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SCHOOL OF BUSINESS ADMINISTRATION IN KARVINA

INDIRECT TAXES

VALUE ADDED TAX

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INTERNATIONAL TAXATION AND TAX SYSTEMS/NPMZD

OUTLINE OF THE LECTURE

1. THE RISE OF VAT
2. VAT MECHANISM
3. VAT AND SALES TAXES IN OECD COUNTRIES
4. VAT IN EUROPEAN UNION

INDIRECT TAXES

- Value added taxes (VAT) and other consumption taxes are generally designed to be indirect taxes. While they are generally intended to tax the final consumption of goods and services, they are collected from the suppliers of these goods and services rather than directly from the consumers.
- The consumers bear the burden of these taxes, in principle, as part of the market price of the goods or services purchased.
- Two categories of consumption taxes are generally distinguished:
  - General taxes on goods and services, consisting of VAT and its equivalent in several jurisdictions, sales taxes and other general taxes on goods and services.
  - Taxes on specific goods and services, consisting primarily of excise taxes, customs and import duties, and taxes on specific services.

WHY TAX CONSUMPTION?

- Consumption taxes also influence decisions and change economic outcomes, but they are less likely to influence decisions to work or invest.
- Consumption taxes that apply to all purchases result in consumers paying taxes regardless of their income or their work status.
- A wealthy heir would pay the same taxes on their purchases of a haircut, milk, and eggs as a barber, farmer, or grocery store worker. Even if the tax rate is set at the same level for all purchases, however, individuals who buy more (or more expensive) goods do pay more in consumption taxes than those who buy fewer (or less expensive) goods.
- From a revenue perspective, consumption taxes can provide a significant and stable source of financing for governments.

PRINCIPLES FOR DESIGNING GOOD CONSUMPTION TAXES

- Typically, governments will tax consumption using sales taxes, VATs, or excise taxes. While all three policy tools fall under the consumption tax umbrella, there are several differences in policy design and application among the three.
- A few principles can be used to determine whether a sales tax, VAT, or excise tax is well-designed.
- A well-designed consumption tax would apply to all final consumption. It would apply whether someone buys a haircut, a vehicle, or groceries.
- Also, the ideal consumption tax would not apply (or there would be an offset mechanism) if a restaurant bought groceries. Since the groceries are an input for the restaurant, the restaurant’s purchase is not final consumption. However, someone who buys the meal in the restaurant would represent a final consumer.

FOUR PRINCIPLES FOR SALES TAXES AND VAT:

- Only final consumption should be taxed. Business inputs should either be exempt or, as with a VAT, taxes paid on inputs should be credited back to businesses along supply chains.

- All final consumption should be taxed. Exemptions and special rates for certain goods unnecessarily complicate compliance efforts, can distort consumption patterns in unintended ways, and often result in higher tax rates.

- Consumption taxes should only be levied by the jurisdiction where the good or service is consumed.

- Broad-based consumption tax revenues are generally more stable than revenue from income taxes on individuals or businesses.

