

# *Paying Taxes 2018*



# Get in touch

## **PwC<sup>1</sup>**

### **Stef van Weeghel**

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

### **Andrew Packman**

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

### **Neville Howlett**

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

### **Tom Dane**

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

## **World Bank Group**

### **Rita Ramalho**

Acting Director  
Global Indicators Group  
+1 202 458 4139  
rramalho@ifc.org

### **Santiago Croci**

Program Manager  
*Doing Business* Unit  
+1 202 473-7172  
scroci@worldbank.org

### **Joanna Nasr**

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

# Contents

<i>Foreword</i> .....	2
<i>Key findings</i> .....	4
<i>Overview</i> .....	6
<i>Regional picture</i> .....	8
<i>How do the different regions compare?</i> .....	10
<b>World Bank Group Commentary</b>	
<i>Digital technology in taxation</i> .....	14
<i>Who made paying taxes easier in 2016     – and what did they do?</i> .....	16
<i>Refinements to the post-filing index methodology</i> .....	18
<i>Renaming the Total Tax Rate</i> .....	20
<b>PwC Commentary – diving into the data</b>	
<i>Trends in Total Tax and Contribution Rate,     time to comply and payments</i> .....	24
<i>Largest reforms in Total Tax and Contribution Rate,     time to comply and payments in 2016</i> .....	26
<i>The post-filing index:     What happens after tax returns are filed?</i> .....	32
<b>PwC commentary – tax policy and technology in the 21st century</b>	
<i>Tax policy in the 21st Century</i> .....	40
<i>Improving tax collection in lower and middle income countries:     A role for technology?</i> .....	42
<i>The future of compliance</i> .....	46
<b>PwC Commentary – the local tax picture</b>	
<i>The view from China</i> .....	50
<i>The view from India</i> .....	52
<i>The view from Middle East</i> .....	54
<i>The view from Namibia</i> .....	56
<i>The view from Serbia</i> .....	58
<b>The Paying Taxes 2018 data</b>	
<i>Results by region</i> .....	62
<i>The data tables</i> .....	84

# Foreword



**Rita Ramalho**  
Acting Director,  
Global Indicators  
Group  
World Bank Group



**Andrew Packman**  
Tax Transparency  
and Total Tax  
Contribution leader  
PwC UK

In the twelve years since the first edition of *Paying Taxes*, we have seen rapid and extensive developments in information technology. Thanks to the digital revolution it is now possible to perform a wide range of daily tasks in a way that would have been unimaginable a generation ago. In many countries we can order our weekly shop online, buy a coffee using contactless credit cards or mobile phones and make video calls while walking the dog. At the click of a button we have access to vast amounts of information and we carry in our pockets more computer processing power than was required for the first moon launch.

Information technology has also changed the way businesses collect, record and transmit data and the way that they pay their taxes. It has changed the way tax administrations can communicate with taxpayers, the way they select companies for audit and the way they conduct those audits. Not all economies have been able however to embrace new technologies at the same rate and these differences are evident in the latest set of results in *Paying Taxes 2018*.

Using the perspective of a medium sized domestic manufacturer, *Paying Taxes* looks at how a case study company interacts with tax systems in 190 economies around the world. It assesses not just the amount of tax paid, but how long it takes the company to meet its tax compliance obligations. This includes the time to prepare file and pay the main taxes, as well as the time taken to claim a VAT refund and to deal with a correction to a corporate income tax return.

Since 2004, the first year for which we have data, the most consistent influence on our case study company has been from technological change. Largely as a result of the use of online filing and payment systems and improved access to a range of software, our case study company takes on average 81 hours less to prepare and file its tax returns in 2016 than in 2004.

Despite these sizeable changes in the global average results, we still see for many economies, particularly in the lower income range, that technological change has been slower. There could be a number of reasons for this, perhaps these economies lack the infrastructure and resources to implement such systems, or perhaps taxpayers have been reluctant to make full use of online capabilities. Tax and related technology systems need to be user friendly and have the trust of taxpayers; for example, taxpayers are unlikely to pay their taxes online if they have a mistrust of electronic filing and payment systems more generally. They are also unlikely to want to rely on electronic certificates in an economy where hard copy documentation is the accepted norm. *Paying Taxes* allows governments and tax authorities to see how their tax system compares to that of other economies and to learn from good practice elsewhere, while taking into account their own particular circumstances and what lies behind these.

---

## Information technology

*has changed the way tax administrations can communicate with taxpayers, the way they select companies for audit and the way they conduct those audits*

This is the second year the post-filing index has been included in the study which looks at the processes for claiming a VAT refund, and correcting an error in a corporate income tax return. Both of these post-filing processes could trigger further investigations, including audits by tax authorities. As tax authorities become more sophisticated in their use of technology and data analytics, they are changing how they select companies for audit and how they conduct those audits. The use of real, or near real time information systems by tax authorities is also increasing. In such systems transaction data is transmitted to tax authorities at, or near the time the transaction occurs – for example monthly submission of payroll and social security payments, or real time submission of sales transactions.

This gives tax authorities the opportunity to scrutinise transactions on a near real-time basis rather than relying on reviews of annual tax returns. Such systems however need to be implemented in an appropriate way with sufficient time and resources allowed for developing, piloting and testing. New real-time systems may add to compliance times as they are first implemented, but they could lead to fewer audits in the future, or to faster VAT refunds. The use of technology also gives tax authorities much greater access to data with the potential for them to use data analytics to better identify high risk companies for audit and to match data from different sources. Using techniques such as robotics it can also allow them to pre-populate tax returns for individuals by combining data from different providers such as employers, banks and pension providers thereby reducing the time spent in preparing personal income tax returns and hopefully speeding up tax collection.

The greater collection and sharing of data between taxpayers and tax authorities also raises important questions about data integrity and cyber-security. Appropriate investment in secure systems by businesses and tax authorities is vital to build trust between everyone who supplies and accesses tax data.

Much of the reduction in the compliance indicators that we have seen so far has come from widespread electronic filing and payment systems. The use of the new wave of real-time systems is currently mainly limited to larger companies in relatively few economies, so their impact on the *Paying Taxes* data has been limited to date. We expect this to change however over the next few years as these technologies become more widespread and filter down to smaller companies. These changes will affect how taxpayers meet their tax compliance obligations and how tax authorities monitor compliance with corresponding changes needed in skills and resources.

Over the next few years, the ways in which companies prepare, file and pay their taxes are likely to continue to change significantly and *Paying Taxes* will follow these developments around the world. Your comments and feedback on the study and its future direction are always very welcome and we would be delighted to hear from you.



Rita Ramalho  
World Bank Group



Andrew Packman  
PwC UK

# Key findings from the *Paying Taxes 2018* data<sup>2</sup>

On average it takes our case study company 240 hours to comply with its taxes, it makes 24 payments and has an average Total Tax & Contribution Rate (TTCR) of 40.5%.



TTCR  
**40.5%**



Time to comply  
**240**  
hours



Number of payments  
**24**



Post-filing  
index

**+0.1ppt**

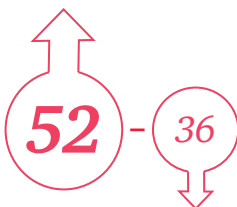
The global average TTCR has increased by 0.1 percentage point (2016: 40.5%, 2015: 40.4%).

**Other taxes**

The TTCR for 'other taxes' increased for the first time since 2004.

The indicators for time to comply and payments have continued to fall reflecting the increasing use of technology

In 2016, significantly more economies showed an increase in TTCR than a reduction – 52 compared to 36.



**5**

Time to comply has fallen by 5 hours since last year



Labour taxes show the greatest reduction in time over the life of the study.



Largest increases arise from:

- Corporate income taxes
- Turnover taxes



Largest decreases arise from:

- Social security
- Stamp duties
- Property taxes



Biggest increases from:

- New taxes
- New systems
- New data requirements

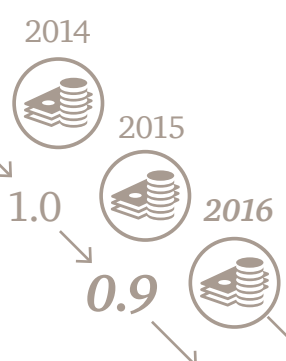
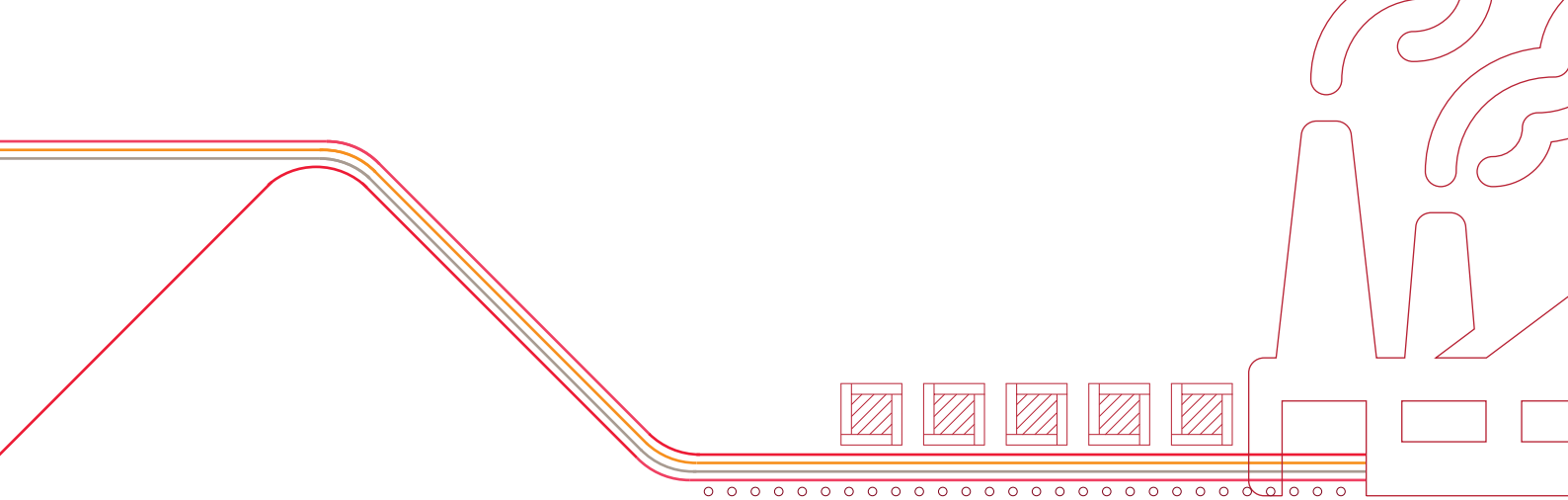


Biggest reductions from:

- Pre-populated returns
- Electronic filing and payment
- Improved tax and accounting software

<sup>2</sup>The most recent data in *Paying Taxes 2018* relates to the calendar year ended 31 December 2016.





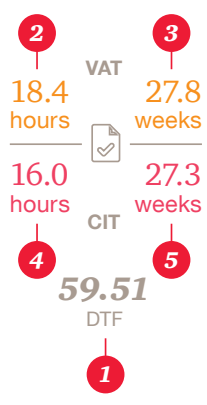
*The payments indicator has fallen by around 1 payment for the second year running.*



- Biggest increases from:
- New taxes in a handful of economies



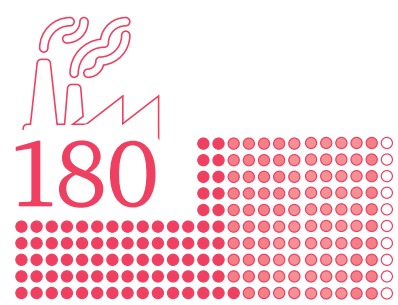
- Biggest reductions from:
- Increased online filing and payment capabilities
  - New web portals
  - Greater use by taxpayers of online systems



(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 correct a corporate income tax return (hours), and (5) the time to complete a corporate income tax audit, if applicable (weeks).



Of the 190 economies in the study, there are 162 with a VAT system. In 51 of these no VAT refund is available to our case study company.



There are 180 economies with a CIT system. In 81 of them, the likelihood that the case study company will be audited after amending a tax return is greater than 25%.

The EU & EFTA is the best performing region overall across all the elements of the post-filing index.

# Overview

## 52

economies increased their TTCR in 2016.

*Paying Taxes 2018* shows that around the world and across many different taxes, technology is having a significant effect on the tax obligations of businesses. There is however a mixed picture when it comes to the changes in the amounts and types of taxes that businesses pay.

### *The Total Tax and Contribution Rate now shows little overall movement*

In *Paying Taxes 2018* we have renamed the Total Tax Rate the Total Tax & Contribution Rate (TTCR) to underline the fact that it includes not just taxes, but also mandatory social contributions borne by our medium sized domestic case study company. Only the name is new – the calculation itself remains the same<sup>3</sup>. The global average TTCR<sup>4</sup>, has remained relatively stable for several years and for 2016 it is 40.5%, up by 0.1 percentage point from the previous year. Around the world, 52 economies increased their TTCR while 36 reduced theirs. The changes are generally very small, albeit the bias this year is to increases, rather than decreases. This may reflect the variety of ways governments are choosing to raise revenue and attract investment in the face of challenges posed by the digital economy, changing business models, demographics and environmental issues. The stability of the TTCR in this study over the last three years also provides some evidence that competition between economies on tax rates has not led to the race to bottom that some commentators feared.

### *Time to comply and number of payments continue to fall thanks to technology*

The movements in the sub-indicators for the time it takes our case study company to comply with profit, labour and consumption taxes, and in the number of tax payments and the way in which it makes those payments, are more marked than the changes in TTCR. This continues a trend we have seen for a number of years, reflecting a continued focus by many governments in developing efficient systems for tax collection.

The time to comply has fallen by 5 hours to 240 hours since last year and the number of payments by almost one payment to 24 payments. These reductions are largely driven by the increased use of technology both by taxpayers and by tax authorities as they introduce and enhance online filing and payment systems. The introduction of new systems and new taxes however could lead in future to increases in time, at least initially, as taxpayers and tax authorities become familiar with new processes and requirements and as the technology is optimised.

The number of payments indicator is particularly reflective of developments in online filing and payment; where a tax is paid and filed online by the majority of taxpayers, only one payment is included in the indicator, even where payments are made more frequently in practice. This year, we have seen several economies introduce online payment and filing systems which have reduced their number of payments sub-indicator by up to 48 payments.

### *Post-filing processes can create considerable tax compliance burdens*

*Paying Taxes* includes a sub-indicator to measure two post-filing processes; claiming a VAT refund and correcting a corporate income tax (CIT) return. In both cases the study looks at any interactions with the tax authorities, including audits, that would be triggered by the refund or correction.

The efficiency of these processes is scored using the post-filing index where a score of 100 represents the most efficient processes and 0 the least efficient. The world average is 59.51.

<sup>3</sup> For more information on the change from Total Tax Rate to Total Tax & Contribution Rate see [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes)

<sup>4</sup> See <http://www.doingbusiness.org/Methodology/Paying-Taxes> for full details of the case study and methodology and <http://www.doingbusiness.org/Methodology/Methodology-Note> for details on how the data is collected



# Tax reforms in the last year have been many and varied

and given the rate at which the world is changing, many more can be expected in the near future

The index is made up of the following elements which are converted to the index score using the World Bank's Distance to Frontier methodology<sup>5</sup>:

- Time to prepare a VAT refund claim and submit any other information requested by tax authorities in any further interactions – world average 18.4 hours
- Time that elapses before the VAT refund is received – world average 27.8 weeks
- Time to voluntarily correct an inadvertent error in a CIT return and submit any other information requested by tax authorities in further interactions – world average 16.0 hours
- Time that elapses until the end of any interactions triggered by the CIT correction – world average 27.3 weeks

Of the 162 economies with a VAT system, in 51 of them a VAT refund is not available to our case study company on a purchase of machinery, usually because VAT refunds are only available to exporters. There are 180 economies with a CIT system. In 81 of these there is a greater than 25% chance that the voluntary correction of the CIT return would lead to our case study company having further interactions with the tax authority, including audits.

High income economies score better on average on the post-filing index than those in lower income brackets. This may be because these economies have better technology and more mature tax systems along with better fiscal resources to make refunds.

## *Technology affects all parts of tax processes, and its reach is increasing*

As shown from the *Paying Taxes* indicators, technologically enabled systems for tax administration can make tax compliance easier, but there is an ever increasing demand from tax authorities for greater amounts of data, sometimes in real-time.

These demands present challenges and opportunities for taxpayers and tax authorities as explored in our article on the future of tax compliance<sup>6</sup>. The potential for technology to enable better risk assessment of companies and to speed up audits and refunds is considerable, but is not without its burdens especially as it pushes more obligations onto smaller taxpayers. Technology cannot however compensate for a lack of well designed tax policy, and the rapidly changing world in which we live continues to create challenges for policy design.

Our country articles<sup>7</sup> show how technology is crucial to the introduction of new VAT systems in India and the Middle East, while the ongoing digitisation of tax systems in Serbia and Namibia shows considerable progress to date, but with more still to be achieved. The success of the Chinese tax authority in using technology to reduce tax compliance burdens is also explored, along with changes to move towards a more customer oriented tax authority. With the introduction of new systems and new technology, outreach programs to educate taxpayers and tax administrators on what is coming and when, are an important part of the process.

There are some limits to what technology can achieve and simplification of complex and disparate systems also requires political will as in the case of Argentina and India where tax change requires provincial and federal governments to work together.

*Paying Taxes 2018* shows that tax reforms in the last year have been many and varied and given the rate at which the world is changing, many more can be expected in the near future. The *Paying Taxes* indicators will continue to reflect these changes and to help Governments and tax authorities as they consider how best to respond to their own particular circumstances.

<sup>5</sup> For details of the Distance to Frontier calculations see: <http://www.doingbusiness.org/~media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB18-Chapters/DB18-DTF-and-DBRankings.pdf>

<sup>6</sup> The article is available at [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes)

<sup>7</sup> The country articles are available at [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes)

# The regional picture in 2016

## North America

Still the region with the lowest payments indicator

The time to comply and TTCR for the region continue to be below the global average. The region scores well in post-filing, though Mexico performs less well than Canada and the United States due to the longer time taken to obtain a VAT refund and to complete a CIT audit.



## Central America & the Caribbean

Compliance sub-indicators improve, but TTCR increases

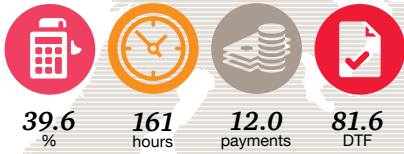
The time to comply and number of payments indicators continue to fall, but the region had the greatest increase in TTCR of all regions for 2016. The region scores below average on the post-filing index as it has the second longest time to obtain a VAT refund.



## South America

Still the highest TTCR and time to comply

While the region experienced the greatest reduction in time to comply this year, it still has the highest number of hours by some margin across all the regions for 2016. It also has the highest average TTCR and this has increased slightly. The region has the lowest post-filing score as only two economies allow for a VAT refund for the case study company.



### EU & EFTA

All three pre-filing sub-indicators are better than the average, and best for post-filing

The TTCR and time to comply continue to fall while the payments indicator has remained unchanged from last year. The region continues to be the best performer for post-filing processes.



### Central Asia & Eastern Europe

Most reformed region since 2004

The region does well on pre-filing where all sub-indicators are well below the global average and they have continued to fall. The region also performs well on the post-filing index where the performance in all of the four post-filing components is better than the global average.



### Middle East

Still the easiest region in which to pay taxes

The region continues to have the lowest TTCR and time to comply, but it is however the second hardest region for post-filing. The forthcoming introduction of VAT in some economies in the region is expected to affect future results.



### Asia Pacific

Pre-filing performance is above average, but post-filing is below the average

The time to comply and number of payments indicators have improved in the last year. Despite a slight increase in the TTCR, the region continues to have a rate which is below the global average. On post-filing the region is below average and has the longest time to comply with a VAT refund claim.



### Africa

Highest for payments, second highest TTCR and time to comply

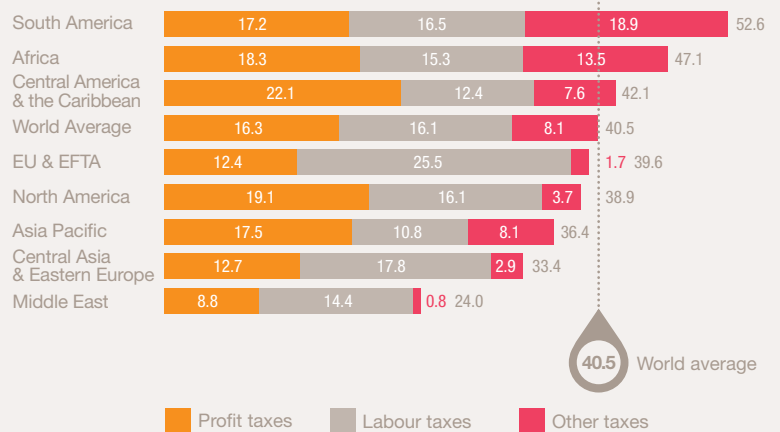
Despite some recent improvement, the region still has the highest number of payments indicator. The TTCR also increased slightly while time to comply fell. The region's below average post-filing score is driven down by a handful of very poorly performing economies.

# How do the different regions compare?<sup>8</sup>

## Total Tax & Contribution Rate (TTCR) by region for 2016

As can be seen from Figure 1, South America is still the region with the highest TTCR, while the Middle East still has the lowest rate. 'Other taxes' drive up the rate in South America, most notably the turnover tax imposed by the city of Buenos Aires and the turnover based transaction tax in Bolivia. In contrast, 'other taxes' have almost no impact on the TTCR in the Middle East. The TTCR for EU & EFTA continues to be dominated by social security contributions, while globally, and in many other regions, it is profit taxes that account for the greatest share of the TTCR. The order of the regions has not changed since the last study.

**Figure 1: Total Tax & Contribution Rate components by region (%)**



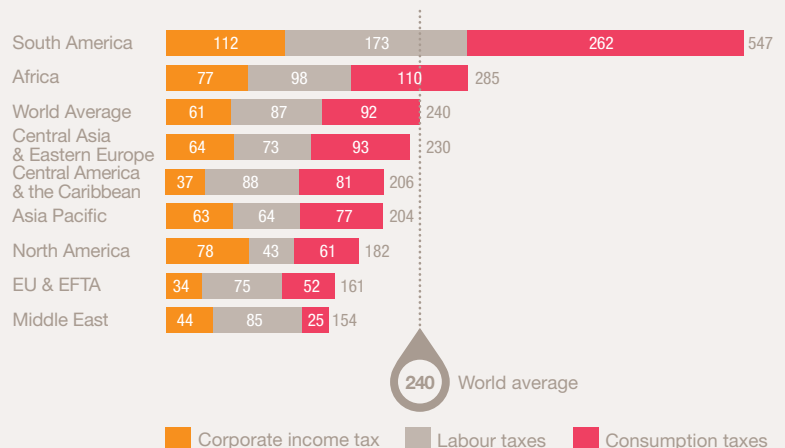
Source: Paying Taxes 2018 data

## Time to comply by region

The average time to comply for South America remained the highest by far, driven largely by the hours recorded in Brazil and Bolivia. Despite dropping by 80 hours, Brazil's time to comply is still 8.2 times the world average.

At 161 hours, the EU & EFTA region's time to comply is 79 hours lower than the world average reflecting the efficiency of electronic filing and payment systems in the region. The lowest time to comply is still found in the Middle East, reflecting the relatively few taxes levied on the case study company and a reliance on other sources of government revenues. The order of the regions has not changed since the previous study.

**Figure 2: Time to comply components by region (hours)**



Source: Paying Taxes 2018 data

<sup>8</sup>For the details of the economies in each region, please see the regional charts in Paying Taxes 2018 data – Results by Region.

# Electronic filing and payment

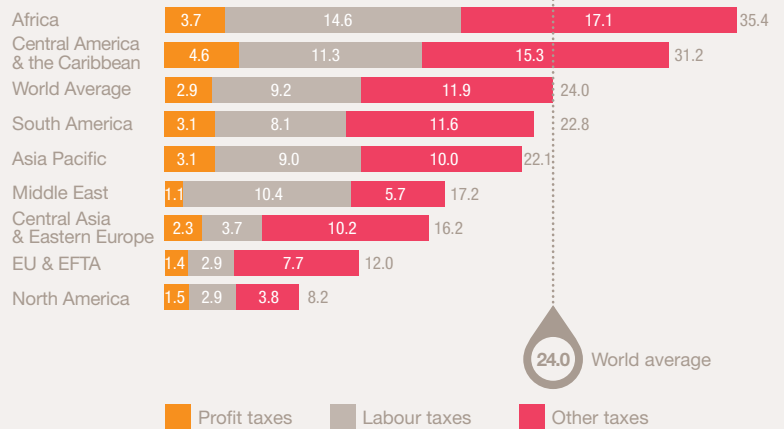
lower the number of payments sub-indicator

## Number of payments by region

In North America and the EU & EFTA, the widespread availability of electronic filing and payment keeps the average for the payments sub-indicator low. Africa has the largest number of payments followed by Central America & the Caribbean reflecting the more limited use of electronic filing and payment.

The averages for Asia Pacific and Central Asia & Eastern Europe both fell, improving their standings in the regional comparison. The improvements were driven by an increase in the number of economies with electronic filing and payment (e.g. Uzbekistan, Vietnam).

**Figure 3: Number of payments components by region**

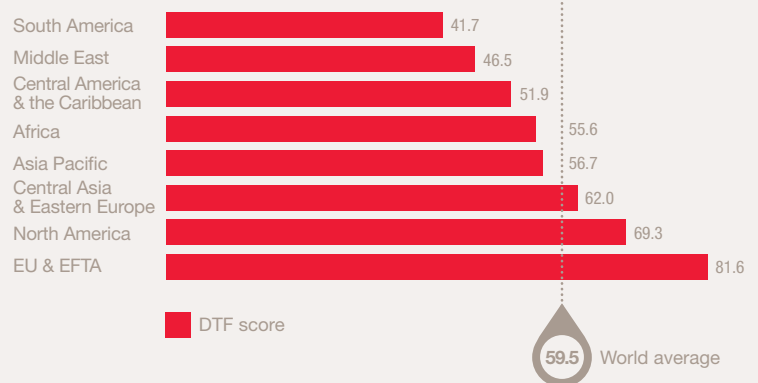


Source: Paying Taxes 2018 data

## Post-filing index regional analysis

The post-filing index measures two processes: a VAT refund and a correction made to a corporate income tax return<sup>9</sup>. These measures are combined to give a post-filing index score from 0-100, with 0 being the least efficient and 100 the most efficient. The EU & EFTA region (81.59) has the highest score as correcting a CIT a return does not trigger an audit for the majority of economies, VAT refunds are available for every economy in the region and it has the shortest time to secure a refund. South America has the lowest score on the index (41.66) largely because VAT refunds are not available for ten out of the 12 economies.

**Figure 4: Regional comparison of the post-filing index**



Source: Paying Taxes 2018 data

<sup>9</sup> See <http://www.doingbusiness.org/Methodology/Paying-Taxes> for full details of the case study and methodology



# World Bank Group commentary







# Digital technology in taxation

Taxes are critical to government spending, including funding social programs in health, education, and infrastructure and in providing a safety net for their citizens. Therefore, tax policies have a significant impact on society as a whole. The design and implementation of tax policies are affected by the technology used in public administrations. Through digital technology governments can implement tax policies more effectively by having better information, building better systems and designing better policies.

This greater storage capacity and computing power also helps tax authorities to better detect tax evasion by tracking and recording a vast volume of transactions. Both sides benefit from a reduction in the potential incidence of corruption, which are more likely to occur with more frequent contact with tax administration staff .

## *Electronic systems for filing and paying tax are widespread*

By 2016, 92 economies had fully implemented

92

economies had fully implemented electronic filing and payment of taxes as measured by *Doing Business* by 2016.

66

economies adopted or enhanced their systems in the past 12 years.

95%

of OECD high-income region economies have such systems in place.

21

21 economies in Europe and Central Asia use electronic systems.

600

e-services are available to Estonian citizens (including filing and payment of taxes).

## *Both taxpayers and tax authorities can benefit from digital technology*

Crucially, modern technology allows public administrations to interact with their citizens in new ways allowing governments to be more effective and efficient. The most visible of the many benefits of digital technology in tax administrations that are captured in *Doing Business* is the electronic filing of tax returns and the electronic payments of taxes. These electronic systems have reduced the cost of compliance for both taxpayers and governments. For taxpayers, electronic filing saves time by reducing calculation errors in tax returns and making it easier to prepare, file and pay taxes. It also creates a more predictable tax environment as all the information that taxpayers need can be made available online. For tax authorities, electronic filing lightens the workload and reduces operational costs – such as the costs of processing, storing and handling tax returns.

electronic filing and payment of taxes as measured by *Doing Business*. Sixty-six of them adopted or enhanced their systems in the past 12 years. Electronic filing and payment is most common in the OECD high-income region<sup>10</sup>, where 31 economies out of 33 have such systems in place, followed by Europe and Central Asia with 21 economies using electronic systems. Estonia stands out in providing government services online. The government offers 600 e-services to its citizens including filing and payment of taxes, voting online, and consulting medical records<sup>11</sup>. Estonia accomplished this digital transformation by issuing a mandatory electronic identity card to all its citizens. According to *Doing Business*, taxpayers in Estonia spend only 81 hours per year in preparing, filing and paying their dividend tax, VAT and labour taxes including mandatory contributions.

<sup>10</sup>James, Sebastian. 2009. A Handbook for Tax Simplification. Washington, DC: International Finance Corporation. Available at <http://ssrn.com/abstract=1535499>.

<sup>11</sup>"Digital identity cards, Estonia takes the plunge". The Economist. June 28, 2014.

*Doing Business has recorded several examples of successful transformations in the use of digital technology in taxes.*

In Kenya, the money-transfer system M-Pesa transformed how tax policy and administration is conducted. The system includes an online application for tax administration (the iTax System) and allows taxpayers to file and pay taxes electronically. In Uruguay, compulsory electronic payments of national taxes were established in 2014 to gradually increase digitalisation and the

*Digitalisation has also allowed governments to track business transactions electronically.*

A new trend captured in *Doing Business* is the use of e-invoices. This allows governments to track sales which facilitates more efficient administration of indirect taxes (such as VAT). For example, starting from 2016/17 the Russian Federation has rolled out online cash registers that record information on each transaction electronically. This information is transferred

81

*Taxpayers in Estonia spend only 81 hours per year on their dividend tax, VAT and labour taxes.*

81

*Time to comply with the three major taxes in Uruguay decreased by 81 hours.*

2016/17 2015

*saw the Russian Federation roll out online cash registers for indirect taxes*

*saw China launch the “Internet + Taxation Initiative” to unlock the potential of big data for taxpayers’ services*

use of the banking services in the country. By April 2016 most taxpayers were filing and paying taxes online. The time to comply with the three major taxes in Uruguay as measured in *Doing Business* decreased by 81 hours. The government added new features to the online platform in 2016 allowing certain procedures – such as registrations, credit certificates applications, payments and accountant certificate submissions – to be performed electronically rather than in person at tax offices.

Another possibility afforded by digital technology in taxation is the pre-population of tax returns by tax authorities using information from third-parties. Taxpayers therefore simply have to verify the information they are presented with, which eases the tax compliance burden.

in real time to a server where the tax authority can access it. The Republic of Korea made the use of electronic VAT invoices mandatory for all taxpayers in 2012 including individual businesses. In 2015, China launched the “Internet + Taxation Initiative” to unlock the potential of big data for taxpayers’ services, such as data sharing among more government bodies, online training and e-invoices. This type of digitisation allows for the formalisation of transactions that were, perhaps, previously undocumented activities<sup>12</sup>.

Digital technology in taxation opens ample opportunities for governments and businesses to benefit from lower transaction costs and more effective provision of services. However, technology reforms require careful design and understanding of the challenges if they are not to create uncertainty or impose unnecessary burdens on taxpayers. It is also vital to ensure that as many individuals and businesses as possible are able to access this technology and are ready to take up the new systems.

<sup>12</sup> IMF (International Monetary Fund), 2017. Gupta, Sanjeev; Keen, Michael; Shah, Alpa; Verdier, Genevieve, International Monetary Fund. “Digital Revolutions in Public Finances”. IMF: Washington DC.



# Who made paying taxes easier in 2016 – and what did they do?

## 17

*economies introduced or enhanced systems for filing and paying taxes online*

Properly developed, effective taxation systems are crucial for a well-functioning society. A good tax system should ensure that taxes are proportionate and certain (not arbitrary) and that the method of paying taxes is convenient for taxpayers. Taxes should be easy to administer and collect.

El Salvador made the greatest advances in tax payment systems in 2016/17. Following regulatory changes, all companies are now required to submit their tax returns electronically. Electronic payments are now used by majority of companies in El Salvador for profit taxes, value added taxes and labour taxes including mandatory contributions. The tax administration also moved to different assessment criteria for selecting companies for a tax audit, with its focus now primarily on larger companies. Low-risk companies and small businesses would not be selected for a tax audit in the case of an underpayment or self-reporting an error in the corporate income tax return.

The most common feature of reforms in the area of paying taxes over the past year was the implementation or enhancement of electronic filing and payment systems. Besides El Salvador, 16 other economies – Botswana, Brunei Darussalam, India, Indonesia, Kenya, Lithuania, Maldives, Morocco, New Zealand, the Philippines, Rwanda, Saudi Arabia, Uruguay, Uzbekistan, Vietnam and Zambia – introduced or enhanced systems for filing and paying taxes online (see figure 5).

El Salvador is not the only economy where a risk-based audit system has been introduced. Thailand is another good example: In 2016, the Inland Revenue Board of Thailand implemented a new automatic risk-based system for selecting companies for a tax audit. Under this system, only companies classified as risky are audited. The system does not flag for an audit cases where there is an error in the tax return and an underpayment of tax liability due.

Other measures to boost efficiency in tax administration can be seen in Senegal. The government amended certain provisions of the General Tax Code related to the time required to obtain a VAT refund. Following the new law, VAT refunds have to be paid within 90 days from the time the tax authority receives the documents from the taxpayer. The request for a VAT credit refund has to be taken into account by the administration within 30 days from the time the request has been submitted. Lastly, the refund of the credit has to occur within 15 days of the request being approved. These time limits are being applied in practice. As a result of these changes, the tax authority is processing VAT refunds in a faster and more efficient way reducing the overall time to receive VAT refund from 52 weeks in 2015 to 17 weeks in 2016.

India introduced a set of administrative measures to ease tax compliance for businesses. In 2016, the government introduced a number of reforms affecting the time to prepare and pay corporate income tax. First, the introduction of the Income Computation and Disclosure Standards (“ICDS”) helped standardise the computation of taxable income and other tax accounting standards. Secondly, data gathering has become increasingly automated due to the use of modern enterprise resource planning (ERP) software. This has resulted in reducing the time to comply with corporate income tax from 45 hours in 2015 to 25 hours per annum in 2016.

Other economies directed efforts to reducing the tax cost on businesses. With the objective of promoting more stable employment conditions, Italy exempted employers from social security contributions for a maximum of 36 months for hires with open-ended contracts from 1 January 2015 to December 31, 2015. Japan reduced the corporate income tax rate at the national level from 25.5% to 23.9% for tax years beginning on or after 1 April 2015. The Bahamas reduced the rate of stamp duty on land sales from 10% in 2015 to 2.5% in 2016. In Niger, young entrepreneurs are now exempted from the Tax Professionnelle (Business Licence) by 50% in the first two years of operation. In Spain and as of 2016, new companies set up from January 2015 are taxed at 15%, while for previous years this rate only applied to the first €300,000 of profit (the remaining taxable base was taxed at 20%).

# A good tax system should ensure that taxes are proportionate and certain (not arbitrary) and that the method of paying taxes is convenient for taxpayers.

Figure 5

## Introduced or enhanced electronic systems

Botswana; Brunei  
Darussalam, El Salvador;  
India; Indonesia; Kenya;  
Lithuania; Maldives; Morocco;  
New Zealand; Philippines;  
Rwanda; Saudi Arabia;  
Uruguay; Uzbekistan;  
Vietnam; Zambia

El Salvador mandated all business taxpayers to file their annual income tax return through one of the available electronic methods (tax computation software or online processing). The general online tax processing and payment system was also consolidated.

## Reduced profit tax rate

Japan; Norway

Japan adopted the 2016 Tax Reform Bill on 5 February 2016, which reduced the corporate income tax rate at the national level from 25.5% to 23.9% for tax years beginning on or after 1 April 2015.

