INTERNATIONAL TAX COMPETITIVENESS INDEX 2019

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Introduction

The structure of a country's tax code is an important determinant of its economic performance. A well-structured tax code is easy for taxpayers to comply with and can promote economic development while raising sufficient revenue for a government's priorities. In contrast, poorly structured tax systems can be costly, distort economic decision-making, and harm domestic economies.

Many countries have recognized this and have reformed their tax codes. Over the past few decades, marginal tax rates on corporate and individual income have declined significantly across the Organisation for Economic Co-operation and Development (OECD). Now, most nations raise a significant amount of revenue from broad-based taxes such as payroll taxes and value-added taxes (VAT).[1]

Not all recent changes in tax policy among OECD countries have improved the structure of tax systems; some have made a negative impact. Though some countries like the United States and Belgium have reduced their corporate income tax rates by several percentage points, others, like Korea and Portugal, have increased them. Corporate tax base improvements have been put in place in the United States, United Kingdom, and Canada, while tax bases were made less competitive in Chile and Korea. Several EU countries have recently adopted international tax regulations like Controlled Foreign Corporation rules that can have negative economic impacts.[2] Additionally, while many countries have removed their net wealth taxes in recent decades, Belgium recently adopted a new tax on net wealth.

Some countries consistently adopt policies that worsen the structure of their tax system relative to other OECD countries. Over the last few decades, France has introduced several reforms that have significantly increased marginal tax rates on work, saving, and investment. For example, France recently instituted a corporate income surtax, which joined other distortive taxes such as the financial transactions tax, a tax on net real estate wealth, and an inheritance tax.

Following tax reform in the United States, France now has the highest taxes on corporate income—a combined rate of about 34 percent. Though the central government statutory rate is scheduled to be lowered over the next several years, many more changes are necessary for France to have a competitive tax code.

The variety of approaches to taxation among OECD countries creates a need for a way to evaluate these systems relative to each other. For that purpose, we have developed the *International Tax Competitiveness Index* to compare the ways that countries structure their tax systems.

1 Elke Asen and Daniel Bunn, "Sources of Government Revenue in the OECD, 2019," Tax Foundation, Apr. 23, 2019, https://taxfoundation.org/publications/sources-of-government-revenue-in-the-oecd/.

2 Daniel Bunn, "Ripple Effects from Controlled Foreign Corporation Rules," Tax Foundation, June 13, 2019, https://taxfoundation.org/controlled-foreign-corporation-rules-effects/.

The *International Tax Competitiveness Index*

The *International Tax Competitiveness Index* (*ITCI*) seeks to measure the extent to which a country's tax system adheres to two important aspects of tax policy: competitiveness and neutrality.

A competitive tax code is one that keeps marginal tax rates low. In today's globalized world, capital is highly mobile. Businesses can choose to invest in any number of countries throughout the world to find the highest rate of return. This means that businesses will look for countries with lower tax rates on investment to maximize their after-tax rate of return. If a country's tax rate is too high, it will drive investment elsewhere, leading to slower economic growth. In addition, high marginal tax rates can lead to tax avoidance.

According to research from the OECD, corporate taxes are most harmful for economic growth, with personal income taxes and consumption taxes being less harmful. Taxes on immovable property have the smallest impact on growth.[3]

Separately, a neutral tax code is simply one that seeks to raise the most revenue with the fewest economic distortions. This means that it doesn't favor consumption over saving, as happens with investment taxes and wealth taxes. This also means few or no targeted tax breaks for specific activities carried out by businesses or individuals.

A tax code that is competitive and neutral promotes sustainable economic growth and investment while raising sufficient revenue for government priorities.

There are many factors unrelated to taxes which affect a country's economic performance. Nevertheless, taxes play an important role in the health of a country's economy.

To measure whether a country's tax system is neutral and competitive, the *ITCI* looks at more than 40 tax policy variables. These variables measure not only the level of taxes, but also how taxes are structured. The *Index* looks at a country's corporate taxes, individual income taxes, consumption taxes, property taxes, and the treatment of profits earned overseas. The *ITCI* gives a comprehensive overview of how developed countries' tax codes compare, explains why certain tax codes stand out as good or bad models for reform, and provides important insight into how to think about tax policy.

Due to some data limitations, recent tax changes in some countries may not be reflected in this year's version of the *International Tax Competitiveness Index*.

2019 Rankings

For the sixth year in a row, Estonia has the best tax code in the OECD. Its top score is driven by four positive features of its tax code. First, it has a 20 percent tax rate on corporate income that is only applied to distributed profits. Second, it has a flat 20 percent tax on individual income that does not apply to personal dividend income. Third, its property tax applies only to the value of land, rather than to the value of real property or capital. Finally, it has a territorial tax system that exempts 100 percent of foreign profits earned by domestic corporations from domestic taxation, with few restrictions.

3 Organisation for Economic Co-operation and Development (OECD), "Tax and Economic Growth," Economics Department Working Paper No. 620, July 11, 2008.

TABLE 1.

2019 *International Tax Competitiveness Index* Rankings

Country	Overall Rank	Overall Score	Corporate Tax Rank	Individual Taxes Rank	Consumption Taxes Rank	Property Taxes Rank	International Tax Rules Rank
Estonia	**1**	**100**	2	1	9	1	11
New Zealand	**2**	**86.3**	24	4	6	2	9
Latvia	**3**	**86**	1	6	29	6	7
Lithuania	**4**	**81.5**	3	3	24	7	17
Switzerland	**5**	**79.3**	8	10	1	34	1
Luxembourg	**6**	**77**	23	16	4	19	5
Australia	**7**	**76.4**	28	15	8	3	12
Sweden	**8**	**75.5**	6	19	16	5	14
Netherlands	**9**	**72.5**	19	21	12	12	3
Czech Republic	**10**	**72.2**	9	5	34	13	6
Slovak Republic	**11**	**71.4**	14	2	33	4	31
Austria	**12**	**71.4**	17	29	11	10	4
Turkey	**13**	**69**	18	7	20	18	16
Hungary	**14**	**68.6**	4	8	35	25	2
Canada	**15**	**67**	20	25	7	20	18
Germany	**16**	**66.9**	26	26	10	16	8
Ireland	**17**	**66.9**	5	33	23	11	13
Finland	**18**	**66.8**	7	27	15	14	23
Norway	**19**	**66.2**	12	13	18	24	20
Slovenia	**20**	**65.1**	10	17	30	22	15
United States	**21**	**63.7**	21	24	5	29	28
Iceland	**22**	**61.8**	11	28	19	23	22
Spain	**23**	**60.3**	22	14	14	32	19
Denmark	**24**	**60.1**	16	34	17	8	29
United Kingdom	**25**	**60.1**	15	22	22	31	10
Korea	**26**	**59.5**	33	20	2	26	34
Belgium	**27**	**57.2**	25	11	26	27	25
Japan	**28**	**57.1**	36	32	3	30	21
Mexico	**29**	**54.2**	32	12	25	9	35
Greece	**30**	**52.9**	29	18	31	28	26
Israel	**31**	**51.9**	27	36	13	15	33
Chile	**32**	**49.1**	30	23	28	17	36
Portugal	**33**	**46.6**	34	30	32	21	30
Italy	**34**	**44**	31	31	27	35	27
Poland	**35**	**43.5**	13	9	36	33	32
France	**36**	**42.7**	35	35	21	36	24

While Estonia's tax system is the most competitive in the OECD, the other top countries' tax systems receive high scores due to excellence in one or more of the major tax categories. New Zealand has a relatively flat, low-rate individual income tax that also exempts capital gains (with a combined top rate of 33 percent), a well-structured property tax, and a broad-based value-added tax. Latvia, which recently adopted the Estonian system for corporate taxation, also has a relatively efficient system for taxing labor. Lithuania has the third lowest corporate income tax rate at 15 percent, a relatively neutral treatment of capital investment costs, and a well-structured individual income tax system. Switzerland has a relatively low corporate tax rate (21.1 percent), a low, broad-based consumption tax, and a relatively flat individual income tax that exempts capital gains from taxation. Sweden has a lower-than-average corporate income tax rate of 21.4 percent, no estate or wealth taxes, and a well-structured value-added tax and individual income tax.

For the sixth year in a row, France has the least competitive tax system in the OECD. It has one of the highest corporate income tax rates in the OECD (34.4 percent), high property taxes, a net tax on real estate wealth, a financial transaction tax, and an estate tax. France also has high, progressive individual income taxes that apply to both dividend and capital gains income.

In general, countries that rank poorly on the *ITCI* levy relatively high marginal tax rates on corporate income. The five countries at the bottom of the rankings all have higher than average corporate tax rates, except for Poland, at 19 percent. In addition, all five countries have high consumption taxes, with rates of 20 percent or higher, except for Chile, at 19 percent.

Notable Changes from Last Year[4]

Belgium

Belgium's ranking fell from 22nd to 27th after adopting a set of international tax rules following an EU directive. Belgium now has both Controlled Foreign Corporation rules and thin capitalization rules that hurt its ranking on international tax regulations.

Canada

Canada adjusted its corporate income tax base by providing expanding write-offs for capital investments in machinery and buildings. It followed the United States by providing for full expensing for short-lived assets. Canada improved from 20th to 15th.

Ireland

Ireland's ranking fell from 14th to 17th after adopting a new Controlled Foreign Corporations regime. These rules apply tax to passive income earned by or attributed to a foreign subsidiary simply for tax purposes (non-genuine arrangements). This reduced its score for international tax regulations.

Korea

In 2019, Korea continued to reduce the ability for businesses to offset future tax liability with current losses. Losses are currently allowed to be carried forward for 10 years, but they are capped at 60 percent of taxable income for large companies. Korea's rank fell from 24th to 26th.

Poland

Poland adopted a patent box that provides a reduced corporate rate of 5 percent on qualified intellectual property income. Poland's rank fell from 32nd to 35th.

Slovenia

As is the case in several other EU countries, Slovenia adopted new Controlled Foreign Corporation legislation. The new rules apply to passive income. Slovenia's rank fell from 17th to 20th.

4 Last year's scores published in this report can differ from previously published rankings due to both methodological changes and corrections made to previous years' data.

TABLE 2.

Changes from Last Year

Country	2017 Rank	2017 Score	2018 Rank	2018 Score	2019 Rank	2019 Score	Change in Rank from 2018 to 2019	Change in Score from 2018 to 2019
Australia	9	75	9	72.3	7	76.4	2	4.1
Austria	10	71.5	11	69.2	12	71.4	-1	2.1
Belgium	22	64.8	22	60.2	27	57.2	-5	-3
Canada	20	65.4	20	62.5	15	67	5	4.6
Chile	33	49.3	33	46.7	32	49.1	1	2.4
Czech Republic	12	71.3	12	68.4	10	72.2	2	3.8
Denmark	23	63.9	23	60.2	24	60.1	-1	0
Estonia	1	100	1	100	1	100	0	0
Finland	14	67	15	64.9	18	66.8	-3	2
France	36	39.1	36	40.4	36	42.7	0	2.3
Germany	15	66.8	18	63.7	16	66.9	2	3.2
Greece	31	53.1	31	49.5	30	52.9	1	3.4
Hungary	17	66.1	13	66.4	14	68.6	-1	2.2
Iceland	24	62.6	25	59.7	22	61.8	3	2.1
Ireland	16	66.2	14	64.9	17	66.9	-3	2
Israel	30	53.4	30	49.6	31	51.9	-1	2.4
Italy	35	46.9	35	43.3	34	44	1	0.7
Japan	26	60.4	28	55.2	28	57.1	0	1.8
Korea	18	66.1	24	59.9	26	59.5	-2	-0.4
Latvia	2	84.1	2	83.8	3	86	-1	2.3
Lithuania	5	78.8	4	78.7	4	81.5	0	2.8
Luxembourg	4	79	5	76.6	6	77	-1	0.4
Mexico	29	55.2	29	52.2	29	54.2	0	1.9
Netherlands	6	77.2	7	74.9	9	72.5	-2	-2.4
New Zealand	3	82.7	3	81.6	2	86.3	1	4.6
Norway	21	65	19	63.4	19	66.2	0	2.8
Poland	32	51.2	32	48.3	35	43.5	-3	-4.8
Portugal	34	48.7	34	44.7	33	46.6	1	1.9
Slovak Republic	11	71.5	10	70.7	11	71.4	-1	0.7
Slovenia	19	65.5	17	63.9	20	65.1	-3	1.2
Spain	25	60.4	27	57.3	23	60.3	4	3
Sweden	8	76.5	8	73.1	8	75.5	0	2.4
Switzerland	7	76.9	6	75.3	5	79.3	1	4
Turkey	13	67.6	16	64.7	13	69	3	4.3
United Kingdom	27	60	26	57.7	25	60.1	1	2.4
United States	28	57.8	21	60.9	21	63.7	0	2.8

Turkey

Turkey's rank improved from 16th to 13th. Three measures of compliance time with corporate income, individual income, and consumption taxes have shown significant improvement in the last several years. Average corporate tax compliance time fell to 24 hours from 44.5 in 2018; individual income tax compliance time fell to 71 hours from 91 hours in 2018; and consumption tax compliance time fell to 75 hours from 80 hours.

United Kingdom

The United Kingdom reversed a policy that eliminated capital expenditure deductions for the costs of investing in buildings. The new policy provides businesses with a 2 percent annual allowance for spending on industrial buildings. This effectively provides businesses with the ability to recover 27.9 percent of their building costs in present value. The UK's rank improved from 26th to 25th.

Corporate Income Tax

The corporate income tax is a direct tax on the profits of a corporation. All OECD countries levy a tax on corporate profits, but the rates and bases vary widely from country to country. Corporate income taxes reduce the after-tax rate of return on corporate investment. This increases the cost of capital, which leads to lower levels of investment and economic output. Additionally, the corporate tax can lead to lower wages for workers, lower returns for investors, and higher prices for consumers.

Although the corporate income tax has a relatively significant impact on a country's economy, it raises a relatively low amount of tax revenue for most governments.[5] The *ITCI* breaks the corporate income tax category into three subcategories.

Table 3 displays each country's Corporate Income Tax category rank and score along with the ranks and scores of the subcategories, which are the corporate rate, cost recovery, and incentives and complexity.

Combined Top Marginal Corporate Income Tax Rate

The top marginal corporate income tax rate measures the rate at which each additional dollar of taxable profit is taxed. High marginal corporate tax rates tend to discourage capital formation and slow economic growth.[6] Countries with higher top marginal corporate income tax rates than the OECD average receive lower scores than those with lower, more competitive rates.

France has the highest top marginal corporate income tax rate at 34.4 percent. This is followed by Portugal (31.5 percent) and Australia and Mexico (both at 30 percent). The lowest top marginal corporate income tax rate in the OECD is found in Hungary at 9 percent. There are six other countries with rates below 20 percent: Ireland (12.5 percent), Lithuania (15 percent), and the Czech Republic, Poland, Slovenia, and the United Kingdom (all at 19 percent). The OECD average top corporate income tax rate is 23.6 percent.[7]

5 Asen and Bunn, "Sources of Government Revenue in the OECD, 2019."

6 OECD, "Tax Policy Reform and Economic Growth," OECD Tax Policy Studies, No. 20, Nov. 3, 2010, https://www.oecd.org/ctp/tax-policy/tax-policy-reform-and-economic-growth-9789264091085-en.htm.

7 OECD, "OECD Tax Database, Table II.1 – Statutory corporate income tax rate," updated April 2019, https://stats.oecd.org/index.aspx?DataSetCode=Table_II1.

TABLE 3.

Corporate Tax

Country	Overall Rank	Overall Score	Rate Rank	Rate Score	Cost Recovery Rank	Cost Recovery Score	Incentives/ Complexity Rank	Incentives/ Complexity Score
Australia	28	49.3	33	32	18	48.9	11	75.8
Austria	17	58.3	20	48.2	12	52.4	15	68.4
Belgium	25	52.6	30	33.4	4	64.6	25	62.1
Canada	20	55.4	25	42.4	24	46	8	78.9
Chile	30	47.5	20	48.2	36	23.7	12	75.6
Czech Republic	9	70.8	4	67.6	19	48.9	13	74.3
Denmark	16	59	15	57.9	26	44.5	22	63.4
Estonia	2	99.7	8	64.4	1	100	3	95.6
Finland	7	73.1	8	64.4	33	39	1	100
France	35	38.9	36	17.7	10	53.3	19	65.5
Germany	26	52.4	32	32.4	16	50.7	6	81.7
Greece	29	47.6	28	38.5	27	44.3	18	65.6
Hungary	4	79.8	1	100	32	40.6	31	53.8
Iceland	11	68.4	8	64.4	17	49.4	14	72.5
Ireland	5	77.5	2	88.7	31	40.8	17	66.9
Israel	27	49.9	18	54.7	11	53.1	36	31.6
Italy	31	46	27	39.1	6	57.2	34	42.5
Japan	36	32.8	31	32.9	34	36.9	33	42.8
Korea	33	44.2	26	40.1	8	54.4	35	39.3
Latvia	1	100	8	64.4	1	100	2	96.3
Lithuania	3	85.6	3	80.6	3	72.3	24	62.8
Luxembourg	23	53.7	19	48.4	9	54.1	32	52.4
Mexico	32	45.1	33	32	23	46.4	16	67.3
Netherlands	19	56.8	20	48.2	13	52	20	64.7
New Zealand	24	53.3	28	38.5	25	44.5	7	81.6
Norway	12	65.9	15	57.9	30	42.2	5	86.7
Poland	13	64.4	4	67.6	28	43.8	23	62.9
Portugal	34	38.9	35	27.2	22	47.2	29	56.8
Slovak Republic	14	63.5	12	61.2	14	51.9	28	61
Slovenia	10	70.5	4	67.6	21	47.2	10	75.8
Spain	22	53.9	20	48.2	20	47.8	26	61.7
Sweden	6	73.1	14	59.9	15	51.1	4	92
Switzerland	8	70.8	13	60.7	7	55.5	9	78
Turkey	18	57.5	15	57.9	29	42.9	27	61.4
United Kingdom	15	61.6	4	67.6	35	36.4	21	64.5
United States	21	55.1	24	45.3	5	58.1	30	56.5

Cost Recovery

To a business, profits are revenue (what a business makes in sales) minus costs (the cost of doing business). The corporate income tax is meant to be a tax on these profits. Thus, it is important that a tax code properly defines what constitutes taxable income. If a tax code does not allow businesses to account for all the costs of doing business, it will inflate a business' taxable income and thus its tax bill. This increases the cost of capital, which reduces the demand for capital, leading to slower investment and economic growth.

Loss Offset Rules: Carryforwards and Carrybacks

In most countries, corporations are allowed to either deduct current year losses against future profits, or deduct current year losses against past profits, receiving a tax rebate for overpayments. Loss offset rules dictate the number of years a corporation is allowed to carry forward or carry back net operating losses.

The ability for a corporation to carry forward or carry back operating losses ensures that a corporation is taxed on its average profitability over many years. This more efficiently accounts for a business' true costs and profits, rather than taxing any given year's profits, which are susceptible to the ups and downs of the economy. Restricting the carryforward or carryback of losses places a greater average tax burden on industries that are more susceptible to business cycles.

