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Legal tax liability, legal
remittance responsibility
and tax incidence: Three
dimensions of business
taxation

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ABSTRACT

Legal tax liability, legal remittance responsibility & tax incidence: Three dimensions of business taxation

This paper examines the role of businesses in the tax system. In addition to being taxed directly, businesses act as withholding agents and remitters of tax on behalf of others. Yet the share of tax revenue that businesses remit to governments outside of direct tax liabilities is under-studied. This paper develops two measures of the contribution of businesses to the tax system and applies both these measures for 24 OECD countries. The results show that businesses play an important role in the tax system, both as taxpayers and as remitters of tax. However, care should be taken in interpreting any measure of the business tax burden, which must be understood against the backdrop of economic incidence. This paper highlights that the economic incidence, or burden, of a tax is not necessarily borne by the person on whom the tax is imposed under legal statute, but may be passed on to others in the economy, whether it be owners of capital, workers or consumers.

RÉSUMÉ

Responsabilité fiscale légale, responsabilité du versement de l'impôt et incidence fiscale : Trois dimensions de la fiscalité des entreprises

Ce document examine le rôle des entreprises dans le système fiscal. En plus d'être directement taxées, les entreprises agissent en qualité d'agents chargés de la retenue et du versement de l'impôt pour le compte d'autrui. Pourtant, la part des recettes fiscales que les entreprises reversent aux pouvoirs publics, parallèlement aux impôts directement à leur charge, est rarement étudiée. Ce document élabore deux indicateurs de la contribution des entreprises au système fiscal, et calcule ces deux indicateurs pour 24 pays de l'OCDE. Les résultats montrent que les entreprises jouent un rôle important dans le système fiscal, à la fois en qualité de contribuables et d'agents de versement de l'impôt. Néanmoins, la prudence est de mise lorsque l'on interprète les indicateurs de la charge fiscale pesant sur les entreprises, qui doivent être appréhendés dans le contexte de leur incidence économique : la charge de l'impôt n'est pas nécessairement supportée par la personne redevable de l'impôt aux termes de la loi, mais peut être transférée à d'autres acteurs de l'économie, à savoir les travailleurs et les consommateurs.

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EXECUTIVE SUMMARY

This paper examines the role of businesses in the tax system. In addition to being directly taxed, businesses act as withholding agents and remitters of tax on behalf of others. Yet the share of tax revenue that businesses remit to governments outside of direct tax liabilities is under-studied. This paper develops two measures of the contribution of businesses to the tax system: (i) legal tax liability and (ii) legal remittance responsibility. Legal tax liability is defined as the sum of taxes that are imposed on businesses directly (e.g., corporate income tax), whereas legal remittance responsibility is the sum of taxes that businesses remit on behalf of others in the economy (e.g., tax on the wages of employees, sales and value-added taxes). This paper considers both measures for 24 OECD countries using data from the OECD's *Revenue Statistics* database and additional information gathered from OECD member countries.

Care should be taken in interpreting both measures, which should be understood against the backdrop of the issue of economic incidence. Economic incidence refers to the fact that the burden of a tax is not necessarily borne by the person on whom the tax is imposed under legal statute. For example, a tax imposed on capital owners may either be absorbed or shifted onto others in the economy, such as consumers or workers. Economic incidence will vary according to many factors, such as type of tax, country, and labour and product market structures. Recognising the importance of this issue for policymakers, the paper reviews the empirical literature on the economic incidence of taxation and summarises the estimates by tax category.

Some of the key findings of the paper include:

- Businesses play an important role in the tax system, both as taxpayers and as remitters of tax on behalf of others. Governments often rely upon businesses to remit taxes imposed on others for reasons of administrative ease - arising from the economies of scale of taxing fewer large entities - and improved tax compliance.
- The results show that businesses remit an important share of tax revenue to governments. This takes two forms: legal tax liabilities imposed directly on businesses (which account for 33.5% of total tax revenue in 2014, on average, across the 24 OECD countries analysed) and taxes remitted on behalf of others (45.3% of total tax revenue, on average, across the same set of countries).
- While businesses benefit in certain ways through their involvement in the tax collection process (e.g., the cash flow benefit), their remittance responsibilities also entail compliance costs. The analysis of businesses' overall role in remitting taxes to governments should include not just their legal tax liabilities, but also the compliance costs incurred on account of their legal remittance responsibilities.
- However, consideration of both the legal tax liabilities and legal remittance responsibilities of businesses does not necessarily provide evidence of who actually bears the burden of these taxes. In this regard, these two measures of the contribution of businesses to the tax system should take account of the crucial issue of economic incidence.
- This paper finds that the majority of empirical studies of economic incidence focus on the corporate income tax, where a wide-ranging review of the literature finds that it is likely that at least 30% of the corporate income tax is shifted onto labour.

- While there has been much research undertaken on the economic incidence of the corporate income tax, this paper calls for additional future empirical work on the economic incidence of other taxes.

The paper highlights two additional issues. First, though there is little empirical evidence available concerning the economic incidence of compliance costs, the channels through which tax burdens are passed on to others in the economy likely also apply to compliance costs. Finally, there is recent evidence that economic incidence may vary depending upon which entity is assigned responsibility for remitting a tax. More empirical research is needed in both of these areas.

1. Introduction

This paper explores the relationship between businesses and tax authorities in the revenue collection process. Although there is evidence that taxes paid and remitted by businesses on behalf of others can be shifted at least partially to workers and consumers and away from capital owners, businesses play a very specific role in the collection of tax revenues. Notably, they are legally liable for the corporate income tax (CIT). Analysts and policymakers pay a great deal of attention to the CIT and analysis of its impacts. Yet businesses' role is wider in range than the legal liability of CIT alone, encompassing many taxes other than the CIT for which businesses are legally liable. Additionally, tax remittance by businesses is a key feature of modern tax system administration.

In addition to their legal tax liabilities, businesses collect and remit taxes to tax authorities on behalf of others in the economy, such as workers and consumers. Given the large volume of income, sales, purchases and value creation that flow through businesses, it is not surprising that governments have sought out businesses as an important collection and remittance vehicle. There are important reasons why businesses facilitate part of the collection of revenues in modern tax systems. It is more efficient to collect taxes from organised businesses rather than from households as there are economies of scale for tax authorities in dealing with a smaller number of larger units (Alt, 1983). Businesses already have record-keeping and accounting systems in place to simplify the process of tax remittance (Slemrod, 2008). Additionally, businesses systematically collect information which enables verification that the correct amount of tax has been collected from all of the remitting parties (Shaw, Slemrod & Whiting, 2011), facilitating overall compliance. For example, businesses collect information on salaries paid to their employees. However, businesses' tax remittance role has thus far received little analytical attention.

In pointing to and analysing the ways in which businesses' role in tax system administration extends beyond the CIT, it is important to emphasise that this does not necessarily imply an expanded economic burden on business shareholders. There is often confusion between taxes remitted by businesses and the tax burden on capital owners. The tax burden may not be borne by capital owners but instead reallocated to others in the economy. The same can be said for the burden of compliance costs incurred in remitting taxes on behalf of businesses and of others in the economy. The prevalence of such reallocation, or economic incidence, is a key concern for tax policymakers and for distributional analysis of taxes, as it determines who in the economy bears the overall burden of a given tax and of compliance costs. In reality, there can often be large differences between legal tax liability, the remittance liability and the ultimate economic incidence. Until very recently, it was assumed that assignment of the legal obligation to remit a tax has no impact on who finally bears the burden of a tax. Recent evidence shows that shifting the remittance liability from one type of business to another may affect economic incidence and total tax collection (Kopczuk, Marion, Muehlegger, & Slemrod, 2016).

Relying on data collected from the OECD's Revenue Statistics database as well as a survey administered to delegates of OECD member countries, this paper analyses tax remittance by businesses across 24 OECD countries for 2014. It makes a clear distinction between businesses' legal tax liabilities and legal remittance responsibilities, categorising each Revenue Statistics tax into one bucket or the other. On average, businesses' legal tax liabilities are found to be 33.5% of total tax revenue in 2014, while businesses' legal remittance responsibilities are found to be 45.3%. While some readers may be tempted to deduce, on account of these figures, a correspondingly economic burden on business' owners, the discussion of economic incidence in Section 4 marshals and emphasises that it is not likely to be the case. The costs associated with business taxation – whether arising from legal tax liabilities or legal remittance responsibilities – can be passed from capital owners to workers and consumers.

This paper considers each of these issues in turn. Section 2 explores the distinction between legal tax liability and legal remittance responsibility in greater detail and outlines why this distinction is important to tax policymakers. Section 3 discusses how to categorise tax remittance data according to these two roles of business, with a separate focus on each OECD Revenue Statistics tax category. Section 4 reviews the theoretical and empirical evidence on the economic incidence of various taxes. Section 5 concludes with policy considerations for analysing tax remittance data and assessing the relationship between businesses and tax collection in the tax system.

Box 1: Terminology on Tax Remittance

This paper adopts definitions ascribed to tax systems set out in Slemrod (2008), which recognised an important need to harmonise inconsistencies across various official terminologies. He notes that:

[A] compact lexicon based on the concept of remittance defines a tax system as a set of rules, regulations, and procedures that define (1) what events and/or states of the world trigger tax liability and how to calculate the liability (tax bases and rates), (2) whom or what entity must remit that tax and when (remittance rules), and (3) the procedures for monitoring and ensuring compliance, including the information reporting requirements and the consequences (e.g., penalties) of not remitting the liability in a timely fashion (administrative and enforcement rules). Slemrod (2008)

This paper is concerned with (1) and (2), in particular, with reference to (1) as legal tax liability and to (2) as legal remittance responsibility. **Legal tax liability** describes the legal requirement that an amount of tax liability be paid to government, where the amount is calculated according to tax law. Legal tax liability is also known as statutory incidence or the legal obligation for a tax. Note that the assignment of legal tax liability does not imply the obligation to send the amount of tax liability to government on an entity's own behalf, which is the subject of legal remittance responsibility. **Legal remittance responsibility** describes the legal requirement to send an amount of tax liability to government on behalf of others.

The natural or legal person that holds the legal liability for a tax may differ from the person that holds its legal remittance responsibility, as in the case of withholding taxes on labour income (where the legal tax liability is often held by a worker but taxes on labour income are withheld by the employer and sent by the employer to the tax authority). "To remit" refers to a person or entity sending funds to a tax authority, where "to remit" is preferred to "to pay," which in its vagueness can signify either "to remit" or "to bear." While a tax is in a sense "paid" by whoever is legally responsible for remitting the money to the taxing authority, the holder of the legal liability for a tax is not necessarily the party that holds the legal responsibility to remit it. In the case that a tax liability is remitted by a household on its own behalf, it is classified as a non-business tax remittance.

The importance of clear and consistent language in this context arises from the issue of the economic incidence of tax, or how economic supply and demand conditions in a market for a taxed good or service allocate the tax among suppliers and consumers of the taxed item. The intricacy of the economic incidence of tax lies in the fact that the economic incidence may differ from the statutory incidence and the remittance responsibility. In fact, the statutory incidence and remittance responsibility may have little relationship to economic incidence. In this context, it is crucially important to distinguish between the individual or entity that remits the tax and the individual that bears its economic burden. Section 4 explores the issue of economic incidence in greater detail and empirical evidence on the economic incidence of different business taxes. It is nonetheless important to note clearly in any discussion of business tax remittance that measuring business tax remittance does not go far enough to measure business taxation or tax burden on shareholders. A true measure of business tax would account for the economic incidence on capital owners, including the possibility that taxes legally levied on business entities may be borne by others in the economy.

2. Legal Tax Liability and Legal Remittance Responsibility

The analysis of business taxation is often undertaken using data on corporate income tax (CIT) remittance. However, this has several drawbacks. First, this approach is not inclusive of the full range of taxes for which businesses are legally liable. Second, it is not inclusive of the role of businesses in remitting taxes other than CIT on behalf of themselves and on behalf of workers and consumers. Finally, though analysis reliant on CIT remittance data may purport to measure the tax burden imposed on capital owners, this ignores the crucial issue of economic incidence (discussed further in Section 4).

2.1. Measuring the Full Range of Businesses' Legal Tax Liabilities

As holders of the legal liability to remit tax on behalf of themselves, businesses remit to governments a range of tax liabilities imposed on them as legal entities. “Legal tax liability” describes the legal requirement that an amount of tax liability be paid to government, where the amount is calculated according to tax law. For businesses, legal tax liability includes non-corporate business income tax, CIT, private sector employer social security contributions, payroll taxes, the business portion of recurrent taxes on immovable property, the business portion of recurrent taxes on net wealth, excise taxes, the business portion of recurrent taxes on motor vehicles and other taxes paid solely by businesses (see Table 1).

A key contribution of this paper is the collection of new data on businesses' legal tax liabilities. The lack of emphasis on business taxation regarding taxes other than CIT has stemmed from the fact that tax administrations and tax databases tend to report tax revenue according to aggregate tax categories rather than with detail on the business versus non-business portions within each tax category (though the OECD's Revenue Statistics database has gathered household versus other portions to some extent, e.g., for recurrent taxes on immovable property). Businesses' legal tax liabilities by tax category are presented for 2014 in local currency amounts in Panel A of Table A.3, with additional detail by country in Tables A.4 through A.28.

In 2014, businesses' legal tax liability accounted for an unweighted average of 33.5% of total tax revenue across the 24 OECD countries for which the data is available.¹ The amounts per country are shown in Figure 1. Businesses' legal tax liability was greatest in the Czech Republic, where the sum of businesses' legal tax liabilities accounted for 52.0% of total tax revenue in 2014 and was lowest in Portugal, at 19.4%. It is important to emphasise that businesses' legal tax liability does not represent the real economic burden of taxes on capital owners. The figures presented in this section are based on remittance data and, as discussed further in Section 4, taxes remitted by businesses on their own behalf can be shifted to workers and consumers at least partially.

¹ The 24 countries in the sample are Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Finland, France, Germany, Ireland, Italy, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States. Selection of the sample was based on data made available through a survey to delegates of OECD member countries. Countries were included if they provided data for two of the following three fields: (i) non-corporate business income and the estimated average tax rate on business income or tax revenue from non-corporate businesses; (ii) withholding taxes on labour income; and (iii) the business portion of recurrent immovable property tax (which may have been contained in Revenue Statistics already). Contributions from the income tax and property tax sections of the survey were emphasised, as survey responses to the VAT and excise tax sections were less robust. The sample selection criterion is shown by country in Table A.2 in Annex A.

Figure 1. Legal Tax Liability of Businesses in OECD Countries (as a Percentage of Total Tax Revenue, 2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries and OECD calculations. Data for each country is for 2014 except for Australia and Poland, where 2013 data is used.

2.2. Businesses' Role in Remitting Taxes

Beyond their legal tax liabilities, businesses play an additional role in tax system administration through their role in the tax remittance process. As holders of legal remittance responsibilities, businesses are charged with remitting taxes on behalf of others in the economy (i.e., businesses are charged with remitting taxes not legally imposed on them). While businesses remit to governments both their own legal tax liabilities as well as the tax liabilities of others, this paper uses “legal remittance responsibility” to refer to remittance of taxes on behalf of others. This includes withholding taxes on labour income, employee social security contributions and the remittance of value-added tax (VAT) and retail sales taxes. In 2014 and across the same set of 24 OECD countries, businesses’ legal remittance responsibility accounted for an unweighted average of 45.3% of total tax revenue. The amounts per country are shown in Figure 2. The portions of legal remittance by businesses were largest in the United States and New Zealand, at 64.2% and 63.0% of total tax revenue, respectively, and the smallest in France and Switzerland, at 24.5% and 24.6%, respectively. It is important to note that businesses’ legal remittance responsibility also does not represent the real economic burden of taxes on capital owners. Compliance costs related to the remittance role of businesses may also be shifted, as discussed in greater detail in Section 4.

Figure 2. Legal Remittance Responsibility of Businesses in OECD Countries (as a Percentage of Total Tax Revenue, 2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries and OECD calculations. Data for each country is for 2014 except for Australia and Poland, where 2013 data is used.

Tax remittance by businesses is a key feature of tax system administration, largely due to the fact that it is generally more efficient to collect taxes from organised businesses rather than from households (Alt, 1983). Collecting taxes from businesses allows tax authorities to exploit economies of scale inherent in dealing with a smaller number of larger units. In addition, businesses already have record-keeping and accounting systems in place to simplify the process of tax remittance (Slemrod, 2008).

Firms are also central to information reporting, which enables verification that the correct amount of tax liability has been collected from all of the remitting parties (Shaw, Slemrod & Whiting, 2011). For example, the tax remitter of withholding taxes on labour income must know an employee's total taxable income for the year in order to withhold the correct amount of tax, which depends upon a continuing relationship between the employer and the employee. This information, combined with businesses' role in remittance, curbs the scope for non-compliance. Evidence of assignment of remittance responsibility affecting tax compliance is provided by Kopczuk, Marion, Muehlegger, & Slemrod (2016), who show that moving the point of tax collection of diesel excise taxes in the United States – from the retail station, where there are a large number of remitting agents, to higher in the supply chain, where there are relatively fewer – decreases tax evasion. In summary, reducing the number of remitting agents and relying on larger players for remittance decreases the scope for evasion, which they observe through increased tax revenue.

Recently, the role of businesses as an important factor in improving tax compliance has become apparent with the rise of the platform (e.g., “sharing” or “gig”) economy businesses, some of which centralise and record transactions previously often confined to the informal economy. A transaction that may have fallen outside of the formal economy before may now be tracked; tracking, consequently, may give rise to the ability to tax. In terms of overall revenues collected, this has to be balanced against the fact

that platform economy employers or employees may be legally liable for smaller overall amounts of income taxes and social security contributions. This is due to tax differences across different types of labour relationships, be they traditional, full time employer-employee contracts or alternative work arrangements, such as self-employment or independent contracting.

Another factor influencing the level of tax remittance is the salience of a given tax and the relationship between salience and the assignment of remittance responsibility. The collection of taxes through firms rather than through individuals may reduce the salience of taxation, making an individual less attentive to tax amounts withheld from them and remitted on their behalf. This could, in turn, affect the level of potential tax revenue. While there does not appear to be direct evidence in the academic literature of a salience link between the assignment of remittance responsibility and levels of tax remittance, certain results in the behavioural economics literature make a case for testing analogous hypotheses in the area of tax remittance. A survey of behavioural economics studies on tax salience can be found in DellaVigna (2009). To take one example: Finkelstein (2009) analysed how motor tolls change following the installation of electronic collection facilities, finding that driving became less elastic with respect to toll charges after the electronic collection devices were installed. She estimated that tolls are 20-40% higher than they would have been without the electronic collection devices. Individuals' decisions regarding whether to drive were less affected by changes in toll charges when they were paying automatically versus stopping to pay in cash; the reduced salience of electronic payments enabled authorities to increase tolls.

Administrative ease and tax compliance are also important determinants of tax policy, both of which are largely mediated by businesses. However, this comes with associated compliance costs. Compliance costs are incurred: (i) directly by businesses in complying with their legal tax obligations and (ii) by businesses through their involvement in the tax remittance process (Shaw, Slemrod and Whiting, 2011). These remittance costs include costs of information technology² and human resources related to tax collection. It may also include foregone interest, amounting to an interest-free loan to government, on amounts over-withheld on personal income tax (common in some countries) or on VAT refund amounts claimed but not issued.

There are examples of tax authorities providing explicit compensation to businesses for their role in tax collection. For example, though the compliance costs associated with withholding taxes fall on businesses as withholding agents, these costs could count as business expenses that can be deducted from taxable income (Shaw, Slemrod & Whiting, 2011). An example is the practice of US States of offering tax credits in the form of "vendor discounts" to retailers who remit retail sales tax, often justified as compensation for the compliance costs incurred (Slemrod, 2008). In practice, these discounts are often contingent on prompt remittance of tax, serving not only as compensation of costs but as incentives to remit effectively. In addition, businesses benefit from economies of scale: marginal compliance costs decrease with the scale of reporting (Marcuss et al., 2013).

Businesses also benefit from their role as tax collectors. The best example of this is the cash-flow benefit of withholding, which arises due to the time lag between when a tax liability is triggered and when

² Information technology cuts the cost of processing, reduces the risk of errors, helps to expose non-compliance, and may reduce the amount of information that needs to be collected. However, new information technology systems can be costly to implement and must balance new varieties of long-standing concerns, such as data confidentiality. Related to technological change are challenges brought by the digital economy in the forms of new business models and new data. For example, the digital economy poses challenges for VAT systems through the ways in which technology has increased consumers' abilities to buy online and thereby the capacity of businesses to sell to consumers around the world without the need to be physically present in the consumer's country. This can result in no or inappropriately low amounts of VAT levied on such flows, with adverse effects on countries' overall VAT revenues as well as distorted competition between resident and non-resident vendors (OECD, 2015a). Correctives involve changes in remittance responsibilities and procedures, such as the collection of VAT on cross-border transactions through digital media and the tracking of Internet downloads (OECD, 2015b).

remittance is due. Withholding agents can earn interest on the tax liability in the interim, which may lower businesses' tax remittance costs. The extent of this reduction can depend on the length of the interval between businesses' tax collection and remittance deadline as well as on nominal interest rates. There is some evidence that the cash flow benefit may exceed compliance costs (see Sandford, Godwin & Hardwick, 1989, for evidence on large companies). Such cost benefit analyses also depend on tax system complexity.

2.3. Measuring the Economic Incidence of Business Taxes and Tax-Related Compliance Costs on Capital Owners

Taken together, businesses' legal tax liabilities and legal remittance responsibilities illustrate the central role of businesses in tax system administration. As emphasised in the sections above, it is important to understand that the figures summarising legal tax liability and legal remittance responsibility do not represent the real economic burden of tax and compliance costs on capital owners. The economic burden depends on various characteristics of the economic agents involved and of the market where a firm operates. At least in theory, it is possible that many of the taxes remitted by businesses on their behalf or on behalf of others are fully shifted on to the labour force or the consumers.

The same can be said for compliance costs. Who bears the ultimate burden of compliance costs depends on the same demand and supply forces that determine the incidence of taxes themselves. Just as the burden of tax can be shifted away from the capital owners of businesses, tax-related compliance costs faced by businesses may also be passed on to workers or consumers. The economic incidence of business taxes and tax-related compliance costs is a crucial consideration for tax policymakers. Section 4 reviews the theoretical and empirical evidence on economic incidence of different business taxes in greater detail. The next section discusses data on taxes remitted by business, making a clear distinction between legal tax liability and legal remittance responsibility.

3. Revenue Statistics Data

Tax systems are often analysed by tax category.³ Figure 3 shows the tax mix in OECD countries in 2014. On average, taxes on income, profits and capital gains accounted for the majority of tax revenue (33.9%), followed by taxes on goods and services (32.4%), social security contributions (26.1%), property taxes (5.6%), payroll taxes (1.2%) and other taxes and customs (0.8%). There are substantial differences across OECD countries. For example, social security contributions accounted for 43.8% of total tax revenue in the Czech Republic in 2014, while they accounted for 0.1% in Denmark. This form of tax does not exist at all in Australia or New Zealand. Payroll taxes accounted for 10.6% of total tax revenue in Sweden in 2014, while this form of tax does not exist at all in 20 OECD countries. Differences across countries reflect differences in policy choice as well as differences in the sizes of tax bases and other economic factors.

³ For example, the OECD Revenue Statistics database is organised according to the following category headings: taxes on income, profits and capital gains (RS 1000); social security contributions (RS 2000); payroll taxes (RS 3000); property taxes (RS 4000); taxes on goods and services (RS 5000); and other taxes (RS 6000).

Figure 3. Sources of Tax Revenue in OECD Countries (as a Percentage of Total Tax Revenue, 2014)

Source: OECD Revenue Statistics. Data is 2014 except for Australia and Poland, where 2013 data is used.