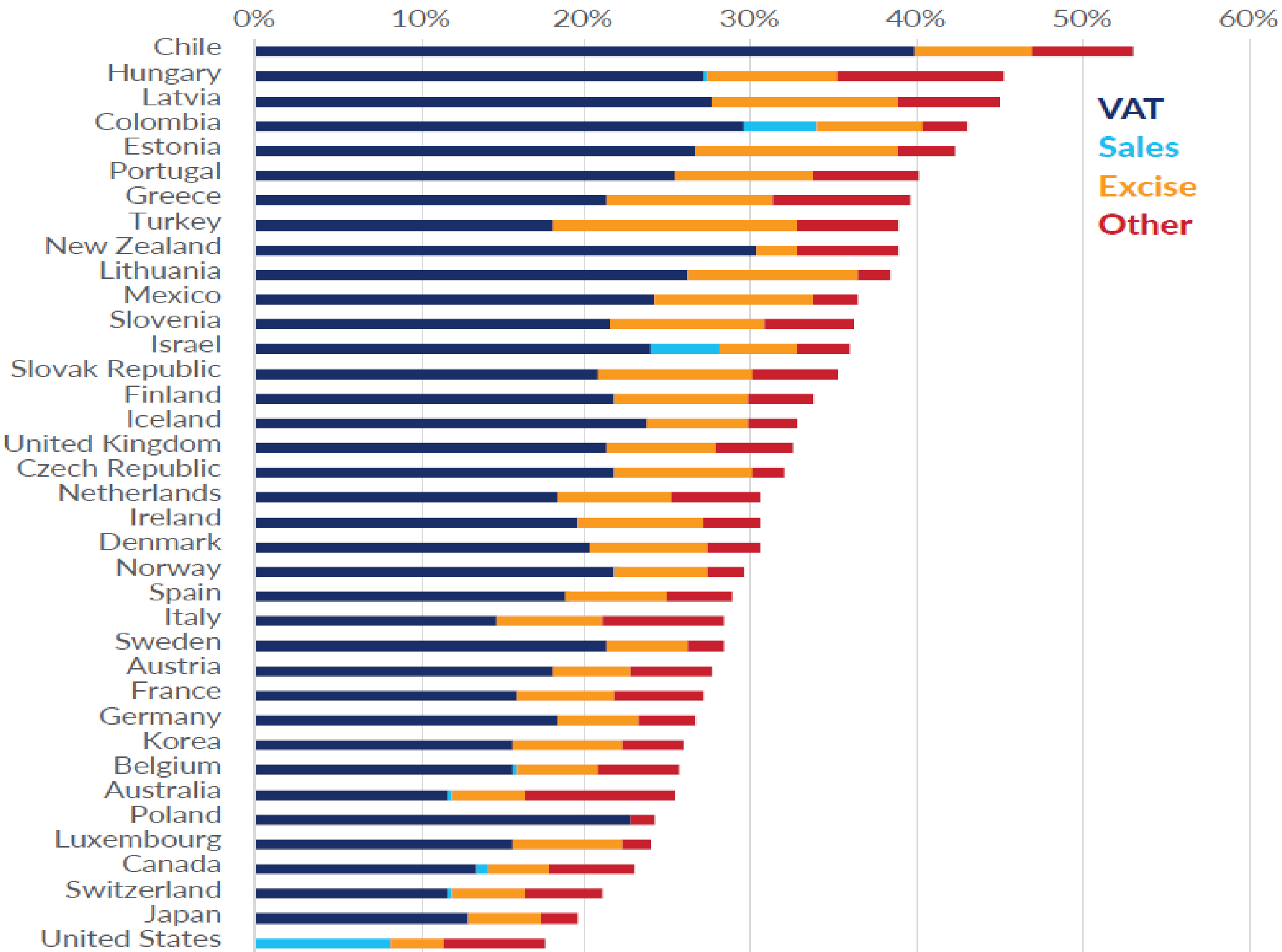
THREE PRINCIPLES FOR EXCISE TAXES:

- The tax should be calibrated to the relative harm or cost of the product being taxed rather than the product's price, whether that is wear and tear on public roads, pollution, or health.
- Revenue from excise taxes should be appropriated to mitigate the effects of consuming excised goods and services. A tax on road use should be used to fund road maintenance.
- Revenue from excise taxes tends to be volatile since the tax base is very narrow and they are often designed to change consumer behavior.

Examples of a VAT and a Sales Tax

Transaction		Base cost	Value-added tax	Sales tax
1	A Lumber company sells $100 of wood to a furniture maker.	$100	$10 The furniture maker pays the lumber company $110, and the lumber company remits $10 to the government.	
2	A furniture maker makes a chair and sells it to a retailer for $300.	$300	$20 The retailer pays $330 for the chair. Instead of sending the full $30 to the government, the tailer gets to subtract the $10 of taxes they already paid to the lumber company.	
3	The retailer sells the chair for $500 to a shopper.	$500	$20 The shopper pays $550 but because $30 in taxes have already been paid by the furniture maker and the lumber yard, the retailer only pays the government $20.	$50 Under a sales tax, the shopper would pay $550, and the retailer would remit $50 to the government.

Consumption Tax Revenues Account for more than 30 percent of Total Revenues in 21 OECD Countries



Note: Data is from 2019 except in the case of Australia, Japan, and Mexico, for which 2018 values are used.
Source: OECD, "Revenue Statistics - OECD countries: Comparative tables," https://stats.oecd.org/Index.aspx?DataSetCode=REV.

THE ORIGINS OF THE VAT

- The origins of the VAT have never been decisively settled. Attribution is variously accredited to one of two sources: the German businessman Wilhelm Von Siemens in 1918, or the American economist Thomas S. Adams in his writing between 1910 and 1921.
- Von Siemens's VAT concept was seen as a technical innovation that brought a key improvement to the turnover tax. VAT allowed for the recovery of taxes paid on business inputs and therefore avoided the cascading problems that arise with a turnover tax. While the innovation was clearly important, it hardly meant the revolutionary overthrow of the fiscal order.
- Adams saw the VAT as an alternative to the business income tax. He was focused on federal tax policy, and since there was no national sales tax his concern was not with technical modification to an extant regime but with a major alteration of the existing federal income tax system.

