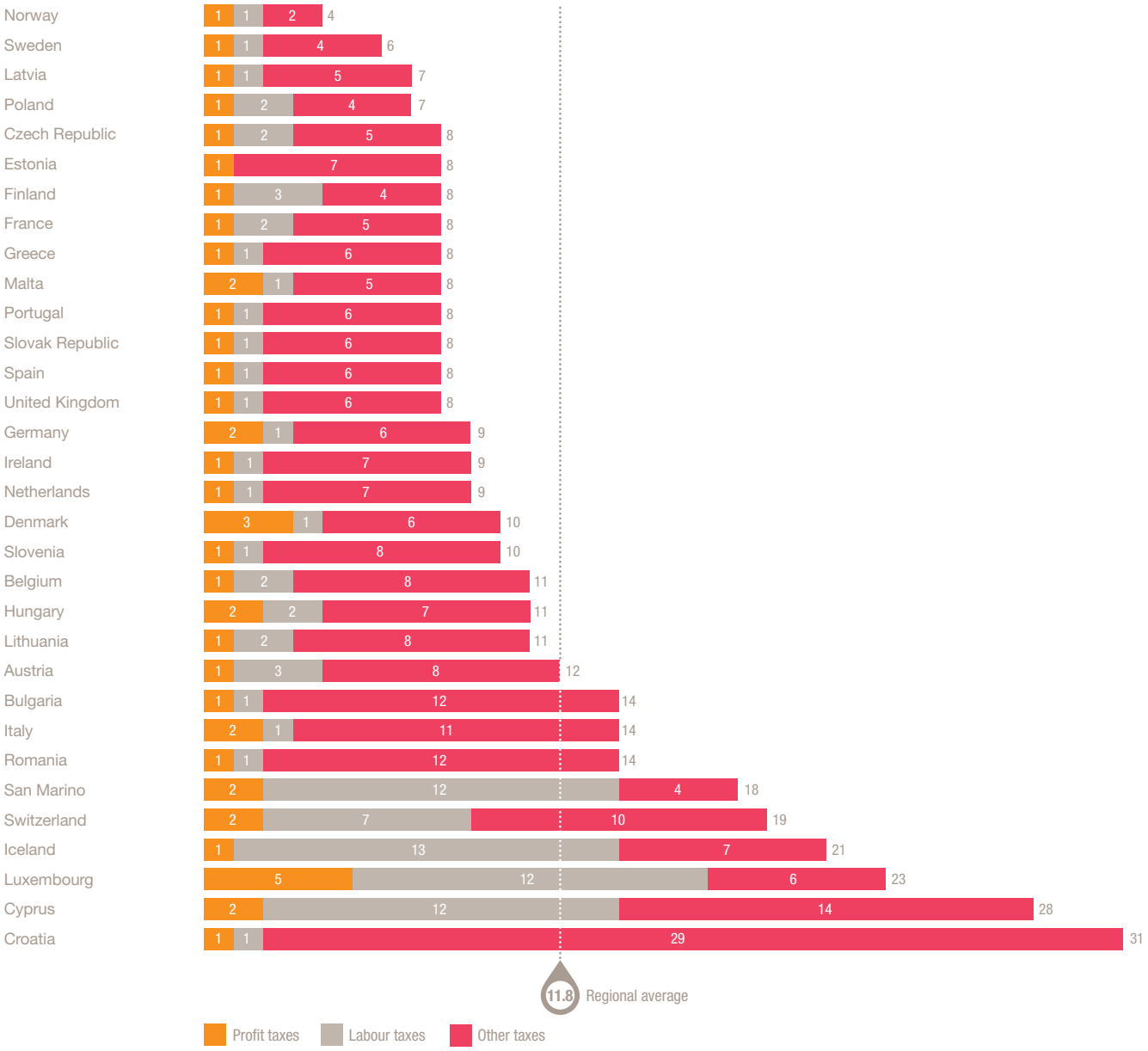
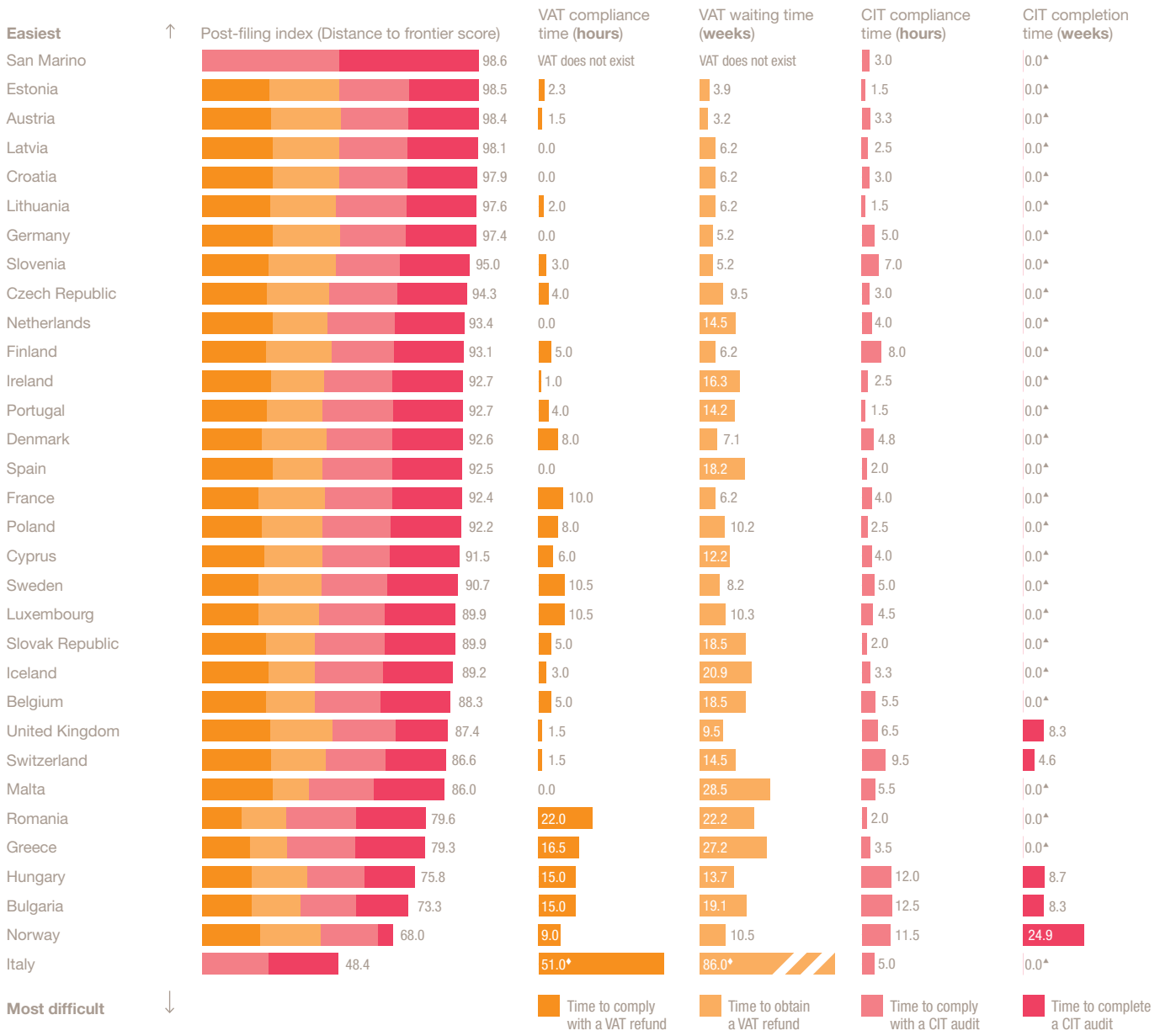


Figure 79: EU & EFTA

Post-filing Index (distance to frontier) and components (hours/weeks)



*VAT does not exist for the case study purchase

▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Figure 80: Middle East

Total Tax Rate (%)

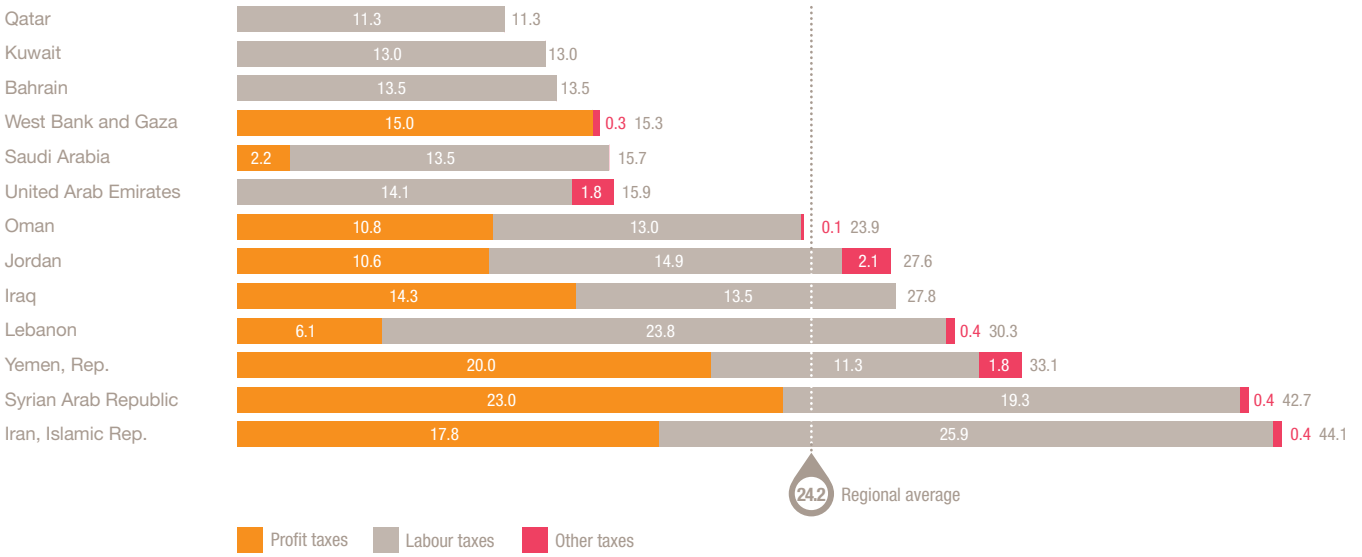


Figure 81: Middle East

Time to comply (hours)