In 20 of the 36 OECD countries, corporations can carry forward losses indefinitely, though nine of these limit the generosity of the provision by capping the percentage of losses that can be carried forward.[8] Of the countries with restrictions, the average loss carryforward period is 7.9 years. Hungary and Poland have the most restrictive loss carryforward provisions, at 50 percent of losses for five years (coded as 2.5 years).[9] The *ITCI* ranks countries better that allow losses to be carried forward indefinitely than countries that restrict the number of years corporations are allowed to carry forward losses.

Countries are much more restrictive with loss carryback provisions than they are with carryforward provisions. Only the Estonian and Latvian systems allow unlimited carrybacks of losses. Of the eight countries that allow limited carrybacks, the average period is 1.25 years.[10] The *ITCI* penalizes the 26 countries that do not allow any loss carrybacks at all.

Capital Cost Recovery: Machines, Buildings, and Intangibles

Typically, when a business calculates its taxable income, it takes its revenue and subtracts its costs (such as wages and raw materials). However, with capital investments (buildings, machines, and other equipment) the calculation is more complicated. Businesses in most countries are generally not allowed to immediately deduct the cost of their capital investments. Instead, they are required to write off these costs over several years or even decades, depending on the type of asset.

Depreciation schedules establish the amounts businesses are legally allowed to write off, as well as how long assets need to be written off. For instance, a government may require a business to deduct an equal percentage of the cost of a machine over a seven-year period. By the end of the depreciation period, the business would have deducted the total initial dollar cost of the asset. However, due to the time value of money (a normal real return plus inflation), write-offs in later years

8 Countries with unlimited carryforward periods are coded as having periods of 100 years. Some countries restrict the amount of losses that can be deducted each year. For example, Slovenia only allows 50 percent of losses to be carried forward indefinitely. These restrictions are coded as the percentage of losses that can be carried forward or backward times the number of allowable years. Thus, Slovenia is coded as 50.

9 PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19," https://www.pwc.com/gx/en/tax/corporate-tax/worldwide-tax-summaries/pwc-worldwide-tax-summaries-corporate-taxes-2018-19-2.pdf.

10 Ibid.

are not as valuable in real terms as write-offs in earlier years. As a result, businesses effectively lose the ability to deduct the full present value of their investment cost. This treatment of capital expenses understates true business costs and overstates taxable income in present value terms.[11]

A country's cost recovery score is determined by the capital allowances for three asset types: machinery, industrial buildings, and intangibles.[12] Capital allowances are expressed as a percent of the present value cost that corporations can write off over the life of an asset. A 100 percent capital allowance represents a business' ability to deduct the full cost of an investment over its life. Countries that provide faster write-offs for capital investments receive better scores in the *ITCI*.

On average, across the OECD, businesses can write off 84.3 percent of the cost of machinery, 48.9 percent of the cost of industrial buildings, and 76.6 percent of the cost of intangibles. Estonia and Latvia, which have a corporate tax that only applies to distributed profits, are coded as allowing 100 percent of the present value of a capital investment to be written off, because a business' distributed profits are determined by cash flow.[13]

Inventories

In the same vein as capital investments, the costs of inventories are not written off in the year in which the purchases are made. Instead, the costs of inventories are deducted when the inventory is sold. As a result, it is necessary for governments to define the total cost of inventories sold. There are three methods governments allow businesses to use to calculate their inventories: Last In, First Out (LIFO); Average Cost; and First In, First Out (FIFO).

The method by which a country allows businesses to account for inventories can significantly impact a business' taxable income. When prices are rising, as is usually the case, LIFO is the preferred method because it allows inventory costs to be closer to true costs at the time of sale. This results in the lowest taxable income for businesses. In contrast, FIFO is the least preferred method because it results in the highest taxable income. The Average Cost method is somewhere between FIFO and LIFO.[14]

Countries that allow businesses to choose the LIFO method receive the best scores, those that allow the Average Cost method receive an average score, and countries that only allow the FIFO method receive the worst scores. Fifteen countries allow companies to use the LIFO method of accounting, 15 countries use the Average Cost method of accounting, and six countries limit companies to the FIFO method of accounting.[15]

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11 Elke Asen and Daniel Bunn, "Capital Cost Recovery across the OECD, 2019," Tax Foundation, Apr. 2, 2019, https://taxfoundation.org/publications/capital-cost-recovery-across-the-oecd/.

12 Intangible assets are typically amortized, but the write-off is similar to depreciation.

13 EY, "Worldwide Corporate Tax Guide 2018," https://www.ey.com/Publication/vwLUAssets/EY-2018-worldwide-corporate-tax-guide/$FILE/EY-2018-worldwide-corporate-tax-guide.pdf; EY, "Worldwide Capital and Fixed Assets Guide 2018," https://www.ey.com/Publication/vwLUAssets/ey-2018-worldwide-capital-and-fixed-assets-guide/$FILE/ey-2018-worldwide-capital-and-fixed-assets-guide.pdf; Deloitte, "Tax Guides and Highlights," 2018, https://dits.deloitte.com/#TaxGuides; and PKF International, "PKF International Worldwide Tax Guide 2018-2019," https://www.pkf.com/publications/tax-guides/pkf-international-worldwide-tax-guide-2018-19/. Years prior to 2018 are based on Oxford University Centre for Business Taxation, "CBT Tax Database 2017," http://eureka.sbs.ox.ac.uk/id/eprint/4635. Calculations based on Asen and Bunn, "Capital Cost Recovery across the OECD, 2019."

14 Kyle Pomerleau, "The Tax Treatment of Inventories and the Economic and Budgetary Impact of LIFO Repeal," Tax Foundation, Feb. 9, 2016, https://taxfoundation.org/tax-treatment-inventories-and-economic-and-budgetary-impact-lifo-repeal/.

15 EY, "Worldwide Corporate Tax Guide: 2018"; EY, "Worldwide Capital and Fixed Assets Guide 2018"; Deloitte, "Tax Guides and Highlights"; and PKF International, "International Worldwide Tax Guide 2018-2019." Years prior to 2018 are based on Oxford University Centre for Business Taxation, "CBT Tax Database 2017."

Tax Incentives and Complexity

Good tax policy treats economic decisions neutrally, neither encouraging nor discouraging one activity over another. A tax incentive is a tax credit, deduction, or preferential tax rate that applies for one type of economic activity but not others. Providing tax incentives or special provisions distorts economic decisions.

For instance, when an industry receives a tax credit for producing a specific product, it may choose to overinvest in that activity, which might otherwise not be profitable. Additionally, the cost of special provisions is often offset by shifting the burden onto other taxpayers in the form of higher tax rates.

In addition, the possibility of receiving incentives invites efforts to secure these tax preferences,[16] such as lobbying, which creates additional deadweight economic loss as firms focus resources on influencing the tax code in lieu of producing products. For instance, the deadweight losses in the United States attributed to tax compliance and lobbying were estimated to be between $215 billion and $987 billion in 2012. These expenditures for lobbying, along with compliance, have been shown to reduce economic growth by crowding out potential economic activity.[17]

The *ITCI* considers whether countries provide incentives such as patent box provisions and research and development (R&D) credits, which apply lower tax rates on income earned from patented technologies or procedures held within the country. Countries which provide such incentives are scored worse than those that do not.

Patent Boxes

As globalization has increased, countries have searched for ways to prevent corporations from reincorporating or shifting operations or profits elsewhere. One solution has been the creation of patent boxes.

Patent boxes provide corporations a lower rate on income earned from intellectual property. Intellectual property is extremely mobile. Hence, a country can use the lower tax rate of a patent box to entice corporations to hold their intellectual property within its borders. This strategy provides countries with revenue they might not otherwise receive if those companies were to move their patents elsewhere.

Instead of providing patent boxes for intellectual property, countries should recognize that all capital is mobile and lower their corporate tax rates across the board. This would encourage investment of all kinds instead of merely incentivizing corporations to locate their patents in a specific country.

Sixteen OECD countries—Belgium, France, Hungary, Ireland, Israel, Italy, Korea, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Spain, Turkey, and the United Kingdom—have patent box legislation, with rates and exemptions varying among countries.[18] Countries with

16 Christopher J. Coyne and Lotta Moberg, "The Political Economy of State-Provided Targeted Benefits," *The Review of Austrian Economics* 28:3 (June 2014), 337.

17 Jason J. Fichtner and Jacob M. Feldman, "The Hidden Costs of Tax Compliance," George Mason University, Mercatus Center, May 20, 2013, http://mercatus.org/sites/default/files/Fichtner_TaxCompliance_v3.pdf.

18 PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19"; OECD, "Intellectual Property Regimes," https://qdd.oecd.org/data/IP_Regimes; and Gary Guenther, "Patent Boxes: A Primer," Congressional Research Service, May 1 ,2017, https://fas.org/sgp/crs/misc/R44829.pdf.

patent box regimes score worse than those without patent boxes.

Patent boxes in some countries have become less generous in recent years as the OECD requirements for countering harmful tax practices have been adopted. Countries that follow the OECD standards now require companies to have substantial activity within their borders in order to benefit from tax preferences associated with their intellectual property.[19]

Research and Development

In the absence of full expensing, an R&D tax credit provides a partially compensating offset for the costs of business investment. Unfortunately, R&D tax credits are rarely neutral—they usually define very specific activities that qualify—and are often complex in their implementation.

As with other incentives, R&D credits distort investment decisions and lead to the inefficient allocation of resources.[20] Additionally, the desire to secure R&D incentives encourages lobbying activities that consume resources and detract from investment and production. In Italy, for instance, firms can engage in a negotiation process for incentives, such as easy term loans and tax credits.[21]

Countries could better use the revenue spent on special tax incentives to provide a lower business tax rate across the board or to improve the treatment of capital investment.

In the OECD, 27 countries provide super deductions or credits for research and development. The remaining nine countries either do not provide any special treatment for R&D or allow businesses to expense R&D investments.[22] Countries that provide R&D tax credits or super deductions receive a worse score on the *ITCI*.

Complexity

Corporate tax code complexity is quantified by measuring the tax compliance burden placed on firms. These burdens are measured by the number of payments businesses make for the corporate income tax and other taxes as well as the time needed to comply with the corporate income tax (measured in hours of compliance time per year). Tax code compliance consumes resources that could otherwise be used for investment and business operations.

19 OECD, "Action 5: Agreement on Modified Nexus Approach for IP Regimes," 2015, https://www.oecd.org/ctp/beps-action-5-agreement-on-modified-nexus-approach-for-ip-regimes.pdf; and OECD, "Harmful Tax Practices – Peer Review Results," July 2019, http://www.oecd.org/tax/beps/harmful-tax-practices-peer-review-results-on-preferential-regimes.pdf.

20 This does not imply that R&D credits do not meet their policy goal of fostering innovation through R&D activity, technology transfer, and entrepreneurship. See IMF, "Acting Now, Acting Together," April 2016, https://www.imf.org/en/Publications/FM/Issues/2016/12/31/Acting-Now-Acting-Together. However, R&D credits benefit certain firms and industries more than others, creating distortions in the economy. See Gary Guenther, "Research Tax Credit: Current Law and Policy Issues for the 114th Congress," Congressional Research Service, Mar. 13, 2015, https://fas.org/sgp/crs/misc/RL31181.pdf, and Fulvio Castellacci and Christine Mee Lie, "Do the effects of R&D tax credits vary across industries? A meta-regression analysis," *Research Policy* 44:4 (May 2015), 819-832, https://www.sciencedirect.com/science/article/abs/pii/S0048733315000128.

21 Deloitte, "International Tax– Italy Highlights 2019," https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-italyhighlights-2019.pdf?nc=1.

22 Bloomberg Tax, "Country Guides," https://www.bloomberglaw.com/product/tax/toc_view_menu/3380; and PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19."

Countries that require higher numbers of tax payments and longer periods of time for tax compliance receive worse scores on the *ITCI*. The results are based on data from PwC's "Paying Taxes 2019" component of the "Doing Business" report from the World Bank.[23]

The nations with the highest number of required tax payments are Israel and Japan with 16. Italy follows with 13, then Switzerland with 12. Mexico and Norway impose the fewest number of payments, with four. The average across the OECD is eight payments; the U.S. requires seven payments.[24]

Complying with corporate income taxes takes the most time in Israel, at 110 hours, followed by 102 hours in Mexico and 87 hours in the United States. Tax compliance takes the least amount of time in Estonia, at five hours, followed by 12 hours in Ireland and 15 hours in Switzerland. The average across the OECD is 42 hours.[25]

Individual Taxes

Individual taxes are one of the most prevalent means of raising revenue to fund government. Individual income taxes are levied on an individual's or household's income (wages and, often, capital gains and dividends) to fund general government operations. These taxes are typically progressive, meaning that the rate at which an individual's income is taxed increases as the individual earns more income.

In addition, countries have payroll taxes. These typically flat-rate taxes are levied on wage income in addition to a country's general individual income tax. However, revenue from these taxes is typically allocated specifically toward social insurance programs such as unemployment insurance, government pension programs, and health insurance.

Individual taxes have the benefit of being some of the more transparent taxes. Taxpayers are made aware of their total amount of taxes paid at some point in the process, unlike consumption taxes, which are collected and remitted by a business.

However, most individual taxes have the effect of discouraging work, due to a highly progressive structure, and discouraging saving and investment by applying to capital gains and dividend income, which causes double taxation of personal savings and of corporate income.[26]

A country's score for its individual income tax is determined by three subcategories: the rate and progressivity of wage taxation, income tax complexity, and the extent to which the income tax double taxes corporate income. Table 4 shows the ranks and scores for the entire Individual Taxes category as well as the rank and score for each subcategory.

23 PwC and the World Bank Group, "Paying Taxes 2019," https://www.pwc.com/gx/en/services/tax/publications/paying-taxes-2019.html#tools.

24 Ibid.

25 Ibid.

26 Erica York, "An Overview of Capital Gains Taxes," Tax Foundation, Apr. 16, 2019, https://taxfoundation.org/capital-gains-taxes/.

TABLE 4.
Individual Taxes

Country	Overall Rank	Overall Score	Income Tax Rank	Income Tax Score	Complexity Rank	Complexity Score	Capital Gains/ Dividends Rank	Capital Gains/ Dividends Score
Australia	15	70.9	18	57.7	7	87.4	21	58.9
Austria	29	55.5	34	36	17	78.5	26	52.7
Belgium	11	77.3	25	53.6	10	86.2	12	76.3
Canada	25	62.4	16	61.3	11	84	34	41.2
Chile	23	63.7	11	68.8	30	56.5	20	60.1
Czech Republic	5	88.5	3	93.6	22	72.3	10	77.4
Denmark	34	49.6	23	54.3	14	80.1	35	24
Estonia	1	100	6	84.4	2	97.5	4	88.1
Finland	27	58.2	28	50.9	15	79.3	31	45.1
France	35	49.2	33	39.3	23	70.3	33	43.6
Germany	26	60.4	9	70.8	31	52.7	23	54.9
Greece	18	70.5	31	45.4	6	87.7	15	67.9
Hungary	8	79.4	2	99.1	32	44.1	10	77.4
Iceland	28	56.7	12	67.4	35	36.4	18	63.6
Ireland	33	50	30	46.4	5	90.1	36	23.3
Israel	36	34	36	28	33	40.2	30	46.6
Italy	31	50.7	17	59.7	34	38.8	22	55.7
Japan	32	50.3	20	55.5	36	28.4	16	66.8
Korea	20	65.2	27	52.1	23	70.3	17	65.7
Latvia	6	88.3	7	78.4	20	74.2	4	88.1
Lithuania	3	96.8	1	100	3	92.4	13	72.7
Luxembourg	16	70.9	24	54.1	29	58.5	6	85.5
Mexico	12	73.9	32	40.3	9	86.8	9	80
Netherlands	21	64.2	21	55.2	13	80.5	25	52.9
New Zealand	4	90.8	14	66	16	78.7	1	100
Norway	13	72.5	13	66.6	1	100	32	44.4
Poland	9	77.8	4	87.9	28	61.2	14	69.5
Portugal	30	50.9	35	33.9	25	70.2	27	51.7
Slovak Republic	2	99.7	5	85.4	12	81.3	2	99.9
Slovenia	17	70.6	29	46.7	25	70.2	8	81.4
Spain	14	71.6	8	70.9	21	72.6	19	61.6
Sweden	19	66	22	54.7	4	91.7	29	47.7
Switzerland	10	77.4	15	61.7	27	67.2	7	85.4
Turkey	7	86.7	10	69.9	18	77.7	3	89.1
United Kingdom	22	64.1	26	53.4	8	86.9	28	48.9
United States	24	62.9	19	56.3	19	74.2	24	54.4

Taxes on Ordinary Income

Individual income taxes are levied on the income of individuals. Many countries, such as the United States, rely on individual income taxes as a significant source of revenue.[27] They are used to raise revenue for both general government operations and for specific programs, such as social insurance and government-provided health insurance.

A country's taxes on ordinary income are measured according to three variables: the top rate at which ordinary income is taxed, the progressivity of the income tax system, and the economic efficiency of labor taxation.

Top Marginal Income Tax Rate

Most income tax systems have a progressive tax structure. This means that, as individuals earn more income, they move into tax brackets with higher tax rates. The top marginal tax rate is the top tax rate on all income over a certain level. For example, the United States has seven tax brackets, with the seventh (top) bracket taxing each additional dollar of income over $510,300 ($612,350 for married filing jointly) at a rate of 37 percent.[28] In addition, individuals in the top tax bracket also pay payroll taxes and state and local income taxes, which sum to a combined average top marginal rate of 46 percent.[29]

Individuals consider the marginal tax rate when deciding whether to work an additional hour. High top marginal tax rates make additional work more expensive, which lowers the relative cost of not working. This makes it more likely that an individual will choose leisure over work. When high tax rates increase the cost of labor, this has the effect of decreasing hours worked, which decreases the amount of production in the economy.

Countries with high marginal income tax rates receive a worse score on the *ITCI* than countries with low marginal tax rates. Slovenia has the highest top combined marginal income tax rates at 61.1 percent. Lithuania has the lowest, at 24.0 percent.[30]

Income Level at Which Top Rate Applies

The level at which the top marginal rate begins to apply is also important. If a country has a top rate of 20 percent, but almost everyone pays that rate because it applies to any income over $10,000, that country essentially has a flat income tax. In contrast, a tax system that has a top rate that applies to all income over $1 million requires a much higher marginal tax rate to raise the same amount of revenue, because it targets a small number of people that earn a high level of income.

Countries with top rates that apply at lower levels score better on the *ITCI*. The *ITCI* bases its measure on the income level at which the top rate begins as compared to the country's average income. According to this measure, Mexico applies its tax at the highest level of income (the top marginal income tax rate applies at 28.7 times the average Mexican income), whereas Hungary

27 Asen and Bunn, "Sources of Government Revenue in the OECD, 2019."

28 Amir El-Sibaie, "2019 Tax Brackets," Tax Foundation, Nov. 28, 2018, https://taxfoundation.org/2019-tax-brackets/.

29 OECD, "OECD Tax Database, Table I.7 - Top statutory personal income tax rate and top marginal tax rates for employees, 2000-2018," updated April 2019, https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I7.