While these data provide some insights into the kinds of taxes that countries levy and that comprise their sources of revenue, they do not provide information as to who bears the burden of the various taxes and of the tax system at a whole.

The following paragraphs present data on taxes remitted by business, making the distinction between legal tax liability and legal remittance responsibility outlined in Section 2. This distinction is made additionally clear by the categorisation of different taxes as shown in Table 1.⁴ As discussed, the legal tax liabilities of businesses are comprised of non-corporate business income tax, CIT, employer social security contributions, payroll taxes, the business portion of recurrent taxes on immovable property, the business portion of recurrent taxes on net wealth, excise taxes, the business portion of recurrent taxes on motor vehicles and other taxes paid solely by business. The legal remittance responsibilities of businesses are comprised of withholding taxes on labour income, employee social security contributions and the remittance of VAT and retail sales taxes. This analytical work builds upon the methodology by Christensen, Cline & Neubig (2001) to estimate the proportion of total tax remitted by business in the US as well as upon Shaw, Slemrod & Whiting (2011) to do the same for the UK and, more recently, Slemrod & Velayudhan (2017) to do the same for India.

This paper draws on two data sources. The first is the OECD's Revenue Statistics database, which contains tax revenue figures for OECD countries by tax category.⁵ The second is a survey administered in early 2016 to the delegates of OECD member countries that oversee work relating to tax policy analysis

⁴ In addition to Table 1, Table A.1 in Annex A shows a more detailed summary of this categorisation according to each Revenue Statistics tax category.

⁵ The analysis used Revenue Statistics data for 2014, which was last updated on 30 November 2016.

and tax statistics and who report to the OECD's Committee on Fiscal Affairs. The survey was designed to supplement the data already available in Revenue Statistics by asking tax administrations for additional detail on the portion of certain tax categories remitted by businesses versus by households. The survey received 27 responses. Data from 24 countries was ultimately used, as summarised in Table A.2 of Annex A. The resulting combined dataset contains tax revenues broken down, where possible, into business and non-business portions, enabling analysis of the business portion in greater detail. As discussed, the business portion of tax revenue was further split according to legal tax liability and legal remittance responsibility. The following paragraphs discuss each Revenue Statistics tax category and examine the role of businesses within each.

It must be emphasised that while the best available information has been used, the primary purpose of the data collected by Revenue Statistics is different from the purpose of the current exercise investigating the role of businesses in the tax system. In particular, one should be aware that some splits contained in the macro-economic statistics are not very refined. In gathering additional data, complementary splits were required. These were made according to additional apportionment hypotheses, which were only to a limited extent backed by proper micro data analysis. Hence, several areas for further refinement can be identified: more precise apportionment rules in macro-economic statistics, including national accounts and Revenue Statistics, and more precise apportionment rules for the additional data splits. In this context, a trade-off between imperfect apportionments versus large undivided unallocable amounts should be noted.

Table 1. Categorising Revenue Statistics Data by Businesses' Role in the Tax System

Revenue Statistics Tax Category	Legal Tax Liability of Business	Legal Remittance Responsibility of Business	Non-business Remittance
1000 Taxes on income, profits and capital gains	Non-corporate business income subject to personal income tax; corporate income tax	Withholding taxes on labour and capital income	PIT paid directly by individuals; public-sector withholding taxes on labour income
2000 Social security contributions (SSC)	Employer SSCs; self-employed or non-employed SSCs	Employee SSCs	Public-sector SSCs
3000 Taxes on payroll and workforce	Taxes on payroll and workforce		
4000 Taxes on property	Recurrent taxes on immovable property: paid by other		Recurrent taxes on immovable property: paid by households; estate, inheritance and gift taxes
5000 Taxes on goods and services	Excise taxes; profits of fiscal monopolies; recurrent taxes on motor vehicles: paid by others	Value-added taxes; sales taxes; insurance taxes	Recurrent taxes on motor vehicles: paid by households
6000 Other taxes	Other taxes paid solely by business		"Other" other taxes
Unallocated	Unallocable amounts in each Revenue Statistics category (e.g., RS 1300); recurrent taxes on net wealth; taxes on financial and capital transactions; non-recurrent taxes on property; customs and import duties; taxes on exports; taxes on investment goods; taxes on specific services; recurrent taxes on use of goods and performance of activities other than motor vehicles.		

Sources: OECD Revenue Statistics; classification by businesses' role in the tax system by the author.

3.1. Taxes on Income, Profits and Capital Gains (Revenue Statistics Category 1000)

This Revenue Statistics heading covers taxes levied on the net income or profits of individuals and businesses, including taxes levied on capital gains. The main subdivision of this heading is between taxes levied on individuals (1100) and taxes levied on corporations (1200). Under each subdivision a further distinction is made between taxes on income and profits (1110 and 1210) and taxes on capital gains (1120 and 1220).

3.1.1. Legal Tax Liability

3.1.1.a. CIT

All OECD countries and most developing countries operate a form of CIT, with the main supporting rationales being its administrative convenience and its role as a backstop in the implementation of the personal income tax (Mirrlees Review, Chapter 17, 2011).⁶ CIT has, however, been identified as distortive from the perspective of encouraging growth, as CIT negatively affects investment through its impact on the user cost of capital (OECD, 2010). Sustaining high CIT rates and revenues in OECD countries has also become increasingly challenging in the context of increasing corporate and capital mobility.

This has spurred a number of corporate tax reforms in recent years, almost all of which can be characterised as involving rate cuts. These reforms have had several objectives: creating attractive investment conditions for domestic and foreign investors, avoiding tax-induced distortions and minimising CIT complexity, while at the same time maintaining tax revenues. On average, 8.8% of total tax revenue in OECD countries was raised from CIT in 2014.⁷ Though this was down from the pre-financial crisis level and historic peak since 1965 of 10.5% in 2007, it is consistent with the long-term average of 8.4% (1965-2013). Over the last fifty years, CIT revenues have remained relatively stable as a share of the total tax mix in OECD countries.

The magnitudes of CIT revenue relative to total tax revenue vary widely across OECD countries. These differences reflect differences in rates, in tax bases, and in business activity. A country may reduce the CIT rate to seek foreign direct investment and expand domestic investment. From 1982 to 2015, the average top marginal CIT rate in the OECD declined from 48% to 25% (OECD Tax Database, Table II.1). Holding other factors constant, reductions in the CIT rate naturally reduce a country's reliance on CIT revenue and increase reliance on other taxes. For example, Estonia only raised 5.3% of total tax revenue through CIT in 2014 but raised a combined 75.7% of total revenue from social security contributions and taxes on goods and services. By contrast, Norway, raised a significant amount of total tax revenue through CIT (17.1% of total tax revenue in 2014, though this is substantially down from the historic peak of 29.3% in 2006).

⁶ Regarding administrative convenience, it is in theory possible to allocate a fraction of taxable profits to each shareholder in proportion to his or her ownership share in a business and to tax this share of the corporate profits under the personal income tax. However, this would be administratively difficult: businesses may have thousands of small shareholders; calculation of an individual's ownership share would involve calculating the imputed share of the underlying company profits; and taxing corporate profits of foreign owners would challenge the current practice of taxing business profits at source. Regarding its role as a backstop in the implementation of the personal income tax, in one sense, a business is a repository for the unconsumed savings of individuals. If corporate profits were untaxed, owners of small businesses could defer tax payments for long periods simply by retaining profits in the business. Additionally, for owner-managers of small businesses, labour income could be disguised as capital income and appear in the form of business profits, dividends, and capital gains.

⁷ This average is for all OECD countries, including Latvia. Average CIT revenue to total tax revenue for the subset of 24 countries included in the data analysis, referenced later, was 9.2% in 2014.

In terms of categorising taxes as the legal tax liability of businesses or the legal remittance responsibility of businesses, CIT clearly belongs in the former group. This study thus categorises taxes paid on both corporate income and profits and corporate capital gains as entirely businesses' legal tax liabilities.

3.1.1.b. Non-Corporate Business Income Tax

Business tax liabilities also exist beyond the CIT. For example, taxes on income, profits and capital gains are also collected from non-corporate businesses. Businesses without corporate status are often grouped for reporting purposes with individuals, making it difficult to isolate data on non-corporate business taxation. However, examination of the entire legal tax liability of businesses requires consideration of non-corporate businesses as well.⁸

Non-corporate businesses are comprised of legal structures often known as “pass-through” organisations, such as sole proprietorships, partnerships, S corporations (in the United States), trusts and shareholder salaries (in New Zealand), whose annual income is not subject to CIT but passed through to owners who are liable for tax under personal income tax law. Non-corporate business legal structures take various forms across OECD countries, making cross-country comparisons by legal form difficult. Yet it is clear that these entities have been rapidly growing in importance. In the United States, Cooper et al. (2016) show that 54.2% of business income was earned by pass-through legal structures in 2011, compared to 20.7% in 1980. In Germany, a study of corporate taxation found that tax revenue from sole proprietors and partnerships accounted for 55.9% of total tax revenue in 2008 (Bach, 2011).

Data gathered from the survey to delegates of OECD member countries indicates that non-corporate business tax revenue comprises a significant portion of total taxes on income, profits and capital gains. Twenty two OECD countries provided data on non-corporate business tax revenue in 2014.⁹ Figure 4 shows non-corporate tax revenue as a percentage of total income, profits and capital gains (i.e., Revenue Statistics category 1000, including CIT revenue). In 2014, non-corporate business tax revenues ranged from 0.6% of total taxes on income, profits and capital gains in Hungary to 19.3% in Poland and 19.4% in Germany, with an unweighted average of 6.5% across the 22 countries that provided data relating to non-corporate businesses.

⁸ There is evidence that the tax burden varies by firm size: a recent OECD Tax Policy Study, “Taxation of SMEs in OECD and G20 Countries,” illustrates this using effective tax rates (OECD, 2015). Though the data available in this study is not sufficient to explore legal tax liability by firm size, this is an interesting avenue for future research.

⁹ See Table A.2 in Annex A.

**Figure 4. Non-Corporate Business Tax Revenue
(as a Percentage of Total Taxes on Income, Profits and Capital Gains, 2014)**

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries, OECD calculations. The countries shown are those that provided data on non-corporate business income and an estimated of the average tax rate on business income or on non-corporate business tax revenue.

To some extent, the relative shares of non-corporate and corporate business income in a country are influenced by businesses incentives to shift income between the corporate and the personal tax bases (Feldstein & Slemrod, 1980). In the United States, the difference between personal tax rates and CIT rates has been declining since the 1960s, influencing businesses' choice over organisational form.¹⁰ Gordon and Slemrod (2000) document that the US Tax Reform Act of 1986, which lowered the top individual tax rate from 50% to 28% (by 1988) and the top corporate rate from 46% to 34%, led to a massive conversion of corporate structures into S-corporations.¹¹ Goolsbee (2004) used cross-sectional US retail trade data to analyse how the share of incorporated business activity is related to the difference between top marginal corporate and personal tax rates. He found a large, negative effect: where top marginal corporate tax rates exceed top personal tax rates, there is a smaller share of incorporated business activity. Outside of the United States, Romanov (2006) found that increases in personal income tax rates in Israel led high-income individuals to open corporations (2,200 in a six-month period, equivalent to a 3% increase in the corporate sector) for tax avoidance purposes. This suggests that whether tax revenue on businesses is counted as CIT revenue or personal income tax revenue is to a certain extent a function of tax system incentives.

As with CIT, tax on non-corporate business income incurred through personal income tax law is clearly the legal tax liability of businesses. This study thus categorises taxes paid on non-corporate business income as entirely businesses' legal tax liability.

¹⁰ It should be noted that, compared to other countries, the United States is unique in that certain non-corporate business forms have limited legal liability (e.g., S-corporations).

¹¹ The top individual tax rate in the United States has evolved since 1986; it is 39.6% in 2017.

3.1.2. Legal Remittance Responsibility

The centrality of businesses' remittance role in the tax system is perhaps most apparent when considering withholding taxes on labour and capital income, as these taxes are significant in terms of the tax revenue collected and are commonly remitted by businesses across OECD countries.

3.1.2. Withholding Taxes

Taxes on labour income are often withheld through pay-as-you-earn (PAYE) or pay-as-you-go (PAYG) systems. These systems reduce the amount of tax that employees must remit when they submit their annual tax returns, with the amounts withheld generally based on factors such as the employee's income, marital status and number of dependents. In some countries, including the United States, labour income taxes are often over-withheld, in which case the excess amount is returned as a tax refund at the end of the income year when the individual files a tax return.

Withholding taxes also apply to capital income. For example, the Deposit Interest Retention Tax in Ireland requires that 41.0% of interest paid or credited on deposits of Irish residents be deducted at source by deposit takers such as banks, building societies, or credit unions. Australia requires payers of interest, dividends and other reportable payments to withhold an amount when the payee does not provide a taxpayer identification number (i.e., tax file number) to the payer. In the United States, this is known as backup withholding. In circumstances where individuals have previously underreported their taxes, the tax authority may make backup withholding obligatory.

The design of withholding taxes is aimed at ensuring that taxes are paid in a timely manner for government funding obligations. They generally date from World War II, which placed the countries involved under great financial strain and in need of collecting more tax from many more people and in a timely fashion. In the United States, with the approval of the Current Tax Payment Act in 1943, income tax went from being a tax paid by only high-earning individuals to a tax paid by almost everyone. As many individuals had not come into contact with the tax system previously, this posed significant challenges. Thus, the practice of withholding taxes directly from pay checks was introduced "to ensure collection of the higher rates on individual income taxes and in order to ease the taxpayer's method of payment."¹²

Table 2 shows the prevalence of withholding taxes on labour income (i.e., column two) and capital income (i.e., dividends and interest in columns three and four, respectively) across OECD countries in 2015. A notable exception in the prevalence of systems to collect withholding taxes on labour has been France, which has historically had no withholding taxes on labour or capital income. However, a PAYE system was announced in 2015 and is expected to take effect from 1 January 2018. Twenty three OECD countries operate systems of withholding for dividend payments, while 26 operate systems of withholding for interest payments.

¹² *Withholding Tax Gaining in Favour; Treasury Urges It*, New York Times, June 20, 1942.

Table 2. Prevalence of Withholding Taxes on Labour and Capital Income across OECD Countries (2015)

Country	Labour income subject to withholding (W) and/or reporting (R) where paid to resident taxpayer	Capital income subject to withholding (W) and/or reporting (R) where paid to resident taxpayer	
		Dividends	Interest
Australia	W, R	R	R
Austria	W, R	W	W
Belgium	W, R	W	W
Canada	W, R	R	R
Chile	W, R	R	W, R
Czech Republic	W	W	W
Denmark	W, R	R	R
Estonia	W, R	-	-
Finland	W, R	W, R	W, R
France	R	R	R
Germany	W, R	W	W
Greece	W, R	W, R	W, R
Hungary	W, R	W, R	W, R
Iceland	W, R	W, R	W, R
Ireland	W, R	W, R	W, R
Israel	W, R	W, R	W, R
Italy	W, R	W, R	W, R
Japan	W, R	W, R	W, R
Korea	W, R	W, R	W, R
Luxembourg	W, R	W	W
Mexico	W, R	R	W, R
Netherlands	W, R	W	R
New Zealand	W, R	W, R	W, R
Norway	W, R	R	R
Poland	W, R	W, R	W, R
Portugal	W, R	W, R	W, R
Slovak Republic	R	-	W, R
Slovenia	W, R	W, R	W, R
Spain	W, R	W, R	W, R
Sweden	W, R	W, R	W, R
Switzerland	W, R	W	W
Turkey	W, R	W, R	W, R
United Kingdom	W, R	-	W, R
United States	W, R	R	R

Source: OECD (2015), Tax Administration 2015: Comparative Information on OECD and Other Advanced and Emerging Economies.

Withholding tax on labour income is a key means of revenue collection in most countries, generally exceeding the revenue of the VAT or general sales tax by large margins. Figure 5 shows withholding tax on labour income as a percentage of total tax revenue in 2014. Across the 19 OECD countries that supplied the data, withholding taxes on labour income represented 20.3% of total tax revenue in 2014, with the largest share in the United States (48.3% of total tax) and the smallest share in the Czech Republic (0.3%). Data on amounts of withholding taxes on capital income was provided by 14 countries and ranged, as a

percentage of total tax revenue, from nearly zero (Chile) to 3.2% (Japan and New Zealand), with an unweighted average of 1.3% across the 14 countries.¹³

While businesses are not legally liable for withholding taxes, they do hold the legal remittance responsibility in many OECD countries. This paper characterises the tax revenue collected in the form of withholding taxes on labour and capital income as businesses' legal remittance responsibility.

Figure 5. Withholding Taxes on Labour Income and on Capital Income (as a Percentage of Total Tax Revenue, 2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries, OECD calculations. The nineteen countries shown are those that provided data on either the amount of withholding on labour income or the amount of withholding on capital income, or both.

3.1.3. Unallocable Amounts within Taxes on Income, Profits and Capital Gains

If certain receipts cannot be identified as appropriate to either Revenue Statistics categories 1100 or 1200, or if in practice this distinction cannot be made (for example, because there are no reliable data on the recipients of payments from which withholding taxes are deducted), they are classified in Revenue Statistics under category 1300 (unallocable). The survey for this paper asked for additional clarity, as available, into non-zero amounts maintained under this heading. Unfortunately, little additional detail came to light.

¹³ In certain cases, there is a discrepancy between Table 2 and Figure 5. For example, for Belgium, Table 2 indicates that there is withholding tax on capital income, whereas the corresponding amount as a percentage of total tax revenue is not positive in Figure 5. This may be due to the fact that in Belgium the withholding taxes on capital income are rather collected through financial intermediaries (banks) than through non-financial businesses.

In general, tax administrations stated that where category 1300 is positive it is due to an inability to determine whether a taxpayer is an individual or a legal entity. This may be because a tax administration may not have direct contact with the taxpayer, for example, when intermediaries are involved. In such cases, the tax administration would be unable to determine whether individuals or legal entities are involved. However, the tax administration should mostly be able to identify each taxpayer, at least at the micro level. In that case, additional research would permit distinguishing individuals and legal entities, though this might not be done due to resource and/or privacy restrictions when it is irrelevant for the tax setting procedure. On the other hand, statistical services, including studies departments, might only receive aggregate data. In that case, a split of the aggregate data into its components might be theoretically feasible but not readily available. Moreover, the procedure to get the permission to obtain and to explore the underlying microdata could be discouraging.

3.2. Social Security Contributions (Revenue Statistics Category 2000)

This heading covers compulsory payments to general government by individuals or businesses that confer an entitlement to receive a contingent future social benefit. Social security contributions are typically levied in order to fund specific programs such as unemployment insurance, health insurance and old age pensions. On average, social security contributions are the third largest source of tax revenue across OECD countries, accounting for an average of 26.1% of total tax revenue in 2014. They have also grown substantially over recent years both as a share of GDP and as a share of the tax mix. In 2014, they were the first largest source of tax revenue in nine OECD countries: Austria, the Czech Republic, France, Germany, Japan, the Netherlands, Portugal, the Slovak Republic and Spain. In 2014, the Czech Republic had the largest share of social security contributions in the tax mix among OECD countries (43.8% of total tax revenue), followed by the Slovak Republic (42.9%) and the Netherlands (40.8%). In 2014, Denmark raised the least amount of tax revenue from social insurance taxes (0.1%), followed by Chile (7.2%). Australia and New Zealand are the only two countries in the OECD that do not levy specific social insurance taxes on workers to fund government programs.

3.2.1. Legal Tax Liability

3.2.1.a. Employer Social Security Contributions

In most countries, social security contributions are applied to both an employer's payroll and an individual's wages. Only employer social security contributions (Revenue Statistics category 2200) are the legal tax liability of business. On average across OECD countries, employer social security contributions made up 53% of all social security contributions and 9.5% of the total tax mix in 2014. Figure 6 shows the composition of social security contributions across OECD countries in 2014. Employer social security contributions reported in Revenue Statistics include both private sector and public sector social security contributions. Given this paper's focus on the role of businesses in tax remittance, the data analysis that relates to category 2000 includes only private sector social security contributions, where private social security contributions are estimated as total social security contributions less social security contributions paid by government, data for which are available from Revenue Statistics Table 76. On average across the 28 countries that provide data for Table 76, social security contributions paid by government were 13.7% of total social security contributions (Revenue Statistics category 2000) in 2014.

3.2.1.b. Self-employed or Non-employed Social Security Contributions

Social security contributions are also sometimes levied on the income of self-employed workers or even on the incomes of those not in employment. In these cases, the distinction between employer and employee contributions does not exist. These social contributions are contained in Revenue Statistics category 2300. On average across OECD countries, self-employed and non-employed social security

contributions made up 8.4% of all social security contributions and 2.6% of the total tax mix in 2014. This category is significant in part because of the rising share of self-employed workers across the OECD. The split between self-employed and non-employed social security contributions is not available for all countries. Where it is not available, it is categorised for the purposes of this paper as the legal tax liability of business as this category tends to be largely self-employed social security contributions.

3.2.2. Legal Remittance Responsibility

3.2.2. Employee Social Security Contributions

As mentioned, in most countries, social security contributions are applied to both an employer's payroll and an individual's wages. Employee social security contributions (Revenue Statistics category 2100) are generally withheld from the payment of wages and paid by the employer to the tax authority. Thus, employee social security contributions are the legal remittance responsibility of business. On average across OECD countries, employee social security contributions made up 38.5% of all social security contributions and 14.6% of the total tax mix in 2014.

Figure 6. Composition of Social Security Contributions across OECD Countries (2014)

Source: OECD Revenue Statistics.

3.3. Taxes on Payroll and Workforce (Revenue Statistics Category 3000)

This heading covers taxes paid by employers or the self-employed either as a proportion of payroll or as a fixed amount per person, and which (unlike social security contributions) do not confer entitlement to social benefits. As a share of the total tax mix, payroll taxes are generally small. They have been at or near 1% of total tax revenue over the past fifty years and were 1.2% of total tax revenue across OECD countries in 2014. This is unsurprising, as most OECD countries do not have payroll taxes. In 2014, 20 OECD countries reported zero payroll tax amounts in Revenue Statistics. Payroll taxes as a share of the total tax

mix were largest in Sweden (10.6%) in 2014, where they take a variety of forms (described in Skedinger, 2014). Payroll taxes are the legal tax liabilities of businesses.

3.4. Taxes on Property (Revenue Statistics Category 4000)

This heading covers recurrent and non-recurrent taxes on the use, ownership or transfer of property, including taxes on immovable property or net wealth, taxes on the change of ownership of property through inheritance or gifts and taxes on financial and capital transactions. In many OECD countries, taxes on recurrent immovable property comprise a large portion of total property taxes. They accounted for an unweighted average of 59.5% of total property taxes across OECD countries in 2014 and for more than 75% of total property taxes in one-third of OECD countries.

Taxes on recurrent immovable property are levied regularly on land and buildings in respect of use or ownership. One advantage of this form of tax, particularly in a period of globalisation, is that it is levied on an immovable base. In addition, these taxes have been found to be among the least harmful to economic growth (OECD, 2010). Property taxes are generally unpopular to enact. In countries where homeownership is widespread, they can be regressive. As a result, few countries have managed to raise substantial revenues from this tax category. Taxes on property accounted for an average of 5.6% of total tax revenue across OECD countries in 2014, with recurrent taxes on immovable property accounting for 3.3% of total tax revenue. While the share of recurrent taxes on immovable property to total tax decreased between the 1960s through the mid-1980s, the average has steadily increased since then and in 2009 returned to a level (3.3%) not seen since 1972.

While the immovable property tax may not take up a central position in the overall revenue systems of most countries, it frequently contributes significantly to the financing of local governments. Hence, an almost defining aspect of property taxes is their assignment predominantly to lower levels of government, indicating that increased reliance on this source of revenue involves important issues of inter-governmental fiscal design (Blöchliger, 2015).

