

R1809

OCTOBER 2018

IN SEARCH OF THE MOST EFFICIENT TAX FOR JAMAICA



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ACKNOWLEDGEMENT

We wish to acknowledge USAID and National Integrity Action (NIA) for sponsoring this study, for its support throughout the execution of this project, and for providing valuable feedback which served to enhance the final draft of this report. We would also like to thank the following entities for their support of CAPRI's data collection effort, and for providing relevant input during consultations:

- **Tax Administration of Jamaica (TAJ)**
- **Property Tax Division of the TAJ**
- **Tax Policy Division of the Ministry of Finance**

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This study is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of CAPRI, and do not necessarily reflect the views of USAID or the United States Government.

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ABBREVIATIONS

CIT	Corporate Income Tax
CARTAC	Caribbean Regional Technical Assistance
GCT	General Consumption Tax
GDP	Gross Domestic Product
GOJ	Government of Jamaica
GST	Goods and Services Tax
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
OECD	Organization for Economic Co-operation and Development
PAYE	Pay as you Earn
PIT	Personal Income Tax
RA-FIT	Revenue Administration Fiscal Information Tool
RA-GAP	Revenue Administration Gap Analysis Programme – The General Consumption Tax Gap
STATIN	Statistical Institute of Jamaica
SUT	Supply and Use Tables
TADAT	Tax administration Diagnostic Tool
TAJ	Tax Administration of Jamaica
TCC	Total Compliance Cost
VAT	Value Added Tax

IN SEARCH OF THE MOST EFFICIENT TAX FOR JAMAICA

A country's ability to mobilize revenue through taxation (i.e. to have an effective tax system) is synonymous with its capacity to achieve sustainable growth and development.¹ Through taxes, the state receives the funding necessary to perform its functions and duties effectively. As such, the first and often the main objective of a tax system is to generate sufficient revenue to finance public sector activities in a non-inflationary way.² This report focuses on the relative effectiveness of different tax types—value added taxes, income taxes, and property taxes – to generate revenue in the Jamaican context.³ It assesses and compares the efficiency of each tax type, and in so doing, will guide tax policy-makers as to whether the tax structure should shift away from taxing income (“your pay”) or taxing consumer spending (“your pocket”).

A tax system is defined as a set of rules, regulations, and procedures that govern taxes with three aspects. First, it defines what events trigger tax liability, for example the earning of income, the ownership of a residence (that might be subject to property tax), or the sale of a capital asset.⁴ This first aspect – tax bases and rates – is the principal object of modern tax analysis, but it is only one part. Second, a tax system specifies who or what entity must remit that tax and when, which we might call remittance rules. For example, under most income tax systems, it is the employer that remits – actually sends to the government – an approximation of what tax their employees owe on that income. Finally, a tax system details procedures for ensuring compliance, including the provision of third-party information-reporting requirements and the consequences, including penalties, of the illegal nonpayment of taxes: these are the enforcement rules.

While tax systems are used to promote non-revenue objectives, such as promoting equity or alleviating social ills, tax systems are primarily aimed at financing public expenditures.⁵ Hence, the most important consideration is the effectiveness with which it collects revenue. To have a sufficient base for raising revenue, an economy ideally requires a large middle class, because, for revenue-raising potential, the poor are too poor and the rich are too few. Poorer countries, however, tend to have more skewed income distributions and so do not have a large enough middle class, and therefore are challenged to generate the requisite revenue from taxes. In addition, taxes affect the decisions of households to save, supply labour, and invest in human capital, the decisions of firms to produce, create jobs, invest, and innovate, as well as investors' choice of savings channels and assets. What matters, therefore, for tax decisions, is not only the level of taxes, but also the way in which different tax instruments are designed and combined to generate revenues (what this report will henceforth refer to as the tax structure).⁶

The first section of the report covers necessary background information – rationalising the focus on efficiency versus equity, outlining the relevant considerations for tax efficiency, and reviewing Jamaica's tax structure. The second section presents estimates of the efficiency of three of Jamaica's main tax types using three considerations: evasion, compliance, and administrative cost. The final section discusses the principles and global experience of tax structures. The conclusion suggests measures to improve the efficiency of Jamaica's tax structure.

¹ Di John (2006).

² Bird and Zolt (2003).

³ For completeness, it would be necessary to include import taxes. However we did not receive the necessary data from the Jamaica Customs Agency to consider in our assessment.

⁴ Slemrod (2015).

⁵ See SOMO (2011); Carnell (2010), and Eric and Bird (2003).

⁶ OECD (2010).

1. BACKGROUND

1.1 RATIONALISATION: EFFICIENCY VERSUS FAIRNESS

Adjusting a country's tax structure to improve efficiency can have undesirable outcomes and effects on other objectives of the tax system. One such is the effect on the fairness (equity) of taxes.⁷ An assessment of tax structures, therefore, must consider the efficiency gains versus the fairness of taxes.

Fairness concerns the extent to which citizens' share of the tax burden is deemed to be appropriate to their economic circumstances.⁸ Fairness has elements of both horizontal and vertical equity. Horizontal equity ensures that individuals in similar economic circumstances face similar tax obligations. Vertical equity means that those with higher incomes pay an appropriately larger proportion of their income in taxes, i.e. bear a greater share of the tax burden.

Taxes affect equity in varied and complex ways. Taxes may fall more heavily on those who consume alcohol than on those who consume housing, or on those who get their income in the form of wages rather than from farms or dividends. Taxes may also differ in their effects on income distribution. They may tax the rich relatively more (progressivity) or less (regressivity) than the poor.

Taxes may not make the poor richer, but they can make them poorer. While developed countries, such as Canada and the United States, can and do use their income tax systems to provide income support to certain low-income citizens, using the tax system in this way requires both that the tax administration be efficient and that most people file tax returns (i.e. pay their taxes). Neither condition is satisfied in most developing countries. Further, in the absence of a large tax base in most developing countries with mal-distributions of income, the challenge of raising sufficient revenue is more pressing. As a result of these considerations, fiscal attempts at pursuing equity goals in developing countries must be undertaken primarily on the expenditure side of the fiscal budget, rather than through taxation. This approach is recommended because taxation is ineffective when used for the purpose of achieving distributional objectives. This can be seen in two scenarios.

First, in an economy such as Jamaica where a large proportion of the workforce operates outside of the formal sector, a progressive tax burden, in reality, falls largely on a limited group of wage earners – largely on public sector middle-income earners.⁹

⁷ See other work for effects on growth eg: Martinez-Vazquez and Liu (2011).

⁸ Bird and Zolt (2008).

⁹ A tax is considered progressive when the tax burden as a percent of income is greater for higher income households than for lower income households, proportional if the percentage of income paid in taxes stays constant as income rises, and regressive if the percentage paid in taxes falls as income rises. A higher income taxpayer will normally bear a larger absolute tax liability than a lower income taxpayer, regardless of whether the tax is progressive, proportional or regressive, so the difference between the three concepts is how rapidly taxes rise with income, not whether taxes rise with income.

Consider for example the case of income taxes. In the pursuit of equity, income taxes are usually structured progressively. However, where many high-income recipients operate through the informal economy, as is the case in Jamaica,¹⁰ increasing the progressivity of the personal income tax may have the perverse effect on increasing inequality. Employees of large, formally-established businesses, and public sector civil servants, make up the bulk of personal income taxpayers and hence bear the brunt of such changes. While levying a true progressive income tax is desirable, a problem arises because only a few Jamaican taxpayers bear the burden of direct taxes. The appearance of progressivity may be politically necessary, but in practice no significant tax liability is imposed on higher incomes. Even in developed countries income taxes have had only moderate success in reducing income inequality; in developing countries far less so.¹¹

In the circumstances of developing countries, therefore, it is conceivable that indirect taxes such as a value added tax (VAT), and especially certain excises in “higher-income” consumption goods such as motor vehicles, may be more progressive than a personal income tax that in reality falls largely on a limited group of wage earners. Indirect taxes are distributed across a larger number of persons since those earning income in the informal sector are taxed when they purchase goods and services through the formal sector. In this way, the informal sector pays its fair share of the tax burden. To the extent that VAT functions properly, it will to some extent serve essentially the same function as a presumptive tax on the informal sector,¹² since credits are only available for firms that are registered as taxpayers.

It is therefore misleading when thinking about taxation and equity to focus on preconceived notions about labels – for example, that anything called a personal income tax is, by definition, progressive, while anything called a VAT is, by definition, regressive. Rather, it is the reality of how taxes work in the practical circumstances in which they are applied that bears consideration. Put simply, to determine the fairness of a tax regime, and the potential of that regime to achieve equity goals, it is more germane to distinguish between those who have the liability to pay a particular tax, and those who suffer the economic incidence or the burden of the tax.

The second scenario demonstrating the ineffectiveness of taxation in the role of distribution involves the design of value added taxes. VAT is considered the best instrument to replace the complexity of myriad consumption and production taxes, broaden the tax base, and generate a stable source of revenue.¹³ Items that constitute major consumption expenditures for poor people are generally tax exempt, so as not to compromise their (the poor’s) spending power, with the objective of enabling a more equitable tax system. However, VATs themselves are generally complicated by the zero-rating or exempting of products deemed to be consumed by the poor, which compromises the efficacy of this type of tax. Furthermore, the benefit of these compromises accrues also to wealthy consumers. Indeed, the wealthy most often receive a larger share of the taxes forgone than the poor because the rich, by virtue of being rich, consume more of the favourably treated items.¹⁴ Further, the effect of the tax law on a taxpayer’s decisions concerning a particular transaction, such as whether or not to engage in that transaction, should be kept at as low a level as possible in order to be non-distortive.¹⁵

Although attempts to redistribute income through taxation have generally not been effective in most developing and transitional countries, it is often considered politically necessary and desirable to tax those who are thought to gain the most from economic development (i.e. the rich). Governments who pursue such a policy must however bear in mind the need to tax efficiently – that is to not use up too much of government resources in order to realize revenue.¹⁶ Therefore, high and rising marginal (income) tax rates may not be appropriate even when the government has a strong redistributive motive.¹⁷

What we arrive at then is that the most effective way to reduce inequality is not through taxation, but rather through spending programmes targeted at the poor. Expenditures aimed at improving primary education or primary health services are likely to prove more effective at reducing inequality than efforts to tax the rich. The role of the tax system in emerging countries should thus be to raise the revenue for such expenditure programmes rather than to attempt to directly play a substantial redistributive role.¹⁸ Given this proposition, this report focuses on the efficiency, in terms of ability to raise revenue, of the various tax types, in Jamaica.

¹⁰ See Torero et al. (2006).

¹¹ Bird and Zolt (2008).

¹² Presumptive taxation is a concept of taxation according to which income tax is based on “average” income instead of actual income.

¹³ Schlotterbeck (2017).

¹⁴ See Tampere (2007) and Edmiston and Bird (2006). See also PIOJ household expenditure survey consumption patterns by quintile.

¹⁵ Leijon (2015).

¹⁶ Chu et al (2000).

¹⁷ Keen and Konrad (2011).

¹⁸ Bird and Zolt (2008).

1.2 THE ELEMENTS OF TAX EFFICIENCY

Taxation imposes different costs on society. The cost is not the amount of tax remitted by citizens – those amounts are merely transfers from citizens to the government and so are not a cost to society as a whole. The society as a whole incurs four costs from taxation:¹⁹



ADMINISTRATIVE COSTS

The first of these is the “administrative cost” of taxation. A bureaucracy has to be established to calculate, account for, and enforce the collection of taxes; literally, to administer the tax. Administrative costs include the costs of running and maintaining revenue agencies, including salaries of staff, pensions relating to those staff, together with accommodation and office expenses for revenue department staff. Less obviously, administrative costs can also include the costs of legislative enactment relating to the tax system, from initial policy formulation through to statutory or other

rule enactment. They can also include the judicial costs of administration of the tax dispute system.

Depending on the type of tax, the actual cost of collecting taxes in developed countries is roughly one percent of tax revenues.²⁰ In developing countries, the costs of tax collection may be substantially higher. These costs are incurred by governments but ultimately paid for by members of the society out of the revenue collected.²¹



COMPLIANCE COSTS

The second of these costs is referred to as “compliance costs” – those that taxpayers incur in meeting their tax obligations, in addition to the actual tax obligation. These costs include the time and expenses that individuals and businesses incur to maintain proper records, undertake tax planning, acquire the knowledge and information about their tax and reporting obligations, set up the required accounting systems, make payments to professional advisors, file necessary reports, and calculate the necessary amount of taxes to remit.²²

Tax administration and tax compliance are not independent. Often, administration costs are reduced when compliance costs are increased. For example, when taxpayers are required to provide more information, thus increasing compliance costs, it is for the purpose of making tax administration easier and less costly. High compliance costs act as an incentive for people to evade these taxes, either by operating informally and avoiding the tax system entirely, or by underreporting their tax obligations, thus raising the effort and cost of tax administration.

Third parties also incur compliance costs. For example, employers may withhold income taxes from employees, and banks may provide tax authorities information, or may collect and remit taxes to government. Although the measurement of such costs is still in its infancy, there are a few studies that estimate compliance costs in developed countries.²³ These studies conclude that compliance costs are perhaps four to five times larger than the direct administrative costs incurred by governments.²⁴

The Jamaican tax system has been cited among the top five obstacles to doing business in the country.²⁵ Reducing the compliance burden not only benefits the taxpayers but also the economy since tax collection is not an objective of tax policy, but simply a requirement. Although tax accountants and lawyers help people to comply with the tax code and reduce their taxes, their work has no net economic value. From the perspective of the whole society, compliance activities can be regarded as a non-productive use of economic resources insofar as they constitute the effort to overcome a hurdle artificially placed in their way by the government. The value

¹⁹ Bird and Zolt (2003).

²⁰ Clemens et al (2007).

²¹ Ortiz-Ospina and Roser (2018).

²² Clemens, Veldhuis, and Palacios (2007).

²³ Sandford (1995).

²⁴ Sandford (1995).

²⁵ See CAPRI (2016).

of taxes remitted is not a net loss because the resources transferred to the government are still available for productive use, except just by the government. However the resources used up in compliance are not available for any other use.

Further, compliance costs can distort economic decision-making as well as the optimal allocation of resources. For example, the burden of compliance on self-employed taxpayers

and small businesses may reduce the number of business start-ups.²⁶ In addition, research provides evidence that tax complexity can result in economically wrong decisions, influences risk-taking behavior, increases the demand for tax advice, and negatively affects the willingness of taxpayers to comply with tax rules.²⁷ By reducing these compliance costs, firms can allocate more resources towards productive activities.²⁸



TAX EVASION

Thirdly, costs arise when taxes are levied and some individuals and businesses evade these taxes causing potential government revenues to be lost. Tax evasion is the willful violation or circumvention of applicable tax laws in order to minimize tax liability. Tax evasion generally involves either deliberate under-reporting or non-reporting of receipts, or false claims to deductions to minimize or eliminate tax liability.²⁹ No government can announce a tax system and then rely only on taxpayers' sense of duty to remit what is owed. Some dutiful people will undoubtedly pay what they owe, but many others will not. Thus, paying taxes has to be made a legal responsibility of citizens, with penalties attendant on noncompliance. But even with those penalties, substantial tax evasion exists – and always has.³⁰

Taxes are considered a cost to the individuals who are expected to pay it. For this reason, individuals sometimes have a sense that they are better off not complying with this legal obligation. Tax evasion therefore results in the actual revenues being collected falling below the potential revenue. In addition to the

loss of revenues there are the resources taxpayers expend to implement and camouflage noncompliance, and the resources the tax authority expends to address it. Tax evasion ultimately affects the distribution of the tax burden as well as the cost of raising taxes.