## Reduced labour taxes and mandatory contributions

Belgium; France; Italy;  
Japan; Ukraine

Ukraine introduced in 2016 a flat rate of 22% for the Unified Social Contribution tax paid by employers, which replaced the previous differentiated rates ranging from 36.76% to 49.7%.

## Reduced taxes other than profit and labour

The Bahamas; Indonesia;  
Thailand; Zambia

Indonesia reduced the statutory rate for capital gains tax from 5% to 2.5% in 2016.

## Simplified tax compliance processes or decreased number of tax filings or payments

China; India; Italy; Nigeria;  
Mauritania; Palau; Ukraine

India introduced the Income Computation and Disclosure Standards (ICDS) in 2016 to standardise the methods of computing taxable income and other tax accounting standards. Data gathering became more automated in India due to the use of modern enterprise resource planning (ERP) software.

## Introduced a risk-based tax audit selection system

El Salvador; Thailand

Thailand implemented a new automatic risk-based system for selecting companies for a tax audit in 2016. The system does not flag for a tax audit in cases of self-reporting an error and an underpayment of tax liability due.

## Introduced time limits for processing VAT cash refunds

Senegal

Senegal mandated by law that value added tax refunds be paid within 90 days from the moment the tax authority receives the documents from the taxpayer and the request for the value added tax credit refund must be taken into account by the administration within 30 days from the time the request has been submitted. These changes were applied in practice.

# Refinements to the post-filing index methodology

Following the inclusion of the post-filing index for the first time in *Paying Taxes 2017*, a number of refinements were introduced to the post-filing methodology this year. These were made to provide a more complete measurement of the processes involved, to define more precisely when an audit (or enquiry from the tax authority) is likely, and in the case of the corporate income tax (CIT) scenario, to more fully reflect the burden that an audit of a simple error can place on a business.

## *Definition of tax audit likelihood*

*This is now defined more precisely by reference to the percentage of companies likely to be subject to a tax audit, rather than just whether it is ‘more likely than not’*

Both the VAT and corporate income tax elements of the post-filing index take into account the likelihood that the case study company will be exposed to a tax audit. In *Paying Taxes 2017*, for both taxes, if an audit was considered “likely” then the time required for an audit was included in the index and generally increased the time required for the post-filing process.

In *Paying Taxes 2018*, the likelihood of an audit has been defined more precisely by asking contributors to say, in their experience, in what percentage of companies similar to the case study company would the fact pattern of the two post – filing processes give rise to an audit or enquiry. The options are <25%, 25%-50%, 50%-75% and >75%. The expectation was that >50% corresponded to last year’s ‘likely’ but we have seen a number of economies where the change in the way the question is asked has led to changes in the likelihood of an audit and this has led to some movement in results.

## *Threshold for inclusion of audit time*

*For the correction of the CIT error, audit time is not taken into account only when the percentage of companies subject to a tax audit is below 25%. For the VAT refund, audit time is not taken into account when the percentage of companies subject to a VAT audit is below 50%.*

The threshold used for assessing the corporate income tax audit is lower than the threshold used in the case of the VAT cash refund. This is because it is considered that the case study scenario which involves the voluntary reporting of a simple error in the corporate income tax return and an underpayment of tax should only result in an audit for a small number of companies.



---

## *A number of refinements were introduced to the post-filing methodology this year*

The refinement has been made with a view to encouraging the voluntary correction of such errors, which are considered to be low risk.

For the VAT refund scenario, there is perceived to be more risk for the tax authority, and so the higher threshold for audit likelihood has been retained. The expectation is that if the audit is limited to the VAT refund itself, the enquiries will be limited requiring the submission of basic documents to support the refund claim, so that the compliance time required can be minimal.

### *Compulsory VAT carry forward*

---

*Rather than treating those economies with mandatory carry forward periods greater than four months the same as those with no refund capability, the carry forward period is now added to the refund time*

The case study assumes that the excess output VAT from the purchase of a machine would be recovered in four months, through being carried forward and offset against VAT liabilities. In *Paying Taxes 2017*, those economies that had a compulsory carry forward period of more than four months before a refund claim could be made were treated as if a refund claim was not possible. They therefore scored the same as a country with no refund system at all. From *Paying Taxes 2018* onwards, the carry forward period will be added into the refund time if it is equal to or greater than four months. The two time components under the VAT refund scenario will then be assessed. Economies with long refund periods will therefore still have low scores, but not as low as if a refund was not available at all.

### *Additional time*

---

*Additional time has been included to ensure all the relevant time required is accounted for*

Contributors were asked some extra questions this year to ensure the study is capturing all of the time required to amend a CIT return or to make a VAT refund claim, as well as all of the time from submitting the amended return/claim and the resolution of any audit/payment of any refund. The additional questions specifically captured:

- Time to submit a VAT refund claim if separate from the VAT return
- Time to the start of a VAT audit from the date of submitting the refund claim
- Time to receive a VAT refund from the date of any audit decision
- Time required for paying the additional CIT liability if separate from submitting the amended return
- Time waited before the receipt of a reassessment notice if the company cannot pay at the time of submitting the CIT return
- Time to start the CIT audit from the date of submitting the amended return

For some economies these additional questions have resulted in the time estimates for the post filing processes increasing.

# Renaming the Total Tax Rate

In *Paying Taxes 2018* the Total Tax Rate has been renamed the Total Tax and Contribution Rate (TTCR) to underline the fact that it includes not just taxes, but also mandatory social contributions borne by the case study company. Only the name is new - the calculation itself remains the same.

The TTCR includes taxes and mandatory social contributions borne by companies. The OECD defines taxes as:

*“compulsory, unrequited payments, in cash or in kind, made by institutional units to government units; they are described as unrequited because the government provides nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole.”*

This definition applies to many social security contributions that are paid to central government or to government owned funds and insurance schemes such as housing funds, public pension schemes, education funds, solidarity funds and unemployment funds. In many economies such funds and the payments to them are administered by a government agency other than the tax authority. The payments are nevertheless classed as taxes because they are made to government and are unrequited – i.e. the payment does not go into a pot that is reserved only for the use of a specific individual although the individual may benefit from the fund in the long term.

---

*In some economies, companies are required to make “mandatory social contributions”. These are amounts for the benefit of employees that are required by law to be paid to bodies other than governments. They therefore do not meet the definition of taxes. As *Paying Taxes* enables like for like comparisons, these mandatory social contributions are included in the TTCR to give a fair comparison between a) economies that require payments to be made to governments and b) economies where the payment is to a non-governmental body. The cost to the business is the same, regardless of the recipient.*

---

To further illustrate the point, we provide opposite some specific examples.

## The Total Tax Rate has been renamed the Total Tax and Contribution Rate (TTCR)



Italy



Switzerland



Australia

### Trattamento di fine rapporto – (TFR)

Employers are required by law to accrue an amount based on each individual's monthly wage that is paid at the end of the working relationship. The employee has the choice to allocate the TFR to a pension fund or to receive part of it in the form of salary, subject to ordinary tax rules. The Italian authorities are currently discussing the classification of the Italian TFR with the World Bank. For the purposes of this and previous reports, the TFR is treated as a mandatory social security contribution and is therefore included in the calculation of the TTCR. In 2016 the TFR accounted for 8.6 percentage points of the TTCR for Italy of 48.0%

### Pension and occupational health insurance

In Switzerland, both pensions and insurance for illness arising from work related accidents and diseases are provided by private companies approved by the state. Employers are required by law to make contributions in respect of their employees to the relevant privately held funds. In 2016, pension contributions and occupational health insurance payments accounted for 9.3 and 1.4 percentage points respectively of the TTCR for Switzerland of 28.8%.

### Superannuation guarantee and workers' compensation

In Australia, employers have to make superannuation contributions for their employees. The contributions are paid to superannuation funds which are not owned by the government, but managed by regulated trustees. The funds invest the contributions to provide income for individuals in their retirement. Employers in Australia are also required by law to pay for insurance for their workers to cover work related injury and disease. While the contributions are determined by government, they are paid to private insurance companies who operate the insurance schemes. In 2016, superannuation contributions and workers compensation payments accounted for 10.7 and 4.2 percentage points respectively of the TTCR for Australia of 47.5%.



# PwC commentary – diving into the data

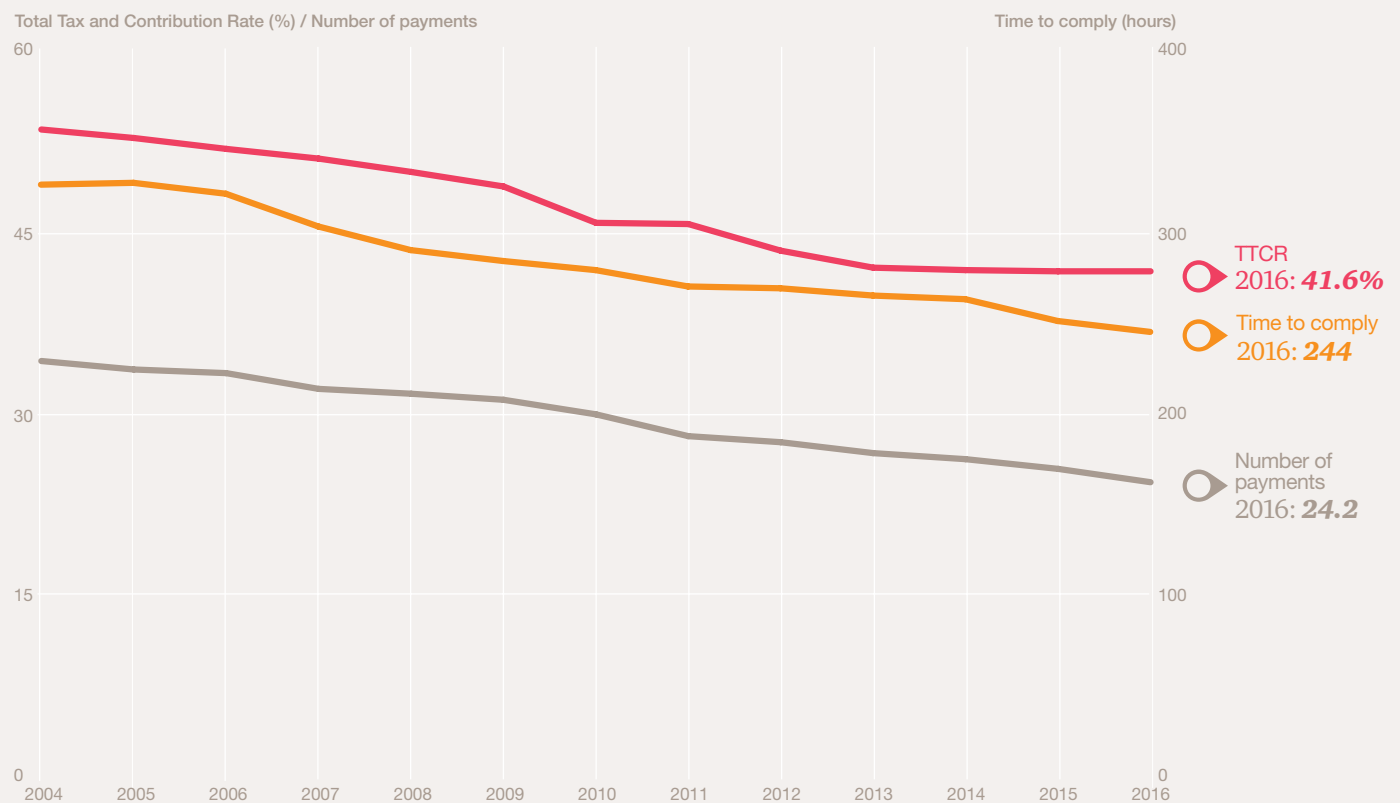




# Trends in Total Tax and Contribution Rate, time to comply and payments

Since 2004, the world averages for the Total Tax and Contribution Rate (TTCR), time to comply and the number of payments indicators have fallen steadily as shown in Figure 6. The TTCR has however been stable since 2013 providing some evidence that competition on tax rates between different governments has not led to a “race to the bottom” as some commentators had feared. The averages for the trends are calculated using data for the 174 economies which have been included in every year of the study. These trends are analysed in more detail below.

**Figure 6: Movement in global average of each sub-indicator**



Source: Paying Taxes 2018 data



# TTCR has been stable since 2013

providing some evidence that competition on tax rates between different governments has not led to a “race to the bottom” as some commentators had feared

## Trends in TTCR by type of tax since 2004

The 13-year trend for the three types of tax within the TTCR (Figure 7) shows that the relative shares of the main tax types have changed significantly since 2004. ‘Other’ taxes and profit tax TTCRs initially fell steadily, but the rates have stabilised in recent years. Indeed, the ‘other taxes’ TTCR increased for the first time in the last year due largely to higher turnover tax rates in Afghanistan. The earlier reduction in ‘other taxes’ was driven largely by the abolition of ‘cascading sales taxes’ in Africa. These were often replaced by VAT which does not feature in the TTCR. Since 2010 the proportions of profit and labour taxes in the TTCR have been very similar.

## Trends in the time to comply by type of tax since 2004

As can be seen in Figure 8, the global average time to comply has reduced by almost 25% since 2004, with the greatest reductions coming from labour taxes. Broadly speaking, these reductions are largely due to improvements in information technology. In addition to electronic filing and payment capabilities, many manual procedures such as registrations and obtaining certificates have been replaced by online processes. Consumption taxes and labour taxes have consistently been the most time consuming, as they are filed frequently – often monthly – and require scrutiny of many individual transactions. It is these taxes however that afford the greatest time savings when they are automated.

## Trends in the payments by type of tax since 2004

The average for the number of payments sub-indicator has fallen by almost 30% since 2004. The introduction of electronic filing and payment systems is again the major driver for this reduction. Other reasons for the falling payments indicator include reduced frequency of payment, the abolition of taxes and the introduction of joint payments. As shown in figure 9 the reduction in payments for labour taxes has been greatest, a fall of 34% followed by 24% for ‘other’ taxes.

Figure 7: Movement in the global average TTCR by tax type

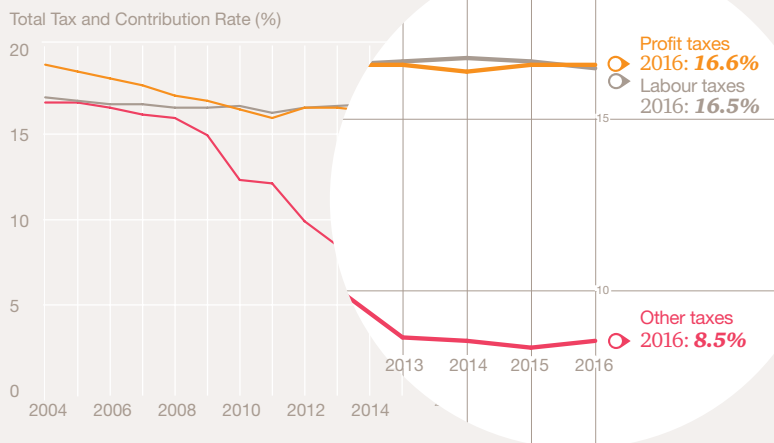


Figure 8: Movement in the global average time to comply by tax type

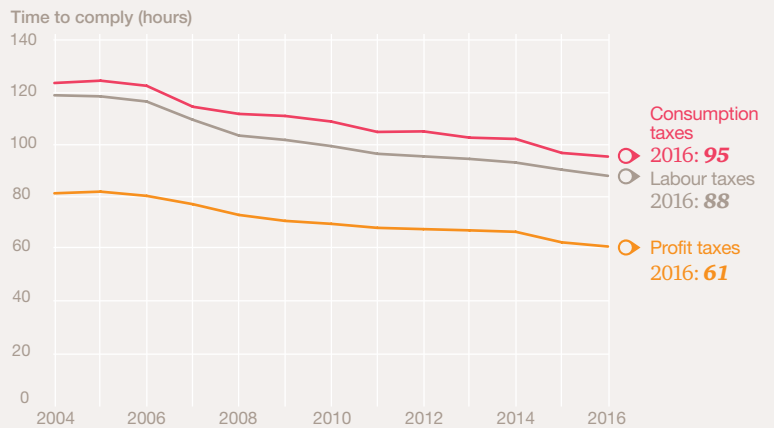


Figure 9: Movement in the global average number of payments by tax type

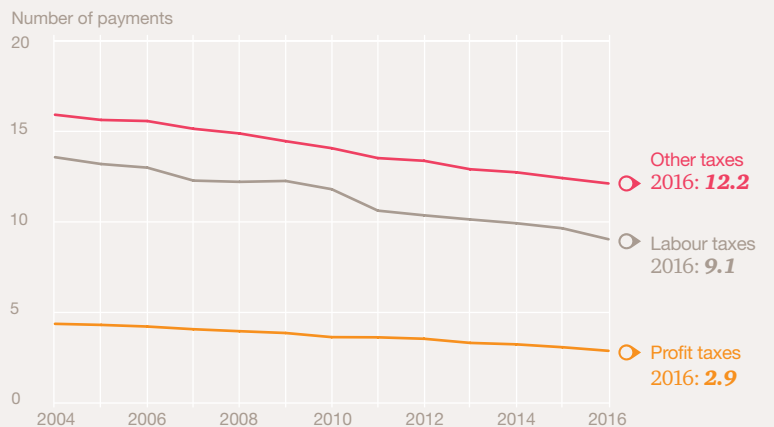


Fig 7, 8 & 9 source: Paying Taxes 2018 data

# Largest reforms in Total Tax and Contribution Rate, time to comply and payments in 2016

The overall change in each of the Total Tax & Contribution Rate (TTCR), the time to comply and the number of payments indicators are driven by significant movements in a handful of economies. The most significant of these movements are explained in this section.

## 36

economies decreased their TTCR in 2016.

### Significant increases and decreases in the global average TTCR

Ukraine was the economy with the largest reduction in the TTCR for the case study company in 2016. The TTCR fell by 14.5 percentage points to 37.8% largely due to a new, reduced, flat rate of 22% for the Unified Social Contribution. This replaced differentiated rates ranging from 36.8% to 49.7%.

Italy's TTCR fell by 14 percentage points to 48.0% driven largely by new exemptions for social security contributions. Employees who were newly hired in 2015 on open-ended employment contracts, are exempt from social security contributions for up to 36 months. The case study company benefits from this exemption as all of its employees were hired in 2015.

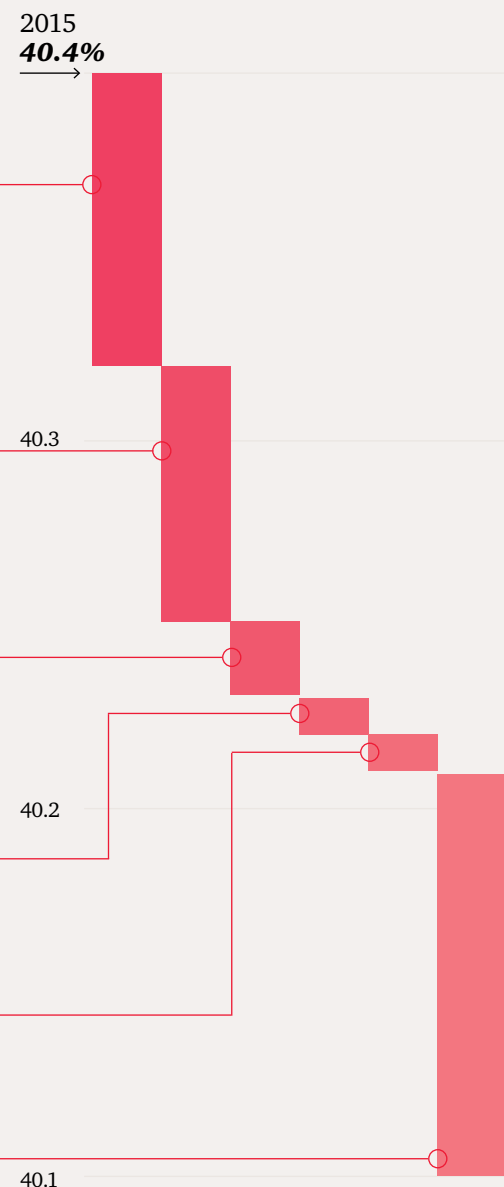
Zambia's TTCR fell by 3 percentage points to 15.6% as the rate of the property transfer tax was reduced from 10% to 5%.

The Bahamas – The TTCR fell in The Bahamas by 2.3 percentage points to 31.5% largely due to a decrease in the stamp duty rate from 10% to 2.5%.

Norway's TTCR decreased by 2 percentage points to 37.5% as a result of a decrease in the corporate income tax rate from 27% to 25%.

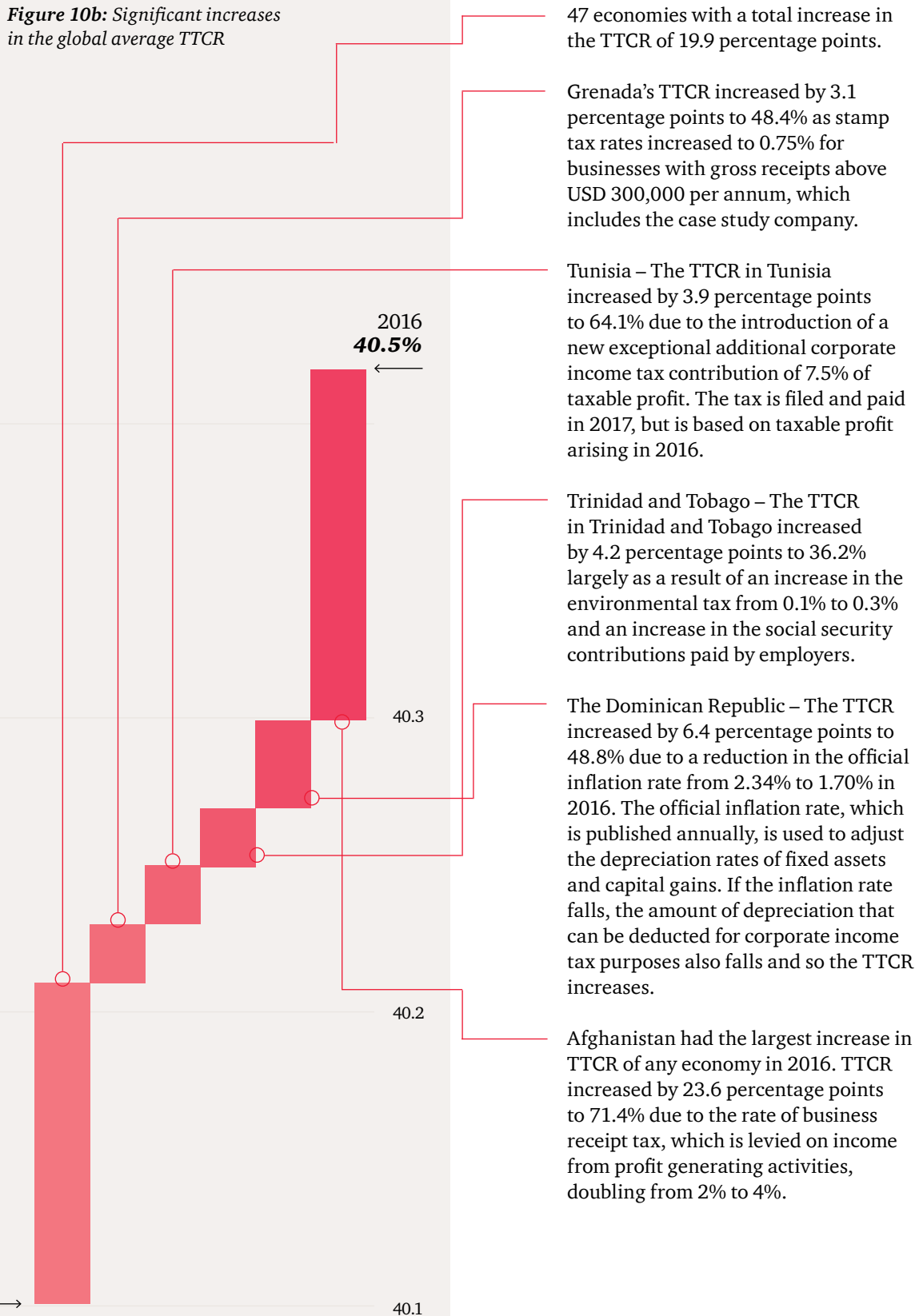
31 economies with a total reduction in the TTCR of -21.5 percentage points.

Figure 10a: Significant decreases in the global average TTCR



Source: Paying Taxes 2018 data

**Figure 10b:** Significant increases in the global average TTCR



**52**  
economies  
increased their  
TTCR in 2016.

47 economies with a total increase in the TTCR of 19.9 percentage points.

Grenada's TTCR increased by 3.1 percentage points to 48.4% as stamp tax rates increased to 0.75% for businesses with gross receipts above USD 300,000 per annum, which includes the case study company.

Tunisia – The TTCR in Tunisia increased by 3.9 percentage points to 64.1% due to the introduction of a new exceptional additional corporate income tax contribution of 7.5% of taxable profit. The tax is filed and paid in 2017, but is based on taxable profit arising in 2016.

Trinidad and Tobago – The TTCR in Trinidad and Tobago increased by 4.2 percentage points to 36.2% largely as a result of an increase in the environmental tax from 0.1% to 0.3% and an increase in the social security contributions paid by employers.

The Dominican Republic – The TTCR increased by 6.4 percentage points to 48.8% due to a reduction in the official inflation rate from 2.34% to 1.70% in 2016. The official inflation rate, which is published annually, is used to adjust the depreciation rates of fixed assets and capital gains. If the inflation rate falls, the amount of depreciation that can be deducted for corporate income tax purposes also falls and so the TTCR increases.

Afghanistan had the largest increase in TTCR of any economy in 2016. TTCR increased by 23.6 percentage points to 71.4% due to the rate of business receipt tax, which is levied on income from profit generating activities, doubling from 2% to 4%.

## Significant increases and decreases in the global average time to comply

Palau – The time to comply fell by 90 hours to 52 hours largely due to improvements in tax software and taxpayers being able to use a USB flash drive to file their tax returns on editable, electronic tax forms. The government also introduced a new system of barcoded payments making it easier to reconcile payments to the relevant tax returns.

Uruguay continued to improve its online portal for filing and paying taxes and made electronic payments compulsory. The government added new features to the online platform, giving taxpayers the ability to complete more procedures online such as registrations, payments and applications for and submissions of certificates. Overall the time to comply fell by 81 hours to 190 hours.

Brazil – Electronic tax reporting systems, introduced in 2007 by the Public Digital Bookkeeping System or SPED, have been mandatory since 2014 for the majority of companies in Brazil. However, due to initial difficulties with adjusting taxpayers' books to the new system and to taxpayers' preference to run SPED in parallel with previous systems, the time to comply for Brazil only started to fall in 2015. In 2016, as the efficiency and use of SPED continued to improve, the time has fallen by a further 80 hours to 1,958 hours. The time for this indicator is the median of the range of estimates made by all of the contributors to the study. The figure estimated by PwC Brazil is at the lower end of this range.

Nigeria reduced its time to comply by 69 hours to 360 hours as the centralised electronic payments system introduced in 2015 has been more widely adopted. Furthermore, taxpayers are now required to file tax returns at their nearest tax office, which helped reduce the time to comply with all taxes.

**Figure 11a: Significant decreases in the global average time to comply**

2015  
245

244

243

242

241

240

El Salvador reduced its time to comply by 68 hours to 180 hours as a result of the increased adoption of electronic filing and payment systems. The systems were introduced in 2015 and cover VAT, corporate income tax and labour taxes. Further reductions in time came from the consolidation of the system for the presentation and payment of all online taxes.

Lithuania – The development and phased roll out of an electronic platform for filing and paying corporate income tax and social security contributions in Lithuania began in 2004. From 2016, the system has been fully operational and has been used by the majority of taxpayers resulting in a substantial reduction in the time to comply. Furthermore, registers of VAT invoices must now be filed online. Overall, the time to comply for Lithuania fell by 62 hours to 109 hours.

Morocco – Substantial improvements to Morocco's online platform for filing and paying taxes have reduced the time to comply by 56 hours to 155 hours. Integrating the tax platform with accounting software has enabled taxpayers to review in real time all the data on their fiscal status, thereby improving efficiency and flexibility.

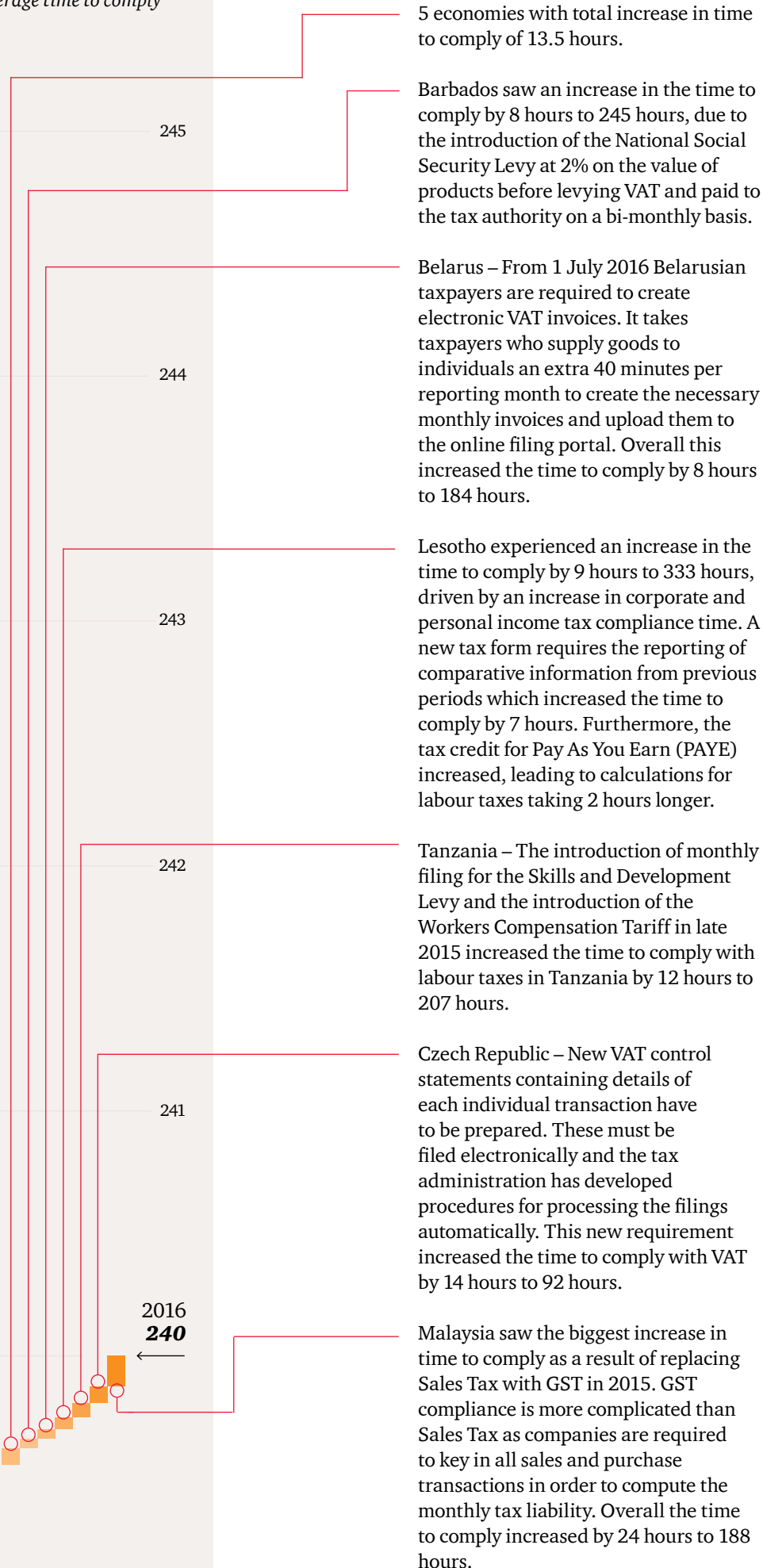
China's time to comply decreased by 52 hours to 207 hours. This is the result of several improvements, including better communications between taxpayers and the tax authority, a tax authority that is more focussed on customer service and more convenient electronic systems for tax filings and payments as explained in our article on [China](#).

Argentina's time to comply decreased by 48 hours to 312 hours, mainly due to continuous improvements in tax software, allowing taxpayers to import data from accounting software into electronic tax returns. In addition, a new web-based feature for filing was introduced in late 2015 and has been now widely adopted.

29 economies with total reduction in time to comply of 466 hours.

Source: Paying Taxes 2018 data

**Figure 11b: Significant increases in the global average time to comply**



# 90hrs

*Palau saw the greatest fall in time to comply thanks to improved tax software and electronic tax forms.*



## Significant increases and decreases in the global average number of payments

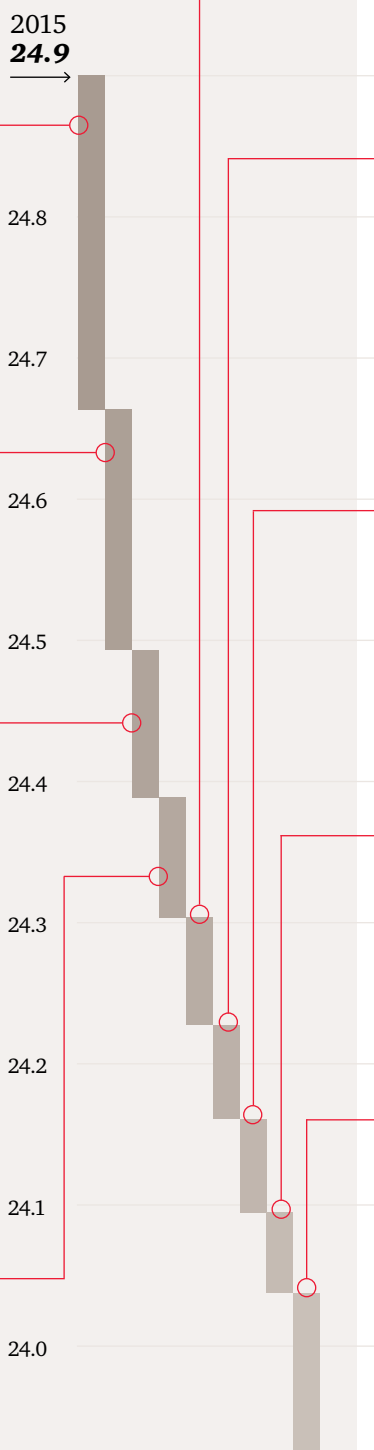
Uzbekistan had the biggest improvement in the number of payments sub-indicator, reducing the number of payments by 48 to 10. The country introduced a new portal that enabled taxpayers to carry out online payments of taxes. This eliminated the monthly requirement to file hard copy returns with tax authorities for VAT, land tax, unified social payments, CIT, infrastructure development tax, environmental tax, personal pension fund contributions and cumulative pension contributions.

El Salvador's number of payments fell significantly by 34 to 7. The reduction comes as a result of the increase in adoption of the electronic filing and payment systems introduced in 2015. Additionally, the system of presentation and payments of all online taxes was consolidated and helped to make compliance with tax obligations easier. Electronic payments were being used by the majority of companies for VAT, corporate income tax and labour taxes – including mandatory contributions.

Rwanda's number of payments sub-indicator fell by 21 to 8, mainly due to the increase in use of the online platform for filing and paying taxes. Although electronic tax filing was introduced in 2014, the use of the system by taxpayers had been low until 2016.

Vietnam's number of payments dropped by 17 to 14 partly because the environmental protection fees were no longer applicable for 2016 and also there was an increase in the use of the online platform for filing social security contributions that was introduced back in 2015. In 2016, the majority of business taxpayers have been submitting documents and returns electronically.

**Figure 12a: Significant decreases in the global average number of payments**



Zambia's number of payments fell by 15 to 11 due to the increase in adoption of the ICT system 'Tax Online' regarding filing and payment of taxes originally introduced in 2013, eliminating the need to travel and queue to file and pay taxes.

India's number of payments fell from 27 to 13. Electronic payments of state insurance contributions and social security contributions were introduced in early 2015. It was mandatory for employers to pay the statutory contributions online from late 2015, however, only as of 2016 did the majority of taxpayers paid them online.

Maldives had introduced their MIRACONnect tax filing and payment system in 2014. As of 2016, the majority of taxpayers with an annual turnover equal to MVR 100 million or more used MIRACONnect to file and pay their returns on the business profit tax and VAT. This contributed to an overall reduction by 13 to 17 payments.