3.4.1. Legal Tax Liability

3.4.1. Recurrent Taxes on Immovable Property Paid by “Others”

This paper is primarily concerned with the portion of recurrent taxes on immovable property borne by businesses. The Revenue Statistics database splits the category of recurrent taxes on immovable property into an amount remitted by households (excluding non-corporate businesses) and an amount remitted by “other” (category 4120), where other is understood as producers. For this paper, the entirety of recurrent taxes on immovable property paid by other is assumed to be the legal tax liability of business. Where this data was not already available in Revenue Statistics, the survey attempted to gather it.

**Figure 7. Business Portion of Recurrent Taxes on Immovable Property
(as a Percentage of Total Recurrent Taxes on Immovable Property, 2014)**

Source: OECD Revenue Statistics and survey to delegates of OECD member countries.

Figure 7 shows recurrent taxes on immovable property that are the legal liability of businesses as a percentage of total recurrent taxes on immovable property. On average across the 20 countries for which data was available, recurrent taxes on immovable property of businesses accounted for 52.9% of total recurrent taxes on immovable property in 2014. The business share was greatest in Mexico and smallest in Spain and Switzerland. As a percentage of total tax revenue, recurrent taxes on immovable property of businesses accounted for 1.5% of total tax revenue in 2014.

3.5. Taxes on Goods and Services (Revenue Statistics Category 5000)

This heading includes all taxes and duties levied on the production, extraction, sale, transfer, leasing or delivery of goods, and the rendering of services (category 5100) or in respect of the use of goods or permission to use goods or to perform activities (category 5200). Behind taxes on income, profits and capital gains, taxes on goods and services are the second largest tax category in the OECD, accounting for an average of 32.6% of total tax revenue in 2014. The average of 32.6% is overwhelmingly comprised of taxes in category 5100 (30.5%), which includes value-added (20.1%), sales (0.4%) and excise taxes (7.6%). Category 5000 is the largest tax category in nine OECD countries: Chile, Estonia, Greece, Hungary, Israel, Korea, Portugal, Slovenia and Turkey. In these countries, taxes on goods and services accounted for an unweighted average of 40.2% of total tax revenue in 2014.

3.5.1. Legal Tax Liability

3.5.1. Excise Taxes

Though excise taxes as a share of the total tax mix have been in steady decline over the past fifty years, they still accounted for an average of 7.6% of total tax revenue in 2014. Among OECD countries, Turkey collected the largest share of excise tax revenue as a percentage of total tax revenue in 2014 (18.1%), with the largest excise tax categories being a petroleum consumption tax. New Zealand had the least reliance on excise taxes, with a share of excise tax revenue to total tax revenue of 2.6%, followed by the United States (3.4%).

In addition to generating needed revenue, excise taxes are often implemented in order to address specific externalities. For example, excise taxes on petrol and other road fuels penalise their production and consumption and can improve environmental outcomes while generating revenues that can be used to aid environmental protection. Excise taxes on road fuels are also often justified as user fees for government-provided infrastructure, such as roads. Excise taxes are also increasingly levied to address public health concerns (e.g., “sin taxes” on goods such as tobacco, alcohol and sugary drinks).

As excise taxes are imposed at stages of production or distribution, they are categorised as legal tax liabilities of businesses. Nonetheless, there remains a question on whether certain types of excise taxes, such as those aimed at changing individuals’ consumption behaviour, (e.g., on alcohol and tobacco) should be considered differently and categorised as the remittance responsibility of businesses. While the appropriate treatment varies by country, for simplicity, the categorisation in this paper has taken the approach of treating all excise taxes as the legal tax liability of businesses.

3.5.2. Legal Remittance Responsibility

3.5.2.a. Value-Added Tax¹⁴

VAT is an important means of collecting tax revenue across OECD countries. It accounted for an average of 20.1% of total tax revenue in 2014.¹⁵ The VAT-to-GDP ratio has steadily increased amongst OECD governments amid increased use of it by governments around the world and a general trend since the financial crisis in higher VAT rates (though this levelled off in 2015; see OECD, 2016). The share of VAT to total tax revenue was largest in Chile in 2014 (41.6%), followed by New Zealand (29.9%). Of countries with a VAT, Japan was the least reliant, with a share of VAT to total tax revenue of 12.2%.

VAT is a consumption tax for which businesses hold legal remittance responsibility in the final stage of the manufacture and sale of any item. Businesses have the legal responsibility to ensure both the correct VAT accounting treatment of their supply throughout the value chain as well as collection of VAT from the final consumer and remittance to the tax authority. In cases where the business may not have remitted the correct amount of VAT to the tax authority, the final consumer does not have any legal responsibility.

As VAT embeds refunds of upstream tax paid, it should as a consequence not be part of a business’s cost structure. Businesses should be indifferent regarding changes in VAT rates (apart from the induced impact on volumes sold). This is different for excise taxes, of which there are no refunds. Hence, excise taxes are part of the cost structure of producers and importers and any change in the excise rates impacts

¹⁴ For ease of reading, the term “value-added tax” or “VAT” is used to refer to any national tax that embodies the basic features of a VAT by whatever name or acronym it is known (e.g., goods and services tax).

¹⁵ This average includes the United States, although it is the only OECD country that does not operate a VAT system. With the United States excluded, the average is 20.7%.

their cost structure. Hence, while this paper treats VAT as the legal remittance responsibility of businesses, it treats excise taxes as the legal tax liabilities of businesses.

3.5.2.b. Retail Sales Tax

Though retail sales taxes do exist in many OECD countries, they form the largest part of the revenue base in the United States. Retail sales taxes accounted for 0.4% of total revenue across OECD countries in 2014, while it accounted for 7.9% of total tax revenue in the United States. The retail sales tax also forms a significant share of the tax mix in Israel, where it accounted for 5.2% of total tax revenue in 2014 (while VAT accounted for 25.7% of total tax revenue in the same year). Retail sales tax is also a consumption tax for which businesses hold legal remittance responsibility during the sale to the final consumer.

3.5.3. *Prevalence of Irrecoverable VAT*

The principle of VAT neutrality holds that VAT is a tax on final household consumption that should not be a cost to business.¹⁶ The VAT is designed according to a staged collection process, whereby each business in a supply chain collects and remits to tax authorities the portion of tax corresponding to its margin, i.e., the difference between the VAT imposed on its taxed inputs and that imposed on its taxed outputs. To achieve neutrality, staged collection requires a mechanism for relieving businesses of the VAT that they pay at each stage of production and distribution. A common means of relieving businesses of VAT is the invoice-credit method, in which each trader charges VAT at the rate specified for each supply and passes to the purchaser an invoice showing the amount of tax charged. The purchaser is in turn able to credit that input tax against the output tax charged on its sales, remitting the balance to the tax authorities and receiving refunds for excess credits.

Neutrality applies to domestic businesses and, in the context of cross-border trade, to foreign businesses, where jurisdictions adopt various approaches to ensure that foreign businesses do not incur irrecoverable VAT in foreign jurisdictions.¹⁷ Both domestically and abroad, tax administrations face the challenge of balancing the need for timely refunds of excess invoice credits while protecting tax revenue and the integrity of tax systems against fraud. Indeed, there is evidence that domestic and foreign businesses incur significant amounts of irrecoverable VAT (KPMG, 2014; OECD, 2010; Harrison & Krelove, 2005).

Businesses remit amounts of VAT for which they are due but may not receive offsetting credits. In these cases, businesses may incur a “cost” of irrecoverable VAT. The survey asked for data on amounts of domestic and foreign VAT claims made by businesses to tax authorities as well as refunds made by tax authorities to businesses, with the intention of estimating the cost of irrecoverable VAT as the difference between the aggregate amount of VAT claims made by businesses and the aggregate amount refunded to businesses. However, delegates of OECD member countries noted that such an estimate would most likely be difficult and unreliable, as differences between VAT refunds claimed and VAT refunds can also arise due to timing issues and audits. In light of these challenges and given that data was only available in a few cases, these analyses have not been included.

¹⁶ See OECD, International VAT/GST Guidelines (2015) for background and greater detail.

¹⁷ These include a system for application for direct refunds of local VAT or refunds through local registration (“refund systems”) or shifting the responsibility to locally registered suppliers/customers (“reverse charge”), among others (discussed in paragraph 2.16 of the International VAT/GST Guidelines).

3.6. Other Taxes (Revenue Statistics Category 6000)

Taxes levied on bases other than those described above are gathered under this heading. On average, other taxes account for only 0.7% of total tax revenue in 2014, with the largest portion of other taxes found in Iceland (5.7% of total taxes),¹⁸ followed by Italy (4.3% of total taxes).

3.6.1. Legal Tax Liability

The category of other taxes is subdivided into other taxes paid solely by businesses (category 6100) and other taxes paid by other (category 6200). Taxes paid solely by businesses are clearly the legal tax liabilities of business.

3.7. Summary of Business Tax Remittance across OECD Countries

Though business taxation is often analysed using data on CIT remittance alone, this paper has insisted on the importance of considering the full range of taxes other than CIT in analysing business tax. Figure 8 shows the total legal tax liability of businesses as a percentage of total tax revenue in 2014 for the 24 countries in the sample compared to CIT revenue as a percentage of total tax revenue in 2014. While the legal tax liability of businesses accounted for an average of 33.5% of total tax revenue across the 24 countries, CIT revenue accounted for an average 9.2% of total tax revenue among the same set of countries. Thus, focus on CIT alone as a measure of businesses' legal tax liability would seem to fall short. However, it is worth emphasising again that the amount of taxes for which businesses are liable does not represent the tax burden of capital owners. As explained in Section 4, the tax burden of capital owners can only be assessed in conjunction with an analysis of the economic incidence of taxes remitted.

¹⁸ In Italy, this share comes from a regional tax on productive activities (imposta regionale sulle attività produttive, "IRAP").

Figure 8. Total Legal Tax Liability of Businesses as a Percentage of Total Tax Revenue Compared to CIT Revenue as a Percentage of Total Tax Revenue (2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries, OECD calculations. Data for each country is for 2014 except for Australia and Poland, where 2013 data is used.

Figure 9 illustrates how the total legal tax liability of businesses displayed in Figure 8 is broken down by tax category for each country. Employer and self-employed social security contributions account for the largest portion of businesses' legal tax liabilities in every country except Australia and New Zealand (which do not impose social security contributions). In 2014, businesses' legal tax liabilities in the category of social security contributions accounted for an unweighted average of 11.9% across the set of 24 countries. The next largest tax liability category was taxes on income, profits and capital gains, which accounted for an unweighted average of 11.5%, 9.2% of which was CIT revenue and the remainder of which was non-corporate business income tax. Taxes on goods and services, which is comprised of excise taxes as well as taxes on motor vehicles used in business activity, represented 7.4% of businesses' total legal tax liabilities in 2014. Payroll taxes and the business portion of recurrent taxes on immovable property as percentages of businesses' total legal tax liabilities accounted for unweighted averages of 1.2% and 1.1%, each. Finally, an average of 12.3% of total tax revenue could not be allocated among the categories of legal tax liability, legal remittance responsibility and non-business; as such, an undetermined portion of this 12.3% is likely to fall within the legal tax liability of businesses.

Figure 9. Total Legal Tax Liability of Businesses by Tax Category as a Percentage of Total Tax Revenue Compared to CIT Revenue as a Percentage of Total Tax Revenue (2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries, OECD calculations. Data for each country is for 2014 except for Australia and Poland, where 2013 data is used.

As holders of the legal responsibility to remit taxes on behalf of others, businesses remit withholding taxes on labour income, employee social security contributions as well as VAT and retail sales taxes. In this paper, the taxes that have been categorised as businesses' legal remittance responsibility include the following: withholding taxes on labour and capital income, employee social security contributions, VAT and sales taxes. Combined, these taxes accounted for an unweighted average 45.3% of total tax revenue in 2014 across the 24 countries. The unweighted average of 45.3% is comprised of withholding taxes on labour income (16.8%), employee social security contributions (8.3%) and remittance of value-added, sales and insurance taxes (20.2%). Figure 10 shows these amounts by country for each tax category.

To take one example from Figure 10, in Australia, business remittance on behalf of others accounted for almost half of total tax revenue, 35.8% of which is withholding taxes on labour income and 13.0% of which is within the goods and services category. The taxes remitted by businesses within the goods and services category include the goods and services tax (12.8%) and sales taxes (0.3%).

Figure 10. Total Legal Remittance Responsibility of Businesses by Tax Category (or Unallocable) as a Percentage of Total Tax Revenue (2014)

Sources: OECD Revenue Statistics, survey to delegates of OECD member countries, OECD calculations. Data for each country is for 2014 except for Australia and Poland, where 2013 data is used.

In certain cases, the data provided by delegates of OECD member countries did not contain sufficient detail to split legal remittance amounts into business and non-business portions. Where this was true, the amount has been indicated as unallocable. For example, the data for Norway, Slovenia and Switzerland did not contain detail on the amounts of withholding tax on labour and capital income remitted by business, which contributes to the size of the unallocable amounts for these countries. In addition, the Revenue Statistics database does not contain business versus non-business splits for certain property tax categories, such as taxes on financial and capital transactions (Revenue Statistics category 4400) and non-recurrent taxes on property (4500). Extended research on this topic could explore these sub-categories in greater detail in order to identify each and every business portion, as it is likely that the amounts that this paper identifies as “unallocable” are at least in part remitted by business.

Table 3 provides a data summary by Revenue Statistics category and by country, where all amounts are expressed as a percentage of total tax revenue for the sake of comparability. The table contains three panels. Panel A contains figures for businesses’ legal tax liabilities, Panel B contains figures for businesses’ legal remittance responsibilities and Panel C summarises non-business tax remittance as well as the portions that could not be allocated as business or non-business remittance. Tax remittance items indicated as non-business include, for example, the household portion of recurrent tax on immovable property (Revenue Statistic category 4110), estate, inheritance and gift taxes (category 4300) and recurrent taxes paid by households on motor vehicles (category 4211). Detail on the categorisation by business role is provided for each country in separate country tables (see Tables A.4 through A.28 in Annex A). Table A.3 in Annex A is a version of Table 3 with the data shown in local currency amounts.

Table 3. Data Summary: Legal Tax Liability, Legal Remittance Responsibility, Non-business Tax Remittance and Unallocable Amounts by Revenue Statistics Category and by Country (Amounts in Percentage Points of Total Tax Revenue, 2014)

Panel A: Legal tax liability (tax remittance by business on behalf of capital owners) by tax category								Panel B: Legal remittance responsibility (tax remittance on behalf of others)				Panel C: Non-business remittance & amounts unallocable		
Revenue Statistics data heading	1000	2000	3000	4000	5000	6000	Total legal tax liability (A)	1000	2000	5000	Total legal remittance responsibility (B)	Non-business tax remittance (C)	Unallocable between business and non-business remittance (D)	Total tax revenue (A + B + C + D)
Description of items with heading	Non-corporate business tax revenue; CIT	Employer & self-employed SSCs	Payroll taxes	Business portion of recurrent tax on immovable property	Excise taxes; business portion of taxes on motor vehicles	Other taxes exclusive the liability of business		Withholding taxes on labour and capital income	Employee SSCs	Value-added taxes and sales taxes				
Australia	20.8%	0.0%	4.9%	#N/A	6.2%	0.0%	31.9%	35.8%	0.0%	13.0%	48.8%	2.1%	17.2%	100.0%
Austria	7.5%	19.8%	6.9%	0.5%	6.0%	#N/A	40.6%	21.0%	12.5%	18.0%	51.6%	3.4%	4.4%	100.0%
Belgium	8.0%	17.9%	0.0%	1.3%	5.1%	#N/A	32.4%	23.4%	7.5%	17.3%	48.3%	16.2%	3.0%	100.0%
Canada	12.8%	7.3%	2.0%	0.1%	6.3%	0.0%	28.5%	24.1%	6.0%	13.8%	44.0%	12.2%	15.3%	100.0%
Chile	21.3%	0.2%	0.0%	1.9%	7.6%	#N/A	31.0%	7.5%	7.0%	41.6%	56.2%	1.4%	11.5%	100.0%
Czech Republic	10.9%	31.0%	0.0%	0.3%	9.8%	0.0%	52.0%	1.3%	8.9%	22.5%	32.7%	4.5%	10.8%	100.0%
Finland	6.0%	15.2%	0.0%	0.9%	8.6%	#N/A	30.7%	15.1%	6.8%	21.1%	42.9%	9.1%	17.3%	100.0%
France	5.9%	22.9%	2.7%	1.4%	5.5%	2.4%	40.9%	0.0%	9.3%	15.2%	24.5%	11.4%	23.2%	100.0%
Germany	10.6%	19.1%	0.0%	0.7%	6.4%	#N/A	36.9%	16.8%	17.1%	20.7%	54.6%	3.2%	5.3%	100.0%
Ireland	11.6%	8.8%	0.6%	#N/A	9.9%	#N/A	31.0%	27.6%	6.1%	20.9%	54.5%	4.7%	9.8%	100.0%
Italy	8.2%	17.3%	0.0%	1.3%	8.6%	4.3%	39.8%	20.3%	5.5%	13.8%	39.6%	10.1%	10.6%	100.0%
Luxembourg	13.9%	0.0%	0.0%	#N/A	8.5%	0.1%	22.5%	17.7%	0.0%	19.9%	37.6%	29.0%	10.9%	100.0%
Mexico	18.2%	#N/A	2.5%	1.4%	6.0%	0.0%	28.1%	18.1%	#N/A	25.6%	43.7%	11.2%	17.0%	100.0%
Netherlands	11.2%	20.4%	0.0%	1.7%	8.5%	0.4%	42.2%	14.6%	19.6%	18.4%	52.6%	4.2%	1.0%	100.0%
New Zealand	19.3%	0.0%	0.0%	3.0%	2.6%	#N/A	25.0%	33.1%	0.0%	29.9%	63.0%	3.0%	9.0%	100.0%
Norway	18.9%	8.1%	0.0%	0.6%	6.9%	0.0%	34.4%	#N/A	8.8%	20.1%	28.9%	11.4%	25.3%	100.0%
Poland	9.4%	15.5%	0.8%	2.7%	12.5%	#N/A	40.9%	6.7%	11.5%	22.1%	40.3%	16.6%	2.3%	100.0%
Portugal	9.5%	0.0%	0.0%	0.0%	9.5%	0.4%	19.4%	3.7%	11.5%	25.2%	40.4%	17.5%	22.6%	100.0%
Slovenia	4.5%	15.0%	0.1%	1.0%	12.0%	0.0%	32.5%	0.0%	20.5%	23.3%	43.8%	5.5%	18.2%	100.0%
Spain	9.1%	24.1%	0.0%	1.2%	7.8%	0.4%	42.5%	19.3%	5.5%	18.6%	43.3%	8.6%	5.5%	100.0%
Sweden	7.5%	10.7%	7.7%	1.1%	5.9%	#N/A	33.0%	26.1%	6.2%	21.2%	53.4%	12.1%	1.5%	100.0%
Switzerland	11.0%	11.4%	0.0%	0.0%	5.9%	0.1%	28.4%	#N/A	11.5%	13.1%	24.6%	4.6%	42.4%	100.0%
United Kingdom	7.5%	9.3%	0.0%	4.8%	8.3%	0.0%	29.9%	24.3%	7.3%	21.9%	53.5%	8.5%	8.1%	100.0%
United States	13.5%	11.8%	0.0%	#N/A	3.7%	0.0%	28.9%	45.7%	10.7%	7.9%	64.2%	2.5%	4.3%	100.0%
Unweighted average	11.5%	11.9%	1.2%	1.1%	7.4%	0.4%	33.5%	16.8%	8.3%	20.2%	45.3%	8.9%	12.3%	100.0%

Source: OECD Revenue Statistics, author's calculations.

Finally, economic incidence is a point of concern within each of the tax categories discussed and applies to both the amounts of tax for which businesses are legally liable, the amounts remitted by businesses on behalf of others as well as the compliance costs incurred in the course of remitting amounts on behalf of themselves and others. Empirical evidence of economic incidence is only available for some taxes (and not at all for compliance costs), for a subset of countries and, within each country, only for select sectors. However, a lack of available evidence does not indicate that pass-through to workers or to consumers is not prevalent. This topic is considered in greater detail by tax category in Section 4.

4. A Review of the Literature on Economic Incidence

Taxes affect the mix of what people are willing to produce in their roles as workers, savers and investors. They influence what producers charge for their products and services, and these changes in prices and quantities, in turn, affect consumer behaviour. A key consideration in these dynamics is economic incidence, which describes how demand and supply conditions in the market for a taxed product or service allocate the burden of tax among suppliers and consumers.

While economic incidence describes the partial own-market economic effect of a tax, which may also be thought of as partial equilibrium analysis, “economic burden” could be defined as the general equilibrium economic results involving all markets. The economic burden of a tax measures changes in people’s after-tax incomes after all economic adjustments have occurred across all affected markets as consumption behaviour, resource use and incomes shift to their new patterns. The economic burden of a tax can only be assessed after accounting for the changes in real incomes that result from its imposition, measured anywhere from over a single year to over a lifetime.

In a world of perfect information, tax policy would be informed by evidence on the economic incidence of various taxes and who bears the tax: workers, consumers and capital owners. Information as comprehensive as the lifetime economic burden resulting from a given change in tax policy is clearly not available to policymakers. Instead, they must make judgments based on assumptions, often based on distributional tables that calculate proxies of economic incidence¹⁹ or on the extant evidence. Unfortunately, despite its policy relevance, evidence on incidence of taxes is generally sparse. There is no consensus view among economists regarding how the economic burdens of many taxes are allocated.

Lacking reliable estimates of economic incidence or sometimes due to lack of awareness of the issue, the legal liability for a tax is sometimes conflated with economic incidence, with data on tax revenues or tax remittance analysed as though it is indicative of the true economic burden on capital owners. For example, studies of business taxation often use data on CIT revenue to measure the “business tax burden.”

In practice, the discussion regarding who bears a tax is often linked to the assumption that the economic burden may align with the legal tax liability. In reality, there can often be large and unintended differences between legal tax liability and ultimate economic incidence. In fact, legal tax liability often bears little relationship to who actually bears a given tax. Moreover, the dynamics whereby a tax burden is reallocated among different actors in the economy are not reflected in tax collection amounts, making economic incidence difficult to analyse.

This section reviews the empirical evidence on the economic incidence of the taxes considered in Section 3 and the factors that influence where the economic burden of various taxes may fall. It has two

¹⁹ One example of a proxy is compensating variation, a monetary measure of the effect of a particular policy change on economic well-being, which measures the extra resources needed to restore an individual to his or her initial level of well-being given a change in prices. A second example is the equivalent variation, a measure that uses the after-tax change level of economic well-being as the point of reference. See Hubbard (1995).

main parts. The first is a review of how economic incidence varies by tax category. The second is a review of how economic incidence may vary with the assignment of legal remittance responsibility.

4.1. Evidence on Economic Incidence by Tax Category

4.1.1. CIT

The vast majority of academic literature on economic incidence has focused on CIT. Economic theory holds that the incidence of corporate tax in a competitive market is determined by its effect on marginal incentives. High rates of CIT discourage business activity by reducing returns to investment. As a result, high tax rates generally depress demand for capital and labour, thereby reducing the returns earned by workers and capital owners. Hence, the distribution of the incidence of corporate tax between labour and capital is a function of supply and demand in relevant markets.

While in traditional tax systems, the CIT has theoretically been considered to be borne entirely by capital owners under certain assumptions (e.g., a closed economy), differing assumptions (e.g., an open economy) and empirical estimates suggest that it is borne only partially by capital owners and often at least as much by workers in the form of lower wages.

4.1.1.a. Theoretical Literature

The theoretical literature on economic incidence of CIT has produced a variety of models. These models lead to different predictions, depending on the assumptions made about factor and output markets, labour market structure, the structure of the tax system and behavioural reactions to tax changes.