High levels of tax evasion are normally an indication of a high tax burden or a complicated tax system, both which are characteristics of an inefficient tax system. High tax rates incentivize individuals and businesses into the underground economy; broader tax bases with lower rates tend to reduce the level of tax evasion. This implies that taxes should be simple with little scope for evasion since simple taxes are also relatively easy to collect and enforce.³¹ An overly complicated tax system can overburden a weak tax administration and deter taxpayers. In fact, some tax understatement is inadvertent, due to ignorance of or confusion about the tax law, (as is some overpayment of taxes,) which is as a result of an overly complicated tax system.³²

No government can announce a tax system and then rely only on taxpayers' sense of duty to remit what is owed.

²⁶ Djankov et al (2002).

²⁷ See, respectively: Rupert et al (2003); Ackermann et al (2013); Christian et al (1993); Eichfelder et al. (2012); Alm et al (1992); Erard and Ho (2003); Alm et al. (2010).

²⁸ Government of New Zealand (2007) and Gatti and Honoratti (2008) discuss benefits that could be generated from reducing tax compliance cost for small and medium size firms.

²⁹ Rahal (2014).

³⁰ Slemrod (2007).

³¹ Godin and Hendriks (2015).

³² Slemrod (2007).



DISTORTIONARY COSTS

The final cost arises as taxes alter incentives and therefore the behavior of people – “distortionary costs”. These distortions arise when the tax system incentivizes people to make consumption, production, and work decisions that they would otherwise not have made in an attempt to avoid incurring the tax obligation.³³ Almost every tax alters decisions made by businesses and individuals since the relative prices they confront are changed.³⁴ The resulting changes in behavior likely reduce the efficiency with which resources are used and hence lower the output and potential wellbeing of the country.

Depending on the design of a specific tax, these changes can lead to undesirable results such as less savings, investment, work effort, and risk-taking than would otherwise be the case.³⁵ For example, the imposition of a personal income tax may result in a person working less than they would have in the absence of the tax. Alternatively, a person may choose to pursue less education because of the tax as they will not benefit as much from the higher salary that more education would bring. These distortions often affect economic growth and productivity.

Exactly how significant such distortions are is a matter of debate.³⁶ The lowest estimates for developing countries are of the order of 20 to 30 percent of revenue, but much higher estimates are common in the literature.³⁷ If these distortionary costs are the consequence of rational policy decisions (for example, to redistribute income through the fiscal system), they may be acceptable. Still, it is important to design taxes to minimize distortions. Although the losses from distortions are real, they are not directly visible; they arise because options are not chosen and economic activities do not occur. Consequently, material welfare is forgone.

The distinction between the last two costs is worth highlighting. Tax evasion describes a situation in which the taxable activity occurs, and therefore the tax obligation is incurred, but the liable party fails to comply. This is unlawful. Distortion occurs where those who would engage in the taxable activity avoid doing so, at least to the extent they otherwise would, in which case they are avoiding the taxable activity and thus not incurring the tax liability, at least to the same degree. This “tax avoidance” is entirely lawful.

The greater these four costs for a given country – administration, compliance, evasion, and distortion – the less efficient is its tax system. Given the objective of maximizing net revenue, taxes need to be as efficient as possible. That is, they need to be structured to minimize taxpayers’ compliance and government’s administrative costs to reduce tax evasion, while also discouraging tax avoidance by minimizing distortionary costs.

To determine the efficiency of Jamaica’s tax types, this report estimates three of the four costs associated with taxes – evasion, administrative costs, and compliance costs. Since distortion contemplates a counterfactual, deriving a reasonable estimate with any accuracy is difficult requiring resources and information beyond the capacity of this exercise. The difficulty of estimation is exacerbated by the need to isolate these costs by the various tax types. This report therefore does not attempt to calculate the distortionary costs of taxation. The remaining three costs are sufficient to provide reasonable indication of the efficiency of Jamaica’s taxes.

Distortion occurs where those who would engage in the taxable activity avoid doing so, at least to the extent they otherwise would, in which case they are avoiding the taxable activity and thus not incurring the tax liability, at least to the same degree.

³³ Bird and Zolt (2008).

³⁴ There are a few exceptions. Lump-sum taxes, where the tax burden is the same regardless of any behavioral responses by taxpayers, are one example, much favored by theorists. Well-designed taxes on natural resources and land, for example, may thus to some extent produce revenue without economic distortion. Finally, in certain instances, taxes – again, if properly designed – may not only create distortions in economic behavior but may even induce desirable behavior. Certain environmental levies, for example, or even crude proxies such as taxes on fuel, may to some extent have such effects. Such instances of “good” taxes – those with no bad economic effects – should of course be exploited as fully as possible, just as well-designed charges should, to the extent possible, given public policy objectives, be used to finance certain public-sector activities that specifically benefit identifiable individuals. In the end, however, most of the taxes needed to finance government will have to come from other sources and will hence give rise to the efficiency costs discussed in the text.

³⁵ Clemens et al (2007).

³⁶ For a recent survey of the effects of taxes on saving, for example, see Bernheim (2002).

³⁷ Bird and Zolt (2018).

1.3 JAMAICA'S TAX STRUCTURE



THE TAX SYSTEM IN JAMAICA

Jamaica has a population of approximately 2.8 million people, of which about 44% comprises the labour force.³⁸ Self-employed individuals are required to file an income tax return “provided income from all sources in any year of assessment exceeds the tax free income (threshold)”.³⁹ For those who are employed, income tax is deducted by the employer under the pay-as-you earn (PAYE) system, and those persons are not required to file regular annual tax returns. Although there are no taxes on capital or wealth in Jamaica except for property taxes, there is a transfer tax of 4% on the transfer of certain assets, including land and buildings.⁴⁰

Table 1 summarizes the main taxes faced by individuals and

businesses in Jamaica and indicates the number of times each year these taxes are required to be filed (in the case of businesses). The most onerous two are consumption taxes and payroll taxes, which are required to be filed monthly and which entail the most time to prepare, file and pay. The Doing Business report estimated that the average amount of time it took a medium-size company in Jamaica to prepare and file returns and pay taxes was 358 hours per year, which was slightly lower than the Latin American and Caribbean regional average of 361, though higher than the OECD average of 177.⁴¹ In addition, it was estimated that the “total tax rate” for businesses in Jamaica,⁴² as a share of profits, was 35.2%, which was below the average for both LAC and OECD countries.⁴³



³⁸ STATIN (2016).

³⁹ TAJ website: Retrieved on October 20, 2018 <https://www.jamaicatax.gov.jm/Self-employed/>

⁴⁰ TAJ website: Retrieved on October 20, 2018 https://www.jamaicatax.gov.jm/stamp_duty_and_transfer_tax

⁴¹ World Bank (2018).

⁴² The World Bank Doing Business report records the taxes and mandatory contributions that a medium-size company must pay in a given year. Taxes and contributions measured include the profit or corporate income tax, social contributions (e.g., payroll taxes) and labour taxes paid by the employer, property taxes, property transfer taxes, dividend tax, capital gains tax, financial transactions tax, waste collection taxes, vehicle and road taxes, and any other small taxes and fees. The “total tax rate” may best be regarded as an average effective tax rate.

⁴³ World Bank (2016b).

Table 1: Main taxes faced by individuals and businesses in Jamaica

TAX TYPE	FILINGS PER YEAR	BUSINESSES AND COMPANIES INVOLVED	TAX BASE	TAX RATES
INCOME TAXES				
Companies	1	All registered companies	Finalized tax assessment for previous year, plus adjustments	33 1/3% for regulated companies; 25% for unregulated companies
Non-Companies	1	All businesses, whether registered or not	Finalize tax assessment for previous year, plus adjustment	25% of statutory income less threshold for tax-free pay for individuals
Minimum Business Tax	2	All registered companies All non-incorporated businesses (unless charities) where the statutory income is >\$J5m (US\$44,532	Head/lump sum tax	\$60,000 (US\$534)
Payroll Taxes ⁴⁴	12	All businesses that employ staff	NIS: Statutory income of employee up to \$1.5 million (US\$13,359) Other payroll: Statutory income of each employee (NHT), less NIS deductions (ED Tax), less threshold (PAYE)	Tax (at 25%) and statutory deductions calculated for each employee Differential rates for employee/ employer NIS: 2.5%/2.5% (max \$37,500 (US\$334) NHT:2%/3%; Education tax: 2.25%/3.5%; HEART: 3% (employer)
CONSUMPTION TAXES				
General Consumption Tax (GCT)	12	All companies and individuals carrying on a business with supplies in excess of \$3million (US\$26,719) p. a.	Tax collected on supplies made less credits available.	Standard rate: 16.5% Tourism sector: 10% Telephone services: 25% Exports and selected items: 0%.
Special Consumption Tax (SCT)	12	Manufacturers of prescribed goods (various fuels, alcohol, tobacco products)	Sales	Various specific and ad valorem rates
Guest Accommodation Room Tax (GART)	12	All operators of guest accommodation	Number of rooms occupied per month	Rate depends on size of overall accommodation: 1-50 rooms: US\$1 51-100:US\$2 >101 rooms: US\$4 (per occupied room)
Asset tax	1	All registered companies	Business assets, determined by financial statements from the previous year of assessment	Specified bodies: \$5,000 (US\$45) to \$100,000 (US\$891) for companies with assets from <\$50,000 (US\$445) to >\$50 mn (US\$445,315), respectively. Regulated specified bodies: 0.14% of taxable value of assets
OTHER INDIRECT TAXES				
Property Tax (collected by TAJ for parish councils)	1	All owners of residential or commercial property	Unimproved value of land	Rate determined by parish councils and geographical area
Trade licenses		All businesses operating a trade or business with a retail outlet	Table based on turnover	Based on parish and turnover

⁴⁴This is a combination of employees' income tax and statutory deductions together with the employers' contributions.



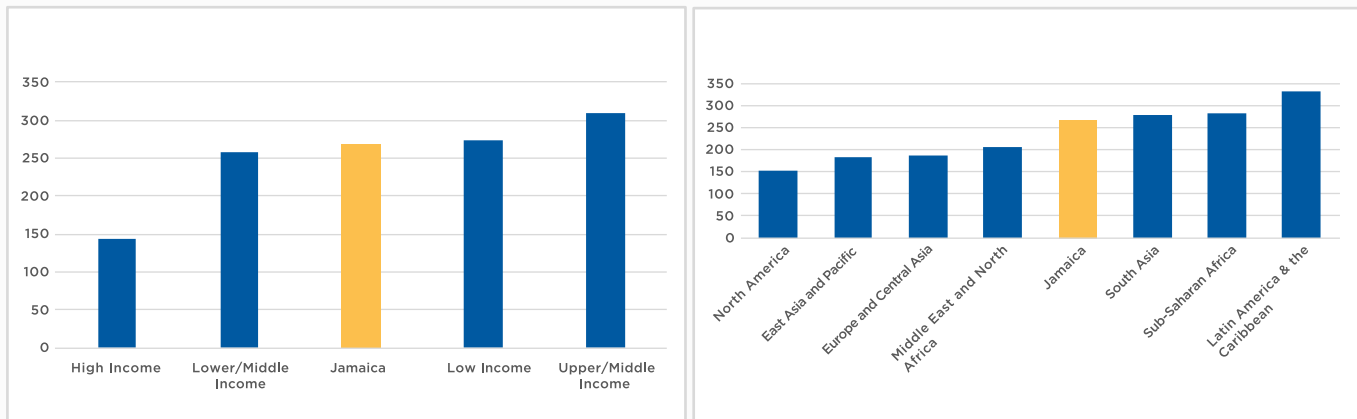
TAX SYSTEM PERFORMANCE INDICATOR

The ease with which taxpayers can comply with their obligations and the means of tax administration are important in determining the overall effectiveness and efficiency of the tax system. Complexity in tax regimes (e.g., multiple taxes, different bases, requirements for multiple filings per year, etc.) drives up tax compliance costs, as do requirements to submit supporting material, especially where tax accounting differs significantly from financial accounting.⁴⁵

The general sentiment among business owners is that the level of effort required to maintain tax compliance represents a costly distraction from the pursuit of the core activities of businesses.⁴⁶ Complications include, *inter alia*, multiple registration, payment and filing requirements, challenging tax filing deadlines, and cumbersome tax clearance procedures.

The *Doing Business* index records the taxes and mandatory contributions that a medium-size company must pay or withhold in a given year, as well as measures the administrative burden in paying taxes and contributions. Jamaica ranks 122 out of 190 countries on the paying taxes indicators compiled in the report.⁴⁷ This is quite an improvement from the stagnating position of being ranked in the bottom 10 of 183 countries in 2011, a position that had not changed in the six years prior.⁴⁸ With 11 payments per year, Jamaica is recorded in the 75th position on that measure, taking on average 268 hours each year to file these taxes, placing them at 158th of a total of 190 countries in that regard. Figure 1 shows a comparison of Jamaica to other countries by income groups and regions.

Figure 1: Time taken to pay taxes by income groups and region, 2017



Source: Author's calculations from World Bank and IMF data

The average time taken to pay taxes annually in Jamaica (268 hours) ranks slightly below the average time taken by low income countries, and significantly lower than its upper/middle income counterparts (328 hours) (See figure 1). Latin

American and Caribbean countries recorded the highest times to file taxes annually, with Jamaica at 62 hours difference per year. This suggests that within the region Jamaica is doing considerably better than its counterparts.

⁴⁵ Schlotterbeck (2017).

⁴⁶ The Blueprint (2009).

⁴⁷ Ding Business Report (2018); Schlotterbeck (2017) also highlights these weaknesses.

⁴⁸ World Bank, (2018). The actual rates collected were: 175, 174, 163, 152, 147, for 2011, 2012, 2013, 2014 and 2015 respectively.



TAX REFORM

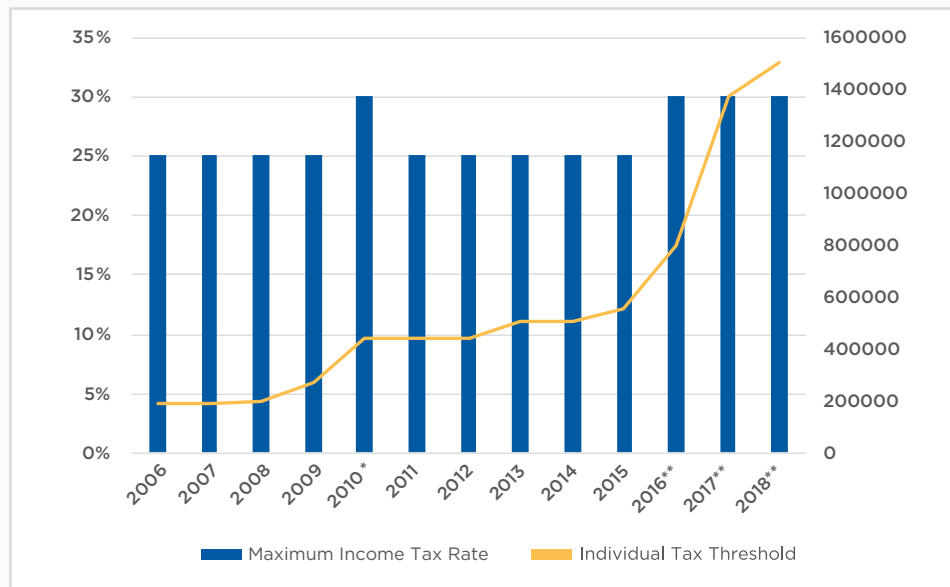
Historically, Jamaica's tax system has been characterized by narrow tax bases, distortionary waivers, and non-standard incentives which assisted in creating an inequitable tax system with declining revenues.⁴⁹ The structure is consistently described as complex and inefficient.⁵⁰ Therefore, it was unsurprising when consecutive reports generated by the IMF in 2006, 2008 and 2010 recommended comprehensive tax reform as a requirement to move the country forward.⁵¹

Jamaica has been implementing various tax reforms to make the system simpler and more efficient. Among these, the main measures have included simplifying the rules of the personal income tax (PIT) and broadening base of the corporate income tax (CIT). This has been achieved through reducing the corporate income tax rate for unregulated companies to 25% in 2013,⁵² down from 33½%, consolidating payments and filings of income and payroll taxes, and introducing an electronic filing and payment system. There has also been an

increase in the standard income tax rate (the minimum tax rate applicable to taxable income), and an increase in the personal income tax threshold (the income level at which a person begins paying income taxes). (See Figure 2.)