THE RISE OF VAT

- The VAT was first introduced at a national level in France in 1954. Its original coverage was limited, and France did not move to a full VAT that reached the broader retail sector until 1968.
- The first full VAT in Europe was enacted in Denmark in 1967, although the country did not join the European Economic Community until 1973.
- VAT adoption progressed in two major phases.
  - The first occurred mostly in Western Europe and Latin America during the 1960s and 1970s. The rise of the VAT in Western Europe was accelerated by a series of EEC directives requiring member states to adopt a harmonized VAT upon entry to the EU.
  - The second phase of VAT adoption occurred from the late 1980s with the introduction of VAT in some high-profile industrialized countries outside the EU, such as Australia, Canada, Japan, and Switzerland. This phase also witnessed the massive expansion of VAT in transitional and developing economies, most notably in Africa and Asia.

THE RISE OF VAT

- The VAT spread has accelerated since, with strong support from the IMF, as it has in 2010 been implemented in more than 140 countries, where it often accounts for one-fifth of the total tax revenue.
- In most countries it has been used to increase revenues, but in a few it has also enabled reductions in income taxes and excises (For instance, New Zealand's 1986 reform introduced GST while the personal income tax marginal rate was reduced, although its base was broadened. In Singapore, GST was introduced in 1994 as part of a larger tax restructuring exercise, to enable Singapore to shift its reliance from direct taxes to indirect taxes.
- GST has enabled Singapore to sustain a lower income tax rate.) 164 countries in the world levied a VAT as of 1 January 2014: 46 in Africa, 1 in North America, 18 in Central America and the Caribbean, 12 in South America, 28 in Asia, 51 in Europe, and 8 in Oceania. As a result, only a minority of countries now apply retail sales taxes, i.e., single-stage taxes consumers.

VARIETIES OF VAT

- Developed countries can be classified into two broad categories: countries that have introduced a VAT based on the French and then European model, and countries that have implemented a different VAT.

- The first group of countries, many of which are members of the EU, generally applies several reduced rates so that the tax basis subject to standard rate is somewhat limited. Articles 96 to 99 of VAT Directive 2006/112/EC of November 28, 2006, allow EU member states to have a standard rate that cannot be lower than 15 percent and up to two reduced rates that cannot be lower than 5 percent. Also, Chapter 4 of the VAT directive grants older member states “reserved rights” according to which they can continue applying a reduced rate lower than the minimum indicated in the directive if that rate was in place before 1991.

VARIETIES OF VAT

- The second group of countries has a much broader base at the standard rate.
- The 1986 New Zealand VAT reform introduced a broad-base VAT with a low single standard rate, a low registration threshold, and few exceptions and exemptions.
- South Africa implemented a VAT in 1991 that broadly follows the New Zealand model. However, at inception it zero-rated basic food items. This was extended in 2001 to paraffin, an energy source used by most low-income households. It has, however, a relatively high VAT registration threshold to simplify the system by excluding small firms.
- Singapore, which introduced VAT in 1994, also has a broad base with a high threshold and a single rate.
- Australia introduced the GST and has a relatively wide base but has a number of zero rates for health and medical care, educational supplies and child care, and food and beverages.

VAT MECHANISM

- VAT is levied on each transaction in the production chain, rather than being collected only at the retail stage, with business being able to obtain full credit or an immediate deduction for VAT paid on inputs (including capital goods) offset against the VAT collected on outputs. As a result, the tax is intended to be borne only at final consumption.
- VAT is borne by the final consumer in the form of a percentage added to the final selling price of the goods or services.
- There is strong support, although not necessarily consensus, for levying VAT on a destination basis, meaning it would be payable in the jurisdiction where consumption rather than production occurs. This has the intended effect of making exports exempt or zero rated for VAT purposes.

COLLECTION PROCESS

- Under the **invoice credit method** (transaction based method), each trader charges VAT at the rate specified for each supply and passes to the purchaser an invoice showing the amount of tax charged. The purchaser is in turn able to credit that input tax against the output tax in charges on its sales, remitting the balance to the tax authorities and receiving refunds when there are excess credits. This method is based on invoices that could be cross-checked to pick up any overstatement of credit entitlement.
- By linking the tax credit on the purchaser’s inputs to the tax paid by the purchaser, the invoice credit method is designed to discourage fraud.

COLLECTION PROCESS

- Under the **subtraction method** (entity based method), the tax is levied directly on an accounts-based measure of value added, which is determined for each business by subtracting the VAT calculated on allowable purchases from the VAT calculated on taxable supplies.
- Of the OECD countries employing a VAT, only Japan uses the subtraction method.