Mauritania's number of payments dropped by 12 to 33 as filing and payment of the CNAM initially introduced in 2015, was only applied in practice from January 2016. This helped to ease the compliance burden for taxpayers and contributed to a reduction by 12 to 33 payments.

7 economies with total reduction in number of payments of 23.

Source: Paying Taxes 2018 data

**Figure 12b: Significant increases in the global average number of payments**



5 economies with total increase in number of payments of 5.

Ecuador's number of payments increased by 2 to 10. The government introduced the Ecuadorian President's Solidarity Act aiming to fund the rebuilding of areas impacted by the earthquake. According to the new act, employers must file a new tax return and pay the solidarity contribution of 3% over last year's taxable profit. These contributions are paid online.

Additionally, employees must pay 3.33% over their monthly gross salary. These contributions are withheld by the company from employees' earnings provided that their monthly salary is equal to or greater than USD 1,000. The employees' share of the contributions are filed and paid by the employer through a separate return once a year.

Tanzania was the economy with the most significant increase in the number of payments sub-indicator. The introduction of the Workers Compensation Tariff where employers are required to pay 1% of their employees' wages monthly was introduced with effect from July 1st, 2015. This contributed to an increase of 12 payments overall. The change was prorated and only 5 payments relating to the months July to December 2015 were accounted for. For the year 2016, all 12 months have been accounted for so that there was an additional increase by 7 to 60 payments.

# 48

*Uzbekistan had the biggest improvement in the number of payments – a fall of 48 – with the introduction of a new online portal*

# The post-filing index: What happens after tax returns are filed?

The post-filing index sub-indicator, which was introduced to *Paying Taxes* last year, compares two specific post-filing processes across 190 economies:

## *Claiming a VAT refund*

- Time to comply with a VAT refund (hours)
- Time to obtain a VAT refund (weeks)

## *Correcting a mistake in the corporate income tax (CIT) return.*

- Time to correct a CIT return (including time to comply with a CIT audit) (hours)
- Time to complete a CIT audit (if applicable) (weeks)

The value of each of these components is transformed 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. The average of these four scores is then calculated to give the overall score for the post-filing index.

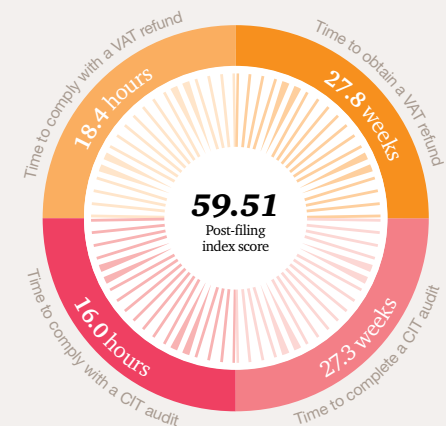
Figure 13 shows the global averages for each of the components of the post-filing index and the global average for the distance to frontier score.

## *The VAT components – claiming a VAT refund*

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<sup>13</sup> systems exist, the VAT incurred on the purchases is considerably greater than the VAT that it receives on its sales in that month. VAT systems 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 refund of the excess input VAT. In most cases, regardless of the availability of a VAT refund, the company would be able to carry forward the excess VAT and offset it against the VAT it receives on future sales.

**Figure 13:** Global averages for the post-filing index



Source: Paying Taxes 2018 data

The contributors to the study were asked to say, in their experience, what percentage of companies similar to the case study company would be audited, or subject to some level of further interaction with tax authority in view of the refund claim. Where the likelihood of such follow up from the tax authority is more than 50% then time related to such enquiries is measured and included in the index for the VAT components.

## *The CIT components – correcting a CIT error*

Our model scenario assumes that the case study company makes a simple and inadvertent error in its tax return resulting in an underpayment of tax of 5% of the overall CIT liability. It voluntarily notifies the tax authority of the error after the deadline for filing the return, and pays the additional tax due.

The contributors to the study were asked to say, in their experience, what percentage of companies similar to the case study company would be audited, or subject to some level of further interaction with tax authority in view of the error. Where the likelihood of such follow up from the tax authority is more than 25% then time related to such enquiries is measured and included in the index.

<sup>13</sup>References to VAT also include Goods and Services Taxes (GST),.

Figure 14 summarises the key results from the post-filing index in 2016 across the four components.

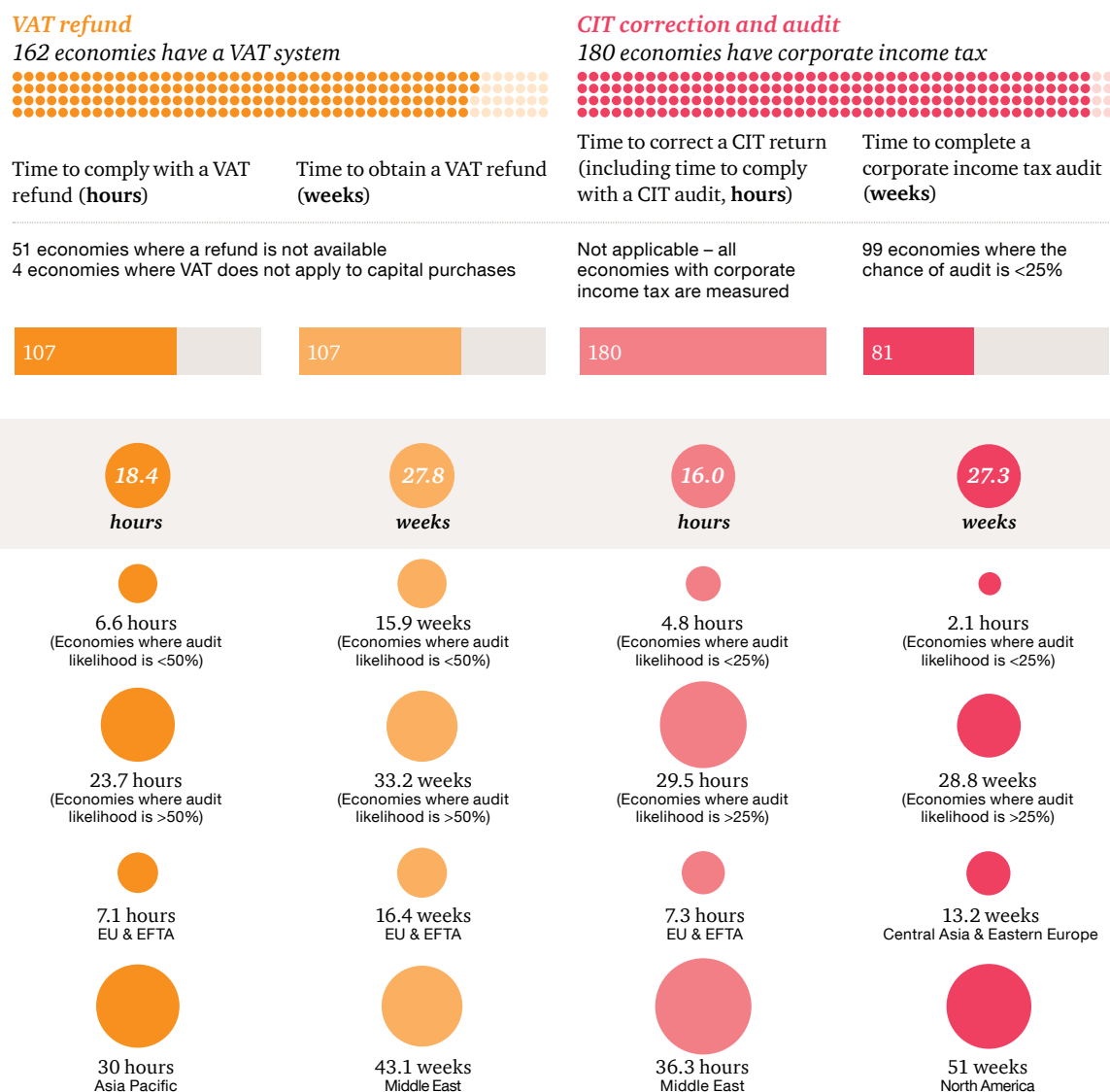
**VAT refunds are not available in all economies**

As shown in Figure 14, in 2016, 162 economies of the 190 economies in the study had a VAT system.

The post-filing index shows that;

- In 107 of the 162 economies with VAT, our case study company would be able to receive a VAT refund
- No refund is available to the case study company in 51 economies
- Four economies are not scored (Kenya, Morocco, Sierra Leone and Equatorial Guinea) as VAT does not apply to capital purchases.

**Figure 14: Post-filing index**



Source: Paying Taxes 2018 data

The reasons for the case study company not receiving a VAT refund in certain economies include:

- Refunds are restricted to specific categories of taxpayers, often exporters, that do not include the case study company fact pattern;
- The case study company is eligible to claim to 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 to the business.

In line with the principles of neutrality and efficiency, in those economies where our company does not receive a refund, the economy will receive the lowest possible score on the distance to frontier for this element of the post-filing index. This particularly affects South America where VAT refunds are available in only 2 of the 12 economies in the region.

#### *The impact of audit on VAT refund times*

The average time to comply with a VAT refund is 18.4 hours. This includes the time required to prepare and file the refund claim in the first place and the time to prepare and submit further documents to the tax authority if the likelihood of further interactions exceeds 50%.

The average time that our case study company will wait to receive a refund is 27.8 weeks. This is the time from the purchase of the machinery to the time the refund is received. The time takes into account the frequency of VAT filing, any compulsory carry forward period before a refund can be claimed and the time taken up by further interactions with the tax authority if these have a greater than 50% likelihood.

In economies where further interactions with tax authorities are thought less than 50% likely, it takes on average 6.6 hours to prepare the refund claim, but this can be as low as zero if the claim is made on the usual VAT return. In these economies, the VAT refund will take 15.9 weeks on average to be paid. If there is a greater than 50% chance of further interactions, the time to comply with the VAT refund increases to 23.7 hours and the time to receive the refund increases to 33.2 weeks.

#### *Correcting a CIT return often triggers further interactions with tax authorities*

Of the 190 economies in the study, 180 have a CIT system. Of these, there are 86 economies where time for further interactions with the tax authority is included in the “Time to complete a CIT audit” component. The vast majority of these, 81 economies, include time because there is a greater than 25% chance that the CIT correction will lead to an audit or some other sort of request for information from the tax authority. In five economies (Denmark, Libya, Luxembourg, Myanmar and the Netherlands) there is a further interaction as the companies can only make the payment of the additional tax once they have received an assessment from the tax authority following the submission of the amended return. On average across these five economies it takes 2.1 weeks to receive the payment assessment.

#### *The impact of further interactions on the time to correct a CIT return*

The average time to correct a CIT return (also referred to as ‘time to comply with a CIT audit’) is 16 hours. This includes the time required to notify the tax authority of the error and to make the additional payment of tax. It also includes the time to prepare and submit further documents to the tax authority if the likelihood of further enquiries from the tax authority exceeds 25%.

In economies where the likelihood that the tax authorities will request further information or make other enquiries is less than 25%, it takes 4.8 hours on average to correct the error and make the payment. This rises to 29.5 hours for the 81 economies where there is a greater than 25% chance of further enquiries.

On average, further interactions with the tax authority take 27.3 weeks. This is the time from the submission of the correction until all interactions with the tax authority, including audits and payments, have ceased.

As explained above, in five of these economies an extra 2.1 weeks is required to make the payment of the tax due as the companies have to wait for an assessment from the tax authority. If there is a greater than 25% chance of further enquiries, including audits, these will take an average of 28.8 weeks to complete.

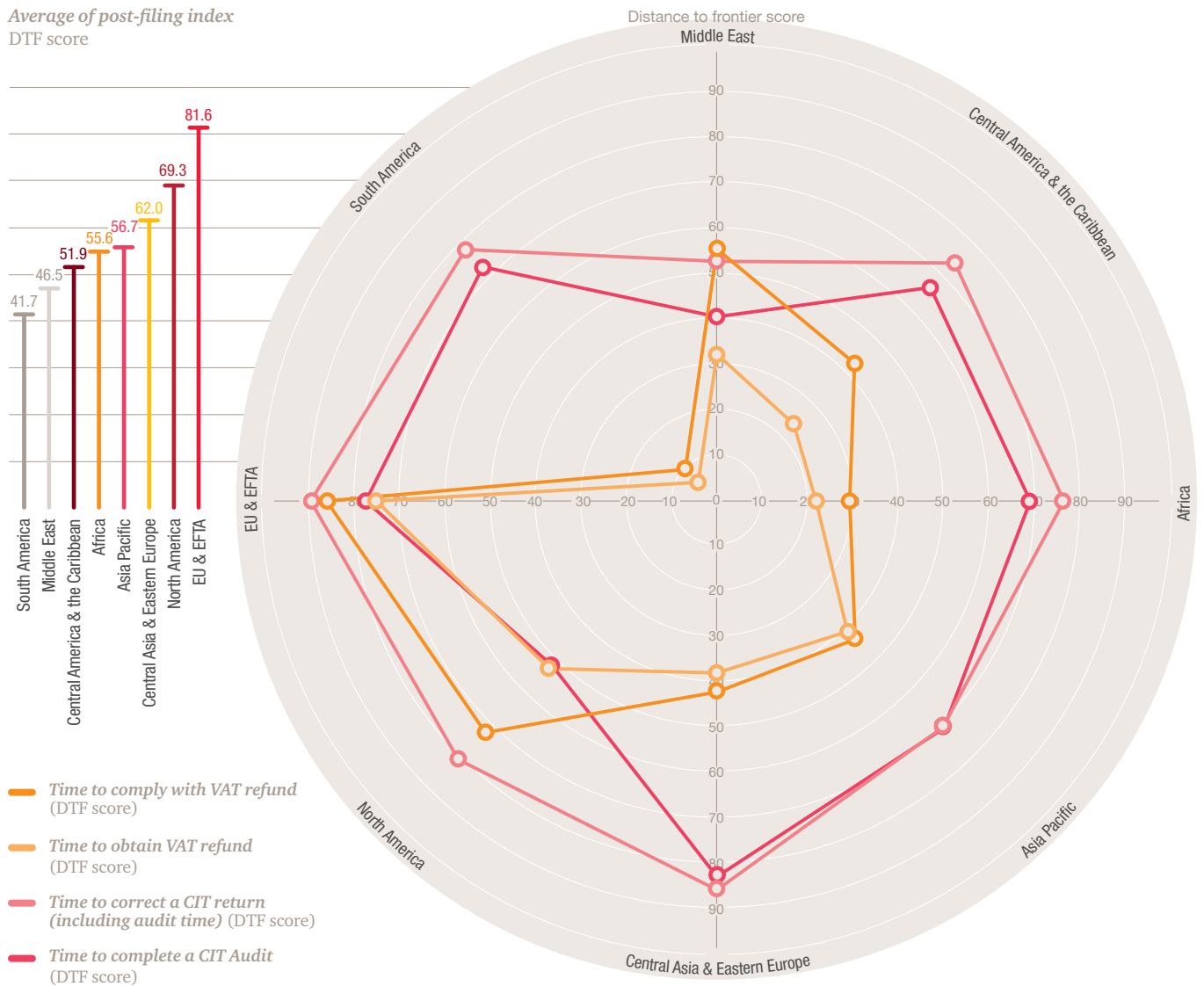


### Comparing the post-filing index component scores across geographic regions

Figure 15 compares the distance to frontier scores for each component of the post-filing index by region. Some key observations are:

- With the possible exception of the EU & EFTA region, no region has a similar level of performance across all four components.
- The score for the time to comply with a VAT refund is particularly good for EU & EFTA and North America<sup>14</sup> (in excess of 70), but very low for South America (9.8).
- The scores for the time taken to secure a VAT refund from the tax authority follow the pattern for the compliance time, but are generally lower and fall away particularly for Central America & the Caribbean and the Middle East.
- The scores for the time taken to make the correction to the corporate income tax return are consistently above 70 for every region apart from the Middle East.
- The scores for the time taken to complete enquiries and audits with the tax authority regarding the corporate income tax error are generally above 65, with a particularly good result for Central Asia and Eastern Europe (82), and low results for North America (51) and Middle East (40).

Figure 15: Regional comparison of the post-filing index



Source: Paying Taxes 2018 data

<sup>14</sup> As there is no VAT in the United States, the time to comply with VAT in North America includes only Canada and Mexico.

### Comparing the regional underlying data of each post filing process

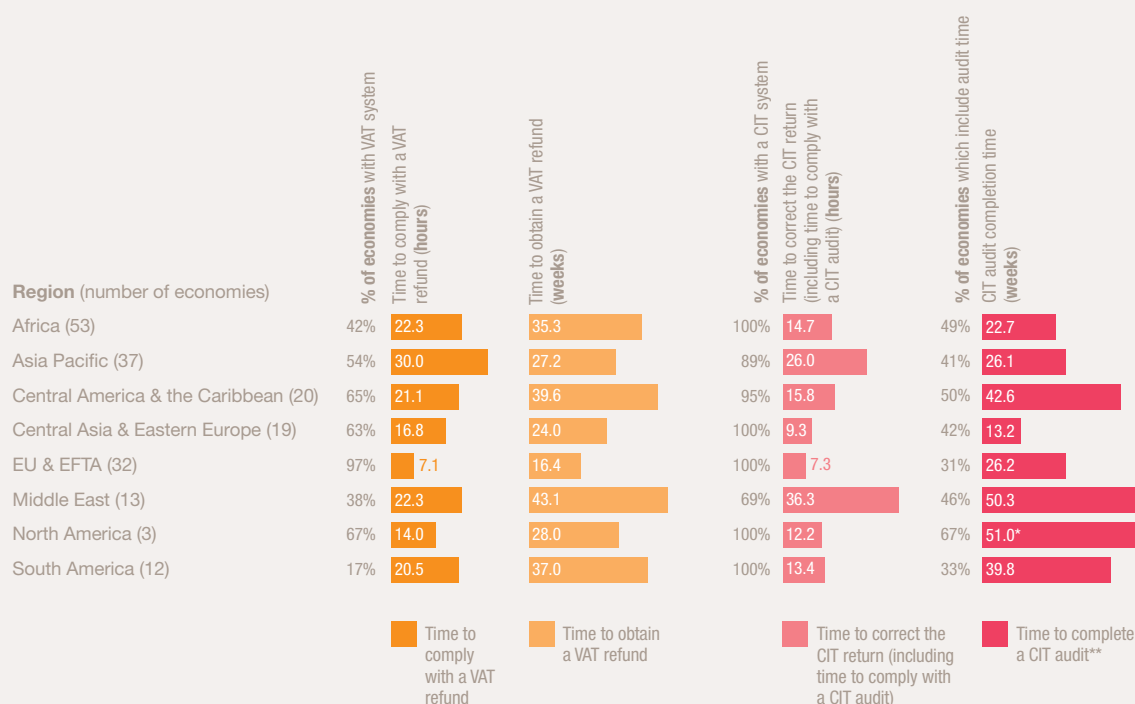
Figure 16 shows that EU & EFTA is the most efficient region for post-filing processes. It has the lowest average of 7.1 hours for time to comply with a VAT refund, the lowest waiting time for a VAT refund of 16.4 weeks, and the lowest average of 7.3 hours for CIT compliance. This most likely reflects the availability and use of technology, which reduces the cost and administrative burden for both taxpayers and tax authorities. It is also the region where VAT refunds are most common as they are available in all economies in the region except San Marino.

The time to comply with a VAT refund is most challenging in Asia Pacific (30 hours) and the region also has the second longest compliance time for correcting the CIT error. In both cases there are a number of economies in the region with very high times to comply. There are five economies where the time to comply with the VAT refund exceeds 50 hours with the highest being 145 hours in Nepal. For the time to comply with the CIT correction, the longest time is 207.5 hours in Afghanistan and four economies exceed 65 hours.

Although the Middle East performs well on the three original sub-indicators in *Paying Taxes*, on average the scores are not so favourable for post-filing, (but noting that eight of the thirteen economies do not have VAT system and so the average score for the Middle East for these components is driven by five economies, Iran Islamic Republic, Jordan, Lebanon, West Bank and Gaza, Yemen Republic). It has the highest time to wait for a VAT refund, and for the CIT components the region takes the longest time to correct the CIT return and the second longest time to conclude discussions with the tax authority.

It is interesting to note that after Central Asia and Eastern Europe, Africa takes the shortest time to conclude audits with the tax authority on a corporate income tax error, a finding which seems generally to be the case for lower income economies.

Figure 16: Post-filing index distance to frontier score by region and component



\*Average of 14.9 weeks for Canada and 87.1 weeks for Mexico.

\*\*Note: The time to complete a CIT audit for Denmark, Libya, Luxembourg, Myanmar and the Netherlands includes the period between correcting the tax return and paying the corresponding liability. This time is excluded from this chart as the likelihood of audit in these economies is below 25%.

Source: Paying Taxes 2018 data

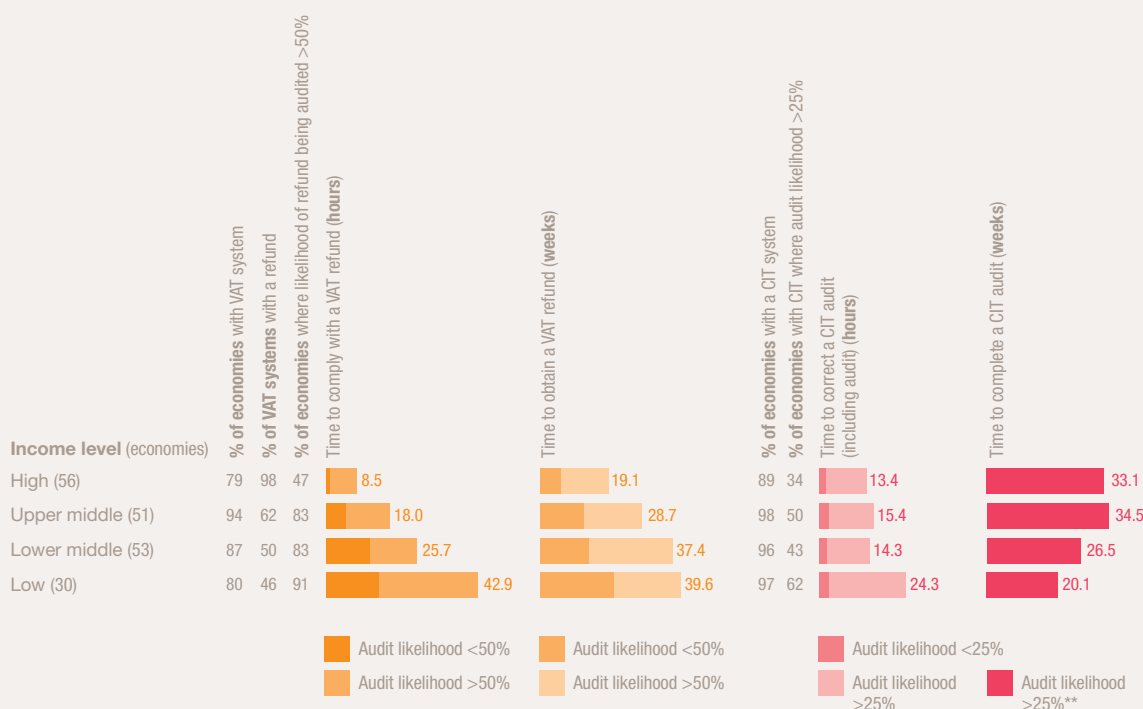
### The post-filing index analysed by income group

While looking at the components of the post-filing index on a geographic basis highlights some interesting trends, we observe a clearer pattern when we look at the index based on the income level of the economies as shown in Figure 17. A positive linear relationship between income level and efficiency of post-filing processes exists for all of the post filing components apart from the time taken to complete CIT audits. The higher the income of an economy the shorter the VAT compliance time, the shorter the time to secure the VAT refund, and broadly the shorter the compliance time to correct a CIT error, particularly when comparing low and high income groupings. Broadly speaking however less time is taken to conclude CIT audits in lower income economies. The reason for this is not clear and requires further investigation

Some other points to note include:

- 98% of high income economies have a VAT refund mechanism compared with 46% of low income economies.
- 91% of low income economies are likely to require a VAT audit compared with 47% of the high income economies.
- Not surprisingly, the audit requirement for VAT increases both the compliance time and the time taken to secure the VAT refund in all income categories, and this is particularly evident for high income economies.
- An audit or enquiry from the tax authority in connection with the correction of a CIT error has a greater than 25% likelihood for 45% of the 180 economies with a CIT system. 62% of low income economies would have an audit or enquiry while this percentage is 34% for high income economies.

Figure 17: Post-filing index comparison by income group



\*\*Note: The time to complete a CIT audit for Denmark, Libya, Luxembourg, Myanmar and the Netherlands includes the period between correcting the tax return and paying the corresponding liability. This time is excluded from this chart as the likelihood of audit in these economies is below 25%.

Note: Income group classifications taken from <http://www.doingbusiness.org/data/exploreeconomies/economycharacteristics>  
 Source: Paying Taxes 2018 data





PwC commentary  
– tax policy and  
technology in the  
21st century







# Tax Policy in the 21st Century

---

*Andrew  
Sentance,  
Senior  
Economic  
Adviser,  
PwC UK*

What to tax? Where to tax it? How to tax it? These are three big questions facing tax authorities and the governments which supervise them in the 21st Century.

Tax systems evolve slowly over time, and the *Paying Taxes* study provides some evidence of this, both in terms of the mix of taxes and the way in which governments collect their taxes. We live in a rapidly changing world which is being shaped by a number of major forces.

First of all, technology. The IT and Communications revolution which has been underway since the 1980s has transformed the way people work and live their lives including more recently the growth of the sharing economy and use of on-line platforms. It has created massive changes in the world of business – with the emergence of major global technology firms.

Second, globalisation. The opening up of the world economy through the expansion of trade and investment since the 1990s has enabled major new players to emerge on the world stage. The most important of these has been China, which has seen its GDP expand from around \$500bn in 1995 to \$12 trillion this year. Asia has already become the most significant region in the world economy. By 2030, the world's largest economy is expected to be China, not the US. At the end of the next decade, it is likely that Asia-Pacific economies will contribute more to world GDP than the traditional West – North America and Europe.

Third, there is a growing recognition that we face major environmental challenges, particularly climate change, but also water scarcity in some parts of the world and the depletion of key natural resources.

Fourth, the world's population is ageing, particularly in the major western economies – but also in China. African economies are bucking this trend, because of their high rate of population growth. But many economies around the world face a major demographic shift in the first half of this century.

---

*How should tax systems develop and change in response to major challenges around technology, globalisation, the environment and changing demographics?*

How should tax systems develop and change in response to these major challenges? As businesses become more mobile globally – aided by technological change – international co-operation on tax matters will become more important. We have already seen this happening via the OECD – and it could also be a feature of future regional co-operation agreements.

Business is also becoming more virtual, through the expansion of the digital economy and new technologies. This makes it harder to identify the true source of profit and where it is geographically located. The business tax burden is already shifting in many countries towards property, sales taxes and employment taxes – where the economic returns are easier to identify on a geographical basis. That shift is likely to continue.


Environmental taxation has not developed in a significant way so far, but there is potential for it to become a major source of revenue in a world where climate change and other environmental threats are taken more seriously.

Finally, in a world where the population is ageing, personal property and wealth may become a bigger target for tax authorities. In many economies, wealth and property taxes – such as Stamp Duty Land Tax in the UK – are being targeted for new revenue-raising initiatives.

In most countries around the world, it will be difficult to reduce the overall tax burden, with rising expectations for the delivery of public services, health and social care. So the scope for relieving the burden of taxes on employment, income and profits hinges on the ability to develop new sources of revenue from environmental levies and taxes on property and wealth. Also, spreading the burden of tax more widely - by reducing exemptions and allowances - can help reduce tax rates. The design of tax systems will continue to be a top priority for governments and the international community both in terms of what is taxed, and the systems used to collect those taxes. We should expect to see further changes in tax systems around the world as governments and tax authorities grapple with the challenges of the 21st Century. “No change” is not a sustainable option.

## By 2030

*it is likely that the Asia Pacific economies will contribute more to world GDP than the traditional West*



*Business is also becoming more virtual, through the expansion of the digital economy and new technologies.*

# Improving tax collection in lower and middle income countries: A role for technology?

---

**Amal Larhlid,**  
*Global Fiscal  
Policy Advisory  
Leader,*  
**Andrew Wilson,**  
*Manager, &  
Sanjay Naker,*  
*Senior Associate,*  
*PwC UK*

Governments of lower and middle income countries are increasingly looking to domestic resource mobilisation (DRM) to help them achieve long-term social, economic and environmental development goals. DRM aims to realise government expenditure savings and revenue gains, as well as mobilising private finance, to provide the resources to support development through economically and socially productive investment.

Improving tax collection is an important feature of DRM. Collecting tax in an efficient and effective manner is important not only for government revenue, but also as a pillar of good government and as a means to reducing administrative burdens placed on business. Raising tax revenue in as easy and convenient a way as possible for taxpayers builds trust and works to strengthen the citizen-state relationship. This can increase levels of voluntary tax compliance, as well as contribute to creating a favourable environment for investment and business growth. But, with governments under pressure to 'raise more with less', technological innovation, may be required to substantially reduce the marginal costs of tax collection.

The use of technology in tax collection is not new. *Paying Taxes* shows that technology is already being widely applied to tax collection (in particular electronic filing and payment) and is generating benefits, notably in the reduction in the time to comply and payment sub-indicators. Could emerging technologies, such as block chain and artificial intelligence (AI) also help tax authorities not only in the high income economies, but also in lower and middle income countries, to raise more with less?

---

*Could emerging technologies, such as block chain and artificial intelligence (AI) also help tax authorities not only in the high income economies, but also in lower and middle income countries, to raise more with less?*

### *Techniques to enhance tax collection*

In thinking about how emerging technologies can be applied to tax collection, it's helpful to consider two broad categories techniques used to enhance tax collection;

1. Enforcement measures, which aim to increase the actual and perceived risks of non-compliance, and

2. Collaborative measures which aim to build community relations and community confidence in tax systems<sup>15</sup>.

Examples of each type of measure are shown in Figure 18.

**Figure 18:** Components of tax compliance strategies

#### **Enforcement measures**

- Gradual sanctions and penalties
- Campaigns to increase perceived risk
- Greater visibility of the tax authority
- More targeted audits
- Improved detection

#### **Collaborative measures**

- Simplifying compliance and increasing customer orientation
- Clarifying taxpayer obligations; support and advice
- Paying greater attention to facilitating communication between taxpayer and tax authority; messaging and framing
- Improving tax education, especially targeted at youth
- Prompting taxpayers ahead of payment deadlines (friendly reminders instead of fines)
- Providing opportunities for correction and prevention

**Source:** Adapted from Williams, Colin and Iona Herodnic, (2016), "Evaluating the policy approaches for tackling undeclared work in the European Union", Sage Journals.

<sup>15</sup> Williams, C, 2016. Evaluating the policy approaches for tackling undeclared work in the European Union. Sage Journals, [Online] [Accessed 18 September 2017]. Larhlid, A, O'Donovan, N, 2016. Combatting the shadow economy: a taxpayer-centric approach. Paying Taxes 2016, [Online]. Available at: <https://www.pwc.com/gx/en/paying-taxes-2016/paying-taxes-2016-combatting-the-shadow-economy.pdf> [Accessed 18 September 2017].

### Enforcement measures

Blockchain and AI have considerable potential to support enforcement techniques.

Blockchain technology relies on a rules-based digital data ledger that can enhance data security and accuracy. This could improve income and asset reporting by taxpayers to tax authorities and could augment existing data matching initiatives. For instance, blockchain technology could help to prevent under declaration of property values on a property tax return .

AI can increase the accuracy, and reduce the processing times, of repetitive time-consuming activities, such as auditing tax returns. Although instances of tax authorities using AI are currently rare, AI and machine learning solutions are increasingly being applied to the audit of financial statements. Such solutions could not only save time and money for tax authorities, they could also minimise the risks of collusion and human error in the detection of non-compliance<sup>16</sup>.

### Collaborative measures

A growing number of low income countries have recognised the impact that technology can have on efficiency levels as well as government revenues, and making it easier to pay tax. The ability to pay tax while on the move has reduced a number of constraints put on both taxpayers and tax administrations. Mobile payments platforms rolled out across a number countries have positively affected revenue income, administrative processes and collection times. Liberia, one of a number of African countries to embrace mobile tax payments, has recently introduced a platform to help businesses and individuals to pay income tax, business tax and goods and services tax in an easy and convenient way. Elsewhere, Mexico's tax authority designed a cloud based tax collection system that individuals and businesses can use to pay their taxes in a simple and efficient way.

### Three thoughts for tax authorities

Technological innovation clearly has the potential to reduce the marginal costs of tax collection, while ensuring 'hard to reach' taxpayers are brought into the tax net. Tax authorities should, however, not lose sight of the fundamentals of tax collection and we, therefore, have three thoughts for them to consider:

#### 1. Technology is not a solution for inefficient policy design

Using blockchain or AI to collect tax under poorly designed tax policy will realise some efficiency gains, but much greater gains can only be realised if technological innovation in administration processes is implemented in conjunction with policy review and reform. By the same token, technology should not be viewed as an end in itself, but as a means to reducing compliance burdens for taxpayers. Tax authorities should be mindful that simply using cutting edge technology to administer poorly designed taxes may, in fact, increase compliance burdens for taxpayers.

#### 2. Look for 'leapfrog' opportunities

Tax authorities in lower and middle income countries should look to capitalise on the experiences of high income countries in designing and implementing technology solutions. This "leapfrogging" can help tax authorities to develop technologies for tax collection quickly and cost-effectively. There is, however, no such thing as a 'one size fits all' solution and time must be taken to fit the technology to the local context.

#### 3. Plan and invest for the long term

Even with 'leapfrog' innovation, the upfront costs of designing and implementing technology solutions can be high and the payback period could be beyond current budgeting horizons. Nevertheless, tax authorities should not be discouraged and should view the adoption of technology solutions against the long-term direct and indirect benefits that could be generated.

<sup>16</sup> Microsoft, PwC, 2017. Digital Transformation of Tax Administration. Available at: <https://www.pwc.nl/en/publicaties/digital-transformation-of-tax-administration.html> [Accessed 18 September 2017].





*Technology is not a solution for  
inefficient policy design*

# The future of compliance

---

*Mark Schofield, Global Tax Reporting and Strategy Leader, & Charlotte Hartley, Tax Reporting and Strategy Operations Leader, PwC UK*

Every year since the start of Paying Taxes, we have seen reductions in the time to comply, largely as a result of improvements in information technology, especially in the upper and lower middle income economies. There is a question however as to whether the time to comply might start increasing soon due to a global trend towards real time reporting of data to tax authorities in electronic format. Whilst the majority of these changes are currently aimed at larger businesses there is every indication they will also apply to smaller businesses over time, including businesses similar to the case study company.

## *Direction of travel of tax authorities*

### **What's already happening**

While true real-time data collection is currently limited to a small number of tax authorities and taxes, many tax authorities already collect large amounts of historical data through online filing. This enables tax authorities in countries such as Mexico and Russia to take advantage of the benefits of e-auditing, where data is both collected and scrutinised electronically, as both an anti-corruption measure and in driving up the tax base and driving down taxpayer error. Developments in technology and data analytics techniques are rapidly increasing the efficiency of e-auditing, for example, for every \$0.50 that the

---

*In our experience, the shift to real time reporting is increasing costs for those taxpayers that have to comply with these requirements and manage the risks associated with providing greater volumes of data to the tax authorities.*

In our experience, the shift to real time reporting is increasing costs for those taxpayers that have to comply with these requirements and manage the risks associated with providing greater volumes of data to the tax authorities. This may reduce in the long term as technology improves and the changes become embedded in 'business as usual' processes, but due to the increasing number of requirements and the differences between tax administrations, this will take some time.

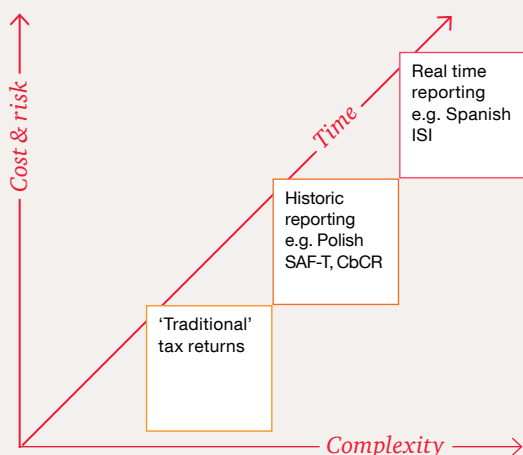
Mexican tax authorities invested in e-auditing in 2012, they received \$50 in tax revenue. In 2016, \$50 of revenue was received through just \$0.27 of investment and they aim to decrease this to \$0.22 in future<sup>17</sup>.