However, incremental tax changes have helped to create a complex personal income tax system.⁵³ Personal income tax still generally comprises multiple allowances and deductions that hamper the implementation of efficient filing/payment arrangements (e.g., prefiled tax returns or withholding at source as a final tax). The latter would eliminate the need for a large number of individual taxpayers to file annual income tax returns. Numerous deductions also generate refundable tax credits. A complex PIT system has two consequences: it deters voluntary compliance (the non-filing rate is above 50 percent in the region), and it consumes human resource capacity to provide assistance, follow up on non-filers, and enforce collection – the cost of compliance and enforcement.⁵⁴

Figure 2: Annual income tax rate and tax exemption threshold



Source: TAJ

* Year of assessment 2010 - income tax rates were as follows: \$0-\$5,000,000 (25%), 5,000,001-\$10,000,000 (27.5%), \$10,000,001 and over (35%).

** Years of assessment 2016, 17 & 18 - income above the threshold but below \$6,000,000 (25%). Income in excess of 6,000,000 (30%).

⁴⁹ Ministry of Finance and Planning (2017).

⁵⁰ Schlotterbeck (2017).

⁵¹ Ibid.

⁵² A regulated company is one which reports to and whose operations are regulated by the following bodies: Bank of Jamaica, Financial Services Commission, Office of Utilities Regulator, Ministry of Finance & the Public Bodies. Therefore, an unregulated company is one which is not regulated by any such body.

⁵³ Ibid.

⁵⁴ Ibid.

The relative burden of the tax system in Jamaica started to shift from direct towards indirect taxes in fiscal year (FY) 2008/09. Revenue from direct taxes was 1.9 times that from indirect taxes in 2008/09 and declined to 1.4 times by 2015/16.⁵⁵ The FY 2016/17 programme sought to further accelerate the shift from direct to indirect taxes.⁵⁷ Concerning consumption taxes, the standard GCT rate has been consistently maintained at 16.5% except for 2010 and 2011 where the standard GCT was raised to 17.5%.

While more work is necessary to improve the efficiency of the tax system, these reforms have likely helped to facilitate tax compliance, as reflected in the 2016 GOJ fiscal policy paper

which attributed an 11% increase in tax revenue for fiscal year 2015/16, in part to “improved compliance activities implemented by TAJ”.⁵⁸

Even with the shift towards direct taxation, the income tax system has retained its progressivity.⁵⁹ Thus, these reforms are moving to balance the Government’s objectives of equity and efficiency while ensuring that there is sufficient tax revenue to support fiscal consolidation.⁶⁰ In this way the tax reforms have, in general, supported both a short-term stabilization objective and medium to long-term economic growth objective.



THE SPECIAL PROBLEM OF TAX INCENTIVES

Another reform effort undertaken by Jamaica to increase the efficiency of its taxes was the reduction of tax incentives. In Jamaica, tax incentives are usually defended based on the assumption that they provide a stimulus for economic activity.⁶¹ However, very little analysis has been done in terms of evaluating their overall economic impact.⁶² Tax incentives erode the tax base and significantly complicate tax administration and so increase its cost. Tax incentives are also significant sources of fraud and leakages, which weaken compliance and make it difficult to ensure an economy in which everyone has a fair and equal chance of succeeding.⁶³

Accordingly, reform efforts have entailed scaling back generous tax incentives, or at least shifting from discretionary to rules-based and more transparent incentive systems. A major element of this change came with the introduction of the Omnibus Incentive Legislation.⁶⁴ This refers to the slate of four new pieces of legislation that provide broad-based fiscal incentives, that is, incentives not based on particular economic sectors. This new framework replaced the long-standing or “legacy” incentives, as well as removed the necessity for discretionary waivers, thus increasing transparency and fairness in the process of granting incentives.⁶⁵

However, tax incentives still exist in other forms. VATs have been effective in terms of mobilizing additional tax revenues. The revenue increases from VATs range from 0.9 percent of GDP to 5.4 percent of GDP in the period 2005–2013 in the Caribbean region.⁶⁶ However, its contribution should have been much greater. In Jamaica, zero-rating of domestic supplies, generous exemptions, lower rating of tourism activities, and low registration thresholds have affected its (VAT’s) performance negatively and compromised administrative efforts.⁶⁷

More generally, various classifications within tax categories, each accompanied by incentives and exemptions, have created a complex system. Differentiated taxation due to negotiated special treatment among various groups encourages tax evasion and undermines revenue performance. A focus on taxing the easiest-to-reach base such as PAYE, tax on interest, and General Consumption Tax (GCT), has placed a heavy burden on a small population of taxpayers. The granting of exemptions has compromised the principle of simplicity, which is fundamental to an efficient tax policy. To tax efficiently, Jamaica would need to focus on making the tax system as simple as is practicable.

⁵⁵ Author’s calculations from data received from TAJ. Here, direct taxes refers to revenues from CIT, Individual Income and PAYE; Indirect taxes refers to GCT and SCT revenues.

⁵⁷ GOJ Budget Revenue Measure, 2016-2017.

⁵⁸ GOJ (2016)

⁵⁹ While the income tax threshold has increased (see Figure 3), higher rates of taxes have also been applied to higher levels of income. For the years 2016, 2017 and 2018, income above the threshold but below 6,000,000 was applicable for income tax of 25% of that Income while income in excess of 6,000,000 was applicable for an income tax of 30% on that income.

⁶⁰ Fiscal consolidation refers to the policies undertaken by governments to reduce their deficits and accumulation of debt stock.

⁶¹ Bahl and Wallace (2007).

⁶² The Blueprint (2009).

⁶³ Schlotterbeck (2017).

⁶⁴ See Ministry of Finance and Planning (2017) and JAMPRO (2018).

⁶⁵ Specifically, the Omnibus Incentives Legislation provide fiscal incentives via reduced customs duty and additional stamp duty rates and reduced corporate income tax rates.

⁶⁶ Schlotterbeck (2017).

⁶⁷ Ibid.



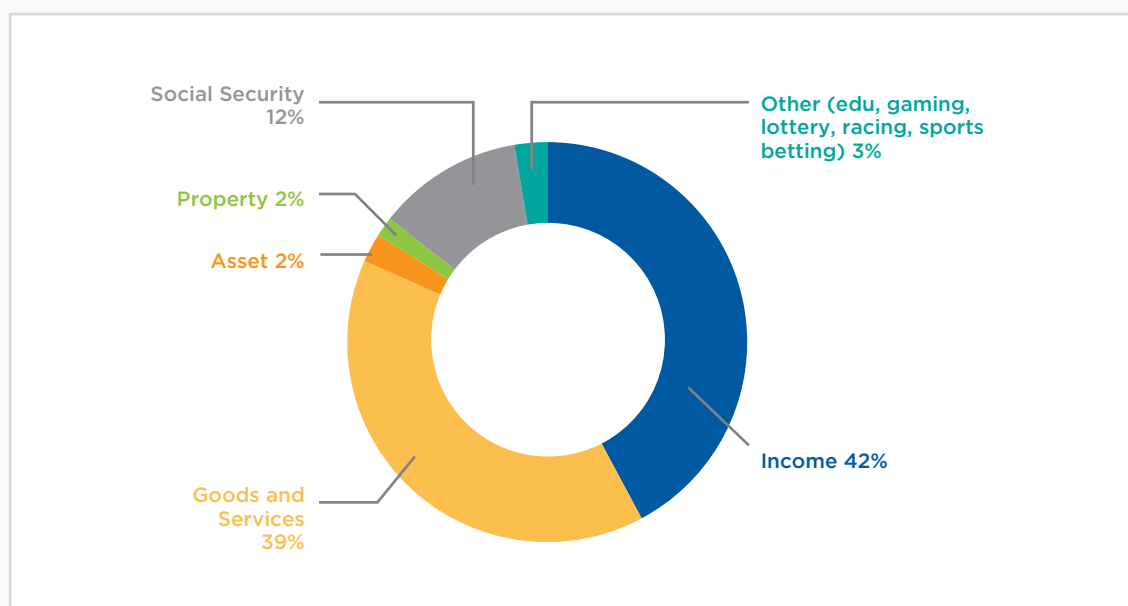
JAMAICA'S TAX STRUCTURE

The tax structure (i.e. the tax mix) is reflected in the share of tax types and the relative amount of revenue garnered by each. Jamaica's major tax categories comprises value added tax (GCT), income tax (personal and corporate), property tax (on land value only), import tariffs, guest accommodation room tax, stamp duties, and transfer tax.⁶⁸

Figure 3 reveals that Jamaica's largest share of taxes comes

from income tax (42%), followed by GCT (39%). Property taxes are a tiny (2%) share of revenues. Thus, despite Jamaica's introduction of a new property tax regime in April 2017 which updated the valuation of properties, the property tax still raises little revenue (0.3% of GDP in Jamaica in 2017 compared to 2.1% on average in OECD countries), while administrative costs remain high.⁶⁹

Figure 3: Jamaica's Tax Structure, 2016/17



Source: Author's calculations from TAJ Data

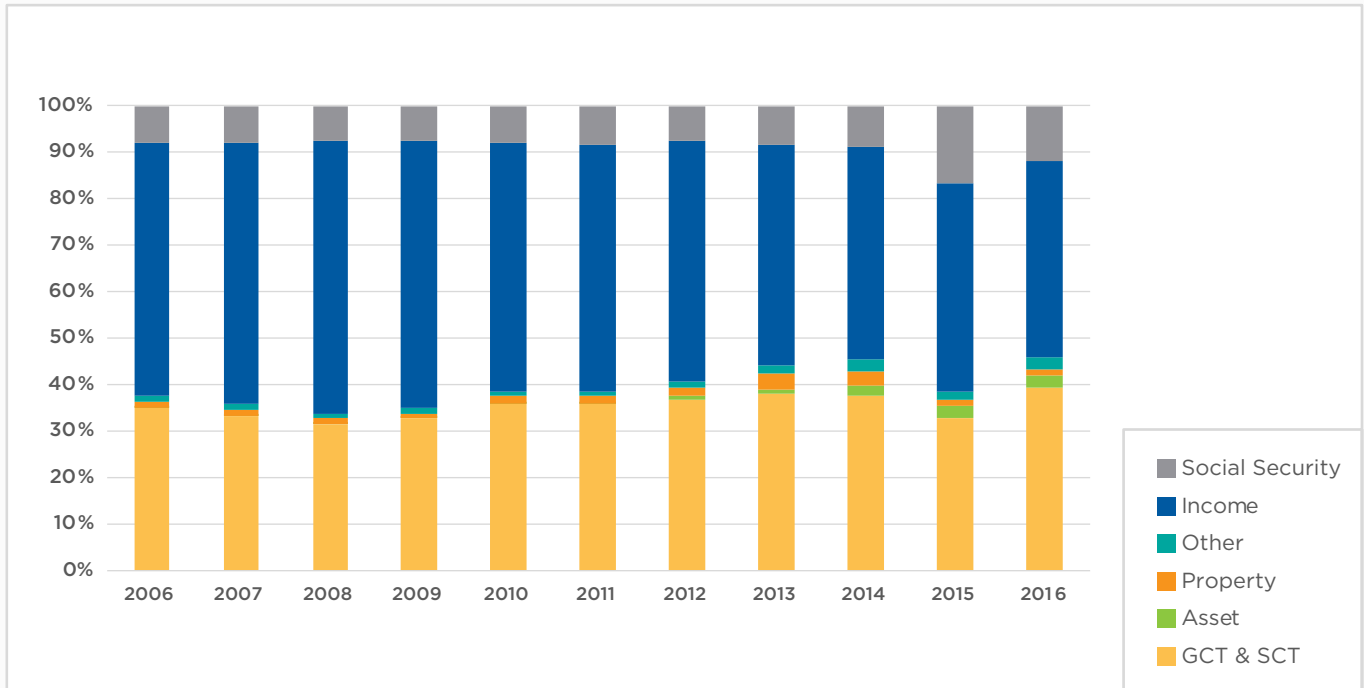
The composition of revenue changed only slightly over the past decade, with a decrease in revenue from taxes on personal and corporate income and on international trade, and an increased reliance on revenue from taxes on goods and services, as shown

in Figure 4. Trending over the past four years, the government has reduced reliance on income tax, while increasing that on GCT. The evidence is in the gradual expansion of the income tax threshold.

⁶⁸ Data on import tariffs was not received from the Jamaica Customs Agency and therefore we were not able to represent it as a part of our analysis.

⁶⁹ Ibid.

Figure 4: Jamaica's Tax Structure, 2006 – 2016



Source: Author's calculations from TAJ Data

Jamaica's tax revenue equates to nearly one-quarter of GDP. Lower income markets average 15 percent with the global average at 28 percent in 2017.⁷⁰ From 24.4 percent in 2015/16, Jamaica's tax take has inched closer to the global average, rising

to 25.7 by 2017/18.⁷¹ Shifting to a more efficient tax structure will increase the revenue take without making taxpayers feel more tax burdened.



TAXPAYER COMPOSITION

The size of Jamaica's informal sector is almost a half of the country's GDP.⁷² In 2016 an average of 478,300 persons was reported to be in informal employment, compared to 459,800 who were formally employed.⁷³ With an annual average employment of 1,175,200 persons this meant that informal employment accounted for approximately 40.7% of total employment.⁷⁴ Informal employment has also been increasing at a higher rate than formal employment. A comparison with 2015 shows that average annual informal employment increased by 31,000 persons (7%), which was higher than the

increase of 8,300 persons (2%) who were formally employed.⁷⁵

Such high informal rates reduce the effectiveness of direct taxes such as income taxes, so the burden of such taxes ends up mostly on a small segment of the population. A significant characteristic of those participating in the informal economy do so precisely in order to evade taxes as well as regulations.⁷⁶ Although entry into the informal sector may initially be a survival mechanism for many individuals in response to limited opportunities, choosing to remain in this unofficial

⁷⁰ UHY (2015).

⁷¹ Data from Ministry of Finance. Earmarked statutory deductions, such as those made to HEART Trust and National Housing Trust, make up another 2 percent.

⁷² Total GDP includes all unreported and reported economic activities.

⁷³ STATIN (2016).

⁷⁴ See Peters (2017) for a similar estimate.

⁷⁵ STATIN (2016).

⁷⁶ ILO (2014); Andreoni et al. (1998); Feige (1979).