30 Ibid. This measures the total tax burden on the next dollar of income earned by an individual who is earning enough to be taxed at the top marginal rate. These rates include the impact of subcentral income taxes, social insurance taxes, and any phaseout of benefits.

applies its top rate on the first dollar, with a flat tax of 33.5 percent.[31]

The Economic Cost of Labor Taxation

The total marginal tax burden faced by a worker in a country and the total tax cost of labor for the average worker in a country are called the marginal and average tax wedge, respectively. The tax wedge includes income taxes and payroll taxes (both the employee-side and employer-side).

One way to examine the efficiency of labor taxation in a country is to control for the level of labor taxation by taking the ratio of the marginal tax wedge to the average tax wedge.[32] This ratio is a rough proxy for the economic cost of a government funding $1 more of revenue through taxes on labor, at any given level of labor taxation.[33]

The *ITCI* gives countries with high costs associated with labor tax revenues a worse score due to the higher impact that those systems have on workers' decisions.

Hungary has the lowest ratio of $1 in cost for each additional dollar raised from labor taxes. This is because Hungary has a flat income tax, so the marginal and average tax wedge are the same. In contrast, in Israel, the cost of raising an additional dollar in revenue from taxes on its workforce is $1.70. The average across OECD countries is $1.23.[34]

Complexity

On top of the direct costs of paying income taxes, there are indirect costs associated with complying with the tax code. These compliance costs are directly related to the complexity of the tax code. The more complex an individual income tax code, the more time and money it requires for individuals and businesses to comply with it.

Complexity is measured as the number of hours it takes a business to comply with wage tax laws in each country. This measure is from the PwC and World Bank "Doing Business" report. Italy receives the worst score with a compliance time of 169 hours. Luxembourg receives the best score with a compliance time of 14 hours.[35]

Capital Gains and Dividends Taxes

In addition to wage income, many countries' individual income tax systems tax investment income. They do this by levying taxes on income from capital gains and dividends.

31 Ibid.

32 The ratio of marginal to average tax wedges is calculated using the OECD data of marginal and average total tax wedges at four levels of income for single individuals without dependents. It is the average of marginal total tax wedges at 67 percent, 100 percent, 133 percent, and 167 percent of average earnings divided by the average of average total tax wedges at 67 percent, 100 percent, 133 percent, and 167 percent of average earnings.

33 Elke Asen, "A Comparison of the Tax Burden on Labor in the OECD, 2019," Tax Foundation, May 22, 2019, https://taxfoundation.org/publications/tax-burden-on-labor-in-the-oecd/.

34 OECD, "OECD Tax Database, Table I.4. Marginal personal income tax and social security contribution rates on gross labour income," updated April 2019, https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I4; and "OECD Tax Database, Table I.5. Average personal income tax and social security contribution rates on gross labour income," updated April 2019, https://stats.oecd.org/index.aspx?DataSetCode=TABLE_I5.

35 PwC and the World Bank Group, "Paying Taxes 2019."

A capital gain occurs when an individual purchases an asset (usually corporate stock) in one period and sells it in another for a profit. A dividend is a payment made to an individual from after-tax corporate profits.

Capital gains and personal dividend taxes are a form of double taxation of corporate profits that contribute to the tax burden on capital. When a corporation makes a profit, it must pay the corporate income tax. It can then generally do one of two things. The corporation can retain the after-tax profits, which boost the value of the business and thus its stock price. Stockholders then sell the stock and realize a capital gain, which requires them to pay tax on that income. Alternatively, the corporation can distribute the after-tax profits to shareholders in the form of dividends. Stockholders who receive dividends then pay tax on that income.

Dividends taxes and capital gains taxes create a bias against saving and investment, reduce capital formation, and slow economic growth.[36]

In the *ITCI*, a country receives a better score for lower capital gains and dividends taxes.

Capital Gains Tax Rate

Countries generally tax capital gains at a lower rate than ordinary income, provided that specific requirements are met. For example, the United States taxes capital gains at a reduced rate if the taxpayer holds the asset for at least one year before selling it (these are called long-term capital gains).[37] The *ITCI* gives countries with higher capital gains rates a worse score than those with lower rates.

Some countries use additional provisions to help mitigate the double taxation of income due to the capital gains tax. For instance, the United Kingdom provides an annual exemption of £11,700 ($15,600 USD[38]), and Canada excludes half of all capital gains income from taxation.[39]

Denmark has the highest capital gains tax rate in the OECD at 42 percent. Belgium, Korea, Luxembourg, New Zealand, Slovenia, Slovakia, Switzerland, and Turkey do not tax capital gains.[40]

Dividend Tax Rates

Dividend taxes can adversely impact capital formation in a country. High dividend tax rates increase the cost of capital, which deters investment and slows economic growth.

Countries' rates are expressed as the total top marginal personal dividend tax rate after any imputation or credit system.

Countries with lower overall dividend tax rates score better on the *ITCI* due to the dividend tax rate's effect on the cost of investment (i.e., the cost of capital) and the more neutral treatment between

36 Kyle Pomerleau, "The Tax Burden on Personal Dividend Income across the OECD 2015," Tax Foundation, June 25, 2015, https://taxfoundation.org/tax-burden-personal-dividend-income-across-oecd-2015/.

37 York, "An Overview of Capital Gains Taxes."

38 The average 2018 GBP-USD exchange rate was used. See IRS, "Yearly Average Currency Exchange Rates," https://www.irs.gov/individuals/international-taxpayers/yearly-average-currency-exchange-rates.

39 Deloitte, "Tax Guides and Highlights."

40 EY, "Worldwide Personal Tax and Immigration Guide 2018-19," https://www.ey.com/Publication/vwLUAssets/ey-2018-19-worldwide-personal-tax-and-immigration-guide/$FILE/ey-2018-19-worldwide-personal-tax-and-immigration-guide.pdf. Includes surtaxes if applicable.

saving and consumption. Ireland has the highest dividend tax rate in the OECD at 51 percent. Estonia and Latvia have dividend tax rates of 0 percent, and the OECD average is 24 percent.[41]

Consumption Taxes

Consumption taxes are levied on individuals' purchases of goods and services. Consumption taxes can take various forms. In the OECD and most of the world, the value-added tax (VAT) is the most common consumption tax. To properly define the consumption tax base, most consumption taxes either do not tax intermediate business inputs or allow a credit for taxes already paid on them. The exclusion of business inputs makes a consumption tax one of the most economically efficient means of raising tax revenue.

However, many countries fail to define their tax base correctly. Countries often exempt too many goods and services from taxation, which requires them to levy higher rates to raise sufficient revenue. Some countries also fail to properly exempt business inputs. For example, states in the United States often levy sales taxes on machinery and equipment.[42]

A country's consumption tax score is broken down into three subcategories: the marginal rate, the base, and complexity. Table 5 displays the ranks and scores for the Consumption Taxes category.

Consumption Tax Rate

If levied at the same rate and properly structured, a VAT and a retail sales tax will each raise approximately the same amount of revenue. Ideally, either a VAT or a sales tax should be levied on all final consumption (although they are implemented in slightly different ways). With a sufficiently broad consumption tax base, the rate at which the tax is levied does not need to be high. A VAT or retail sales tax with a low rate and neutral structure limits economic distortions while raising sufficient revenue.

However, many countries have consumption taxes that exempt goods and services that should be taxed. This requires a country (or states, in the case of the United States) to have a higher rate than would otherwise be necessary to raise sufficient revenue. If not neutrally structured, high tax rates create economic distortions by discouraging the purchase of highly taxed goods and services in favor of untaxed or self-provided goods and services.

Countries with lower consumption tax rates score better than those with high tax rates. This is because lower rates do less to discourage economic activity and allow for more future consumption and investment.

41 OECD, "OECD Tax Database, Table II.4 - Overall statutory tax rates on dividend income," updated April 2019, https://stats.oecd.org/Index.aspx?DataSetCode=TABLE_II4.

42 Jared Walczak, Scott Drenkard, and Joseph Bishop-Henchman, *2019 State Business Tax Climate Index*, Tax Foundation, Sept. 26, 2018, https://taxfoundation.org/publications/state-business-tax-climate-index/.

TABLE 5.

Consumption Taxes

Country	Overall Rank	Overall Score	Rate Rank	Rate Score	Base Rank	Base Score	Complexity Rank	Complexity Score
Australia	8	83.6	4	89.6	27	53	22	78.8
Austria	11	75.9	14	49.4	14	66.9	14	86.4
Belgium	26	61.5	19	45.4	24	57.6	28	66.3
Canada	7	84	6	85.1	20	59.7	22	78.8
Chile	28	61.3	12	53.4	3	83.1	35	41.8
Czech Republic	34	54.1	19	45.4	25	54.9	34	52.7
Denmark	17	70	33	29.3	6	76.9	16	83.9
Estonia	9	81.5	14	49.4	12	68.3	2	97
Finland	15	73.4	30	33.3	10	70.5	5	91.9
France	21	66.4	14	49.4	33	35	11	88.4
Germany	10	75.9	12	53.4	13	68.1	19	82.4
Greece	31	58.5	30	33.3	21	58.5	25	69.3
Hungary	35	47	36	21.3	23	57.7	32	55.7
Iceland	19	69.3	30	33.3	11	69.8	16	83.9
Ireland	23	63.5	27	37.3	30	40	8	88.9
Israel	13	74.8	9	61.4	8	74.1	25	69.3
Italy	27	61.5	25	41.4	34	29.1	8	88.9
Japan	3	95.3	3	97.6	22	57.8	3	93.5
Korea	2	97.7	4	89.6	5	77.7	6	91.4
Latvia	29	60.9	19	45.4	29	49.1	24	70.8
Lithuania	24	62.2	19	45.4	31	39	20	80.4
Luxembourg	4	94.5	9	61.4	2	99.3	4	92.9
Mexico	25	62.2	8	65.5	26	54	33	53.7
Netherlands	12	75.8	19	45.4	9	70.7	13	86.9
New Zealand	6	91.8	7	69.5	1	100	20	80.4
Norway	18	69.3	33	29.3	7	74.6	16	83.9
Poland	36	25.2	27	37.3	35	28.4	36	17.4
Portugal	32	56.7	27	37.3	15	63.7	31	58.7
Slovak Republic	33	54.2	14	49.4	32	36.9	30	61.7
Slovenia	30	59.3	25	41.4	28	51	25	69.3
Spain	14	74.2	19	45.4	16	63.3	10	88.7
Sweden	16	71.4	33	29.3	4	78.2	15	85.9
Switzerland	1	100	2	98.8	17	60.9	1	100
Turkey	20	67.2	11	57.4	18	60.3	28	66.3
United Kingdom	22	64.7	14	49.4	36	25.5	6	91.4
United States	5	94.2	1	100	19	60.3	12	87.4

The average consumption tax rate in the OECD is 19.1 percent. Hungary has the highest tax rate at 27 percent, while the United States has the lowest tax rate at 7.4 percent.[43]

43 OECD, "Tax Database, Taxes on Consumption: Value Added Tax/Goods and Services Tax (VAT/GST) (1976-2019)," http://www.oecd.org/tax/tax-policy/tax-database/ . The U.S. sales tax rate is the average of all U.S. state sales tax rates (weighted by population). See Janelle Cammenga, "State and Local Sales Tax Rates, 2019," Tax Foundation, Jan. 30, 2019, https://taxfoundation.org/sales-tax-rates-2019/.

Consumption Tax Base

Ideally, either a VAT or a sales tax should be levied on all final consumption. In other words, government collections should be equal to the amount of consumption in the economy times the rate of the sales tax or VAT. However, many countries' consumption tax bases are far from this ideal. They either exempt too many goods and services, requiring a higher rate than would otherwise be necessary, or apply the tax to business inputs, increasing the cost of capital.

The VAT/Sales Tax Threshold

Most OECD countries set thresholds for their VATs/sales taxes. This means that a business' sales of taxable items must reach a certain value before it is required to register and pay a VAT or sales tax on its products. Although it may be the case that exempting very small businesses saves time and money in compliance, unnecessarily large thresholds create a distortion by favoring smaller businesses over larger ones.

Countries receive better scores for lower thresholds. The United Kingdom receives the worst threshold score with a VAT threshold of $119,167. Five countries receive the best scores for having no general VAT/sales tax threshold (Chile, Mexico, Spain, Turkey, and the United States). The average across the OECD countries that have a VAT threshold is approximately $53,018.[44]

Consumption Tax Base as a Percent of Total Consumption

A country's VAT or sales tax base score is measured as a ratio of the revenue collected by the VAT or sales tax compared to the potential tax revenue under a VAT or sales tax levied on all final goods and services.

For example, if final consumption in a country is $100 and a country levies a 10 percent VAT on all goods and services, a pure base would raise $10. Revenue collection below $10 reflects either a high number of exemptions built into the tax code or low levels of compliance (or both).[45] The base is measured as a ratio of the pure base collections to the actual collections. Countries with tax base ratios near 1, signifying a pure tax base, score better.

Under this measure, no country has a perfect VAT or sales tax base. New Zealand and Luxembourg score best under this metric with ratios of 0.95 and 0.92, respectively. Mexico has the worst with a ratio of 0.33. The OECD average tax base ratio is 0.55.[46]

Complexity

Although consumption taxes are generally more neutral than other taxes, they can be complex in their implementation. Complex VATs and sales taxes create significant compliance costs for businesses that need to remit payment to the government. This adds to the total cost of paying taxes

44 OECD, "Value Added Tax/Goods and Services Tax (VAT/GST) (1976-2019)."

45 It is also possible that the number is biased by VAT/sales tax evasion. If this is caused by a very high rate, it is still appropriate that a lower base score should penalize a country.

46 OECD, "Consumption Tax Trends 2018," Dec. 5, 2018, https://read.oecd-ilibrary.org/taxation/consumption-tax-trends-2018_ctt-2018-en#page92. This paper does not provide the measure for the United States. The U.S. sales tax revenue ratio was calculated as the ratio of the implicit sales tax base to state personal income.

by reallocating resources from productive activities to complying with tax laws. The complexity of a country's consumption tax is measured by the number of hours a business uses to comply with the tax every year, as measured by PwC's "Paying Taxes 2019" component of the "Doing Business" report from the World Bank.[47]

Countries receive better scores if compliance with their consumption taxes takes fewer hours. Poland receives the worst score with a 172-hour compliance time in a year. Switzerland receives the best score by requiring only eight hours a year to comply with its consumption tax. The average number of compliance hours across the OECD is 54.1 hours.[48]

Property Taxes

Property taxes are government levies on the assets of an individual or business. The methods and intervals of collection vary widely among the types of property taxes. Estate and inheritance taxes, for example, are due upon the death of an individual and the passing of his or her estate to an heir, respectively. Taxes on real property, on the other hand, are paid at set intervals—often annually—on the value of taxable property such as land and houses.

Many property taxes are highly distortive and add significant complexity to the life of a taxpayer or business. Estate and inheritance taxes create disincentives against additional work and saving, which damages productivity and output. Financial transaction taxes increase the cost of capital, which limits the flow of investment capital to its most efficient allocations. Taxes on wealth limit the capital available in the economy, which damages long-term economic growth and innovation.

Sound tax policy minimizes economic distortions. With the exception of taxes on land, most property taxes increase economic distortions and have long-term negative effects on an economy and its productivity.

Table 6 shows the ranks and scores for the Property Taxes category and each of its subcategories, which are real property taxes, wealth and estate taxes, and capital and transaction taxes.

Real Property Taxes

Real property taxes are levied on a recurrent basis on taxable property, such as real estate or business capital. For example, in most states or municipalities in the United States, businesses and individuals pay a property tax based on the value of their real property.

Structure of Property Taxes

Although taxes on real property are generally an efficient way to raise revenue, some property taxes can become direct taxes on capital. This occurs when a tax applies to more than just the value of the land itself, such as the buildings or structures on the land. This increases the cost of capital, discourages the formation of capital (such as the building of structures), and can negatively impact business location decisions.

47 PwC and the World Bank Group, "Paying Taxes 2019."
48 Ibid.

TABLE 6.

Property Taxes

Country	Overall Rank	Overall Score	Real Property Taxes Rank	Real Property Taxes Score	Wealth/ Estate Taxes Rank	Wealth/ Estate Taxes Score	Capital/ Transaction Taxes Rank	Capital/ Transaction Taxes Score
Australia	3	87.2	2	83.1	1	100	8	80.6
Austria	10	73.2	19	59.8	1	100	17	65.2
Belgium	27	51.1	14	67.1	32	29.2	21	64.3
Canada	20	60.7	28	42.3	1	100	30	47.4
Chile	17	65	25	51.1	10	67.8	5	84.6
Czech Republic	13	67.1	18	59.8	10	67.8	8	80.6
Denmark	8	74.8	15	63.3	10	67.8	1	100
Estonia	1	100	1	100	1	100	1	100
Finland	14	66.7	8	72.7	10	67.8	21	64.3
France	36	30.5	36	26.6	32	29.2	25	48.9
Germany	16	65.8	21	56.5	10	67.8	8	80.6
Greece	28	50.9	33	32.6	10	67.8	23	62.9
Hungary	25	54.4	23	53.9	10	67.8	25	48.9
Iceland	23	58.7	32	34.6	10	67.8	5	84.6
Ireland	11	71.9	9	72.4	10	67.8	8	80.6
Israel	15	66.6	34	29.2	1	100	8	80.6
Italy	35	37.3	27	46.1	32	29.2	32	46.6
Japan	30	48.2	31	38.7	10	67.8	30	47.4
Korea	26	53.4	24	53	10	67.8	32	46.6
Latvia	6	82.4	11	70.6	1	100	8	80.6
Lithuania	7	79.7	6	76.1	10	67.8	1	100
Luxembourg	19	62.5	16	61.1	10	67.8	17	65.2
Mexico	9	74.8	3	79.9	10	67.8	8	80.6
Netherlands	12	70.6	13	68.9	10	67.8	8	80.6
New Zealand	2	88.8	10	70.8	1	100	1	100
Norway	24	58.5	20	56.6	31	61.4	17	65.2
Poland	33	43	30	39.2	10	67.8	35	31.1
Portugal	21	60.7	12	70.2	10	67.8	25	48.9
Slovak Republic	4	86.2	5	77.1	1	100	5	84.6
Slovenia	22	60.3	22	55.2	10	67.8	17	65.2
Spain	32	43.2	26	47.7	32	29.2	23	62.9
Sweden	5	83.3	7	72.8	1	100	8	80.6
Switzerland	34	37.6	17	60.2	32	29.2	35	31.1
Turkey	18	63.2	4	78.6	10	67.8	32	46.6
United Kingdom	31	44.6	35	28.2	10	67.8	25	48.9
United States	29	49.2	29	40.2	10	67.8	25	48.9

Countries that tax the value of capital as well as land receive the worst scores on the *ITCI*. Some countries mitigate this treatment with a deduction for property taxes paid against corporate taxable income. These countries receive slightly better scores. Countries receive the best possible score if they have either no property tax or only have a tax on land.