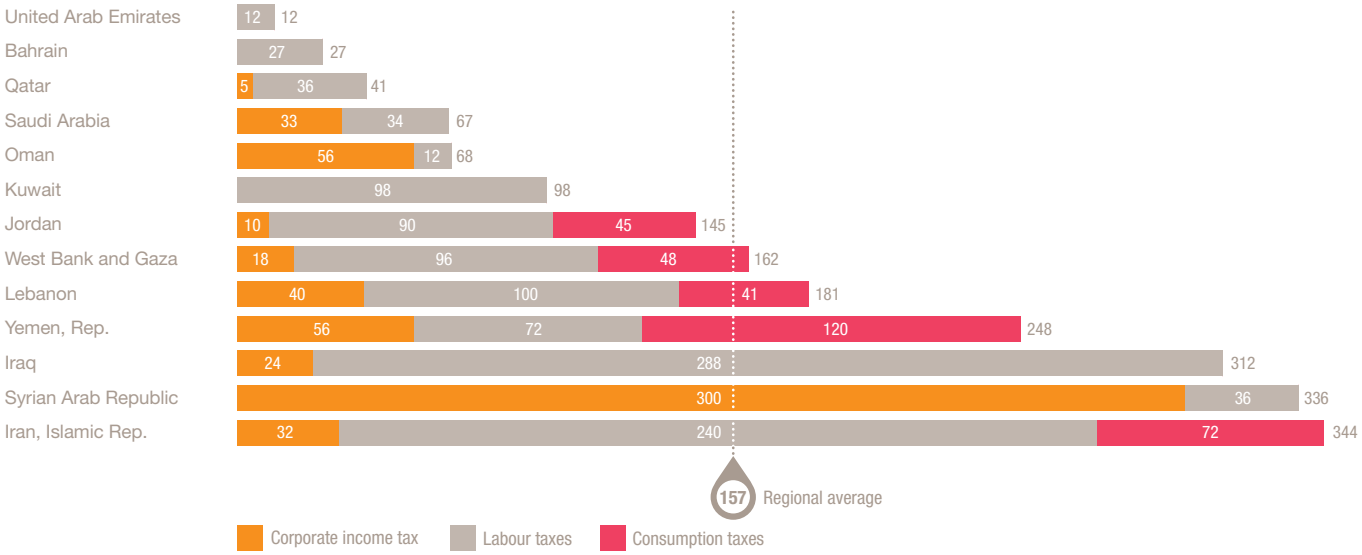


Figure 82: Middle East

Number of payments

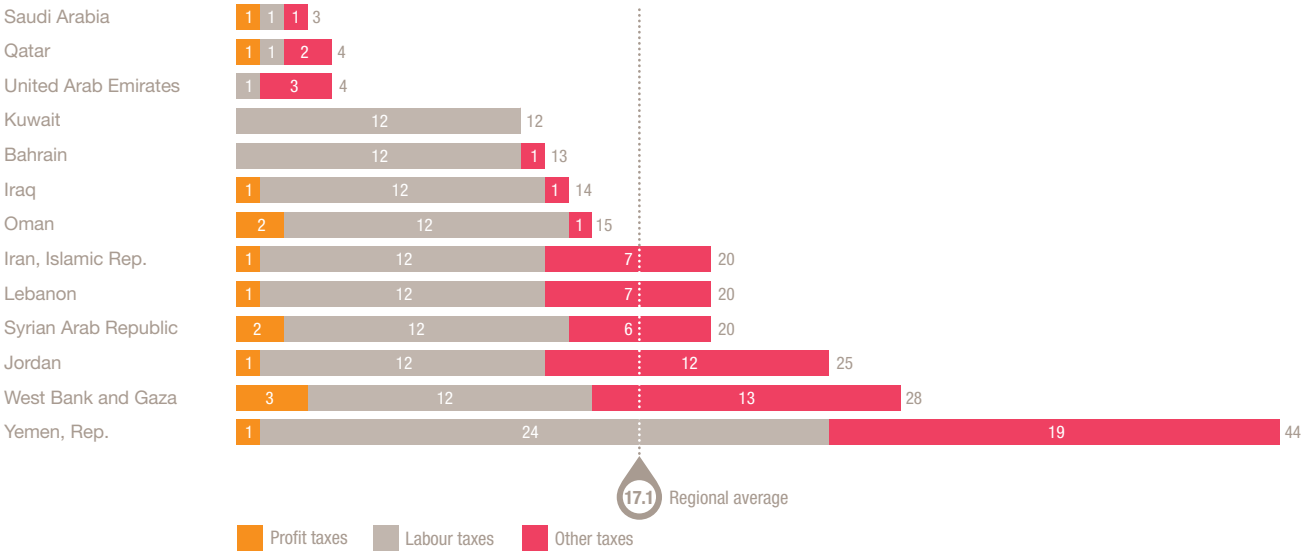
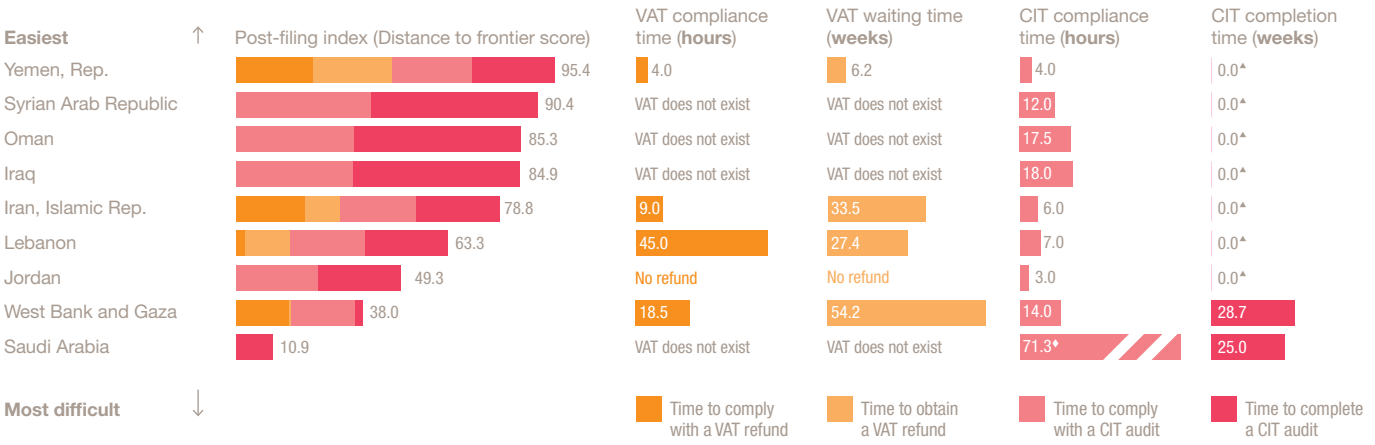


Figure 83: Middle East

Post-filing index (distance to frontier) and components (hours/weeks)



*VAT does not exist for the case study purchase

▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index. Bahrain, Kuwait, Qatar and United Arab Emirates have neither a VAT nor a CIT system. They therefore are not scored on the post-filing index and are omitted from the chart.

Figure 84: North America

Total Tax Rate (%)

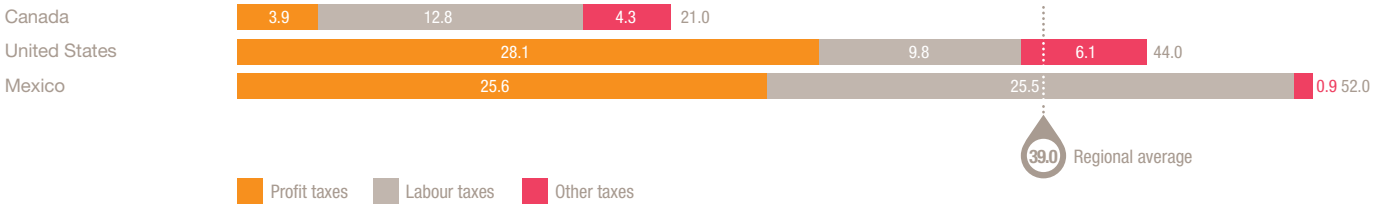


Figure 85: North America

Time to comply (hours)

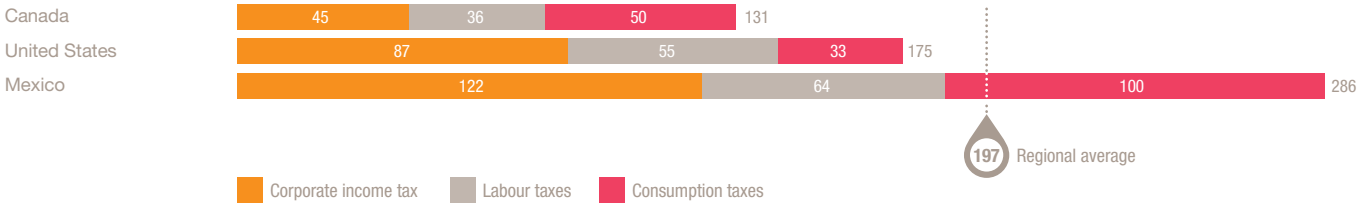


Figure 86: North America

Number of payments

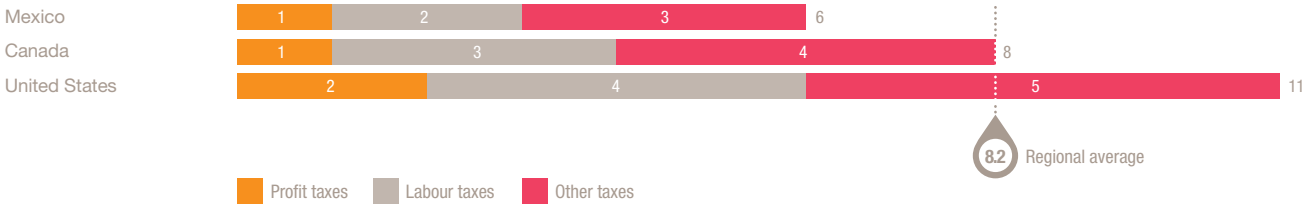
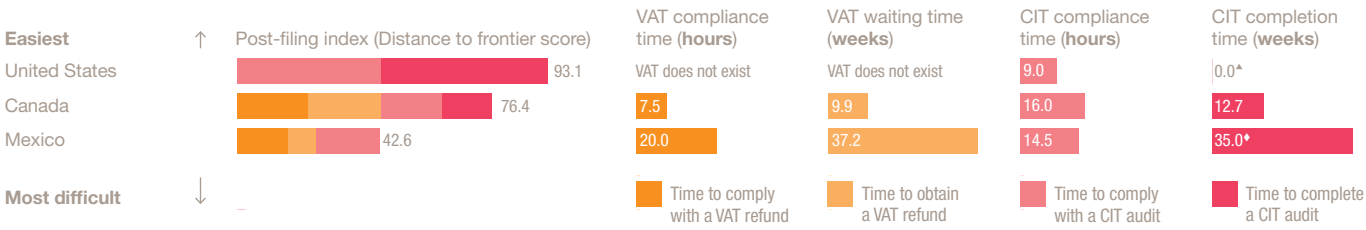


