

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

# Paying Taxes 2016



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# Foreword



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

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

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

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

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

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

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

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

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



**Andrew Packman**



**Augusto Lopez-Claros**

# Key findings from the Paying Taxes 2016 data

2014



Total Tax Rate  
**40.8%**



Time to comply  
**261 hours**



Number of payments  
**25.6**

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

2014



Total Tax Rate  
**-0.1%**



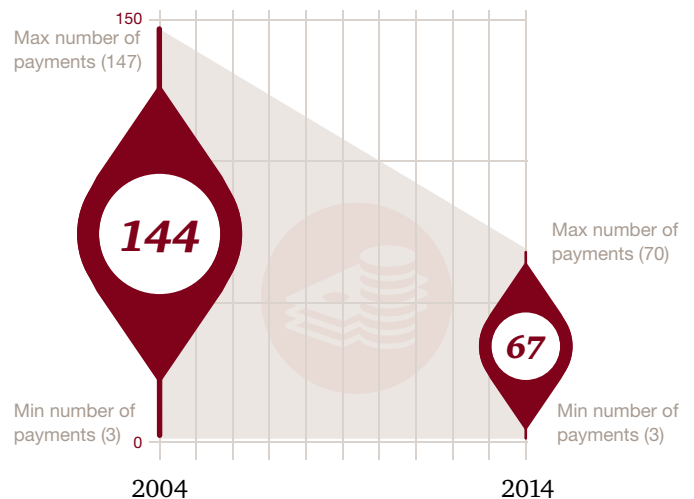
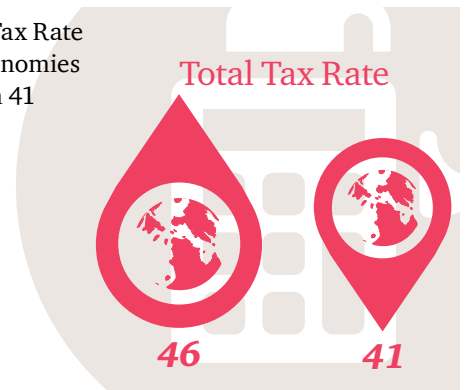
Time to comply  
**-2 hours**



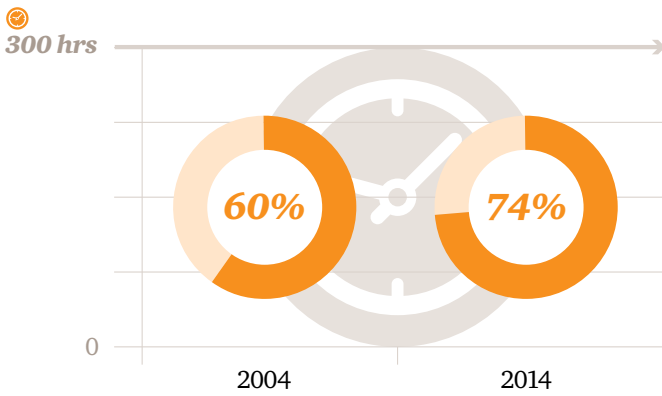
Number of payments  
**-0.6**

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

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

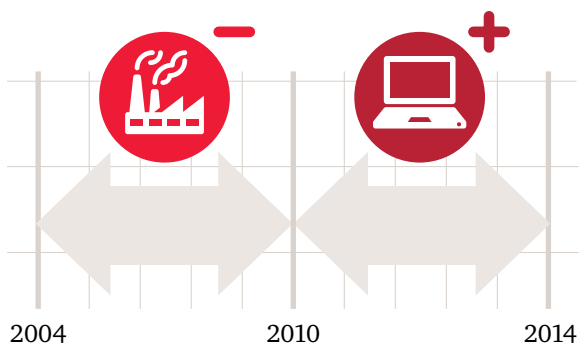


The range for the payments sub-indicator has narrowed over the 10 editions of *Paying Taxes*, from 144 payments in 2004 to 67 in 2014.