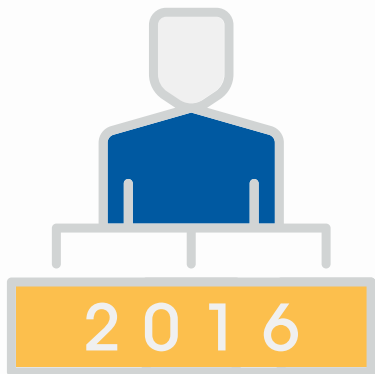
sector may center on one common factor –tax evasion.⁷⁷ Many citizens have a negative view of tax structures and taxing authorities in general.⁷⁸ The perception is that taxes are unfairly levied, tax breaks are unfairly distributed, and the government is riddled with inefficiencies, favouritism, and corruption.⁷⁹ One contributing factor to this perception is that an error in filing of taxes warrants as severe a punishment as for those who are deliberate tax evaders.

Another common explanation for why enterprises remain informal is the high cost of doing business as a formal establishment. The World Bank's *Doing Business 2018* ranked Jamaica 70th of 190 countries, with scores for paying taxes (122) among the worst scores. The tax system has been cited among the top five obstacles to doing business. The costs are probably most burdensome on small enterprises that do not have the margin of employee time and resources to spend on compliance, particularly in respect of tax payments.

Through recent reform efforts, Jamaica's tax system has made some noticeable improvements. Creating a more efficient system through the shifting of its reliance on income taxes towards consumption taxes was among the main objectives of the reforms. Despite these improvements, the analysis above revealed that income taxes still account for the largest share of tax revenue. The *Doing Business* report revealed that while Jamaica is doing better in its overall assessment than most of its counterparts in the region, for the paying taxes component, it is ranked in the bottom 70. It is still not clear, therefore, how efficient the current changes have made the tax system, and therefore whether further improvements are necessary or warranted, and what these changes should look like. This presents a need to measure the relative efficiency of the different taxes. In addition, any analysis for improvement of the efficiency of the current tax structure must bear in mind Jamaica's very large informal sector, which significantly reduces its tax base and will therefore influence the optimal choice of taxes to rely on.

JAMAICA'S AVERAGE ANNUAL EMPLOYMENT

1,175,200



459,800

persons formally employed

2%
FROM 2015



478,300

persons informally employed

7%
FROM 2015

⁷⁷ Andreoni et al (1998).

⁷⁸ Wedderburn et al (2011)

⁷⁹ Ibid.

2. ESTIMATING TAX EFFICIENCY

Designing an efficient tax system for Jamaica is largely concerned with the question of what is the appropriate mix of direct and indirect taxes. This is one of the oldest questions in the theory and practice of taxation. Direct taxes are those that may be adjusted to the characteristics of the taxpayer, for example, income taxes (and in some cases property taxes).⁸⁰ Indirect taxes are those that are levied on transactions irrespective of the circumstances of the buyer or seller, for example VAT, excises and customs duties.⁸¹

The literature on optimal taxation does not provide quick or exact guidelines to be followed in the design of tax structures. Optimal tax design requires the use of both direct and indirect taxes, leaving open what the optimal tax mix should be. Nonetheless, the choice of direct versus indirect taxes is fundamental to the optimal design of tax structures since those forms of taxation may differentially affect the efficiency goals.⁸²

Because some taxes impose much higher costs on society than others, we attempt to estimate which type of tax is more efficient in Jamaica's particular circumstances. We assess the efficiency of taxes in Jamaica by estimating what the three main costs of taxation – evasion, compliance, and administrative – are for each tax type.

⁸⁰ Atkinson (1977). .

⁸¹ Martinez-Vazquez et al (2011).

⁸² Ibid.

2.1 TAX EVASION

We estimate tax evasion by estimating the tax gap – understood as the difference between the potential revenue under the current tax system and the actual revenues collected – for the three major categories of taxation in Jamaica: income tax, GCT, and property tax.

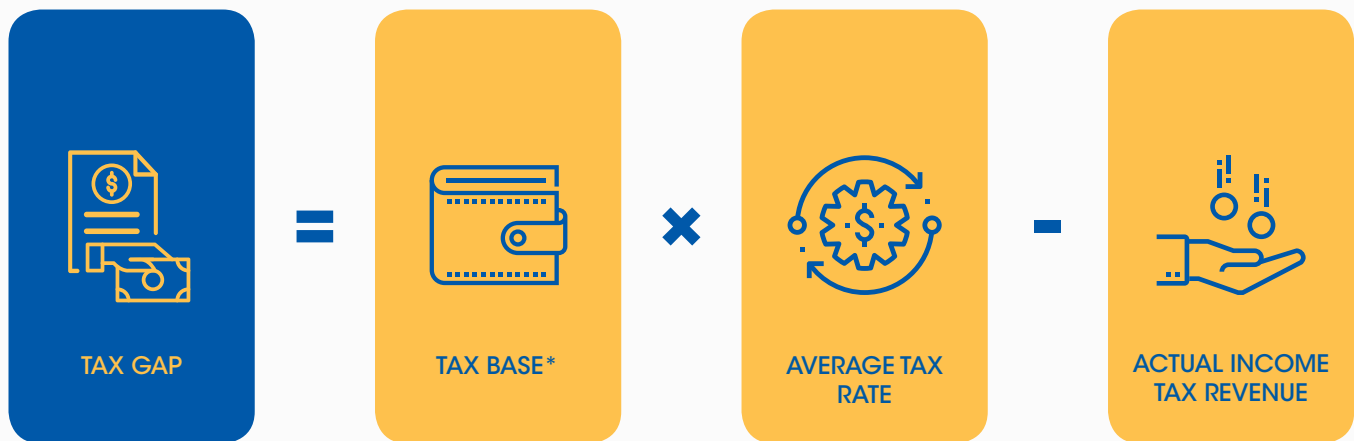


ADMINISTRATIVE COSTS

Estimating the potential personal income tax gap for the formal and informal sectors requires knowledge of the total income earned by workers (See Figure 5). The tax base in the

case of income tax is the taxable annual earning of workers in both the informal and formal sectors.

Figure 5: Tax Gap Calculation



Given widespread non- and under-reporting, data on the incomes earned by individuals is generally unavailable, inaccurate or not sufficiently comprehensive.⁸³ We therefore adopted the common practice of using expenditure per person as a proxy for income. Expenditure per person is deemed as a more accurate and reliable representation of individuals' incomes annually.⁸⁴

The complication of estimating income tax due is that different tax rates apply to different levels of income, including a zero rate for income below a threshold. Jamaica has experienced changes in the income tax threshold over the years, with the

most recent change initiated in 2016 where the income tax threshold was increased in two installments from J\$592,800 to J\$1.5 million in 2016 and 2017.⁸⁵ The standard income tax rate for individuals has remained at 25%, however, a tax rate of 30% applies to income in excess of J\$6 million.

To account for these differences, we utilize the occupational groups' classification of workers (i.e, professionals, sales workers, clerks etc) to identify those who fall above and below the threshold and applied the corresponding rates to categories based on the average income for employed persons in those categories. Figure 6 represents the income tax gap as a share of

⁸³ See Moore et. al. (2000) and Kukk and Staehr (2013).

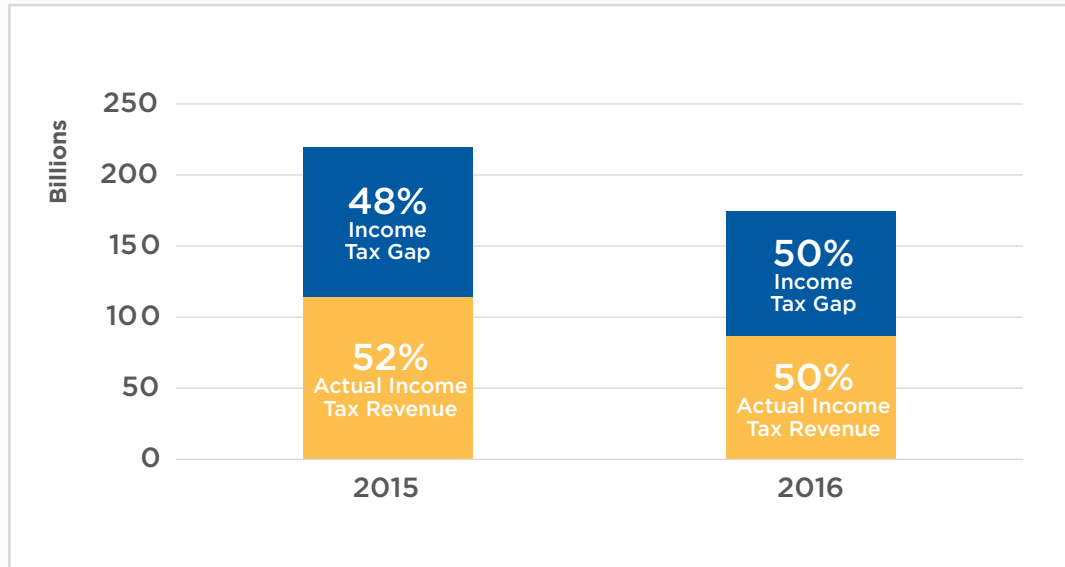
⁸⁴ See Kumar (1989) and Cope Jr et al (2012).

⁸⁵ Ministry of Finance and the Public Service, "Revised Technical Note Personal Income Tax Threshold & Rate FY 2016/17 Revenue Measures," Tax Administration of Jamaica, June 30, 2016. (www.jamaicatax.gov.jm/documents/10181/1857943/REVISED+TECHNICAL+GUIDANCE+NOTE+-+2016.01.IT+-+Increase+in+Personal+Income+Tax+Threshold+%26+Rate.pdf/67c8e527-9ea9-42a1-8b3c-ba9937f33e33)

potential income tax revenues. The calculations show that the personal income tax gap of 2015 and 2016 was approximately \$106 billion and \$87 billion respectively (the difference being

accounted for by the change in the income tax threshold between those two years), approximately 50% of the potential revenue in each case.

Figure 6: Actual and Potential Personal Income Tax Revenue



Source: Author's Calculations

The increase in the threshold in 2016 should have shunted some of the previously evaded taxation into the exempted portion below the higher threshold, thereby reducing the tax gap. However, in 2016, tax collection decreased by more such that the tax gap, as a share, actually increased by two

percentage points. The overall gap in income tax collections was greater than 48% in all the years under assessment for this report (going back to 2013), revealing that almost half of the potential revenue was not collected in any year.

Jamaica has experienced changes in the income tax threshold over the years, with the most recent change initiated in 2016 where the income tax threshold was increased in two installments from J\$592,800 to J\$1.5 million in 2016 and 2017.



GENERAL CONSUMPTION TAX

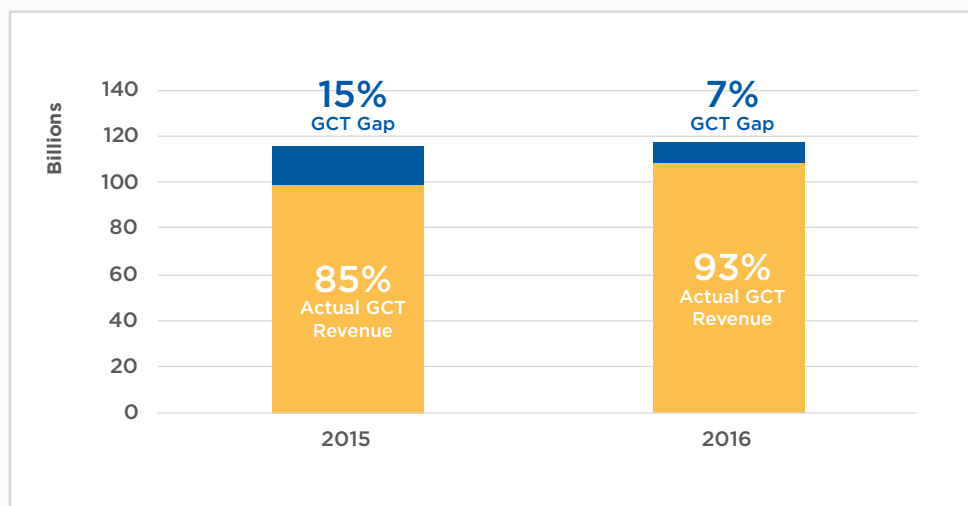
Applying the tax gap formula to GCT, the tax base is the value of production less the value added of zero-rated and exempted products. Applied to VATs, the same basic formula is known as the “C-efficiency” ratio. Data for the estimation was drawn from the national accounts.⁸⁶ Potential domestic GCT revenue is calculated for 2016 by using data on the production of value added provided in the national income, and product data and potential import GCT derived from aggregate import data.⁸⁷

The GCT rate for each year was applied to the GCT base, taking account of the various changes in the GCT rates: the standard rate raised to 17.5 percent in January 2010 and reduced back to 16.5 percent in June 2012; the rate for tourism services was raised from 8.25 percent to 10 percent in April 2010; and the rates for phones and phone services were increased from 20 percent to 25 percent in October 2009.⁸⁸ The tax base for GCT has also been broadened by reducing the number of zero rated and exempt items, although there still remain a large

number of items and transactions out of the scope of GCT. The calculations, therefore, accounted for the varying exemptions and zero-rated items, and in some cases variants from the standard GCT rates, to provide the most accurate GCT taxable base.⁸⁹

The IMF estimated the GCT tax gap for Jamaica to be between 23 percent and 33 percent of potential GCT revenues during the period 2008–13, peaking in 2009. Figure 7 shows our estimates of the compliance rates as a share of potential revenues for 2014 to 2016. Our estimates for 2015 and 2016 put the gap between 7% and 15% of potential revenue. (See Figure 7) As shown in Figure 7, tax revenues have increased over the period of assessment resulting in reductions in the gap. The estimated gap was as high as 33 percent in 2009 but has gradually decreased since then and is down to its lowest level at 7% in the most recent year estimated.⁹⁰

Figure 7: GCT Tax Gap as a share of potential GCT revenues



Source: Author's Calculations

⁸⁶ The approach utilized closely follows the International Monetary Fund (IMF) Revenue Administration Gap Analysis program (RA-GAP) methodology. The IMF RA-GAP methodology provides a sectorial decomposition of the GCT gap for Jamaica through the use of the 2007 extended supply and use tables (SUT) provided by STATIN. The extrapolation of SUT 2007 tables to 2013 was implemented on the assumption that the ratio of outputs to inputs for each sector in 2013 was the same as in 2007. To extend that table to 2016 would require the same assumption. However, there is a risk that structural economic changes year by year could affect this ratio. In fact, the authors recommended that aggregate data be revised for more recent years when data is available. For this reason, this report utilized national accounts data as a more reliable estimate.

⁸⁷ For actual GCT revenues, tax returns and payment data for 2016 were provided by the Tax Administration Jamaica (TAJ). NB: Potential GCT revenues are calculated on the economic activity observed in GDP figures, i.e. they do not take into account possible behavioral change if the compliance gap was reduced, and the effective tax rate increased consequently.

⁸⁸ TAJ website: Retrieved on October 20, 2018 <https://www.jamaicatax.gov.jm/general-consumption-tax1>

⁸⁹ See appendix 1 of the IMF RA GAP methodology presented in Ueda and Thackray (2015) for details of the treatment of zero-rated and exempted items. The main difference between zero rate and exempt supplies is that the suppliers of zero-rated goods and/or services can still reclaim all their input VAT, but the suppliers of exempt goods are either not registered for VAT, or if they are, they cannot reclaim their input VAT.

⁹⁰ Ueda and Thackray (2015).