Figure 87: North America

Post-filing index (distance to frontier) and components (hours/weeks)



*VAT does not exist for the case study purchase

▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Figure 88: South America

Total Tax Rate (%)

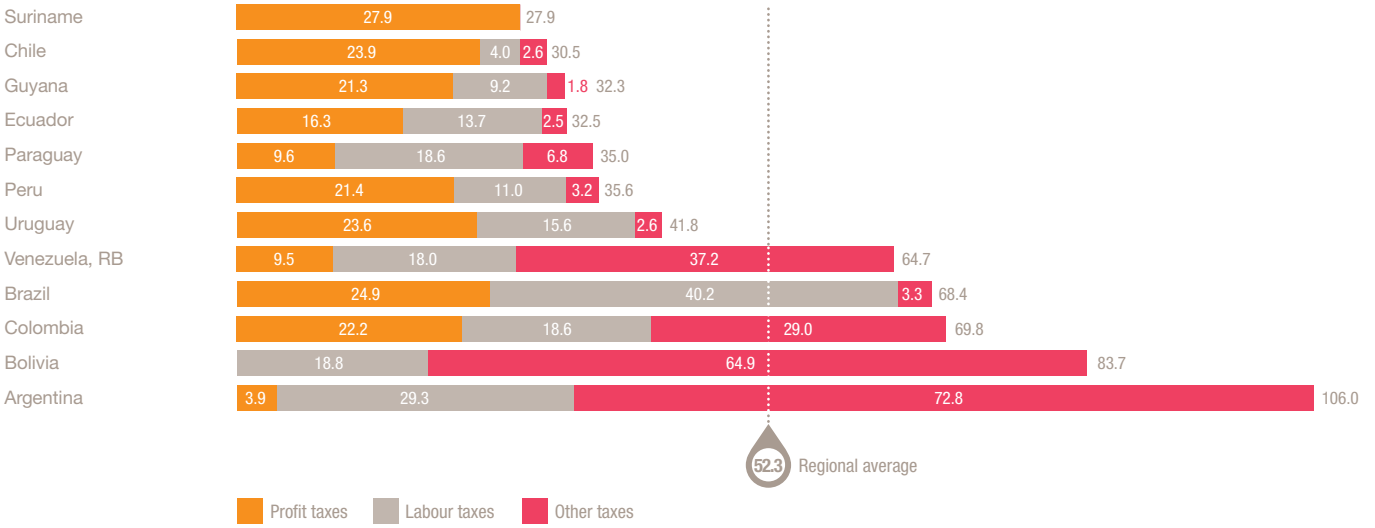


Figure 89: South America

Time to comply (hours)

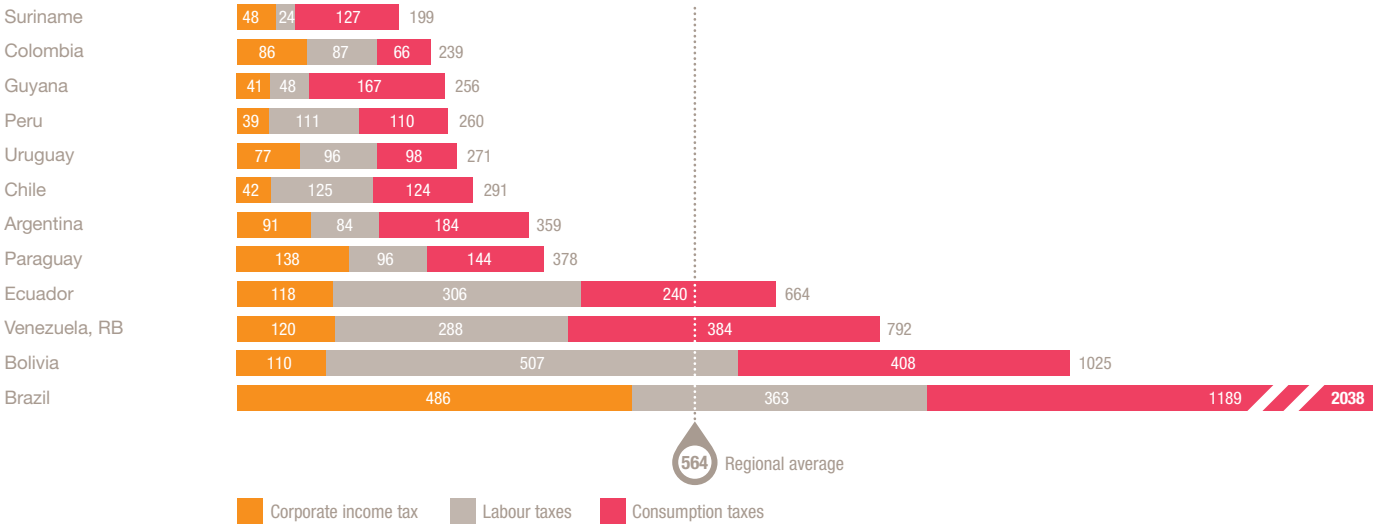


Figure 90: South America

Number of payments

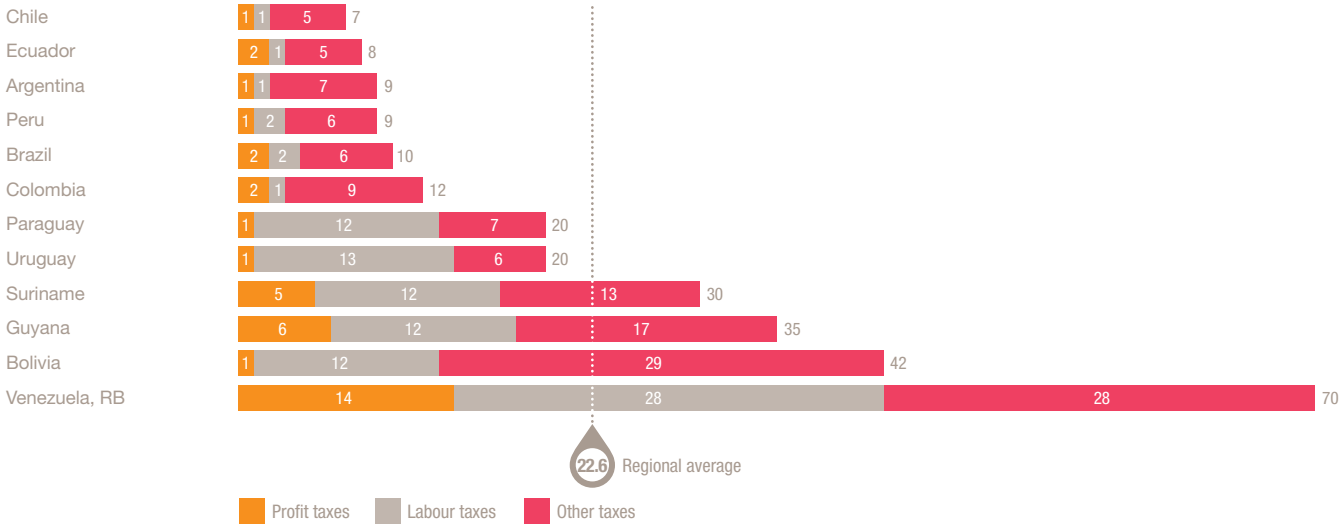
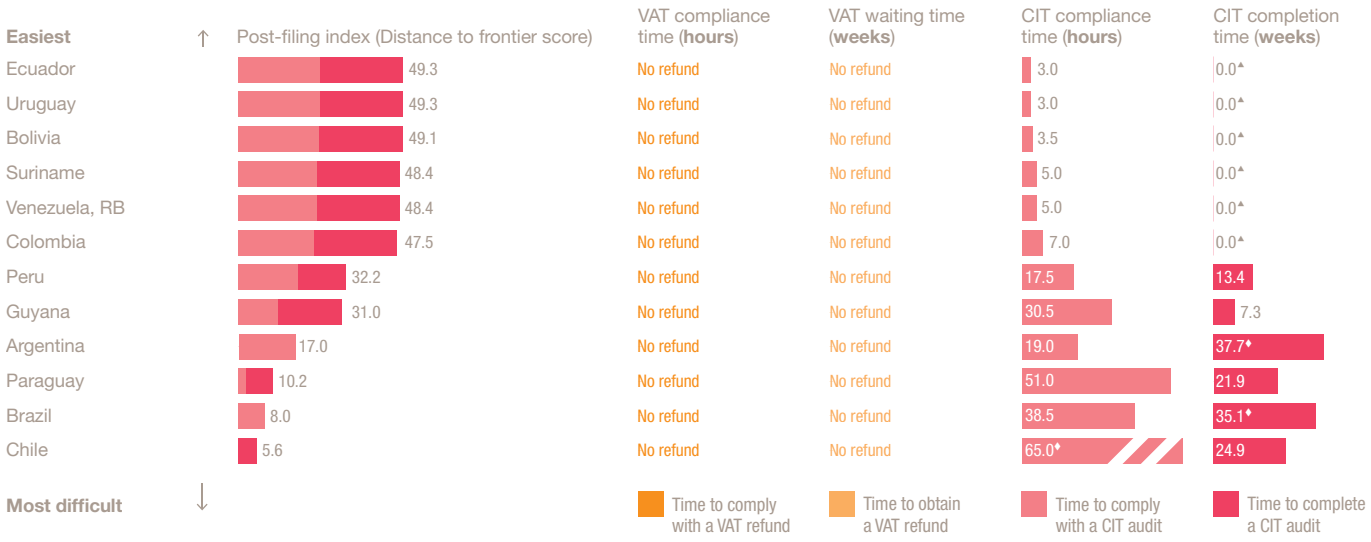


Figure 91: South America

Post-filing index (distance to frontier) and components (hours/weeks)



*VAT does not exist for the case study purchase

▲0.0 indicates that an audit is unlikely and so the economy receives the best score on this component.

♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

The data tables

Table 9: Overall *Paying Taxes* ranking	Without post-filing (for comparison purposes only)		Overall ranking (including post-filing index)	
Economy	Distance to frontier	Rank	Distance to frontier	Rank
Afghanistan	68.24	121	**51.29**	**163**
Albania	66.96	125	**70.96**	**97**
Algeria	55.55	161	**53.99**	**155**
Angola	61.66	148	**53.23**	**157**
Antigua and Barbuda	54.35	166	**53.03**	**160**
Argentina	47.36	173	**39.76**	**178**
Armenia	80.29	57	**72.49**	**88**
Australia	82.35	42	**85.60**	**25**
Austria	78.37	68	**83.39**	**42**
Azerbaijan	84.36	33	**83.52**	**40**
Bahamas, The	71.39	108	**71.39**	**95**
Bahrain	94.44	7	**94.44**	**4**
Bangladesh	59.56	154	**55.56**	**151**
Barbados	72.39	100	**72.70**	**85**
Belarus	77.20	73	**70.40**	**99**
Belgium	73.65	90	**77.31**	**66**
Belize	78.17	69	**83.03**	**44**
Benin	43.20	176	**44.61**	**173**
Bhutan	85.50	30	**88.11**	**19**
Bolivia	12.18	189	**21.41**	**186**
Bosnia and Herzegovina	64.13	139	**60.08**	**133**
Botswana	77.47	71	**80.58**	**55**
Brazil	41.36	178	**33.03**	**181**
Brunei Darussalam	91.36	16	**72.43**	**89**
Bulgaria	72.64	99	**72.81**	**83**
Burkina Faso	58.08	157	**55.77**	**150**
Burundi	71.61	105	**62.20**	**123**
Cabo Verde	73.32	95	**72.64**	**86**
Cambodia	73.06	97	**61.97**	**124**
Cameroon	31.70	181	**35.87**	**180**
Canada	93.00	9	**88.86**	**17**
Central African Republic	23.47	185	**20.56**	**187**
Chad	19.54	187	**18.76**	**189**
Chile	83.27	39	**63.85**	**120**
China	64.40	138	**60.46**	**131**
Colombia	62.72	143	**58.91**	**139**
Comoros	47.37	172	**48.41**	**168**
Congo, Dem. Rep.	43.50	174	**40.12**	**177**
Congo, Rep.	31.62	182	**27.39**	**183**
Costa Rica	74.93	86	**78.98**	**62**
Côte d'Ivoire	43.05	177	**43.35**	**175**
Croatia	76.36	77	**81.74**	**49**
Cyprus	82.09	46	**84.45**	**34**
Czech Republic	76.15	80	**80.69**	**53**
Denmark	91.94	12	**92.11**	**7**
Djibouti	74.56	87	**68.96**	**106**
Dominica	73.32	95	**67.38**	**111**
Dominican Republic	76.25	79	**60.70**	**129**
Ecuador	62.56	145	**59.25**	**137**
Egypt, Arab Rep.	59.60	153	**51.96**	**162**
El Salvador	62.65	144	**49.51**	**166**
Equatorial Guinea	24.35	184	**39.25**	**179**
Eritrea	43.49	175	**56.82**	**147**
Estonia	84.53	32	**88.04**	**21**
Ethiopia	65.88	132	**72.06**	**90**
Fiji	67.09	124	**67.55**	**110**
Finland	89.28	19	**90.23**	**13**
France	74.15	88	**78.72**	**63**
Gabon	55.48	162	**53.00**	**161**
Gambia, The	47.96	171	**48.08**	**171**
Georgia	87.50	24	**87.43**	**22**
Germany	76.99	74	**82.10**	**48**
Ghana	71.24	109	**62.91**	**122**

Table 9: Overall *Paying Taxes* ranking	Without post-filing (for comparison purposes only)		Overall ranking (including post-filing index)	
Economy	Distance to frontier	Rank	Distance to frontier	Rank
Greece	77.88	70	**78.22**	**64**
Grenada	64.46	137	**60.44**	**132**
Guatemala	82.31	43	**71.55**	**93**
Guinea	28.27	183	**24.28**	**184**
Guinea-Bissau	58.65	156	**56.08**	**149**
Guyana	68.69	119	**59.27**	**136**
Haiti	61.87	147	**53.10**	**159**
Honduras	57.27	158	**54.97**	**152**
Hong Kong SAR, China	98.71	4	**98.69**	**3**
Hungary	74.02	89	**74.46**	**77**
Iceland	83.46	37	**84.88**	**29**
India	60.68	149	**46.58**	**172**
Indonesia	66.83	126	**69.25**	**104**
Iran, Islamic Rep.	66.78	127	**69.79**	**100**
Iraq	79.53	63	**80.86**	**52**
Ireland	94.97	6	**94.40**	**5**
Israel	72.82	98	**71.00**	**96**
Italy	66.06	129	**61.65**	**126**
Jamaica	80.43	56	**65.18**	**116**
Japan	76.40	76	**77.03**	**70**
Jordan	82.14	45	**73.94**	**79**
Kazakhstan	89.69	18	**79.54**	**60**
Kenya	71.59	106	**61.72**	**125**
Kiribati	86.34	27	**75.08**	**73**
Korea, Rep.	84.55	31	**86.56**	**23**
Kosovo	90.65	17	**83.24**	**43**
Kuwait	92.48	10	**92.48**	**6**
Kyrgyz Republic	62.94	142	**56.43**	**148**
Lao PDR	66.06	129	**56.98**	**146**
Latvia	87.02	26	**89.79**	**15**
Lebanon	81.79	48	**77.17**	**67**
Lesotho	69.72	113	**72.03**	**91**
Liberia	69.17	116	**76.07**	**72**
Libya	54.77	164	**63.78**	**121**
Lithuania	81.40	50	**85.44**	**27**
Luxembourg	88.58	22	**88.92**	**16**
Macedonia, FYR	94.17	8	**91.67**	**9**
Madagascar	76.32	78	**64.80**	**117**
Malawi	71.66	104	**69.58**	**102**
Malaysia	84.16	34	**79.20**	**61**
Maldives	64.74	134	**60.02**	**134**
Mali	60.16	152	**57.50**	**144**
Malta	84.13	35	**84.59**	**33**
Marshall Islands	73.45	94	**73.45**	**82**
Mauritania	19.93	186	**19.69**	**188**
Mauritius	91.92	13	**82.96**	**45**
Mexico	73.53	92	**65.81**	**114**
Micronesia, Fed. Sts.	68.78	118	**68.78**	**108**
Moldova	82.56	41	**84.76**	**31**
Mongolia	86.01	29	**84.19**	**35**
Montenegro	78.74	65	**80.42**	**57**
Morocco	78.78	64	**83.51**	**41**
Mozambique	68.65	120	**67.11**	**112**
Myanmar	70.03	112	**64.05**	**119**
Namibia	73.63	91	**74.97**	**74**
Nepal	66.24	128	**58.05**	**142**
Netherlands	86.30	28	**88.07**	**20**
New Zealand	88.64	21	**90.71**	**11**
Nicaragua	53.18	167	**43.29**	**176**
Niger	56.87	159	**50.19**	**165**
Nigeria	31.72	180	**28.09**	**182**
Norway	91.38	15	**85.53**	**26**
Oman	92.35	11	**90.60**	**12**