The first major theoretical contribution came from Harberger (1962), which showed that under certain assumptions (a closed economy with a fixed capital supply and both capital and labour fully mobile between a taxed corporate sector and an untaxed non-corporate sector), the economic burden of the CIT falls entirely on capital. Subsequent theoretical models modified these underlying assumptions, most notably by moving into an open economy context (Harberger, 1964; Bradford, 1978; Kotlikoff and Summers, 1987).

In open economy models, labour is found to bear the corporate tax burden. As labour is generally less mobile than capital and because capital owners may avoid domestic tax by shifting investment abroad, increases in CIT prompt outflow of domestic capital, decreasing the return to labour domestically and hence, wages. Indeed, a modern view of the corporate tax in the context of an open economy holds that the burden of the corporate tax is more likely to fall on labour, though there is no consensus on the degree. Reviews of theoretical models of the economic incidence of the corporate tax and their drivers are provided by Harberger (2006) and Gravelle (2013).

4.1.1.b. Empirical Literature

Empirical studies of the economic incidence of CIT agree that labour bears a substantial portion of the economic burden. These studies fall into three categories, identified by Gravelle (2011): those exploiting cross-country variation in corporate tax rates; those exploiting sub-national variation in corporate tax rates; and wage bargaining models, which assume that firms and workers negotiate wages.²⁰ While each category of research design has its drawbacks, empirical approaches are valuable in general because they provide

²⁰ More broadly, this empirical literature can be classified into two streams: an older macroeconomic data approach and a newer microeconomic data approach. The first stream of studies is not covered in detail here, as it has not been active since 1979 owing specification problems of a reduced-form equation using profits as the dependent variable. See Ebrahimi & Vaillancourt (2016) for a summary.

evidence on the incidence of the corporate tax and allow researchers to assess the statistical significance of the results. Overall, the open economy general equilibrium models of tax incidence and the recent empirical evidence suggest that labour may bear a substantial portion of the burden from the CIT.

Studies Exploiting Cross-country Variation in Corporate Tax Rates

The first category is comprised of cross-country studies that use variation in corporate tax rates across countries to estimate the effects of CIT on wages, with each of the main papers identifying a significant and negative relationship.²¹

A paper by Hassett & Mathur (2010) has found one of the largest burdens on wages from CIT. These authors used a cross-national panel from 1981-2002 and including 72 countries to investigate the impact of corporate taxes on wages using the log wage rate per hour in the manufacturing sector and a variety of corporate tax rates (the national corporate tax rate, the effective marginal and the effective average corporate tax rate). They find that a 1% increase in corporate tax rates is associated with a 0.3% to 1% decrease in wage rates, which translates into an exceptionally large estimate of the economic incidence on labour (2,200%). As pointed out by Gravelle (2011) as well as Gravelle & Hungerford (2012), these results are implausibly large. One weakness of the Hassett & Mathur paper was their reliance on exchange rates, rather than on purchasing power parity, to compare wages around the world. When Gravelle & Hungerford (2012) re-tested the Hassett & Mathur specification using purchasing power parity, they found both reduced estimates and reduced significance.

Felix (2007) takes a similar approach to that used by Hassett & Mathur, while also controlling for education. She tested the argument that skills-capital complementarity implies that the reductions in capital that result from CIT rate increases should negatively impact highly-skilled workers to a greater extent. She estimated a wage elasticity to CIT of 0.4, which is lower than that found by Hassett & Mathur but still difficult to reconcile with the observed levels of CIT revenues and wages. In addition, she does not find evidence that the burden of CIT falls more heavily on highly skilled workers. While the paper by Felix does not contain some of the concerns regarding the data used by Hassett & Mathur, the data sample is small and unbalanced. Out of the total of 65 country-years used in the analysis, about a quarter of the sample is drawn from Italy and Mexico and seven of the 19 countries had only one or two years of data, which raises questions about whether the sample is representative.

While the previous two studies use national-level wage information and national level statutory tax rates or estimates of effective tax rates, Desai, Foley & Hines (2007) use firm-level data to address the question. Using a dataset of foreign-owned affiliates of US multinationals, they estimate the tax burden in a given country not through forward-looking estimates of statutory rates or effective average or marginal rates but by calculating tax paid by multinationals in each jurisdiction. Similarly, they assess wages using the actual labour costs of affiliates in a given jurisdiction.

Unlike the Felix paper and Hassett & Mathur, Desai, Foley & Hines impose more structure on the estimates in their model, restricting the model such that the total tax burden on domestic labour and capital arithmetically sum to 100%. They find the share of the burden on labour income to fall between about 45% and 75% of the total, with the balance falling on capital. While the more structured econometric approach seems to yield more plausible results, their model estimates the relative impact of tax increases in labour and capital, but not the total burden. In addition, a potential problem with their sample of multinationals is

²¹ These models implicitly assume that policymakers do not react to corporate tax rate changes in the countries they compete with to attract internationally mobile capital. To the extent that countries engage in tax competition, corporate tax rates will be endogenous. Indeed, the tax competition literature provides empirical evidence of strategic interaction among national governments (Altshuler & Goodspeed, 2002; Altshuler & Grubert, 2004; Devereux, Lockwood & Redoano, 2008).

that the tax-wage relationship for multinationals and their affiliates may not be representative of the broader set of companies operating across the economy.

Studies Exploiting Sub-national Variation in Corporate Tax Rates

A second set of studies has taken a similar approach to the first set but relies on variation in sub-central CIT rates instead of on variation across countries. One of the first papers in this area was Felix (2009), who uses data from the Current Population Survey in the United States, which covered years 1977 to 2005, to estimate the incidence of state corporate tax rates on log wages (measured as a worker's annual salary divided by the number of hours worked per year, across industries). Felix finds that CIT, measured as the highest corporate statutory rate in the state, is significantly and negatively correlated with wages. She concludes that a 1% increase in the state CIT rate would decrease wages by between 0.1% and 0.4%. These results translate into a wage elasticity of -0.0094 to -.024 and imply quite large burdens on labour. She finds that a USD 1 increase in the state CIT rate would decrease average hourly wages by USD 1.41 to USD 3.60, suggesting that up to 360% of the economic incidence could fall on labour.

Like Felix, Carroll (2009) uses sub-national level data from the United States to test the incidence of the state corporate tax. Whereas Felix relied on data for individuals to estimate the effect of the state corporate tax on wages, Carroll uses pooled, state-level cross-sectional data from the Bureau of Labor Statistics covering years 1970 to 2007. Carroll relies on two different measures of the state CIT rate: the top statutory rate (combining the federal and state CIT rates) and the average CIT rate (state CIT collections divided by personal income). He finds that a 1% increase in the former reduces wages by 0.14% while a 1% increase in the latter reduces wages by 0.01%. Based on a 1% increase in the average CIT rate, he finds that a USD 1 increase in tax revenue would decrease wages by USD 2.50, suggesting that 250% of the economic incidence falls on labour.

Whereas both Felix and Carroll implicitly assume that the corporate sector is perfectly competitive, Liu & Altshuler (2013) challenge this by allowing for imperfect competition. They use variation in effective marginal tax rates across industries and across time in the United States to estimate the incidence of CIT, incorporating the possibility that the tax burden of a marginal investment project will depend on the project's asset mix (as effective marginal tax rates vary by asset type and by industry). They find a mean elasticity of wages with respect to the industry marginal effective corporate tax rate of around -0.03, implying that a USD 1 increase in corporate tax revenue would decrease wages by between USD 0.42 and USD 0.60. Liu & Altshuler estimate that at least 42% of the economic incidence of corporate tax falls on labour, and possibly more.

Suárez Serrato & Zidar (2014) estimate the incidence of state corporate taxes on workers and capital owners using variation in corporate tax rates across US States and apportionment rules. They construct a new measure of state-level effective average tax rates that incorporates non-corporate businesses taxed through personal income tax law as well as corporate businesses. They estimate that a 1% decrease in tax rates increases real wages by 1.1%. Their findings also suggest that workers bear approximately 30% to 35% of the state corporate tax incidence, while firm owners bear approximately 40%.

Most recently, Ebrahimi & Vaillancourt (2016) use a sample of individual-level data from Statistics Canada's Labour Force Survey to measure the effect of changes in the statutory CIT rate across Canadian provinces on wages measured by the hourly wage rate. They find that a 1% increase in the statutory CIT rate lowers the private sector hourly wage rate by 0.15% to 0.24%, with greater wage decreases for smaller firms.²²

²² It is worth highlighting that Ebrahimi & Vaillancourt (2016) is one of the few studies to explore how CIT incidence varies with firm size. While the data available does not allow us to explore legal tax liability or legal remittance responsibility by firm size,

Wage Bargaining Models

The third set of studies use either cross-country or sub-national data, but base the analysis of the corporate tax incidence on a wage bargaining model that assumes that firms and workers negotiate wages. In settings in which some firms earn economic rents that they may share with employees, high CIT taxes affect the distribution of economic returns not only by influencing marginal incentives but also by reducing the total volume of economic rents available to be shared. As firm profitability affects the negotiated agreement terms between employees and employers and high tax rates generally reduce this profitability, high taxes can be expected to reduce wages.

Felix & Hines (2009) evaluate the effect of CIT taxes across US States on union wages. Unionised workers tend to be paid more than their non-union counterparts; they find this difference to be larger in states with lower taxes, reflecting the fact that unions and employers share tax savings that accrue from lower tax rates. They find that a 1% lower state tax rate is associated with a 0.4% higher union wage premium, suggesting that workers in a fully unionised firm capture roughly 54% of the benefits of low tax rates. For each USD 1 increase in CIT revenue, the median wage of workers in the private sector is estimated to drop by USD 0.49.

Arulampalam, Devereux & Maffini (2012) find similar results for a panel of nine European countries over the years 1996 to 2003. They rely on a micro dataset of more than 55 000 firms to estimate the incidence of corporate taxes per employee on manufacturing wages, while controlling for the value-added per employee. They find the elasticity of the wage bill to taxation is -0.093, which implies that for each USD 1 increase in CIT revenue, the average annual firm wage drops by USD 0.49.

In an additional wage bargaining model, Fuest, Peichl & Siegloch (2015) support the conclusion of Arulampalam, Devereux & Maffini regarding the wage bargaining channel of economic incidence. Using matched employer-employee data for German municipalities, they find that a EUR 1 increase in taxes corresponds to a EUR 0.77 decrease in wages. Though they do not control for value added, they say the indirect effect, due to capital shifting, does not come about due to regional labour mobility.

Table 4 summarises the empirical evidence on the economic incidence of CIT on labour. Across all research designs, the estimates range from 30% to over 2 200% with the more robust studies finding an incidence of between 30% and 70%. The breadth of this range illustrates the lack of consensus around precisely how much of the economic burden of CIT is shifted to labour in the form of lower wages. However, this evidence does support the conclusion that at least some of it is.

this would be an interesting direction for future research as it is plausible that larger firms have greater bargaining power and may thus be able to shift more of the tax burden onto workers and/or consumers.

Table 4. Empirical Evidence on the Economic Incidence of CIT on Labour

Research Design	Citation	Country	Period	Industry	Economic Incidence on Labour
Exploiting cross-country variation in tax rates	Hasset & Mathur (2010)	65 developed and developing countries	1981-2005	Manufacturing	2 200%
	Desai, Foley & Hines (2007)	50 countries (excluding the U.S.)	1989; 1994; 1999; 2004	Cross-industry	45-75%
	Felix (2007)	19 developed countries	1979-2002	Cross-industry	400%
Exploiting sub-national variation in tax rates	Ebrahimi & Vaillancourt (2016)	Canada (variation across provinces)	1998-2013	Cross-industry	75%
	Suárez Serrato & Zidar (2014)	U.S. (variation across counties)	1980-1990; 1990-2000; 2000-2010	Cross-industry	30-35%
	Liu & Altshuler (2013)	U.S.	1982; 1992; 1997	Cross-industry	40-80%
	Carroll (2009)	U.S. (variation across states)	1970-2007	Cross-industry	250%
	Felix (2009)	U.S. (variation across states)	1977-2005	Cross-industry	360%
Wage bargaining models	Arulampalam, Devereux & Maffini (2012)	9 European countries	1996-2003	Manufacturing	49%
	Felix & Hines (2009)	U.S. (variation across states)	2000	Cross-industry	54%
	Fuest, Peichl & Sieglöcher (2015)	Germany (variation across municipalities)	1993-2012	Cross-industry	40%

Source: Results from papers cited compiled by the author.

4.1.2. Taxes other than CIT

Looking beyond CIT and taking a broad view of business taxation as inclusive of all taxes for which businesses are legally liable is particularly important in light of evidence that business decisions are sensitive to taxes other than CIT.

Desai, Foley & Hines (2004) examine the impacts of taxes other than CIT on levels of foreign direct investment, and find that indirect tax rates (sales, value-added and excise taxes, property taxes and import and export duties) are negatively correlated with investment levels roughly to the same degree as CIT rates. While governments of countries with a worldwide tax system permit multinational firms to claim foreign tax credits for CIT paid to foreign governments, they often do not extend this privilege to taxes other than income taxes. As a result, taxes for which firms are ineligible to claim credits may have greater impacts on decision-making than (creditable) CIT. Desai et al. estimate that US affiliates located in countries with

10% higher indirect tax rates have just over 7% fewer assets while those in countries with 10% higher CIT rates have just under 7% fewer assets.

Additionally, Suárez Serrato & Zidar (2014) relate changes in effective average tax rates to growth in the number of business establishments over three ten-year periods. Their analysis relies on a new estimate of effective average tax rates at the state-level, a key feature of which is that it accounts for both corporate and non-corporate businesses (i.e., businesses taxed through the personal income tax code). They find that a 1% decrease in business taxes increases establishment growth by 3-4% over ten years, with particular intensity two to four years following a tax cut. This is evidence that personal income tax levied on non-corporate business income impacts business decisions.

These results suggest that for the same reasons that it is important to examine the impact of CIT on business activity, it is also important to examine other non-corporate taxes borne by capital owners. The next sections evaluate the evidence on economic incidence of taxes other than CIT.

4.1.2.a. Taxes on Labour Income

Taxes on wages remitted by businesses include withholding taxes on labour income, social security contributions and payroll taxes. Taxes on wages are often considered to be borne exclusively by workers in the form of lower after-tax wages.²³ An early cross-national study by Brittain (1972) found that the entirety of the tax burden of the payroll tax is passed through to workers. Based on a sample of statutory payroll tax rates in 64 countries, this study found a 1% increase in tax rates to be associated with a wage reduction of between 1.1% and 1.6%.

It is important to note that the findings that pertain to social security contributions may not hold for payroll taxes. Whereas social security contributions are often linked to benefits, payroll taxes are not; as such, there is no obvious link between the economic incidence of social security contributions and that of payroll taxes.

Despite Brittain's early evidence that payroll taxes are more than fully passed through to workers, questions remain about the extent to which labour taxes may be shifted to consumers or capital owners as well. Holmund (1983) examines a series of increases in payroll taxes in Sweden from 1950 to 1979. Using data on manufacturing wages, he finds that 50% of a payroll tax increase is borne by workers in the form of lower wages, though he does not analyse which other actors in the economy bear the remainder. Like Brittain, Holmund uses statutory tax rates as his explanatory variable.

Abbott & Beach (1997) use Canadian province-level data on tax revenue and wages from 1970 to 1993 and find a similarly negative impact of payroll taxes on wages, as well as a negative impact on employment. Unlike Brittain and Holmund, Abbott & Beach use backward-looking effective tax rates (tax revenue over wages) to measure tax levels. This study finds a 1% increase in tax rates to be associated with a wage reduction of between 1.7% and 3.4%, a higher level than either Holmund or Brittain.

Not all studies find negative impacts of payroll taxes on wages. Marceau & Vaillancourt (1990) examine Canadian data, as did Abbott & Beach. Marceau & Vaillancourt, however, use sector-level data on wages and payroll taxes as their source of variation. Whereas general payroll taxes levied at the national or provincial levels have a uniform rate, there are sector-specific payroll taxes, which can vary by employer and by industry. Examples include unemployment insurance premiums linked to experience and workers' compensation premiums in the United States and Canada. While the study finds negative impacts of general payroll taxes on wages – a 1% tax increase is associated with a wage reduction of between

²³ A short review of this literature is provided in Ebrahimi & Vaillancourt (2016). This section draws in part on their work.

0.24% and 0.38% – the effects are different with respect to specific payroll taxes. A 1% increase in certain payroll taxes was associated with a 0.025% increase in wages. These cross-sectional results could suffer from endogeneity bias: sectors with higher payroll taxes in collective agreements could have higher payroll taxes, especially at the sectoral level, because better-paid workers voted for them.

To address these potential endogeneity effects, further research by Roy-César & Vaillancourt (2010) uses sector-level variation in wages and in general and specific payroll taxes in Canada. However, the design in this study uses growth rates and changes in payroll taxes (as opposed to static variables) to address the issue. This analysis finds that annual wage growth drops by between 0.3% and 0.5% following a 1% increase in general payroll tax. As with Marceau & Vaillancourt, they find positive impacts on wages with respect to sector-specific payroll taxes.

In summary, the extant literature in the area of payroll tax incidence provides evidence that these taxes are borne by workers as well as consumers and other factor owners, though the extent of this sharing is unclear. In addition, the evidence also suggests that this sharing of the costs, as well as the size of the impact of payroll taxes, depends on the sector and the design of payroll taxes.

4.1.2.b. Value-added and Retail Sales Taxes

Indirect taxes on consumption are often assumed to have clear economic consequences. While economists and policymakers alike assume that changes in indirect taxes are fully passed through to consumers, the theoretical economic literature allows that the incidence of indirect taxes need not be complete. Other theoretical approaches demonstrate that indirect taxes can be passed through to consumers by more than 100% (Benedek, de Mooij, Keen, & Wingender, 2015).

Empirical examples of research on the incidence of indirect taxes have often considered the cigarette industry and tobacco taxation. One early example includes Sumner (1981). Using data on the per-packet price of cigarettes in select US States from 1954 to 1978, Sumner found that a USD 1 increase in taxes is associated with a USD 1.074 increase in prices. Other studies on the same topic are summarised in Sullivan (2009); the results indicate that the effect of increased tobacco taxation is between a zero impact on prices to a doubling of prices. Sullivan presents his own research design and evidence using city-level data on cigarette taxes and prices across US States from 1990 to 2009, with findings similar in magnitude to Sumner (1981): a USD 1 increase in taxes leads to between a USD 1.10 and USD 1.13 increase in prices.

Poterba (1996) extended the earlier analysis on indirect taxes to general retail sales taxes, using city-specific quarterly US data on clothing price indices from 1947 to 1977 and 14 cities from 1925 to 1939. In the earlier period, the results suggest that two-thirds of the tax increases are passed on to consumers, while in the later period, the entirety of tax increases are passed onto consumers. There is also variation in the paper across sales items and across cities. Poterba argues that incidence varies across location and over time, with differences in the degree of market power explaining this variation.

Besley & Rosen (1998) adopt a similar research approach to that of Poterba but using more disaggregated data. While Poterba considers a relatively aggregated category of products (women and girl's clothing and men and boy's clothing), Besley & Rosen use product data at a more disaggregated level. They also use proxies for wages, rent, and energy costs to control for other factors that may impact product prices. In some instances, they find similar results to those of Poterba: tax increases are fully shifted on consumers. However, they also find that market power allows firms to over-shift the burden of taxes onto consumers, so that prices may rise by more than the tax increase. This work provides further impetus for the idea that the structure of a market impacts tax incidence.

More recent studies have moved beyond the one-country approach. Benedek, de Mooij, Keen, & Wingender (2015) estimate the impact of changes in the standard rate of VAT on consumer prices, using a panel dataset of VAT reforms from Eurozone countries between 1999 and 2003. The large size of the dataset gives them greater variation in tax rates. This enables them to analyse VAT reforms including standard rate changes, reduced or targeted rate changes and base changes. Using a similar methodological approach to Poterba and Besley & Rosen, this paper finds that for changes in VAT standard rates, full pass-through (i.e., full incidence of indirect taxation on consumers) is a reasonable estimate. They also find variation in pass-through across different types of goods, such as durable versus non-durable goods. In anticipation of VAT rate increases but before the changes are enacted, they measure higher pass-through for durable goods. This is explained by the fact that the gain in purchasing in advance of the rate increase is greater for durables. Looking at changes in reduced rates, they find that the extent of pass-through is significantly less for reduced rates, at around 30%. This is counterintuitive, as reduced rates tend to apply to basic commodities such as food items, which tend to have lower income elasticities. This is expected to translate into higher pass-through. However, this effect may be muted if the budget share of reduced-rate items is small, and this effect appears to dominate in the results. This finding is particularly important due to the fact that many reduced rates are targeted at low income households as poverty reducing measures (OECD, 2014). The same paper finds that the impact on prices is almost zero for removal of certain items from the VAT base (through exemption or zero-rating), again suggesting that the magnitude of tax incidence is highly dependent on tax design.

4.2. Economic Incidence & Legal Remittance Responsibility

Though the topic of how tax remittance structure – where remittance responsibility is assigned in a tax system – affects the ultimate economic burden of taxes is of great interest to policymakers, this link has received little research attention. This is due to the fact that economic theory has historically argued that the distinction between remittance responsibility and economic burden is irrelevant. In the 1950s, Hugh Dalton presented a theorem of the invariance of tax incidence, summarised by Logue & Slemrod (2009) as follows: “The incidence of a tax imposed on the sale or purchase of a good or service will be independent of the assignment of the legal obligation to remit the tax to the government.” Though Dalton’s work preceded work by Coase, “invariance” or “irrelevance” often evokes the Coase Theorem, which similarly states that, in a bargaining context, negotiations among affected parties will result in an efficient and invariant outcome under the standard assumptions of competitive markets, as long as rights are well-defined. In other words, in agreement with Dalton, which person or entity bears the legal obligation to remit a tax is thought to have no impact on the final economic incidence.

However, dismissal of the distinct importance of remittance responsibility is counterintuitive, as the assignment of remittance responsibility is often recognised as a key issue in tax system implementation. Slemrod & Gillitzer (2014) discuss this in the context of optimal tax theory, arguing that the widespread existence of withholding and remittance at source in tax systems around the world is clear evidence of its importance to policymakers.

Indeed, though research on the topic is scarce and recent, there is evidence that remittance structure affects economic incidence of some taxes. Analysing changes in the point of collection for diesel taxes in the United States, Kopczuk, Marion, Muehlegger, & Slemrod (2016) find that a reassignment of remittance responsibility up the supply chain – from retailers to distributors, distributors to wholesalers, or retailers to wholesalers – is associated with a higher level of economic incidence on consumers, contradicting the irrelevance proposition. The intuition for the findings is that evasion is more costly with fewer tax remitters, which will be the case, for example, if audit coverage is decreasing in the number of remitters, perhaps because there are fixed per-firm costs of monitoring compliance. There will be fewer tax remitters up the supply chain. Thus, under an assumption of perfect competition, a reduction in evasion of sales taxes from a reassignment of tax liability up the supply chain is passed through in the form of higher

consumer prices. This finding sheds new light for policymakers when considering the assignment of remittance responsibility. Much more can be done to understand how the system of tax collection impacts allocation of the tax burden on capital owners, workers and consumers.

5. Conclusion

This paper has explored several facets of businesses' role in collecting tax revenues, a key feature of tax systems in OECD countries. First, it has focused on businesses' legal tax liabilities inclusive of the full range of taxes for which businesses are legally liable, not just CIT.

Second, it has drawn attention to businesses' role in the tax system. Businesses remit an important share of tax revenue to governments. As discussed, reasons for this include administrative ease, arising from the economies of scale of taxing fewer large entities, and improved tax compliance. While businesses benefit in certain ways through their involvement in the tax collection process (e.g., the cash flow benefit), their remittance responsibilities also entail compliance costs. The analysis of businesses' overall role in remitting taxes to governments should include not just their legal tax liabilities, but the compliance costs incurred on account of their legal remittance responsibilities as well.