Every OECD country except Australia, Estonia, and New Zealand applies its property tax to capital. These three countries only tax the value of land, which excludes the value of any buildings or structures on the land.[49] Of the 33 OECD countries with taxes on real property, 15 allow for a deduction against corporate taxable income.[50]

Real Property Tax Collections

Property tax collections measure property tax revenues as a percent of a country's private capital stock. Higher tax burdens, specifically when on capital, tend to slow investment, which damages productivity and economic growth.

Countries with a high level of collections as a percent of their capital stock place a larger tax burden on taxpayers and receive a worse score on the *ITCI*. Property tax collections in the United Kingdom and the United States are greater than 2 percent of the private capital stock. Austria, Czech Republic, Luxembourg, Mexico, and Switzerland have a real property tax burden of approximately 0.1 percent of the private capital stock.[51]

Wealth and Estate Taxes

Many countries also levy property taxes on an individual's wealth. These taxes can take the form of estate or inheritance taxes that are levied either upon an individual's estate at death or upon the assets transferred from the decedent's estate to the heirs. These taxes can also take the form of a recurring tax on an individual's net wealth. Estate taxes limit resources available for investment or production and reduce the incentive to save and invest.[52] This reduction in investment adversely affects economic growth. Moreover, these taxes, the estate and inheritance tax especially, can be avoided with certain planning techniques, which makes the tax an inefficient and unnecessarily complex source of revenue.

Net Wealth Taxes

In addition to estate and inheritance taxes, some countries levy net wealth taxes. Net wealth taxes are often low-rate, progressive taxes on an individual's or family's net assets or the net assets of a corporation. Unlike estate taxes, net wealth taxes are levied on an annual basis.

49 In New Zealand, local authorities have the option to set their tax base. Most choose to tax land value. See William McCluskey, Arthur Grimes, and Jason Timmins, "Property Taxation in New Zealand," Lincoln Institute of Land Policy Working Paper, 2002, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.195.4348&rep=rep1&type=pdf. See also PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19."

50 Deloitte, "Tax Guides and Highlights"; and Bloomberg Tax, "Country Guides."

51 OECD, "OECD Revenue Statistics - OECD Countries: Comparative tables," updated December 2018, https://stats.oecd.org/index.aspx?DataSetCode=rev; IMF, "Investment and Capital Stock Dataset," https://www.imf.org/external/np/fad/publicinvestment/#5; and IMF, "International Financial Statistics (IFS), Gross Domestic Product and Components selected indicators," https://data.imf.org/regular.aspx?key=61545852. The IMF dataset "Investment and Capital Stock" ends in 2015. Thus, the variable "Capital Formation" in IMF's IFS database was used to construct the years 2016 and 2017 (2017 is the year with the most recent property tax revenue data from the OECD).

52 Jared Walczak, "State Inheritance and Estate Taxes: Rates, Economic Implications, and the Return of Interstate Competition," Tax Foundation, July 17, 2017, https://taxfoundation.org/state-inheritance-estate-taxes-economic-implications/#_ftn84.

Six countries levy net wealth taxes on individuals. Italy levies three wealth taxes based on the type and location of the asset. Spain taxes residents at progressive rates from 0.2 percent to 2.5 percent on worldwide net wealth. The other countries with net wealth taxes are Belgium, France, Norway, and Switzerland (at the canton level).[53]

Estate, Inheritance, and Gift Taxes

Estate taxes are levied on the value of an individual's taxable estate at the time of death and are paid by the estate itself, while inheritance taxes are levied on the value of assets transferred to an individual's heirs upon death and are paid by the heirs (not the estate of the deceased individual). Gift taxes are taxes on the transfer of property (cash, stocks, and other property) that are typically used to prevent individuals from circumventing estate and inheritance taxes by gifting away their assets before death. Rates, exemption levels, and rules vary substantially among countries. For example, the United States levies a top rate of 40 percent on estates but has an exemption level of $11.4 million. Belgium's Brussels capital region, on the other hand, has an inheritance tax with an exemption of €15,000 ($17,689 USD[54]) and a variety of top rates depending on who receives assets from the estate and what the assets are.[55]

Estate, inheritance, and gift taxes create significant compliance costs for taxpayers while raising insignificant amounts of revenue. According to OECD data, estate, inheritance, and gift taxes across the OECD raised an average of 0.1 percent of GDP in tax revenue, with the highest amount raised being only 0.7 percent of GDP in Belgium, despite Belgium's top estate tax rate of up to 80 percent in some cases.[56]

Countries without these taxes score better than countries that have them. Ten countries in the OECD have no estate or inheritance taxes: Australia, Austria, Canada, Estonia, Israel, Latvia, New Zealand, Norway, Slovak Republic, and Sweden. All others levy an estate or inheritance tax.[57]

Capital, Wealth, and Property Taxes on Businesses

Countries have a number of taxes they levy on the assets and fixed capital of businesses. These include taxes on the transfer of real property, taxes on the net assets of businesses, taxes on raising capital, and taxes on financial transactions. These taxes contribute directly to the cost of capital for businesses and reduce the after-tax rate of return on investment.

Property Transfer Taxes

Property transfer taxes are taxes on the transfer of real property (real estate, land improvements, machinery) from one person or firm to another. A common example in the United States is the real estate transfer tax, which is commonly levied at the state level on the value of homes that are

53 Deloitte, "Tax Guides and Highlights," https://dits.deloitte.com/#TaxGuides; EY, "Worldwide Estate and Inheritance Tax Guide 2018," https://www.ey.com/Publication/vwLUAssets/ey-worldwide-estate-and-inheritance-tax-guide-2018/$FILE/ey-worldwide-estate-and-inheritance-tax-guide-2018.pdf; and KPMG, "Belgium – New Tax on Resident and Nonresident Individuals' Securities Accounts," Feb 8, 2016, https://home.kpmg/xx/en/home/insights/2018/02/flash-alert-2018-024.html.

54 The average 2018 EUR-USD exchange rate was used. See IRS, "Yearly Average Currency Exchange Rates."

55 EY, "Worldwide Estate and Inheritance Tax Guide 2018."

56 OECD, "OECD Revenue Statistics - OECD Countries: Comparative tables."

57 EY, "Worldwide Estate and Inheritance Tax Guide 2018."

purchased by individuals.[58] Property transfer taxes represent a direct tax on capital and increase the cost of purchasing property.

Countries receive a worse score if they have property transfer taxes. Seven OECD countries do not have property transfer taxes, including Chile, Estonia, and New Zealand.[59]

Corporate Asset Taxes

Similar to a net wealth tax, asset taxes are levied on the wealth, or assets, of a business. For instance, Luxembourg levies a 0.5 percent tax on the worldwide net wealth of nontransparent Luxembourg-based companies every year.[60] Similarly, cantons in Switzerland levy taxes on the net assets of corporations, varying from 0.001 percent to 0.525 percent of corporate net assets.[61] Other countries levy these taxes exclusively on bank assets.

Sixteen countries have some type of corporate wealth or asset tax. Luxembourg and Switzerland have net wealth taxes on corporations. Eleven countries have bank taxes of some type.[62]

Capital Duties

Capital duties are taxes on the issuance of shares of stock. Typically, countries either levy these taxes at very low rates or require a small, flat fee. For example, Switzerland requires resident companies to pay a 1 percent tax on the issuance of shares of stock.[63] These types of taxes increase the cost of capital, limit funds available for investment, and make it more difficult to form businesses.[64]

Countries with capital duties score worse than countries without them. Nine countries in the OECD levy some type of capital duty.[65]

Financial Transaction Taxes

A financial transaction tax is a levy on the sale or transfer of a financial asset. Financial transaction taxes take different forms in different countries. Finland levies a tax of 1.6 percent on the transfer of Finnish securities. On the other hand, Portugal levies a stamp duty on the deeds and documents associated with financial transactions.[66]

Financial transaction taxes impose an additional layer of taxation on the purchase or sale of stocks. Markets run on efficiency, and capital needs to flow quickly to its most economically productive use. A financial transaction tax impedes this process.

58 Walczak, Drenkard, and Bishop-Henchman, *2019 State Business Tax Climate Index*.
59 Deloitte, "Tax Guides and Highlights"; and Bloomberg Tax, "Country Guides."
60 It levies this tax on non-Luxembourg companies as well, but only on wealth held within Luxembourg. See Government of the Grand Duchy of Luxembourg, "Net wealth tax," May 5, 2017, http://www.guichet.public.lu/entreprises/en/fiscalite/impots-benefices/impots-divers/impot-fortune/index.html.
61 PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19."
62 Bloomberg Tax, "Country Guides - Other Taxes" and "Country Guides - Special Industries," https://www.bloomberglaw.com/product/tax/toc_view_menu/3380.
63 Deloitte, "Tax Guides and Highlights – Switzerland Highlights 2019," updated January 2019, https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-switzerlandhighlights-2019.pdf.
64 EUR-Lex, "Council Directive 2008/7/EC, concerning indirect taxes on the raising of capital," February 2008, http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32008L0007.
65 Deloitte, "Tax Guides and Highlights"; and Bloomberg Tax, "Country Guides."
66 Ibid.

The *ITCI* ranks countries with financial transaction taxes worse than the countries without them. Twelve countries in the OECD have financial transaction taxes, including France, Hungary, Portugal, and the United Kingdom, while 24 countries do not impose financial transaction taxes.[67]

International Tax System

In an increasingly globalized economy, businesses often expand beyond the borders of their home countries to reach customers around the world. As a result, countries need to define rules determining how, or if, income earned in foreign countries is taxed. International tax rules deal with the systems and regulations that countries apply to those business activities.

Following adoption of the Tax Cuts and Jobs Act in late 2017, the United States adopted a hybrid international tax system. Foreign-sourced dividends are now exempt, but base erosion rules are now stronger and more complex.[68]

The new U.S. system has three pieces: Global Intangible Low Tax Income (GILTI), Foreign Derived Intangible Income (FDII), and the Base Erosion and Anti-Abuse Tax (BEAT). GILTI liability is effectively a 10.5 percent tax on supra-normal returns derived from certain foreign investments earned by U.S. companies. FDII is designed to be a reduced rate on exports of U.S. companies connected to intellectual property located in the U.S. Effectively, FDII earnings are taxed at 13.125 percent. Paired together, GILTI and FDII create a worldwide tax on intangible income.

The BEAT is designed as a 10 percent minimum tax (initially 5 percent in 2018) on U.S.-based multinationals with gross receipts of $500 million or more. The tax applies to payments by those large multinationals if payments to controlled foreign corporations (CFCs) exceed 3 percent (2 percent for certain financial firms) of total deductions taken by a corporation.

There has been a growing trend of moving from worldwide taxation toward a system of territorial taxation, in which a country's corporate tax is limited to profits earned within its borders. In a territorial tax system, corporations only pay taxes to the country in which they earn income. Since the 1990s, the number of OECD countries with worldwide tax systems has fallen from 20 to four.[69]

Table 7 displays the overall rank and score for the International Rules category as well as the ranks and scores for the subcategories—which include a category for dividends and capital gains exemptions, withholding taxes, and regulations.

67 Ibid.

68 Kyle Pomerleau, "A Hybrid Approach: The Treatment of Foreign Profits under the Tax Cuts and Jobs Act," Tax Foundation, May 3, 2018, https://taxfoundation.org/treatment-foreign-profits-tax-cuts-jobs-act/.

69 Kyle Pomerleau, "Worldwide Taxation is Very Rare," Tax Foundation, Feb. 5, 2015, https://taxfoundation.org/worldwide-taxation-very-rare/.

TABLE 7.

International Tax System

Country	Overall Rank	Overall Score	Div/Cap Gains Exemption Rank	Div/Cap Gains Exemption Score	Withholding Taxes Rank	Withholding Taxes Score	Regulations Rank	Regulations Score
Australia	12	83.3	1	100	34	45.8	4	75.8
Austria	4	95.7	1	100	13	72.5	4	75.8
Belgium	25	66.2	1	100	31	50.1	24	29.2
Canada	18	76.6	28	68.9	25	58.8	4	75.8
Chile	36	35.9	33	29.3	36	25.7	10	53.4
Czech Republic	6	89	14	80.5	10	75.3	4	75.8
Denmark	29	60.7	14	80.5	27	55.4	24	29.2
Estonia	11	84.5	14	80.5	6	87	12	51.6
Finland	23	69.1	14	80.5	12	73.4	24	29.2
France	24	67	26	76.3	14	72.5	24	29.2
Germany	8	87.2	13	97.4	9	77.9	12	51.6
Greece	26	65.2	30	57.3	18	65.9	12	51.6
Hungary	2	98.6	1	100	1	100	12	51.6
Iceland	22	69.7	1	100	26	57.6	24	29.2
Ireland	13	81.1	32	52.5	22	61.6	1	100
Israel	33	55.5	33	29.3	32	46.6	3	77.7
Italy	27	62.2	24	77.9	23	60.9	24	29.2
Japan	21	70.8	27	75.4	24	60.4	10	53.4
Korea	34	43.7	33	29.3	20	63.9	24	29.2
Latvia	7	87.8	14	80.5	3	94	12	51.6
Lithuania	17	77	14	80.5	15	70.7	12	51.6
Luxembourg	5	94.3	1	100	5	90.8	12	51.6
Mexico	35	36.3	33	29.3	33	46.3	22	31.1
Netherlands	3	96.3	1	100	2	95.2	12	51.6
New Zealand	9	85.8	1	100	30	51.2	4	75.8
Norway	20	74.5	23	79.7	7	85.9	24	29.2
Poland	32	56	30	57.3	19	65.8	24	29.2
Portugal	30	59.9	14	80.5	28	53.7	24	29.2
Slovak Republic	31	59.3	14	80.5	29	52.3	24	29.2
Slovenia	15	79.3	29	66.9	16	66.4	4	75.8
Spain	19	74.9	14	80.5	17	66.2	12	51.6
Sweden	14	80.6	1	100	8	80.9	24	29.2
Switzerland	1	100	1	100	21	62.1	2	98.1
Turkey	16	78	1	100	11	73.8	22	31.1
United Kingdom	10	85.2	1	100	4	91	24	29.2
United States	28	61.7	25	76.8	35	41.1	12	51.6

Territoriality

Under a territorial tax system, international businesses pay taxes to the countries in which they earn their income. This means that territorial tax regimes do not generally tax the income companies earn in foreign countries. A worldwide tax system—such as the system previously employed by the United States—requires companies to pay taxes on worldwide income, no matter where it is earned. Many countries, as is now the case in the U.S., operate some sort of hybrid system with varying levels of complexity.

Countries enact territorial tax systems through what are called "participation exemptions," which can include full or partial exemptions for foreign dividend or capital gains income or both. Participation exemptions eliminate the additional domestic tax on foreign income by allowing companies to ignore some foreign income when calculating their taxable income. A pure territorial system fully exempts foreign-sourced dividend and capital gains income.

Companies based in countries with worldwide tax systems are at a competitive disadvantage because they face potentially higher levels of taxation than their competitors based in countries with territorial tax systems. Additionally, taxes on repatriated corporate income in a company's home country increase complexity and discourage investment and production.[70]

The territoriality of a tax system is measured by the degree to which a country exempts foreign-sourced income through dividend and capital gains exemptions.

Dividends Received Exemption

When a foreign subsidiary of a parent company earns income, it pays income tax to the country in which it does business. After paying the tax, the subsidiary can either reinvest its profits into ongoing activities (by purchasing equipment or hiring more workers, for example) or it can distribute its profits back to the parent company in the form of dividends.

Under a worldwide tax system, the dividends received by a parent company are taxed again by the parent company's home country, minus a tax credit for taxes already paid on that income. Under a pure territorial system, those dividends are exempt from taxation in the parent's country.

Countries receive a score based on the level of dividend exemption they provide. Countries with no dividend exemption (worldwide tax systems) receive the worst score.

Twenty-five OECD countries exempt all dividends received by parent companies from taxation. Six countries allow 95 percent or 97 percent of dividends to be exempt from taxation. Five OECD countries have a worldwide tax system that generally does not exempt foreign dividends from taxation.[71]

70 William McBride, "Twelve Steps toward a Simpler, Pro-Growth Tax Code," Tax Foundation, Oct. 30, 2013, http://taxfoundation.org/article/twelve-steps-toward-simpler-pro-growth-tax-code.

71 Deloitte, "Tax Guides and Highlights"; PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19"; and KPMG, "EU Country Profiles," https://home.kpmg/xx/en/home/services/tax/regional-tax-centers/eu-tax-centre/eu-country-profiles.html.

Branch or Subsidiary Capital Gains Exclusion

Another feature of an international tax system is its treatment of capital gains from foreign investments. When a parent company invests in a foreign subsidiary (i.e., purchases shares in a foreign subsidiary), it can realize a capital gain on that investment if it later divests the asset. A territorial tax system would exempt these gains from taxation, as they are derived from overseas activity.

Taxing foreign-sourced capital gains income at domestic rates can result in double taxation if those gains are taxed in the foreign country. This discourages saving and investment.

Countries that exempt foreign-sourced capital gains from taxation receive a better score on the *ITCI*. Foreign-sourced capital gains are excluded from taxation by 23 OECD countries. Five countries partially exclude foreign-sourced capital gains. Eight countries do not exclude foreign-sourced capital gains income from domestic taxation.[72]

Restrictions on Eligible Countries

An ideal territorial system would only concern itself with the profits earned within the home country's borders. However, many countries have restrictions on their territorial systems that determine when a business' dividends or capital gains received from foreign subsidiaries are exempt from tax.

Some countries treat foreign corporate income differently depending on the country in which the foreign income was earned. For example, many countries restrict their territorial systems based on a "blacklist" of countries that do not follow certain requirements. Among EU countries, it is common to restrict the participation exemption to member states of the European Economic Area.

The eligibility rules create additional complexity for companies and are often established in an arbitrary manner. Portugal, for instance, limits exemptions for dividends and capital gains earned abroad to those earned in countries that are not listed as a tax haven and that impose an income tax listed in the EU parent-subsidiary directive or have an income tax equal to at least 60 percent of the Portuguese corporate tax rate.[73] Italy, which normally allows a 95 percent tax exemption for foreign-sourced dividends paid to Italian shareholders, does not allow the exemption if the income was earned in a subsidiary located in a blacklisted country, unless evidence that an adequate level of taxation was borne by the foreign entity can be provided.[74]

In the OECD, 17 of 32 countries that provide participation exemptions place restrictions on whether they exempt foreign-sourced income from domestic taxation based on the source of the income.[75] Countries that have these restrictions on their territorial tax systems receive a worse score on the *ITCI*.

72 Ibid.

73 Deloitte, "Tax Guides and Highlights – Portugal Highlights 2019," https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-portugalhighlights-2019.pdf?nc=1.

74 Deloitte, "Tax Guides and Highlights – Italy Highlights 2019."

75 EY, "Worldwide Corporate Tax Guide: 2019," https://www.ey.com/Publication/vwLUAssets/ey-worldwide-corporate-tax-guide-2019/$FILE/ey-worldwide-corporate-tax-guide-2019.pdf.