E-auditing, along with advances in and easier adoption of technologies to obtain, verify and analyse taxpayer data, has led to a significant increase in data driven obligations being pushed onto taxpayers. This is manifesting itself in a move from 'traditional' tax returns through historic data reporting to real time reporting requirements.

---

<sup>17</sup> Quarterly Tax and Management Report from SAT (Mexican Tax Authorities)

**Figure 19:** Tax reporting systems are increasing in complexity, time, cost and risk



Note: SAF-T: Standard Audit File for Tax, CbCR: Country by Country Reporting, ISI: Immediate Supply of Information

And it's easy to see that the cost of meeting these data requirements (which differ from territory to territory) and managing the associated risks, in an increasingly complex environment, is only going to keep rising as the consequences of getting it wrong become more serious both financially and reputationally for taxpayers. Making sure that data is 'right' first time has never been more important.

### How should businesses respond

Over the coming years we anticipate that the numbers of countries where the tax authority requests periodic extracts of information will increase and real-time requests for information will become increasingly commonplace. Understanding the minimum data standards required and the tests that will be performed by the tax authorities on the data provided is key for businesses, as is understanding the relevant comparisons and reconciliations possible due to the accessibility of information.

**\$0.27**

*for every \$0.50 that the Mexican tax authorities invested in e-auditing in 2012, they received \$50 in tax revenue. In 2016, \$50 of revenue was received through just \$0.27 of investment*

The information sent to tax authorities allows them to:

- profile taxpayers against expectations, analyse tax patterns, and plan for and target future tax audits.
- conduct forensic audits, run tests to identify non-compliance and highlight areas to probe further.
- compare, contrast and benchmark against both confidential data, and publicly available big data, across different taxes and with tax authorities in other countries. This can encompass enterprise-wide data of a financial and non-financial nature e.g. travel records and so is of great significance to many businesses,

Combine this with:

- an increasing number of requirements to publish or at least have a tax strategy e.g. in the UK and Spain,
- increasing expectations from tax authorities for companies to be able demonstrate an appropriate tax control framework is in place and, in some cases that it is in line with tax strategies, and
- stricter criminal penalties for errors arising from a lack of appropriate controls e.g. Germany.

All taxpayers need to consider:

- How to respond to the data challenge today – specifically current compliance obligations and how to manage an ever increasing speed of adoption e.g. Lithuania introduced SAF-T (Standard Audit File for Tax) in just two months from the date of the initial announcement.
- How to deal with the increased real time obligations and scrutiny of the future – many organisations are looking to develop a proactive and scalable strategy to address the issue. This will need to encompass actively improving the quality of tax data, ensuring processes are productive, using technology effectively and mitigating the exposure to penalties and reputational risk.



A vibrant night market scene. In the foreground, several stalls are filled with colorful, handcrafted goods, including woven baskets, pottery, and small trinkets. People are seen browsing and interacting with the vendors. In the background, a cafe or restaurant is visible, featuring large, round, woven tables and hanging lanterns. A person is riding a motorcycle through the market, and another person is standing next to a bicycle. The overall atmosphere is lively and bustling.

# PwC Commentary – The local tax picture







# The view from China

## A focus on reforms and technology eases tax compliance burdens

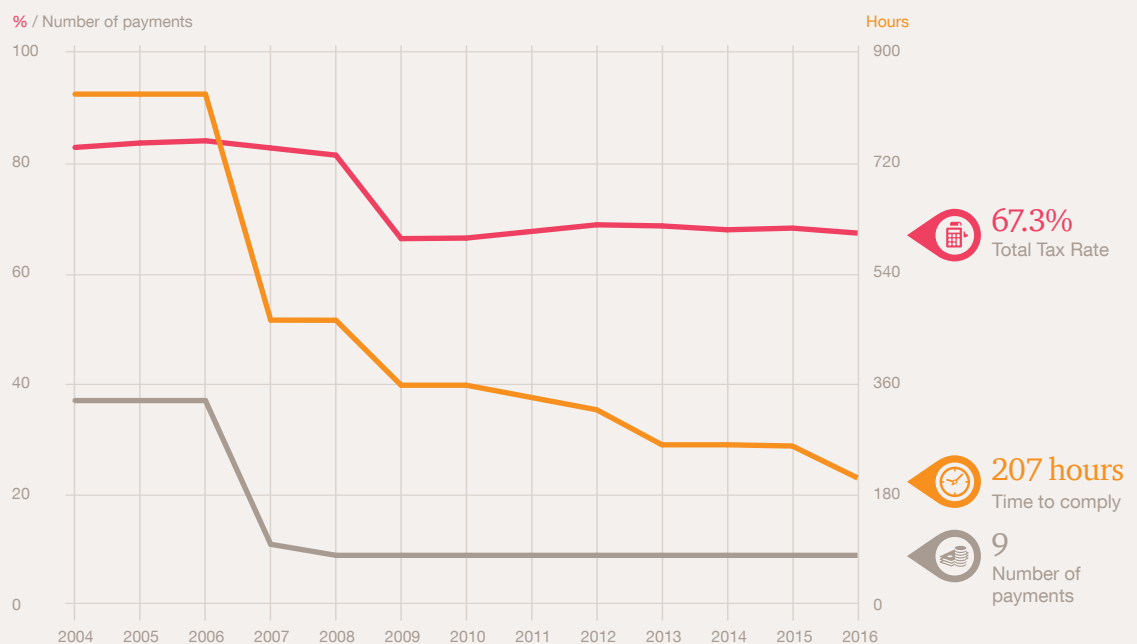
*Matthew Mui,*  
PwC China  
National Tax  
Policy Services

The Chinese State Administration of Taxation (SAT) has been working hard to achieve its goal of establishing a modern tax administration system by 2020. The changes that have been introduced as part of this program of reform are wide ranging and include changes to the structure of the tax system, to the technology used by both taxpayers and the SAT, and to the culture of the SAT. These changes have helped to reduce the time to comply by 75% from 832 hours in 2004 to 207 hours in 2016.

### *A cultural shift in the approach of tax authorities*

In the past, Chinese tax authorities focused on tax enforcement and revenue collection. For a number of years, however, a Taxpayer Services Department (TSD) has been dedicated to improving the quality of taxpayer services. Tens of thousands of TSD officials at all levels of tax bureaus have streamlined the organisation of those bureaus, standardised various tax payment procedures and systems, upgraded tax service hotlines, and embraced young taxpayers' favourite online and mobile apps to provide innovative tax services and promote timely awareness of tax rules. They also introduced 8,336 measures<sup>18</sup> via the "Spring Breeze Campaign" to ease tax compliance. Serving taxpayers is not just an important KPI for tax authorities across China, it is becoming entrenched in the SAT's culture. As a result, many taxpayers have seen a reduction in the time they spend on tax compliance and they are more satisfied with the processes for paying tax.

**Figure 20: Trends in the Paying Taxes sub-indicators for China since 2004**



Source: Paying Taxes 2018 data

<sup>18</sup> Please refer to the SAT's 2016 working summary on the "Spring Breeze Campaign" and innovative taxpayer services: <http://www.chinatax.gov.cn/n810219/n810744/n2412282/c2432478/content.html>

### Business Tax to VAT Reform (B2V Reform) to reduce the Total Tax and Contribution Rate (TTCR)

China launched the final phase of the B2V Reform in May 2016, replacing Business Tax (a tax imposed on the provision of services and on sales of immovable properties) with VAT in an effort to boost the service industries in China. Business Tax is borne by companies while VAT is collected on behalf of final consumers. Reports show that corporate taxpayers enjoyed some RMB 699 billion (~USD103 billion) of tax savings in the following 12 months<sup>19</sup>. The savings are particularly large for service companies, but manufacturing companies also benefit from the reform as more VAT-input credits are available from purchases of services and the related surtaxes are smaller. The B2V Reform in 2016 decreased China's TTCR by 0.3 percentage points between 2015 and 2016, the overall reduction in the same period was 0.8 percentage points.

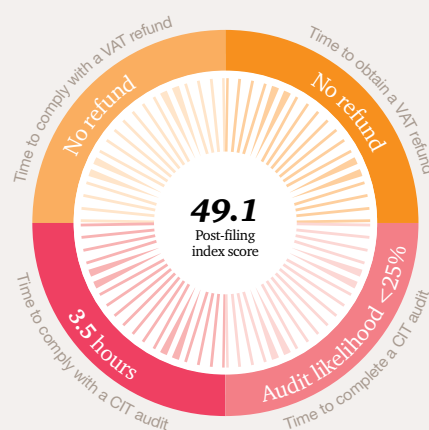
### Simplification of VAT invoice verification

From March 2016, VAT payers with better tax credit ratings can verify their input VAT invoices digitally, instead of scanning and verifying VAT invoices by hand, which can save taxpayers up to 90% of the time spent dealing with input VAT invoices<sup>20</sup>. The tax credit rating system assesses each taxpayers' level of compliance and is part of a trend we are seeing with the SAT offering more convenient tax compliance processes to taxpayers with high tax credit ratings who therefore present less risk.

### “Internet + Taxation Initiative”, “Golden Tax III” and big data

In Shanghai and Beijing, 97% of taxpayers already file and pay taxes online providing vast amounts of data to the SAT. In 2015, the SAT launched the “Internet + Taxation Initiative” to unlock the potential of big data to benefit taxpayers, such as sharing more data among government bodies to avoid repetitive data collection, on-line training to facilitate the understanding of systems and tax rules, and e-invoices to reduce the time and cost for handling paper invoices. In 2016, the “Golden Tax III” System was rolled out nationwide.

Figure 21: Post-filing index for China



Source: Paying Taxes 2018 data

Integrating all previous tax-related systems into one, this system is expected to standardise tax compliance procedures across regions, eliminate duplicate filing, and enhance the efficiency of tax authorities. For example, under “Golden Tax III”, the automatic corporate income tax (CIT) risk alert service was introduced for the very first time during the 2016 annual CIT filing. This service automatically reviews a taxpayer’s filing package before formal submission to reduce post-filing corrections and so save time. The SAT is intending to introduce more IT tools in the future to offer more benefits to taxpayers.

Overall, we see that China’s tax environment has been continuously evolving, making it easier for companies to fulfill their compliance obligations. In 2017, the SAT continues to launch programs to ease paying taxes and optimise taxpayer services and we hope to see the benefits of some of these reflected in *Paying Taxes* in the future.

8,336

measures have been introduced via the ‘Spring Breeze Campaign’ to ease tax compliance.

<sup>19</sup> Please refer to the report issued by Shanghai University of Finance and Economics in Aug 2017: <http://www.chinatax.gov.cn/n810219/n810724/c2732681/part/2732700.pdf>

<sup>20</sup> The 90% time saving is indicated in a circular issued by the SAT in 2017 to reiterate the implementation of some existing tax measures to suppress tax compliance time and introduce a few new measures. Please refer to this link: [http://nszx.hb-n-tax.gov.cn/xxgk/jcms\\_files/jcms1/web9/site/zfxxgk/download/download.jsp?filename=170619091420683.doc](http://nszx.hb-n-tax.gov.cn/xxgk/jcms_files/jcms1/web9/site/zfxxgk/download/download.jsp?filename=170619091420683.doc)

# The view from India

## A landmark reform to introduce GST

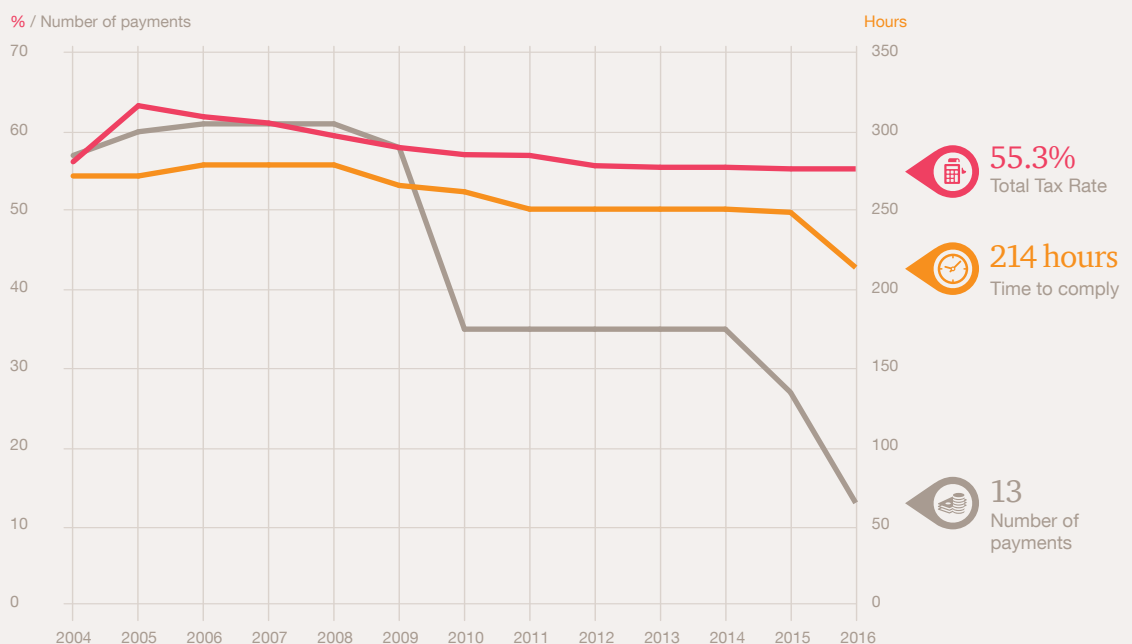
By **Pratik Jain**, Partner, National Leader Indirect Tax, **K Sivarajan**, Partner, and **Kartik Solanki**, Director, PwC India

The introduction of Goods and Services Tax ('GST') in India from 1 July 2017 is a landmark tax reform with significant implications for Indian companies' tax compliance. The introduction comes too late to be reflected in the data for *Paying Taxes 2018*, but it will be interesting to see the impact it has in future, particularly on the time it takes to comply with consumption taxes in 2017 and on the VAT elements of the post-filing index.

Prior to the introduction of GST, India had a very complex indirect tax structure with multiple Central and State levies such as excise duties on manufacture, taxes on inter-state and intra-state sale of goods (where every State had different VAT laws) and service tax on the provision of services, entry tax on imports into States, etc. These taxes were also administered by different authorities. Furthermore, tax rates on sales of goods and the exemptions were not uniform across States. All these taxes have now been subsumed into a GST levied on the event of 'supply' of goods or services.

India has adopted a dual GST model where all supplies will be subject to Central GST and State GST. GST also applies to supplies between branches of the same entity located in two different States. This paradigm shift also required a change in the Indian Constitution to re-align the taxation powers of the Central and State Governments. One of the biggest challenges for the introduction of GST was to achieve consensus between the Centre and States, since the latter had significant concerns about the loss of fiscal autonomy and loss of revenue (due to the shift from origin-based to consumption-based tax system for inter-state sales of goods).

**Figure 22: Trends in the Paying Taxes sub-indicators for India since 2004**



Source: Paying Taxes 2018 data

# The introduction of GST

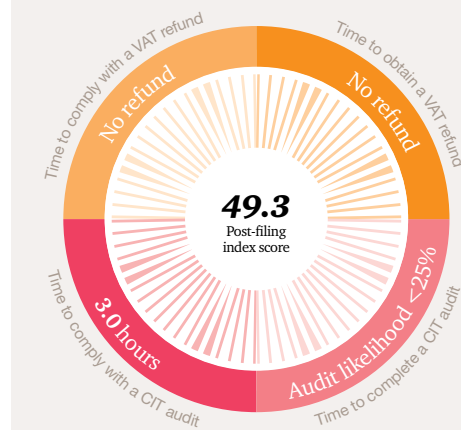
has taken India closer to 'one nation and one market'...  
...industry and consumers are expected to reap the benefits  
in the long run

Additional amounts of GST, known as “GST compensation cess”, are being levied on certain products to compensate States for revenue loss in the first five years of GST implementation. GST law is expected to be more stable than the previous regime since amendments have to be recommended by the GST council which has representatives from both Central and State Governments.

The Government has been undertaking several outreach programs to educate taxpayers and tax administrators on the new legislation. These included training programs, conferences, issuing clarifications and setting up taxpayer helpdesks. Being a new law, there are several aspects requiring clarity and the Government is responding quickly to the queries and concerns of taxpayers. As a unique initiative, a dedicated twitter handle was set up to provide instant responses to taxpayer tweets which are later formally validated and issued as FAQs.

Technology is an important part of the GST administration. A common portal has been set up for tax return filings, matching of input credits with the liability declared by suppliers, issue of notices by tax authorities and filing of replies. Export refunds are expected to be quicker than in the past. The Government has also set up facilitation centres for the submission of returns by small businesses. Nevertheless, the online compliance obligations present a major implementation challenge, due to glitches in the GST Network system, which are being addressed by the authorities on a “war footing”.

Figure 23: Post-filing index for India



Source: Paying Taxes 2018 data

An advance ruling mechanism is provided for ongoing and proposed transactions on questions relating to several aspects of the GST law. Anti-profiteering provisions have been framed to ensure that benefits arising from reductions in the tax rate or input tax credits is passed on to the consumer; however, the implementation methodology has not yet been made public.

The introduction of GST has taken India closer to 'one nation and one market'. While the law is expected to evolve over a period of time, and the challenges of implementing a new system present additional compliance burdens in the short term, industry and consumers are expected to reap the benefits in the long run.

# The view from the Middle East

## Milestones towards the ambitious GCC VAT introduction

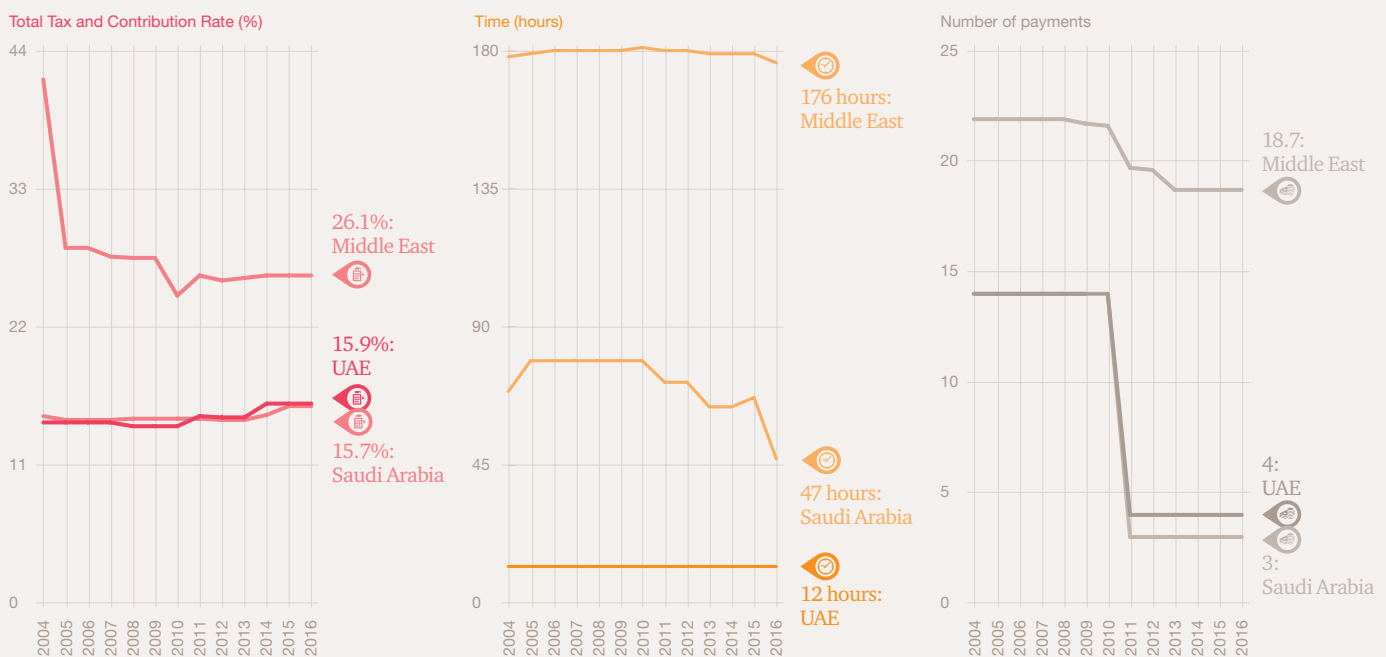
*Jeanine Daou,*  
Middle East  
Indirect Taxes  
Leader, &  
*Phil Beswick,*  
Director, PwC  
Middle East

A number of countries in the Gulf Cooperation Council (GCC)<sup>21</sup> have developed a reputation for taking on ambitious projects with accelerated timelines. While developments such as skyscrapers and indoor ski slopes have caught the public's attention, there are many other substantial, though less eye-catching projects, including work on transport, logistics, energy and infrastructure. Many of these projects demonstrate the success of the approach taken.

Implementing VAT across the six member states of the GCC in two years is another ambitious undertaking in the region; especially as two of the countries, Bahrain and the United Arab Emirates (UAE) have limited tax history, jurisprudence or administrative infrastructure. An excise tax system is also being introduced. This is major transformation by any measure. Saudi Arabia and the UAE are the first movers on VAT with a start date of 1 January 2018, but what are some of the main milestones to date?

At the time of writing (mid October 2017), the VAT law was recently officially released in Saudi Arabia and the UAE, with the UAE establishing a new tax authority (the Federal Tax Authority) and issuing a tax procedure law. VAT implementing regulations have been issued by Saudi Arabia and the executive regulations for the UAE are anticipated to be released in November 2017. Over the past few months, in advance of, or in combination with, the publication of the law, website FAQs and information sessions have been held by the government authorities in both countries. Going back further, government announcements have been made about the likely implementation of VAT and have indicated that the broad principles of the VAT model would be in line with the concept of a fully-fledged VAT system. More recently we have seen new avenues, for example industry forums, of discussion with taxing authorities.

**Figure 24: Trends in Paying Taxes sub-indicators for the Middle East region, Saudi Arabia and the United Arab Emirates**



Source: Paying Taxes 2018 data

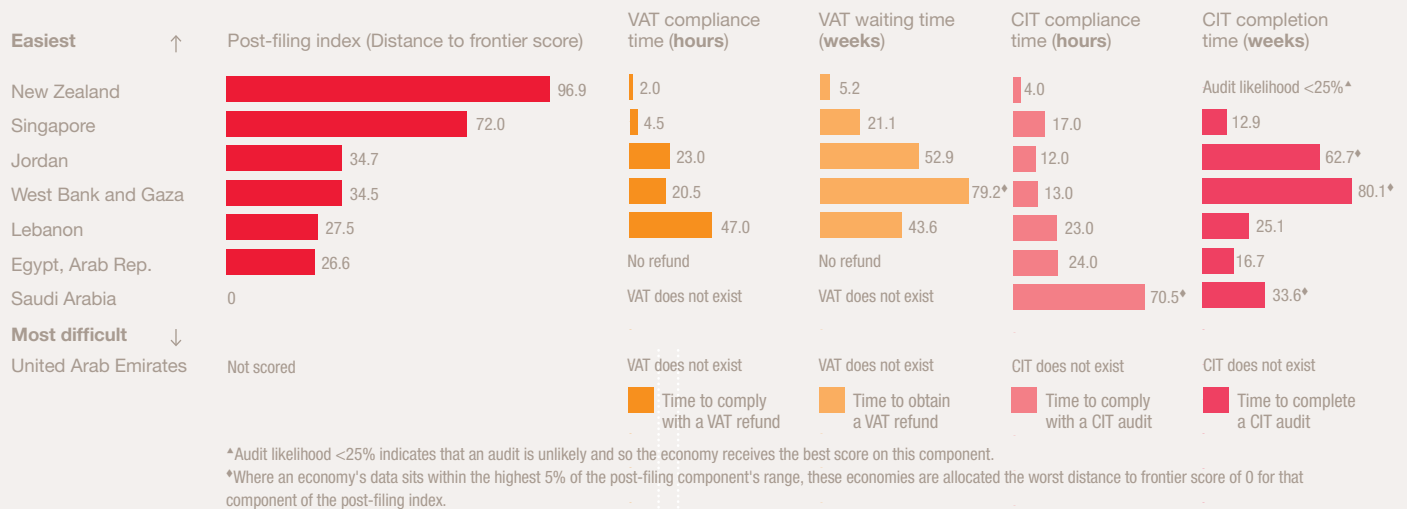
Note: The trend only considers the economies that have been part of the Paying Taxes study since 2004

<sup>21</sup> The Gulf Cooperation Council includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.



## Six countries over two years: Implementing VAT across the GCC is another ambitious undertaking in the region

**Figure 25: Post-filing in Saudi Arabia, the United Arab Emirates and other selected economies**



Source: Paying Taxes 2018 data

Society at large and companies have therefore been given notice, and some information, to implement the systems that they need in place to be able to comply with VAT. In doing so many advisors and systems suppliers have boosted their VAT capability – fulfilling an important role alongside the government in the implementation process. The media has also been an important channel of communication.

Certain details on the VAT regulations are yet to be made available. For example, at the time of writing, the VAT treatment of certain transactions, the full set of VAT filing and related data requirements and details of the systems interface with the tax authorities are not yet available. This may mean further systems changes will be needed in the future once these details become available.

Saudi Arabia and the UAE have performed well to date on the *Paying Taxes* sub-indicators, as shown in Figure 24, due in part to the low number of taxes in these countries. The introduction of VAT will increase the number of taxes in the countries with a corresponding impact on the time and payments indicators. The new post filing indicator in the *Paying Taxes* methodology will be valuable to measure the level of success of governments over time in implementing an efficient VAT system. We have seen already the potential impact in the region, where the *Paying Taxes* distance to frontier score of some economies changed significantly because of the corporate income tax audit aspects of the post filing indicator. As shown in Figure 25, the impact of the VAT refund process varies considerably between economies and it will be interesting to see how Saudi Arabia and the UAE fit within this range. The introduction of new taxes in any society involves a period of adjustment for taxpayers and the public at large; there will inevitably be a period of transition. Post 1 January 2018, the use of knowledgeable teams and efficient processes and technology will be critical in ensuring a workable transition

Governments, companies and other stakeholders all have a shared interest in this ambitious VAT transformation not being at the cost of doing business in the region.

# The view from Namibia

## Welcoming the more effective use of technology

**Chantell  
Husselmann,**  
Tax leader,  
PwC Namibia

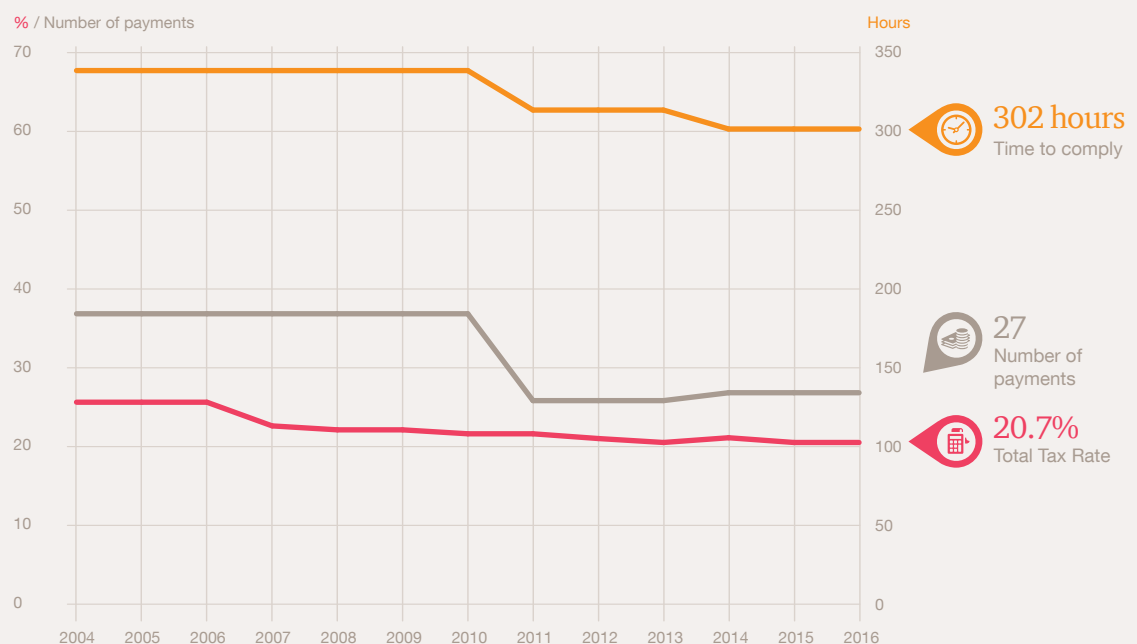
In Namibia, as in many other African countries, taxpayers are increasingly exposed to more advanced technology across more aspects of taxation and business. At the end of 2016, the Namibian Inland Revenue Department migrated to an Integrated Tax Administration System which is expected to provide new functions and reporting capabilities. These changes came too late to be reflected in *Paying Taxes 2018*, but we hope to see the impact in future.

Let us put the importance of a proper tax collection system and the effective use of tax technology into perspective. It is critically important for a country to have a consistent, reliable and efficient tax system to mobilize the domestic revenue needed to deliver public services and infrastructure needed by the population, especially poor households. Meanwhile, citizens are showing more interest in how their tax money is being spent and various industries would like more recognition and involvement as stakeholders in developing tax policy.

User-friendly and effective technology solutions, can provide tax authorities with easy access to the information they need, and citizens can get access to information online, raising their awareness about the costs and benefits of public programs. Moreover, the greater use of real-time data collection and increased availability and sophistication of commercial accounting software, affect how taxpayers meet their tax compliance obligations and the skills and resources that they need to do this. The analysis of data is becoming ever more important and can greatly assist taxpayers to manage risk.

In recent years, the time to comply and the number of payments for Namibia have remained flat and are above the global average. Over this period, we have seen improvements in other African economies attributable to increases in efficiency and the effective use of technology.

**Figure 26: Trends in the Paying Taxes sub-indicators in Namibia since 2004**



Source: Paying Taxes 2018 data

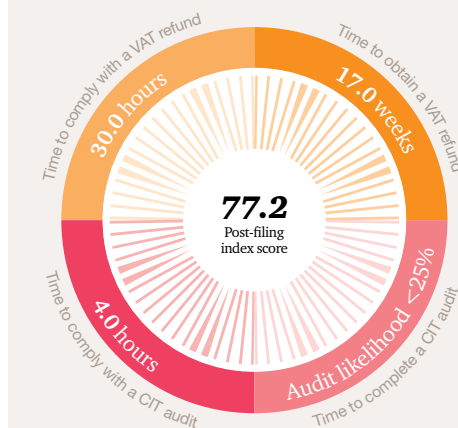
It is expected that the Directorate of Inland Revenue will implement online tax return filing (“e-filing”) in the next 12 months. This significant development should considerably improve the efficiency of tax administration, though it is recognised that there may be some teething problems and increases in compliance burdens as the system gets off the ground.

At this stage in its development, it is important for the Namibian Revenue Department to make full use of the new integrated tax system to identify technical, operational and compliance issues and make concerted efforts to fix them. Currently, delays in processing tax returns and misplaced returns result in an increased paper trail at the Inland Revenue, to the frustration of taxpayers, and potentially a loss to the fiscus. It is hoped that the new system will reduce these frustrations. Looking beyond e-filing, the effective use of technology by the taxpayer and Inland Revenue could yield greater efficiencies and shorter lead times with regards to tax audits, assessments and refunds.

Even in the absence of relevant e-filing and e-commerce legislation, we see businesses increasingly conducting business electronically. This can reduce costs and time and strongly indicates that businesses are embracing electronic transactions, despite the challenges posed by limited bandwidth and the high cost of data. We therefore believe that Namibia is ready to embrace a greater use of technology, and that the impact will deepen once the relevant legislation is in place.

Tax authorities now have access to a much greater range of data than in the past; the challenge is to use this data to risk assess companies and ensure efficient oversight and enforcement of tax compliance. For VAT refunds for example, rather than auditing taxpayers whenever they are in a refund position, we believe that a taxpayer that has previously been audited a number of times with no significant matters arising should be viewed as lower risk thereby reducing the time taken to assess and pay the refund. Delays in paying refunds adversely affect businesses and the economy as the cash needed to fund operations and expansion is tied up with Inland Revenue.

**Figure 27: Post-filing index for Namibia**



Source: Paying Taxes 2018 data

The Inland Revenue’s current tax incentive programme is a welcome initiative. It affords taxpayers the opportunity to “come clean” on past non-compliance and to pay off their tax debts up to the end of March 2017. Under this programme, 70% of interest and 100% of penalties are written off, provided that all outstanding taxes are paid.

We welcome the more effective use of technology and especially data analytics for tax compliance, and overall we are positive that as the new system becomes fully embedded at the Inland Revenue, electronic filing of tax returns will provide substantial benefits to both taxpayers and the Inland Revenue.

In closing, the lifeblood of a country’s continued growth, inclusive well-being and infrastructural development is its tax system. It is therefore of utmost importance that Namibia, along with other African countries, strive towards having a balanced and efficient tax system.



*The effective use of technology in Namibia could extend beyond e-filing to yield greater efficiencies*

# The view from Serbia

## Continuing the transformation to a digital tax system

**Branka Rajičić,**  
Tax and Legal  
Services Leader,  
PwC Serbia

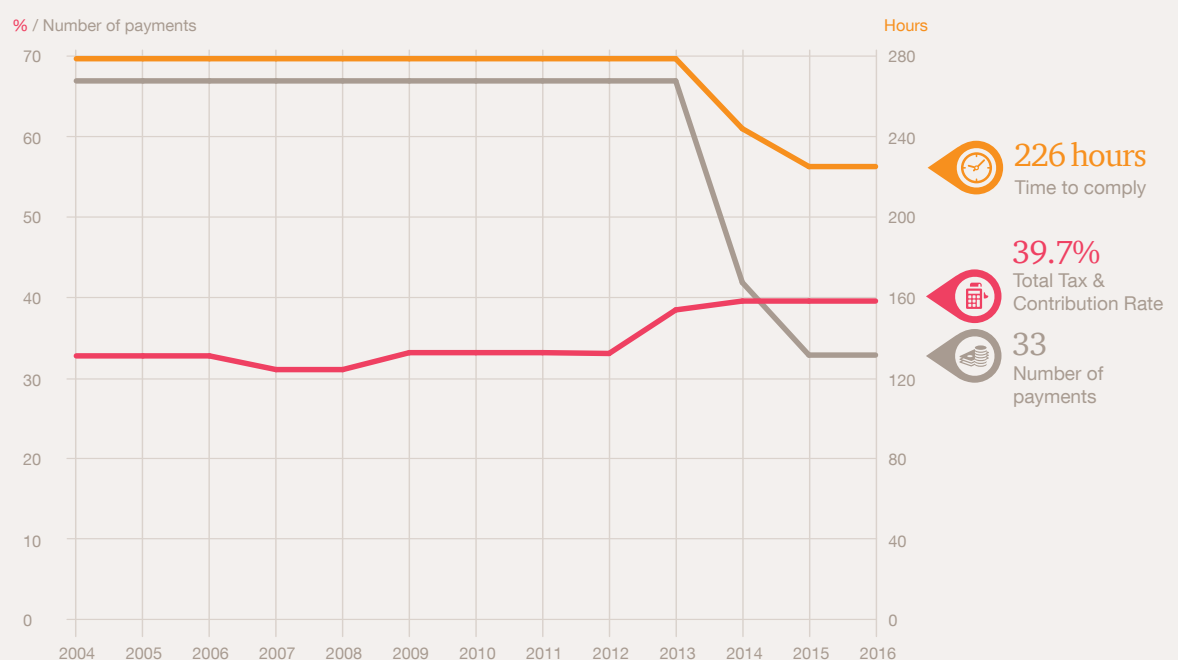
Serbia has made sustained efforts in recent years to improve the business and investment climate in the country. That these have borne fruit is shown through a much improved position in the World Bank's *Doing Business* study. These efforts, together with political stability, successful fiscal deficit consolidation, ongoing public administration reform and structural reforms have contributed significantly to the steady growth of the local economy and made Serbia a much easier location in which to do business.

Over the last five years, Serbia has made progress, much of it significant, in five out of the ten *Doing Business* indicators. In doing so Serbia has been among the countries in Southeast Europe implementing continuous reforms in the area of taxation. Between 2013 and 2015 the ease of paying taxes improved both in simplifying procedures and digitising processes.