Table 9: Overall *Paying Taxes* ranking	Without post-filing (for comparison purposes only)		Overall ranking (including post-filing index)	
Economy	Distance to frontier	Rank	Distance to frontier	Rank
Pakistan	58.66	155	**53.40**	**156**
Palau	64.65	135	**64.65**	**118**
Panama	48.60	170	**48.09**	**170**
Papua New Guinea	69.50	114	**71.40**	**94**
Paraguay	69.45	115	**54.64**	**153**
Peru	81.34	51	**69.04**	**105**
Philippines	71.06	110	**65.74**	**115**
Poland	79.58	62	**82.73**	**47**
Portugal	80.76	54	**83.75**	**38**
Puerto Rico (U.S.)	65.95	131	**59.82**	**135**
Qatar	99.44	1	**99.44**	**1**
Romania	82.31	43	**81.64**	**50**
Russian Federation	81.41	49	**82.96**	**45**
Rwanda	78.48	66	**79.69**	**59**
Samoa	72.10	102	**76.93**	**71**
San Marino	87.16	25	**90.02**	**14**
São Tomé and Príncipe	51.50	169	**61.22**	**127**
Saudi Arabia	99.07	3	**77.04**	**69**
Senegal	40.17	179	**43.70**	**174**
Serbia	67.81	123	**74.36**	**78**
Seychelles	81.82	47	**84.66**	**32**
Sierra Leone	65.34	133	**72.63**	**87**
Singapore	97.99	5	**91.85**	**8**
Slovak Republic	77.46	72	**80.57**	**56**
Slovenia	83.73	36	**86.55**	**24**
Solomon Islands	78.42	67	**83.58**	**39**
South Africa	88.58	22	**81.09**	**51**
South Sudan	71.44	107	**77.09**	**68**
Spain	80.88	52	**83.80**	**37**
Sri Lanka	54.59	165	**53.16**	**158**
St. Kitts and Nevis	60.64	150	**57.86**	**143**
St. Lucia	75.04	85	**78.09**	**65**
St. Vincent and the Grenadines	72.39	100	**70.56**	**98**
Sudan	62.34	146	**58.39**	**141**
Suriname	76.45	75	**69.44**	**103**
Swaziland	75.36	83	**74.65**	**76**
Sweden	83.46	37	**85.28**	**28**
Switzerland	89.13	20	**88.49**	**18**
Syrian Arab Republic	67.89	122	**73.51**	**81**
Taiwan, China	82.77	40	**84.78**	**30**
Tajikistan	64.47	136	**58.79**	**140**
Tanzania	56.20	160	**54.13**	**154**
Thailand	75.80	81	**68.68**	**109**
Timor-Leste	79.97	60	**60.55**	**130**
Togo	55.03	163	**48.22**	**169**
Tonga	75.37	82	**73.76**	**80**
Trinidad and Tobago	68.89	117	**57.33**	**145**
Tunisia	75.36	83	**68.96**	**106**
Turkey	79.81	61	**60.83**	**128**
Uganda	73.47	93	**74.71**	**75**
Ukraine	70.54	111	**72.72**	**84**
United Arab Emirates	99.44	1	**99.44**	**1**
United Kingdom	91.83	14	**90.74**	**10**
United States	80.76	54	**83.85**	**36**
Uruguay	71.67	103	**66.08**	**113**
Uzbekistan	63.08	141	**59.06**	**138**
Vanuatu	80.79	53	**80.60**	**54**
Venezuela, RB	13.85	188	**22.49**	**185**
Vietnam	52.87	168	**49.39**	**167**
West Bank and Gaza	80.29	57	**69.71**	**101**
Yemen, Rep.	63.72	140	**71.64**	**92**
Zambia	80.19	59	**80.16**	**58**
Zimbabwe	60.28	151	**51.15**	**164**

Note: There is no data for Somalia as there is currently no practice yet

Table 10: Total Tax Rate		Total Tax Rate, % of commercial profit		
		Profit tax	Labour tax	Other taxes
Economy	Total Tax Rate	Total Tax Rate	Total Tax Rate	Total Tax Rate
Afghanistan	48.3	0.0	0.0	48.3
Albania	36.5	14.1	18.8	3.6
Algeria	65.6	8.3	30.6	26.7
Angola	48.0	20.4	9.0	18.6
Antigua and Barbuda	41.9	25.9	10.7	5.3
Argentina	106.0	3.9	29.3	72.8
Armenia	18.5	17.6	0.0	0.9
Australia	47.6	26.0	21.1	0.5
Austria	51.6	16.9	34.2	0.5
Azerbaijan	39.8	13.0	24.8	2.0
Bahamas, The	33.8	0.0	6.3	27.5
Bahrain	13.5	0.0	13.5	0.0
Bangladesh	34.4	30.5	0.0	3.9
Bangladesh Dhaka	34.4	30.5	0.0	3.9
Bangladesh Chittagong	34.4	30.5	0.0	3.9
Barbados	34.7	19.5	12.2	3.0
Belarus	54.8	12.9	39.0	2.9
Belgium	58.7	9.1	48.9	0.7
Belize	31.1	24.7	5.0	1.4
Benin	57.4	10.0	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	22.6	7.2	13.5	1.9
Botswana	25.1	21.5	0.0	3.6
Brazil	68.4	24.9	40.2	3.3
Brazil São Paulo	68.0	25.1	40.2	2.7
Brazil Rio de Janeiro	69.0	24.6	40.2	4.2
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	36.6	18.6	17.6	0.4
Cambodia	21.0	19.5	0.5	1.0
Cameroon	57.7	38.9	18.3	0.5
Canada	21.0	3.9	12.8	4.3
Central African Republic	73.3	0.0	19.8	53.5
Chad	63.5	31.3	28.4	3.8
Chile	30.5	23.9	4.0	2.6
China	68.0	10.8	48.8	8.4
China Shanghai	67.7	10.9	48.0	8.8
China Beijing	68.5	10.7	49.6	8.2
Colombia	69.8	22.2	18.6	29.0
Comoros	216.5	32.1	0.0	184.4
Congo, Dem. Rep.	54.6	27.5	12.6	14.5
Congo, Rep.	54.3	0.0	31.3	23.0
Costa Rica	58.3	19.2	32.7	6.4
Côte d'Ivoire	51.3	8.8	23.3	19.2
Croatia	20.9	0.0	19.4	1.5
Cyprus	24.7	9.5	13.4	1.8
Czech Republic	50.0	9.1	38.4	2.5
Denmark	25.0	19.0	3.2	2.8
Djibouti	37.6	17.7	17.7	2.2
Dominica	35.2	24.4	7.9	2.9
Dominican Republic	42.4	22.6	18.6	1.2
Ecuador	32.5	16.3	13.7	2.5
Egypt, Arab Rep.	43.5	14.7	24.4	4.4
El Salvador	38.8	20.2	17.2	1.4
Equatorial Guinea	79.4	53.0	25.4	1.0
Eritrea	83.7	9.2	0.0	74.5
Estonia	48.7	7.9	38.8	2.0
Ethiopia	38.6	25.4	12.4	0.8
Fiji	33.1	20.3	12.7	0.1

Table 10: Total Tax Rate		Total Tax Rate, % of commercial profit		
Economy	Total Tax Rate	Profit tax Total Tax Rate	Labour tax Total Tax Rate	Other taxes Total Tax Rate
Finland	38.1	11.7	25.1	1.3
France	62.8	0.4	53.5	8.9
Gabon	45.2	21.1	22.7	1.4
Gambia, The	51.3	6.1	12.7	32.5
Georgia	16.4	14.3	0.0	2.1
Germany	48.9	23.2	21.3	4.4
Ghana	32.7	18.0	14.7	0.0
Greece	50.7	22.4	27.7	0.6
Grenada	45.3	27.6	5.6	12.1
Guatemala	35.2	20.2	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	44.4	31.1	3.3	10.0
Hong Kong SAR, China	22.9	17.5	5.3	0.1
Hungary	46.5	9.9	34.3	2.3
Iceland	30.1	8.9	18.3	2.9
India	60.6	20.9	20.0	19.7
India Mumbai	60.6	20.9	20.0	19.7
India Delhi	60.6	20.9	20.0	19.7
Indonesia	30.6	16.9	10.3	3.4
Indonesia Jakarta	30.6	16.9	10.3	3.4
Indonesia Surabaya	30.6	16.9	10.3	3.4
Iran, Islamic Rep.	44.1	17.8	25.9	0.4
Iraq	27.8	14.3	13.5	0.0
Ireland	26.0	12.4	12.2	1.4
Israel	28.1	20.8	5.8	1.5
Italy	62.0	17.0	43.4	1.6
Jamaica	34.3	14.0	13.4	6.9
Japan	48.9	26.2	18.4	4.3
Japan Tokyo	48.9	26.2	18.4	4.3
Japan Osaka	48.9	26.2	18.4	4.3
Jordan	27.6	10.6	14.9	2.1
Kazakhstan	29.2	16.2	11.2	1.8
Kenya	37.4	30.1	1.9	5.4
Kiribati	32.7	24.3	8.4	0.0
Korea, Rep.	33.1	18.2	13.6	1.3
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	26.2	15.8	6.8	3.6
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	45.9	35.4	5.4	5.1
Libya	32.6	22.1	10.3	0.2
Lithuania	42.7	5.9	35.2	1.6
Luxembourg	20.8	4.6	15.7	0.5
Macedonia, FYR	13.0	11.0	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	43.8	32.4	10.9	0.5
Marshall Islands	64.8	0.0	11.8	53.0
Mauritania	71.3	0.0	23.2	48.1
Mauritius	21.8	10.4	7.7	3.7
Mexico	52.0	25.6	25.5	0.9
Mexico Mexico City	52.0	25.6	25.5	0.9
Mexico Monterrey	52.0	25.6	25.5	0.9

Table 10: Total Tax Rate		Total Tax Rate, % of commercial profit		
		Profit tax	Labour tax	Other taxes
Economy	Total Tax Rate	Total Tax Rate	Total Tax Rate	Total Tax Rate
Micronesia, Fed. Sts.	60.5	0.0	8.5	52.0
Moldova	40.4	8.9	31.1	0.4
Mongolia	24.7	10.3	12.4	2.0
Montenegro	22.2	8.2	13.3	0.7
Morocco	49.3	25.3	22.6	1.4
Mozambique	36.1	30.8	4.5	0.8
Myanmar	31.3	26.2	0.3	4.8
Namibia	20.7	16.7	1.9	2.1
Nepal	29.5	17.7	11.3	0.5
Netherlands	40.4	20.6	19.4	0.4
New Zealand	34.3	30.0	2.5	1.8
Nicaragua	60.8	17.6	22.6	20.6
Niger	48.2	21.2	21.7	5.3
Nigeria	34.3	20.3	13.5	0.5
Nigeria Lagos	34.3	20.3	13.5	0.5
Nigeria Kano	34.3	20.3	13.5	0.5
Norway	39.5	23.6	15.9	0.0
Oman	23.9	10.8	13.0	0.1
Pakistan	33.3	18.5	13.8	1.0
Pakistan Karachi	33.2	18.5	13.7	1.0
Pakistan Lahore	33.5	18.4	14.0	1.1
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	35.6	21.4	11.0	3.2
Philippines	42.9	20.3	8.7	13.9
Poland	40.4	14.5	24.9	1.0
Portugal	39.8	12.5	26.8	0.5
Puerto Rico (U.S.)	62.3	28.6	13.5	20.2
Qatar	11.3	0.0	11.3	0.0
Romania	38.4	11.6	25.8	1.0
Russian Federation	47.4	8.8	36.1	2.5
Russian Federation Moscow	47.5	8.8	36.1	2.6
Russian Federation Saint Petersburg	47.2	8.9	36.1	2.2
Rwanda	33.0	25.8	5.6	1.6
Samoa	18.5	11.2	7.3	0.0
San Marino	35.4	5.1	30.0	0.3
São Tomé and Príncipe	37.4	19.2	6.8	11.4
Saudi Arabia	15.7	2.2	13.5	0.0
Senegal	45.1	16.2	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	19.1	1.8	16.2	1.1
Slovak Republic	51.6	10.5	39.7	1.4
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	29.1	6.9	19.2	3.0
Spain	49.0	12.4	35.9	0.7
Sri Lanka	55.2	1.2	16.9	37.1
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	39.3	29.8	6.2	3.3
Sudan	45.4	11.5	19.2	14.7
Suriname	27.9	27.9	0.0	0.0
Swaziland	35.1	25.5	5.5	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