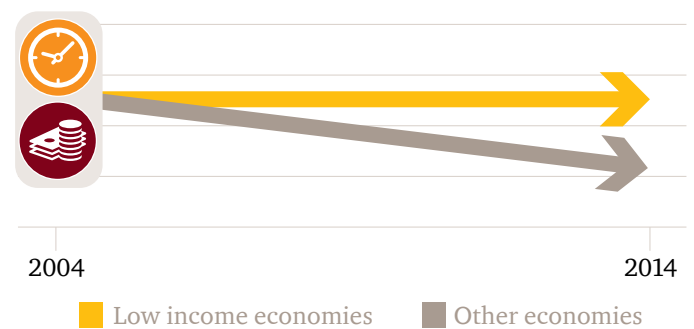


74% of economies now take less than 300 hours to comply with their tax obligations compared to 60% in 2004.

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



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



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

## The regional picture

### North America

#### Lowest payments indicator

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



### Central America & the Caribbean

#### All three sub-indicators have continued to fall

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



### South America

#### Highest Total Tax Rate and time to comply

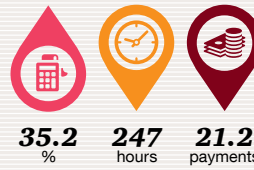
While the Total Tax Rate and time to comply sub-indicators have decreased since last year, the region still has the highest Total Tax Rate and the highest time to comply. It is also the region where 'other' taxes account for the largest share of the Total Tax Rate.



**EU & EFTA**

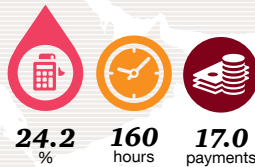
**All three sub-indicators below the global average and still falling**

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



**Central Asia & Eastern Europe**  
**Most reformed region since 2004**

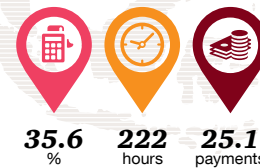
Since the first edition of *Paying Taxes*, the region has done the most to make tax compliance easier. However in 2014, for the first time since the study began, the region's Total Tax Rate increased.



**Middle East**

**Still the easiest region in which to pay taxes**

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



**Asia Pacific**

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

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



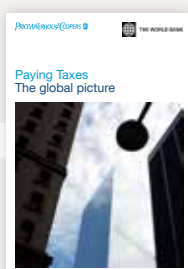
**Africa**

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

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

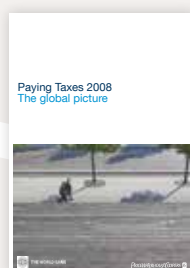


# Ten editions of *Paying Taxes*



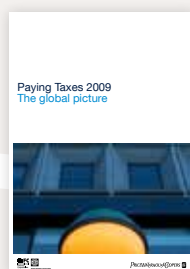
## ***Paying Taxes 2007***

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



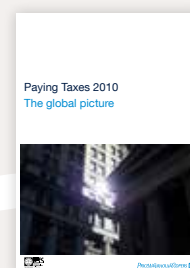
## ***Paying Taxes 2008***

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



## ***Paying Taxes 2009***

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



## ***Paying Taxes 2010***

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

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



### **Paying Taxes 2011**

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



### **Paying Taxes 2012**

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



### **Paying Taxes 2013**

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



### **Paying Taxes 2014**

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



### **Paying Taxes 2015**

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



### **Paying Taxes 2016**

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

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



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



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

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

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

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

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

The objectives of the study are to:

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

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

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

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

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

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

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

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

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

<sup>4</sup> For a list of all the contributors see [www.doingbusiness.org/contributors/doing-business](http://www.doingbusiness.org/contributors/doing-business)

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

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

<sup>7</sup> [www.pwc.com/payingtaxes](http://www.pwc.com/payingtaxes) and [www.doingbusiness.org](http://www.doingbusiness.org)

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

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

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

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

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

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

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



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

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

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