In 2014 and 2015, Serbia simplified its payroll and social security returns, and introduced e-filing for payroll taxes and social security contributions, VAT and corporate income tax. This was a substantial improvement and it significantly reduced the number of payments indicator from 67 in 2013 to 33 in 2015 and the time to comply from 279 hours to 226 hours over the same period. An additional boost was given by abolishing land usage charges which positively impacted the number of payments as well as the overall tax burden.

Following these changes Serbia performs well in *Paying Taxes*, especially compared to its peers in Central and Eastern Europe. On average, compliance with tax obligations takes 19% less time than 3 years ago.

**Figure 28:** Trend in the Paying Taxes sub-indicators for Serbia since 2004



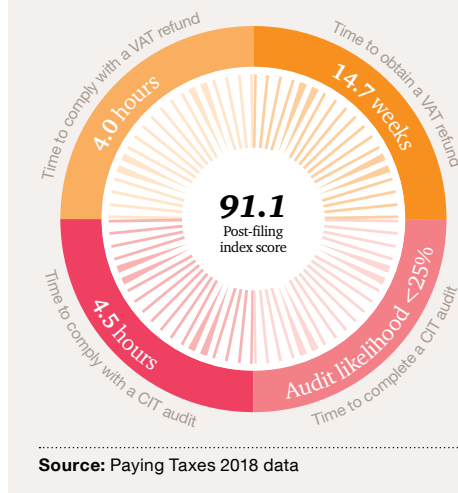
Source: Paying Taxes 2018 data

However, since these impressive technological innovations and the simplification of the tax system, there has been less activity that would take tax compliance to the next level. Instead, the *Paying Taxes* indicators have remained flat in the last year and there has been a small drop in the relative performance of the country in *Paying Taxes* compared to its peers which have continued to innovate. The challenge is to continue with reforms that will bring technological improvements and further simplify the administration of taxes. Arguably the most obvious area for improvement is the completion of the process of digitalisation for filing taxes and simplifying local taxes and charges.

Further digitalisation of tax compliance processes would however require the modernisation of the tax administration at different levels and building capacity not only for e-filing but to improve risk assessment, audit quality and consistency in the implementation of regulation. Despite the progress made to date, the Serbian tax administration is still only at the start of a journey to transform the country's tax system into a truly modern, taxpayer oriented service.

There are on-going initiatives and projects aimed at simplifying local taxes and charges and quasi-fiscal fees as well as projects around simplifying and streamlining both tax procedures and tax reporting. As yet we have seen little progress in these very important areas.

**Figure 29: Post-filing index for Serbia**



Tax regulation in Serbia is continually changing, and not all changes make life easier for taxpayers. Though the developments are broadly aligned with EU regulation, we still expect to see further changes to address developments in EU legislation and in international trends. We also anticipate changes in tax policy to support certain country strategic priorities. More transparency in the process of introducing these changes would however be welcomed including more stakeholders being involved in discussions around changes and sufficient time allowed to adjust to changes so that predictability and certainty in the tax system increase.

Overall, Serbia is serious about transforming its tax system and is engaging in reforms across many areas of tax policy and administration. The reforms will take time to implement, but it seems clear, provided focus and commitment are maintained, that Serbia is on the right path to creating a transparent, efficient and taxpayer oriented tax system.

**19%**

*On average compliance with tax obligations in Serbia take 19% less time than 3 years ago.*



# The *Paying Taxes* 2018 data



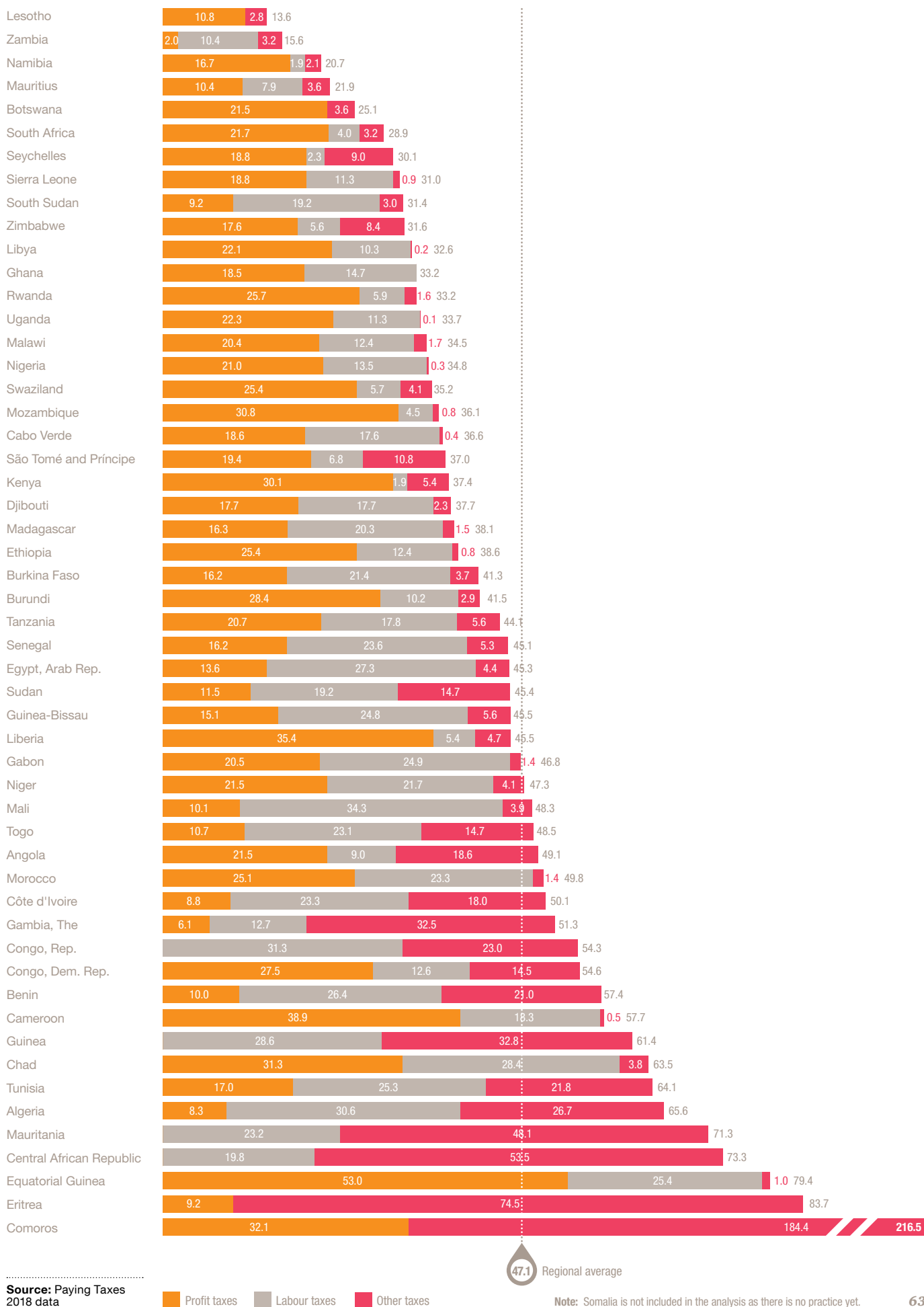


# Results by region

## *Contents*

<i>Africa</i> .....	63
<i>Asia Pacific</i> .....	67
<i>Central America &amp; The Caribbean</i> .....	71
<i>Central Asia &amp; Eastern Europe</i> .....	73
<i>EU &amp; EFTA</i> .....	75
<i>Middle East</i> .....	79
<i>North America</i> .....	81
<i>South America</i> .....	82

**Figure 30: Total Tax and Contribution Rate (%) in Africa**

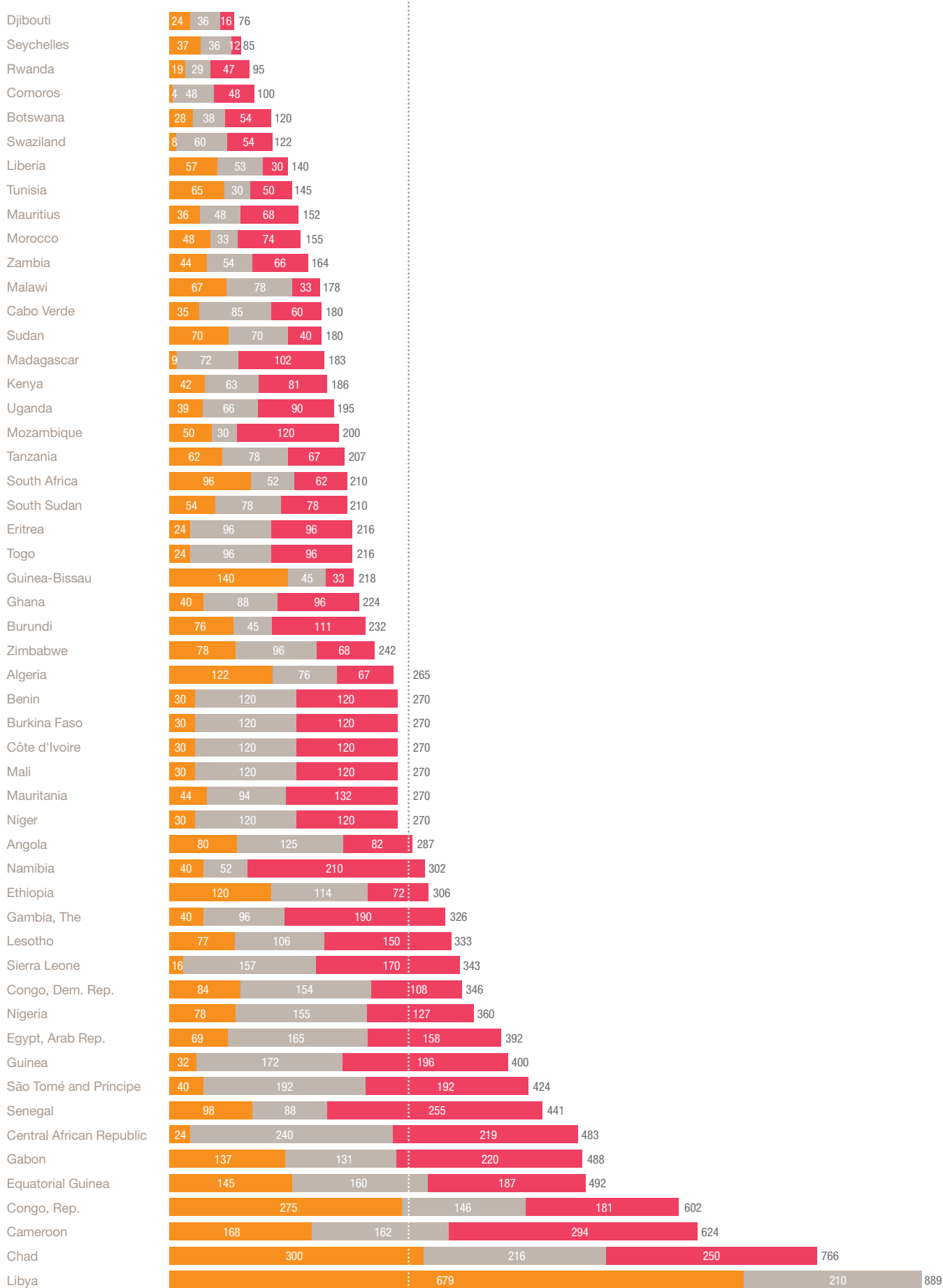


Source: Paying Taxes 2018 data

Profit taxes Labour taxes Other taxes

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

**Figure 31: Time to comply (hours) in Africa**



285 Regional average

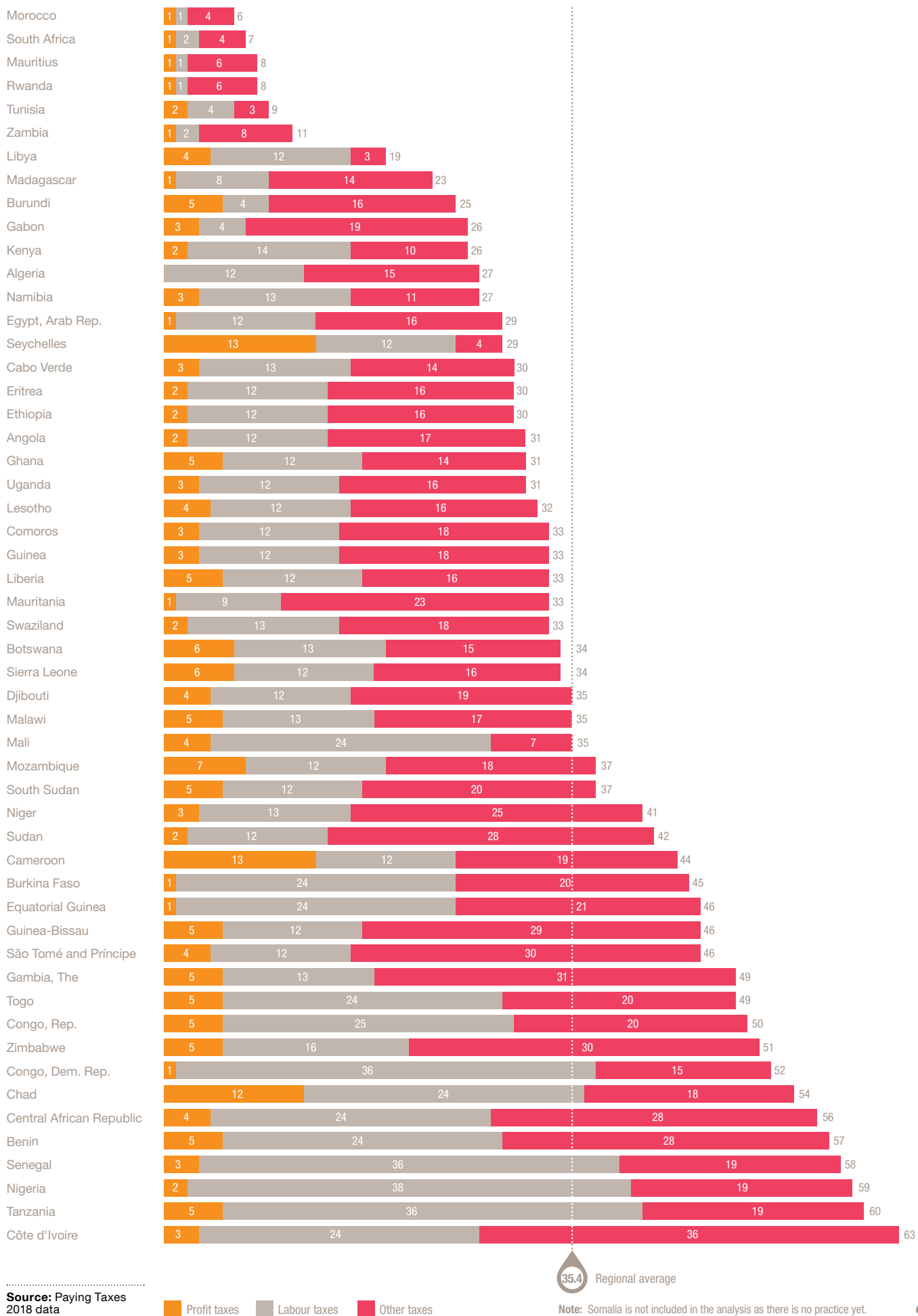
Source: Paying Taxes 2018 data

Corporate income tax Labour taxes Consumption taxes

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

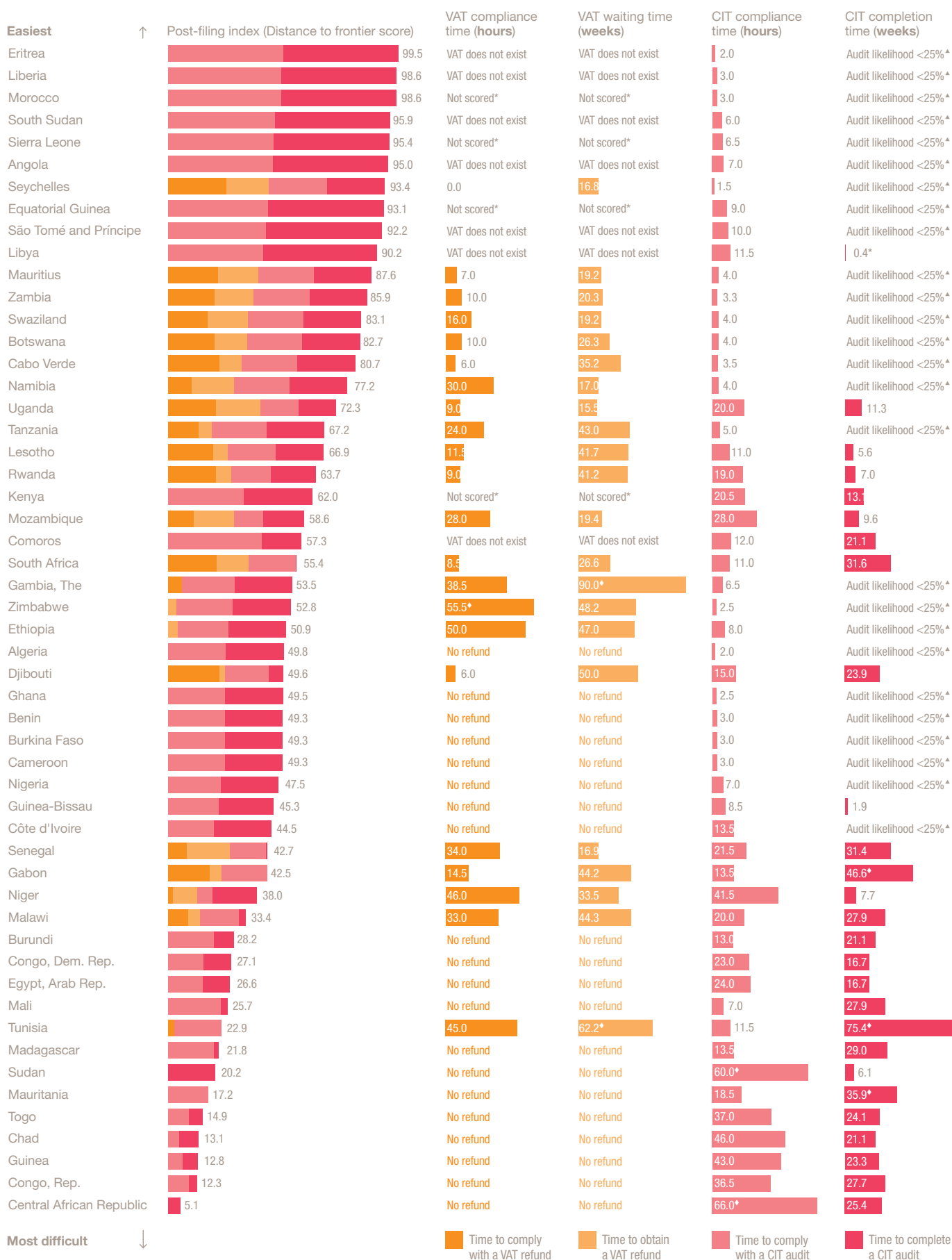


**Figure 32: Number of payments in Africa**



Source: Paying Taxes 2018 data

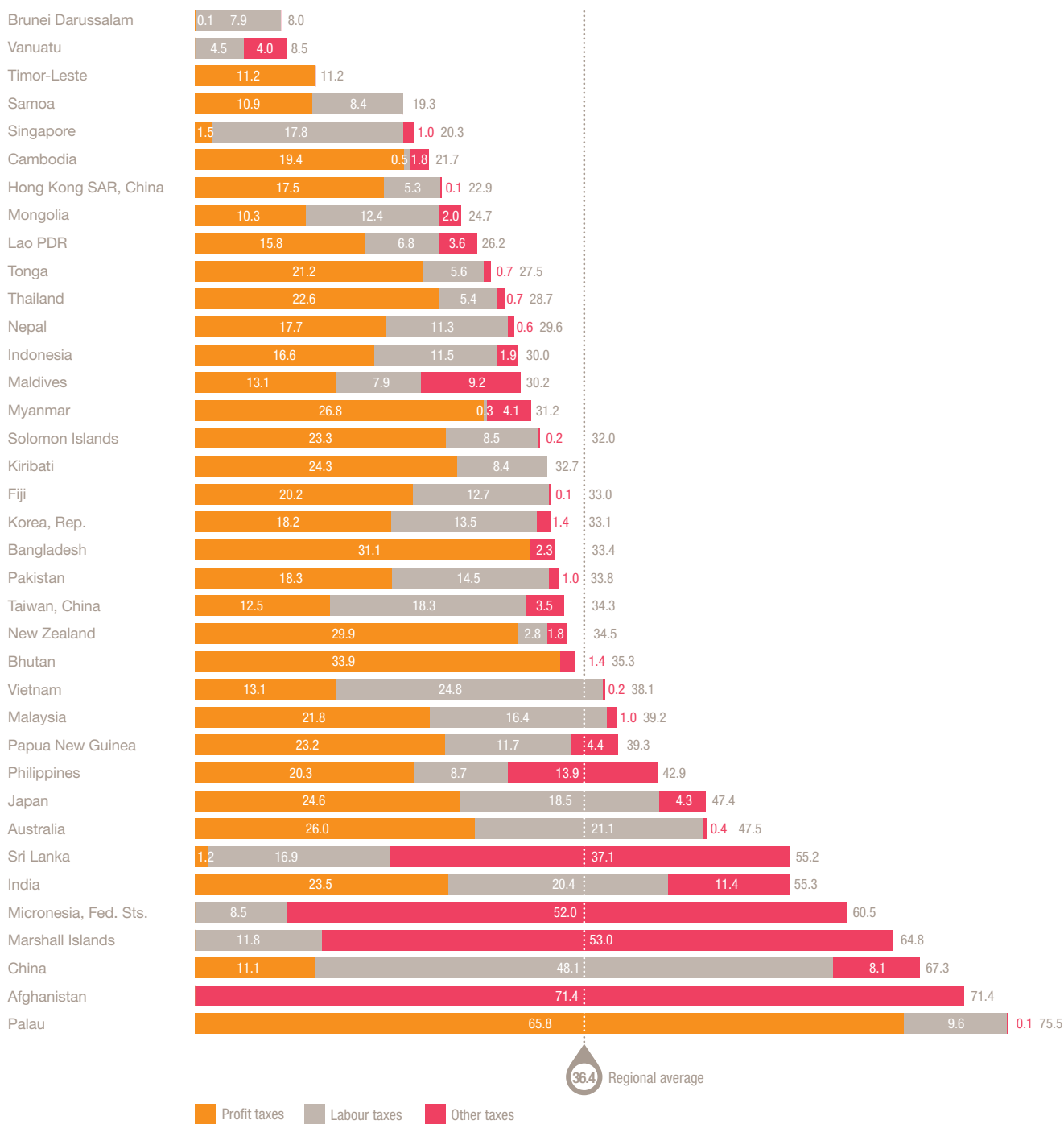
**Figure 33: Post-filing index (distance to frontier) and components (hours/weeks) in Africa**



Source: Paying Taxes 2018 data

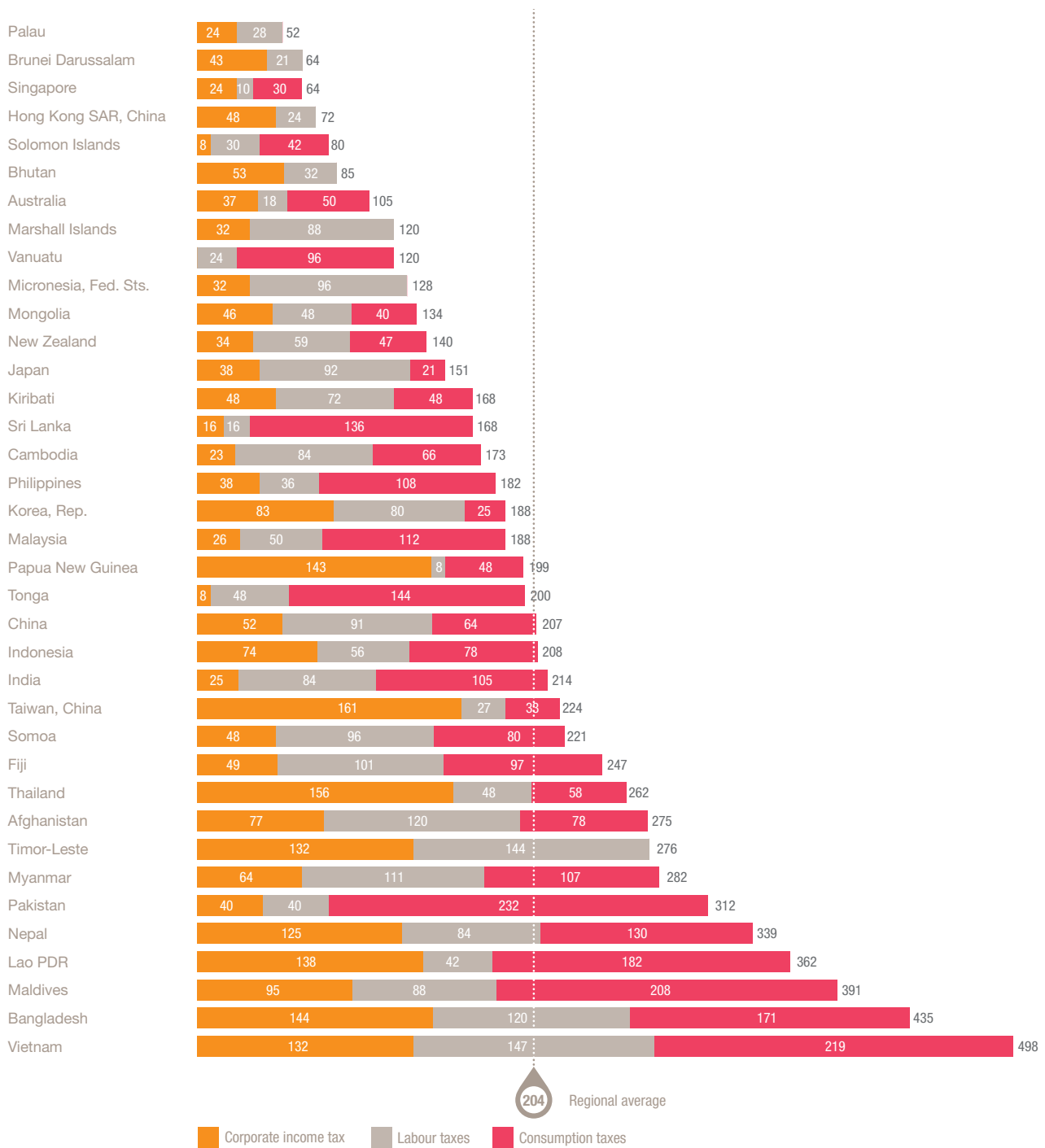
\*VAT does not exist for the case study purchase \*Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component. \*Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst 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. \*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the CIT completion time.

**Figure 34: Total Tax and Contribution Rate (%) in Asia Pacific**



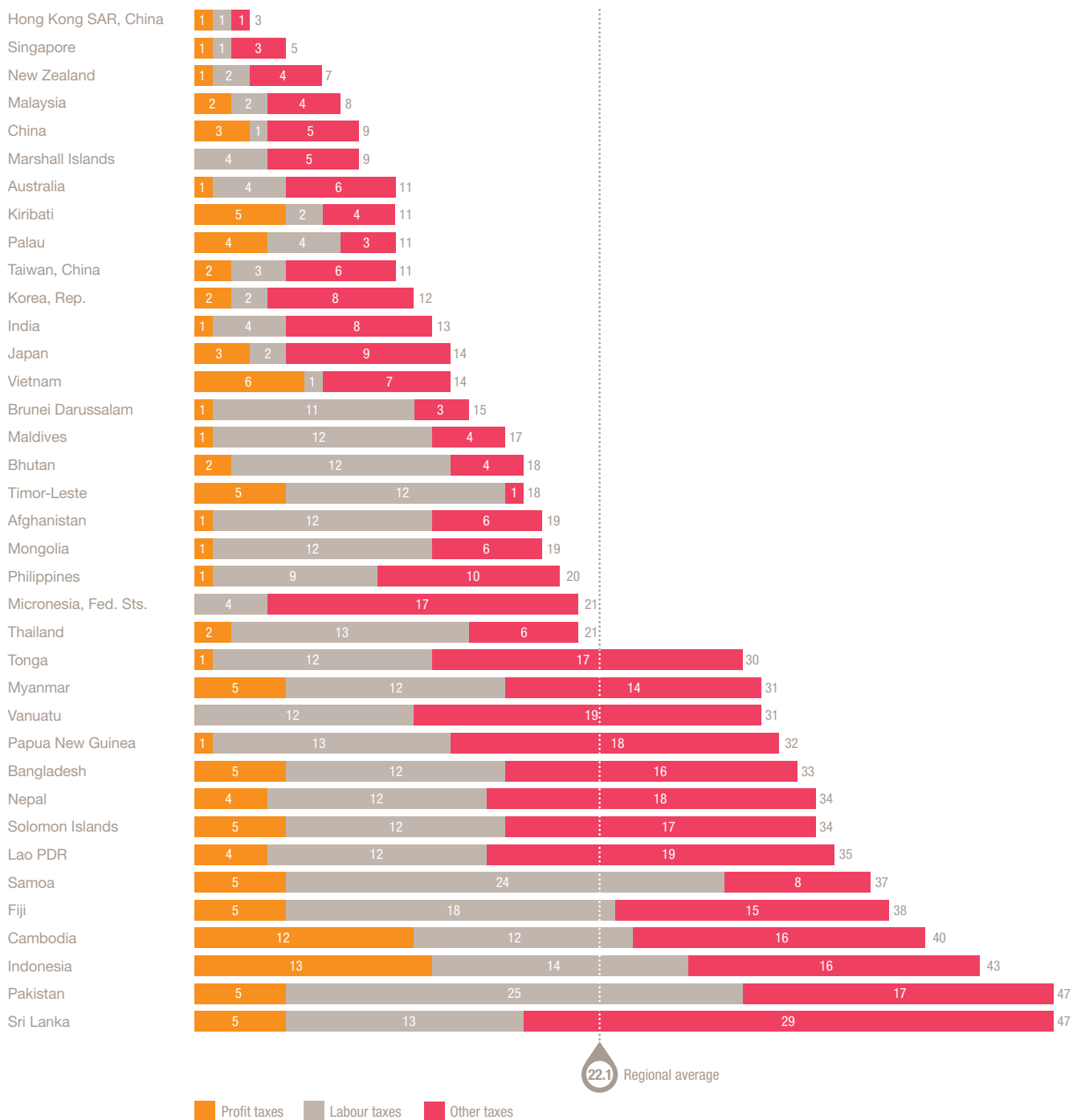
Source: Paying Taxes 2018 data

**Figure 35: Time to comply (hours) in Asia Pacific**



Source: Paying Taxes 2018 data

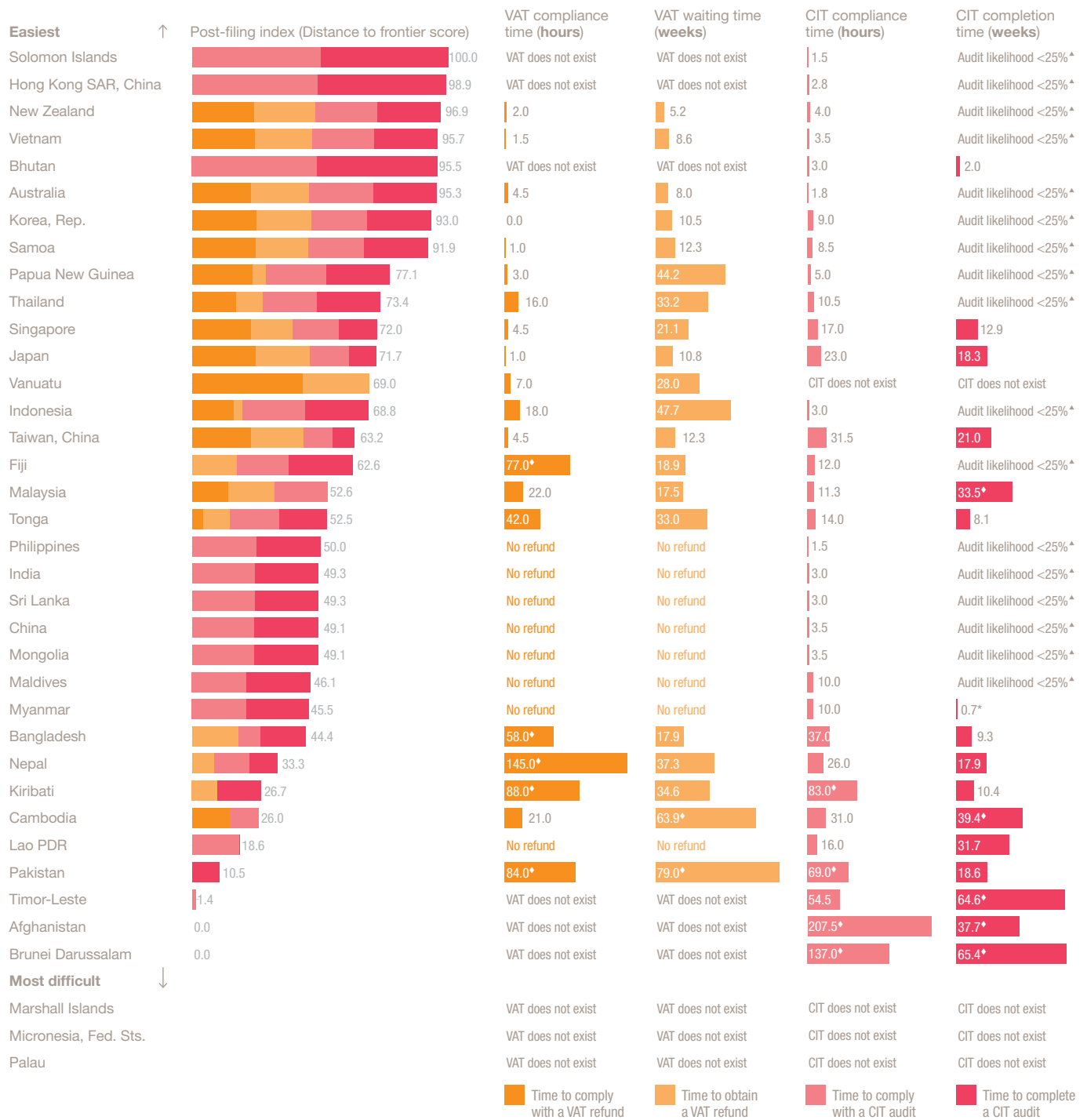
**Figure 36: Number of payments in Asia Pacific**



Source: Paying Taxes 2018 data



**Figure 37: Post-filing index (distance to frontier) and components (hours/weeks) in Asia Pacific**



<sup>^</sup>Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

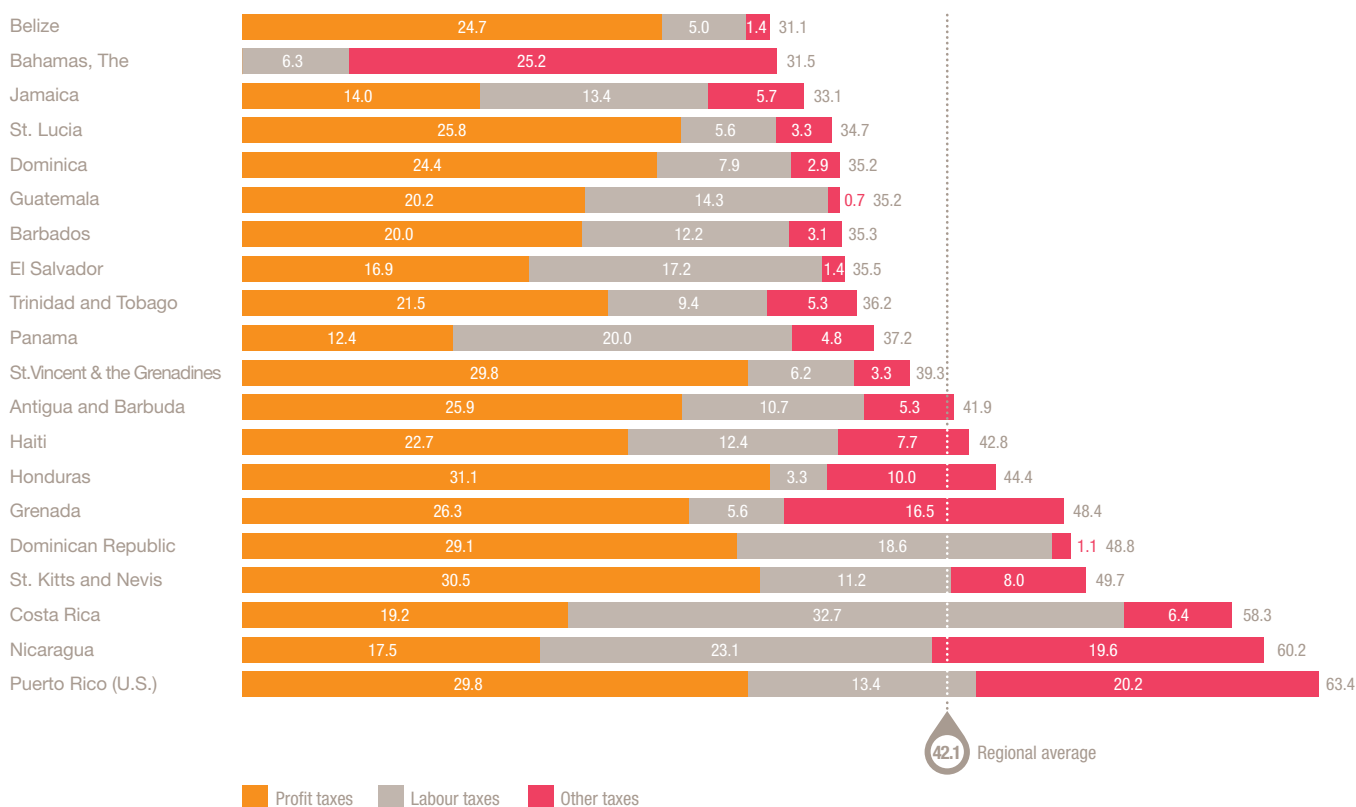
<sup>\*</sup>Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

<sup>\*</sup>Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the CIT completion time.