Table 10: Total Tax Rate		Total Tax Rate, % of commercial profit		
Economy	Total Tax Rate	Profit tax Total Tax Rate	Labour tax Total Tax Rate	Other taxes Total Tax Rate
Tajikistan	65.2	17.7	28.5	19.0
Tanzania	43.9	20.8	17.5	5.6
Thailand	32.6	21.6	5.4	5.6
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	60.2	13.1	25.3	21.8
Turkey	41.1	18.2	19.9	3.0
Uganda	33.5	22.1	11.3	0.1
Ukraine	51.9	8.7	43.1	0.1
United Arab Emirates	15.9	0.0	14.1	1.8
United Kingdom	30.9	18.3	10.9	1.7
United States	44.0	28.1	9.8	6.1
United States New York	46.0	27.3	10.0	8.7
United States Los Angeles	40.9	29.3	9.5	2.1
Uruguay	41.8	23.6	15.6	2.6
Uzbekistan	38.1	11.5	24.9	1.7
Vanuatu	8.5	0.0	4.5	4.0
Venezuela, RB	64.7	9.5	18.0	37.2
Vietnam	39.4	14.4	24.8	0.2
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

Note: There is no data for Somalia as there is currently no practice yet.

Table 11: 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	261	105	66	90
Algeria	265	122	76	67
Angola	287	80	125	82
Antigua and Barbuda	207	23	136	48
Argentina	359	91	84	184
Armenia	313	113	103	97
Australia	105	37	18	50
Austria	131	46	50	35
Azerbaijan	195	60	78	57
Bahamas, The	233	10	66	157
Bahrain	27	0	27	0
Bangladesh	435	144	120	171
Bangladesh Dhaka	435	144	120	171
Bangladesh Chittagong	435	144	120	171
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	411	68	81	262
Botswana	152	40	40	72
Brazil	2038	486	363	1189
Brazil São Paulo	2038	486	363	1189
Brazil Rio de Janeiro	2038	486	363	1189
Brunei Darussalam	77	53	24	0
Bulgaria	453	32	256	165
Burkina Faso	270	30	120	120
Burundi	232	76	45	111
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	766	300	216	250
Chile	291	42	125	124
China	259	62	109	88
China Shanghai	263	63	110	90
China Beijing	254	60	107	87
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	127	23	65	39
Czech Republic	234	53	87	94
Denmark	130	25	65	40
Djibouti	82	30	36	16
Dominica	117	15	48	54
Dominican Republic	317	74	80	163
Ecuador	664	118	306	240
Egypt, Arab Rep.	392	69	165	158
El Salvador	248	80	84	84
Equatorial Guinea	492	145	160	187
Eritrea	216	24	96	96
Estonia	84	20	31	33
Ethiopia	306	120	114	72
Fiji	247	49	101	97
Finland	93	21	48	24

Table 11: Time to comply	Number of hours			
Economy	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
France	139	28	80	31
Gabon	488	137	131	220
Gambia, The	326	40	96	190
Georgia	270	120	56	94
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	241	45	91	105
India Mumbai	241	45	91	105
India Delhi	241	45	91	105
Indonesia	221	75	56	90
Indonesia Jakarta	221	75	56	90
Indonesia Surabaya	221	75	56	90
Iran, Islamic Rep.	344	32	240	72
Iraq	312	24	288	0
Ireland	82	12	40	30
Israel	235	110	60	65
Italy	240	39	169	32
Jamaica	268	42	168	58
Japan	175	62	92	21
Japan Tokyo	175	62	92	21
Japan Osaka	175	62	92	21
Jordan	145	10	90	45
Kazakhstan	178	55	70	53
Kenya	196	52	63	81
Kiribati	168	48	72	48
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	169	23	80	66
Lebanon	181	40	100	41
Lesotho	324	70	104	150
Liberia	140	57	53	30
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	178	67	78	33
Malaysia	164	26	50	88
Maldives	406	101	88	217
Mali	270	30	120	120
Malta	139	23	92	24
Marshall Islands	120	32	88	0
Mauritania	724	120	124	480
Mauritius	152	36	48	68
Mexico	286	122	64	100
Mexico Mexico City	286	122	64	100
Mexico Monterrey	286	122	64	100
Micronesia, Fed. Sts.	128	32	96	0
Moldova	181	42	84	55

Table 11: Time to comply	Number of hours			
Economy	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
Mongolia	148	46	48	54
Montenegro	300	43	93	164
Morocco	211	68	41	102
Mozambique	200	50	30	120
Myanmar	282	64	111	107
Namibia	302	40	52	210
Nepal	339	125	84	130
Netherlands	119	21	64	34
New Zealand	152	34	59	59
Nicaragua	201	63	76	62
Niger	270	30	120	120
Nigeria	908	378	379	151
Nigeria Lagos	956	398	396	162
Nigeria Kano	747	310	320	117
Norway	83	24	15	44
Oman	68	56	12	0
Pakistan	312	40	40	232
Pakistan Karachi	312	40	40	232
Pakistan Lahore	312	40	40	232
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	186	39	37	110
Poland	271	70	103	98
Portugal	243	63	90	90
Puerto Rico (U.S.)	218	80	60	78
Qatar	41	5	36	0
Romania	161	25	82	54
Russian Federation	168	53	76	39
Russian Federation Moscow	168	53	76	39
Russian Federation Saint Petersburg	168	53	76	39
Rwanda	124	20	45	59
Samoa	224	48	96	80
San Marino	52	4	48	0
São Tomé and Príncipe	424	40	192	192
Saudi Arabia	67	33	34	0
Senegal	441	98	88	255
Serbia	226	38	103	85
Seychelles	85	37	36	12
Sierra Leone	343	16	157	170
Singapore	67	24	13	30
Slovak Republic	192	46	62	84
Slovenia	245	86	90	69
Solomon Islands	80	8	30	42
South Africa	203	96	52	55
South Sudan	210	54	78	78
Spain	152	33	84	35
Sri Lanka	179	16	21	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	122	8	60	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	258	74	48	136
Tanzania	195	62	66	67
Thailand	266	160	48	58

Table 11: Time to comply	Number of hours			
Economy	Total tax time	Corporate income tax time	Labour tax time	Consumption tax time
Timor-Leste	276	132	144	0
Togo	216	24	96	96
Tonga	200	8	48	144
Trinidad and Tobago	210	45	75	90
Tunisia	144	64	30	50
Turkey	217	46	80	91
Uganda	195	39	66	90
Ukraine	356	57	100	199
United Arab Emirates	12	0	12	0
United Kingdom	110	37	48	25
United States	175	87	55	33
United States New York	175	87	55	33
United States Los Angeles	175	87	55	33
Uruguay	271	77	96	98
Uzbekistan	193	66	57	70
Vanuatu	120	0	24	96
Venezuela, RB	792	120	288	384
Vietnam	540	132	189	219
West Bank and Gaza	162	18	96	48
Yemen, Rep.	248	56	72	120
Zambia	186	52	62	72
Zimbabwe	242	78	96	68

Note: There is no data for Somalia as there is currently no practice yet.

Table 12: Tax payments	Number of payments			
Economy	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	31	2	12	17
Antigua and Barbuda	57	13	24	20
Argentina	9	1	1	7
Armenia	14	1	1	12
Australia	11	1	4	6
Austria	12	1	3	8
Azerbaijan	6	1	1	4
Bahamas, The	31	0	12	19
Bahrain	13	0	12	1
Bangladesh	33	5	12	16
Bangladesh Dhaka	33	5	12	16
Bangladesh Chittagong	33	5	12	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	34	12	1	21
Botswana	34	6	13	15
Brazil	10	2	2	6
Brazil São Paulo	10	2	2	6
Brazil Rio de Janeiro	9	2	2	5
Brunei Darussalam	16	1	12	3
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
China Shanghai	9	3	1	5
China Beijing	9	3	1	5
Colombia	12	2	1	9
Comoros	33	3	12	18
Congo, Dem. Rep.	52	1	36	15
Congo, Rep.	50	5	25	20
Costa Rica	10	1	2	7
Côte d'Ivoire	63	3	24	36
Croatia	31	1	1	29
Cyprus	28	2	12	14
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	2	4
Ecuador	8	2	1	5
Egypt, Arab Rep.	29	1	12	16
El Salvador	41	13	12	16
Equatorial Guinea	46	1	24	21
Eritrea	30	2	12	16
Estonia	8	1	0	7
Ethiopia	30	2	12	16
Fiji	38	5	18	15

Table 12: Tax payments	Number of payments			
Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Finland	8	1	3	4
France	8	1	2	5
Gabon	26	3	4	19
Gambia, The	49	5	13	31
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	25	1	16	8
India Mumbai	25	1	16	8
India Delhi	25	1	16	8
Indonesia	43	13	14	16
Indonesia Jakarta	43	13	14	16
Indonesia Surabaya	43	13	14	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	11	1	1	9
Japan	14	3	2	9
Japan Tokyo	14	3	2	9
Japan Osaka	14	3	2	9
Jordan	25	1	12	12
Kazakhstan	7	1	1	5
Kenya	31	6	14	11
Kiribati	11	5	2	4
Korea, Rep.	12	2	2	8
Kosovo	10	5	1	4
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	9	2	2	5
Maldives	30	3	12	15
Mali	35	4	24	7
Malta	8	2	1	5
Marshall Islands	9	0	4	5
Mauritania	45	1	21	23
Mauritius	8	1	1	6
Mexico	6	1	2	3
Mexico Mexico City	6	1	2	3
Mexico Monterrey	6	1	2	3