An additional crucial point made by this paper is that businesses' legal tax liabilities are not fully borne by capital owners but, instead, may be passed on to workers and consumers to some degree, with some studies suggesting that more than half of the burden is passed on to the labour force. As described, policymakers and other stakeholders must be keenly aware that the assignment of the legal liability of a tax to a given party does not imply that the economic burden of the tax falls entirely on that same party. This is likely to be true for the assignment of remittance responsibility as well, as recent evidence has begun to show, and potentially for compliance costs.

Empirical estimates of economic incidence can serve to guide policymakers' assumptions in tax policy analysis. While it would be ideal to have general equilibrium estimates of the economic burden of the full range of business taxes on capital owners, workers and consumers, by country and even by sector, it is challenging to derive such estimates empirically. For this reason, there is evidence of economic incidence (partial equilibrium effects) only for select taxes in select countries, sometimes using data from select industries. The most comprehensive estimates of economic incidence relate to the CIT. A review of these results suggests that at least 30% of CIT is shifted to labour. This is strong caution against interpreting data on CIT remittance as indicative of the tax burden on capital owners. Economic incidence is crucial to recognition that efforts to pursue inclusive policies by levying new taxes on businesses or business activity may not do so at all. Further studies on the incidence of various taxes or of compliance costs would help to better inform policy making.

More work should be done to understand the link between tax remittance structure and economic incidence. The recent evidence showing that remittance structure influences economic incidence is new information for policymakers. Though empirical evidence has not indicated precisely how much of the economic burden of a given tax is allocated to any one entity, the channels according to which such an allocation takes place were generally accepted (e.g., price setting in the markets for consumer goods, wage bargaining between workers and businesses). A new factor to consider in the context of economic incidence is remittance structure. Though shifting the remittance from one type of business to another up the supply chain may improve compliance with respect to a given tax, such a shift may imply less of a tax burden on capital owners. This aspect of tax system administration deserves greater attention from tax policymakers. Further studies would help to shed light on how we understand the role of different business tax remitters in affecting the allocation of the tax burden.

Finally, future work in this area should explore the ways in which the role of businesses in tax system administration differs in developing economies. Due to larger informal sectors, businesses in developing countries do not play as large a role when it comes to legal remittance responsibilities, including withholding taxes on labour and capital income, sales taxes or value-added taxes as they do in more developed countries. This could hinder the mobilisation of tax revenues in developing countries as, historically, the introduction of direct tax withholding by businesses from workers' pay has been an important technical innovation allowing tax authorities to raise income taxes in larger amounts and more efficiently (Besley & Persson, 2014). In addition, there is evidence that increased labour formality – from self-employment to full-time jobs – explains growth in a country's tax capacity (Jensen, 2016). The role of businesses in the tax remittance process may therefore play an important role in supporting economic development.

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ANNEX A

Table A.1: Categorisation of Tax Remittance by Businesses' Role in the Tax System

Revenue Statistics Tax Category	Legal Tax Liability of Business	Legal Remittance Responsibility of Business	Other (Non-business Remittance)
1000 Taxes on income, profits and capital gains			
1100 Taxes on income, profits and capital gains of individuals			X
Non-corporate business income subject to personal income tax	X	-	-
Withholding taxes on labour income (private and public sectors)	-	X	X
Withholding taxes on capital income	-	X	-
1200 Taxes on income, profits and capital gains of corporates	X	-	-
1300 Unallocable between 1100 and 1200	Unallocated	Unallocated	Unallocated
2000 Social security contributions (SSC)			
2100 Employees SSC (private and public sectors)	-	X	X
2200 Employers SSC (private and public sectors)	X	-	X
2300 Self-employed or non-employed SSC	X	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	Unallocated	Unallocated	Unallocated
3000 Taxes on payroll and workforce			
Taxes on payroll and workforce	X	-	-
4000 Taxes on property			
4100 Recurrent taxes on immovable property			
4110 Households recurrent taxes on immovable property	-	-	X
4120 Other than households recurrent taxes on immovable property	X	-	-
4200 Recurrent taxes on net wealth	Unallocated	Unallocated	Unallocated
4300 Estate, inheritance and gift taxes	-	-	X
4400 Taxes on financial and capital transactions	Unallocated	Unallocated	Unallocated
4500 Non-recurrent taxes on property	Unallocated	Unallocated	Unallocated
4600 Other recurrent taxes on property except 4100 and 4200	Unallocated	Unallocated	Unallocated
5000 Taxes on goods and services			
5100 Taxes on production, sale, transfer, etc			
5110 General taxes on goods and services			
5111 Value added taxes *	-	X	-
5112 Sales tax	-	X	-
5113 Other (than value added and sales tax)	Unallocated	Unallocated	Unallocated
5120 Taxes on specific goods and services			
5121 Excises	X		
5122 Profits of fiscal monopolies	X		
5123 Customs and import duties	Unallocated	Unallocated	Unallocated
5124 Taxes on exports	Unallocated	Unallocated	Unallocated
5125 Taxes on investment goods	Unallocated	Unallocated	Unallocated
5126 Taxes on specific services			
Insurance tax	-	X	-

Duty transport goods on residents	-	X	-
Other	Unallocated	Unallocated	Unallocated
5127 Other taxes on internat. trade and transactions not included within 5121 to 5126 inclusive	Unallocated	Unallocated	Unallocated
5128 Other taxes not included within 5121 to 5127 inclusive	Unallocated	Unallocated	Unallocated
5130 Unallocable between 5110 and 5120	Unallocated	Unallocated	Unallocated
5200 Taxes on use of goods and perform activities			
5210 Recurrent taxes on use of goods and perform activities			
5211 Recurrent taxes paid by households: motor vehicles	-	-	X
5212 Recurrent taxes paid by others: motor vehicles	X	-	-
5213 Recurrent taxes paid on use of goods and perform activities other than on motor vehicles	Unallocated	Unallocated	Unallocated
5220 Non-recurrent taxes on use of goods and perform activities	Unallocated	Unallocated	Unallocated
5300 Unallocable between 5100 and 5200	Unallocated	Unallocated	Unallocated
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000			
6100 Paid solely by business	X	-	-
6200 Other	Unallocated	Unallocated	Unallocated

Source: OECD Revenue Statistics; classification by businesses' role in the tax system by the author.

Table A.2: Data Sample Selection Based on Survey Responses

Country	Survey response	Non-corporate business income & estimated average tax rate on business income or tax revenue	Withholding taxes on labour and capital income	Business portion of recurrent immovable property tax (or contained in Revenue Statistics already)	Inclusion in data analysis (if data for two of three previous criterion were met)
Australia	Yes	Yes	Yes	No	Yes
Austria	Yes	Yes	Yes	Yes	Yes
Belgium	Yes	Yes	Yes	Yes	Yes
Canada	Yes	Yes	Yes	No	Yes
Chile	Yes	No	Yes	Yes	Yes
Czech Republic	Yes	Yes	Yes	Yes	Yes
Denmark	No response	#N/A	#N/A	No	No
Estonia	No response	#N/A	#N/A	No	No
Finland	Yes	Yes	Yes	Yes	Yes
France	Yes	Yes	#N/A	Yes	Yes
Germany	Yes	Yes	Yes	Yes	Yes
Greece	No response	#N/A	#N/A	No	No
Hungary	Yes	Yes	No	No	No
Iceland	No response	#N/A	#N/A	No	No
Ireland	Yes	Yes	Yes	No	Yes
Israel	No response	#N/A	#N/A	Yes	No
Italy	Yes	Yes	Yes	Yes	Yes
Japan	Yes	No	Yes	No	No
Korea	No response	#N/A	#N/A	No	No
Luxembourg	Yes	Yes	Yes	No	Yes
Mexico	Yes	Yes	Yes	Yes	Yes
Netherlands	Yes	No	Yes	Yes	Yes
New Zealand	Yes	Yes	Yes	Yes	Yes
Norway	Yes	Yes	No	Yes	Yes
Poland	Yes	Yes	No	Yes	Yes
Portugal	Yes	Yes	Yes	No	Yes
Slovak Republic	No response	#N/A	#N/A	Yes	No
Slovenia	Yes	Yes	No	Yes	Yes
Spain	Yes	Yes	Yes	Yes	Yes
Sweden	Yes	Yes	No	Yes	Yes
Switzerland	Yes	Yes	No	Yes	Yes
Turkey	Yes	No	No	No	No
United Kingdom	Yes	No	Yes	Yes	Yes
United States	Yes	Yes	Yes	No	Yes

Source: Compiled by the author based on responses from delegates of OECD member countries.

Table A.3: Data Summary: Legal Tax Liability, Legal Remittance Responsibility, Non-business Tax Remittance and Unallocable Amounts by Revenue Statistics Category and by Country (Amounts in Local Currencies, 2014)

Panel A: Legal tax liability (tax remittance by business on behalf of capital owners) by tax category									Panel B: Legal remittance responsibility (tax remittance on behalf of others)				Panel C: Non-business remittance & amounts unallocable		
Revenue Statistics data heading		1000	2000	3000	4000	5000	6000	Total legal tax liability (A)	1000	2000	5000	Total legal remittance responsibility (B)	Non-business tax remittance (C)	Unallocable between business and non-business remittance (D)	Total tax revenue (A + B + C + D)
Description of items with heading	Local currency	Non-corporate business tax revenue; CIT	Employer & self-employed SSCs	Payroll taxes	Business portion of recurrent tax on immovable property	Excise taxes; business portion of taxes on motor vehicles	Other taxes exclusive of the liability of business		Withholding taxes on labour and capital income	Employee SSCs	Value-added taxes and sales taxes				
Australia	Australian Dollar	90,675	-	21,519	#N/A	26,932	-	139,126	156,200	0	56,819	213,019	9,293	75,268	436,706
Austria	Euro	10,554	27,899	9,779	666	8,452	#N/A	57,351	29,675	17,669	25,467	72,811	4,806	6,140	141,107
Belgium	Euro	14,387	32,098	8	2,378	9,060	#N/A	57,930	41,931	13,455	30,906	86,502	29,052	5,439	178,923
Canada	Canadian Dollar	79,296	45,034	12,595	375	38,997	-	176,297	149,263	37,369	85,179	271,811	75,548	94,561	618,217
Chile	Chilean Peso	6,196,077	65,731	-	542,478	2,224,209	#N/A	9,028,494	2,187,047	2,044,356	12,133,710	16,365,113	412,924	3,338,687	29,145,219
Czech Republic	Czech Koruna	154,695	440,129	-	4,724	138,875	-	738,422	18,298	126,894	319,789	464,981	63,600	153,303	1,420,306
Finland	Euro	5,395	13,653	-	821	7,706	#N/A	27,575	13,536	6,101	18,948	38,585	8,177	15,520	89,857
France	Euro	57,799	224,104	26,384	13,850	54,179	23,733	400,049	-	91,057	149,033	240,090	111,143	226,735	978,017
Germany	Euro	113,376	203,597	-	7,614	68,348	#N/A	392,935	179,168	181,608	220,049	580,825	34,232	56,659	1,064,651
Ireland	Euro	6,400	4,879	338	#N/A	5,467	#N/A	17,085	15,221	3,357	11,521	30,099	2,607	5,387	55,178
Italy	Euro	57,458	121,466	-	9,472	60,477	30,385	279,258	142,235	38,616	97,041	277,892	70,677	74,369	702,195
Luxembourg	Euro	2,596	-	-	#N/A	1,602	18	4,216	3,309	-	3,729	7,038	5,443	2,044	18,741
Mexico	Mexican Peso	473,369	#N/A	64,713	37,693	156,131	-	731,906	473,233	#N/A	667,085	1,140,318	291,572	443,900	2,607,696
Netherlands	Euro	27,616	50,265	-	4,178	20,973	984	104,016	36,055	48,351	45,474	129,880	10,477	2,370	246,743
New Zealand	New Zealand Dollar	15,051	-	-	2,352	2,048	#N/A	19,451	25,778	-	23,306	49,084	2,352	7,024	77,911
Norway	Norwegian Krone	230,633	98,384	-	6,995	83,708	-	419,720	#N/A	107,875	244,767	352,642	138,571	308,936	1,219,869
Poland	Zloty	49,290	81,800	3,998	14,458	65,764	#N/A	215,310	35,085	60,370	116,607	212,062	87,248	11,867	526,487
Portugal	Euro	5,603	-	-	20	5,615	258	11,496	2,179	6,810	14,872	23,861	10,365	13,388	59,110
Slovenia	Euro	607	2,032	9	137	1,623	-	4,409	-	2,777	3,158	5,936	750	2,465	13,560
Spain	Euro	32,320	85,425	-	4,270	27,819	1,256	151,090	68,434	19,374	66,095	153,903	30,539	19,656	355,188
Sweden	Swedish Krona	125,207	178,437	128,712	18,957	99,207	#N/A	550,519	435,503	103,955	353,439	892,898	202,787	24,439	1,670,643
Switzerland	Swiss Franc	19,055	19,798	-	-	10,173	247	49,273	#N/A	19,991	22,728	42,720	8,071	73,522	173,585
United Kingdom	British Pound	43,715	54,279	-	27,655	48,189	-	173,838	141,261	42,604	127,175	311,040	49,538	47,104	581,520
United States	U.S. Dollar	606,169	530,244	0	#N/A	165,174	0	1,301,587	2,056,865	479,451	353,947	2,890,263	114,643	194,037	4,500,530

Source: OECD Revenue Statistics, author's calculations.

Table A.4: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Australia

Dataset: Details of Tax Revenue - Australia

Government: Total

Unit: Australian Dollar, Millions

Year: 2013

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	436,706	139,126	213,019	9,293	75,268
1000 Taxes on income, profits and capital gains	248,448	90,675	156,200	#N/A	1,573
1100 Taxes on income, profits and capital gains of	170,313	12,540	156,200	#N/A	1,573
1200 Taxes on income, profits and capital gains of	78,135	78,135	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	-	-	-	-	-
3000 Taxes on payroll and workforce	22,221	21,519	-	702	-
4000 Taxes on property	40,929	#N/A	#N/A	#N/A	40,929
4100 Recurrent taxes on immovable property	23,603	#N/A	#N/A	#N/A	23,603
4110 Households recurrent taxes on immovable property	-	-	-	-	-
4120 Other than households recurrent taxes on	23,603	#N/A	#N/A	#N/A	23,603
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	-	-	-	-	-
4400 Taxes on financial and capital transactions	17,326	#N/A	#N/A	#N/A	17,326
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	125,108	26,932	56,819	8,591	32,766
5100 Taxes on production, sale, transfer, etc	103,678	26,472	56,819	-	20,387
5110 General taxes on goods and services	56,819	-	56,819	-	-
5111 Value added taxes	55,517	-	55,517	-	-
5112 Sales tax	1,302	-	1,302	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	46,859	26,472	-	-	20,387
5121 Excises	26,472	26,472	-	-	-
Excises central government	25,648	25,648	-	-	-
Statutory corporate payments	343	343	-	-	-
Primary production charges	481	481	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	9,280	#N/A	#N/A	#N/A	9,280
5124 Taxes on exports	10	#N/A	#N/A	#N/A	10
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	11,097	#N/A	#N/A	#N/A	11,097
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	21,430	460	-	8,591	12,379
5210 Recurrent taxes on use of goods and perform	21,430	460	-	8,591	12,379
5211 Recurrent taxes paid by households: motor	8,591	-	-	8,591	-
5212 Recurrent taxes paid by others: motor vehicles	301	301	-	-	-
Fees on motor vehicle registry	-	-	-	-	-
Drivers licences	-	-	-	-	-
Stamp duty on vehicle registry	301	#N/A	#N/A	-	-
5213 Recurrent taxes paid on use of goods and perform	12,538	159	-	-	12,379
Broadcasting tv licences	157	157	-	-	-
Business franchise lic. tobac. fuel	2	2	-	-	-
Other taxes	12,355	#N/A	#N/A	#N/A	12,355
Liquor taxes	24	#N/A	#N/A	#N/A	24
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	-	-	-	-	-

Source: OECD Revenue Statistics, author's calculations.

Table A.5: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Austria

Dataset: Details of Tax Revenue - Austria

Government: Total					
Unit: Euro, Millions					
Year: 2014					
Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	141,107	57,351	72,811	4,806	6,140
1000 Taxes on income, profits and capital gains	41,733	10,554	29,675	-	1,504
1100 Taxes on income, profits and capital gains of	33,428	3,543	29,675	#N/A	211
1200 Taxes on income, profits and capital gains of	7,011	7,011	-	#N/A	-
1300 Unallocable between 1100 and 1200	1,294	#N/A	#N/A	#N/A	1,294
2000 Social security contributions (SSC)	48,454	27,899	17,669	2,886	-
2100 Employees SSC	19,512	-	17,669	1,843	-
2200 Employers SSC	22,683	22,138	-	546	-
2300 Self-employed or non-employed SSC	6,259	5,761	-	498	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	9,779	9,779	-	-	-
4000 Taxes on property	1,990	666	-	114	1,209
4100 Recurrent taxes on immovable property	749	639	-	110	-
4110 Households recurrent taxes on immovable property	110	-	-	110	-
4120 Other than households recurrent taxes on	639	639	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	4	-	-	4	-
4400 Taxes on financial and capital transactions	945	#N/A	#N/A	#N/A	945
4500 Non-recurrent taxes on property	292	28	-	-	264
4510 Non-recurrent taxes on net wealth	264	#N/A	#N/A	#N/A	264
Withholding Tax	264	#N/A	#N/A	#N/A	264
4520 Non-recurrent taxes on property other than net	28	28	-	-	-
Foundation tax	28	28	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	38,650	8,452	25,467	1,806	2,925
5100 Taxes on production, sale, transfer, etc	35,960	7,909	25,467	-	2,585
5110 General taxes on goods and services	25,467	-	25,467	-	-
5111 Value added taxes	25,467	-	25,467	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	10,493	7,909	-	-	2,585
5121 Excises	7,717	7,539	-	-	178
5122 Profits of fiscal monopolies	369	369	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	2,589	-	2,589	-	-
Insurance tax	2,589	-	2,589	-	-
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	(4)	#N/A	#N/A	#N/A	(4)
5130 Unallocable between 5110 and 5120	(0)	#N/A	#N/A	#N/A	(0)
5200 Taxes on use of goods and perform activities	2,690	544	-	1,806	340
5210 Recurrent taxes on use of goods and perform	2,368	544	-	1,806	18
5211 Recurrent taxes paid by households: motor	1,768	-	-	1,768	-
5212 Recurrent taxes paid by others: motor vehicles	413	413	-	-	-
5213 Recurrent taxes paid on use of goods and perform	187	131	-	38	18
Hunting and fishing duties	20	-	-	20	-
Dog tax	18	-	-	18	-
Contribution to promotion of arts	18	#N/A	#N/A	#N/A	18
Tax on radio and tv - licenses	131	131	-	-	-
Road transport duty	-	-	-	-	-
5220 Non-recurrent taxes on use of goods and perform	322	#N/A	#N/A	#N/A	322
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	501	#N/A	#N/A	#N/A	501

Note: Due to discrepancies between National Accounts data and tax revenue data, the amount of social security contributions paid by the public sector (and allocated as non-business tax remittance in the category of Revenue Statistics 2200) is likely underestimated.

Source: OECD Revenue Statistics, author's calculations.

Table A.6: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Belgium

Dataset: Details of Tax Revenue - Belgium

Government: Total

Unit: Euro, Millions

Year: 2014

Taxe	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Recettes fiscales totales	178,923	57,930	86,502	29,052	5,439
1000 Impôts sur revenu, bénéfices et gains en capital	64,522	14,387	41,931	9,035	(830)
1100 Des personnes physiques	51,576	1,496	41,931	9,035	(885)
1110 Sur le revenu et les bénéfices	51,576	1,496	41,931	9,035	(885)
Précompte mobilier	4,315	-	4,315	-	-
Précompte professionnel	45,535	-	36,716	8,819	-
Impôt versé par non-salariés	1,496	1,496	-	-	-
Impôt des non-résidents	975	#N/A	-	#N/A	975
Impôt sur revenu global	(1,893)	#N/A	-	#N/A	(1,893)
Cotisation spéciale séc. sociale	1,116	-	900	216	-
Autres (personnes physiques)	33	#N/A	-	#N/A	33
1200 Des sociétés	12,891	12,891	-	-	-
1300 Non-ventilables entre 1100 et 1200	55	#N/A	#N/A	#N/A	55
2000 Cotisations de sécurité sociale	57,026	32,098	13,455	11,395	78
2100 A la charge des salariés	16,687	-	13,455	3,232	-
2200 A la charge des employeurs	35,187	28,372	-	6,815	-
2210 Sur la base du salaire	35,187	28,372	-	6,815	-
2300 A charge des travailleurs indép. ou sans emploi	5,152	3,726	-	1,349	78
Travailleurs indépendants	3,726	3,726	-	-	-
Pensionnés, retraités	1,349	-	-	1,349	-
Autres	78	#N/A	#N/A	#N/A	78
2400 Non-ventilables entre 2100, 2200 et 2300	-	-	-	-	-
3000 Sur salaires ou main d'oeuvre (Cotisation mandats	8	8	-	-	-
4000 Impôts sur le patrimoine	14,257	2,378	211	7,279	4,390
4100 Impôts périodiques sur la propriété immobilière	5,343	1,753	-	3,590	-
4110 Ménages	3,590	-	-	3,590	-
4120 Autres agents	1,753	1,753	-	-	-
4200 Impôts périodiques sur l'actif net	625	625	-	-	-
4210 Personnes physiques	-	-	-	-	-
4220 Sociétés	625	625	-	-	-
4300 Impôts sur mut. par décès, succ. et donations	2,809	-	-	2,809	-
4400 Impôts sur transact. mobilières et immob.	4,081	#N/A	#N/A	#N/A	4,081
4500 Impôts non-périodiques	1,091	-	211	880	-
4510 Sur l'actif net	-	-	-	-	-
4520 Autres non-périodiques	1,091	-	211	880	-
Taxe sur l'épargne à long terme	211	-	211	-	-
Régularisation fiscale (DLU bis)	575	-	-	575	-
Régularisation fiscale (DLU ter)	305	-	-	305	-
4600 Autres impôts périodiques sur patrimoine	309	#N/A	#N/A	#N/A	309
5000 Impôts sur les biens et services	43,067	9,060	30,906	1,344	1,758
5100 Impôts sur production, vente, transfert, etc.	40,604	8,209	30,657	-	1,738
5110 Impôts généraux	27,743	-	27,743	-	-
5111 Taxes sur la valeur ajoutée	27,518	-	27,518	-	-
5112 Impôts sur les ventes	225	-	225	-	-
5113 Autres impôts	-	-	-	-	-
5120 Impôts sur biens et services déterminés	12,861	8,209	2,914	-	1,738
5121 Accises	8,209	8,209	-	-	-
5122 Bénéfices des monopoles fiscaux	-	-	-	-	-
5123 Droits de douane et droits à l'importation	-	-	-	-	-
5124 Taxes à l'exportation	-	-	-	-	-
5125 Impôts sur biens d'équipement	-	-	-	-	-
5126 Impôts sur services déterminés	2,914	-	2,914	-	-
5127 Autres impôts sur commerce et transact. internat.	-	-	-	-	-
5128 Autres impôts	1,738	#N/A	#N/A	#N/A	1,738
5130 Non-ventilables entre 5110 et 5120	-	-	-	-	-
5200 Impôts sur utilisation des biens et exerc. activités	2,456	851	249	1,344	13
5210 Impôts périodiques	1,973	742	91	1,127	13
5211 A la charge des ménages : véhicules à moteur	1,127	-	-	1,127	-
5212 A la charge autres agents : véhicules à moteur	687	687	-	-	-
5213 Autres impôts périodiques	159	55	91	-	13
Taxe appareils de divertissement	55	55	-	-	-
Collectivités locales	13	#N/A	#N/A	#N/A	13
Radio, TV	91	-	91	-	-
5220 Impôts non-périodiques	483	109	157	-	-
Taxe de mise en circulation: Ménages	217	-	-	217	-
Taxe de mise en circulation: Autres agents	109	109	-	-	-
Droits d'émission	157	-	157	-	-
5300 Non-ventilables entre 5100 et 5200	7	#N/A	#N/A	#N/A	7
6000 Autres impôts	43	#N/A	#N/A	#N/A	43
6100 A la charge exclusive des entreprises	-	-	-	-	-
6200 A la charge d'autres agents	43	#N/A	#N/A	#N/A	43

Source: OECD Revenue Statistics, author's calculations.