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.

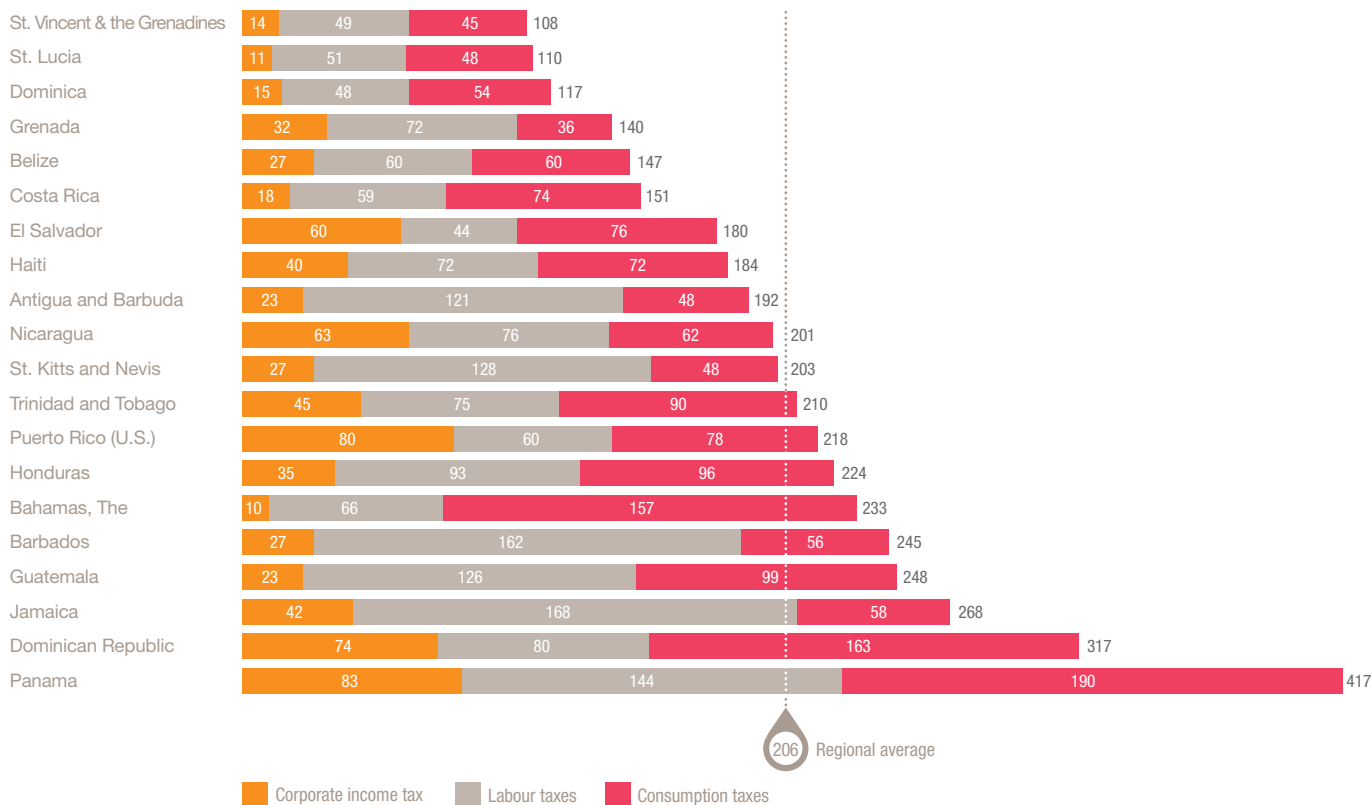
Source: Paying Taxes 2018 data

**Figure 38: Total Tax and Contribution Rate (%) in Central America & the Caribbean**



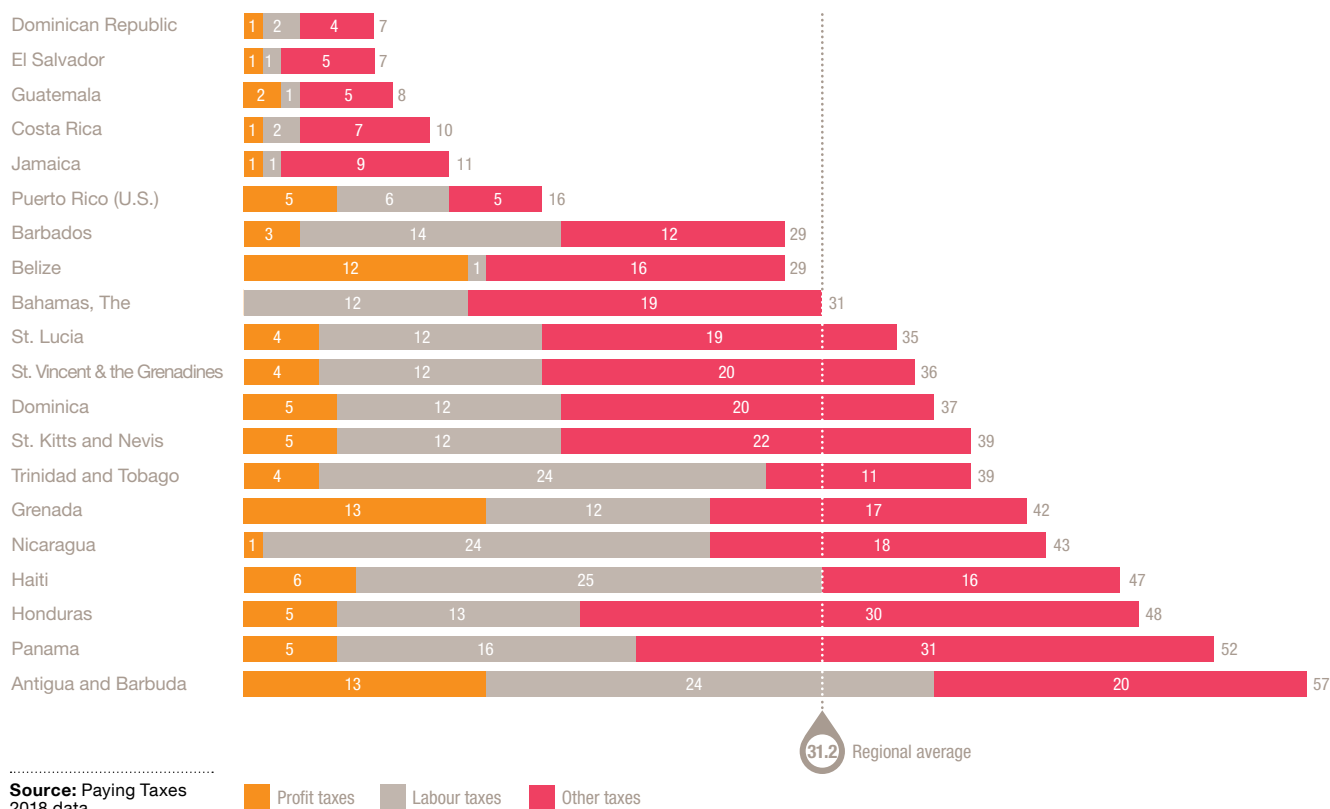
Source: Paying Taxes 2018 data

**Figure 39: Time to comply (hours) in Central America & the Caribbean**



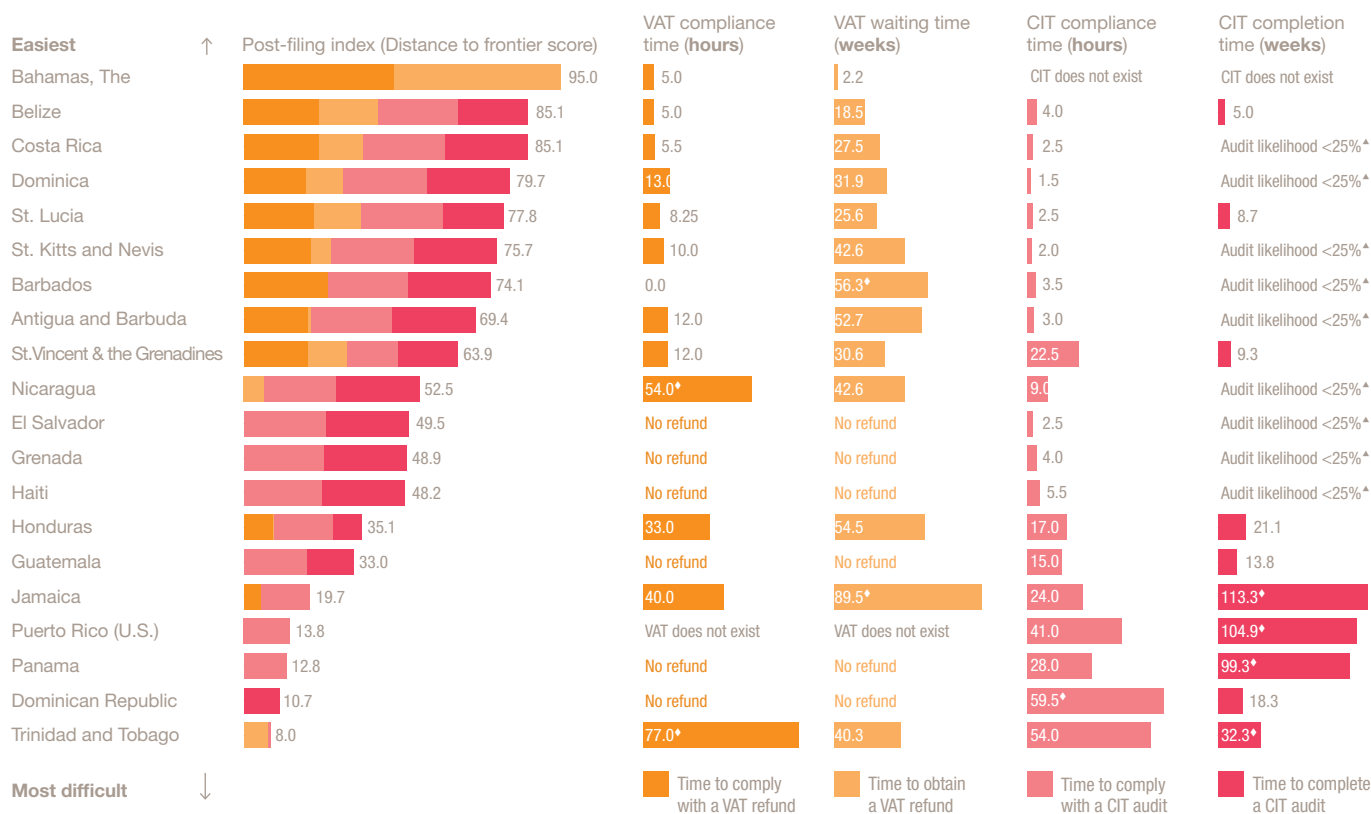
Source: Paying Taxes 2018 data

**Figure 40: Number of payments in Central America & the Caribbean**



Source: Paying Taxes 2018 data

**Figure 41: Post-filing index (distance to frontier) and components (hours/weeks) in Central America & the Caribbean**



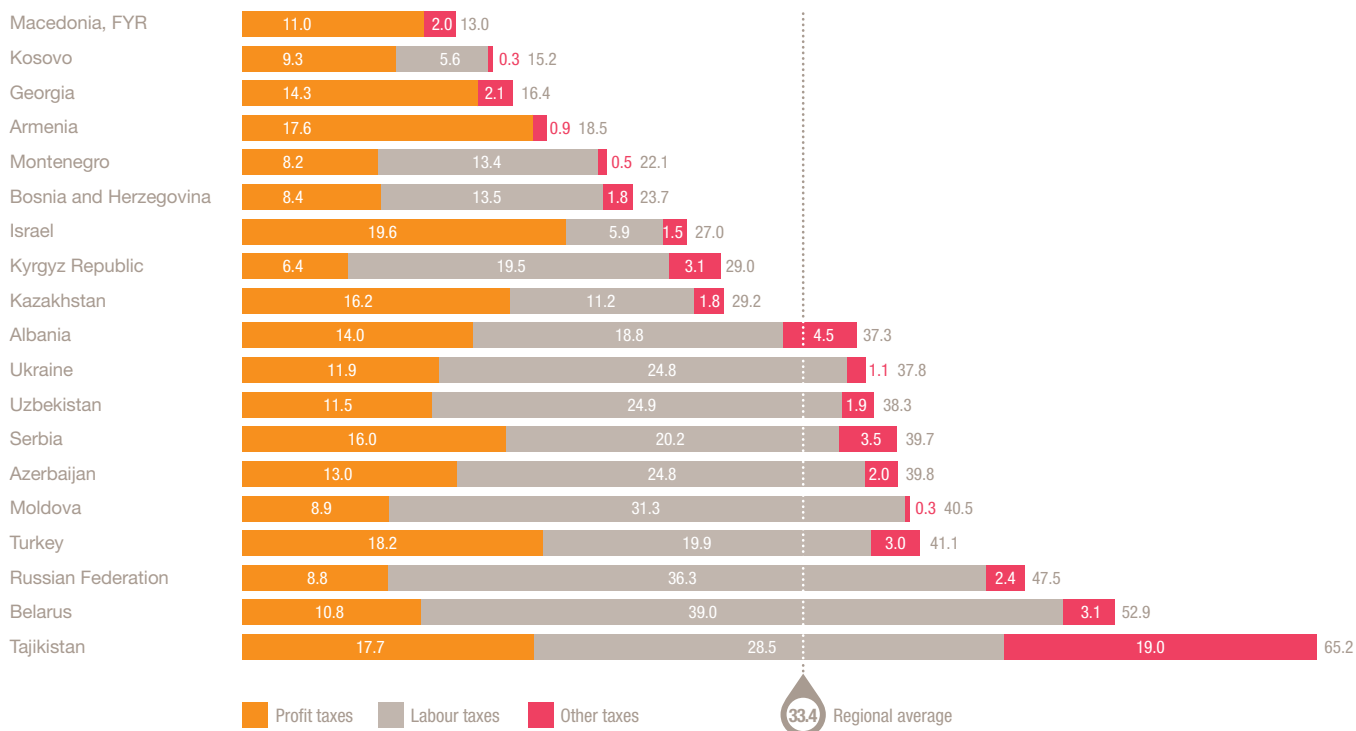
Source: Paying Taxes 2018 data

\*Audit likelihood <25% 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.

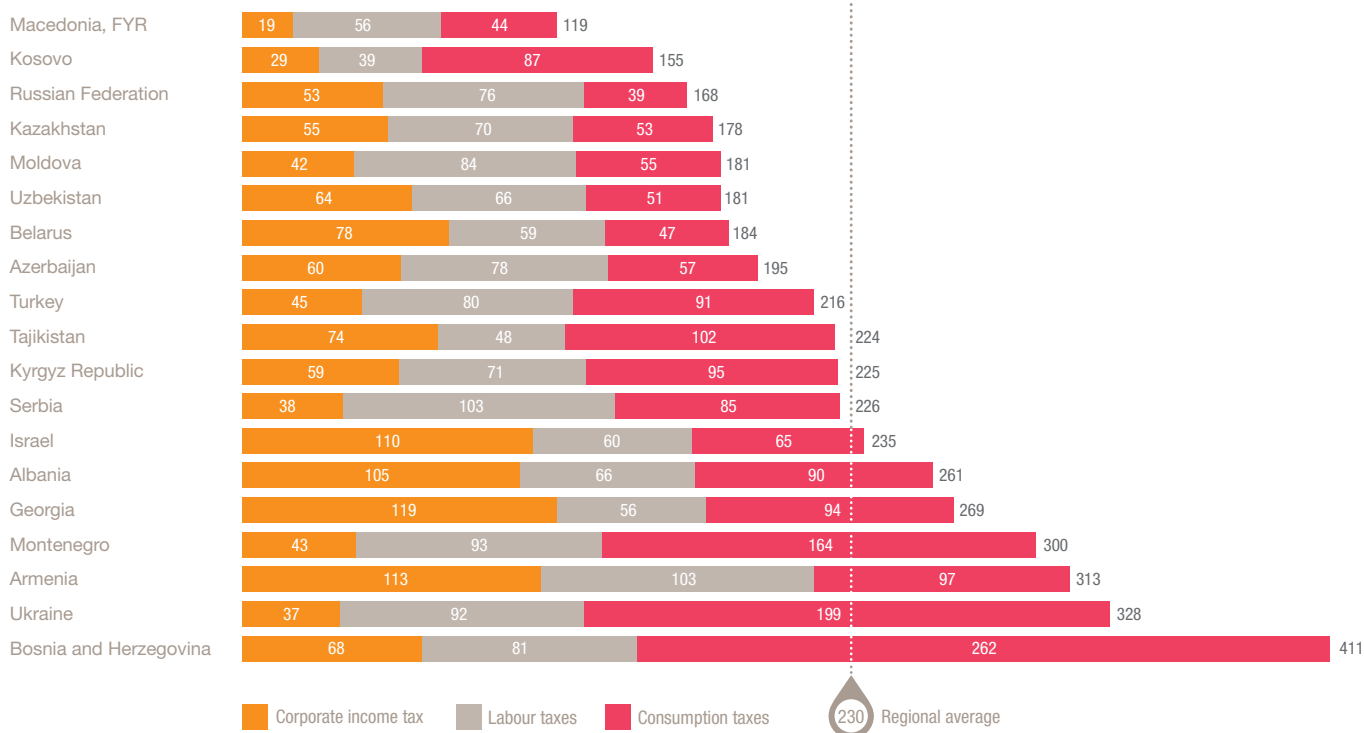
Note: There are some cases, where there is "No practice yet", "VAT does not exist" or "CIT does not exist", these components of the post-filing index are ignored and the remaining components are averaged to create the post-filing distance to frontier score. Where there is "No refund", these economies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

**Figure 42: Total Tax and Contribution Rate (%) in Central Asia & Eastern Europe**



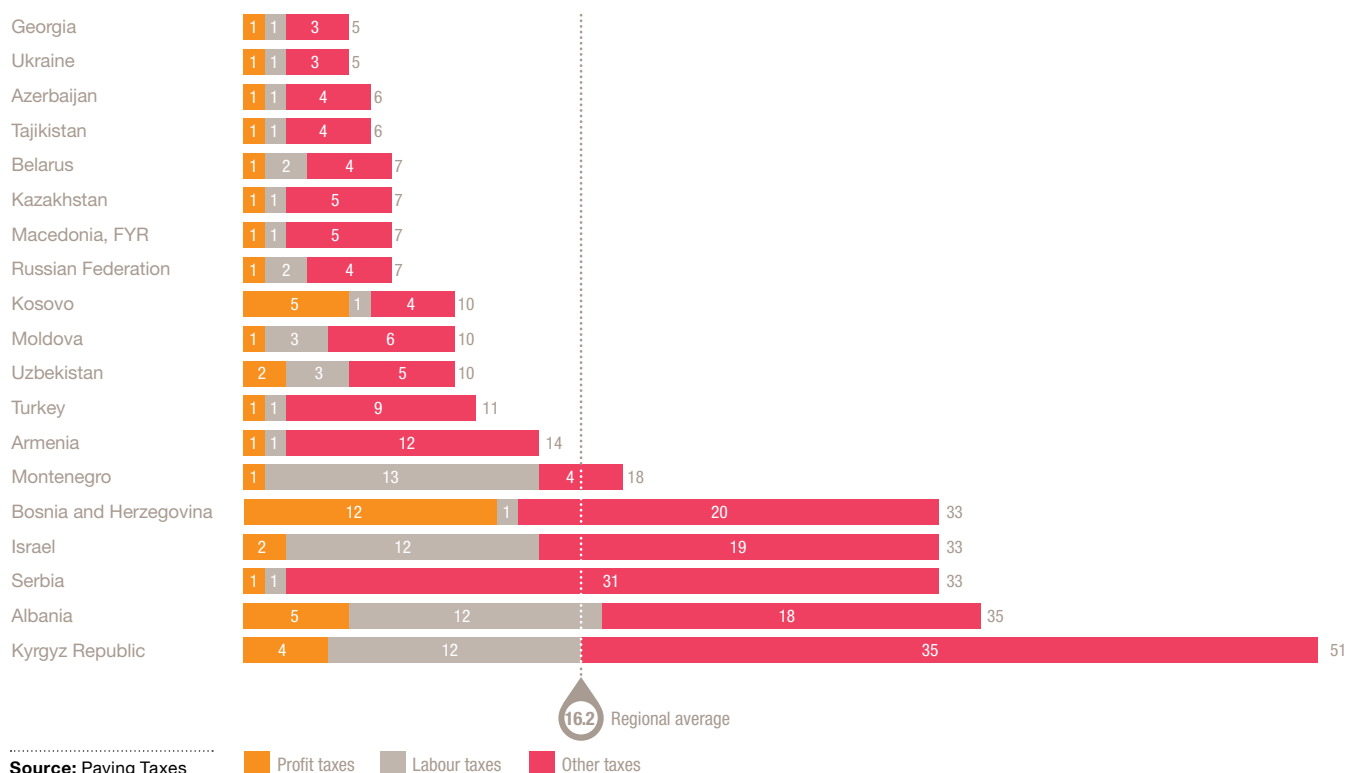
Source: Paying Taxes 2018 data

**Figure 43: Time to comply (hours) in Central Asia & Eastern Europe**



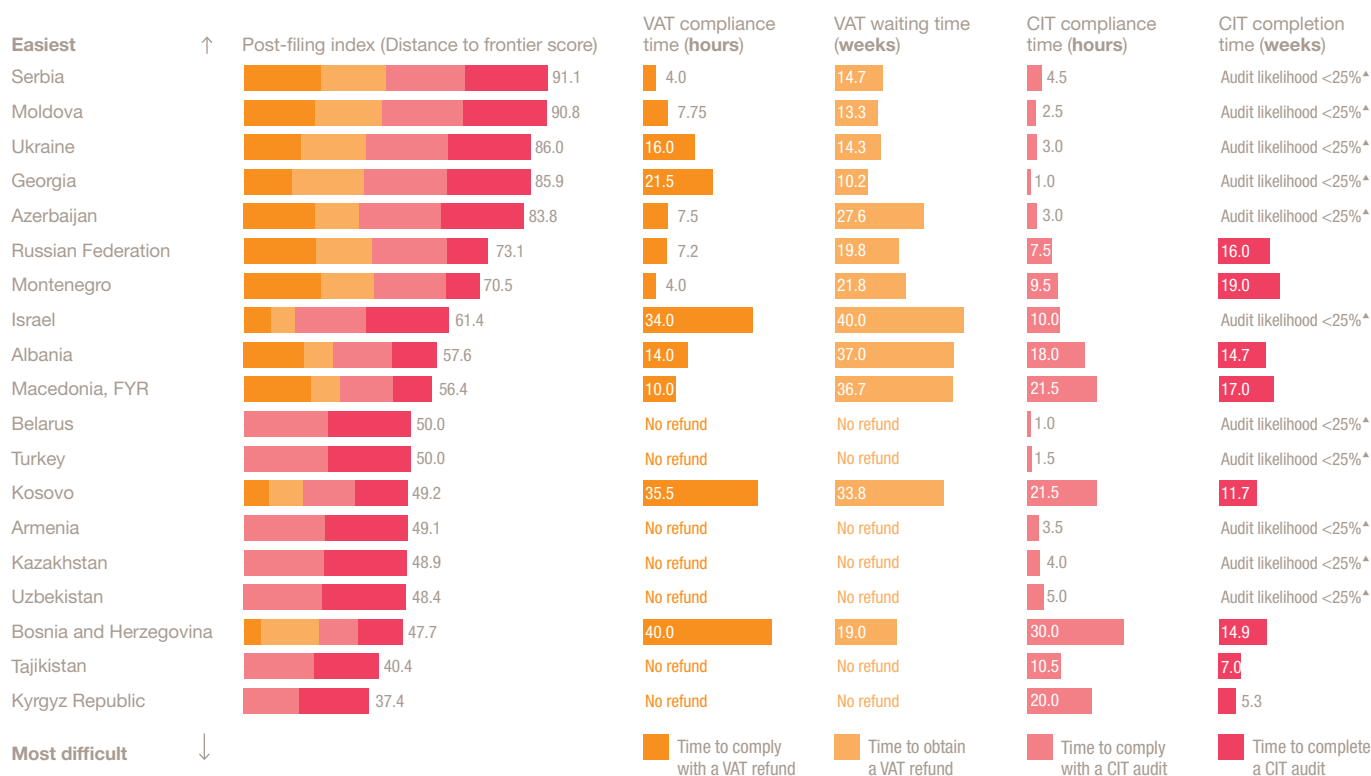
Source: Paying Taxes 2018 data

**Figure 44: Number of payments in Central Asia & Eastern Europe**



Source: Paying Taxes 2018 data

**Figure 45: Post-filing index (distance to frontier) and components (hours/weeks) in Central Asia & Eastern Europe**



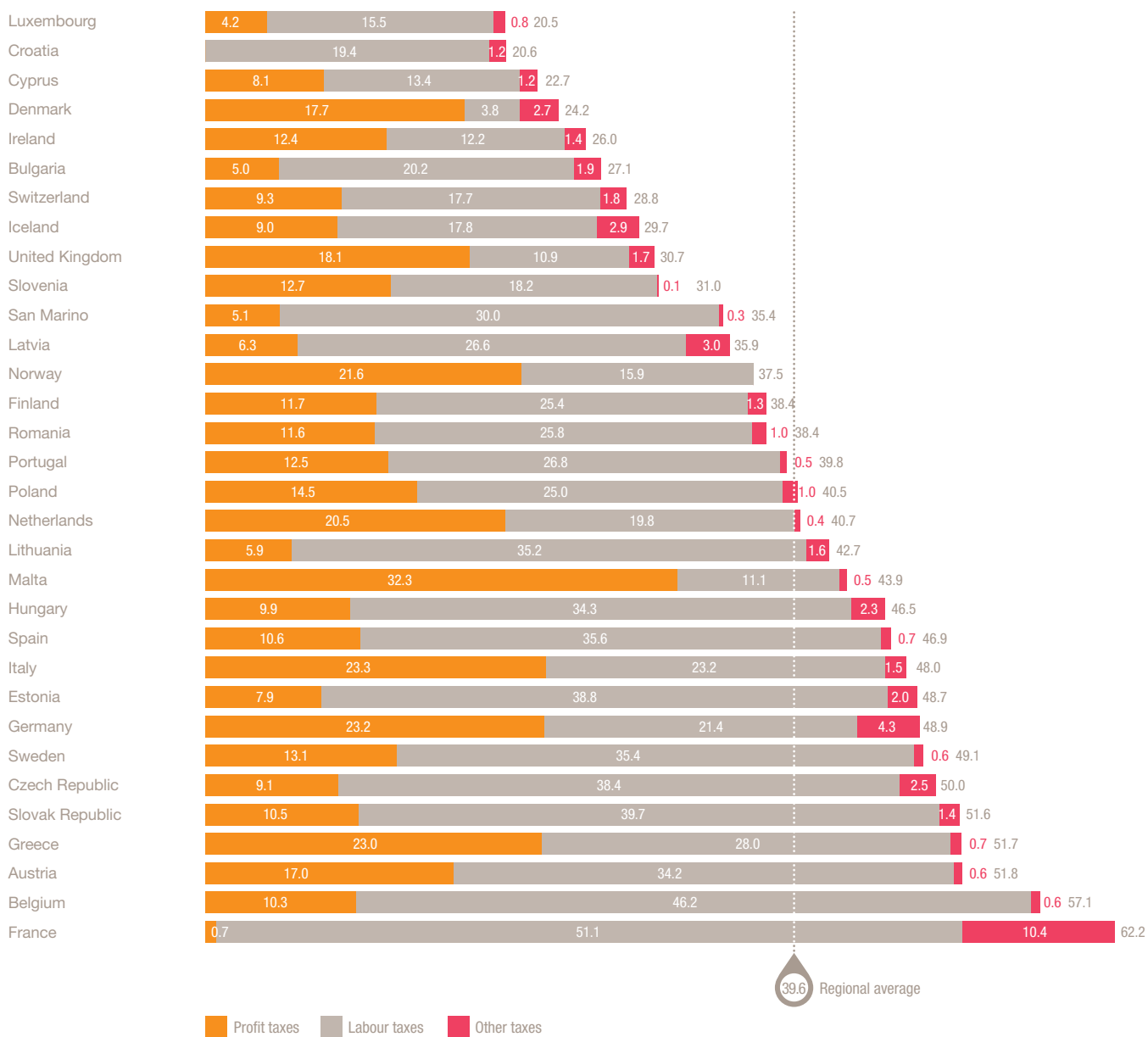
<sup>▲</sup>Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

<sup>◆</sup>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.