Withholding Taxes and Tax Treaties

When firms pay dividends, interest, and royalties to foreign investors or businesses, governments often require those firms to withhold a certain portion to pay as a tax. For example, the United States requires businesses to withhold a maximum 30 percent tax on payments to foreign individuals.

These taxes make investment more costly both for investors, who will receive a lower return on dividends, and for firms, that must pay a higher amount in interest or royalty payments to compensate for the cost of the withholding taxes. These taxes also reduce funds available for investment and production and increase the cost of capital.

Withholding Tax Rates

Countries with higher withholding tax rates on dividends, interest, and royalties score worse on the *ITCI*. Dividends, interest, and royalties from these countries do not always face the same tax rate as when distributed to domestic shareholders. Tax treaties between countries either reduce or eliminate withholding taxes.

Chile and Switzerland levy the highest dividend and interest withholding rates, requiring firms to withhold 35 percent of a dividend or interest payment paid to foreign entities or persons. Meanwhile, Estonia, Hungary, and Latvia do not levy withholding taxes on dividends or interest payments.

For royalties, Mexico requires firms to retain the highest amount, at 35 percent, followed by France at 33.3 percent. Hungary, Latvia, Luxembourg, the Netherlands, Norway, Sweden, and Switzerland do not require companies to retain any amount of royalties for withholding tax purposes.[76]

Treaty Network

Tax treaties align many tax laws between two countries and attempt to reduce double taxation, particularly by reducing or eliminating withholding taxes between the countries. Countries with a greater number of partners in their tax treaty network have more attractive tax regimes for foreign investment and receive a better score than countries with fewer treaties.

The United Kingdom has the broadest network of tax treaties (129 countries) and thus receives the best score. Chile receives the worst score, with a treaty network of only 33 countries. Across the OECD, the average size of a tax treaty network is 77 countries.[77]

International Tax Regulations

International tax regulations seek to prevent corporations from minimizing their tax liability through aggressive tax planning. These regulations can take several forms, such as rules for controlled foreign corporations (CFC), thin capitalization rules, and diverted profits taxes.

76 Deloitte, "Withholding Tax Rates 2019," https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-withholding-tax-rates.pdf.

77 EY, "Worldwide Corporate Tax Guide: 2019." Tax treaties with former countries, such as the USSR, Yugoslavia, and Czechoslovakia, are not counted as one. Every country the treaty applies to is counted individually.

International tax regulations can have the effect of making countries with uncompetitive tax structures even less competitive. These regulations place substantial burdens on companies and require them to shift valuable resources away from production and toward accountants and tax lawyers.

Controlled Foreign Corporation (CFC) Rules

CFC rules are intended to prevent corporations from shifting their pretax profits from a high-tax country to a low-tax country by using highly liquid forms of income. These regulations define what a controlled foreign corporation is for tax purposes. If a foreign entity is deemed "controlled," these regulations subject the foreign corporation's passive income (rent, royalties, interest) and sometimes active income to the tax rate of the home country of the subsidiary's parent corporation. In the United States, these are called Subpart F rules. These rules subject all passive income to taxation in the year in which it is earned.

CFC rules vary widely among countries. The definition of what constitutes "control" is a somewhat arbitrary decision that often increases tax code complexity. For instance, the United States considers a subsidiary with 50 percent U.S. ownership to be controlled, while Australia considers a foreign company that is 50 percent owned by five or fewer Australian residents, or 40 percent owned by one Australian resident, to be controlled.[78]

In 2016, the European Council directed all EU member states to tax certain multinational, non-distributed income of the CFC if the parent company located in that member state owns more than 50 percent of the shares of the CFC, and if the tax paid by the CFC is lower than the difference between the tax paid by the CFC if it had been situated in the member state and the tax it actually paid.[79] All EU member states have adopted CFC rules.[80]

Each country's score in this subcomponent is based on three aspects of CFC rules: 1) whether a country has CFC regulations; 2) whether CFC rules apply to passive income or all income; and 3) the breadth of exemptions from the general CFC rules. Countries receive the best score if they do not have CFC rules. Countries with CFC rules that have exemptions or only apply to passive income or income associated with non-genuine arrangements receive a better score. Countries score the worst if they have CFC rules that apply to all income and have no exemptions.

CFC rules exist in 35 of the 36 OECD countries, with Switzerland being the sole exception. In 14 of the 35 countries with CFC rules the rules capture both active and passive income, while in 21 countries they only apply to passive income or income associated with non-genuine arrangements.[81]

Interest Deduction Limitations

Many countries limit the amount of interest a multinational corporation, or one of its subsidiaries, can deduct for tax purposes. Low-tax countries create an incentive for companies to finance their

78 Daniel Bunn, Kyle Pomerleau, and Sebastian Dueñas, "Anti-Base Erosion Provisions and Territorial Tax Systems in OECD Countries," Tax Foundation, May 2, 2019, https://taxfoundation.org/anti-base-erosion-provisions-territorial-tax-systems-oecd-countries/.

79 EUR-Lex, "Council Directive (EU) 2016/1164, laying down rules against tax avoidance practices that directly affect the functioning of the internal market," July 12, 2016, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.193.01.0001.01.ENG.

80 Sebastian Dueñas and Daniel Bunn, "Tax Avoidance Rules Increase the Compliance Burden in EU Member Countries," Tax Foundation, Mar. 28, 2019, https://taxfoundation.org/eu-tax-avoidance-rules-increase-tax-compliance-burden/.

81 Bunn, Pomerleau, and Dueñas, "Anti-Base Erosion Provisions and Territorial Tax Systems in OECD Countries"; Bloomberg Tax, "Country Guides"; PwC, "Worldwide Tax Summaries: Corporate Taxes 2018/19"; and Deloitte, "Tax Guides and Highlights."

investments with equity, while high-tax countries create an incentive for companies to finance investments with debt and use interest deductions to reduce their tax liabilities. To prevent businesses from lending money internally from entities in low-tax countries to entities in high-tax countries for tax purposes, some countries limit the amount companies can deduct in interest.

Interest deduction limitations can vary widely among countries, and there is much discretion available to governments in enforcing these laws.[82] Some countries limit interest deductions by applying transfer pricing regulations to interest rates. Others apply what are called "thin capitalization rules," which limit the amount of deductible interest. The two most common types used in practice are "safe harbor rules" and "earnings stripping rules." Safe harbor rules restrict the amount of debt for which interest is tax-deductible by defining a debt-to-equity ratio. Interest paid on debt exceeding this set ratio is not tax-deductible. Earnings stripping rules limit the tax-deductible share of debt interest to pretax earnings.

Interest deduction rules such as thin capitalization rules, in particular, have been shown to reduce the value of firms and distort firm decisions about how to invest in capital.[83]

Countries that limit interest deductions with only transfer pricing regulations receive the best score. Countries with debt-to-equity ratios receive an average score, and countries with interest-to-pretax-earning limits receive the worst score.

Interest deduction limitations are found in 34 of the 36 countries measured in the *ITCI*. For instance, Canada limits interest deductions if a firm's debt-to-equity ratio reaches 1.5 to 1, while Japan limits deductions at a 3 to 1 ratio.[84] Germany and Spain limit interest deductions (regardless of whether they are for cross-border loans) to 30 percent of operating income. Ireland and Israel have no established limitations on interest deductions and rely on transfer pricing rules.[85]

General Anti-Avoidance Rules

Many countries apply anti-avoidance rules to tax multinational companies with business structures designed specifically for tax advantages rather than economic reasons. These rules often follow the substance over form principle in determining how profits should be taxed.

As mentioned above, the BEAT in the new U.S. tax law is a minimum tax designed to prevent multinationals from shifting profits outside the U.S. to foreign-affiliated corporations.

Australia and the United Kingdom both apply a diverted profits tax. A diverted profits tax is a set of complex rules and penalty rates that apply if a company is found to have minimized its tax burden through a structure without economic substance. Australia applies a rate of 40 percent to diverted profits while the United Kingdom applies a 25 percent rate, though companies in certain industries can face higher rates in the UK.[86] These complex tax regimes result in high compliance costs for multinational companies as well as double taxation of some corporate profits.

82 Jennifer Blouin, Harry Huizinga, Luc Laeven, and Gaëtan Nicodème, "Thin Capitalization Rules and Multinational Firm Capital Structure," International Monetary Fund Working Paper WP/14/12, January 2014, https://www.imf.org/external/pubs/ft/wp/2014/wp1412.pdf.

83 Ibid.

84 Japan has a complex clause that sets the limit at 3 to 1 unless a firm can point to comparable Japanese firms with higher debt-to-equity ratios, at which point Japan will allow the firm to reach the higher ratio before limiting deductions.

85 Bunn, Pomerleau, and Dueñas, "Anti-Base Erosion Provisions and Territorial Tax Systems in OECD Countries"; Bloomberg Tax, "Country Guides"; and Deloitte, "Tax Guides and Highlights."

86 Bunn, Pomerleau, and Dueñas, "Anti-Base Erosion Provisions and Territorial Tax Systems in OECD Countries."

Anti-abuse provisions are not currently accounted for in the *Index*, because we are still determining how to compare these policies on an apples-to-apples basis. However, if they were appropriately accounted for, countries like Australia, the United Kingdom, and the United States would likely receive worse scores on their international rules—potentially also impacting their overall ranking on the *Index*.

Australia

Australia ranks 7th overall on the 2019 *International Tax Competitiveness Index*, an improvement from 9th in 2018.

Some strengths of the Australian tax system:

- Property taxes in Australia are assessed on the value of the land rather than real estate or other improvements to land.
- Australia's corporate and individual taxes have an integrated treatment of dividends, alleviating the burden of double taxation on distributed earnings.
- Australia ranks well on consumption taxes due to its low VAT rate (but applies it to a relatively narrow base).

Some weaknesses of the Australian tax system:

- Australia's treaty network consists of just 44 countries, when the average among OECD countries is 77.
- The corporate tax rate in Australia is 30 percent, above the OECD average (23.6 percent).
- Corporations are limited in their ability to write off investments.

Austria

Austria ranks 12th overall on the 2019 *International Tax Competitiveness Index*, one place worse than in 2018.

Some strengths of the Austrian tax system:

- Austria's international tax system is very good with a (1) broad tax treaty network of 89 countries, (2) Controlled Foreign Corporation rules that only apply to subsidiaries that do not have substantial economic activity, and (3) thin capitalization rules that are less complex than in most countries.
- The VAT in Austria applies to a broad base and has minimal complexity for compliance and reporting.
- There are no estate, inheritance, or wealth taxes.

Some weaknesses of the Austrian tax system:

- Headline corporate rate of 25 percent is above the OECD average (23.6 percent).
- Corporations are limited in their ability to write off investments.
- The tax wedge on labor is the 5th highest among OECD countries.

Belgium

Belgium ranks 27th overall on the 2019 *International Tax Competitiveness Index*, five spots worse than in 2018.

Some strengths of the Belgium tax system:

- Belgium has a broad tax treaty network, with 95 countries, and a territorial tax system as it fully exempts foreign-sourced dividends and capital gains without any country limitations.
- Capital gains resulting from normal management of private wealth are exempt from tax.
- Belgium allows for Last-In-First-Out treatment of the cost of inventory and for businesses to write off a larger share of their investments than most other OECD countries.

Some weaknesses of the Belgium tax system:

- The corporate rate of 29.6 percent is above average among OECD countries (23.6 percent).
- Belgium levies estate, net wealth, and financial transaction taxes.
- The Belgian tax wedge on labor is the highest among the OECD countries, with the average single worker facing a tax burden of 52.7 percent.

Canada

Canada ranks 15th overall on the 2019 *International Tax Competitiveness Index*, five spots better than in 2018.

Some strengths of the Canadian tax system:

- Consumption taxes are low, and the associated compliance burden is near the average for OECD countries.
- Canada allows businesses to immediately write off investments in machinery and to write off a larger share of investments in buildings than most other OECD countries.
- Canada does not levy wealth, estate, or inheritance taxes.

Some weaknesses of the Canadian tax system:

- The personal tax on dividends is 39.3 percent, well above the OECD average of 23.8 percent.
- Canada taxes capital gains at a rate of 26.8 percent, while the OECD average is 19.6 percent.
- The corporate rate of 26.8 percent is above average among OECD countries (23.6 percent).

Chile

Chile ranks 32nd overall on the 2019 *International Tax Competitiveness Index*, one spot better than in 2018.

Some strengths of the Chilean tax system:

- The VAT is at the average for OECD countries, and applies to a broad base.
- Chile provides for net operating losses to be carried forward indefinitely, allowing for corporations to be taxed on their average profitability.
- Chile has the lowest tax wedge on labor among OECD countries, at 7 percent, compared to the average of 36.1 percent.

Some weaknesses of the Chilean tax system:

- Labor and consumption taxes are complex, creating a serious compliance burden.
- Chile has poor treatment of corporate investments in machinery and buildings and does not allow companies to write off investment in intangibles.
- Chile has a worldwide tax system, while most countries have territorial provisions.

Czech Republic

The Czech Republic ranks 10th overall on the 2019 *International Tax Competitiveness Index*, two spots better than in 2018.

Some strengths of the Czech tax system:

- The corporate rate of 19 percent is below the OECD average (23.6 percent), with above-average cost recovery provisions.
- Taxes on labor are minimally distortive.
- The Czech Republic has a territorial tax system, exempting both foreign dividend and capital gains income from other European countries.

Some weaknesses of the Czech tax system:

- Consumption taxes have a high compliance burden and apply to a relatively narrow base.
- Net operating losses cannot be carried back and can only be carried forward for five years.
- The Czech Republic levies an estate tax and transfer taxes on real estate.

Denmark

Denmark ranks 24th overall on the 2019 *International Tax Competitiveness Index*, one place worse than in 2018.

Some strengths of the Danish tax system:

- Compliance times associated with corporate, consumption, and individual taxes are all below the OECD averages.
- Denmark has a territorial tax system, exempting both foreign dividend and capital gains income for its treaty partners and other European countries.
- Property taxes are modest, and Denmark allows costs associated with improvements to be deducted.

Some weaknesses of the Danish tax system:

- In addition to a top marginal tax rate of 55.9 percent, the personal income tax rates on dividends and capital gains are both at 42 percent, well above the OECD averages of 23.8 percent and 19.6 percent, respectively.
- Net operating losses can be carried forward indefinitely but are limited to 60 percent of taxable income.
- Denmark uses First-In-First-Out for assessing the cost of inventory for tax purposes.

Estonia

Estonia ranks 1st overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018, and for the sixth consecutive year.

Some strengths of the Estonian tax system:

- Estonia's corporate income tax system only taxes distributed earnings, allowing companies to reinvest their profits tax-free.
- The VAT applies to a broad base and has a low compliance burden.
- Property taxes only apply to the value of land.

Some weaknesses of the Estonian tax system:

- Estonia has tax treaties with just 58 countries, below the OECD average (77 countries).
- Estonia's territorial tax system is limited to European countries.
- Estonia's Controlled Foreign Corporation rules are more stringent than the average OECD country.

Finland

Finland ranks 18th overall on the 2019 *International Tax Competitiveness Index*, three places worse than in 2018.

Some strengths of the Finnish tax system:

- Finland has a relatively low corporate tax rate of 20 percent.
- The compliance burdens of corporate, consumption, and labor taxes are all below the OECD averages.
- Finland has a territorial tax system and a broad tax treaty network with 86 countries.

Some weaknesses of the Finnish tax system:

- Finland levies both an estate and a financial transactions tax.
- Companies are limited in their ability to carry forward net operating losses and are restricted to using First-In-First-Out as the cost accounting method for inventory.
- Finland has a progressive tax system with a combined top rate on personal income of 58.4 percent.

France

France ranks 36th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018, and for the sixth consecutive year.

Some strengths of the French tax system:

- France has above-average cost recovery provisions for investments in machinery, buildings, and intangibles.
- Corporate and consumption taxes have a relatively low compliance burden.
- France has a broad tax treaty network, with 122 countries.

Some weaknesses of the French tax system:

- France has multiple distortionary property taxes with separate levies on net real estate wealth, estates, assets, and financial transactions.
- The tax burden on labor of 47.6 percent is among the highest for OECD countries.
- At 34.4 percent, France has the highest corporate income tax rate among OECD countries.

Germany

Germany ranks 16th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the German tax system:

- Inventory can receive Last-In-First-Out treatment, the most neutral treatment of inventory costs.
- Germany has a broad tax treaty network, with 96 countries.
- The VAT rate of 19 percent is near the OECD average (19.1 percent) and the VAT compliance burden is relatively low.

Some weaknesses of the German tax system:

- Germany has the fifth highest corporate income tax rate among OECD countries, at 29.9 percent.
- The personal income tax is complex with an associated compliance burden of 134 hours—the third highest among OECD countries.
- Companies are limited in the amount of net operating losses they can use to offset income on future or previous tax returns.

Greece

Greece ranks 30th overall on the 2019 *International Tax Competitiveness Index*, one place better than in 2018.

Some strengths of the Greek tax system:

- The personal tax rate of 15 percent on dividends is below the OECD average of 23.8 percent.
- Labor tax complexity is below the OECD average.
- Controlled Foreign Corporation rules in Greece are modest and only apply to passive income.

Some weaknesses of the Greek tax system:

- Greece has an above-average corporate tax rate of 28 percent (OECD average is 23.6 percent).
- Companies are severely limited in the amount of net operating losses they can use to offset future profits, and companies cannot use losses to reduce past taxable income.
- At 24 percent, Greece has one of the highest VAT rates in the OECD on one of the narrowest bases.

Hungary

Hungary ranks 14th overall on the 2019 *International Tax Competitiveness Index*, one spot worse than in 2018.

Some strengths of the Hungarian tax system:

- Hungary has the lowest corporate tax rate in the OECD, at 9 percent.
- Hungary has a flat personal income tax system.
- Controlled Foreign Corporation rules are better-than-average.

Some weaknesses of the Hungarian tax system:

- Companies are severely limited in the amount of net operating losses they can use to offset future profits, and companies cannot use losses to reduce past taxable income.
- Hungary has the highest VAT rate among OECD countries, at 27 percent.
- Hungary levies estate, asset, and financial transaction taxes.

Iceland

Iceland ranks 22nd overall on the 2019 *International Tax Competitiveness Index*, three spots better than in 2018.

Some strengths of the Icelandic tax system:

- Iceland's corporate tax rate of 20 percent is below the OECD average of 23.6 percent.
- Corporate, consumption, and labor taxes are less complex than they are on average in the OECD.
- Iceland has a territorial tax system that fully exempts foreign dividends and capital gains with no country limitations.

Some weaknesses of the Icelandic tax system:

- Companies are severely limited in the amount of net operating losses they can use to offset future profits, and companies cannot use losses to reduce past taxable income.
- The VAT of 24 percent applies to a relatively narrow tax base.
- Iceland's Controlled Foreign Corporation rules apply to both passive and active income.

Ireland

Ireland ranks 17th overall on the 2019 *International Tax Competitiveness Index*, three spots worse than in 2018.