VAT EXEMPTIONS

- VAT exemptions create an important exception to the neutrality of VAT.
- When a supply is VAT-exempt, this means that no output tax is charged on the supply and that the supplier is not entitled to credit the related input tax.
- Many VAT systems apply exemptions for activities that are hard to tax (the exemption for financial services being the most notable example) and/or to pursue distributional objectives (agricultural and fuel exemptions and exemptions for basic health and education are commonly encountered).

VAT TAX BASE

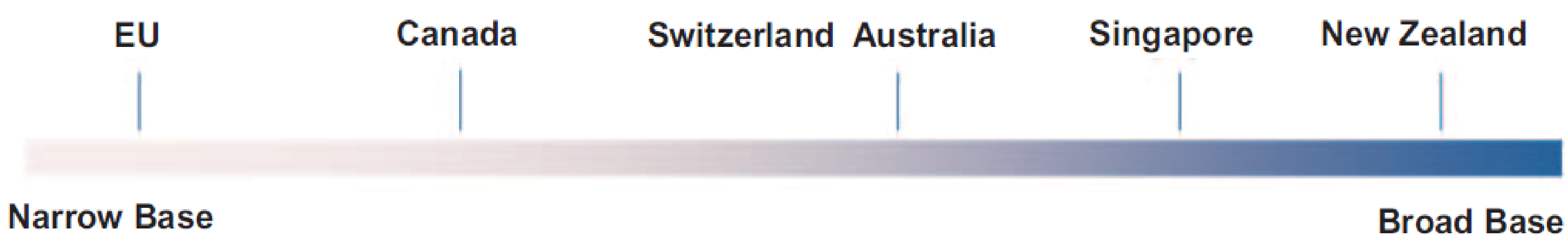
Figure 3. Impact of Design of the VAT/GST Law

Narrow Base

- Narrow definition of taxable person
- Low registration threshold
- Multiple rates
- Many exemptions
- Many zero-rated supplies