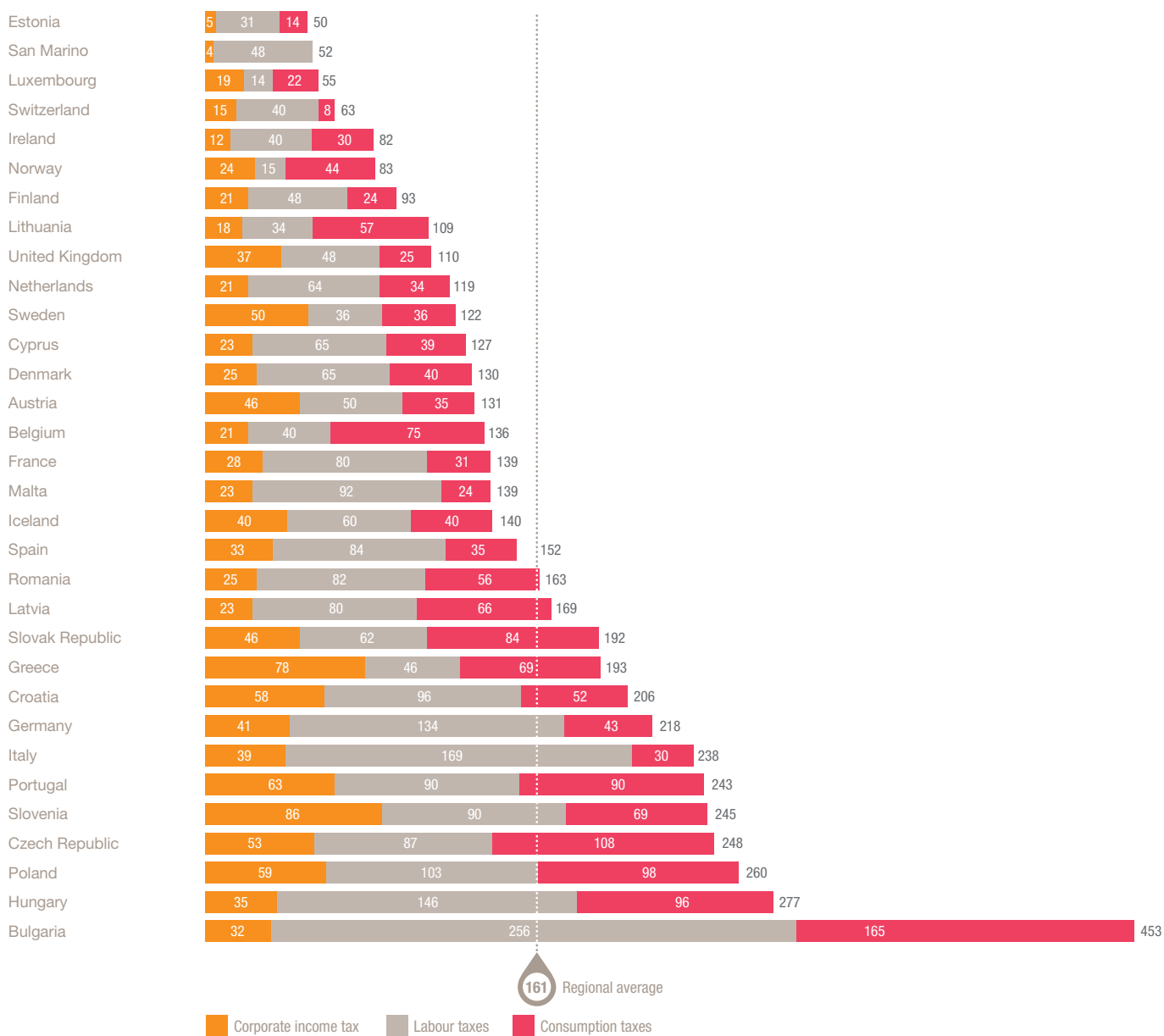


**Figure 46: Total Tax and Contribution Rate (%) in EU & EFTA**



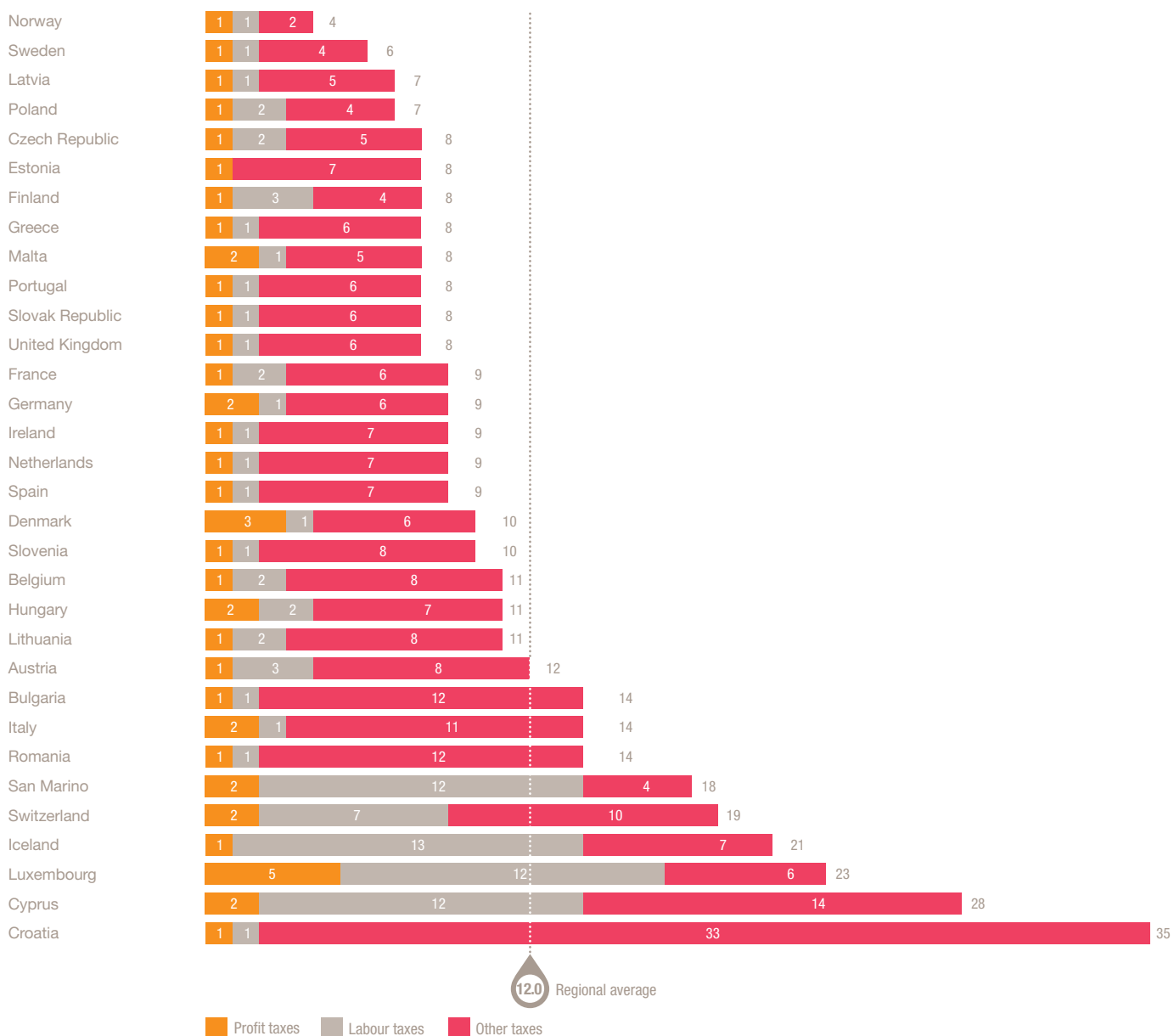
Source: Paying Taxes 2018 data

**Figure 47: Time to comply (hours) in EU & EFTA**



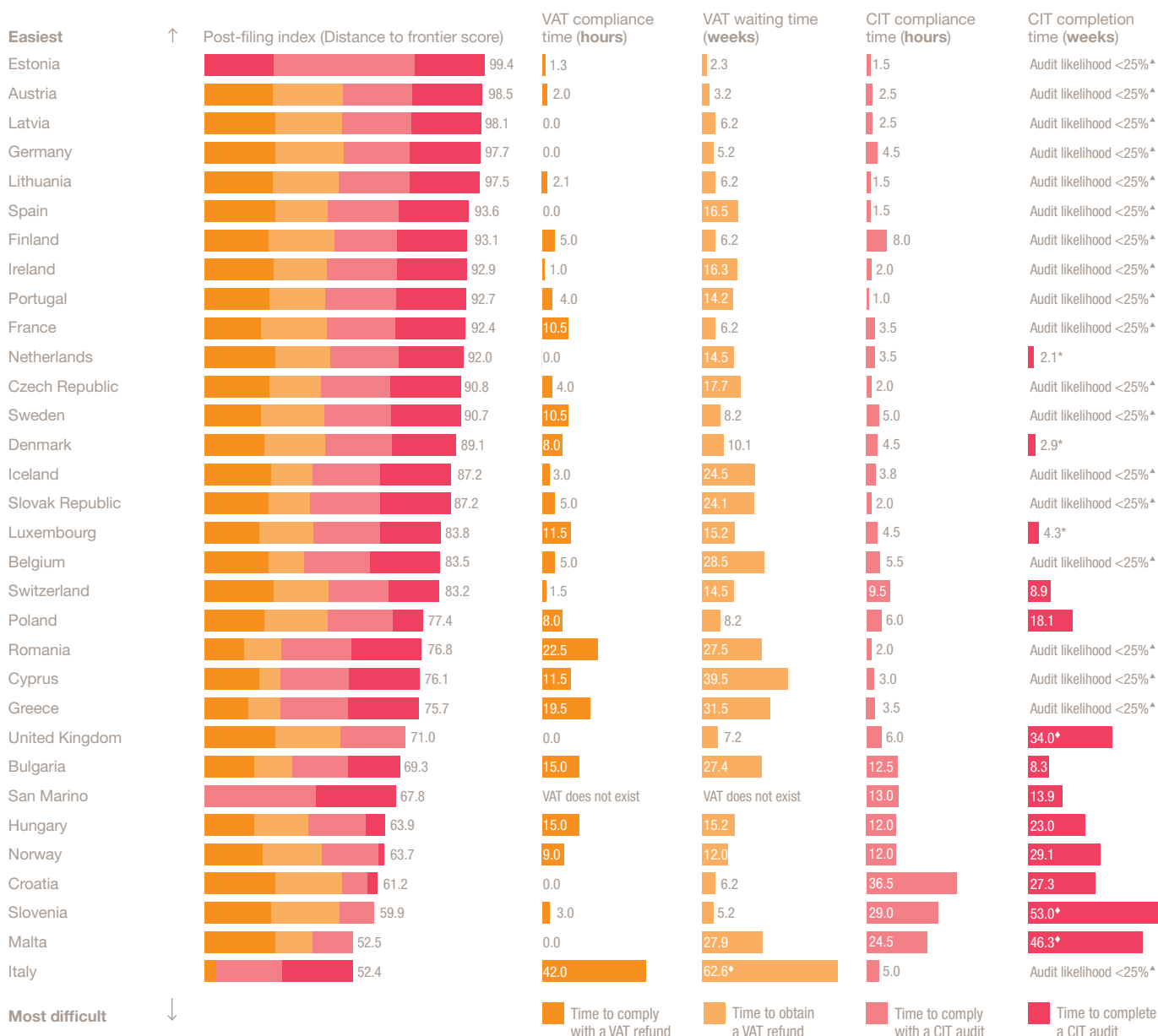
Source: Paying Taxes 2018 data

**Figure 48: Number of payments in EU & EFTA**



Source: Paying Taxes 2018 data

**Figure 49: Post-filing index (distance to frontier) and components (hours/weeks) in EU & EFTA**



\*Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

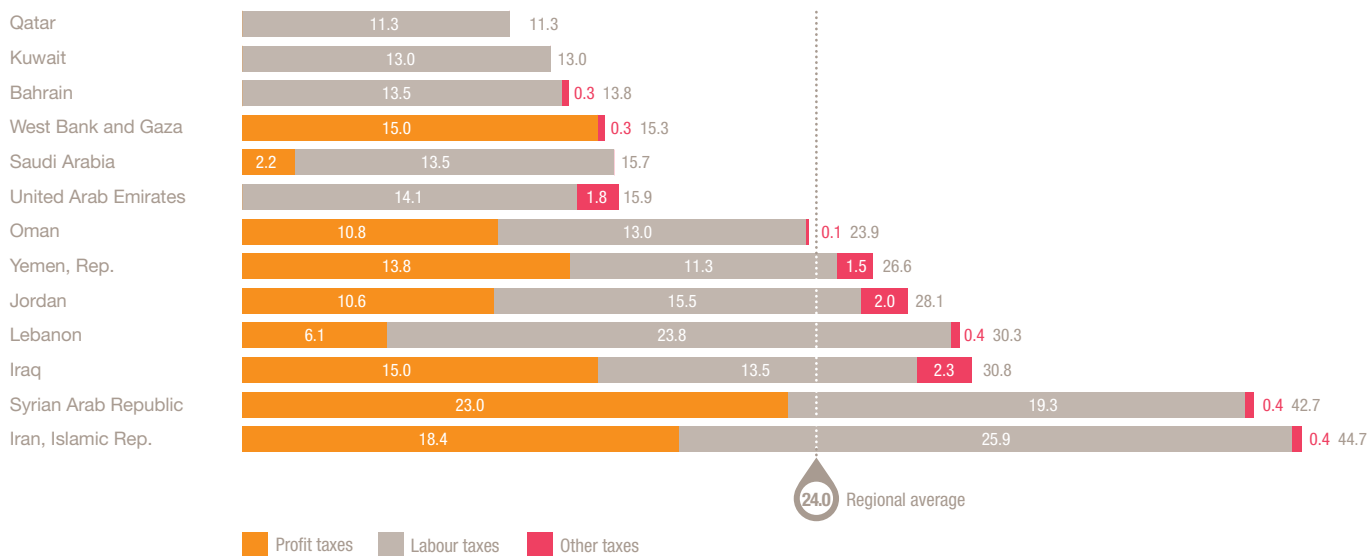
\*Where an economy's data sits within the highest 5% of the post-filing component's range, these economies are allocated the worst distance to frontier score of 0 for that component of the post-filing index.

\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the CIT completion time.

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.

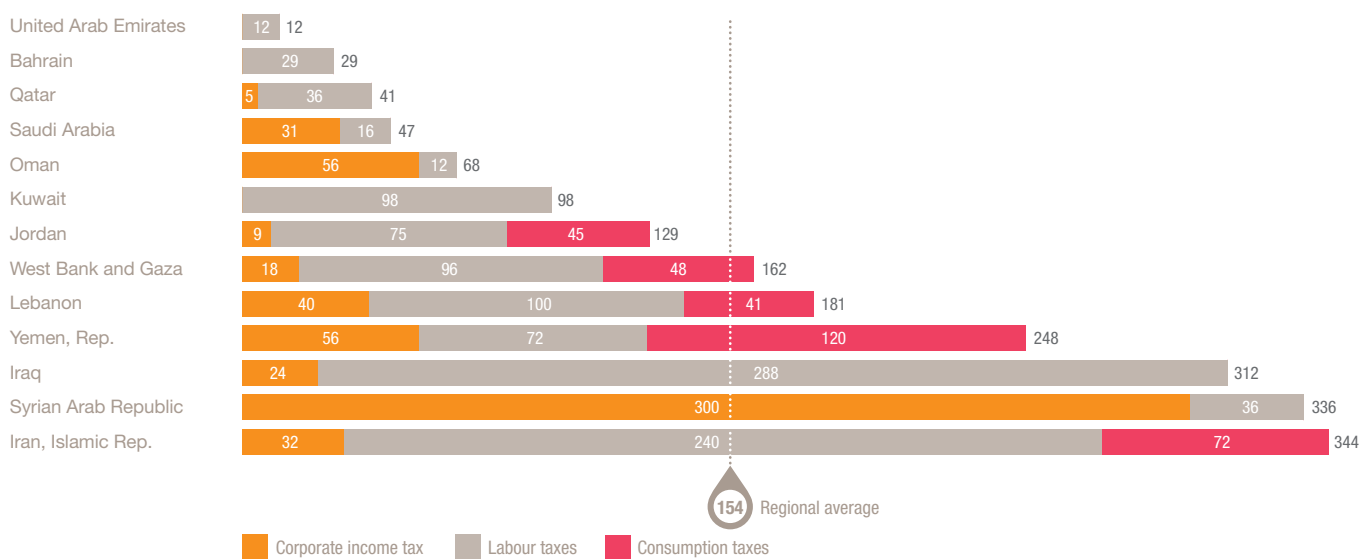
Source: Paying Taxes 2018 data

**Figure 50: Total Tax and Contribution Rate (%) in Middle East**



Source: Paying Taxes 2018 data

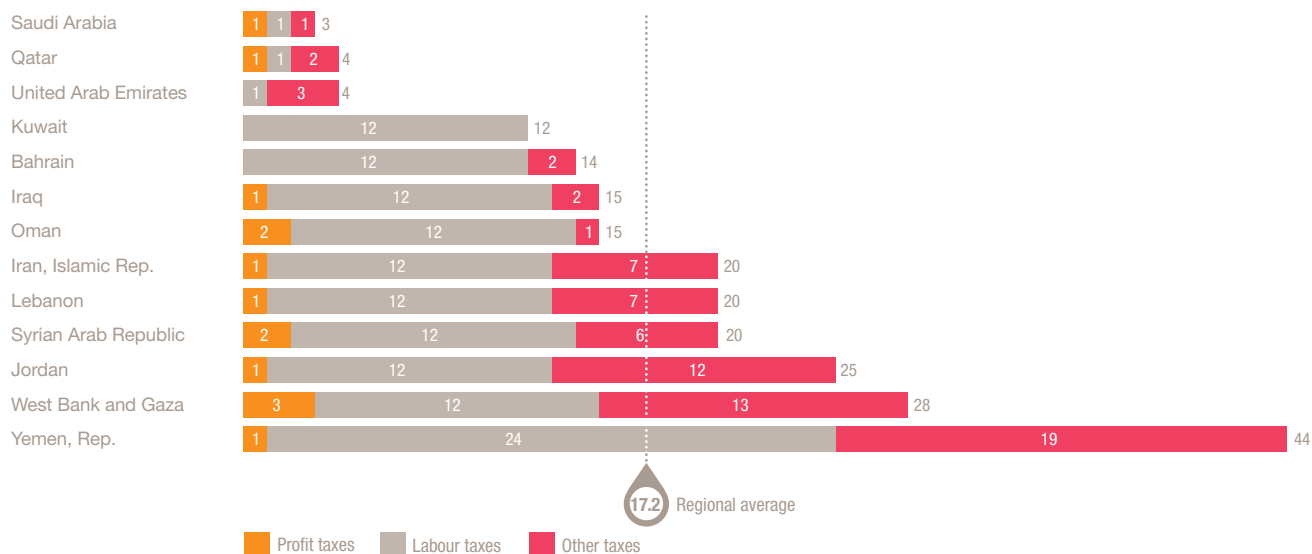
**Figure 51: Time to comply (hours) in Middle East**



Source: Paying Taxes 2018 data

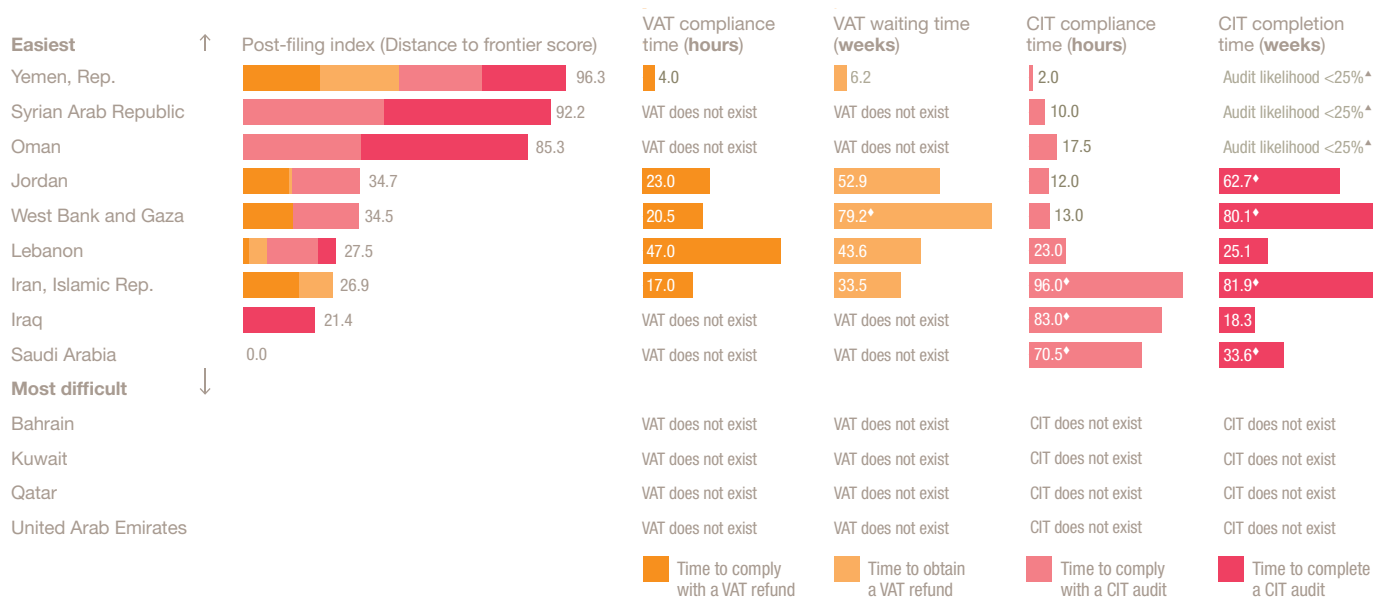


**Figure 52: Number of payments in Middle East**



Source: Paying Taxes 2018 data

**Figure 53: Post-filing index (distance to frontier) and components (hours/weeks) in Middle East**



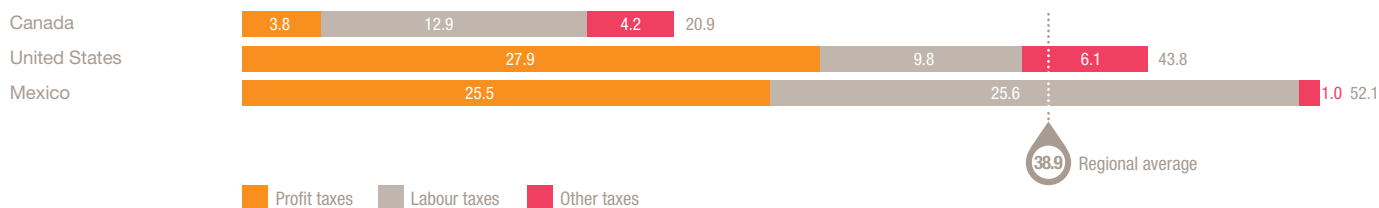
\*Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

\*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.

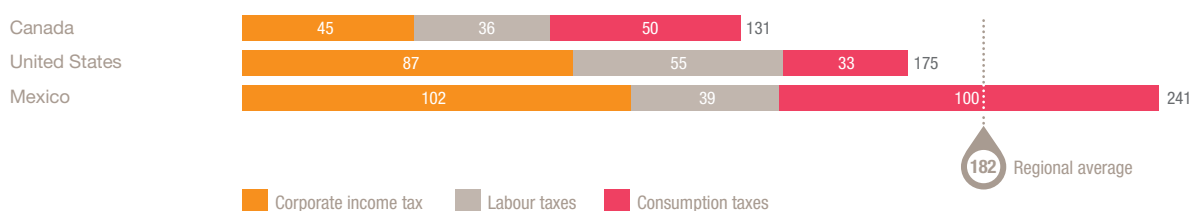
Source: Paying Taxes 2018 data

**Figure 54: Total Tax and Contribution Rate (%) in North America**



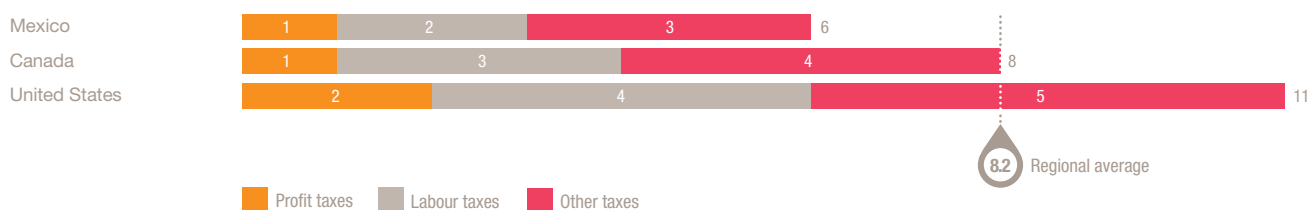
Source: Paying Taxes 2018 data

**Figure 55: Time to comply (hours) in North America**



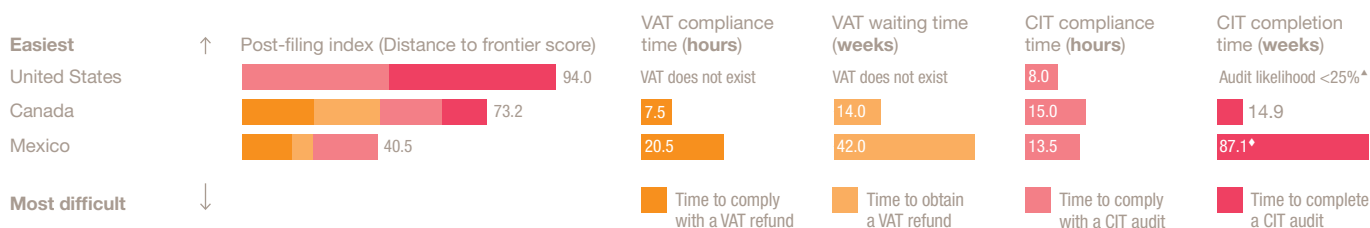
Source: Paying Taxes 2018 data

**Figure 56: Number of payments in North America**



Source: Paying Taxes 2018 data

**Figure 57: Post-filing index (distance to frontier) and components (hours/weeks) in North America**



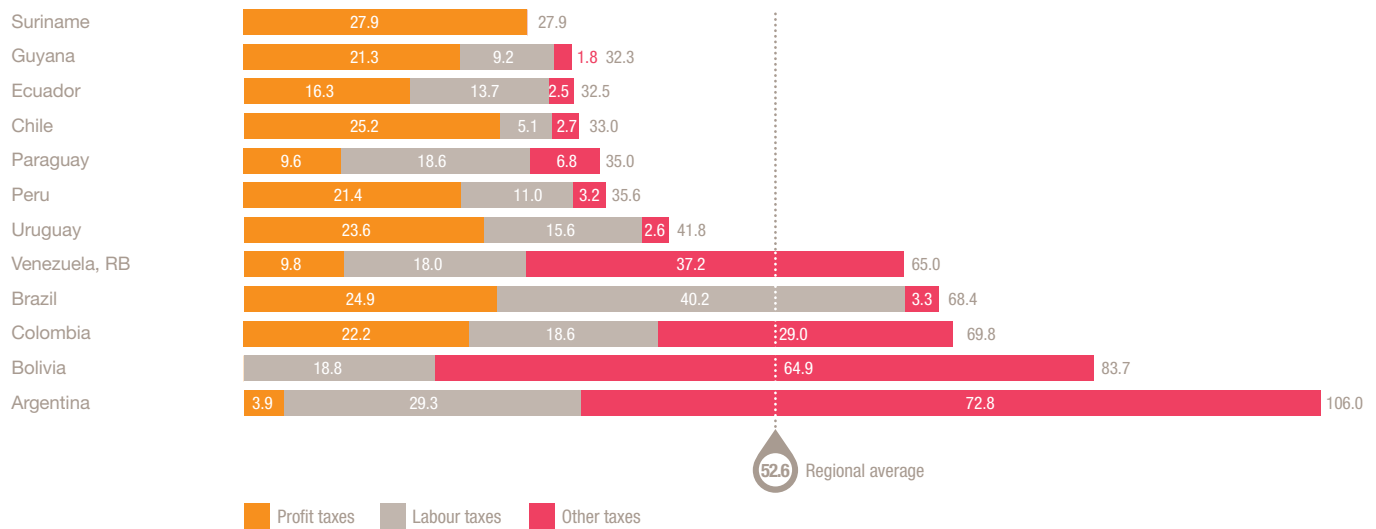
\*Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

\*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.

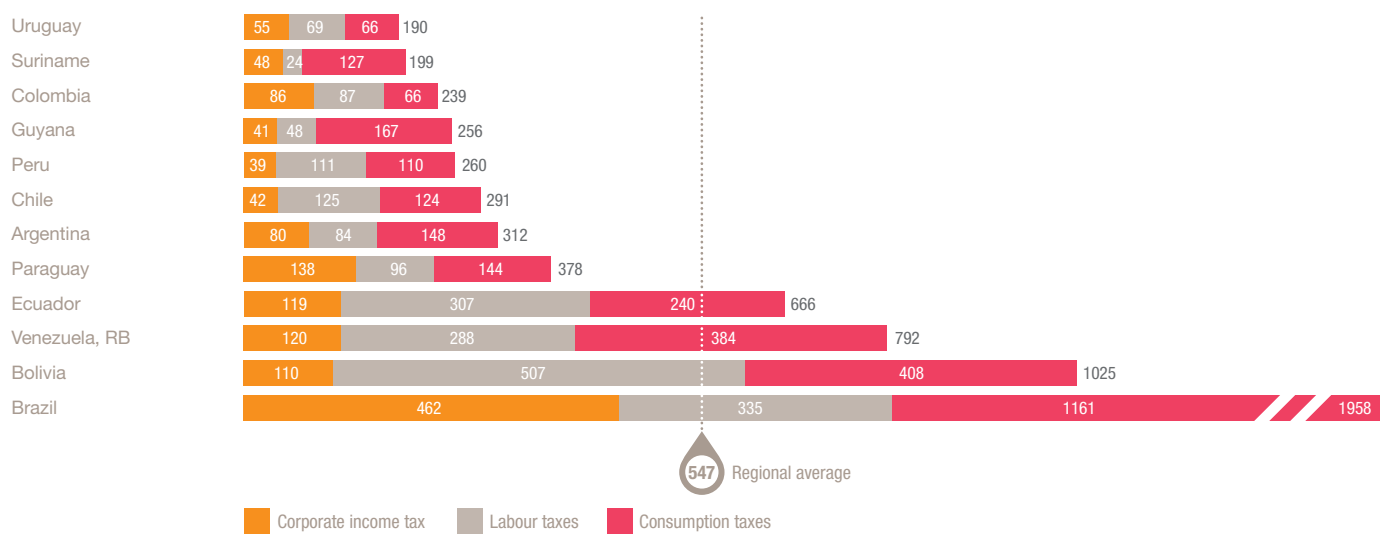
Source: Paying Taxes 2018 data

**Figure 58: Total Tax and Contribution Rate (%) in South America**



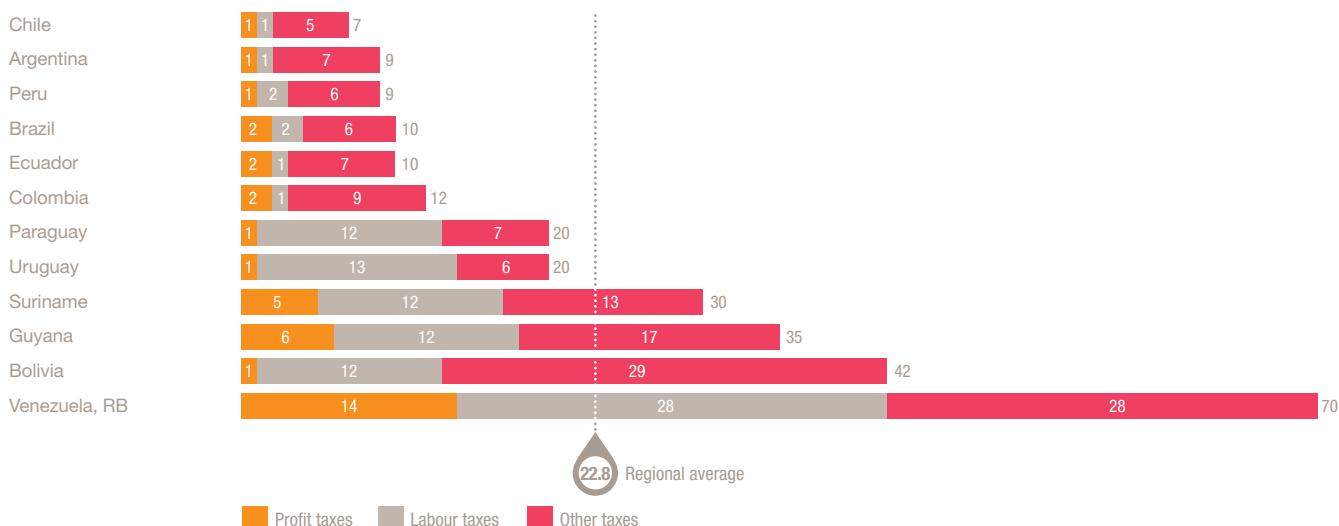
Source: Paying Taxes 2018 data

**Figure 59: Time to comply (hours) in South America**



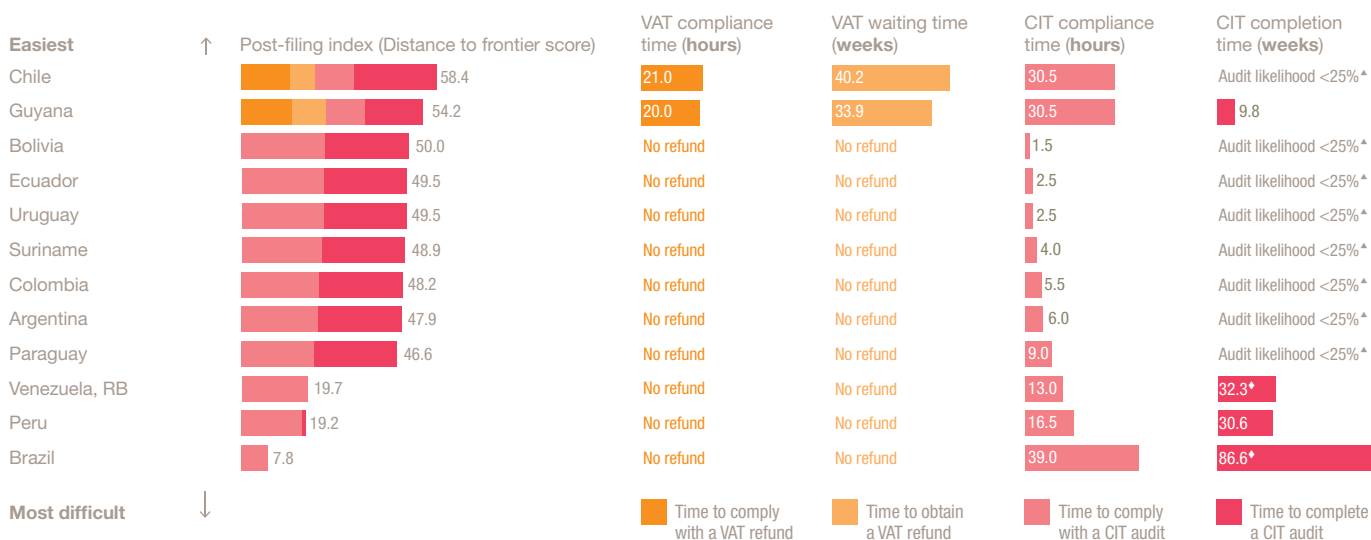
Source: Paying Taxes 2018 data

**Figure 60: Number of payments in South America**



Source: Paying Taxes 2018 data

**Figure 61: Post-filing index (distance to frontier) and components (hours/weeks) in South America**



<sup>\*</sup>Audit likelihood <25% indicates that an audit is unlikely and so the economy receives the best score on this component.

<sup>\*</sup>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.

Source: Paying Taxes 2018 data

# The data tables

## Contents

<i>Table 1: Overall Paying Taxes ranking .....</i>	<i>85</i>
<i>Table 2: Total Tax Rate .....</i>	<i>88</i>
<i>Table 3: Time to comply .....</i>	<i>92</i>
<i>Table 4: Tax payments.....</i>	<i>96</i>
<i>Table 5: Post-filing index .....</i>	<i>100</i>



**Table 1: Overall Paying Taxes ranking**

<b>Economy</b>	<b>Distance to frontier</b>	<b>Rank</b>
Afghanistan	41.97	176
Albania	63.94	125
Algeria	54.11	157
Angola	69.54	103
Antigua and Barbuda	58.69	144
Argentina	49.34	169
Armenia	72.49	87
Australia	85.62	26
Austria	83.34	39
Azerbaijan	84.21	35
Bahamas, The	78.09	55
Bahrain	93.89	5
Bangladesh	56.13	152
Barbados	71.90	89
Belarus	70.81	96
Belgium	77.69	59
Belize	79.90	48
Benin	44.73	174
Bhutan	88.00	17
Bolivia	21.62	186
Bosnia and Herzegovina	60.43	137
Botswana	80.01	47
Brazil	32.97	184
Brunei Darussalam	69.41	104
Bulgaria	71.78	90
Burkina Faso	55.89	153
Burundi	60.34	138
Cabo Verde	75.15	75
Cambodia	61.28	136
Cameroon	36.34	183
Canada	88.05	16
Central African Republic	18.89	187
Chad	17.92	188
Chile	76.17	72
China	62.90	130
Colombia	59.08	142
Comoros	49.86	168
Congo, Dem. Rep.	39.40	181
Congo, Rep.	26.79	185
Costa Rica	77.46	60
Côte d'Ivoire	43.88	175
Croatia	70.90	95
Cyprus	80.59	44
Czech Republic	79.26	53
Denmark	91.22	8
Djibouti	68.91	108
Dominica	74.91	77
Dominican Republic	57.45	149
Ecuador	58.39	145
Egypt, Arab Rep.	50.67	167
El Salvador	77.35	61
Equatorial Guinea	41.54	177
Eritrea	57.50	148
Estonia	89.56	14
Ethiopia	62.14	133
Fiji	66.00	120
Finland	90.14	12
France	78.55	54
Gabon	51.64	165
Gambia, The	49.34	169
Georgia	87.14	22
Germany	82.14	41
Ghana	66.47	116

**Table 1: Overall Paying Taxes ranking**

<b>Economy</b>	<b>Distance to frontier</b>	<b>Rank</b>
Greece	76.97	65
Grenada	59.39	141
Guatemala	70.30	100
Guinea	38.93	182
Guinea-Bissau	54.93	155
Guyana	65.08	123
Haiti	57.55	147
Honduras	51.74	164
Hong Kong SAR, China	98.82	3
Hungary	71.49	93
Iceland	84.54	33
India	66.06	119
Indonesia	68.04	114
Iran, Islamic Rep.	56.57	150
Iraq	63.55	129
Ireland	94.46	4
Israel	70.35	99
Italy	68.29	112
Jamaica	65.67	122
Japan	76.71	68
Jordan	70.75	97
Kazakhstan	79.47	50
Kenya	71.67	92
Kiribati	71.42	94
Korea, Rep.	86.69	24
Kosovo	80.28	45
Kuwait	92.48	6
Kyrgyz Republic	56.55	151
Lao PDR	54.18	156
Latvia	89.79	13
Lebanon	68.21	113
Lesotho	68.68	111
Liberia	76.70	69
Libya	63.61	128
Lithuania	87.81	18
Luxembourg	87.37	21
Macedonia, FYR	84.72	29
Madagascar	62.70	131
Malawi	62.10	134
Malaysia	76.07	73
Maldives	66.08	118
Mali	51.55	166
Malta	76.19	71
Marshall Islands	73.45	83
Mauritania	40.71	179
Mauritius	90.85	10
Mexico	67.01	115
Micronesia, Fed. Sts.	68.78	110
Moldova	84.55	32
Mongolia	77.32	62
Montenegro	76.67	70
Morocco	85.72	25
Mozambique	66.13	117
Myanmar	63.94	125
Namibia	74.52	79
Nepal	58.01	146
Netherlands	87.59	20
New Zealand	91.08	9
Nicaragua	52.86	159
Niger	52.49	160
Nigeria	48.44	171
Norway	85.18	28
Oman	90.60	11

**Table 1: Overall Paying Taxes ranking**

Economy	Distance to frontier	Rank
Pakistan	46.43	172
Palau	69.22	107
Panama	39.66	180
Papua New Guinea	71.71	91
Paraguay	63.73	127
Peru	65.81	121
Philippines	69.27	105
Poland	79.42	51
Portugal	83.75	38
Puerto Rico (U.S.)	52.42	161
Qatar	99.44	1
Romania	80.86	42
Russian Federation	79.29	52
Rwanda	84.60	31
Samoa	77.04	64
San Marino	82.32	40
São Tomé and Príncipe	61.81	135
Saudi Arabia	75.00	76
Senegal	40.79	178
Serbia	73.63	82
Seychelles	84.72	29
Sierra Leone	72.86	85
Singapore	91.58	7
Slovak Republic	79.88	49
Slovenia	77.78	58
Solomon Islands	83.81	37
South Africa	80.02	46
South Sudan	76.75	66
Spain	84.44	34
Sri Lanka	53.70	158
St. Kitts and Nevis	64.41	124
St. Lucia	75.73	74
St. Vincent and the Grenadines	70.26	101
Sudan	51.80	163
Suriname	69.55	102
Swaziland	77.27	63
Sweden	85.28	27
Switzerland	87.66	19
Syrian Arab Republic	73.97	81
Taiwan, China	77.96	56
Tajikistan	62.27	132
Tanzania	55.49	154
Thailand	76.73	67
Timor-Leste	60.32	139
Togo	44.99	173
Tonga	70.56	98
Trinidad and Tobago	52.22	162
Tunisia	60.14	140
Turkey	72.40	88
Uganda	73.10	84
Ukraine	80.77	43
United Arab Emirates	99.44	1
United Kingdom	86.70	23
United States	84.13	36
Uruguay	69.26	106
Uzbekistan	74.78	78
Vanuatu	77.85	57
Venezuela, RB	15.18	189
Vietnam	72.77	86
West Bank and Gaza	68.84	109
Yemen, Rep.	74.13	80
Zambia	88.71	15
Zimbabwe	58.83	143