Some strengths of the Irish tax system:

- Ireland has a low corporate tax rate of 12.5 percent.
- Net operating losses can be carried back one year and carried forward indefinitely, allowing companies to be taxed on their average profitability.
- Ireland has no thin capitalization rules.

Some weaknesses of the Irish tax system:

- Ireland's personal tax rate on dividend income of 51 percent is the highest among OECD countries.
- The VAT rate of 23 percent is one of the highest in the OECD and applies to a relatively narrow tax base.
- Corporations are limited in their ability to write off investments.

Israel

Israel ranks 31st overall on the 2019 *International Tax Competitiveness Index*, one spot worse than in 2018.

Some strengths of the Israeli tax system:

- Israel has a below-average corporate tax rate of 23 percent (OECD average is 23.6 percent) and allows net operating losses to be carried forward indefinitely.
- The VAT rate is relatively low at 17 percent and applies to a broad base.
- Israel does not levy net wealth or estate taxes.

Some weaknesses of the Israeli tax system:

- On average, compliance with the corporate code takes 110 hours (compared to an OECD average of 42 hours).
- The progressivity of Israel's taxes on labor means that it costs the economy $1.70 for every extra dollar of revenue that Israel raises from labor taxes.
- Israel has a worldwide tax system and a relatively narrow tax treaty network, with 56 countries.

Italy

Italy ranks 34th overall on the 2019 *International Tax Competitiveness Index*, one spot better than in 2018.

Some strengths of the Italian tax system:

- Italy has above-average cost recovery provisions for investments in intangibles.
- Last-In-First-Out treatment of the cost of inventory is allowed.
- Italy has a broad tax treaty network, with 100 countries.

Some weaknesses of the Italian tax system:

- Italy has multiple distortionary property taxes with separate levies on real estate, net wealth, estates, and financial transactions.
- The VAT rate of 22 percent applies to the third narrowest tax base in the OECD.
- Compliance with the personal income tax system takes 169 hours on average, highest by far in the OECD.

Japan

Japan ranks 28th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the Japanese tax system:

- Japan has a low VAT rate of 8 percent applied to a broad base.
- Corporate and consumption taxes are less complex than they are on average in the OECD.
- Japan's personal income tax rate on dividends is 20.3 percent, below the OECD average of 23.8 percent.

Some weaknesses of the Japanese tax system:

- Japan has poor cost recovery provisions for business investments in machinery and buildings.
- Japan has a hybrid international tax system with a 95 percent exemption for foreign dividends and no exemption for foreign capital gains.
- Companies are severely limited in the amount of net operating losses they can use to offset future profits, and companies cannot use losses to reduce past taxable income.

Korea

Korea ranks 26th overall on the 2019 *International Tax Competitiveness Index*, two spots worse than 2018.

Some strengths of the Korean tax system:

- Korea has a low VAT of 10 percent that is applied to a relatively broad base.
- Korea has a broad tax treaty network, with 93 countries.
- Business investments in machinery receive better-than-average treatment for corporate write-offs.

Some weaknesses of the Korean tax system:

- Korea has multiple distortionary property taxes with separate levies on real estate, estates, and financial transactions.
- The personal income tax rate on dividends is 40.3 percent (compared to an OECD average of 23.8 percent).
- Companies are severely limited in the amount of net operating losses they can use to offset future profits or reduce past taxable income.

Latvia

Latvia ranks 3rd overall on the 2019 *International Tax Competitiveness Index*, one spot worse than in 2018.

Some strengths of the Latvian tax system:

- Latvia's corporate income tax system only taxes distributed earnings, allowing companies to reinvest their profits tax-free.
- Corporations can deduct property taxes when calculating taxable income.
- Latvia's taxes on labor are relatively flat, allowing the government to raise revenue from taxes on workers with very few distortions.

Some weaknesses of the Latvian tax system:

- Latvia's network of tax treaties includes 61 countries, a relatively low number.
- The VAT of 21 percent applies to approximately half of the potential tax base.
- The threshold at which the VAT applies is nearly twice as high as the average VAT threshold for OECD countries.

Lithuania

Lithuania ranks 4th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the Lithuanian tax system:

- Business investments in machinery, buildings, and intangibles receive better-than-average tax treatment.
- Lithuania's corporate tax rate is 15 percent, well below the OECD average of 23.6 percent.
- Lithuania's taxes on labor are relatively flat, allowing the government to raise revenue from taxes on workers with very few distortions.

Some weaknesses of the Lithuanian tax system:

- Lithuania has tax treaties with just 54 countries, below the OECD average (77 countries).
- Lithuania has both a patent box and a super deduction for Research and Development expenditures.
- Multinational businesses face strict thin capitalization rules.

Luxembourg

Luxembourg ranks 6th overall on the 2019 *International Tax Competitiveness Index*, one position worse than in 2018.

Some strengths of the Luxembourg tax system:

- Business investments in machinery and intangibles receive better-than-average tax treatment.
- Luxembourg has a territorial tax system exempting both foreign dividends and capital gains, with no country limitations.
- The tax treaty network extends to 82 countries.

Some weaknesses of the Luxembourg tax system:

- Companies are limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to offset past taxable income.
- Luxembourg has several distortionary property taxes with separate levies on real estate, estates, and assets.
- The income tax is relatively progressive with a combined top rate on personal income of 47.2 percent.

Mexico

Mexico ranks 29th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the Mexican tax system:

- The personal income tax rate on dividends is 17.1 percent, below the OECD average of 23.8 percent.
- Corporations can deduct property taxes when calculating taxable income.
- Mexico allows for Last-In-First-Out treatment of the cost of inventory.

Some weaknesses of the Mexican tax system:

- Compliance time associated with corporate and consumption taxes is approximately 100 hours.
- Companies are limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to offset past taxable income.
- Mexico has a higher-than-average corporate tax rate of 30 percent (the OECD average is 23.6 percent).

Netherlands

The Netherlands ranks 9th overall on the 2019 *International Tax Competitiveness Index*, two places worse than in 2018.

Some strengths of the Dutch tax system:

- The Netherlands has above-average provisions for corporations to write off investments in machinery.
- The Netherlands has a territorial tax system exempting both foreign dividends and capital gains and a broad tax treaty network, with 97 countries.
- Corporations can deduct property taxes when calculating taxable income.

Some weaknesses of the Dutch tax system:

- The Netherlands has a progressive tax system with a combined top rate on personal income of 52.3 percent.
- The VAT of 21 percent applies to approximately half of the potential tax base.
- Companies are severely limited in the amount of net operating losses they can use to offset future profits or reduce past taxable income.

New Zealand

New Zealand ranks 2nd overall on the 2019 *International Tax Competitiveness Index*, one spot better than in 2018.

Some strengths of the New Zealand tax system:

- New Zealand allows corporate losses to be carried forward indefinitely, allowing businesses to be taxed on their average profitability.
- The VAT of 15 percent applies to nearly the entire potential tax base.
- New Zealand property taxes apply just to the value of land rather than real estate or other improvements to the land.

Some weaknesses of the New Zealand tax system:

- New Zealand has an above-average corporate tax rate of 28 percent (the OECD average is 23.6 percent) and poor cost recovery provisions for business investments.
- New Zealand has a narrow tax treaty network, with 40 countries.
- The cost of inventory can be accounted for using First-In-First-Out method or the average cost method (Last-In-First-Out is not permitted).

Norway

Norway ranks 19th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the Norwegian tax system:

- Norway allows corporate losses to be carried forward indefinitely, allowing businesses to be taxed on their average profitability.
- Compliance time associated with corporate, consumption, and individual taxes is below average.
- Norway has a territorial tax system, with a network of 87 tax treaties.

Some weaknesses of the Norwegian tax system:

- Corporations are limited in their ability to write off investments.
- Norway has a progressive tax system with a combined top rate on personal income of 46.6 percent.
- Norway applies its Controlled Foreign Corporation rules to both passive and active income.

Poland

Poland ranks 35th overall on the 2019 *International Tax Competitiveness Index*, three places worse than in 2018.

Some strengths of the Polish tax system:

- Poland has a below-average corporate tax rate of 19 percent (OECD average is 23.6 percent).
- Poland's taxes on labor are generally flat, allowing the government to raise revenue from taxes on workers with very few distortions.
- Poland has a territorial tax system with a network of 85 tax treaties.

Some weaknesses of the Polish tax system:

- Poland has multiple distortionary property taxes with separate levies on real estate, estates, assets, and financial transactions.
- Companies are severely limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to reduce past taxable income.
- Companies can only write off 33.8 percent of the cost of industrial buildings (in present value).

Portugal

Portugal ranks 33rd overall on the 2019 *International Tax Competitiveness Index*, one place better than in 2018.

Some strengths of the Portuguese tax system:

- Corporations can deduct their property taxes from their taxable income.
- Portugal has a territorial tax system, exempting foreign dividend and capital gains income for most countries.
- Portugal provides above-average capital cost write-offs for investments in machinery.

Some weaknesses of the Portuguese tax system:

- Portugal has a high corporate tax rate of 31.5 percent.
- Companies are severely limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to reduce past taxable income.
- The VAT of 23 percent applies to less than half of the potential tax base.

Slovak Republic

The Slovak Republic ranks 11th overall on the 2019 *International Tax Competitiveness Index*, one spot worse than in 2018.

Some strengths of the Slovakian tax system:

- The personal income rate on dividends is very low at 7 percent (compared to an OECD average of 23.8 percent).
- The Slovak Republic has better-than-average tax treatment of business investment in machinery, buildings, and intangibles.
- Corporations can deduct property taxes when calculating taxable income.

Some weaknesses of the Slovakian tax system:

- Companies are severely limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to reduce past taxable income.
- The VAT of 20 percent applies to less than half of the potential tax base.
- The Slovak Republic has both a patent box and a super deduction for Research and Development expenditures.

Slovenia

Slovenia ranks 20th overall on the 2019 *International Tax Competitiveness Index*, three places worse than in 2018.

Some strengths of the Slovenian tax system:

- Slovenia has a 19 percent corporate tax rate, below the OECD average (23.6 percent).
- Slovenia's 22 percent VAT applies to a relatively broad base.
- Slovenia has better-than-average tax treatment of business investment in machinery.

Some weaknesses of the Slovenian tax system:

- Slovenia's progressive personal income tax system has a combined top rate of 61.1 percent.
- Slovenia has a relatively narrow tax treaty network, with 59 countries, and only a partial territorial tax system.
- Slovenia has multiple distortionary property taxes with separate levies on real estate, estates, and assets.

Spain

Spain ranks 23rd overall on the 2019 *International Tax Competitiveness Index*, four places better than in 2018.

Some strengths of the Spanish tax system:

- Spain provides for net operating losses to be carried forward indefinitely, allowing for corporations to be taxed on their average profitability.
- Spain has a territorial tax system that exempts both foreign dividends and capital gains income from taxation.
- The Spanish tax treaty network is made up of 93 countries.

Some weaknesses of the Spanish tax system:

- The VAT of 21 percent applies to less than half of the potential tax base.
- Spain has multiple distortionary property taxes with separate levies on real estate, net wealth, and estates.
- Spain has both a patent box and a credit for Research and Development .

Sweden

Sweden ranks 8th overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the Swedish tax system:

- Sweden provides for net operating losses to be carried forward indefinitely, allowing for corporations to be taxed on their average profitability.
- Sweden has a territorial tax system that exempts both foreign dividends and capital gains income from taxation without any country limitations.
- Sweden has a broad tax treaty network, with 81 countries.

Some weaknesses of the Swedish tax system:

- Sweden’s personal dividend tax rate is 30 percent, above the OECD average (23.8 percent).
- Sweden has a progressive personal income tax and a combined top rate of 60.1 percent.
- Sweden has Controlled Foreign Corporation rules that apply to both passive and active income.

Switzerland

Switzerland ranks 5th overall on the 2019 *International Tax Competitiveness Index*, one place better than in 2018.

Some strengths of the Swiss tax system:

- Switzerland has above-average cost recovery provisions for investments in machinery, buildings, and intangibles.
- Switzerland has a broad tax treaty network, with 93 countries.
- The Swiss VAT of 7.7 percent applies to a broad base and has very low compliance costs.

Some weaknesses of the Swiss tax system:

- Switzerland has multiple distortionary property taxes with separate levies on real estate, net wealth, estates, assets, and financial transactions.
- Companies are limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to reduce past taxable income.
- Switzerland has a progressive income tax with a top rate of 41.7 percent, including payroll and personal income taxes.

Turkey

Turkey ranks 13th overall on the 2019 *International Tax Competitiveness Index*, three places better than in 2018.

Some strengths of the Turkish tax system:

- Turkey has a territorial tax system exempting foreign dividends and capital gains income without any country limitations.
- The personal income tax on dividends is 17.5 percent, below the OECD average (23.8 percent).
- Turkey has better-than-average tax treatment of business investment in machinery.

Some weaknesses of the Turkish tax system:

- Companies are limited in the amount of net operating losses they can use to offset future profits and are unable to use losses to reduce past taxable income.
- Turkey's VAT rate of 18 percent applies to just 40 percent of the potential tax base.
- Turkey has multiple distortionary property taxes with separate levies on real estate, estates, and financial transactions.

United Kingdom

The United Kingdom ranks 25th overall on the 2019 *International Tax Competitiveness Index*, one place better than in 2018.

Some strengths of the UK tax system:

- The corporate income tax rate is 19 percent, below the OECD average (23.6 percent).
- The UK has a territorial tax system exempting both foreign dividend and capital gains income without any country limitations.
- The UK tax treaty network with 129 countries is the broadest in the OECD.

Some weaknesses of the UK tax system:

- The personal income tax rate on dividends is 38.1 percent, well above the OECD average (23.8 percent).
- Corporations are severely limited in the investment costs they are able to write off, particularly for industrial buildings.
- The VAT of 20 percent applies to less than half of the potential consumption tax base.

United States

The United States ranks 21st overall on the 2019 *International Tax Competitiveness Index*, the same as in 2018.

Some strengths of the U.S. tax system:

- The U.S. provides full expensing for business investments in machinery.
- The U.S. allows for Last-In-First-Out treatment of the cost of inventory.
- Corporations can deduct property taxes when calculating taxable income.

Some weaknesses of the U.S. tax system:

- The U.S. has a progressive income tax with a top rate of 46 percent, including payroll and personal income taxes.
- The U.S. has a partial territorial system and does not exempt foreign capital gains income—it ranks as one of the most onerous international tax systems of any OECD nation.
- The real property tax burden is among the highest in the OECD.

APPENDIX TABLE A.

Corporate Taxes

Country	Corporate Rate	Cost Recovery					
	Top Marginal Corporate Tax Rate	Loss Carryback (Number of Years)	Loss Carryforward (Number of Years)	Machinery	Industrial Buildings	Intangibles	Inventory (Best Available)
Australia	30.0%	0	No Limit	85.1%	47.9%	54.8%	Average Cost
Austria	25.0%	0	No Limit, capped at 75% of taxable income	81.3%	39.1%	73.8%	LIFO
Belgium	29.6%	0	No Limit	88.2%	62.2%	80.3%	LIFO
Canada	26.8%	3	20	100.0%	42.6%	49.0%	Average Cost
Chile	25.0%	0	No Limit	63.3%	33.8%	0.0%	Average Cost
Czech Republic	19.0%	0	5	87.4%	54.3%	84.1%	Average Cost
Denmark	22.0%	0	No Limit, capped at 60% of taxable income	82.7%	47.9%	81.3%	FIFO
Estonia	20.0%	No Limit	No Limit	100.0%	100.0%	100.0%	LIFO
Finland	20.0%	0	10	82.7%	51.9%	73.8%	FIFO
France	34.4%	1, limited to EUR 1 million	No Limit, capped at 50% of taxable income for companies with revenue above EUR 1 million	85.8%	54.8%	87.0%	Average Cost
Germany	29.9%	1, limited to EUR 1 million	No Limit, capped at EUR 1 million plus 60% of taxable income	73.8%	39.1%	87.0%	LIFO
Greece	28.0%	0	5	73.8%	47.9%	73.8%	LIFO
Hungary	9.0%	0	5, capped at 50% of taxable income	81.6%	27.9%	87.0%	Average Cost
Iceland	20.0%	0	10	86.0%	60.2%	81.2%	Average Cost
Ireland	12.5%	1	No Limit	78.7%	47.9%	54.8%	FIFO
Israel	23.0%	0	No Limit	87.0%	39.1%	78.7%	Average Cost
Italy	27.8%	0	No Limit, capped at 80% of taxable income	76.0%	46.3%	96.5%	LIFO
Japan	29.7%	0	10, capped at 50% of taxable income	77.0%	27.9%	78.7%	Average Cost
Korea	27.5%	1, limited to small and medium-sized enterprises	10, capped at 60% of taxable income for companies other than small and medium-sized enterprises	92.2%	54.8%	73.8%	LIFO
Latvia	20.0%	No Limit	No Limit	100.0%	100.0%	100.0%	LIFO
Lithuania	15.0%	0	No Limit, capped at 70% of taxable income	91.8%	83.8%	98.0%	LIFO
Luxembourg	24.9%	0	17	86.4%	47.9%	87.0%	LIFO
Mexico	30.0%	0	10	73.8%	54.8%	73.8%	LIFO
Netherlands	25.0%	1	9	96.5%	33.8%	73.8%	LIFO
New Zealand	28.0%	0	No Limit	74.7%	31.0%	73.8%	Average Cost
Norway	22.0%	0	No Limit	78.2%	37.4%	73.8%	FIFO
Poland	19.0%	0	5, capped at 50% of total loss per year	73.8%	33.8%	87.0%	LIFO
Portugal	31.5%	0	5, capped at 70% of taxable income	88.8%	54.8%	73.8%	Average Cost
Slovak Republic	21.0%	0	4	87.4%	65.3%	87.0%	Average Cost
Slovenia	19.0%	0	No Limit, capped at 50% of taxable income	87.0%	39.1%	73.8%	Average Cost
Spain	25.0%	0	No Limit	77.9%	39.1%	73.8%	Average Cost
Sweden	21.4%	1.5	No Limit	86.0%	47.9%	86.0%	FIFO
Switzerland	21.1%	0	7	86.0%	55.5%	90.5%	LIFO
Turkey	22.0%	0	5	87.6%	47.9%	63.2%	Average Cost
United Kingdom	19.0%	1	No Limit, capped at GBP 5 million plus 50% of taxable income	75.9%	27.9%	82.7%	FIFO
United States	25.9%	0	No Limit, capped at 80% of taxable income	100.0%	35.0%	63.3%	LIFO

APPENDIX TABLE A, *CONTINUED.*

Corporate Taxes

	Tax Incentives and Complexity				
Country	Patent Box	Research and Development Credit and/or Super Deduction	Corporate Complexity (Time)	Corporate Complexity (Yearly Profit Payments)	Corporate Complexity (Other Yearly Payments)
Australia	No	Credit	37	1	6
Austria	No	Credit	46	1	8
Belgium	Yes	Credit	21	1	8
Canada	No	Credit	45	1	4
Chile	No	Credit	48	1	5
Czech Republic	No	Super Deduction	53	1	5
Denmark	No	Super Deduction	27	3	6
Estonia	No	None	5	1	7
Finland	No	None	18	1	4
France	Yes	Credit	28	1	6
Germany	No	None	41	2	6
Greece	No	Super Deduction	78	1	6
Hungary	Yes	Super Deduction	35	2	7
Iceland	No	Credit	40	1	7
Ireland	Yes	Credit	12	1	7
Israel	Yes	None	110	2	14
Italy	Yes	Credit	39	2	11
Japan	No	Credit	38	3	13
Korea	Yes	Credit	83	2	8
Latvia	No	None	23	1	5
Lithuania	Yes	Super Deduction	18	1	8
Luxembourg	Yes	None	19	5	6
Mexico	No	Credit	102	1	3
Netherlands	Yes	Credit	21	1	7
New Zealand	No	Credit	34	1	4
Norway	No	Credit	24	1	3
Poland	Yes	Super Deduction	59	1	4
Portugal	Yes	Both	63	1	6
Slovak Republic	Yes	Super Deduction	46	1	6
Slovenia	No	None	74	1	8
Spain	Yes	Credit	33	1	7
Sweden	No	None	50	1	4
Switzerland	No	None	15	2	10
Turkey	Yes	Credit	24	1	8
United Kingdom	Yes	Credit	32	1	6
United States	No	Credit	87	2	5

APPENDIX TABLE B.