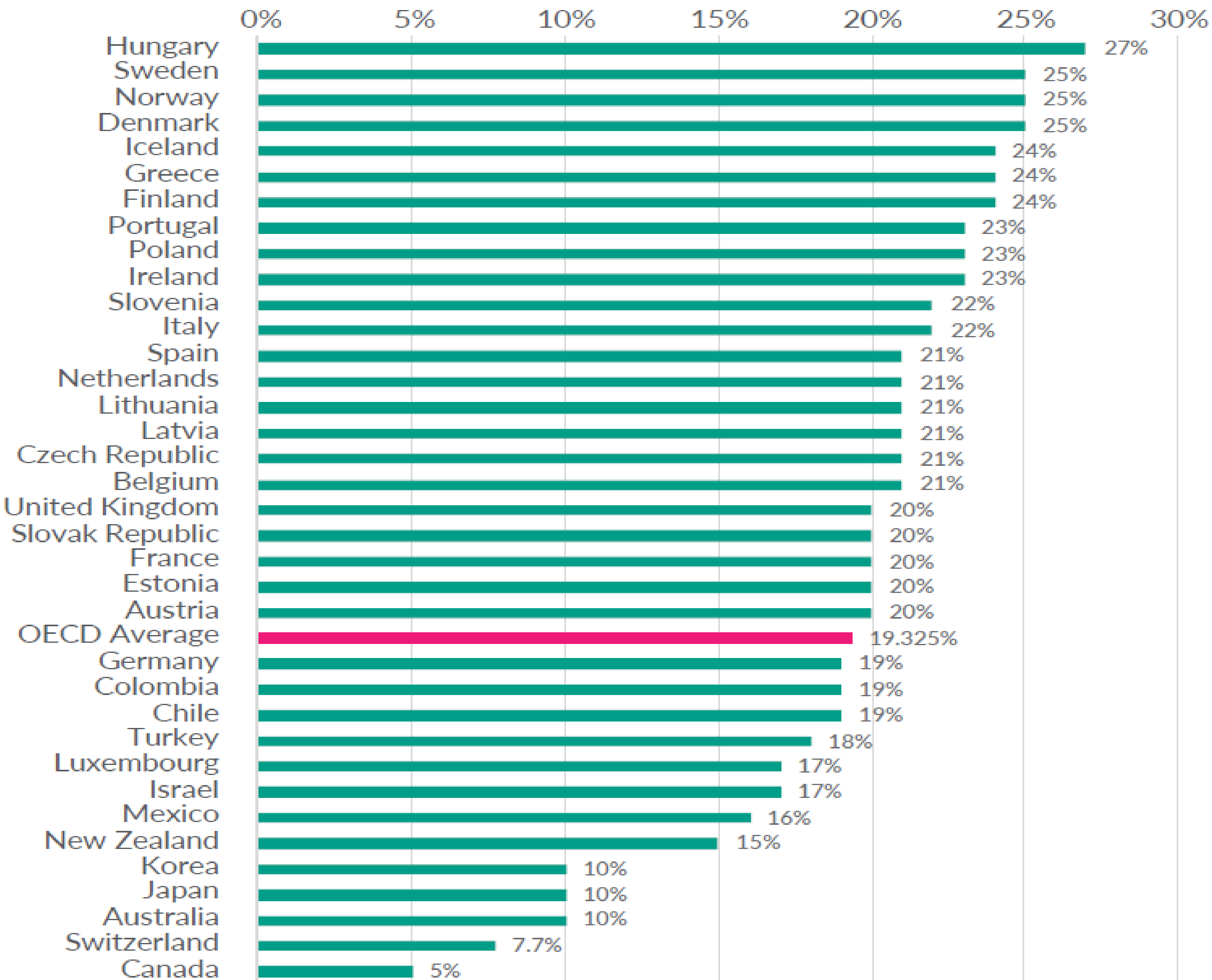
Broad Base

- Wide definition of taxable person (including government bodies)
- High registration threshold
- Single rates
- Minimal exemptions
- Minimal zero-rated supplies



Source: PwC research. © 2010 PricewaterhouseCoopers Tax Consultants bcvba. All rights reserved. 'PricewaterhouseCoopers' refers to PricewaterhouseCoopers Tax Consultants bcvba in Belgium or, as the context requires, other member firms of PricewaterhouseCoopers International Limited, each of which is a separate and independent legal entity.

STANDARD VAT RATES APPLIED IN OECD



)ECD, *Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues* (Paris: OECD Publishing, 2020), i.org/10.1787/152def2d-en.

REDUCED VAT RATES APPLIED IN OECD

Country	2020 Standard Rate	Reduced Rates	Specific Regional Rates
Australia	10.0	0	-
Austria	20.0	10/13	19.00
Belgium	21.0	0/6/12	-
Canada	5.0	0	13.0/14.0/15.0
Chile	19.0	-	-
Colombia	19.0	0/5	-
Czech Republic	21.0	10/15	-
Denmark	25.0	0	-
Estonia	20.0	0/9	-
Finland	24.0	0/10/14	-
France	20.0	2.1/5.5/10	0.9/2.1/10.0/13.0 & 1.05/1.75/2.1/8.5
Germany	19.0	0/7	-
Greece	24.0	6/13	4.0/ 9.0/17.0
Hungary	27.0	5/18	-
Iceland	24.0	0/11	-
Ireland	23.0	0/4.8/9/13.5	-
Israel	17.0	0	0.0
Italy	22.0	4/5/10	-
Japan	10.0	8	-
Korea	10.0	0	-
Latvia	21.0	5/12	-
Lithuania	21.0	5/9	-
Luxembourg	17.0	3/8/14	-
Mexico	16.0	0	8.0
Netherlands	21.0	9	-
New Zealand	15.0	0	-
Norway	25.0	0/12/15	-
Poland	23.0	5/8	-
Portugal	23.0	6/13	4/9/18 & 5/12/22
Slovak Republic	20.0	10	-
Slovenia	22.0	5/9.5	-
Spain	21.0	4/10	0/2.75/3/7/9.5/13.5/20.0 & 0.5/10
Sweden	25.0	0/6/12	-
Switzerland	7.7	0/2.5/3.7	-
Turkey	18.0	1/8	-
United Kingdom	20.0	0/5	-