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

**Table 2: Total Tax and Contribution Rate**

<b>Economy</b>	<b>Total Tax and Contribution Rate</b>	<b>Profit tax TTCR</b>	<b>Labour tax TTCR</b>	<b>Other taxes TTCR</b>
Afghanistan	71.4	0.0	0.0	71.4
Albania	37.3	14.0	18.8	4.5
Algeria	65.6	8.3	30.6	26.7
Angola	49.1	21.5	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	47.5	26.0	21.1	0.4
Austria	51.8	17.0	34.2	0.6
Azerbaijan	39.8	13.0	24.8	2.0
Bahamas, The	31.5	0.0	6.3	25.2
Bahrain	13.8	0.0	13.5	0.3
Bangladesh	33.4	31.1	0.0	2.3
Bangladesh Dhaka	33.4	31.1	0.0	2.3
Bangladesh Chittagong	33.4	31.1	0.0	2.3
Barbados	35.3	20.0	12.2	3.1
Belarus	52.9	10.8	39.0	3.1
Belgium	57.1	10.3	46.2	0.6
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	23.7	8.4	13.5	1.8
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	8.0	0.1	7.9	0.0
Bulgaria	27.1	5.0	20.2	1.9
Burkina Faso	41.3	16.2	21.4	3.7
Burundi	41.5	28.4	10.2	2.9
Cabo Verde	36.6	18.6	17.6	0.4
Cambodia	21.7	19.4	0.5	1.8
Cameroon	57.7	38.9	18.3	0.5
Canada	20.9	3.8	12.9	4.2
Central African Republic	73.3	0.0	19.8	53.5
Chad	63.5	31.3	28.4	3.8
Chile	33.0	25.2	5.1	2.7
China	67.3	11.1	48.1	8.1
China Shanghai	67.1	11.1	47.6	8.4
China Beijing	67.6	11.0	48.7	7.9
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	50.1	8.8	23.3	18.0
Croatia	20.6	0.0	19.4	1.2
Cyprus	22.7	8.1	13.4	1.2
Czech Republic	50.0	9.1	38.4	2.5
Denmark	24.2	17.7	3.8	2.7
Djibouti	37.7	17.7	17.7	2.3
Dominica	35.2	24.4	7.9	2.9
Dominican Republic	48.8	29.1	18.6	1.1
Ecuador	32.5	16.3	13.7	2.5
Egypt, Arab Rep.	45.3	13.6	27.3	4.4
El Salvador	35.5	16.9	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	33.0	20.2	12.7	0.1

**Table 2: Total Tax and Contribution Rate**

<b>Economy</b>	<b>Total Tax and Contribution Rate</b>	<b>Profit tax TTCR</b>	<b>Labour tax TTCR</b>	<b>Other taxes TTCR</b>
Finland	38.4	11.7	25.4	1.3
France	62.2	0.7	51.1	10.4
Gabon	46.8	20.5	24.9	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	21.4	4.3
Ghana	33.2	18.5	14.7	0.0
Greece	51.7	23.0	28.0	0.7
Grenada	48.4	26.3	5.6	16.5
Guatemala	35.2	20.2	14.3	0.7
Guinea	61.4	0.0	28.6	32.8
Guinea-Bissau	45.5	15.1	24.8	5.6
Guyana	32.3	21.3	9.2	1.8
Haiti	42.8	22.7	12.4	7.7
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	29.7	9.0	17.8	2.9
India	55.3	23.5	20.4	11.4
India Mumbai	55.3	23.5	20.5	11.3
India Delhi	55.3	23.5	20.4	11.4
Indonesia	30.0	16.6	11.5	1.9
Indonesia Jakarta	30.0	16.6	11.5	1.9
Indonesia Surabaya	30.0	16.6	11.5	1.9
Iran, Islamic Rep.	44.7	18.4	25.9	0.4
Iraq	30.8	15.0	13.5	2.3
Ireland	26.0	12.4	12.2	1.4
Israel	27.0	19.6	5.9	1.5
Italy	48.0	23.3	23.2	1.5
Jamaica	33.1	14.0	13.4	5.7
Japan	47.4	24.6	18.5	4.3
Japan Tokyo	47.4	24.6	18.5	4.3
Japan Osaka	47.5	24.6	18.6	4.3
Jordan	28.1	10.6	15.5	2.0
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	13.5	1.4
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	45.5	35.4	5.4	4.7
Libya	32.6	22.1	10.3	0.2
Lithuania	42.7	5.9	35.2	1.6
Luxembourg	20.5	4.2	15.5	0.8
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	39.2	21.8	16.4	1.0
Maldives	30.2	13.1	7.9	9.2
Mali	48.3	10.1	34.3	3.9
Malta	43.9	32.3	11.1	0.5
Marshall Islands	64.8	0.0	11.8	53.0
Mauritania	71.3	0.0	23.2	48.1
Mauritius	21.9	10.4	7.9	3.6
Mexico	52.1	25.5	25.6	1.0
Mexico Mexico city	52.1	25.5	25.6	1.0
Mexico Monterrey	52.1	25.5	25.6	1.0



**Table 2: Total Tax and Contribution Rate**

<b>Economy</b>	<b>Total Tax and Contribution Rate</b>	<b>Profit tax TTCR</b>	<b>Labour tax TTCR</b>	<b>Other taxes TTCR</b>
Micronesia, Fed. Sts.	60.5	0.0	8.5	52.0
Moldova	40.5	8.9	31.3	0.3
Mongolia	24.7	10.3	12.4	2.0
Montenegro	22.1	8.2	13.4	0.5
Morocco	49.8	25.1	23.3	1.4
Mozambique	36.1	30.8	4.5	0.8
Myanmar	31.2	26.8	0.3	4.1
Namibia	20.7	16.7	1.9	2.1
Nepal	29.6	17.7	11.3	0.6
Netherlands	40.7	20.5	19.8	0.4
New Zealand	34.5	29.9	2.8	1.8
Nicaragua	60.2	17.5	23.1	19.6
Niger	47.3	21.5	21.7	4.1
Nigeria	34.8	21.0	13.5	0.3
Nigeria Lagos	34.8	21.0	13.5	0.3
Nigeria Kano	34.8	21.0	13.5	0.3
Norway	37.5	21.6	15.9	0.0
Oman	23.9	10.8	13.0	0.1
Pakistan	33.8	18.3	14.5	1.0
Pakistan Karachi	33.8	18.3	14.5	1.0
Pakistan Lahore	33.8	18.3	14.5	1.0
Palau	75.5	65.8	9.6	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	40.5	14.5	25.0	1.0
Portugal	39.8	12.5	26.8	0.5
Puerto Rico (U.S.)	63.4	29.8	13.4	20.2
Qatar	11.3	0.0	11.3	0.0
Romania	38.4	11.6	25.8	1.0
Russian Federation	47.5	8.8	36.3	2.4
Russian Federation Moscow	47.6	8.8	36.3	2.5
Russian Federation Saint Petersburg	47.3	8.8	36.3	2.2
Rwanda	33.2	25.7	5.9	1.6
Samoa	19.3	10.9	8.4	0.0
San Marino	35.4	5.1	30.0	0.3
São Tomé and Príncipe	37.0	19.4	6.8	10.8
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	20.3	1.5	17.8	1.0
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	28.9	21.7	4.0	3.2
South Sudan	31.4	9.2	19.2	3.0
Spain	46.9	10.6	35.6	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	35.2	25.4	5.7	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	34.3	12.5	18.3	3.5



**Table 2: Total Tax and Contribution Rate**

<b>Economy</b>	<b>Total Tax and Contribution Rate</b>	<b>Profit tax TTCR</b>	<b>Labour tax TTCR</b>	<b>Other taxes TTCR</b>
Tajikistan	65.2	17.7	28.5	19.0
Tanzania	44.1	20.7	17.8	5.6
Thailand	28.7	22.6	5.4	0.7
Timor-Leste	11.2	11.2	0.0	0.0
Togo	48.5	10.7	23.1	14.7
Tonga	27.5	21.2	5.6	0.7
Trinidad and Tobago	36.2	21.5	9.4	5.3
Tunisia	64.1	17.0	25.3	21.8
Turkey	41.1	18.2	19.9	3.0
Uganda	33.7	22.3	11.3	0.1
Ukraine	37.8	11.9	24.8	1.1
United Arab Emirates	15.9	0.0	14.1	1.8
United Kingdom	30.7	18.1	10.9	1.7
United States	43.8	27.9	9.8	6.1
United States Los Angeles	40.9	29.3	9.5	2.1
United States New York	45.8	27.1	10.0	8.7
Uruguay	41.8	23.6	15.6	2.6
Uzbekistan	38.3	11.5	24.9	1.9
Vanuatu	8.5	0.0	4.5	4.0
Venezuela, RB	65.0	9.8	18.0	37.2
Vietnam	38.1	13.1	24.8	0.2
West Bank and Gaza	15.3	15.0	0.0	0.3
Yemen, Rep.	26.6	13.8	11.3	1.5
Zambia	15.6	2.0	10.4	3.2
Zimbabwe	31.6	17.6	5.6	8.4

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

**Table 3: Time to comply**

<b>Economy</b>	<b>Total tax time</b>	<b>Corporate income tax time</b>	<b>Labour tax time</b>	<b>Consumption tax time</b>
Afghanistan	275	77	120	78
Albania	261	105	66	90
Algeria	265	122	76	67
Angola	287	80	125	82
Antigua and Barbuda	192	23	121	48
Argentina	312	80	84	148
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	29	0	29	0
Bangladesh	435	144	120	171
Bangladesh Dhaka	435	144	120	171
Bangladesh Chittagong	435	144	120	171
Barbados	245	27	162	56
Belarus	184	78	59	47
Belgium	136	21	40	75
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	120	28	38	54
Brazil	1958	462	335	1161
Brazil São Paulo	1958	462	335	1161
Brazil Rio de Janeiro	1958	462	335	1161
Brunei Darussalam	64	43	21	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	624	168	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	207	52	91	64
China Shanghai	207	52	91	64
China Beijing	207	52	91	64
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	248	53	87	108
Denmark	130	25	65	40
Djibouti	76	24	36	16
Dominica	117	15	48	54
Dominican Republic	317	74	80	163
Ecuador	666	119	307	240
Egypt, Arab Rep.	392	69	165	158
El Salvador	180	60	44	76
Equatorial Guinea	492	145	160	187
Eritrea	216	24	96	96
Estonia	50	5	31	14
Ethiopia	306	120	114	72

**Table 3: Time to comply**

<b>Economy</b>	<b>Total tax time</b>	<b>Corporate income tax time</b>	<b>Labour tax time</b>	<b>Consumption tax time</b>
Fiji	247	49	101	97
Finland	93	21	48	24
France	139	28	80	31
Gabon	488	137	131	220
Gambia, The	326	40	96	190
Georgia	269	119	56	94
Germany	218	41	134	43
Ghana	224	40	88	96
Greece	193	78	46	69
Grenada	140	32	72	36
Guatemala	248	23	126	99
Guinea	400	32	172	196
Guinea-Bissau	218	140	45	33
Guyana	256	41	48	167
Haiti	184	40	72	72
Honduras	224	35	93	96
Hong Kong SAR, China	72	48	24	0
Hungary	277	35	146	96
Iceland	140	40	60	40
India	214	25	84	105
India Mumbai	214	25	84	105
India Delhi	214	25	84	105
Indonesia	208	74	56	78
Indonesia Jakarta	208	74	56	78
Indonesia Surabaya	208	74	56	78
Iran, Islamic Rep.	344	32	240	72
Iraq	312	24	288	0
Ireland	82	12	40	30
Israel	235	110	60	65
Italy	238	39	169	30
Jamaica	268	42	168	58
Japan	151	38	92	21
Japan Tokyo	151	38	92	21
Japan Osaka	151	38	92	21
Jordan	129	9	75	45
Kazakhstan	178	55	70	53
Kenya	186	42	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	333	77	106	150
Liberia	140	57	53	30
Libya	889	679	210	0
Lithuania	109	18	34	57
Luxembourg	55	19	14	22
Macedonia, FYR	119	19	56	44
Madagascar	183	9	72	102
Malawi	178	67	78	33
Malaysia	188	26	50	112
Maldives	391	95	88	208
Mali	270	30	120	120
Malta	139	23	92	24
Marshall Islands	120	32	88	0
Mauritania	270	44	94	132
Mauritius	152	36	48	68
Mexico	241	102	39	100

**Table 3: Time to comply**

<b>Economy</b>	<b>Total tax time</b>	<b>Corporate income tax time</b>	<b>Labour tax time</b>	<b>Consumption tax time</b>
Mexico Mexico city	241	102	39	100
Mexico Monterrey	241	102	39	100
Micronesia, Fed. Sts.	128	32	96	0
Moldova	181	42	84	55
Mongolia	134	46	48	40
Montenegro	300	43	93	164
Morocco	155	48	33	74
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	140	34	59	47
Nicaragua	201	63	76	62
Niger	270	30	120	120
Nigeria	360	78	155	127
Nigeria Lagos	366	78	156	132
Nigeria Kano	342	78	150	114
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	52	24	28	0
Panama	417	83	144	190
Papua New Guinea	199	143	8	48
Paraguay	378	138	96	144
Peru	260	39	111	110
Philippines	182	38	36	108
Poland	260	59	103	98
Portugal	243	63	90	90
Puerto Rico (U.S.)	218	80	60	78
Qatar	41	5	36	0
Romania	163	25	82	56
Russian Federation	168	53	76	39
Russian Federation Moscow	168	53	76	39
Russian Federation Saint Petersburg	168	53	76	39
Rwanda	95	19	29	47
Samoa	224	48	96	80
San Marino	52	4	48	0
São Tomé and Príncipe	424	40	192	192
Saudi Arabia	47	31	16	0
Senegal	441	98	88	255
Serbia	226	38	103	85
Seychelles	85	37	36	12
Sierra Leone	343	16	157	170
Singapore	64	24	10	30
Slovak Republic	192	46	62	84
Slovenia	245	86	90	69
Solomon Islands	80	8	30	42
South Africa	210	96	52	62
South Sudan	210	54	78	78
Spain	152	33	84	35
Sri Lanka	168	16	16	136
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

**Table 3: Time to comply**

<b>Economy</b>	<b>Total tax time</b>	<b>Corporate income tax time</b>	<b>Labour tax time</b>	<b>Consumption tax time</b>
Switzerland	63	15	40	8
Syrian Arab Republic	336	300	36	0
Taiwan, China	221	161	27	33
Tajikistan	224	74	48	102
Tanzania	207	62	78	67
Thailand	262	156	48	58
Timor-Leste	276	132	144	0
Togo	216	24	96	96
Tonga	200	8	48	144
Trinidad and Tobago	210	45	75	90
Tunisia	145	65	30	50
Turkey	216	45	80	91
Uganda	195	39	66	90
Ukraine	328	37	92	199
United Arab Emirates	12	0	12	0
United Kingdom	110	37	48	25
United States	175	87	55	33
United States Los Angeles	175	87	55	33
United States New York	175	87	55	33
Uruguay	190	55	69	66
Uzbekistan	181	64	66	51
Vanuatu	120	0	24	96
Venezuela, RB	792	120	288	384
Vietnam	498	132	147	219
West Bank and Gaza	162	18	96	48
Yemen, Rep.	248	56	72	120
Zambia	164	44	54	66
Zimbabwe	242	78	96	68

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

**Table 4: Tax Payments**

Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Afghanistan	19	1	12	6
Albania	35	5	12	18
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	14	0	12	2
Bangladesh	33	5	12	16
Bangladesh Dhaka	33	5	12	16
Bangladesh Chittagong	33	5	12	16
Barbados	29	3	14	12
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	33	12	1	20
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	15	1	11	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	35	1	1	33
Cyprus	28	2	12	14
Czech Republic	8	1	2	5
Denmark	10	3	1	6
Djibouti	35	4	12	19
Dominica	37	5	12	20
Dominican Republic	7	1	2	4
Ecuador	10	2	1	7
Egypt, Arab Rep.	29	1	12	16
El Salvador	7	1	1	5
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 4: Tax Payments

Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Finland	8	1	3	4
France	9	1	2	6
Gabon	26	3	4	19
Gambia, The	49	5	13	31
Georgia	5	1	1	3
Germany	9	2	1	6
Ghana	31	5	12	14
Greece	8	1	1	6
Grenada	42	13	12	17
Guatemala	8	2	1	5
Guinea	33	3	12	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	13	1	4	8
India Mumbai	13	1	4	8
India Delhi	13	1	4	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	15	1	12	2
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	26	2	14	10
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	8	2	2	4
Maldives	17	1	12	4
Mali	35	4	24	7
Malta	8	2	1	5
Marshall Islands	9	0	4	5
Mauritania	33	1	9	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 4: Tax 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	43	1	24	18
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	20	1	9	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	8	1	1	6
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	9	1	1	7
Sri Lanka	47	5	13	29
St. Kitts and Nevis	39	5	12	22
St. Lucia	35	4	12	19
St. Vincent and the Grenadines	36	4	12	20
Sudan	42	2	12	28
Suriname	30	5	12	13
Swaziland	33	2	13	18
Sweden	6	1	1	4
Switzerland	19	2	7	10
Syrian Arab Republic	20	2	12	6
Taiwan, China	11	2	3	6

**Table 4: Tax Payments**

Economy	Total tax payments	Profit tax payments	Labour tax payments	Other taxes payments
Tajikistan	6	1	1	4
Tanzania	60	5	36	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	9	2	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 Los Angeles	10	3	3	4
United States New York	11	2	4	5
Uruguay	20	1	13	6
Uzbekistan	10	2	3	5
Vanuatu	31	0	12	19
Venezuela, RB	70	14	28	28
Vietnam	14	6	1	7
West Bank and Gaza	28	3	12	13
Yemen, Rep.	44	1	24	19
Zambia	11	1	2	8
Zimbabwe	51	5	16	30

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

Table 5: Post-filing index

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	0.00	VAT does not exist	VAT does not exist	207.5*	37.7*
Albania	57.61	14.0	37.0	18.0	14.7
Algeria	49.77	No refund	No refund	2.0	Audit likelihood <25%
Angola	94.95	VAT does not exist	VAT does not exist	7.0	Audit likelihood <25%
Antigua and Barbuda	69.40	12.0	52.7	3.0	Audit likelihood <25%
Argentina	47.94	No refund	No refund	6.0	Audit likelihood <25%
Armenia	49.08	No refund	No refund	3.5	Audit likelihood <25%
Australia	95.34	4.5	8.0	1.8	Audit likelihood <25%
Austria	98.54	2.0	3.2	2.5	Audit likelihood <25%
Azerbaijan	83.79	7.5	27.6	3.0	Audit likelihood <25%
Bahamas, The	95.00	5.0	2.2*	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	44.36	58.0*	17.9	37.0	9.3
Bangladesh Dhaka	44.38	58.0*	18.0	37.0	9.3
Bangladesh Chittagong	44.31	58.0*	17.9	37.0	9.3
Barbados	74.08	0.0	56.3*	3.5	Audit likelihood <25%
Belarus	50.00	No refund	No refund	1.0*	Audit likelihood <25%
Belgium	83.45	5.0	28.5	5.5	Audit likelihood <25%
Belize	85.09	5.0	18.5	4.0	5.0
Benin	49.31	No refund	No refund	3.0	Audit likelihood <25%
Bhutan	95.50	VAT does not exist	VAT does not exist	3.0	2.0
Bolivia	50.00	No refund	No refund	1.5	Audit likelihood <25%
Bosnia and Herzegovina	47.68	40.0	19.0	30.0	14.9
Botswana	82.70	10.0	26.3	4.0	Audit likelihood <25%
Brazil	7.80	No refund	No refund	39.0	86.6*
Brazil São Paulo	7.80	No refund	No refund	39.0	86.6*
Brazil Rio de Janeiro	7.80	No refund	No refund	39.0	86.6*
Brunei Darussalam	0.00	VAT does not exist	VAT does not exist	137.0*	65.4*
Bulgaria	69.30	15.0	27.4	12.5	8.3
Burkina Faso	49.31	No refund	No refund	3.0	Audit likelihood <25%
Burundi	28.21	No refund	No refund	13.0	21.1
Cabo Verde	80.65	6.0	35.2	3.5	Audit likelihood <25%
Cambodia	25.97	21.0	63.9*	31.0	39.4*
Cameroon	49.31	No refund	No refund	3.0	Audit likelihood <25%
Canada	73.23	7.5	14.0	15.0	14.9
Central African Republic	5.13	No refund	No refund	66.0*	25.4
Chad	13.07	No refund	No refund	46.0	21.1
Chile	58.36	21.0	40.2	30.5	Audit likelihood <25%
China	49.08	No refund	No refund	3.5	Audit likelihood <25%
China Shanghai	49.08	No refund	No refund	3.5	Audit likelihood <25%
China Beijing	49.08	No refund	No refund	3.5	Audit likelihood <25%
Colombia	48.17	No refund	No refund	5.5	Audit likelihood <25%
Comoros	57.33	VAT does not exist	VAT does not exist	12.0	21.1
Congo, Dem. Rep.	27.08	No refund	No refund	23.0	16.7
Congo, Rep.	12.29	No refund	No refund	36.5	27.7
Costa Rica	85.06	5.5	27.5	2.5	Audit likelihood <25%
Côte d'Ivoire	44.50	No refund	No refund	13.5	Audit likelihood <25%
Croatia	61.20	0.0	6.2	36.5	27.3
Cyprus	76.07	11.5	39.5	3.0	Audit likelihood <25%
Czech Republic	90.75	4.0	17.7	2.0	Audit likelihood <25%

\* VAT does not exist for the case study purchase – not scored.

\*\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the time to complete a CIT audit.

\* Audit likelihood <25% 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 5: Post-filing index

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)
Denmark	89.06	8.0	10.1	4.5	2.9**
Djibouti	49.57	6.0	50.0	15.0	23.9
Dominica	79.66	13.0	31.9	1.5	Audit likelihood <25%
Dominican Republic	10.71	No refund	No refund	59.5*	18.3
Ecuador	49.54	No refund	No refund	2.5	Audit likelihood <25%
Egypt, Arab Rep.	26.62	No refund	No refund	24.0	16.7
El Salvador	49.54	No refund	No refund	2.5	Audit likelihood <25%
Equatorial Guinea	93.12	VAT does not exist	VAT does not exist	9.0	Audit likelihood <25%
Eritrea	99.54	VAT does not exist	VAT does not exist	2.0	Audit likelihood <25%
Estonia	99.38	1.3	2.3*	1.5	Audit likelihood <25%
Ethiopia	50.89	50.0	47.0	8.0	Audit likelihood <25%
Fiji	62.62	77.0*	18.9	12.0	Audit likelihood <25%
Finland	93.09	5.0	6.2	8.0	Audit likelihood <25%
France	92.40	10.5	6.2	3.5	Audit likelihood <25%
Gabon	42.47	14.5	44.2	13.5	46.6*
Gambia, The	53.46	38.5	90.0*	6.5	Audit likelihood <25%
Georgia	85.89	21.5	10.2	1.0*	Audit likelihood <25%
Germany	97.67	0.0	5.2	4.5	Audit likelihood <25%
Ghana	49.54	No refund	No refund	2.5	Audit likelihood <25%
Greece	75.70	19.5	31.5	3.5	Audit likelihood <25%
Grenada	48.85	No refund	No refund	4.0	Audit likelihood <25%
Guatemala	33.04	No refund	No refund	15.0	13.8
Guinea	12.77	No refund	No refund	43.0	23.3
Guinea-Bissau	45.34	No refund	No refund	8.5	1.9
Guyana	54.24	20.0	33.9	30.5	9.8
Haiti	48.17	No refund	No refund	5.5	Audit likelihood <25%
Honduras	35.14	33.0	54.5	17.0	21.1
Hong Kong SAR, China	98.85	VAT does not exist	VAT does not exist	2.8	Audit likelihood <25%
Hungary	63.94	15.0	15.2	12.0	23.0
Iceland	87.20	3.0	24.5	3.8	Audit likelihood <25%
India	49.31	No refund	No refund	3.0	Audit likelihood <25%
India Mumbai	49.31	No refund	No refund	3.0	Audit likelihood <25%
India Delhi	49.31	No refund	No refund	3.0	Audit likelihood <25%
Indonesia	68.82	18.0	47.7	3.0	Audit likelihood <25%
Indonesia Jakarta	68.82	18.0	47.7	3.0	Audit likelihood <25%
Indonesia Surabaya	68.82	18.0	47.7	3.0	Audit likelihood <25%
Iran, Islamic Rep.	26.88	17.0	33.5	96.0*	81.9*
Iraq	21.43	VAT does not exist	VAT does not exist	83.0*	18.3
Ireland	92.93	1.0	16.3	2.0	Audit likelihood <25%
Israel	61.36	34.0	40.0	10.0	Audit likelihood <25%
Italy	52.39	42.0	62.6*	5.0	Audit likelihood <25%
Jamaica	19.68	40.0	89.5*	24.0	113.3*
Japan	71.69	1.0	10.8	23.0	18.3
Japan Tokyo	71.69	1.0	10.8	23.0	18.3
Japan Osaka	71.69	1.0	10.8	23.0	18.3
Jordan	34.69	23.0	52.9	12.0	62.7*
Kazakhstan	48.85	No refund	No refund	4.0	Audit likelihood <25%
Kenya	62.03	VAT does not exist	VAT does not exist	20.5	13.1
Kiribati	26.68	88.0*	34.6	83.0*	10.4
Korea, Rep.	93.04	0.0	10.5	9.0	Audit likelihood <25%

\* VAT does not exist for the case study purchase – not scored.

\*\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the time to complete a CIT audit.

^ Audit likelihood <25% 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 5: Post-filing index

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)
Kosovo	49.16	35.5	33.8	21.5	11.7
Kuwait	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Kyrgyz Republic	37.38	No refund	No refund	20.0	5.3
Lao PDR	18.57	No refund	No refund	16.0	31.7
Latvia	98.11	0.0	6.2	2.5	Audit likelihood <25%
Lebanon	27.48	47.0	43.6	23.0	25.1
Lesotho	66.94	11.5	41.7	11.0	5.6
Liberia	98.62	VAT does not exist	VAT does not exist	3.0	Audit likelihood <25%
Libya	90.16	VAT does not exist	VAT does not exist	11.5	0.4**
Lithuania	97.52	2.1	6.2	1.5	Audit likelihood <25%
Luxembourg	83.75	11.5	15.2	4.5	4.3**
Macedonia, FYR	56.36	10.0	36.7	21.5	17.0
Madagascar	21.84	No refund	No refund	13.5	29.0
Malawi	33.41	33.0	44.3	20.0	27.9
Malaysia	52.65	22.0	17.5	11.3	33.5*
Maldives	46.10	No refund	No refund	10.0	Audit likelihood <25%
Mali	25.71	No refund	No refund	7.0	27.9
Malta	52.51	0.0	27.9	24.5	46.3*
Marshall Islands	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Mauritania	17.20	No refund	No refund	18.5	35.9*
Mauritius	87.65	7.0	19.2	4.0	Audit likelihood <25%
Mexico	40.51	20.5	42.0	13.5	87.1*
Mexico Mexico city	40.51	20.5	42.0	13.5	87.1*
Mexico Monterrey	40.51	20.5	42.0	13.5	87.1*
Micronesia, Fed. Sts.	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Moldova	90.79	7.8	13.3	2.5	Audit likelihood <25%
Mongolia	49.08	No refund	No refund	3.5	Audit likelihood <25%
Montenegro	70.49	4.0	21.9	9.5	19.0
Morocco	98.62	VAT does not exist	VAT does not exist	3.0	Audit likelihood <25%
Mozambique	58.56	28.0	19.4	28.0	9.6
Myanmar	45.54	No refund	No refund	10.0	0.7**
Namibia	77.17	30.0	17.0	4.0	Audit likelihood <25%
Nepal	33.35	145.0*	37.3	26.0	17.9
Netherlands	91.95	0.0	14.5	3.5	2.1**
New Zealand	96.90	2.0	5.2	4.0	Audit likelihood <25%
Nicaragua	52.55	54.0*	42.6	9.0	Audit likelihood <25%
Niger	38.02	46.0	33.5	41.5	7.7
Nigeria	47.48	No refund	No refund	7.0	Audit likelihood <25%
Nigeria Lagos	47.48	No refund	No refund	7.0	Audit likelihood <25%
Nigeria Kano	47.48	No refund	No refund	7.0	Audit likelihood <25%
Norway	63.69	9.0	12.0	12.0	29.1
Oman	85.32	VAT does not exist	VAT does not exist	17.5	Audit likelihood <25%
Pakistan	10.49	84.0*	79.0*	69.0*	18.6
Pakistan Karachi	10.49	84.0*	79.0*	69.0*	18.6
Pakistan Lahore	10.49	84.0*	79.0*	69.0*	18.6
Palau	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Panama	12.84	No refund	No refund	28.0	99.3*
Papua New Guinea	77.12	3.0	44.2	5.0	Audit likelihood <25%
Paraguay	46.56	No refund	No refund	9.0	Audit likelihood <25%
Peru	19.24	No refund	No refund	16.5	30.6

\* VAT does not exist for the case study purchase – not scored.

\*\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the time to complete a CIT audit.

\* Audit likelihood <25% 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 5: Post-filing index

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)
Philippines	50.00	No refund	No refund	1.5	Audit likelihood <25%
Poland	77.36	8.0	8.2	6.0	18.1
Portugal	92.71	4.0	14.2	1.0*	Audit likelihood <25%
Puerto Rico (U.S.)	13.76	VAT does not exist	VAT does not exist	41.0	104.9*
Qatar	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
Romania	76.82	22.5	27.5	2.0	Audit likelihood <25%
Russian Federation	73.14	7.2	19.8	7.5	16.0
Russian Federation Moscow	73.14	7.2	19.8	7.5	16.0
Russian Federation Saint Petersburg	73.14	7.2	19.8	7.5	16.0
Rwanda	63.68	9.0	41.2	19.0	7.0
Samoa	91.88	1.0	12.3	8.5	Audit likelihood <25%
San Marino	67.80	VAT does not exist	VAT does not exist	13.0	13.9
São Tomé and Príncipe	92.20	VAT does not exist	VAT does not exist	10.0	Audit likelihood <25%
Saudi Arabia	0.00	VAT does not exist	VAT does not exist	70.5*	33.6*
Senegal	42.67	34.0	16.9	21.5	31.4
Serbia	91.09	4.0	14.7	4.5	Audit likelihood <25%
Seychelles	93.42	0.0	16.8	1.5	Audit likelihood <25%
Sierra Leone	95.41	VAT does not exist	VAT does not exist	6.5	Audit likelihood <25%
Singapore	71.97	4.5	21.1	17.0	12.9
Slovak Republic	87.17	5.0	24.1	2.0	Audit likelihood <25%
Slovenia	59.94	3.0	5.2	29.0	53.0*
Solomon Islands	100.00	VAT does not exist	VAT does not exist	1.5	Audit likelihood <25%
South Africa	55.45	8.5	26.6	11.0	31.6
South Sudan	95.87	VAT does not exist	VAT does not exist	6.0	Audit likelihood <25%
Spain	93.60	0.0	16.5	1.5	Audit likelihood <25%
Sri Lanka	49.31	No refund	No refund	3.0	Audit likelihood <25%
St. Kitts and Nevis	75.73	10.0	42.6	2.0	Audit likelihood <25%
St. Lucia	77.80	8.3	25.6	2.5	8.7
St. Vincent and the Grenadines	63.89	12.0	30.6	22.5	9.3
Sudan	20.20	No refund	No refund	60.0*	6.1
Suriname	48.85	No refund	No refund	4.0	Audit likelihood <25%
Swaziland	83.15	16.0	19.2	4.0	Audit likelihood <25%
Sweden	90.75	10.5	8.2	5.0	Audit likelihood <25%
Switzerland	83.21	1.5	14.5	9.5	8.9
Syrian Arab Republic	92.20	VAT does not exist	VAT does not exist	10.0	Audit likelihood <25%
Taiwan, China	63.17	4.5	12.3	31.5	21.0
Tajikistan	40.40	No refund	No refund	10.5	7.0
Tanzania	67.17	24.0	43.0	5.0	Audit likelihood <25%
Thailand	73.41	16.0	33.2	10.5	Audit likelihood <25%
Timor-Leste	1.38	VAT does not exist	VAT does not exist	54.5	64.6*
Togo	14.85	No refund	No refund	37.0	24.1
Tonga	52.53	42.0	33.0	14.0	8.1
Trinidad and Tobago	8.00	77.0*	40.3	54.0	32.3*
Tunisia	22.91	45.0	62.2*	11.5	75.4*
Turkey	50.00	No refund	No refund	1.5	Audit likelihood <25%
Uganda	72.28	9.0	15.5	20.0	11.3
Ukraine	85.95	16.0	14.3	3.0	Audit likelihood <25%
United Arab Emirates	Not scored	VAT does not exist	VAT does not exist	CIT does not exist	CIT does not exist
United Kingdom	71.00	0.0	7.2	6.0	34.0*

\* VAT does not exist for the case study purchase – not scored.

\*\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the time to complete a CIT audit.

^ Audit likelihood <25% 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 5: Post-filing index**

<b>Economy</b>	<b>Post-filing index (DTF score)</b>	<b>Time to comply with VAT refund (hours)</b>	<b>Time to obtain VAT refund (weeks)</b>	<b>Time to comply with a CIT audit (hours)</b>	<b>Time to complete a CIT audit (weeks)</b>
United States	94.04	VAT does not exist	VAT does not exist	8.0	Audit likelihood <25%
United States Los Angeles	94.04	VAT does not exist	VAT does not exist	8.0	Audit likelihood <25%
United States New York	94.04	VAT does not exist	VAT does not exist	8.0	Audit likelihood <25%
Uruguay	49.54	No refund	No refund	2.5	Audit likelihood <25%
Uzbekistan	48.39	No refund	No refund	5.0	Audit likelihood <25%
Vanuatu	69.04	7.0	28.0	CIT does not exist	CIT does not exist
Venezuela, RB	19.72	No refund	No refund	13.0	32.3*
Vietnam	95.71	1.5	8.6	3.5	Audit likelihood <25%
West Bank and Gaza	34.47	20.5	79.2*	13.0	80.1*
Yemen, Rep.	96.34	4.0	6.2	2.0	Audit likelihood <25%
Zambia	85.94	10.0	20.3	3.3	Audit likelihood <25%
Zimbabwe	52.84	55.5*	48.2	2.5	Audit likelihood <25%

\* VAT does not exist for the case study purchase – not scored.

\*\*Likelihood of audit is <25%, however further interactions with tax authorities are needed before the company can pay the additional tax due. This time is accounted for in the time to complete a CIT audit.

^ Audit likelihood <25% 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.

## World Bank Group Paying Taxes team

Rita Ramalho  
Santiago Croci  
Joanna Nasr  
Parvina Rakhimova  
Margherita Mellone  
Muqiao Zhang  
Kennedy Oyugi Okoyo  
Jerry Wu

## PwC Paying Taxes team

Neville Howlett  
Tom Dane  
Duygu Turkoglu  
Shendrit Sadiku

The Total Tax and Contribution 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 Paying Taxes* ranking indicator includes three components in addition to the Total Tax and Contribution 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.

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 158 countries with more than 236,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at [www.pwc.com](http://www.pwc.com).

This content is for general information purposes only, and should not be used as a substitute for consultation with professional advisors. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained in this publication, and, to the extent permitted by law, neither PwC nor the World Bank Group accept or assume any liability, responsibility or duty of care for any consequences of anyone acting, or refraining to act, in reliance on the information contained in this publication or for any decision based on it. The World Bank Group does not guarantee the accuracy of the data included in this work. The boundaries, colours, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries. The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the World Bank Group and its Boards of Executive Directors or the governments they represent.

This publication may be copied and disseminated in its entirety, retaining all featured logos, names, copyright notice and disclaimers. Extracts from this publication may be copied and disseminated, including publication in other documentation, provided always that the said extracts are duly referenced, that the extract is clearly identified as such and that a source notice is used as follows: for extracts from any section of this publication except Chapter 1 – World Bank Group commentary, use the source notice: "© 2017 PwC. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see [www.pwc.com/structure](http://www.pwc.com/structure) for further details. Extract from "*Paying Taxes 2018*" publication, available on [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes)". For extracts from Chapter 1 – World Bank Group commentary, use the source notice: "© 2017 The World Bank and International Finance Corporation. All rights reserved. Extract from "*Paying Taxes 2018*" publication, available on [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes)".

All other queries on rights and licenses should be addressed to World Bank Publications, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202- 522-2625; e-mail: [pubrights@worldbank.org](mailto:pubrights@worldbank.org).

© 2017 PwC, the World Bank and International Finance Corporation. All rights reserved. PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see [www.pwc.com/structure](http://www.pwc.com/structure) for further details. The World Bank refers to the legally separate but affiliated international organizations: International Bank for Reconstruction and Development and International Development Association.

11/17. Design Services 30847.