The tax gap for 2017 is at a level that would place it in the middle of those for other Caribbean countries, but the considerable spread in the efficiency range puts Jamaica considerably below

Dominica and Barbados, suggesting that there is some room for Jamaica's GCT system to improve its efficiency.⁹¹



PROPERTY TAX

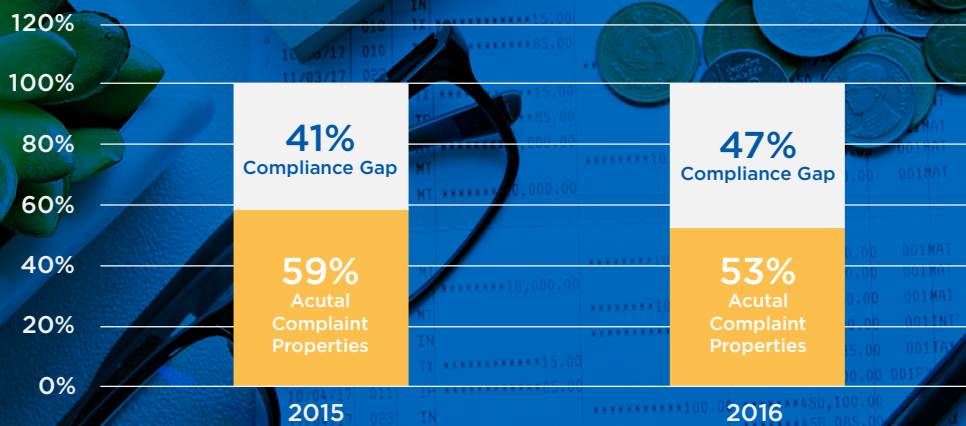
Potential property taxes are calculated from data provided by the TAJ, based on the (unimproved) property valuations, adjusted by subtracting exempted properties (which constitutes the tax base), and applying the appropriate tax rate. Actual property tax collections were then subtracted from the potential taxes following the same tax gap formula.

Figure 9 shows the resulting estimations of the property tax gap as a share of potential revenues for 2015 and 2016.⁹² The average loss of revenue for property taxes was approximately 37%. No more than two thirds of potential revenues were collected in any of the years assessed.

COMPLIANT PROPERTIES

In the case of property taxes we consider not only the dollar value of property taxes due, but also the number of compliant properties. We assessed the most recent available data from 2015 & 2016. Compliance concerning the number of properties with payments due and collected is shown in Figure 8.

Figure 8: Compliant Properties and Compliance Gap as a share of Total Obligated Properties



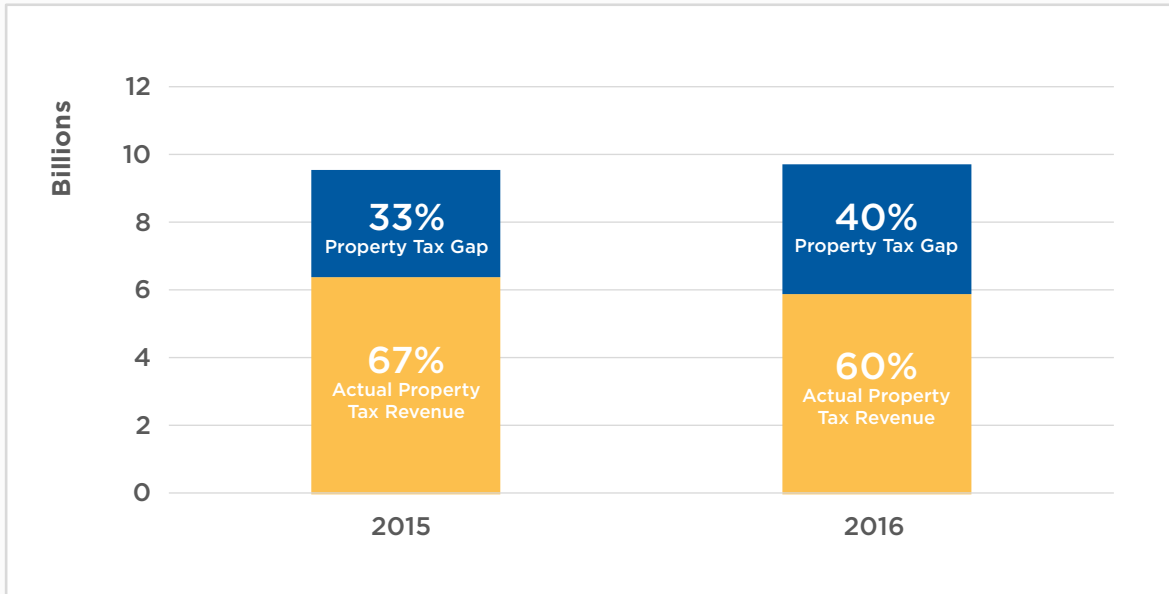
Source: Author's calculations from TAJ data

The average loss of revenue for property taxes was approximately 44% for all the years assessed. The compliance rate decreased in both dollar values and in terms of the number of compliant properties over the period assessed. When property tax compliance is considered using the number of properties as a measure, TAJ achieved an average of 56% of total obligations for the two years.

⁹¹ Schlotterbeck (2017).

⁹² Each year represents data collected from April of that year to March of the following year. e.g. 2017 represents March 2017 to April 2018.

Figure 9: Property Tax Gap as a share of Potential Property Tax revenues



Source: Author's calculations from TAJ Data

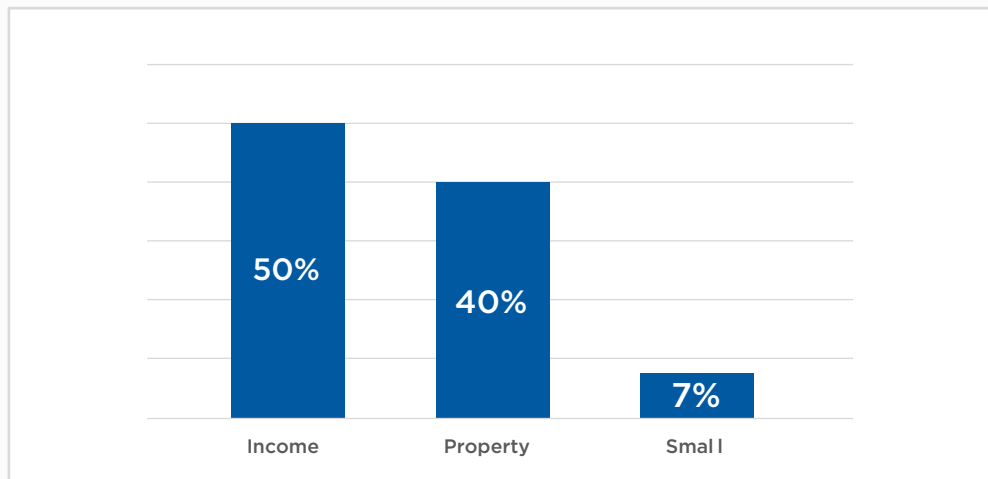


COMPARISON

Figure 10 below shows the income, GCT and property tax gaps that were calculated for the most recent year of our analysis, 2016, as a share of the estimated potential revenue for each tax

type. In 2016, some J\$99 billion of taxes were evaded across the three taxed types, constituting 33% of potential revenue. The largest of the tax gaps is that for income tax, at 50%.

Figure 10: Total tax gap for income, GCT and property taxes as a share of the potential tax revenue for the particular tax,



Source: Author's calculations

The comparative results align with intuition. Income tax is the most easily evaded since its base is the most dispersed given the size of the employed labour force and the potential multiplicity of income sources for each member. The base for a VAT such

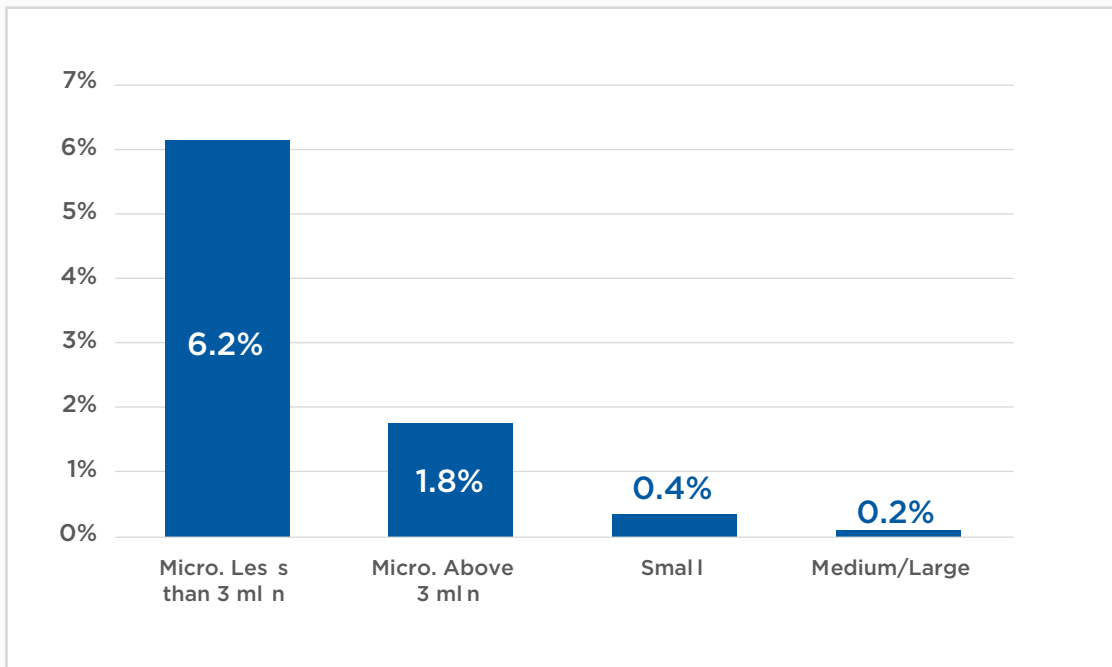
as GCT is far narrower. Property tax is the most difficult to evade due to the existence of a single comprehensive database that represents the tax base, an advantage that neither income nor value added taxes have.

2.2 COMPLIANCE COST

The second component in determining the efficiency of Jamaica’s taxes is the compliance cost – the cost to taxpayers of reporting on their economic affairs and identifying and fulfilling their tax liabilities, not including the value of the taxes remitted.⁹³ We determine the cost to comply by businesses by using the share of business’s turnover that is spent on compliance, and with data on the amount of turnover, to calculate the dollar cost of compliance.

As might be expected since there are scale economies in compliance activities, the relative cost of compliance will be greater for smaller businesses. The data on compliance costs supports this conjecture. The tax compliance costs-to-turnover ratio for micro businesses with a turnover of less than \$3 million averages 6.2%, while for medium/large businesses it is only 0.2%.⁹⁴ (See Figure 11) We therefore see that compliance costs are regressive, which is a common situation internationally, but not always to such a degree.⁹⁵

Figure 11: Tax compliance costs as a percentage of turnover



Source: CAPRI's calculations from survey administered for Tax Compliance Project, 2016 ⁹⁶

⁹³ N=383. See: CAPRI (2016).

⁹⁴ The costs of tax compliance include all costs associated with the tax activities of the business. This is comprised of fees paid to consultants, the opportunity cost of staff members who were involved in tax activities, as well as other expenses such as purchasing specialized bookkeeping software.

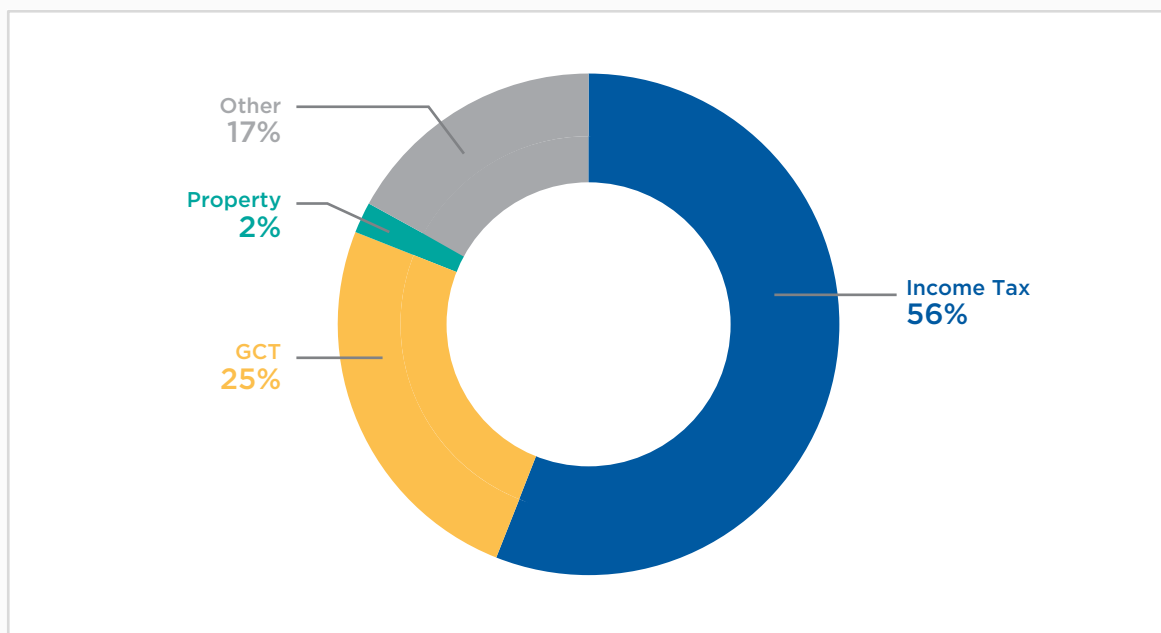
⁹⁵ N=383. See CAPRI (2016) R164

⁹⁶ Ibid.

The costliest activity is calculating and preparing the various tax forms. This was followed closely by filing and submitting tax returns. These accounted for a half and a fifth of the total compliance cost respectively.

The breakdown of the tax compliance cost by tax type shows that the costliest tax to comply with is income taxes (both corporate and individual), followed by GCT, which is a less than a half of the compliance cost of income taxes (See Figure 12).

Figure 12: Breakdown of TCC by Tax Type, 2016



Source: CAPRI's calculations from survey administered for tax compliance Project, 2016 ⁹⁷

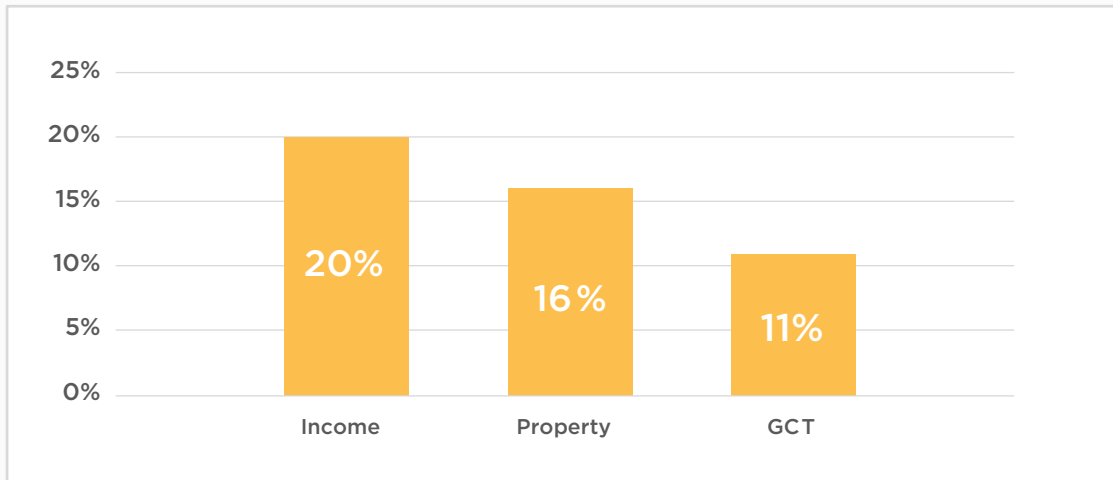
We utilize the tax compliance cost as a share of businesses' turnover for each tax type and the businesses' actual turnover to estimate the total cost to comply with the different taxes. The results of our estimation are represented, first as a share of the revenue for the particular tax, in Figure 13. To be compliant

with income tax, for example, costs 120% of the amount paid in income tax, the additional 20% representing the cost of resources expended in being compliant. For PAYE workers, the cost of compliance is born by the employer.