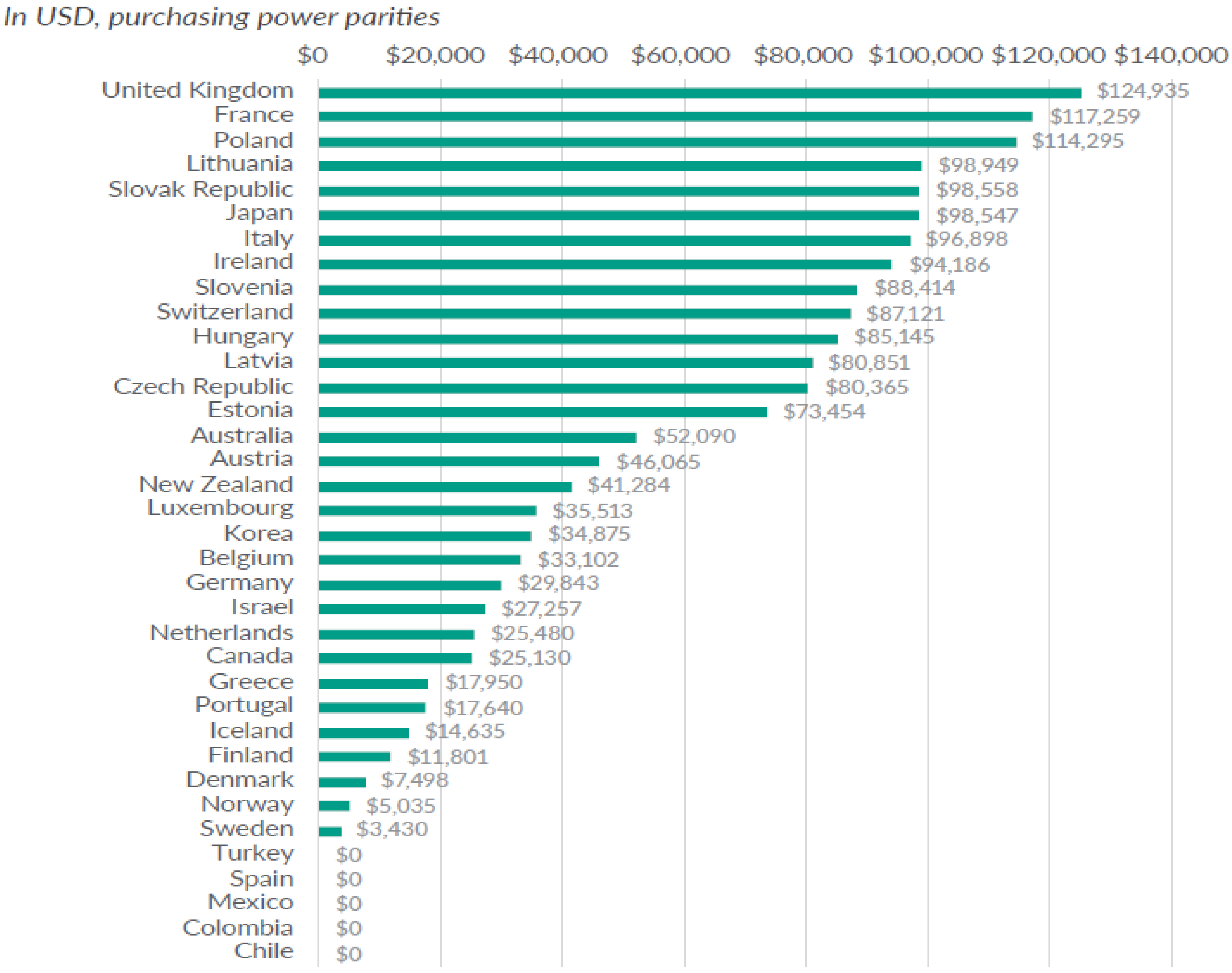
STRUCTURES OF RATES

- Developing countries seem to have largely favored single-rate systems. For instance, of the 21 African countries that adopted a VAT between 1990 and 1999, 14 have a single-rate system. Eight of the nine African countries that have adopted a VAT since 2000 have a single-rate VAT system. Note that countries with a wider base at the standard rate frequently have a standard rate less than the EU minimum of 15 percent.
- The main reason for introducing a different rate structure in Europe was the desire to alleviate the tax on goods and services that forms a larger share of expenditures of the poorest households. Many countries had a specific higher rate for luxury products, probably reflecting earlier sales taxes that were restricted to luxury goods. The EU rules obliged them to do away with that specific rate and apply only one standard rate.

REGISTRATION AND COLLECTION THRESHOLD

- As with other taxes, VAT impose compliance costs that can be especially burdensome for small and medium size businesses. For this reason, most OECD countries set exemption thresholds below which small businesses are not required to charge and collect VAT. This means that, unlike businesses above that threshold, they do not collect VAT on their outputs sold to customers but also cannot receive a refund for VAT paid on business inputs.
- Although exempting very small businesses saves administrative and compliance costs, unnecessarily large thresholds create a distortion by favoring smaller businesses over larger ones. Also, a low threshold may act as a disincentive for businesses to grow or as an incentive to avoid VAT by artificially splitting activities. A recent study of VAT in the UK found significant bunching of businesses just below the VAT registration threshold.