Income Taxes

	Ordinary Income Taxes and Payroll Taxes			Income Tax Complexity		Capital Gains/Dividends	
Country	Top Marginal Income Tax Rate	Top Income Tax Rate Threshold (a)	Ratio of Marginal to Average Tax Wedge	Income Tax Complexity (Payments)	Income Tax Complexity (Time)	Top Marginal Capital Gains Rate (b)	Top Marginal Dividends Tax Rate (b)
Australia	47.0%	2.1	1.4	4	18	24.5%	24.3%
Austria	55.0%	23.3	1.1	3	50	27.5%	27.5%
Belgium	60.2%	1.1	1.3	2	40	0.0%	30.0%
Canada	53.5%	4.1	1.2	3	36	26.8%	39.3%
Chile	35.0%	7.7	1.3	1	125	35.0%	13.3%
Czech Republic	31.1%	0.3	1.1	2	75	15.0%	15.0%
Denmark	55.9%	1.3	1.3	1	65	42.0%	42.0%
Estonia	32.4%	0.9	1.2	0	31	20.0%	0.0%
Finland	58.4%	1.9	1.3	3	48	34.0%	28.9%
France	55.6%	14.3	1.3	2	80	30.0%	34.0%
Germany	47.5%	5.4	1.1	1	134	26.4%	26.4%
Greece	55.0%	11.0	1.2	1	46	25.0%	15.0%
Hungary	33.5%	0.0	1.0	2	146	15.0%	15.0%
Iceland	44.4%	1.2	1.3	13	60	22.0%	22.0%
Ireland	52.0%	1.5	1.5	1	40	33.0%	51.0%
Israel	50.0%	4.2	1.7	12	60	28.0%	33.0%
Italy	52.8%	2.7	1.2	1	169	26.0%	26.0%
Japan	56.1%	8.5	1.1	14	71	20.4%	20.3%
Korea	47.4%	11.4	1.2	2	80	0.0%	40.3%
Latvia	38.9%	5.2	1.1	1	80	20.0%	0.0%
Lithuania	24.0%	0.4	1.1	1	34	20.0%	15.0%
Luxembourg	47.2%	3.6	1.4	12	14	0.0%	21.0%
Mexico	35.0%	28.7	1.2	2	39	10.0%	17.1%
Netherlands	52.3%	1.4	1.3	1	64	30.0%	25.0%
New Zealand	33.0%	1.2	1.5	2	59	0.0%	6.9%
Norway	46.6%	1.6	1.2	1	15	31.7%	31.7%
Poland	39.9%	1.9	1.0	2	103	19.0%	19.0%
Portugal	58.2%	15.3	1.3	1	90	28.0%	28.0%
Slovak Republic	35.1%	3.4	1.1	1	62	0.0%	7.0%
Slovenia	61.1%	4.8	1.3	1	90	0.0%	25.0%
Spain	43.5%	2.4	1.2	1	84	23.0%	23.0%
Sweden	60.1%	1.5	1.2	1	36	30.0%	30.0%
Switzerland	41.7%	3.3	1.4	7	40	0.0%	21.1%
Turkey	45.5%	3.0	1.2	1	71	0.0%	17.5%
United Kingdom	47.0%	3.8	1.4	1	48	20.0%	38.1%
United States	46.0%	9.3	1.2	4	55	23.8%	29.3%

Notes:
(a) Multiple of the average income at which the highest tax bracket applies,in U.S. dollars (purchasing power parity, PPP).
(b) After any imputation, credit, or offset.

APPENDIX TABLE C.

Consumption Taxes

	Consumption Tax Rate	Consumption Tax Base		Consumption Tax Complexity
Country	VAT/Sales Tax Rate	VAT/Sales Tax Threshold (a)	VAT/Sales Tax Base as a Percent of Total Consumption	Complexity (Hours to Comply)
Australia	10.0%	$50,951	49.6%	50
Austria	20.0%	$37,457	59.5%	35
Belgium	21.0%	$31,109	47.6%	75
Canada	11.1% (b)	$23,976	47.5%	50
Chile	19.0%	$0	63.8%	124
Czech Republic	21.0%	$76,297	60.0%	102
Denmark	25.0%	$6,908	59.6%	40
Estonia	20.0%	$72,612	72.8%	14
Finland	24.0%	$11,062	54.4%	24
France	20.0%	$103,913	48.6%	31
Germany	19.0%	$22,456	55.7%	43
Greece	24.0%	$16,711	43.7%	69
Hungary	27.0%	$57,602	56.7%	96
Iceland	24.0%	$14,202	54.7%	40
Ireland	23.0%	$92,218	49.9%	30
Israel	17.0%	$26,132	63.3%	69
Italy	22.0%	$90,381	37.9%	30
Japan	8.0%	$100,408	71.3%	21
Korea	10.0%	$34,205	69.6%	25
Latvia	21.0%	$79,774	55.2%	66
Lithuania	21.0%	$97,563	50.7%	47
Luxembourg	17.0%	$33,690	92.1%	22
Mexico	16.0%	$0	33.4%	100
Netherlands	21.0%	$1,650	51.4%	34
New Zealand	15.0%	$40,813	95.2%	47
Norway	25.0%	$4,917	56.6%	40
Poland	23.0%	$111,215	44.1%	172
Portugal	23.0%	$16,886	49.2%	90
Slovak Republic	20.0%	$100,763	49.5%	84
Slovenia	22.0%	$83,257	58.4%	69
Spain	21.0%	$0	43.1%	31
Sweden	25.0%	$3,297	59.8%	36
Switzerland	7.7%	$81,953	68.3%	8
Turkey	18.0%	$0	40.0%	75
United Kingdom	20.0%	$119,167	43.8%	25
United States	7.4% (c)	$0	40.0%	33

Notes:
(a) In U.S. dollars (PPP).
(b) The Canadian rate is the federal VAT plus the average of the provincial rates.
(c) The United States' rate is the combined weighted average state and local sales tax rate.

APPENDIX TABLE D.

Property Taxes

	Real Property Taxes			Wealth/Estate Taxes	
Country	Real Property or Land Tax	Real Property Taxes Deductible	Real Property Taxes as % of Capital Stock	Net Wealth Tax	Estate/Inheritance Tax
Australia	Land Tax levied by individual states (a)	No	1.0%	No	None
Austria	Tax on Real Property	No	0.1%	No	None
Belgium	Tax on Real Property (b)	Yes	0.8%	Yes	Inheritance and Gift Tax
Canada	Tax on Real Property	Yes	1.9%	No	None
Chile	Tax on Real Property	No	0.5%	No	Inheritance and Gift Tax
Czech Republic	Tax on Real Property	No	0.1%	No	Inheritances and gifts are subject to Income Tax
Denmark	Tax on Real Property	Yes	0.9%	No	Inheritance and Gift Tax
Estonia	Land Tax	No	0.2%	No	None
Finland	Tax on Real Property	Yes	0.5%	No	Inheritance and Gift Tax
France	Tax on Real Property	No	1.7%	Yes	Inheritance and Gift Tax
Germany	Tax on Real Property	No	0.3%	No	Inheritance and Gift Tax
Greece	Tax on Real Property	No	1.4%	No	Inheritance and Gift Tax
Hungary	Tax on Real Property	No	0.4%	No	Inheritance and Gift Tax
Iceland	Tax on Real Property	No	1.3%	No	Inheritance and Gift Tax
Ireland	Tax on Real Property	Yes	0.5%	No	Inheritance and Gift Tax
Israel	Tax on Sale of Real Property (c)	No	1.6%	No	None
Italy	Tax on Real Property	No	0.8%	Yes	Inheritance and Gift Tax
Japan	Tax on Real Property	No	1.1%	No	Inheritance and Gift Tax
Korea	Tax on Real Property	No	0.4%	No	Inheritance and Gift Tax
Latvia	Tax on Real Property	Yes	0.6%	No	None
Lithuania	Tax on Real Property	Yes	0.3%	No	Gifts are subject to Income Tax
Luxembourg	Tax on Real Property	No	0.1%	No	Inheritance and Gift Tax
Mexico	Tax on Real Property	Yes	0.1%	No	Income Tax can apply to estates, some gifts are subject to Income Tax, and Real Estate Transfer Tax can apply
Netherlands	Tax on Real Property	Yes	0.7%	No	Inheritance and Gift Tax
New Zealand	Land Value Tax (d)	No	1.6%	No	None
Norway	Tax on Real Property	No	0.3%	Yes	None
Poland	Tax on Real Property	No	1.1%	No	Inheritance and Gift Tax
Portugal	Tax on Real Property	Yes	0.6%	No	Stamp Duty applies to inheritance and gifts
Slovak Republic	Tax on Real Property	Yes	0.3%	No	None
Slovenia	Tax on Real Property	No	0.3%	No	Inheritance and Gift Tax
Spain	Tax on Real Property	No	0.7%	Yes	Inheritance and Gift Tax
Sweden	Tax on Real Property	Yes	0.5%	No	None
Switzerland	Tax on Real Property	No	0.1%	Yes	Many cantons levy both Estate and Gift Taxes
Turkey	Tax on Real Property	Yes	0.2%	No	Inheritance and Gift Tax
United Kingdom	Tax on Real Property	Yes	2.6%	No	Inheritance and Gift Tax
United States	Tax on Real Property	Yes	2.0%	No	Inheritance and Gift Tax

Notes:
(a) Applies to some real estate (vacation homes).
(b) Tax on the imputed rent of properties. Applies to machinery.
(c) The Property Betterment Tax is levied like a capital gains tax on the sale of property.
(d) Levied by local governments. A few cities tax capital improvements.

APPENDIX TABLE D, *CONTINUED.*

Property Taxes

Country	Capital/Asset Taxes			
	Transfer Taxes	Asset Taxes	Capital Duties	Financial Transaction Tax
Australia	Stamp Duty on Transfer of Real Property	No	No	No
Austria	Real Estate Transfer Tax	Bank Tax	No	No
Belgium	Real Estate Transfer Tax	No	No	Yes
Canada	Real Estate and Real Property Transfer Tax	Bank Tax in certain provinces	Yes	No
Chile	No	Yearly Fee on tax-adjusted equity	No	No
Czech Republic	Real Estate Transfer Tax	No	No	No
Denmark	No	No	No	No
Estonia	No	No	No	No
Finland	Real Property Transfer Tax	No	No	Yes
France	Real Estate Transfer Tax	Bank Tax	No	Yes
Germany	Real Estate Transfer Tax	No	No	No
Greece	Real Estate Transfer Tax and Stamp Tax	No	Yes	No
Hungary	Real Estate Transfer Tax	Bank Tax	No	Yes
Iceland	No	Bank Tax	No	No
Ireland	Stamp Duty on Transfer of Real Property	No	No	No
Israel	Real Estate Transfer Tax (e)	No	No	No
Italy	Real Property Transfer Tax	No	Yes	Yes
Japan	Real Property Transfer Tax	Yes	Yes	No
Korea	Real Property Transfer Tax	No	Yes	Yes
Latvia	Stamp Duty on Transfer of Real Property	No	No	No
Lithuania	No	No	No	No
Luxembourg	Real Property Transfer Tax	Tax on corporate net assets	No	No
Mexico	Real Estate Transfer Tax	No	No	No
Netherlands	Real Property Transfer Tax	No	No	No
New Zealand	No	No	No	No
Norway	Stamp Duty on Transfer of Real Property	Bank Tax	No	No
Poland	Real Estate Transfer Tax	Bank Tax	Yes	Yes
Portugal	Real Estate Transfer Tax	Bank Tax	No	Yes
Slovak Republic	No	Bank Tax	No	No
Slovenia	Real Estate Transfer Tax	Bank Tax	No	No
Spain	Real Estate Transfer Tax	No	Yes	No
Sweden	Stamp Duty on Transfer of Real Property	No	No	No
Switzerland	Real Estate Transfer Tax	Yes	Yes	Yes
Turkey	Real Property Transfer Tax	No	Yes	Yes
United Kingdom	Stamp Duty on Transfer of Real Property	Bank Tax	No	Yes
United States	Real Property Transfer Tax	Intangible Property Taxes (f)	No	Yes

Notes:
(e) The purchaser of real property is subject to a purchase tax.
(f) Nine U.S. states levy a tax on intangible personal property.

APPENDIX TABLE E.

International Tax Rules

Country	Participation Exemption			Withholding Taxes			
	Dividend Exemption	Capital Gains Exemption	Country Limitations	Dividend Withholding Tax	Interest Withholding Tax	Royalties Withholding Tax	Number of Tax Treaties
Australia	100%	100%	None	30.0%	10.0%	30.0%	44
Austria	100%	100%	None	27.5%	0.0%	20.0%	89
Belgium	100%	100%	None	30.0%	30.0%	30.0%	95
Canada	100%	50%	Countries with a tax treaty or Tax Information Exchange Agreement	25.0%	25.0%	25.0%	94
Chile	0%	0%	N/A	35.0%	35.0%	30.0%	33
Czech Republic	100%	100%	EU member states and EEA member states	15.0%	15.0%	15.0%	89
Denmark	100%	100%	EU member states and EEA member states or double tax treaty	27.0%	22.0%	22.0%	75
Estonia	100%	100%	EU member states and EEA member states and Switzerland	0.0%	0.0%	10.0%	58
Finland	100%	100%	EU member states and EEA member states	20.0%	0.0%	20.0%	76
France	95.0%	88.0%	Blacklist countries are excluded	30.0%	0.0%	33.3%	122
Germany	95.0%	95.0%	None	26.4%	0.0%	15.8%	96
Greece	100%	0%	EU member states	10.0%	15.0%	20.0%	57
Hungary	100%	100%	None	0.0%	0.0%	0.0%	81
Iceland	100%	100%	None	20.0%	12.0%	20.0%	45
Ireland	0%	100%	EU member states and tax treaty countries	20.0%	20.0%	20.0%	73
Israel	0%	0%	N/A	30.0%	23.0%	23.0%	56
Italy	95.0%	95.0%	Blacklist countries are excluded	26.0%	26.0%	22.5%	100
Japan	95.0%	0%	None	20.0%	20.0%	20.0%	69
Korea	0%	0%	N/A	22.0%	22.0%	22.0%	93
Latvia	100%	100%	Blacklist countries are excluded	0.0%	0.0%	0.0%	61
Lithuania	100%	100%	Blacklist countries are excluded	15.0%	10.0%	10.0%	54
Luxembourg	100%	100%	None	15.0%	0.0%	0.0%	82
Mexico	0%	0%	N/A	10.0%	35.0%	35.0%	59
Netherlands	100%	100%	None	15.0%	0.0%	0.0%	97
New Zealand	100%	100%	None	30.0%	15.0%	15.0%	40
Norway	97.0%	100%	EEA member states	25.0%	0.0%	0.0%	87
Poland	100%	0%	EU member states and EEA member states and Switzerland	19.0%	20.0%	20.0%	85
Portugal	100%	100%	Blacklist countries are excluded	25.0%	25.0%	25.0%	77
Slovak Republic	100%	100%	Tax treaty countries	35.0%	19.0%	19.0%	70
Slovenia	95.0%	47.5%	Blacklist countries are excluded	15.0%	15.0%	15.0%	59
Spain	100%	100%	Blacklist countries are excluded	19.0%	19.0%	24.0%	93
Sweden	100%	100%	None	30.0%	0.0%	0.0%	81
Switzerland	100%	100%	None	35.0%	35.0%	0.0%	93
Turkey	100%	100%	None	15.0%	10.0%	20.0%	85
United Kingdom	100%	100%	None	0.0%	20.0%	20.0%	129
United States	100%	0%	None	30.0%	30.0%	30.0%	65

APPENDIX TABLE E, *CONTINUED.*

International Tax Rules

	International Tax Regulations		
Country	Controlled Foreign Corporation Rules	Controlled Foreign Corporation Rules: Income	Controlled Foreign Corporation Rules: Exemptions
Australia	Yes	Passive	CFC-exempt if located in a “listed” country or if it passes the active income test
Austria	Yes	Passive	CFC with substantive economic activities exempted
Belgium	Yes	All Income associated with non-genuine arrangements	None
Canada	Yes	Passive	Multiple rules may exempt CFC from taxation
Chile	Yes	Passive	None
Czech Republic	Yes	Passive	CFC with substantive economic activities exempted
Denmark	Yes	All Income	Foreign subsidiaries are exempt if less than 1/3 of their income is financial income
Estonia	Yes	All Income associated with non-genuine arrangements	CFC-exempt if profits below €750,000 or passive income below €75,000
Finland	Yes	All Income	CFC-exempt if i) located in EU or EEA and not an artificial arrangement; ii) industrial, manufacturing, and shipping business; or iii) Finland has a double tax treaty with the foreign country (excluding tax treaty countries mentioned in a "blacklist")
France	Yes	All Income	CFC-exempt if located in EU or EEA and not an artificial arrangement, or if CFC carries out trading or manufacturing activity
Germany	Yes	Passive	CFC-exempt if located in EU or EEA and not an artificial arrangement
Greece	Yes	Passive	CFC-exempt if located in EU or EEA country with exchange of information agreement and not an artificial arrangement
Hungary	Yes	Passive	CFC-exempt if i) real economic activity; ii) below certain profit threshold and ratio; or iii) located in country with treaty allowing for an exemption
Iceland	Yes	All Income	CFC-exempt if located in EEA countries or has a double tax treaty with Iceland and not an artificial arrangement
Ireland	Yes	All Income associated with non-genuine arrangements	CFC-exempt if i) below certain profit and income thresholds; ii) transfer pricing rules apply; or iii) passes the essential purpose test
Israel	Yes	Passive	None
Italy	Yes	All Income	CFC-exempt if located in EU or EEA and not an artificial arrangement Other exemptions can also apply
Japan	Yes	All Income	Various exemptions can apply
Korea	Yes	All Income	CFC rules don't apply to active income if CFC has fixed facilities engaged in business in the foreign country
Latvia	Yes	All Income associated with non-genuine arrangements	CFC-exempt if profits below €750,000 or passive income below €75,000 and CFC is not based or incorporated in a tax haven
Lithuania	Yes	Passive	CFC-exempt if country included in white list and not receiving special tax treatment or taxed subject to a corporate rate of more than 11.25%
Luxembourg	Yes	All Income associated with non-genuine arrangements	CFC-exempt if i) not an artificial arrangement or ii) accounting profits below €750,000 or less than 10% of operating costs
Mexico	Yes	All Income	None
Netherlands	Yes	Passive	CFC-exempt if not an artificial arrangement
New Zealand	Yes	Passive	Limited exemption for certain Australian CFCs
Norway	Yes	All Income	CFC-exempt if located in EEA country and not an artificial arrangement or located in tax treaty country
Poland	Yes	All Income	CFC-exempt if located in EU or EEA and not an artificial arrangement
Portugal	Yes	All Income	CFC-exempt if located in EU and EEA countries and not an artificial arrangement Other exemptions can apply
Slovak Republic	Yes	All Income associated with non-genuine arrangements	None
Slovenia	Yes	Passive	Substantial economic activities exemption
Spain	Yes	Passive	CFC-exempt if located in EU or EEA and not an artificial arrangement
Sweden	Yes	All Income	CFC-exempt if located in EEA and not an artificial arrangement or located in white list countries
Switzerland	No	N/A	N/A
Turkey	Yes	All Income	None
United Kingdom	Yes	All Income	Various exemptions can apply
United States	Yes	Passive	Exemptions for foreign high-taxed income can apply