We determine the cost to comply by businesses by using the share of business's turnover that is spent on compliance, and with data on the amount of turnover, to calculate the dollar cost of compliance.

⁹⁷ Ibid.

Figure 13: Compliance Cost Relative to Actual Revenue, 2016

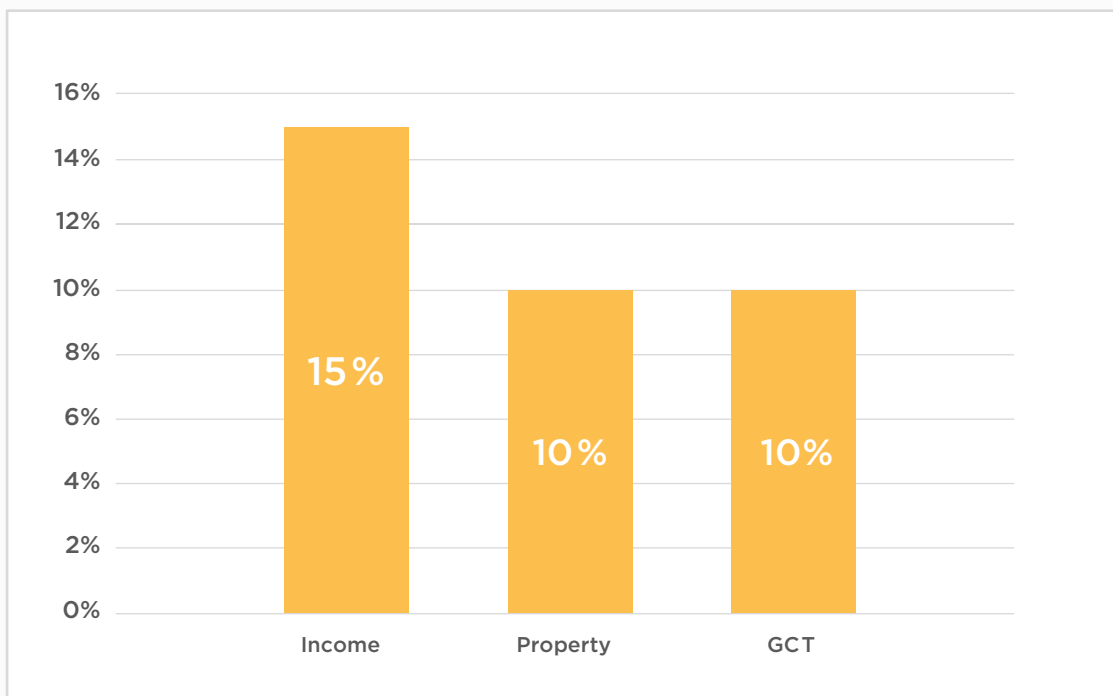


Source: Author's calculations

Figure 13 shows that the costliest tax with respect to the revenue collected for that tax is again income taxes (business and individual). GCT was the least costly to comply with at 11%, which is approximately a half of the compliance cost of income taxes.

For purposes of comparing the various efficiency costs (evasion, compliance, and administration) with each other, each has to be expressed on a common basis. Hence, the cost of compliance is expressed relative to potential revenue for each type of tax in Figure 14, which does not affect the ordering but greatly affects the relative magnitudes.

Figure 14: Compliance Cost Relative to Potential Revenue, 2016



Source: Author's calculations

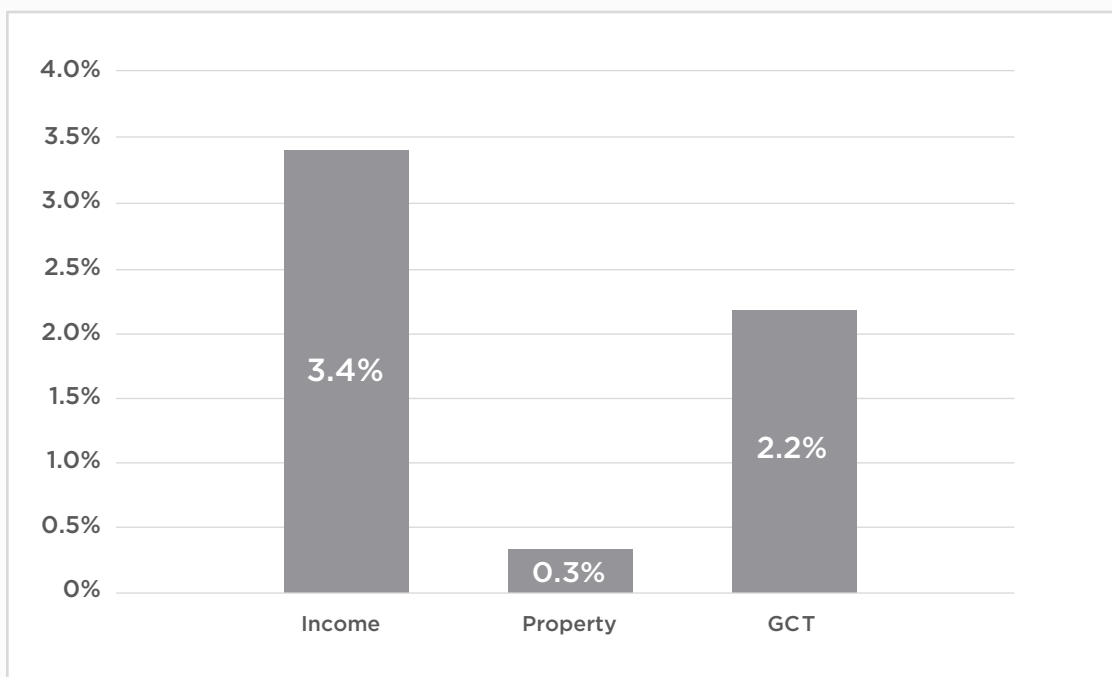
2.3 ADMINISTRATIVE COST

In financial year 2016/17, J\$8 billion was allocated to Tax Administration Jamaica for the monitoring and collection of taxes.⁹⁸ This represents 2% of the tax revenue collected that year.

While desirable for our analysis, the breakdown of this allocation per tax type was not available for Jamaica. We therefore collected information from Slovakia – a country

for which the data was available and is not far dissimilar to Jamaica in size – on the relative allocation of staff and other administrative costs for each type of tax. These shares were applied to the annual budget of Tax Administration Jamaica to yield an estimate of the cost of administering each type of tax in Jamaica. These estimated administrative costs were then expressed as a percentage of the potential revenue from each tax, shown in Figure 15.

Figure 15: Administrative Cost Relative to Actual Revenue



Source: Author's calculations

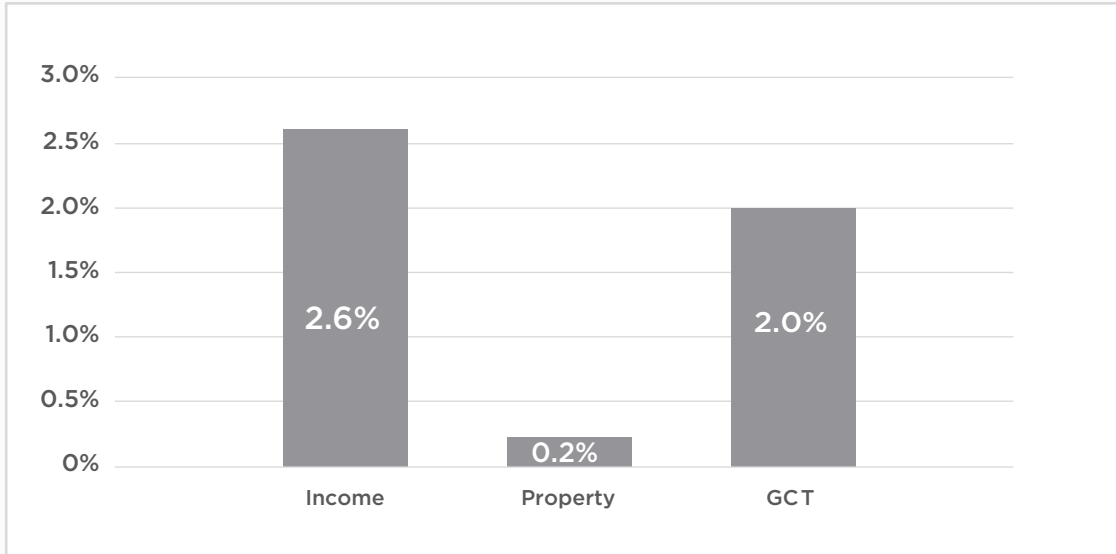
With 0.3% of its revenues collected being dedicated to its administration, Property taxes was the least costly tax, making it the most efficient tax from an administrative perspective. This was followed by GCT, at 2.2%. Income taxes had the

highest administrative costs at 3.4% again making it the most costly and inefficient tax.

Figure 16 displays administrative costs relative to potential revenue.

⁹⁸ Ministry of Finance and Planning Budget Estimates 2017/2018

Figure 16: Administrative Cost Relative to Potential Revenue

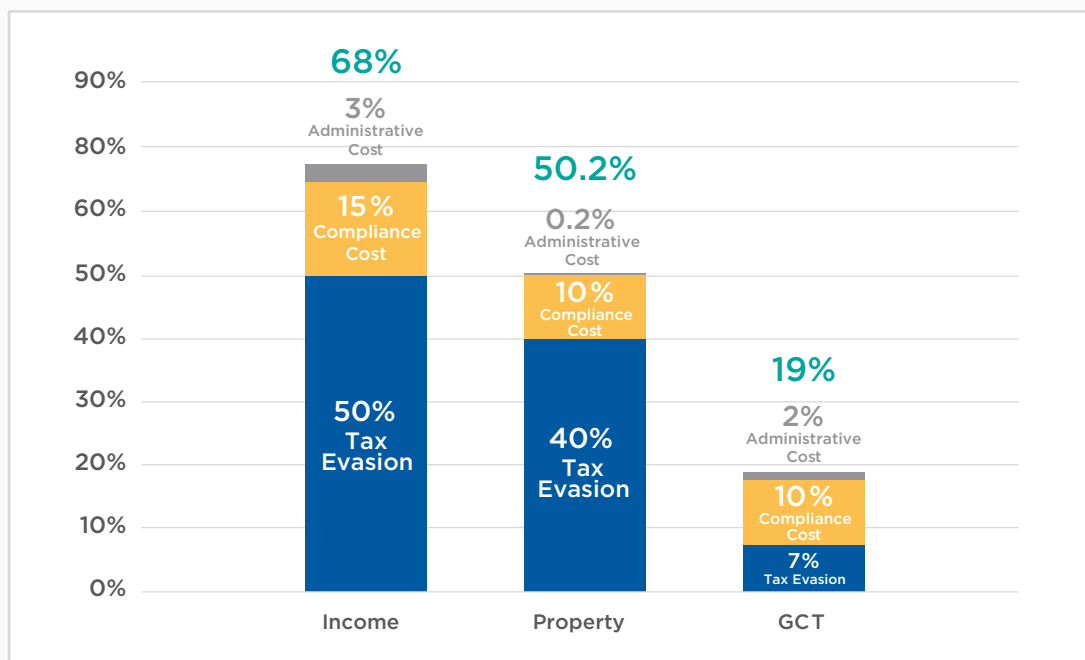


2.4 ADDING IT UP

Our analysis thus far has estimated the efficiency of the main types of taxes for Jamaica by estimating the costs of each tax's compliance, administration and evasion. The calculations revealed tax gaps averaging in excess of J\$100 billion annually, and a significant share of revenues dedicated to complying and administering taxes. If we accumulate the calculations made in the previous sections for evasion, compliance and

administration costs of the three taxes, we find that income tax is by far the least efficient tax, netting only 32% of its potential revenue, losing half of that potential to evasion, and costing more than a third of what is actually received in compliance and administration. (Figure 17 displays all three types of cost stacked for each of the three taxes.)

Figure 17: All Costs Relative to Potential Revenue



Source: Author's calculations

Property tax is more efficient, netting almost 50% of its potential after 40% is evaded, while compliance and administration account for 10% and 0.2% respectively. The most efficient tax by some distance is GCT, which is estimated to net 81% of its potential revenue.

Quantitative estimates of the cost of distortion—preferred private choices discouraged by taxation—are beyond the capacity of this report. However, the degree to which each of the types of taxes considered sway economic decisions can reasonably be speculated. Income taxes relate to a single type of economic activity – working (personal income tax) and producing (corporate income tax) in the formal sector. The sum of the taxes on payroll therefore discourages that activity in preference to working and producing informally, or not doing so at all. GCT applies to the breadth of production and consumption and so distorts less than income taxes do. Property taxes, which in Jamaica applies only to the undeveloped value

of the land and considering that the stock of land is fixed, is the least distortionary of all. So taking account of the cost of distortion would corroborate and support the ordering of efficiency derived from the quantitative analysis above.

The comparatively poor performance of income tax in this assessment aligns with intuition. Few persons who are not on PAYE submit income tax returns and of those that do, self-declared income is widely under-stated. The lesser evasion from value added taxes reflects that these taxes are more difficult to evade since they are charged and collected indirectly through the purchase of goods and services, and are collected by an intermediary, retailers, whose operations are more difficult to conceal than individuals. In addition, these goods and services at some point have had to pass through even larger businesses for whom it is more difficult to operate informally due to their size. It therefore requires less effort from tax administrators.

3. EFFICIENT TAX POLICY GUIDELINES

3.1 BASIC PRINCIPLES

Having an efficient tax system is more than just choosing the right type of taxes; it also concerns the design of each type of tax. Therefore, having determined which tax is the most efficient, we now examine the broader theoretical discussion of general efficient tax policy guiding principles. The unmeasured distortion is potentially the most damaging inefficiency of all, so good tax policy requires minimizing that.

To do so, there are two general rules that can be gleaned from the literature.⁹⁹ First, tax bases should be as broad as possible.¹⁰⁰ A broad-based consumption tax, for example, will still discourage work effort, but such a tax will minimize distortions amongst different goods and services if all goods and services are subject to the tax at a uniform rate.¹⁰¹ A few items, such as gasoline, tobacco products and alcohol, may be taxed at a higher rate, for regulatory reasons, because the demand for these products is relatively unresponsive to taxation, or because consumption of the products are being deliberately discouraged.¹⁰² The tax base for income tax should likewise be as broad as possible, treating all incomes, no matter from what source, uniformly.¹⁰³ From an efficiency perspective, it is therefore better to raise revenue by imposing a single rate on a broad base rather than dividing that base into segments and imposing differential rates on each segment.

Second, tax rates should be set as low as possible, given revenue needs to finance government operations. The reason is that whereas prices may reflect the real costs of production, the imposition of a tax distorts the price from real costs and thereby induces consumers to shy away from consuming a good or service that they may desire greatly and cost little to produce. Society is worst off when consumers then switch to items that they desire less and might cost more to produce. The size of this effect is directly related to the tax rate. This distortionary effect of taxes generally increases proportionally to the square of the tax rate, so that, say, a doubling of the rate of a tax implies a fourfold increase in its distortionary costs.¹⁰⁴

Therefore, in designing an efficient tax system for Jamaica, the tax authorities should seek to tax more uniformly, choosing taxes that at minimum are characteristic of a broad base, and low rates to the extent that they are possible.