Registration and Collection Thresholds



Source: OECD, *Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues* (Paris: OECD Publishing, 2020), https://doi.org/10.1787/152def2d-en.

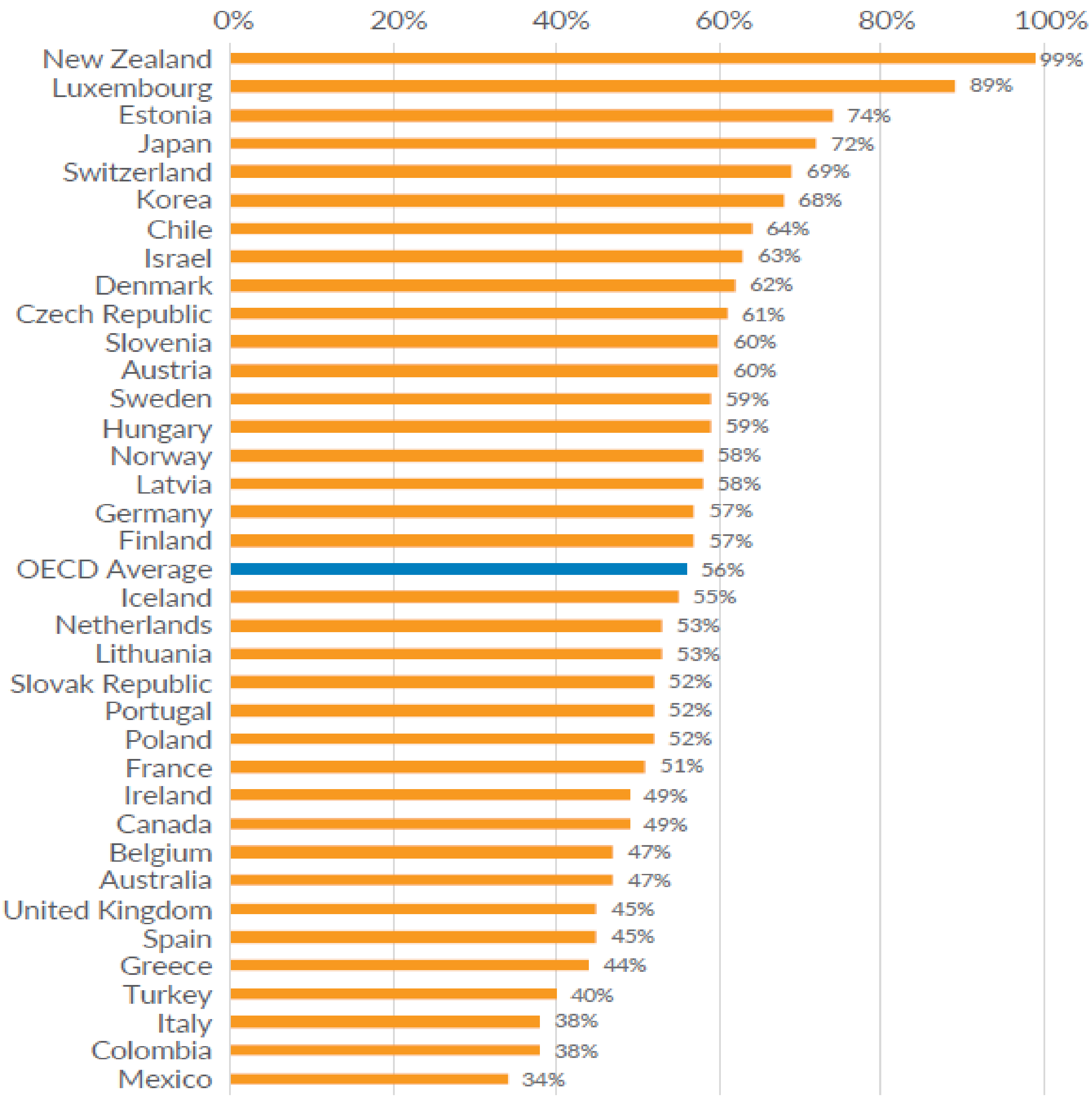
THE VAT REVENUE RATIO (VRR)

- One of the tools which is considered to be a suitable indicator of VAT performance is the VAT Revenue Ratio (VRR). Therefore, VRR measures the difference between the VAT revenue actually collected and what would theoretically be raised if VAT was applied at the standard rate to the entire potential tax base and all revenue was collected.