APPENDIX TABLE E, *CONTINUED.*

International Tax Rules

	International Tax Regulations
Country	Interest Deduction Limitations
Australia	1.5:1 debt-to-equity ratio (15:1 for financial institutions) applies
Austria	Informal 4:1 debt-to-equity ratio applies
Belgium	Interest deductions limited to the higher of €3 million or 30% of EBITDA 5:1 debt-to-equity ratio applies to intragroup loans 1:1 debt-to-equity ratio applies to receivables from shareholders or directors, managers, and liquidators
Canada	1.5:1 debt-to-equity ratio applies
Chile	3:1 debt-to-equity ratio applies A surtax for excessive-indebtedness can apply
Czech Republic	4:1 debt-to-equity ratio (6:1 debt-to-equity ratio for certain financial services companies) applies
Denmark	4:1 debt-to-equity ratio applies Interest deductions are limited to 2.7% of assets Interest and depreciation deduction limited to 30% of EBITDA Other rules can apply
Estonia	Interest deductions limited to the higher of €3 million or 30% of EBITDA
Finland	Interest deductions limited to 25% of EBITDA Net interest expenses between non-related parties limited to €3 million
France	Interest deductions limited to the higher of €3 million or 30% of EBITDA
Germany	Interest deductions limited to the higher of €3 million or 30% of EBITDA
Greece	Interest deductions limited to the higher of €3 million or 30% of EBITDA
Hungary	Interest deductions limited to the higher of €3 million or 30% of EBITDA
Iceland	Interest deductions limited to 30% of EBITDA Rule does not apply if total interest paid does not exceed ISK 100 million Other exemptions can apply
Ireland	None However, in specific cases, interest can be reclassified as a dividend
Israel	None
Italy	Interest deductions limited to 30% of EBITDA
Japan	3:1 debt-to-equity ratio (2:1 for particular repo transactions) applies
Korea	2:1 debt-to-equity ratio (6:1 for financial institutions) applies Interest deductions limited to 30% of EBITDA (financial institutions exempt)
Latvia	4:1 debt-to-equity ratio applies (certain financial institutions exempt) Interest deductions limited if interest payments both exceed €3 million and 30% of EBITDA
Lithuania	4:1 debt-to-equity ratio applies Interest deductions limited to the higher of €3 million or 30% of EBITDA Rule does not apply if entity's debt-to-equity ratio is not lower (or at most 2 percentage-points lower) than the group -consolidated ratio
Luxembourg	Informal 85:15 debt-to-equity ratio applies Interest deductions limited to the higher of 30% of EBITDA or €3 million (financial institutions exempt)
Mexico	3:1 debt-to-equity ratio applies
Netherlands	Interest deductions limited to the higher of €1 million or 30% of EBITDA
New Zealand	Numerous restrictions on debt-to-equity ratio apply
Norway	Interest deductions limited to 25% of EBITDA
Poland	Interest deductions limited to the higher of PLN 3 million or 30% of EBITDA
Portugal	Interest deductions limited to the higher of €1 million or 30% of EBITDA
Slovak Republic	Interest deductions limited to 25% of EBITDA (financial institutions exempted)
Slovenia	4:1 debt-to-equity ratio applies
Spain	Interest deductions limited to the higher of €1 million or 30% of EBITDA
Sweden	Interest deductions limited to 30% of EBITDA
Switzerland	Debt-to-equity ratios apply and vary by asset class
Turkey	3:1 debt-to-equity ratio (6:1 for financial institutions) applies
United Kingdom	Interest deductions limited to 30% of EBITDA
United States	Interest deductions limited to the sum of business interest income, 30% of adjusted taxable income, and floor plan financing interest

Methodology

The *ITCI* is a relative ranking of the competitiveness and neutrality of the tax code in each of the 36 OECD countries. It utilizes 43 variables across five categories: corporate income tax, individual taxes, consumption taxes, property taxes, and international tax rules. Each category has multiple subcategories, and each subcategory holds a number of the 43 variables. For example, the consumption tax category contains three subcategories: rate, base, and complexity. The consumption tax base subcategory then includes two variables: VAT/sales tax threshold and VAT/sales tax base as a percentage of total consumption.

The *ITCI* is designed to measure a country's tax code on a relative basis rather than on an absolute measurement. This means that a score of 100 does not signify the absolute best possible tax code but the best tax code among the 36 OECD countries. Each country's score on the *ITCI* represents its relative difference from the best country's score.

The Calculation of the Variable, Subcategory, Category, and Final Score

First, the standard deviation and average of each variable is calculated. The standard deviation measures the average difference of a country's tax variables from the mean among all 36 countries.[1] For example, the average corporate income tax rate across the 36 OECD countries is about 23.6 percent, with a standard deviation of 5.4 percentage points. This means that on average, an OECD country's corporate tax rate is 5.4 percentage points off from the mean rate of 23.6 percent.

To compare each variable, it is necessary to standardize them, because each variable has a different mean and standard deviation. To standardize the variables, each observation is given a normalized score. This sets every variable's mean to 0 with a standard deviation of 1. Each country's score for each variable is a measure of its difference from the mean across all countries for that variable. A score of 0 means a country's score is equal to the average, a score of -1 means it is one standard deviation below average, and a score of 1 is one standard deviation above average.

The score for the corporate tax rate demonstrates this process. Of the 36 OECD countries, the average corporate income tax rate is 23.6 percent, and the standard deviation is 5.4 percentage points. The United States' corporate tax rate normalized score is -0.42,[2] or 0.42 standard deviations less competitive than the average OECD country. In contrast, Ireland's tax rate of 12.5 percent is 2.03 standard deviations more competitive than the average OECD country.

The next step is to combine variable scores to calculate subcategory scores. Within subcategories, each individual variable's score is equally weighted and added together. For instance, the subcategory of cost recovery includes six variables: loss carryback, loss carryforward, the present discounted value of depreciation schedules for machines, industrial buildings, and intangibles, and inventory accounting method. The scores for each of these six variables are multiplied by 1/6, or 16.6 percent, to give them equal weight, and then added together. The result is the cost recovery subcategory score.

1 To calculate the standard deviation, we find the mean of a data set (corporate tax rates, for example) and the difference of each country's tax rate from the mean tax rate among the 36 countries. We then take each country's difference from the mean and find the average difference for the group.

2 The true normal score is 0.42. The score is a negative value to reflect the fact that being higher than the OECD average is less ideal.

Calculating Subcategory Scores

From here, two transformations occur. First, to eliminate any negative values, the inverse of the lowest z-score plus one in each subcategory is added to each country's z-score. For example, France has the worst z-score for the corporate income tax rate subcategory (-1.99). Thus, 1.99 plus 1 (2.99) is added to each country's z-score (the adjusted z-score). This sets the worst score in each subcategory to 1.

Second, the adjusted subcategory scores for each country are scaled to 100, relative to the country with the best score in each subcategory. This is done by taking each country's adjusted z-score and dividing it by the best adjusted z-score in each category. For example, Hungary, which has the lowest corporate tax rate, has the best adjusted corporate rate subcategory z-score of 5.66, and receives a final subcategory score of 100.

Calculating Category Scores

The same method is used to create the category scores. First, the z-score for subcategories are averaged to create the initial category score. Then, the inverse of the worst z-score plus one in each category is added to each country's z-score. For example, Japan has the worst initial corporate category score of -0.84. Thus, 0.84 plus 1 (1.84) is added to each country's initial category score (the adjusted initial category score). This sets the worst score in each category to 1.

Second, the adjusted initial category scores for each country are scaled to 100, relative to the country with the best score in each category. This is done by taking each country's adjusted initial category score and dividing it by the best adjusted initial category score in each category. For example, Latvia, which has the best corporate category score, has the best adjusted category score of 3.05, and receives a final category score of 100.

Calculating the Final Scores

The same method is used to create the final score. First, the initial category scores are averaged to create the initial final score. Then, the inverse of the worst initial final score plus one is added to each country's initial final score. For example, France has the worst initial final score of -0.53. Thus, 0.53 plus 1 (1.53) is added to each country's initial final score (the adjusted initial final score). This sets the worst score in each category to 1.

Second, the adjusted initial final scores for each country are scaled to 100, relative to the country with the best score in each category. This is done by taking each country's adjusted initial final score and dividing it by the best adjusted initial final score in each category. For example, Estonia, which has the best final score, has the best adjusted final score of 2.34, and receives a final category score of 100.

Methodological Changes

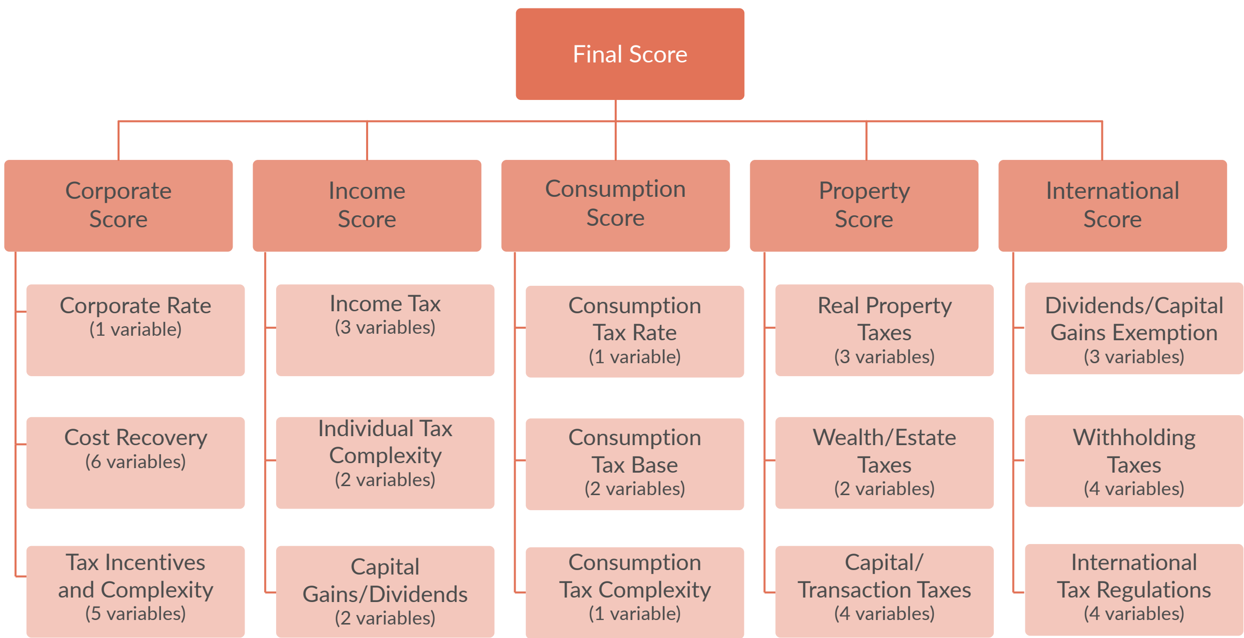
To improve the *ITCI* and the way it measures both competitiveness and neutrality, we have made several changes to the *Index*. Each of these changes has been applied to prior years to allow consistent comparison across years.

- Lithuania was added to the *Index* since it has recently joined the OECD. Data for each variable going back to 2014 was researched to include it in the *Index*.

- This year we removed a variable that identified whether a country allows for taxpayers to adjust the basis of their capital gains for inflation. In the 2018 *Index*, 12 countries indexed capital gains for inflation. However, that data is not always consistent because sources are not necessarily in agreement.

- The variables in the international portion of the *Index* were rearranged to reflect a more consistent approach with the subcategories. The variable for the limitations on participation exemptions is now calculated along with the dividend and capital gains exemptions rather than with the international regulations variables (CFC rules and thin-capitalization rules).

FIGURE A.
Components of the *Index*



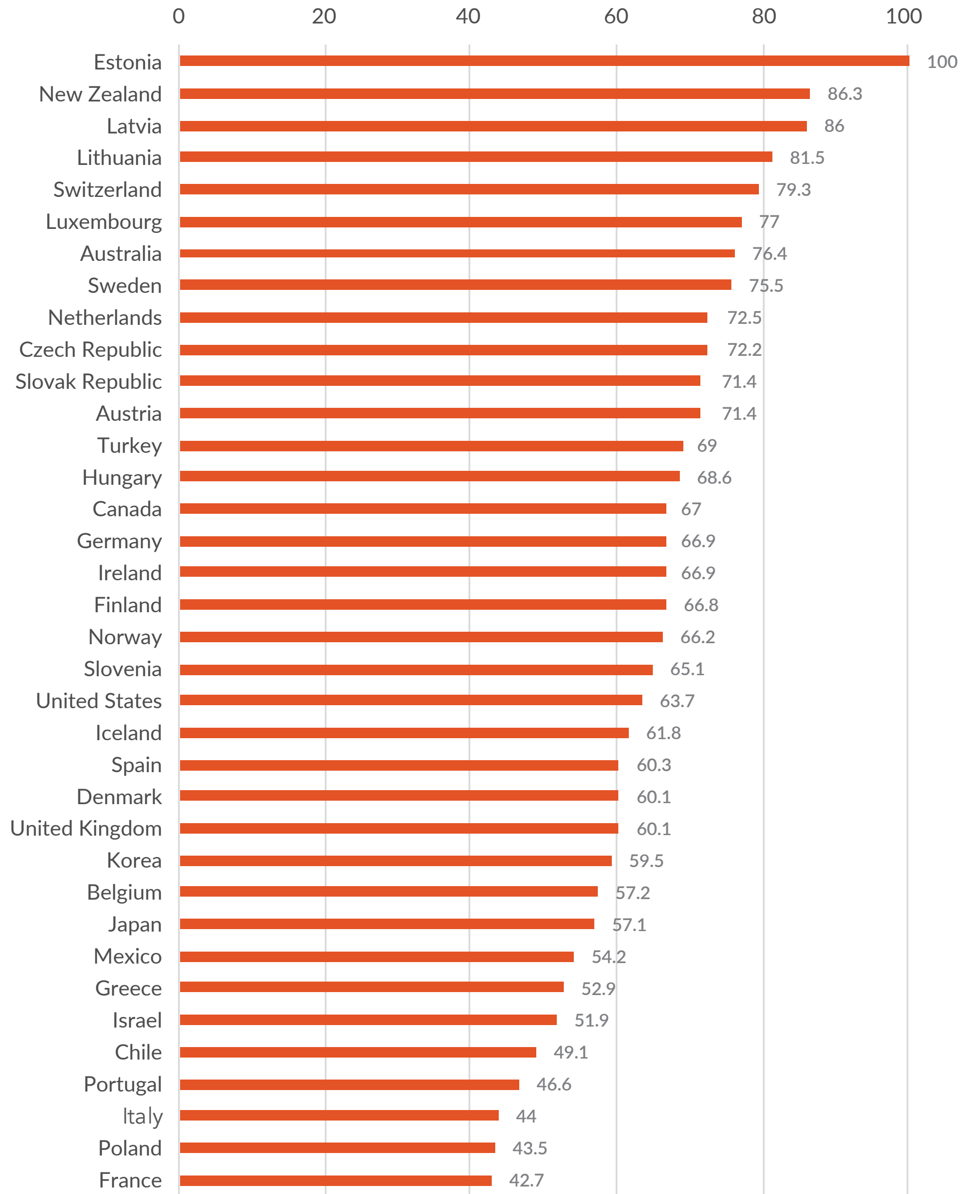
Distribution of the Final Scores

Many of the countries shown in the *Index* have final scores that are grouped closely together. Though the scores range from 100 (Estonia) to 42.69 (France), there are eight countries with scores in the 70s and 13 countries with scores in the 60s. The closeness of some of the scores means that small differences in variable values (such as a percentage-point difference in the corporate income tax rate or the number of hours for compliance time) can mean the difference of several rank positions.

The distribution of the scores also shows the distance between first and second place, again showing how significantly different the Estonian system is even relative to countries with ostensibly similar tax systems.

FIGURE B.

Distribution of Final Scores



Data Sources

The *ITCI* includes data from numerous sources, including:

- PricewaterhouseCoopers Worldwide Tax Summaries
- EY Worldwide Corporate Tax Guides
- Deloitte International Tax Source
- The Organisation for Economic Co-operation and Development
- The Bloomberg Tax Country Guides
- The Oxford University Centre for Business Taxation Database
- The Tax Foundation

The *ITCI* uses the most up-to-date data available as of July 2019. See footnotes for specific data citations. Data may not reflect changes in countries making rapid reforms.

ABOUT THE TAX FOUNDATION

The Tax Foundation is the world's leading independent tax policy research organization. Since 1937, our research, analysis, and experts have informed smarter tax policy in the United States and abroad. Our Center for Global Tax Reform produces timely and high-quality data, research, and analysis on taxation in countries around the world that influences the debate toward economically principled policies.

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The *International Tax Competitiveness Index* measures how well a country's tax system promotes sustainable economic growth and investment. The report looks at over 40 tax policy variables in five categories: corporate income taxes, individual taxes, consumption taxes, property taxes, and the treatment of foreign earnings. The *ITCI* gives a comprehensive overview of how developed countries' tax codes compare, explains why certain tax codes stand out as good or bad models for reform, and provides important insight into how to think about tax policy.

TAX FOUNDATION

The Tax Foundation is the nation's leading independent tax policy research organization. Since 1937, our research, analysis, and experts have informed smarter tax policy at the federal, state, and local levels. We are a 501(c)(3) nonprofit organization.

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