⁹⁹ See Bird and Zolt (2008); Fox and Gurley (2005); Evans (2003); Mann (2002), Martinez-Vazquez and McNab (2000); Shah and Whalley (1990), Webber and Wildavsky (1986); World Bank (2003).

¹⁰⁰ Bird and Zolt (2008).

¹⁰¹ In theory, in order to minimize efficiency losses, different tax rates should be imposed on each commodity, with higher rates imposed on those goods and services where the changes in behavior are the smallest. To do so, however, requires much more information about how taxes alter behavior than is available in most countries. Moreover, this approach does not take administrative and equity concerns into account. For these reasons, in practice it seems generally advisable to impose a uniform tax rate to the extent possible.

¹⁰² Unfortunately, in many instances this implies that such taxes will be highly regressive with respect to income.

¹⁰³ Bird and Zolt (2008).

¹⁰⁴ Ibid.

3.2 LEVEL OF DEVELOPMENT AND TAX STRUCTURE: INTERNATIONAL TRENDS

No single tax structure can possibly meet the requirements of the particular circumstances of every country. The best system for any country should be determined by taking into account its economic structure, its capacity to administer taxes, its public service needs, along with other factors.¹⁰⁵ Nonetheless, one way to get an idea of what matters in tax policy is to look at practices around the world. The level and structure of taxes and the way in which taxing patterns have changed in recent years are reviewed in this section through the lens of the Organization of Economic Co-operation and Development (OECD) countries, which maintains a relevant database. Many of these countries, such as New Zealand, Estonia, Canada and the United Kingdom (UK), have been identified as having relatively efficient tax structures which have contributed to the small size of the tax gaps in these countries. The OECD has 35 member countries across the world. They include many of the world's most advanced countries but also emerging market countries like Mexico, Chile and Turkey, making these countries a good sample from which to draw lessons.

With the exception of Mexico and Italy, all these countries

have been ranked in the top 100 of 190 countries around the world on the Doing Business report's "Paying Taxes" indicator, and more than 90% of them were ranked in the top 50. (See Appendix 3 for selected economic indicators of some of the countries included.) The implication is that these countries' tax systems generally perform well. They raise sufficient revenue to adequately finance government spending in ways that are relatively fair and efficient. We therefore look to draw lessons from these countries on the most efficient taxes that are appropriate for Jamaica in consideration of its particular characteristics.

One way to view the appropriateness of a country's tax structure is to examine whether it is in line with countries at the same level of development and with similar economic characteristics.¹⁰⁶ Although it is clear that there is no definitive way to establish how high taxes should be in a country or what the structure should look like in pursuit of an efficient tax system, comparison with international practice allows us to know how far a particular country may be below or above the international norm.



TAX STRUCTURES: COMPOSITION OF TAX REVENUE

Tax structure is an important indicator because each type of tax has distinct economic and social effects. The data on tax composition for all 35 OECD countries show that the share of taxes from consumption (general consumption taxes plus specific consumption taxes) accounts for an average of 31% of 2015 tax revenues. Estonia (42%), Slovenia (40%) and Turkey (44%) collect a relatively large part of their tax revenues by way of taxes on goods and services. On average, OECD countries

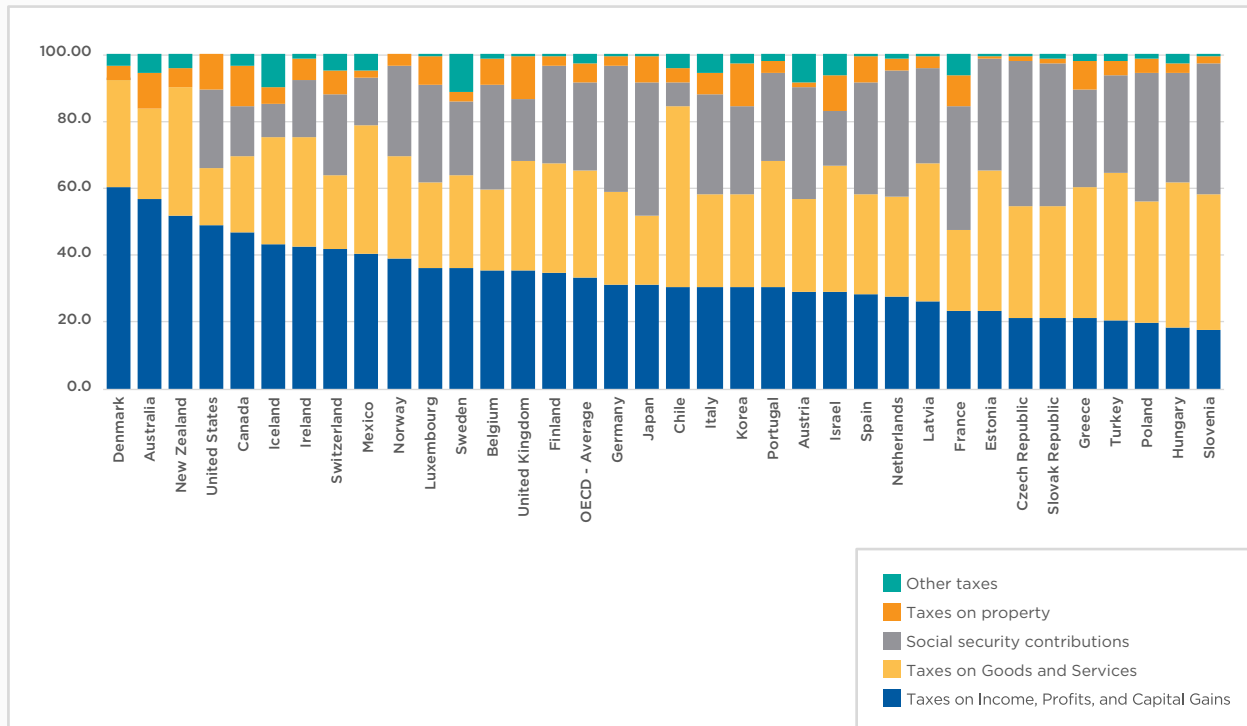
collected 34% of their revenue through taxes on income and profits (personal and corporate income taxes taken together). Taxes on incomes remain the most important source of revenue in only sixteen OECD countries, and in nine of them – Australia, Canada, Denmark, Iceland, Ireland, New Zealand, Norway, Switzerland and the United States (all developed countries) – the share of taxes from income and profits exceeds 40%.¹⁰⁷

¹⁰⁵ Bird and Zolt (2003).

¹⁰⁶ James & Martinez-Vazquez (2018).

¹⁰⁷ OECD (2017).

Figure 18: Tax Mix as a Share of Total Tax Revenue, OECD Members, 2015



Source: OECD and World Bank

So we see that the tax structure varies across countries, but an exploration of the relationship between the tax structure and the characteristics of the economy will reveal why this variation exists.



TAX STRUCTURE AND THE LEVEL OF DEVELOPMENT

The optimal tax mix differs across countries. Although developing countries face high levels of income inequality, they rely more on consumption taxes (indirect tax), which are less effective for redistribution than income tax (direct tax). According to the OECD data, the higher the level of per capita income, the more a country seems to rely on direct taxes, especially those on income.

These differences in tax structures appear to reflect certain basic differences in characteristics between low and high-income countries. One such is capacity. Low-income countries tend to raise more revenues through means which are easier to control, thus reducing the opportunities for evasion in the presence of weak administrative capacity. For this reason, most developing countries rely on consumption taxes which are generally more easily monitored and enforced.¹⁰⁸ Our own calculations earlier demonstrated that consumption taxes are

less easily evaded. If these taxes are implemented uniformly, it is also easier to determine the taxes outstanding since there would be fewer avenues of escape, and in part because a larger proportion of all activities are encompassed in the tax net.

On the other hand, direct taxes—especially personal income taxes—are relatively difficult to administer.¹⁰⁹ This is because, unlike indirect taxes, direct taxes tend to require both a more effective tax administration and more capable taxpayers—highly literate, able to keep records, and willing to file self-assessments—conditions which exist more in developed countries.¹¹⁰ Businesses can easily avoid these direct taxes entirely by operating through cash in the informal economy. Even in so doing, however, they pay a large portion of a VAT in the purchase of supplies. Under the circumstances of weak administrations in developing countries then, heavier reliance is placed on consumption taxes.

¹⁰⁸ Rios (2016).

¹⁰⁹ Kayaga (2007).

¹¹⁰ Bird & Zolt (2008).

Another difference between poor and rich countries is that poor countries tend to have larger informal sectors with a preponderance of small-scale informal businesses such as street vendors. These two factors often push low-income countries to a lower level of tax collections and a narrower tax base. The incomes of these informal firms and their owners are hard to measure for tax purposes, and taxing their transactions is largely impossible and expensive in the absence of formal record keeping. This also explains why poorer countries tend to rely more on indirect taxes.

Efficient and successful tax policies therefore must consider their capacity to enforce the taxes which are implemented.

Capacity constraints should influence not only the type of taxes chosen, but also how these taxes are implemented. Taxes which are less costly to administer are by definition more efficient taxes. In pursuit of an efficient tax structure, countries such as Jamaica which are constrained by administrative capacity should therefore seek to pursue indirect taxes which are relatively easier and therefore less costly to administer, given its ability to be imposed so that it is difficult at worst, and impossible at best, to be evaded by taxpayers with little enforcement effort and cost. We will therefore explore further the relationship between informality and the tax structures of these countries around the world.

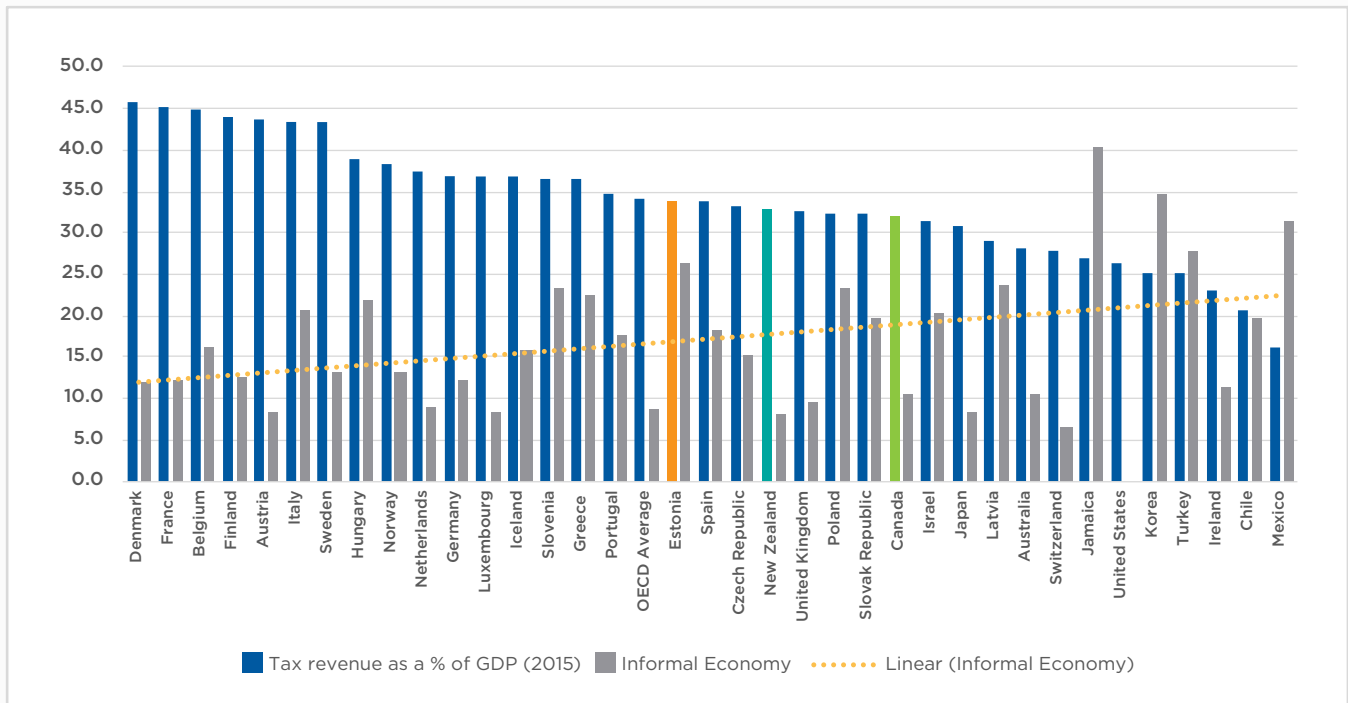


THE RELATIONSHIP BETWEEN INFORMALITY, TAX STRUCTURE AND TAX REVENUES

Evidence for inverse relationship between informality and the capacity to extract tax revenue is provided in Figure 19, which orders countries by tax revenue as a percentage of GDP and simultaneously shows the share of their economies that are informal. As one goes from left to right, countries' tax revenue

declines but, though not precisely, the size of their informal economies become larger. The rise in the informal share is summarized by the trend line on the graph, which does indeed have a positive slope.

Figure 19: The relationship between tax revenues and the informal economy, 2016



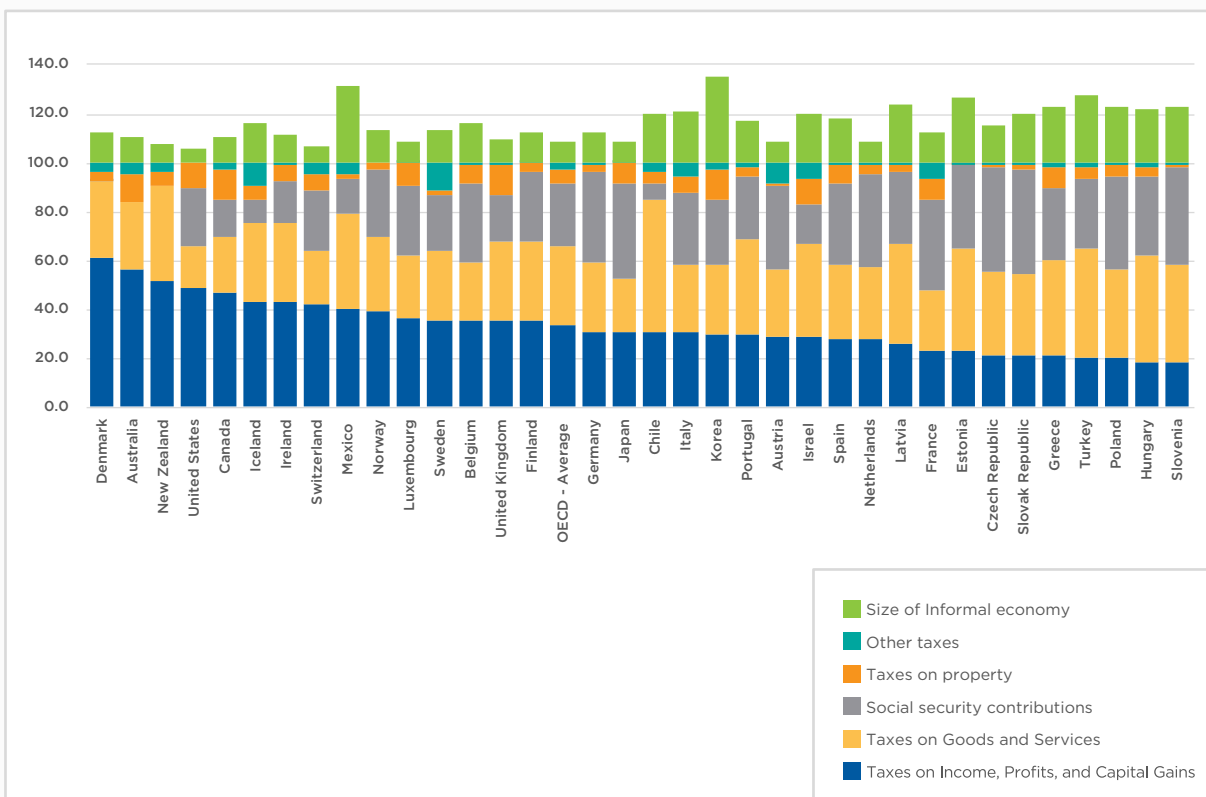
Source: Author's calculations from OECD and World Bank data

Having a large informal sector makes broad-based taxation of income nearly impossible since the informal sector, by definition, escapes taxation. Further, it leads to the perverse but unsurprising result that raising the tax rate yields less revenue than it might since the targets of the tax can easily slip into informality and thus shrink the tax base.¹¹¹ An obvious and immediate effect of the presence of a large informal sector, therefore, is to reduce the revenue potential of any given tax

structure. The presence of the informal sector, therefore, affects the choice of tax structure.¹¹² Countries should therefore select taxes and design them in a way that maximizes revenue performance in consideration of the presence of a large informal sector.