Table A.7: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Canada

Dataset: Details of Tax Revenue - Canada

Government: Total

Unit: Canadian Dollar, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	618,217	176,297	271,811	75,548	94,561
1000 Taxes on income, profits and capital gains	296,647	79,296	149,263	61,268	6,820
1100 Taxes on income, profits and capital gains of	224,676	14,145	149,263	61,268	-
1200 Taxes on income, profits and capital gains of	65,151	65,151	-	-	-
1300 Unallocable between 1100 and 1200	6,820	-	-	-	6,820
2000 Social security contributions (SSC)	93,576	45,034	37,369	11,173	-
2100 Employees SSC	37,369	-	37,369	-	-
2200 Employers SSC	53,013	41,840	-	11,173	-
2300 Self-employed or non-employed SSC	3,194	3,194	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	12,595	12,595	-	-	-
4000 Taxes on property	72,592	375	#N/A	#N/A	72,217
4100 Recurrent taxes on immovable property	59,833	#N/A	#N/A	#N/A	59,833
4110 Households recurrent taxes on immovable property	-	-	-	-	-
4120 Other than households recurrent taxes on	-	-	-	-	-
4200 Recurrent taxes on net wealth	375	375	-	-	-
4210 Individual recurrent taxes on net wealth	-	-	-	-	-
4220 Corporate recurrent taxes on net wealth	375	375	-	-	-
4300 Estate, inheritance and gift taxes	220	#N/A	#N/A	#N/A	220
4400 Taxes on financial and capital transactions	4,029	#N/A	#N/A	#N/A	4,029
4500 Non-recurrent taxes on property	8,134	#N/A	#N/A	#N/A	8,134
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	142,074	38,997	85,179	2,374	15,524
5100 Taxes on production, sale, transfer, etc	133,529	37,569	85,179	-	10,781
5110 General taxes on goods and services	85,179	-	85,179	-	-
5111 Value added taxes	83,623	-	83,623	-	-
5112 Sales tax	1,556	-	1,556	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	48,350	37,569	-	-	10,781
5121 Excises	25,397	25,397	-	-	-
5122 Profits of fiscal monopolies	12,172	12,172	-	-	-
5123 Customs and import duties	4,506	#N/A	#N/A	#N/A	4,506
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	4,984	#N/A	#N/A	#N/A	4,984
Tax on insurance premiums, provincial govt.	3,772	#N/A	#N/A	#N/A	3,772
Tax on insurance premiums, federal govt.	10	#N/A	#N/A	#N/A	10
Amusement and admission taxes	267	#N/A	#N/A	#N/A	267
Air transportation taxes	696	#N/A	#N/A	#N/A	696
Racetrack betting	33	#N/A	#N/A	#N/A	33
Tax on meals and hotels	206	#N/A	#N/A	#N/A	206
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	1,292	#N/A	#N/A	#N/A	1,292
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	8,545	1,428	#N/A	2,374	4,743
5210 Recurrent taxes on use of goods and perform	5,301	1,428	-	2,374	1,499
5211 Recurrent taxes paid by households: motor	2,374	-	-	2,374	-
5212 Recurrent taxes paid by others: motor vehicles	1,428	1,428	-	-	-
5213 Recurrent taxes paid on use of goods and perform	1,499	#N/A	#N/A	#N/A	1,499
5220 Non-recurrent taxes on use of goods and perform	3,244	#N/A	#N/A	#N/A	3,244
Licences and permits local govt.	999	#N/A	#N/A	#N/A	999
Licences and permits provincial govt.	2,245	#N/A	#N/A	#N/A	2,245
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	734	-	-	734	-
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	734	-	-	734	-

Note: In the calculation of total estimated labor tax withholding by businesses, provincial withholding tax for Quebec is included as an estimate.

Source: OECD Revenue Statistics, author's calculations.

Table A.8: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Chile

Dataset: Details of Tax Revenue - Chile

Government: Total

Unit: Chilean Pesos, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	29,145,219	9,028,494	16,365,113	412,924	3,338,687
1000 Taxes on income, profits and capital gains	9,628,037	6,196,077	2,187,047	#N/A	1,244,913
1100 Taxes on income, profits and capital gains of	2,114,296	#N/A	2,187,047	#N/A	(72,751)
1200 Taxes on income, profits and capital gains of	6,196,077	6,196,077	-	-	-
1300 Unallocable between 1100 and 1200	1,317,664	#N/A	#N/A	#N/A	1,317,664
2000 Social security contributions (SSC)	2,110,087	65,731	2,044,356	-	-
2100 Employees SSC	2,044,356	-	2,044,356	-	-
2200 Employers SSC	65,731	65,731	-	-	-
2300 Self-employed or non-employed SSC	-	-	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	1,228,961	542,478	#N/A	412,924	273,559
4100 Recurrent taxes on immovable property	924,062	542,478	-	381,584	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	31,340	-	-	31,340	-
4400 Taxes on financial and capital transactions	273,559	#N/A	#N/A	#N/A	273,559
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	16,127,841	2,224,209	12,133,710	#N/A	1,769,922
5100 Taxes on production, sale, transfer, etc	15,131,661	2,224,209	12,133,710	#N/A	773,742
5110 General taxes on goods and services	12,133,710	-	12,133,710	-	-
5111 Value added taxes	12,133,710	-	12,133,710	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	2,997,951	2,224,209	#N/A	#N/A	773,742
5121 Excises	2,224,209	2,224,209	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	337,839	#N/A	#N/A	#N/A	337,839
5124 Taxes on exports	-	#N/A	#N/A	-	-
5125 Taxes on investment goods	-	#N/A	#N/A	#N/A	-
5126 Taxes on specific services	435,903	#N/A	#N/A	#N/A	435,903
5127 Other taxes on internat. trade and transactions not	-	#N/A	#N/A	#N/A	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	#N/A	#N/A	#N/A	-
5200 Taxes on use of goods and perform activities	996,180	#N/A	#N/A	#N/A	996,180
5210 Recurrent taxes on use of goods and perform	996,180	#N/A	#N/A	#N/A	996,180
Motor vehicles	365,316	#N/A	#N/A	#N/A	365,316
5211 Recurrent taxes paid by households: motor vehicles	-	-	-	-	-
5212 Recurrent taxes paid by others: motor vehicles	-	-	-	-	-
5213 Recurrent taxes paid on use of goods and perform	630,864	#N/A	#N/A	#N/A	630,864
Municipal permits	578,671	#N/A	#N/A	#N/A	578,671
Mining patents	50,448	#N/A	#N/A	#N/A	50,448
Other	1,745	#N/A	#N/A	#N/A	1,745
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	50,293	#N/A	#N/A	#N/A	50,293
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	50,293	#N/A	#N/A	#N/A	50,293

Source: OECD Revenue Statistics, author's calculations.

Table A.9: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Czech Republic

Dataset: Details of Tax Revenue - Czech Republic

Government: Total					
Unit: Czech Koruna, Millions					
Year: 2014					
Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	1,420,306	738,422	464,981	63,600	153,303
1000 Taxes on income, profits and capital gains	305,712	154,695	18,298	#N/A	132,720
1100 Taxes on income, profits and capital gains of	153,763	2,745	18,298	#N/A	132,720
1200 Taxes on income, profits and capital gains of	151,950	151,950	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	625,508	440,129	126,894	58,485	-
2100 Employees SSC	126,894	-	126,894	-	-
2200 Employers SSC	395,998	337,512	-	58,485	-
2300 Self-employed or non-employed SSC	102,616	102,616	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	19,168	4,724	-	4,837	9,606
4100 Recurrent taxes on immovable property	9,561	4,724	-	4,837	-
4110 Households recurrent taxes on immovable property	4,837	-	-	4,837	-
4120 Other than households recurrent taxes on	4,724	4,724	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	-	-	-	-	-
4400 Taxes on financial and capital transactions	9,606	#N/A	#N/A	#N/A	9,606
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	469,826	138,875	319,789	277	10,885
5100 Taxes on production, sale, transfer, etc	444,660	124,870	319,485	-	305
5110 General taxes on goods and services	319,485	-	319,485	-	-
5111 Value added taxes	319,485	-	319,485	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	125,175	124,870	-	-	305
5121 Excises	124,870	124,870	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	305	#N/A	#N/A	#N/A	305
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	25,167	14,005	304	277	10,580
5210 Recurrent taxes on use of goods and perform	18,724	14,005	304	277	4,138
Highway fee	4,138	#N/A	#N/A	#N/A	4,138
5211 Recurrent taxes paid by households: motor	-	-	-	-	-
5212 Recurrent taxes paid by others: motor vehicles	5,598	5,598	-	-	-
5213 Recurrent taxes paid on use of goods and perform	8,988	8,407	304	277	-
Resort and recreation fees on visitors	304	-	304	-	-
Dog fees	277	-	-	277	-
Motor vehicle entry fees	11	11	-	-	-
Water pollution fee	212	212	-	-	-
Air pollution fee	322	322	-	-	-
Waste deposit fee	6,318	6,318	-	-	-
Levy on temp. withdrawal of land from agriculture	39	39	-	-	-
Radioactive waste fee	1,462	1,462	-	-	-
Fees on registration and recording of packaging	17	17	-	-	-
Levy on temp. withdrawal of land from forestry	6	6	-	-	-
Other environmental fees	19	19	-	-	-
5220 Non-recurrent taxes on use of goods and perform	6,442	#N/A	#N/A	#N/A	6,442
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	92	#N/A	#N/A	#N/A	92
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	92	#N/A	#N/A	#N/A	92

Source: OECD Revenue Statistics, author's calculations.

Table A.10: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Finland

Dataset: Details of Tax Revenue - Finland

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	89,857	27,575	38,585	8,177	15,520
1000 Taxes on income, profits and capital gains	31,479	5,395	13,536	#N/A	12,548
1100 Taxes on income, profits and capital gains of	27,523	1,439	13,536	#N/A	12,548
1200 Taxes on income, profits and capital gains of	3,956	3,956	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	26,011	13,653	6,101	6,257	-
2100 Employees SSC	6,101	-	6,101	-	-
2200 Employers SSC	17,885	11,628	-	6,257	-
2300 Self-employed or non-employed SSC	2,025	2,025	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	2,719	821	#N/A	1,190	708
4100 Recurrent taxes on immovable property	1,512	821	-	691	-
4110 Households recurrent taxes on immovable property	691	-	-	691	-
4120 Other than households recurrent taxes on	821	821	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	499	-	-	499	-
4400 Taxes on financial and capital transactions	708	#N/A	#N/A	#N/A	708
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	29,572	7,706	18,948	730	2,188
5100 Taxes on production, sale, transfer, etc	28,522	7,431	18,948	-	2,143
5110 General taxes on goods and services	18,948	-	18,948	-	-
5111 Value added taxes	18,948	-	18,948	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	9,574	7,431	-	-	2,143
5121 Excises	7,431	7,431	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	2,142	#N/A	#N/A	#N/A	2,142
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	1	#N/A	#N/A	#N/A	1
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	1,050	275	-	730	45
5210 Recurrent taxes on use of goods and perform	910	171	-	730	9
5211 Recurrent taxes paid by households: motor	706	-	-	706	-
5212 Recurrent taxes paid by others: motor vehicles	171	171	-	-	-
5213 Recurrent taxes paid on use of goods and perform	33	#N/A	#N/A	24	9
Dog licenses	1	-	-	1	-
Hunting and fishing licenses	23	-	-	23	-
Seamens welfare and rescue levy	1	#N/A	#N/A	#N/A	1
Nuclear energy research levy	8	#N/A	#N/A	#N/A	8
5220 Non-recurrent taxes on use of goods and perform	140	104	#N/A	#N/A	36
Vehicle registration tax	36	#N/A	#N/A	#N/A	36
Income from auction of emission allowances	104	104	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	76	#N/A	#N/A	#N/A	76
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	76	#N/A	#N/A	#N/A	76

Source: OECD Revenue Statistics, author's calculations.

Table A.11: Categorisation of Tax Remittance by Businesses' Role in the Tax System – France

Dataset: Details of Tax Revenue - France

Government: Total					
Unit: Euro, Millions					
Year: 2014					
Taxe	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Recettes fiscales totales excluant les droits de douane	978,017	400,049	240,090	111,143	226,735
1000 Impôts sur revenu, bénéfices et gains en capital	233,613	57,799	-	#N/A	175,814
1100 Des personnes physiques	183,614	7,800	-	#N/A	175,814
1200 Des sociétés	49,999	49,999	-	-	-
1300 Non-ventilables entre 1100 et 1200	-	-	-	-	-
2000 Cotisations de sécurité sociale	366,338	224,104	91,057	51,177	-
2100 A la charge des salariés	91,057	-	91,057	-	-
2200 A la charge des employeurs	246,351	195,174	-	51,177	-
2300 A charge des travailleurs indép. ou sans emploi	28,930	28,930	-	-	-
2400 Non-ventilables entre 2100, 2200 et 2300	-	-	-	-	-
3000 Sur salaires ou main d'œuvre	34,434	26,384	-	8,050	-
4000 Impôts sur le patrimoine	83,593	13,850	#N/A	51,916	17,827
4100 Impôts périodiques sur la propriété immobilière	55,493	13,850	-	41,643	-
4110 Ménages	42,412	769	-	41,643	-
4120 Autres agents	13,081	13,081	-	-	-
4200 Impôts périodiques sur l'actif net	5,182	#N/A	#N/A	#N/A	5,182
4300 Impôts sur mut. par décès, succ. et donations	10,273	-	-	10,273	-
4400 Impôts sur transact. mobilières et immob.	12,645	#N/A	#N/A	#N/A	12,645
4500 Impôts non-périodiques	-	-	-	-	-
4600 Autres impôts périodiques sur patrimoine	-	-	-	-	-
5000 Impôts sur les biens et services	236,300	54,179	149,033	#N/A	33,088
5100 Impôts sur production, vente, transfert, etc.	229,446	53,067	149,033	-	27,346
5110 Impôts généraux	154,485	#N/A	149,033	#N/A	5,452
5111 Taxes sur la valeur ajoutée	149,033	-	149,033	-	-
5112 Impôts sur les ventes	-	-	-	-	-
5113 Autres impôts	5,452	#N/A	#N/A	#N/A	5,452
5120 Impôts sur biens et services déterminés	74,961	53,067	-	-	21,894
5121 Accises	53,067	53,067	-	-	-
Taxe sur les produits pétroliers	23,794	23,794	-	-	-
Droits sur vins, cidres et hydromels	489	489	-	-	-
Droits sur alcools	2,954	2,954	-	-	-
Droits sur bière et eaux minérales	971	971	-	-	-
Autres droits et recettes	101	101	-	-	-
Impôts et taxes sur tabacs et allumettes	12,099	12,099	-	-	-
Taxe sanitaire et d'org. marché des viandes	41	41	-	-	-
Taxe sur les céréales	18	18	-	-	-
Redevances incluses dans prix carburants	487	487	-	-	-
Redevances des mines	20	20	-	-	-
Taxe sur électricité et chauffage	7,682	7,682	-	-	-
Taxe sur consommation eau au profit FNAE	2	2	-	-	-
Taxe au profit agences financières de bassin	2,302	2,302	-	-	-
Taxe locale	128	128	-	-	-
Contribution des distributeurs énergie électrique basse	376	376	-	-	-
Taxe au profit de l'ADEME (Agence de	449	449	-	-	-
Octroi de mer	415	415	-	-	-
Taxe générale sur les activités polluantes	186	186	-	-	-
Stocks sur les produits pétroliers	393	393	-	-	-
Autres	160	160	-	-	-
5122 Bénéfices des monopoles fiscaux	-	-	-	-	-
5123 Droits de douane et droits à l'importation	726	#N/A	#N/A	#N/A	726
5124 Taxes à l'exportation	-	-	-	-	-
5125 Impôts sur biens d'équipement	-	-	-	-	-
5126 Impôts sur services déterminés	21,104	#N/A	#N/A	#N/A	21,104
5127 Autres impôts sur commerce et transact. internat.	-	-	-	-	-
5128 Autres impôts	64	#N/A	#N/A	#N/A	64
5130 Non-ventilables entre 5110 et 5120	-	-	-	-	-
5200 Impôts sur utilisation des biens et exerc. activités	6,854	1,112	#N/A	#N/A	5,742
5210 Impôts périodiques	2,887	1,112	#N/A	#N/A	1,775
5211 A la charge des ménages : véhicules à moteur	-	-	-	-	-
5212 A la charge autres agents : véhicules à moteur	1,112	1,112	-	-	-
5213 Autres impôts périodiques	1,775	#N/A	#N/A	#N/A	1,775
5220 Impôts non-périodiques	3,967	#N/A	#N/A	#N/A	3,967
5300 Non-ventilables entre 5100 et 5200	-	#N/A	#N/A	#N/A	-
6000 Autres impôts	23,739	23,733	-	-	6
6100 A la charge exclusive des entreprises	23,733	23,733	-	-	-
6200 A la charge d'autres agents	6	#N/A	#N/A	#N/A	6

Source: OECD Revenue Statistics, author's calculations.

Table A.12: Categorisation of Tax Remittance by Businesses' Role in the Tax System – France (Excise Taxes on Consumer Goods Treated as the Legal Remittance Responsibility of Business)

Dataset: Details of Tax Revenue - France

Government: Total

Unit: Euro, Millions

Year: 2014

Taxe	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Recettes fiscales totales excluant les droits de douane	978,017	384,507	255,632	111,143	226,735
1000 Impôts sur revenu, bénéfices et gains en capital	233,613	57,799	-	#N/A	175,814
1100 Des personnes physiques	183,614	7,800	-	#N/A	175,814
1200 Des sociétés	49,999	49,999	-	-	-
1300 Non-ventilables entre 1100 et 1200	-	-	-	-	-
2000 Cotisations de sécurité sociale	366,338	224,104	91,057	51,177	-
2100 A la charge des salariés	91,057	-	91,057	-	-
2200 A la charge des employeurs	246,351	195,174	-	51,177	-
2300 A charge des travailleurs indép. ou sans emploi	28,930	28,930	-	-	-
2400 Non-ventilables entre 2100, 2200 et 2300	-	-	-	-	-
3000 Sur salaires ou main d'œuvre	34,434	26,384	-	8,050	-
4000 Impôts sur le patrimoine	83,593	13,850	#N/A	51,916	17,827
4100 Impôts périodiques sur la propriété immobilière	55,493	13,850	-	41,643	-
4110 Ménages	42,412	769	-	41,643	-
4120 Autres agents	13,081	13,081	-	-	-
4200 Impôts périodiques sur l'actif net	5,182	#N/A	#N/A	#N/A	5,182
4300 Impôts sur mut. par décès, succ. et donations	10,273	-	-	10,273	-
4400 Impôts sur transact. mobilières et immob.	12,645	#N/A	#N/A	#N/A	12,645
4500 Impôts non-périodiques	-	-	-	-	-
4600 Autres impôts périodiques sur patrimoine	-	-	-	-	-
5000 Impôts sur les biens et services	236,300	38,637	164,575	#N/A	33,088
5100 Impôts sur production, vente, transfert, etc.	229,446	37,525	164,575	-	27,346
5110 Impôts généraux	154,485	#N/A	149,033	#N/A	5,452
5111 Taxes sur la valeur ajoutée	149,033	-	149,033	-	-
5112 Impôts sur les ventes	-	-	-	-	-
5113 Autres impôts	5,452	#N/A	#N/A	#N/A	5,452
5120 Impôts sur biens et services déterminés	74,961	37,525	15,542	-	21,894
5121 Accises	53,067	37,525	15,542	-	-
Taxe sur les produits pétroliers	23,794	23,794	-	-	-
Droits sur vins, cidres et hydromels	489	-	489	-	-
Droits sur alcools	2,954	-	2,954	-	-
Droits sur bière et eaux minérales	971	971	-	-	-
Autres droits et recettes	101	101	-	-	-
Impôts et taxes sur tabacs et allumettes	12,099	-	12,099	-	-
Taxe sanitaire et d'org. marché des viandes	41	41	-	-	-
Taxe sur les céréales	18	18	-	-	-
Redevances incluses dans prix carburants	487	487	-	-	-
Redevances des mines	20	20	-	-	-
Taxe sur électricité et chauffage	7,682	7,682	-	-	-
Taxe sur consommation eau au profit FNAE	2	2	-	-	-
Taxe au profit agences financières de bassin	2,302	2,302	-	-	-
Taxe locale	128	128	-	-	-
Contribution des distributeurs énergie électrique basse	376	376	-	-	-
Taxe au profit de l'ADEME (Agence de	449	449	-	-	-
Octroi de mer	415	415	-	-	-
Taxe générale sur les activités polluantes	186	186	-	-	-
Stocks sur les produits pétroliers	393	393	-	-	-
Autres	160	160	-	-	-
5122 Bénéfices des monopoles fiscaux	-	-	-	-	-
5123 Droits de douane et droits à l'importation	726	#N/A	#N/A	#N/A	726
5124 Taxes à l'exportation	-	-	-	-	-
5125 Impôts sur biens d'équipement	-	-	-	-	-
5126 Impôts sur services déterminés	21,104	#N/A	#N/A	#N/A	21,104
5127 Autres impôts sur commerce et transact. internat.	-	-	-	-	-
5128 Autres impôts	64	#N/A	#N/A	#N/A	64
5130 Non-ventilables entre 5110 et 5120	-	-	-	-	-
5200 Impôts sur utilisation des biens et exerc. activités	6,854	1,112	#N/A	#N/A	5,742
5210 Impôts périodiques	2,887	1,112	#N/A	#N/A	1,775
5211 A la charge des ménages : véhicules à moteur	-	-	-	-	-
5212 A la charge autres agents : véhicules à moteur	1,112	1,112	-	-	-
5213 Autres impôts périodiques	1,775	#N/A	#N/A	#N/A	1,775
5220 Impôts non-périodiques	3,967	#N/A	#N/A	#N/A	3,967
5300 Non-ventilables entre 5100 et 5200	-	#N/A	#N/A	#N/A	-
6000 Autres impôts	23,739	23,733	-	-	6
6100 A la charge exclusive des entreprises	23,733	23,733	-	-	-
6200 A la charge d'autres agents	6	#N/A	#N/A	#N/A	6

Source: OECD Revenue Statistics, author's calculations.