Table 12: Tax payments	Number of payments			
Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Micronesia, Fed. Sts.	21	0	4	17
Moldova	10	1	3	6
Mongolia	19	1	12	6
Montenegro	18	1	13	4
Morocco	6	1	1	4
Mozambique	37	7	12	18
Myanmar	31	5	12	14
Namibia	27	3	13	11
Nepal	34	4	12	18
Netherlands	9	1	1	7
New Zealand	7	1	2	4
Nicaragua	42	1	24	17
Niger	41	3	13	25
Nigeria	59	2	38	19
Nigeria Lagos	59	2	38	19
Nigeria Kano	59	2	38	19
Norway	4	1	1	2
Oman	15	2	12	1
Pakistan	47	5	25	17
Pakistan Karachi	47	5	25	17
Pakistan Lahore	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	28	1	17	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
Russian Federation Moscow	7	1	2	4
Russian Federation Saint Petersburg	7	1	2	4
Rwanda	29	4	8	17
Samoa	37	5	24	8
San Marino	18	2	12	4
São Tomé and Príncipe	46	4	12	30
Saudi Arabia	3	1	1	1
Senegal	58	3	36	19
Serbia	33	1	1	31
Seychelles	29	13	12	4
Sierra Leone	34	6	12	16
Singapore	5	1	1	3
Slovak Republic	8	1	1	6
Slovenia	10	1	1	8
Solomon Islands	34	5	12	17
South Africa	7	1	2	4
South Sudan	37	5	12	20
Spain	8	1	1	6
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

Table 12: Tax payments	Number of payments			
Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Tajikistan	12	1	1	10
Tanzania	53	5	29	19
Thailand	21	2	13	6
Timor-Leste	18	5	12	1
Togo	49	5	24	20
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
United States New York	11	2	4	5
United States Los Angeles	10	3	3	4
Uruguay	20	1	13	6
Uzbekistan	46	8	24	14
Vanuatu	31	0	12	19
Venezuela, RB	70	14	28	28
Vietnam	31	6	12	13
West Bank and Gaza	28	3	12	13
Yemen, Rep.	44	1	24	19
Zambia	26	5	13	8
Zimbabwe	51	5	16	30

Note: There is no data for Somalia as there is currently no practice yet.

Table 13: Post-filing index and components

Economy	Post-filing index (DTF score)	Time to comply with VAT refund (hours)	Time to obtain VAT refund (weeks)	Time to comply with a CIT audit (hours)	Time to complete a CIT audit (weeks)
Afghanistan	0.45	VAT does not exist	VAT does not exist	211.5♦	31.7
Albania	82.97	9.0	27.7	3.0	0.0▲
Algeria	49.31	No refund	No refund	3.0	0.0▲
Angola	27.96	VAT does not exist	VAT does not exist	44.5	20.9
Antigua and Barbuda	49.08	No refund	No refund	3.5	0.0▲
Argentina	16.97	No refund	No refund	19.0	37.7♦
Armenia	49.08	No refund	No refund	3.5	0.0▲
Australia	95.35	4.5	7.5	2.3	0.0▲
Austria	98.45	1.5	3.2	3.3	0.0▲
Azerbaijan	81.00	7.5	21.2	10.0	3.4
Bahamas, The	Not scored	No practice yet	No practice yet	CIT does not exist	CIT does not exist▲
Bahrain	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist▲
Bangladesh	43.57	53.0♦	20.2	40.0	7.1
Bangladesh Dhaka	43.57	53.0♦	20.2	40.0	7.1
Bangladesh Chittagong	43.57	53.0♦	20.2	40.0	7.1
Barbados	73.62	0.0	56.3♦	4.5	0.0▲
Belarus	50.00	No refund	No refund	1.5	0.0▲
Belgium	88.28	5.0	18.5	5.5	0.0▲
Belize	97.60	2.5	4.2	3.0	0.0▲
Benin	48.85	No refund	No refund	4.0	0.0▲
Bhutan	95.95	VAT does not exist	VAT does not exist	3.0	1.7
Bolivia	49.08	No refund	No refund	3.5	0.0▲
Bosnia and Herzegovina	47.94	40.0	18.0	30.5	14.9
Botswana	89.89	10.0	10.5	5.0	0.0▲
Brazil	8.03	No refund	No refund	38.5	35.1♦
Brazil São Paulo	8.03	No refund	No refund	38.5	35.1♦
Brazil Rio de Janeiro	8.03	No refund	No refund	38.5	35.1♦
Brunei Darussalam	15.63	VAT does not exist	VAT does not exist	140.0♦	22.0
Bulgaria	73.30	15.0	19.1	12.5	8.3
Burkina Faso	48.85	No refund	No refund	4.0	0.0▲
Burundi	33.99	No refund	No refund	15.0	12.6
Cabo Verde	70.62	6.0	106.2♦	4.5	0.0▲
Cambodia	28.73	20.0	50.3	31.0	35.1♦
Cameroon	48.39	No refund	No refund	5.0	0.0▲
Canada	76.44	7.5	9.9	16.0	12.7
Central African Republic	11.83	No refund	No refund	66.0♦	16.9
Chad	16.42	No refund	No refund	46.0	16.9
Chile	5.58	No refund	No refund	65.0♦	24.9
China	48.62	No refund	No refund	4.5	0.0▲
China Shanghai	48.62	No refund	No refund	4.5	0.0▲
China Beijing	48.62	No refund	No refund	4.5	0.0▲
Colombia	47.48	No refund	No refund	7.0	0.0▲
Comoros	51.53	VAT does not exist	VAT does not exist	12.0	24.9
Congo, Dem. Rep.	29.97	No refund	No refund	24.0	12.4
Congo, Rep.	14.72	No refund	No refund	38.5	23.4

*VAT does not exist for the case study purchase – not scored.
▲A time of 0.0 indicates that an audit is unlikely and so the economy receives the best distance to frontier score of 100 for this component of the post-filing index.
♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.
Note: Where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Table 13: Post-filing index and components

Economy	Post-filing index (DTF score)	Time to comply with VAT refund (hours)	Time to obtain VAT refund (weeks)	Time to comply with a CIT audit (hours)	Time to complete a CIT audit (weeks)
Costa Rica	91.11	5.5	14.5	3.0	0.0▲
Côte d'Ivoire	44.27	No refund	No refund	14.0	0.0▲
Croatia	97.88	0.0	6.2	3.0	0.0▲
Cyprus	91.53	6.0	12.2	4.0	0.0▲
Czech Republic	94.29	4.0	9.5	3.0	0.0▲
Denmark	92.63	8.0	7.1	4.8	0.0▲
Djibouti	52.18	4.0	23.0	45.0	20.9
Dominica	49.54	No refund	No refund	2.5	0.0▲
Dominican Republic	14.06	No refund	No refund	61.5♦	14.0
Ecuador	49.31	No refund	No refund	3.0	0.0▲
Egypt, Arab Rep.	29.05	No refund	No refund	26.0	12.4
El Salvador	10.09	No refund	No refund	34.0	47.7♦
Equatorial Guinea	83.94	VAT does not exist*	VAT does not exist*	19.0	0.0▲
Eritrea	96.79	VAT does not exist	VAT does not exist	5.0	0.0▲
Estonia	98.55	2.3	3.9	1.5	0.0▲
Ethiopia	90.57	8.0	10.2	6.0	0.0▲
Fiji	68.91	73.0♦	10.6	7.0	0.0▲
Finland	93.09	5.0	6.2	8.0	0.0▲
France	92.42	10.0	6.2	4.0	0.0▲
Gabon	45.56	14.5	35.9	15.5	33.7♦
Gambia, The	48.43	38.5	25.7	29.5	11.0
Georgia	87.22	20.5	8.5	1.5	0.0▲
Germany	97.45	0.0	5.2	5.0	0.0▲
Ghana	37.92	No refund	No refund	12.5	9.0
Greece	79.27	16.5	27.2	3.5	0.0▲
Grenada	48.39	No refund	No refund	5.0	0.0▲
Guatemala	39.27	No refund	No refund	16.0	5.2
Guinea	12.31	No refund	No refund	44.0	23.3
Guinea-Bissau	48.39	No refund	No refund	5.0	0.0▲
Guyana	31.01	No refund	No refund	30.5	7.3
Haiti	26.79	No refund	No refund	37.5	8.6
Honduras	48.07	20.0	54.2	13.0	15.4
Hong Kong SAR, China	98.62	VAT does not exist	VAT does not exist	3.0	0.0▲
Hungary	75.79	15.0	13.7	12.0	8.7
Iceland	89.15	3.0	20.9	3.3	0.0▲
India	4.27	No refund	No refund	54.0	27.7
India Mumbai	4.27	No refund	No refund	54.0	27.7
India Delhi	4.27	No refund	No refund	54.0	27.7
Indonesia	76.49	18.0	30.9	4.0	0.0▲
Indonesia Jakarta	76.49	18.0	30.9	4.0	0.0▲
Indonesia Surabaya	76.49	18.0	30.9	4.0	0.0▲
Iran, Islamic Rep.	78.81	9.0	33.5	6.0	0.0▲
Iraq	84.86	VAT does not exist	VAT does not exist	18.0	0.0▲
Ireland	92.70	1.0	16.3	2.5	0.0▲
Israel	65.53	34.0	31.3	10.0	0.0▲

*VAT does not exist for the case study purchase – not scored.
▲A time of 0.0 indicates that an audit is unlikely and so the economy receives the best distance to frontier score of 100 for this component of the post-filing index.
♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.
Note: Where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Table 13: Post-filing index and components