Figure 20 illustrates the structure of tax revenue in a sample of 36 countries, as well as the size of these countries' informal sectors.

Figure 20: Tax Structure versus Informal Sector, 2015



Source: Author's calculations from OECD and World Bank data

The countries with the larger share of informal activity (more to the right side of Figure 20), have also the largest shares of their revenues coming from taxes on goods and services. Canada for example, has the fourth highest reliance on income and profit taxes among OECD countries corresponding to the tenth smallest informal sector.¹¹³ At 46.5 percent of total tax revenues, income and profit taxes constitute nearly half

of all tax revenues for the government of Canada and are significantly greater than the OECD average of 34.4 percent.¹¹⁴

Countries with smaller informal economies collect a much larger share of their national output (GDP) in taxes, and they tend to rely more on income taxation to do so.¹¹⁵ However countries with a large informal sector have achieved similar tax revenues by depending more on indirect taxes.

¹¹¹ Besley and Persson (2014).

¹¹² Alm & Martinez-Vazquez (2018).

¹¹³ OECD (2017).

¹¹⁴ Clemens et al (2007).

¹¹⁵ Ortiz-Ospina and Roser (2018).



CASE STUDY: ESTONIA VERSUS NEW ZEALAND

A comparison between New Zealand and Estonia is an interesting example of how a country with a high level of informality can use indirect taxes to achieve a rich country's level of tax extraction. New Zealand's and Estonia's tax revenues are close at 33 and 34 percent of GDP respectively. This placed both countries slightly below the OECD average, and 7 and 8 percentage points above Jamaica's. Estonia's informal sector is more than three times that of New Zealand's. Contrary to the overall trend of an inverse relationship between informal sector size and the tax revenue observed above, Estonia manages to match New Zealand for tax extraction.

The differences in the tax structures of both countries (shown in Figure 21 previously) account for this difference. New Zealand benefits from a relatively smaller informal economy and therefore was able to raise substantial revenues through direct taxes. As our data has revealed, 52% of New Zealand's

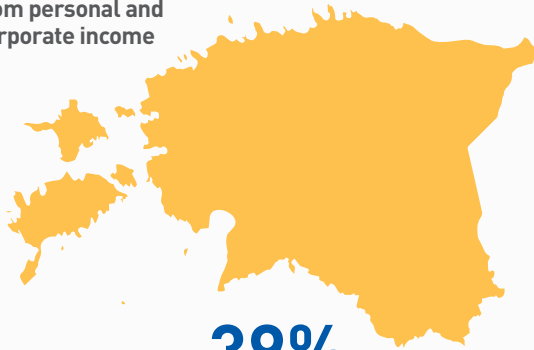
tax revenue is collected from personal and corporate income (or other similar taxes), and 39% from VATs. (See Figure 20) In the case of Estonia, only 23% of its revenues are generated from income taxes, while 42% comes from VATs. With such difference in informal sector sizes, the case of Estonia demonstrates that taxing indirectly through VATs can achieve similarly high levels of tax extraction despite a large share of informality.

We have now seen that countries can rely more on indirect taxes and receive equivalent tax revenues when faced with large informal sectors as those who rely on direct taxes but have a smaller informal sector. Poorer countries such as Jamaica, with large informal sectors, will therefore have to rely more on indirect taxes if they are to achieve sufficiently high levels of tax extraction to finance development.

ESTONIA'S TAX STRUCTURE

52%

from personal and corporate income



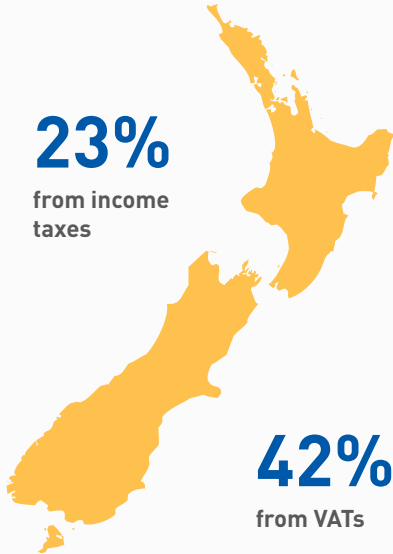
39%

from VATs

NEW ZEALAND'S TAX STRUCTURE

23%

from income taxes



42%

from VATs

3.3 LESSONS

A review of the international trends in efficient tax policy design that exist around the world provide useful lessons for Jamaica regarding fairness, informality, and administrative capacity.



FAIRNESS

Governments with different distributional objectives and divergent views on the importance of promoting economic efficiency and growth may reasonably come to different judgments about what should be taxed and the characteristics of the tax. Any practical tax system is likely to lead to some cost in terms of reduced efficiency and growth because taxes affect how hard people work, whether they invest in skills, whether they undertake risk, and how much they save and invest. The more reliant a country is on direct taxes the bigger these costs are likely to be given

the distortion they effect on economic decisions. Countries still pursue these taxes, however, to retain a key component of progressivity in their tax structures.

Ultimately, using the income tax system is only one of the methods utilized to redistribute income and protect the vulnerable. Our report argues that using the tax side of the fiscal budget is not the most effective way to achieve these outcomes. It is the entire government budget that is to be used in the pursuit of social equity.



INFORMALITY

The degree of informality influences the effectiveness of the tax structure. Countries with a small informal sector generally obtain a larger share of revenue by way of taxes on income and profits (including company and personal income

taxes). Countries with large informal sectors can extract similar tax revenues as countries with small informal sectors through a greater reliance on indirect taxes such as GCT.



ADMINISTRATIVE CAPACITY

Regardless of what a particular country may want to do with its tax system, it is always constrained by what it can do. Tax policy choices should be influenced by a country's administrative capacity. Countries constrained in administrative capacity

should seek to pursue indirect taxes which are relatively easier and therefore less costly to administer, and given its ability to be imposed, so that it is difficult at worst, and impossible at best, to be evaded.

4. CONCLUSION & RECOMMENDATIONS

The ability to extract taxation is an important determinant of a country's economic development and therefore so is the structure of its tax system. A well-structured system is difficult to evade, easy for taxpayers to comply with, and cheap to administer, while raising sufficient revenue for the government's priorities. In contrast, poorly structured tax systems can be costly, distort economic decision-making, and harm economies. Reducing these negative effects/costs means increasing the efficiency of the country's tax system.

Despite significant and commendable improvements in Jamaica's tax system, it has been cited among the top five obstacles to doing business. Jamaica is therefore in need of improvements in its tax policy designs to increase revenues, but also to reduce economic distortions and promote investment and growth.

Our analysis revealed that taxes on income are by far the most inefficient taxes in Jamaica. Both a review of the recent literature and the international experience on efficient tax policies reveal that given the high levels of informality, more efficient taxes for Jamaica would mean relying more on indirect taxes, even when equity concerns are raised. The international experience also corroborates the well-known theoretical argument in favour of uniform taxation. Given these conclusions, the following recommendations promote a more efficient tax structure for Jamaica.



tax
deductions



PERFORM PERIODIC TAX GAP ANALYSES

To improve the performance of tax policy, it is necessary to measure it. This requires addressing data integrity issues, maintaining reliable datasets, and developing proper performance management frameworks for the calculations of measures such as the tax gap. The IMF and its partners have developed a number of analytical tools designed to help countries assess tax performance and identify their strengths and weaknesses.¹¹⁶ The IMF completed one such analysis for VATs for Jamaica in 2014.

We recommend that the tax gap calculations provided in this report, as well as for import tariffs not included here, be computed by the tax authorities at annual intervals, and be the basis of key performance indicators (KPIs) for that agency. Some data that are necessary for more accurate calculations might be sensitive and not available to researchers (such as ourselves), and the authorities should therefore carry out these calculations as part of its own monitoring, and use the results to guide the tax policymakers.



CONTINUE TO DECREASE RELIANCE ON DIRECT TAXES

Our analysis has revealed that the most inefficient tax for Jamaica is the income tax. Indirect taxes such as GCT have the greatest revenue generating capacity and are the most efficient. With more than 40 percent of Jamaica's workforce forming a part of the informal sector, the burden of direct taxes falls on only a fraction of Jamaica's citizens. We recommend therefore that Jamaica continues to decrease its reliance on direct taxes (such as income taxes) while increasing its reliance on consumption taxes (such as GCT), until the economy is sufficiently developed and the informal sector shrinks. The VAT has been considered the best instrument to replace a myriad of inefficient taxes, broaden the tax base, and generate a stable source of revenue.

The challenge is to continue this shift in a way that does not leave the most disadvantaged citizens worse off (see recommendation 4).

¹¹⁶These tools are known by their acronyms: RA-FIT, TADAT, and RA-GAP.



ELIMINATE TAX CONCESSIONS AND EXEMPTION

Increasing the government's reliance on indirect taxes does not require a higher tax rate. The alternative is to broaden the tax base to the full extent necessary. That would entail reducing the number of zero-rated, exempted, or lower-rated commodities, thereby increasing the tax base.¹¹⁷ Both exemptions and zero-rating substantially complicate the administration of the tax, increase the economic distortions to which it gives rise, and poorly target the intended beneficiaries.

A VAT like the GCT should have as wide a base as possible, for two reasons. First, with a broader base, the rate required for any revenue is obviously lower, which means that the efficiency cost of raising revenue is correspondingly lower. Second, with a broader base, administration is simpler in part because there are fewer avenues of escape, and in part because a larger proportion of all activities are encompassed in the tax net.

We also recommend the elimination of GCT-exempted entities such as the government and schools, instead compensating these organisations with increased transfers. The net revenue effect for the government would be negligible. However, by reducing opportunities for misreporting, this expansion of the indirect tax base would raise revenue by more than expenditure while improving fairness and integrity.



ADDRESS EQUITY CONCERNS THROUGH ENHANCED SOCIAL PROGRAMMES

The Taxation Policy Division of the Ministry of Finance's objective is not only to ensure the tax base is broad but also to promote equity. Our analysis suggests that the most effective way to reduce inequality is not through taxation, but rather through well-targeted spending programmes. Expenditures aimed at improving primary education or primary health services are likely to prove more effective at reducing inequality than tax anomalies that the non-poor take advantage of to an even greater extent than the poor. The role of the tax system in emerging countries should be to raise the revenue to finance such programmes adequately, rather than to try to play a substantial redistributive role.

The government should, therefore, enhance social programmes at the same time as the shift to reliance on indirect taxes is pursued. These social programmes include programmes such as the PATH to protect those vulnerable that are more likely to be affected by this shift. Ensuring the adequacy of social protection programmes is a precondition for pursuing an extensive expansion of the indirect tax base, and protecting citizens living beneath the poverty line is a minimal requirement. From a social and political perspective, broader coverage of lower income groups may be crucial for successful implementation.

¹¹⁷The key difference between zero-ratings and exemptions is that suppliers of goods or services that are zero-rated are required to file GCT returns and, as a result, GCT borne on their inputs are fully recoverable, whereas for goods and services that are exempt, GCT returns are not applicable and so the GCT borne on their inputs is irrecoverable.

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APPENDIX 1: STAKEHOLDER CONSULTATIONS

Over the course of this research project, CAPRI consulted with members of the diaspora as well as business leaders who have been involved directly or indirectly with the development or administration of tax policy. The individuals consulted are listed below.

Aayon Cruickshank	Director, International Trade Relations Unit, Ministry of Finance and the Public Service
Dave Jeffery	Deputy Commissioner General of Operations, TAJ
Derron Currie	Economist/Research Officer, Ministry of Finance and the Public Service
Dr. Fabian Lewis	Director, Research and Analysis Unit, Ministry of Finance and the Public Service
Fayval Williams	Minister without Portfolio in the Ministry of Finance and the Public Service
Hank Williams	Deputy Commissioner General, Strategic Services, TAJ
Ian Long	Property Taxes Division, TAJ
James Grant	Senior Researcher, Jamaica Customs Agency
Madge Ramsay	Director, Tax Policy Review, Ministry of Finance and the Public Service
Pamella C. Folkes	Deputy Financial Secretary, Taxation Division
Sabrina Gordon	Acting Econometrician, Ministry of Finance and the Public Service
Shauna Trowers	Director, Tax Policy Development
Sophie-Ann Ridge	Acting Director, Tax Relief Unit, Ministry of Finance and the Public Service

APPENDIX 2: PAYING TAXES INDICATOR, DOING BUSINESS REPORT 2017

Economy	Paying Taxes DTF	Paying Taxes rank	Payments (number per year)	Time (hours per year)	Total tax and contribution rate (% of profit)	Postfiling index (0-100)
Ireland	94.46	4	9	82	26	92.93
Denmark	91.22	8	10	130	24.2	89.06
New Zealand	91.08	9	7	140	34.5	96.9
Finland	90.14	12	8	93	38.4	93.09
Latvia	89.79	13	7	168.5	35.9	98.11
Estonia	89.56	14	8	50	48.7	99.38
Canada	88.05	16	8	131	20.9	73.23
Switzerland	87.66	19	19	63	28.8	83.21
Netherlands	87.59	20	9	119	40.7	91.95
Luxembourg	87.37	21	23	55	20.5	83.75
United Kingdom	86.7	23	8	110	30.7	71
Korea, Rep.	86.69	24	12	188	33.1	93.04
Australia	85.62	26	11	105	47.5	95.34
Sweden	85.28	27	6	122	49.1	90.75
Norway	85.18	28	4	83	37.5	63.69
Iceland	84.54	33	21	140	29.7	87.2
Spain	84.44	34	9	152	46.9	93.6
Portugal	83.75	38	8	243	39.8	92.71
Austria	83.34	39	12	131	51.8	98.54
Germany	82.14	41	9	218	48.9	97.67
Slovak Republic	79.88	49	8	192	51.6	87.17
Poland	79.42	51	7	260	40.5	77.36
Czech Republic	79.26	53	8	248	50	90.75
France	78.55	54	9	139	62.2	92.4
Slovenia	77.78	58	10	245	31	59.94
Belgium	77.69	59	11	136	57.1	83.45
Greece	76.97	65	8	193	51.7	75.7
Japan	76.71	68	14	151	47.4	71.69
Chile	76.17	72	7	291	33	58.36
Turkey	72.4	88	11	215.5	41.1	50
Hungary	71.49	93	11	277	46.5	63.94
Israel	70.35	99	33	235	27	61.36
Italy	68.29	112	14	238	48	52.39
Mexico	67.01	115	6	240.5	52.1	40.51

Note: The countries are ranked by Paying Taxes Rank (Column 2)



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