Table A.13: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Germany

Dataset: Details of Tax Revenue - Germany

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of customs duties	1,064,651	392,935	580,825	34,232	56,659
1000 Taxes on income, profits and capital gains	332,549	113,376	179,168	#N/A	40,005
1100 Taxes on income, profits and capital gains of	281,585	62,412	179,168	#N/A	40,005
1200 Taxes on income, profits and capital gains of	50,964	50,964	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	407,726	203,597	181,608	22,521	-
2100 Employees SSC	181,608	-	181,608	-	-
2200 Employers SSC	191,409	168,888	-	22,521	-
2300 Self-employed or non-employed SSC	34,709	34,709	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	28,163	7,614	-	5,076	15,473
4100 Recurrent taxes on immovable property	12,690	7,614	-	5,076	-
4110 Households recurrent taxes on immovable property	5,076	-	-	5,076	-
4120 Other than households recurrent taxes on	7,614	7,614	-	-	-
4200 Recurrent taxes on net wealth	682	#N/A	#N/A	#N/A	682
4300 Estate, inheritance and gift taxes	5,452	-	-	-	5,452
4400 Taxes on financial and capital transactions	9,339	#N/A	#N/A	#N/A	9,339
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	296,041	68,348	220,049	6,635	1,009
5100 Taxes on production, sale, transfer, etc	285,387	65,103	220,049	-	235
5110 General taxes on goods and services	203,401	-	203,401	-	-
5111 Value added taxes	203,401	-	203,401	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	81,702	65,103	16,648	#N/A	(49)
5121 Excises	65,103	65,103	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	16,648	-	16,648	-	-
Duty transport goods on residents	16,648	-	16,648	-	-
5127 Other taxes on internat. trade and transactions not	2	#N/A	#N/A	#N/A	2
5128 Other taxes not included within 5121 to 5127	(51)	#N/A	#N/A	#N/A	(51)
5130 Unallocable between 5110 and 5120	284	#N/A	#N/A	#N/A	284
5200 Taxes on use of goods and perform activities	10,654	3,245	#N/A	6,635	774
5210 Recurrent taxes on use of goods and perform	9,880	3,245	-	6,635	-
5211 Recurrent taxes paid by households: motor	6,316	-	-	6,316	-
5212 Recurrent taxes paid by others: motor vehicles	2,185	2,185	-	-	-
5213 Recurrent taxes paid on use of goods and perform	1,379	1,060	-	319	-
Dog taxes	309	-	-	309	-
Hunting and fishing taxes	10	-	-	10	-
Nuclear fuel tax	1,060	1,060	-	-	-
5220 Non-recurrent taxes on use of goods and perform	774	#N/A	#N/A	#N/A	774
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	172	#N/A	#N/A	#N/A	172
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	172	#N/A	#N/A	#N/A	172

Source: OECD Revenue Statistics, author's calculations.

Table A.14: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Ireland

Dataset: Details of Tax Revenue - Ireland

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	55,178	17,085	30,099	2,607	5,387
1000 Taxes on income, profits and capital gains	22,349	6,400	15,221	-	728
1100 Taxes on income, profits and capital gains of	17,727	1,782	15,221	#N/A	724
1200 Taxes on income, profits and capital gains of	4,618	4,618	#N/A	#N/A	-
1300 Unallocable between 1100 and 1200	4	#N/A	#N/A	#N/A	4
2000 Social security contributions (SSC)	9,581	4,879	3,357	1,344	-
2100 Employees SSC	3,357	#N/A	3,357	#N/A	-
2200 Employers SSC	5,817	4,473	#N/A	1,344	-
2300 Self-employed or non-employed SSC	406	406	#N/A	#N/A	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	338	338	#N/A	#N/A	-
4000 Taxes on property	4,242	#N/A	#N/A	359	3,883
4100 Recurrent taxes on immovable property	1,895	#N/A	#N/A	#N/A	1,895
4200 Recurrent taxes on net wealth	743	#N/A	#N/A	#N/A	743
4300 Estate, inheritance and gift taxes	359	#N/A	#N/A	359	-
4400 Taxes on financial and capital transactions	1,245	#N/A	#N/A	#N/A	1,245
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	18,645	5,467	11,521	904	753
5100 Taxes on production, sale, transfer, etc	17,028	5,178	11,521	-	329
5110 General taxes on goods and services	11,521	#N/A	11,521	#N/A	-
5111 Value added taxes	11,521	#N/A	11,521	#N/A	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	5,507	5,178	-	-	329
5121 Excises	5,178	5,178	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	329	#N/A	#N/A	#N/A	329
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	1,618	290	#N/A	904	424
5210 Recurrent taxes on use of goods and perform	1,618	290	#N/A	904	424
5211 Recurrent taxes paid by households: motor	904	#N/A	#N/A	904	-
5212 Recurrent taxes paid by others: motor vehicles	290	290	#N/A	#N/A	-
5213 Recurrent taxes paid on use of goods and perform	424	#N/A	#N/A	#N/A	424
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	23	#N/A	#N/A	#N/A	23
6100 Paid solely by business	-	-	#N/A	#N/A	-
6200 Other taxes not solely paid by business	23	#N/A	#N/A	#N/A	23

Source: OECD Revenue Statistics, author's calculations.

Table A.15: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Italy

Dataset: Details of Tax Revenue - Italy

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	702,195	279,258	277,892	70,677	74,369
1000 Taxes on income, profits and capital gains	225,175	57,458	142,235	#N/A	25,483
1100 Of individuals	182,276	22,212	142,235	#N/A	17,830
1200 Corporate	35,246	35,246	-	-	-
1300 Unallocable between 1100 and 1200	7,653	#N/A	#N/A	#N/A	7,653
2000 Social security contributions	209,653	121,466	38,616	49,571	-
2100 Employees	38,616	-	38,616	-	-
2200 Employers	140,608	91,037	-	49,571	-
2300 Self-employed or non-employed	30,429	30,429	-	-	-
2400 Unallocable between 2100, 2200 and 2300	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	46,762	9,472	-	16,348	20,942
4100 Recurrent taxes on immovable property	25,199	9,472	-	15,727	-
4200 Recurrent taxes on net wealth	829	#N/A	#N/A	#N/A	829
4300 Estate, inheritance and gift taxes	621	-	-	621	-
4400 Taxes on financial and capital transactions	17,990	#N/A	#N/A	#N/A	17,990
4500 Non-recurrent taxes	131	#N/A	#N/A	#N/A	131
4510 On net wealth	-	-	-	-	-
4520 Other non-recurrent taxes	131	#N/A	#N/A	#N/A	131
4600 Other recurrent taxes on property	1,992	#N/A	#N/A	#N/A	1,992
5000 Taxes on goods and services	190,220	60,477	97,041	4,758	27,944
5100 Taxes on production, sale, transfer, etc.	168,151	59,087	97,041	-	12,023
5110 General taxes	97,041	-	97,041	-	-
5111 Value added taxes	97,041	-	97,041	-	-
5112 Sales tax	-	-	-	-	-
5113 Other	-	-	-	-	-
5120 Taxes on specific goods and services	71,110	59,087	-	-	12,023
5121 Excises	48,661	48,661	-	-	-
5122 Profits of fiscal monopolies	10,426	10,426	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	12,023	#N/A	#N/A	#N/A	12,023
5127 Other taxes on internat. trade and transactions	-	-	-	-	-
5128 Other taxes	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	11,341	1,390	-	4,758	5,193
5210 Recurrent taxes	11,341	1,390	-	4,758	5,193
5211 Public motor vehicle register tax	1,420	#N/A	#N/A	#N/A	1,420
5212 Paid by households: motor vehicles	4,758	-	-	4,758	-
5213 Paid by others: motor vehicles	1,390	1,390	-	-	-
5214 Paid in respect of other goods	3,773	#N/A	#N/A	#N/A	3,773
5215 Duty on official franchises	3,773	#N/A	#N/A	#N/A	3,773
5220 Non-recurrent taxes	-	-	-	-	-
5300 Unallocable between 5100 and 5200	10,728	#N/A	#N/A	#N/A	10,728
6000 Other taxes	30,385	30,385	-	-	-
6100 Paid solely by business	30,385	30,385	-	-	-
6200 Other	-	-	-	-	-

Source: OECD Revenue Statistics, author's calculations.

Table A.16: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Luxembourg

Dataset: Details of Tax Revenue - Luxembourg

Government: Total					
Unit: Euro, Millions					
Year: 2014					
Taxe	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Recettes fiscales totales excluant les droits de douane	18,741	4,216	7,038	5,443	2,044
1000 Impôts sur revenu, bénéfices et gains en capital	6,484	2,596	3,309	-	579
1100 Des personnes physiques	4,344	456	3,309	-	579
1200 Des sociétés	2,140	2,140	-	-	-
1300 Non-ventilables entre 1100 et 1200	-	-	-	-	-
2000 Cotisations de sécurité sociale	5,388	-	-	5,328	60
2100 A la charge des salariés	2,461	-	2,461	-	-
2200 A la charge des employeurs	2,280	2,280	-	-	-
2300 A charge des travailleurs indép. ou sans emploi	647	647	-	-	-
2400 Non-ventilables entre 2100, 2200 et 2300	-	-	-	-	-
3000 Sur salaires ou main d'oeuvre	-	-	-	-	-
4000 Impôts sur le patrimoine	1,455	#N/A	#N/A	74	1,382
4100 Impôts périodiques sur la propriété immobilière	34	#N/A	#N/A	#N/A	34
4200 Impôts périodiques sur l'actif net	1,077	#N/A	#N/A	#N/A	1,077
4300 Impôts sur mut. par décès, succ. et donations	74	-	-	74	-
4400 Impôts sur transact. mobilières et immob.	270	#N/A	#N/A	#N/A	270
4500 Impôts non-périodiques	-	-	-	-	-
4600 Autres impôts périodiques sur patrimoine	-	-	-	-	-
5000 Impôts sur les biens et services	5,396	1,602	3,729	42	23
5100 Impôts sur production, vente, transfert, etc.	5,316	1,564	3,729	-	23
5110 Impôts généraux	3,684	-	3,684	-	-
5111 Taxes sur la valeur ajoutée	3,684	-	3,684	-	-
5112 Impôts sur les ventes	-	-	-	-	-
5113 Autres impôts	-	-	-	-	-
5120 Impôts sur biens et services déterminés	1,632	1,564	45	-	23
5121 Accises	1,563	1,563	-	-	-
5122 Bénéfices des monopoles fiscaux	-	-	-	-	-
5123 Droits de douane et droits à l'importation	0	0	-	-	-
5124 Taxes à l'exportation	-	-	-	-	-
5125 Impôts sur biens d'équipement	-	-	-	-	-
5126 Impôts sur services déterminés	68	-	45	-	23
Taxe sur les assurances	45	-	45	-	-
Taxe de séjour	2	#N/A	#N/A	#N/A	2
Prélèvement sur les jeux du casino	19	#N/A	#N/A	#N/A	19
Impôts sur les billets de banque	2	#N/A	#N/A	#N/A	2
5127 Autres impôts sur commerce et transact. internat.	-	-	-	-	-
5128 Autres impôts	-	-	-	-	-
5130 Non-ventilables entre 5110 et 5120	-	-	-	-	-
5200 Impôts sur utilisation des biens et exerc. activités	80	38	-	42	-
5210 Impôts périodiques	72	30	-	42	-
5211 A la charge des ménages : véhicules à moteur	41	-	-	41	-
5212 A la charge autres agents : véhicules à moteur	28	28	-	-	-
5213 Autres impôts périodiques	3	2	-	1	-
Taxe sur les cabarets	1	1	-	-	-
Taxes d'immatriculation (Com. aux affaires maritimes)	1	1	-	-	-
Taxe sur les chiens	1	-	-	1	-
5220 Impôts non-périodiques	9	9	-	-	-
5300 Non-ventilables entre 5100 et 5200	-	-	-	-	-
6000 Autres impôts	18	18	-	-	-
6100 A la charge exclusive des entreprises	18	18	-	-	-
6200 A la charge d'autres agents	-	-	-	-	-

Source: OECD Revenue Statistics, author's calculations.

Table A.17: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Mexico

Dataset: Details of Tax Revenue - Mexico

Government: Total

Unit: Mexican Peso, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	2,607,696	731,906	1,140,318	291,572	443,900
1000 Taxes on income, profits and capital gains	979,251	473,369	473,233	-	32,650
1100 Taxes on income, profits and capital gains of	514,208	32,052	473,233	#N/A	8,924
1200 Taxes on income, profits and capital gains of	441,317	441,317	-	-	-
1300 Unallocable between 1100 and 1200	23,726	#N/A	#N/A	#N/A	23,726
2000 Social security contributions (SSC)	538,213	#N/A	#N/A	271,202	267,011
2400 Unallocable between 2100, 2200 and 2300 SSC	538,213	#N/A	#N/A	#N/A	538,213
3000 Taxes on payroll and workforce	64,713	64,713	-	-	-
4000 Taxes on property	54,920	37,693	-	-	17,227
4100 Recurrent taxes on immovable property	37,693	37,693	-	-	-
4110 Households recurrent taxes on immovable property	-	-	-	-	-
4120 Other than households recurrent taxes on	37,693	37,693	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	-	-	-	-	-
4400 Taxes on financial and capital transactions	17,227	#N/A	#N/A	#N/A	17,227
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	933,832	156,131	667,085	20,370	90,245
5100 Taxes on production, sale, transfer, etc	854,189	155,764	667,085	-	31,340
5110 General taxes on goods and services	667,085	-	667,085	-	-
5111 Value added taxes	667,085	-	667,085	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	187,104	155,764	-	-	31,340
5121 Excises	155,764	155,764	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	36,841	#N/A	#N/A	#N/A	36,841
5124 Taxes on exports	1	#N/A	#N/A	#N/A	1
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	(7,541)	#N/A	#N/A	#N/A	(7,541)
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	2,040	#N/A	#N/A	#N/A	2,040
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	79,643	367	-	20,370	58,906
5210 Recurrent taxes on use of goods and perform	79,643	367	-	20,370	58,906
5211 Recurrent taxes paid by households: motor	20,370	-	-	20,370	-
5212 Recurrent taxes paid by others: motor vehicles	367	367	-	-	-
5213 Recurrent taxes paid on use of goods and perform	58,906	#N/A	#N/A	#N/A	58,906
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	36,767	-	-	-	36,767
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	36,767	#N/A	#N/A	#N/A	36,767

Source: OECD Revenue Statistics, author's calculations.

Table A.18: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Netherlands

Dataset: Details of Tax Revenue - Netherlands					
Government: Total					
Unit: Euro, Millions					
Year: 2014					
Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	246,743	104,016	129,880	10,477	2,370
1000 Taxes on income, profits and capital gains	63,671	27,616	36,055	-	-
1100 Taxes on income, profits and capital gains of	46,581	10,526	36,055	-	-
1110 On income and profits of individuals	46,361				46,361
Income tax	(190)				(190)
Wage tax	45,656				45,656
Dividend tax	895				895
Directors tax	-				-
Inhabited house tax	-				-
1120 On capital gains of individuals	220				220
Tax on games of chance	220				220
1200 Taxes on income, profits and capital gains of	17,090	17,090	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	98,616	50,265	48,351	-	-
2100 Employees SSC	48,351	-	48,351	-	-
2200 Employers SSC	34,996	34,996	-	-	-
2300 Self-employed or non-employed SSC	15,269	15,269	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	9,606	4,178	-	3,862	1,566
4100 Recurrent taxes on immovable property	6,515	4,178	-	2,337	-
4110 Households recurrent taxes on immovable property	4,016	1,679	-	2,337	-
Municipal immovable property tax	1,820			1,820	-
Contributions polder boards	517			517	-
Levies on social housing corporations	1,679	1,679			-
4120 Other than households recurrent taxes on	2,499	2,499	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	1,525	-	-	1,525	-
4400 Taxes on financial and capital transactions	1,566	#N/A	#N/A	#N/A	1,566
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	73,617	20,973	45,474	6,615	555
5100 Taxes on production, sale, transfer, etc	65,241	19,364	45,474	#N/A	403
5110 General taxes on goods and services	42,741	-	42,708	-	33
5111 Value added taxes	42,708	-	42,708	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	33	-	-	-	33
5120 Taxes on specific goods and services	22,500	19,364	2,766	#N/A	370
5121 Excises	17,911	17,911	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	4,219	1,453	2,766	-	-
Tax on fire insurance	-	-	-	-	-
Entertainment tax	-	-	-	-	-
Tax on insurances	2,366	-	2,366	-	-
Tourist tax	180	-	180	-	-
Tax on games of chance	220	-	220	-	-
Flight tax	-	-	-	-	-
Bank levies	1,453	1,453	-	-	-
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	370	#N/A	#N/A	#N/A	370
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	8,376	1,609	#N/A	6,615	152
5210 Recurrent taxes on use of goods and perform	7,667	1,048	#N/A	6,615	4
5211 Recurrent taxes paid by households: motor	4,386	-	-	4,386	-
5212 Recurrent taxes paid by others: motor vehicles	1,048	1,048	-	-	-
5213 Recurrent taxes paid on use of goods and perform	2,794	561	#N/A	2,229	4
Dog licences	67	-	-	67	-
Commuter tax	28	-	-	28	-
Levies on water pollution	1,198	326	#N/A	872	-
Permission to sell spirits	-	-	-	-	-
Sewerage charges	1,497	235	#N/A	1,262	-
Levies on manure surplus	8	4	-	-	4
5220 Non-recurrent taxes on use of goods and perform	148	-	-	-	148
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	1,233	984	-	-	249
6100 Paid solely by business	33	33	-	-	-
6200 Other taxes not solely paid by business	1,200	951	-	-	249
Wage Tax reductions	951	951			-
Other taxes	249				249

Source: OECD Revenue Statistics, author's calculations.

Table A.19: Categorisation of Tax Remittance by Businesses' Role in the Tax System – New Zealand

Dataset: Details of Tax Revenue - New Zealand

Government: Total

Unit: New Zealand Dollar, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	77,911	19,451	49,084	2,352	7,024
1000 Taxes on income, profits and capital gains	43,161	15,051	25,778	#N/A	2,332
1100 Taxes on income, profits and capital gains of	30,069	4,801	25,778	#N/A	(510)
1200 Taxes on income, profits and capital gains of	10,250	10,250	-	-	-
1300 Unallocable between 1100 and 1200	2,842	#N/A	#N/A	#N/A	2,842
2000 Social security contributions (SSC)	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	4,804	2,352	-	2,352	100
4100 Recurrent taxes on immovable property	4,704	2,352	-	2,352	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	-	-	-	-	-
4400 Taxes on financial and capital transactions	100	#N/A	#N/A	#N/A	100
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	29,944	2,048	23,306	#N/A	4,590
5100 Taxes on production, sale, transfer, etc	28,009	2,048	23,306	#N/A	2,655
5110 General taxes on goods and services	23,306	-	23,306	-	-
5111 Value added taxes	23,306	-	23,306	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	4,703	2,048	#N/A	#N/A	2,655
5121 Excises	2,048	2,048	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	2,391	#N/A	#N/A	#N/A	2,391
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	264	#N/A	#N/A	#N/A	264
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	1,935	#N/A	#N/A	#N/A	1,935
5210 Recurrent taxes on use of goods and perform	1,935	#N/A	#N/A	#N/A	1,935
Motor vehicle registration	181	#N/A	#N/A	#N/A	181
Heavy traffic fees	1,283	#N/A	#N/A	#N/A	1,283
5211 Recurrent taxes paid by households: motor	-	-	-	-	-
5212 Recurrent taxes paid by others: motor vehicles	-	-	-	-	-
5213 Recurrent taxes paid on use of goods and perform	471	#N/A	#N/A	#N/A	471
Local authority fees and charges	471	#N/A	#N/A	#N/A	471
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	2	#N/A	#N/A	#N/A	2
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	2	#N/A	#N/A	#N/A	2

Source: OECD Revenue Statistics, author's calculations.

Table A.20: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Norway

Dataset: Details of Tax Revenue - Norway

Government: Total

Unit: Norwegian Krone, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	1,219,869	419,720	352,642	138,571	308,936
1000 Taxes on income, profits and capital gains	518,251	230,633	#N/A	#N/A	287,618
1100 Taxes on income, profits and capital gains of	309,618	22,000	#N/A	#N/A	287,618
1200 Taxes on income, profits and capital gains of	208,633	208,633	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	312,942	98,384	107,875	106,683	-
2100 Employees SSC	107,875	-	107,875	-	-
2200 Employers SSC	186,469	79,786	-	106,683	-
2300 Self-employed or non-employed SSC	18,598	18,598	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	38,288	6,995	-	23,649	7,644
4100 Recurrent taxes on immovable property	11,162	6,995	-	4,167	-
4110 Households recurrent taxes on immovable property	4,167	-	-	4,167	-
4120 Other than households recurrent taxes on	6,995	6,995	-	-	-
4200 Recurrent taxes on net wealth	17,602	-	-	17,602	-
4300 Estate, inheritance and gift taxes	1,880	-	-	1,880	-
4400 Taxes on financial and capital transactions	7,644	#N/A	#N/A	#N/A	7,644
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	350,388	83,708	244,767	8,239	13,674
5100 Taxes on production, sale, transfer, etc	331,701	83,300	244,767	-	3,634
5110 General taxes on goods and services	244,767	-	244,767	-	-
5111 Value added taxes	243,798	-	243,798	-	-
5112 Sales tax	969	-	969	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	86,934	83,300	#N/A	#N/A	3,634
5121 Excises	79,039	79,039	-	-	-
5122 Profits of fiscal monopolies	4,261	4,261	-	-	-
5123 Customs and import duties	3,192	#N/A	#N/A	#N/A	3,192
5124 Taxes on exports	206	#N/A	#N/A	#N/A	206
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	135	#N/A	#N/A	#N/A	135
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	101	#N/A	#N/A	#N/A	101
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	18,687	408	-	8,239	10,040
5210 Recurrent taxes on use of goods and perform	18,228	408	-	8,239	9,581
5211 Recurrent taxes paid by households: motor	8,239	-	-	8,239	-
5212 Recurrent taxes paid by others: motor vehicles	408	408	-	-	-
5213 Recurrent taxes paid on use of goods and perform	9,581	#N/A	#N/A	#N/A	9,581
CO2 tax	4,576	#N/A	#N/A	#N/A	4,576
Excise on pharmacies	76	#N/A	#N/A	#N/A	76
Others	2,291	#N/A	#N/A	#N/A	2,291
Tax on emissions of NOX	120	#N/A	#N/A	#N/A	120
5220 Non-recurrent taxes on use of goods and perform	459	#N/A	#N/A	#N/A	459
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	-	-	-	-	-

Note: Included in item 1100 allocated as the legal tax liability of business are taxes from persons with sole proprietorships (enkeltpersonforetak) and main income from business income. Any taxes on these persons related to other income sources or taxable net wealth are also included in the estimate.

Source: OECD Revenue Statistics, author's calculations.

Table A.21: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Poland

Dataset: Details of Tax Revenue - Poland

Government: Total

Unit: Zloty, Millions

Year: 2013

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	526,487	215,310	212,062	87,248	11,867
1000 Taxes on income, profits and capital gains	103,567	49,290	35,085	19,446	(254)
1100 Taxes on income, profits and capital gains of individuals	74,216	19,939	35,085	19,446	(254)
1200 Taxes on income, profits and capital gains of corporates	29,351	29,351	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	202,629	81,800	60,370	61,261	(802)
2100 Employees SSC	80,326	-	60,370	20,758	(802)
2200 Employers SSC	85,458	63,377	-	22,081	-
2300 Self-employed or non-employed SSC	36,845	18,423	-	18,423	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	3,998	3,998	-	-	-
4000 Taxes on property	23,120	14,458	#N/A	6,541	2,121
4100 Recurrent taxes on immovable property	20,747	14,458	-	6,289	-
4110 Households recurrent taxes on immovable property	6,289	-	-	6,289	-
4120 Other than households recurrent taxes on immovable	14,458	14,458	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	252	-	-	252	-
4400 Taxes on financial and capital transactions	2,121	#N/A	#N/A	#N/A	2,121
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	190,777	65,764	116,607	#N/A	8,406
5100 Taxes on production, sale, transfer, etc	186,195	65,764	116,607	#N/A	3,824
5110 General taxes on goods and services	116,607	-	116,607	-	-
5111 Value added taxes	116,607	-	116,607	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	69,588	65,764	#N/A	#N/A	3,824
5121 Excises	65,764	65,764	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	428	#N/A	#N/A	#N/A	428
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	2,493	#N/A	#N/A	#N/A	2,493
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	903	#N/A	#N/A	#N/A	903
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	4,582	#N/A	#N/A	#N/A	4,582
5210 Recurrent taxes on use of goods and perform	2,788	#N/A	#N/A	#N/A	2,788
5211 Recurrent taxes paid by households: motor vehicles	-	-	-	-	-
5212 Recurrent taxes paid by others: motor vehicles	-	-	-	-	-
5213 Recurrent taxes paid on use of goods and perform	2,788	#N/A	#N/A	#N/A	2,788
5220 Non-recurrent taxes on use of goods and perform	1,794	-	-	-	1,794
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	2,396	#N/A	#N/A	#N/A	2,396
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	2,396	#N/A	#N/A	#N/A	2,396

Source: OECD Revenue Statistics, author's calculations.