Economy	Post-filing index (DTF score)	Time to comply with VAT refund (hours)	Time to obtain VAT refund (weeks)	Time to comply with a CIT audit (hours)	Time to complete a CIT audit (weeks)
Italy	48.39	51.0♦	86.0♦	5.0	0.0▲
Jamaica	19.45	40.0	63.3♦	24.5	61.1♦
Japan	78.91	6.0	10.5	24.0	5.4
Japan Tokyo	78.91	6.0	10.5	24.0	5.4
Japan Osaka	78.91	6.0	10.5	24.0	5.4
Jordan	49.31	No refund	No refund	3.0	0.0▲
Kazakhstan	49.08	No refund	No refund	3.5	0.0▲
Kenya	32.12	No refund	No refund	21.5	11.1
Kiribati	41.30	No refund	No refund	10.0	6.1
Korea, Rep.	92.58	0.0	10.5	10.0	0.0▲
Kosovo	61.00	30.0	16.8	22.0	10.3
Kuwait	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Kyrgyz Republic	36.93	No refund	No refund	21.0	5.3
Lao PDR	29.76	No refund	No refund	13.5	18.9
Latvia	98.11	0.0	6.2	2.5	0.0▲
Lebanon	63.32	45.0	27.4	7.0	0.0▲
Lesotho	78.94	11.5	19.2	12.0	3.6
Liberia	96.79	VAT does not exist	VAT does not exist	5.0	0.0▲
Libya	90.83	VAT does not exist	VAT does not exist	11.5	0.0▲
Lithuania	97.57	2.0	6.2	1.5	0.0▲
Luxembourg	89.94	10.5	10.3	4.5	0.0▲
Macedonia, FYR	84.17	10.0	25.2	2.0	0.0▲
Madagascar	30.21	No refund	No refund	13.5	18.3
Malawi	63.35	30.5	45.2	4.0	0.0▲
Malaysia	64.31	No practice yet	No practice yet	5.3	20.6
Maldives	45.87	No refund	No refund	10.5	0.0▲
Mali	49.54	No refund	No refund	2.5	0.0▲
Malta	85.95	0.0	28.5	5.5	0.0▲
Marshall Islands	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Mauritania	18.98	No refund	No refund	19.0	29.4
Mauritius	56.08	7.0	20.3	21.0	29.7
Mexico	42.64	20.0	37.2	14.5	35.0♦
Mexico Mexico City	42.64	20.0	37.2	14.5	35.0♦
Mexico Monterrey	42.64	20.0	37.2	14.5	35.0♦
Micronesia, Fed. Sts.	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Moldova	91.36	8.3	11.6	2.5	0.0▲
Mongolia	78.73	20.0	24.2	4.0	0.0▲
Montenegro	85.48	4.0	14.2	8.0	5.4
Morocco	97.71	VAT does not exist*	VAT does not exist*	4.0	0.0▲
Mozambique	62.49	28.0	10.5	31.0	8.3
Myanmar	46.10	No refund	No refund	10.0	0.0▲
Namibia	78.99	30.0	12.3	5.0	0.0▲
Nepal	33.48	No refund	No refund	29.0	5.0
Netherlands	93.40	0.0	14.5	4.0	0.0▲
New Zealand	96.90	2.0	5.2	4.0	0.0▲

*VAT does not exist for the case study purchase – not scored.
▲A time of 0.0 indicates that an audit is unlikely and so the economy receives the best distance to frontier score of 100 for this component of the post-filing index.
♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.
Note: Where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Table 13: Post-filing index and components

Economy	Post-filing index (DTF score)	Time to comply with VAT refund (hours)	Time to obtain VAT refund (weeks)	Time to comply with a CIT audit (hours)	Time to complete a CIT audit (weeks)
Nicaragua	13.62	No refund	No refund	90.0♦	14.6
Niger	30.16	43.5	54.2	42.0	6.3
Nigeria	17.19	No refund	No refund	65.0♦	10.0
Nigeria Lagos	17.19	No refund	No refund	65.0♦	10.0
Nigeria Kano	17.19	No refund	No refund	65.0♦	10.0
Norway	67.99	9.0	10.5	11.5	24.9
Oman	85.32	VAT does not exist	VAT does not exist	17.5	0.0▲
Pakistan	37.61	No refund	No refund	28.5	0.0▲
Pakistan Karachi	37.61	No refund	No refund	28.5	0.0▲
Pakistan Lahore	37.61	No refund	No refund	28.5	0.0▲
Palau	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Panama	46.56	No refund	No refund	9.0	0.0▲
Papua New Guinea	77.12	3.0	44.2	5.0	0.0▲
Paraguay	10.22	No refund	No refund	51.0	21.9
Peru	32.17	No refund	No refund	17.5	13.4
Philippines	49.77	No refund	No refund	2.0	0.0▲
Poland	92.18	8.0	10.2	2.5	0.0▲
Portugal	92.71	4.0	14.2	1.5	0.0▲
Puerto Rico (U.S.)	41.42	VAT does not exist	VAT does not exist	42.0	13.7
Qatar	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Romania	79.62	22.0	22.2	2.0	0.0▲
Russian Federation	87.59	7.2	20.5	2.5	0.0▲
Russian Federation Moscow	87.59	7.2	20.5	2.5	0.0▲
Russian Federation Saint Petersburg	87.59	7.2	20.5	2.5	0.0▲
Rwanda	83.29	9.0	26.6	3.5	0.0▲
Samoa	91.42	1.0	12.3	9.5	0.0▲
San Marino	98.62	VAT does not exist	VAT does not exist	3.0	0.0▲
São Tomé and Príncipe	90.37	VAT does not exist	VAT does not exist	12.0	0.0▲
Saudi Arabia	10.94	VAT does not exist	VAT does not exist	71.3♦	25.0
Senegal	54.32	34.0	52.2	12.5	0.0▲
Serbia	94.00	4.0	8.2	5.0	0.0▲
Seychelles	93.19	0.0	16.8	2.0	0.0▲
Sierra Leone	94.50	VAT does not exist*	VAT does not exist*	7.5	0.0▲
Singapore	73.43	4.5	18.5	17.0	12.6
Slovak Republic	89.91	5.0	18.5	2.0	0.0▲
Slovenia	95.03	3.0	5.2	7.0	0.0▲
Solomon Islands	99.08	VAT does not exist	VAT does not exist	2.5	0.0▲
South Africa	58.61	10.0	26.0	14.0	25.1
South Sudan	94.04	VAT does not exist	VAT does not exist	8.0	0.0▲
Spain	92.55	0.0	18.2	2.0	0.0▲
Sri Lanka	48.85	No refund	No refund	4.0	0.0▲
St. Kitts and Nevis	49.54	No refund	No refund	2.5	0.0▲
St. Lucia	87.24	8.3	19.7	3.0	0.0▲
St. Vincent and the Grenadines	65.07	10.5	36.2	23.0	5.0
Sudan	46.56	No refund	No refund	9.0	0.0▲

*VAT does not exist for the case study purchase – not scored.
▲A time of 0.0 indicates that an audit is unlikely and so the economy receives the best distance to frontier score of 100 for this component of the post-filing index.
♦Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.
Note: Where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.

Table 13: Post-filing index and components

Economy	Post-filing index (DTF score)	Time to comply with VAT refund (hours)	Time to obtain VAT refund (weeks)	Time to comply with a CIT audit (hours)	Time to complete a CIT audit (weeks)
Suriname	48.39	No refund	No refund	5.0	0.0▲
Swaziland	72.54	16.0	10.9	21.0	8.7
Sweden	90.75	10.5	8.2	5.0	0.0▲
Switzerland	86.56	1.5	14.5	9.5	4.6
Syrian Arab Republic	90.37	VAT does not exist	VAT does not exist	12.0	0.0▲
Taiwan, China	90.82	4.5	12.3	7.0	0.0▲
Tajikistan	41.75	No refund	No refund	10.0	5.6
Tanzania	47.94	No refund	No refund	6.0	0.0▲
Thailand	47.32	16.0	27.0	31.5	24.9
Timor-Leste	2.29	VAT does not exist	VAT does not exist	53.5	51.7◆
Togo	27.79	No refund	No refund	38.0	7.0
Tonga	68.90	41.5	23.7	2.5	0.0▲
Trinidad and Tobago	22.67	70.0◆	29.3	55.0	19.4
Tunisia	49.77	No refund	No refund	2.0	0.0▲
Turkey	3.90	No refund	No refund	47.5	32.1◆
Uganda	78.44	9.0	9.2	20.5	7.0
Ukraine	79.26	16.0	28.2	3.0	0.0▲
United Arab Emirates	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
United Kingdom	87.44	1.5	9.5	6.5	8.3
United States	93.12	VAT does not exist	VAT does not exist	9.0	0.0▲
United States New York City	93.12	VAT does not exist	VAT does not exist	9.0	0.0▲
United States Los Angeles	93.12	VAT does not exist	VAT does not exist	9.0	0.0▲
Uruguay	49.31	No refund	No refund	3.0	0.0▲
Uzbekistan	47.02	No refund	No refund	8.0	0.0▲
Vanuatu	80.04	4.0	19.7	CIT does not exist	CIT does not exist
Venezuela, RB	48.39	No refund	No refund	5.0	0.0▲
Vietnam	38.94	No refund	No refund	20.3	3.1
West Bank and Gaza	37.99	18.5	54.2	14.0	28.7
Yemen, Rep.	95.42	4.0	6.2	4.0	0.0▲
Zambia	80.06	10.0	8.3	17.8	6.4
Zimbabwe	23.78	55.5◆	23.3	56.5◆	21.1

*VAT does not exist for the case study purchase – not scored.
▲A time of 0.0 indicates that an audit is unlikely and so the economy receives the best distance to frontier score of 100 for this component of the post-filing index.
◆Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.
Note: Where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing score. Where there is "No refund", these economies are allocated the worst distance to frontier score of nil for that component of the post-filing index.
Note: There is no data for Somalia as there is currently no practice yet.

World Bank Group Paying Taxes team

Rita Ramalho
Joanna Nasr
Nadia Novik
Emily Jane Bourke
Rodrigo A. Sarmento de Beires
Edgar Chavez

PwC Paying Taxes team

Neville Howlett
Tom Dane
Gwendolin Chau
Sopheaktra Meas

The Total Tax Rate included in the survey by the World Bank Group 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 three components in addition to the Total Tax Rate. These estimate compliance costs by looking at hours spent on tax work, the number of tax payments made in a tax year, and evaluate and score certain post-filing compliance processes. 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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