Table A.22: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Portugal

Dataset: Details of Tax Revenue - Portugal

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of customs duties	59,110	11,496	23,861	10,365	13,388
1000 Taxes on income, profits and capital gains	18,247	5,603	2,179	-	10,465
1100 Taxes on income, profits and capital gains of	13,318	674	2,179	#N/A	10,465
1200 Taxes on income, profits and capital gains of	4,929	4,929	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	15,544	-	6,810	8,734	-
2100 Employees SSC	6,810	-	6,810	-	-
2200 Employers SSC	8,734	-	-	8,734	-
2300 Self-employed or non-employed SSC	-	-	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	2,158	20	-	1,445	693
4100 Recurrent taxes on immovable property	1,465	20	-	1,445	-
4100 Recurrent taxes on Real estate tax	1,445	-	-	1,445	-
4120 Other than households recurrent taxes on	20	20	-	-	-
4200 Recurrent taxes on net wealth	-	#N/A	#N/A	#N/A	-
4300 Estate, inheritance and gift taxes	0	-	-	0	-
4400 Taxes on financial and capital transactions	693	#N/A	#N/A	#N/A	693
Real estate transfer tax	483	#N/A	#N/A	#N/A	483
Stamp duty on registrations and mortgages	31	#N/A	#N/A	#N/A	31
Stamp duty on the raising of capital	0	#N/A	#N/A	#N/A	0
Stamp duty on real estate transactions	179	#N/A	#N/A	#N/A	179
4500 Non-recurrent taxes on property	-	#N/A	#N/A	#N/A	-
4600 Other recurrent taxes on property except 4100 and	-	#N/A	#N/A	#N/A	-
5000 Taxes on goods and services	22,621	5,615	14,872	186	1,948
5100 Taxes on production, sale, transfer, etc	21,517	5,254	14,872	#N/A	1,390
5110 General taxes on goods and services	14,672	-	14,672	-	-
5111 Value added taxes	14,672	-	14,672	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	6,845	5,254	200	#N/A	1,390
5121 Excises	4,832	4,832	-	-	-
5122 Profits of fiscal monopolies	422	422	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	1,492	#N/A	200	#N/A	1,291
Tax on insurance premiums	200	-	200	-	-
Stamp duty on bank transactions	534	#N/A	#N/A	#N/A	534
Stamp duty on debt related operations, interest and	208	#N/A	#N/A	#N/A	208
Stamp duty on insurance premiums	289	#N/A	#N/A	#N/A	289
Bank levies	244	#N/A	#N/A	#N/A	244
Other	15	#N/A	#N/A	#N/A	15
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	99	#N/A	#N/A	#N/A	99
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	1,081	361	-	186	534
5210 Recurrent taxes on use of goods and perform	1,081	361	-	186	534
5211 Recurrent taxes paid by households: motor	178	-	-	178	-
5212 Recurrent taxes paid by others: motor vehicles	361	361	-	-	-
5213 Recurrent taxes paid on use of goods and perform	542	#N/A	#N/A	8	534
Gambling tax	119	#N/A	#N/A	#N/A	119
Tax on the use, carrying and possession of weapons	7	-	-	7	-
Tax on motor vehicles - compensation	-	-	-	-	-
Hunting and fishery licenses	2	-	-	2	-
Fee for the use of water resources	14	#N/A	#N/A	#N/A	14
Other	402	#N/A	#N/A	#N/A	402
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	24	#N/A	#N/A	#N/A	24
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	540	258	-	-	282
6100 Paid solely by business	258	258	-	-	-
6200 Other taxes not solely paid by business	282	#N/A	#N/A	#N/A	282

Source: OECD Revenue Statistics, author's calculations.

Table A.23: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Slovenia

Dataset: Details of Tax Revenue - Slovenia

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of customs duties	13,560	4,409	5,936	633	2,465
1000 Taxes on income, profits and capital gains	2,437	607	-	-	1,830
1100 Taxes on income, profits and capital gains of	1,907	79	#N/A	#N/A	1,828
1200 Taxes on income, profits and capital gains of	529	529	-	-	-
1300 Unallocable between 1100 and 1200	2	#N/A	#N/A	#N/A	2
2000 Social security contributions (SSC)	5,368	2,032	2,777	559	-
2100 Employees SSC	2,777	-	2,777	-	-
2200 Employers SSC	2,026	1,467	-	559	-
2300 Self-employed or non-employed SSC	565	565	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	20	9	-	11	-
4000 Taxes on property	233	137	-	63	33
4100 Recurrent taxes on immovable property	193	137	-	56	-
4110 Households recurrent taxes on immovable property	56	-	-	56	-
4120 Other than households recurrent taxes on	137	137	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	7	-	-	7	-
4400 Taxes on financial and capital transactions	25	#N/A	#N/A	#N/A	25
4500 Non-recurrent taxes on property	7	#N/A	#N/A	#N/A	7
4600 Other recurrent taxes on property except 4100 and	0	#N/A	#N/A	#N/A	0
5000 Taxes on goods and services	5,501	1,623	3,158	117	602
5100 Taxes on production, sale, transfer, etc	5,152	1,598	3,158	#N/A	396
5110 General taxes on goods and services	3,158	-	3,158	-	-
5111 Value added taxes	3,158	-	3,158	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	#N/A	#N/A	#N/A	-
5120 Taxes on specific goods and services	1,994	1,598	#N/A	#N/A	396
5121 Excises	1,598	1,598	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	396	#N/A	#N/A	#N/A	396
Tax on special gambling (gambling in casinos)	396	#N/A	#N/A	#N/A	396
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	-	-	-	-	-
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	349	26	#N/A	117	206
5210 Recurrent taxes on use of goods and perform	332	26	#N/A	117	189
5211 Recurrent taxes paid by households: motor	117	-	-	117	-
5212 Recurrent taxes paid by others: motor vehicles	26	26	-	-	-
5213 Recurrent taxes paid on use of goods and perform	189	#N/A	#N/A	#N/A	189
5220 Non-recurrent taxes on use of goods and perform	17	#N/A	#N/A	#N/A	17
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	-	-	-	-	-

Source: OECD Revenue Statistics, author's calculations.

Table A.24: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Spain

Dataset: Details of Tax Revenue - Spain

Government: Total

Unit: Euro, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	355,188	151,090	153,903	30,539	19,656
1000 Taxes on income, profits and capital gains	102,469	32,320	68,434	-	1,715
1100 Taxes on income, profits and capital gains of	79,655	10,489	68,434	#N/A	732
1200 Taxes on income, profits and capital gains of	21,831	21,831	-	-	-
1300 Unallocable between 1100 and 1200	983	#N/A	#N/A	#N/A	983
2000 Social security contributions (SSC)	122,664	85,425	19,374	17,865	#N/A
2100 Employees SSC	19,374	-	19,374	-	-
2200 Employers SSC	85,928	68,063	-	17,865	-
2300 Self-employed or non-employed SSC	17,362	17,362	-	#N/A	#N/A
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	25,018	4,270	-	10,912	9,836
4100 Recurrent taxes on immovable property	12,478	4,270	-	8,208	-
4110 Households recurrent taxes on immovable property	12,478	4,270	-	8,208	-
4120 Other than households recurrent taxes on	-	-	-	-	-
4200 Recurrent taxes on net wealth	1,168	#N/A	#N/A	#N/A	1,168
4300 Estate, inheritance and gift taxes	2,704	-	-	2,704	-
4400 Taxes on financial and capital transactions	6,384	#N/A	#N/A	#N/A	6,384
4500 Non-recurrent taxes on property	2,284	#N/A	#N/A	#N/A	2,284
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	101,506	27,819	66,095	1,762	5,830
5100 Taxes on production, sale, transfer, etc	95,607	24,173	66,095	#N/A	5,339
5110 General taxes on goods and services	64,688	-	64,688	-	-
5111 Value added taxes	64,688	-	64,688	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	30,919	24,173	1,407	#N/A	5,339
5121 Excises	24,173	24,173	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	132	#N/A	#N/A	#N/A	132
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	6,083	#N/A	1,407	#N/A	4,676
Taxes on betting and gambling	1,225	#N/A	#N/A	#N/A	1,225
Taxes on insurance premiums	1,407	-	1,407	-	-
Compensation for local taxes	125	#N/A	#N/A	#N/A	125
Parafiscal taxes	707	#N/A	#N/A	#N/A	707
Deposit Guarantee Fund (DGF)	2,619	#N/A	#N/A	#N/A	2,619
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	531	#N/A	#N/A	#N/A	531
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	5,408	3,646	#N/A	1,762	-
5210 Recurrent taxes on use of goods and perform	4,503	2,741	-	1,762	-
5211 Recurrent taxes paid by households: motor	1,728	-	-	1,728	-
5212 Recurrent taxes paid by others: motor vehicles	437	437	-	-	-
5213 Recurrent taxes paid on use of goods and perform	2,338	2,304	#N/A	34	-
Hunting and fishing taxes	34	-	-	34	-
Economic activity tax	1,838	1,838	-	-	-
Other taxes on environment	329	329	-	-	-
Tax on effluent, use of hydrocarbon and mines	137	137	-	-	-
5220 Non-recurrent taxes on use of goods and perform	905	905	-	-	-
Tax and building permits	484	484	-	-	-
Urban licenses	173	173	-	-	-
Greenhouse gas emission trading	248	248	-	-	-
5300 Unallocable between 5100 and 5200	491	#N/A	#N/A	#N/A	491
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	3,531	1,256	-	-	2,275
6100 Paid solely by business	1,256	1,256	-	-	-
6200 Other taxes not solely paid by business	2,275	#N/A	#N/A	#N/A	2,275

Source: OECD Revenue Statistics, author's calculations.

Table A.25: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Sweden

Dataset: Details of Tax Revenue - Sweden

Government: Total

Unit: Swedish Krona, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	1,670,643	550,519	892,898	202,787	24,439
1000 Taxes on income, profits and capital gains	585,570	125,207	435,503	24,860	-
1100 Taxes on income, profits and capital gains of	479,463	19,100	435,503	24,860	-
1200 Taxes on income, profits and capital gains of	106,107	106,107	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	388,651	178,437	103,955	106,686	(427)
2100 Employees SSC	103,955	-	103,955	-	-
2200 Employers SSC	280,085	173,399	-	106,686	-
2300 Self-employed or non-employed SSC	5,038	5,038	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	(427)	#N/A	#N/A	#N/A	(427)
3000 Taxes on payroll and workforce	177,412	128,712	-	48,700	-
4000 Taxes on property	41,935	18,957	#N/A	13,049	9,929
4100 Recurrent taxes on immovable property	32,005	18,957	-	13,048	-
4110 Households recurrent taxes on immovable property	13,048	-	-	13,048	-
4120 Other than households recurrent taxes on	18,957	18,957	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	1	-	-	1	-
4400 Taxes on financial and capital transactions	9,929	#N/A	#N/A	#N/A	9,929
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	475,716	99,207	353,439	9,493	13,578
5100 Taxes on production, sale, transfer, etc	458,909	91,892	353,439	#N/A	13,578
5110 General taxes on goods and services	357,385	#N/A	353,439	#N/A	3,946
5111 Value added taxes	353,439	-	353,439	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	3,946	#N/A	#N/A	#N/A	3,946
5120 Taxes on specific goods and services	101,524	91,892	#N/A	#N/A	9,632
5121 Excises	86,879	86,879	-	-	-
5122 Profits of fiscal monopolies	5,013	5,013	-	-	-
5123 Customs and import duties	-	-	-	-	-
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	9,200	#N/A	#N/A	#N/A	9,200
Betting tax	-	#N/A	#N/A	#N/A	-
Advertisement tax	225	#N/A	#N/A	#N/A	225
Tax on gambling	1,320	#N/A	#N/A	#N/A	1,320
Other specific services	7,655	#N/A	#N/A	#N/A	7,655
Tax on charter travelling	-	#N/A	#N/A	#N/A	-
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	432	#N/A	#N/A	#N/A	432
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	16,807	7,314	-	9,493	-
5210 Recurrent taxes on use of goods and perform	16,807	7,314	-	9,493	-
5211 Recurrent taxes paid by households: motor	9,493	-	-	9,493	-
5212 Recurrent taxes paid by others: motor vehicles	7,314	7,314	-	-	-
5213 Recurrent taxes paid on use of goods and perform	-	-	-	-	-
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	1,360	#N/A	#N/A	#N/A	1,360
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	1,360	#N/A	#N/A	#N/A	1,360

Source: OECD Revenue Statistics, author's calculations.

Table A.26: Categorisation of Tax Remittance by Businesses' Role in the Tax System – Switzerland

Dataset: Details of Tax Revenue - Switzerland

Government: Total

Unit: Swiss Franc, Millions

Year: 2014

Taxe	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Recettes fiscales totales	173,585	49,273	42,720	8,071	73,522
1000 Impôts sur revenu, bénéfices et gains en capital	79,257	19,055	#N/A	#N/A	60,201
1100 Des personnes physiques	53,757	980	#N/A	#N/A	52,777
1200 Des sociétés	18,075	18,075	-	-	-
1300 Non-ventilables entre 1100 et 1200	7,425	#N/A	#N/A	#N/A	7,425
2000 Cotisations de sécurité sociale	43,152	19,798	19,991	3,363	-
2100 A la charge des salariés	19,991	-	19,991	-	-
2200 A la charge des employeurs	20,024	16,661	-	3,363	-
2300 A charge des travailleurs indép. ou sans emploi	3,137	3,137	-	-	-
2400 Non-ventilables entre 2100, 2200 et 2300	-	-	-	-	-
3000 Sur salaires ou main d'oeuvre	-	-	-	-	-
4000 Impôts sur le patrimoine	11,513	-	-	2,206	9,306
4100 Impôts périodiques sur la propriété immobilière	1,044	-	-	1,044	-
4110 Ménages	1,044	-	-	1,044	-
4120 Autres agents	-	-	-	-	-
4200 Impôts périodiques sur l'actif net	7,806	#N/A	#N/A	#N/A	7,806
4300 Impôts sur mut. par décès, succ. et donations	1,163	-	-	1,163	-
4400 Impôts sur transact. mobilières et immob.	1,501	#N/A	#N/A	#N/A	1,501
4500 Impôts non-périodiques	-	-	-	-	-
4600 Autres impôts périodiques sur patrimoine	-	-	-	-	-
5000 Impôts sur les biens et services	38,941	10,173	22,728	2,025	4,014
5100 Impôts sur production, vente, transfert, etc.	33,751	8,097	22,728	-	2,925
5110 Impôts généraux	22,728	-	22,728	-	-
5111 Taxes sur la valeur ajoutée	22,375	-	22,375	-	-
5112 Impôts sur les ventes	354	-	354	-	-
5113 Autres impôts	-	-	-	-	-
5120 Impôts sur biens et services déterminés	10,963	8,097	-	-	2,866
5121 Accises	8,097	8,097	-	-	-
5122 Bénéfices des monopoles fiscaux	-	-	-	-	-
5123 Droits de douane et droits à l'importation	1,068	#N/A	#N/A	#N/A	1,068
5124 Taxes à l'exportation	-	-	-	-	-
5125 Impôts sur biens d'équipement	-	-	-	-	-
5126 Impôts sur services déterminés	1,798	#N/A	#N/A	#N/A	1,798
5127 Autres impôts sur commerce et transact. internat.	-	-	-	-	-
5128 Autres impôts	-	-	-	-	-
5130 Non-ventilables entre 5110 et 5120	59	#N/A	#N/A	#N/A	59
5200 Impôts sur utilisation des biens et exerc. activités	5,190	2,076	-	2,025	1,089
5210 Impôts périodiques	5,190	2,076	-	2,025	1,089
5211 A la charge des ménages : véhicules à moteur	2,025	-	-	2,025	-
5212 A la charge autres agents : véhicules à moteur	2,076	2,076	-	-	-
5213 Autres impôts périodiques	1,089	#N/A	#N/A	#N/A	1,089
5220 Impôts non-périodiques	-	-	-	-	-
5300 Non-ventilables entre 5100 et 5200	-	-	-	-	-
6000 Other taxes	723	247	-	476	-
6100 Paid solely by business	247	247	-	-	-
6200 Other	476	-	-	476	-

Source: OECD Revenue Statistics, author's calculations.

Table A.27: Categorisation of Tax Remittance by Businesses' Role in the Tax System – United Kingdom

Dataset: Details of Tax Revenue - United Kingdom

Government: Total

Unit: GBP, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue exclusive of custom duties	581,520	173,838	311,040	49,538	47,104
1000 Taxes on income, profits and capital gains	204,008	43,715	141,261	#N/A	19,032
1100 Taxes on income, profits and capital gains of	160,293	#N/A	141,261	#N/A	19,032
1200 Taxes on income, profits and capital gains of	43,715	43,715	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	109,120	54,279	42,604	12,237	-
2100 Employees SSC	42,604	-	42,604	-	-
2200 Employers SSC	63,844	51,607	-	12,237	-
2300 Self-employed or non-employed SSC	2,672	2,672	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	74,227	27,655	-	32,401	14,171
4100 Recurrent taxes on immovable property	56,170	27,655	-	28,515	-
4110 Households recurrent taxes on immovable property	28,515	-	-	28,515	-
4120 Other than households recurrent taxes on	27,655	27,655	-	-	-
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	3,886	-	-	3,886	-
4400 Taxes on financial and capital transactions	14,067	#N/A	#N/A	#N/A	14,067
4500 Non-recurrent taxes on property	104	#N/A	#N/A	#N/A	104
4600 Other recurrent taxes on property except 4100 and	-	-	-	-	-
5000 Taxes on goods and services	194,153	48,189	127,175	4,900	13,889
5100 Taxes on production, sale, transfer, etc	186,966	47,114	127,175	-	12,677
5110 General taxes on goods and services	124,211	-	124,211	-	-
5111 Value added taxes	124,211	-	124,211	-	-
5112 Sales tax	-	-	-	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	62,755	47,114	2,964	#N/A	12,677
5121 Excises	47,114	47,114	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	313	#N/A	#N/A	#N/A	313
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	12,326	#N/A	2,964	#N/A	9,362
Betting and gaming	1,708	#N/A	#N/A	#N/A	1,708
National Lottery contributions to fund	1,721	#N/A	#N/A	#N/A	1,721
Air passenger duty	3,154	#N/A	#N/A	#N/A	3,154
Insurance premium tax	2,964	-	2,964	-	-
Bank Levy - Stability Fee Scheme	2,693	#N/A	#N/A	#N/A	2,693
Light Dues	86	#N/A	#N/A	#N/A	86
5127 Other taxes on internat. trade and transactions not included within 5121 to 5126 inclusive	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	3,002	#N/A	#N/A	#N/A	3,002
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	7,187	1,075	-	4,900	1,212
5210 Recurrent taxes on use of goods and perform	7,187	1,075	-	4,900	1,212
5211 Recurrent taxes paid by households: motor	4,900	-	-	4,900	-
5212 Recurrent taxes paid by others: motor vehicles	1,075	1,075	-	-	-
5213 Recurrent taxes paid on use of goods and perform	1,212	#N/A	#N/A	#N/A	1,212
5220 Non-recurrent taxes on use of goods and perform	-	-	-	-	-
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	12	-	-	-	12
6100 Paid solely by business	-	-	-	-	-
6200 Other taxes not solely paid by business	12	-	-	-	12

Source: OECD Revenue Statistics, author's calculations.

Table A.28: Categorisation of Tax Remittance by Businesses' Role in the Tax System – United States

Dataset: Details of Tax Revenue - United States

Government: Total

Unit: US Dollar, Millions

Year: 2014

Tax	Revenue Statistics total tax	Legal tax liability of business	Legal remittance responsibility of business	Non-business remittance	Unallocable
Total tax revenue	4,500,530	1,301,587	2,890,263	114,643	194,037
1000 Taxes on income, profits and capital gains	2,147,832	606,169	2,056,865	#N/A	(515,202)
1100 Taxes on income, profits and capital gains of	1,768,531	226,868	2,056,865	#N/A	(515,202)
1200 Taxes on income, profits and capital gains of	379,301	379,301	-	-	-
1300 Unallocable between 1100 and 1200	-	-	-	-	-
2000 Social security contributions (SSC)	1,082,386	530,244	479,451	72,691	-
2100 Employees SSC	479,451	-	479,451	-	-
2200 Employers SSC	540,101	467,410	-	72,691	-
2300 Self-employed or non-employed SSC	62,834	62,834	-	-	-
2400 Unallocable between 2100, 2200 and 2300 SSC	-	-	-	-	-
3000 Taxes on payroll and workforce	-	-	-	-	-
4000 Taxes on property	487,096	#N/A	#N/A	23,791	463,305
4100 Recurrent taxes on immovable property	455,578	#N/A	#N/A	#N/A	455,578
4200 Recurrent taxes on net wealth	-	-	-	-	-
4300 Estate, inheritance and gift taxes	23,791	-	-	23,791	-
4400 Taxes on financial and capital transactions	-	-	-	-	-
4500 Non-recurrent taxes on property	-	-	-	-	-
4600 Other recurrent taxes on property except 4100 and	7,727	#N/A	#N/A	#N/A	7,727
5000 Taxes on goods and services	783,216	165,174	353,947	18,161	245,934
5100 Taxes on production, sale, transfer, etc	662,097	154,825	353,947	#N/A	153,325
5110 General taxes on goods and services	353,947	-	353,947	-	-
5111 Value added taxes	-	-	-	-	-
5112 Sales tax	353,947	-	353,947	-	-
5113 Other (than value added and sales tax)	-	-	-	-	-
5120 Taxes on specific goods and services	308,150	154,825	#N/A	#N/A	153,325
5121 Excises	154,825	154,825	-	-	-
5122 Profits of fiscal monopolies	-	-	-	-	-
5123 Customs and import duties	37,342	#N/A	#N/A	#N/A	37,342
5124 Taxes on exports	-	-	-	-	-
5125 Taxes on investment goods	-	-	-	-	-
5126 Taxes on specific services	19,419	#N/A	#N/A	#N/A	19,419
Amusements state and local govt.	19,419	#N/A	#N/A	#N/A	19,419
5127 Other taxes on internat. trade and transactions not	-	-	-	-	-
5128 Other taxes not included within 5121 to 5127	96,564	#N/A	#N/A	#N/A	96,564
5130 Unallocable between 5110 and 5120	-	-	-	-	-
5200 Taxes on use of goods and perform activities	121,119	10,349	#N/A	18,161	92,609
5210 Recurrent taxes on use of goods and perform	96,012	10,349	-	18,161	67,502
5211 Recurrent taxes paid by households: motor	18,161	-	-	18,161	-
5212 Recurrent taxes paid by others: motor vehicles	10,349	10,349	-	-	-
5213 Recurrent taxes paid on use of goods and perform	67,502	#N/A	#N/A	#N/A	67,502
5220 Non-recurrent taxes on use of goods and perform	25,107	#N/A	#N/A	#N/A	25,107
5300 Unallocable between 5100 and 5200	-	-	-	-	-
6000 Taxes other than 1000, 2000, 3000, 4000 and 5000	-	-	-	-	-

Source: OECD Revenue Statistics, author's calculations.