- **VRR = VAT Revenue/[(Final Consumption Expenditure - VAT Revenue) x standard VAT rate]**

- The optimal value VRR equals 1, but this is a theoretical situation that all expenditures on final consumption are subject to VAT at the standard rate and all the tax is collected. On the other hand, the low value of VRR shows a small tax base for the standard rate of tax, or a significant failure of the state in collecting the tax due. In practice, the VRR rarely equals 1.

VAT REVENUE RATIO 2018



Source: OECD, *Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues* (Paris: OECD Publishing, 2020), https://doi.org/10.1787/152def2d-en.

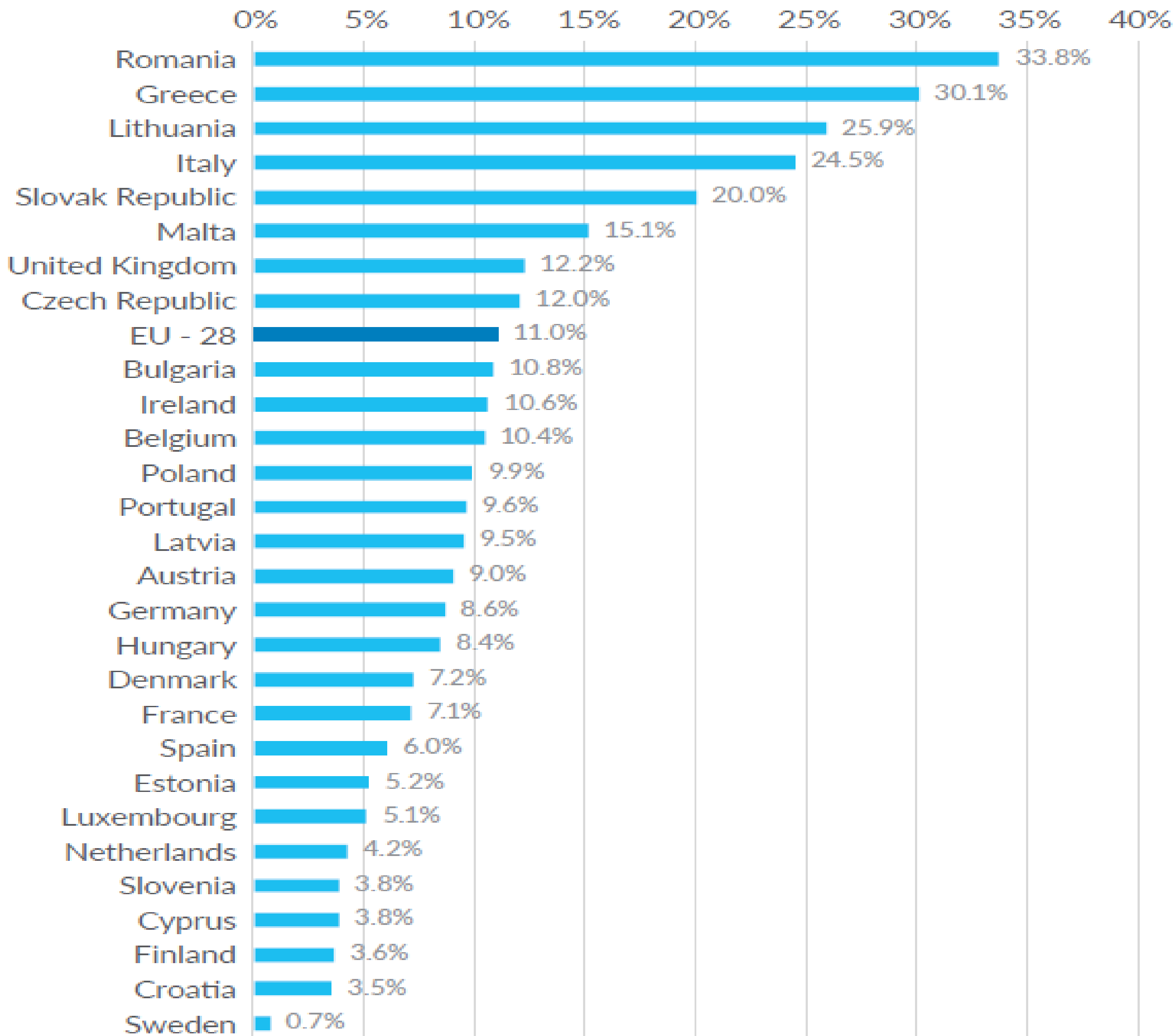
THE VAT REVENUE RATIO (VRR)

- A number of complex factors may influence the results. These include:
  - tax compliance never reaches 100 per cent,
  - in many countries, a wide range of goods and services are subject to reduced rates,
  - some goods and services are usually exempt from VAT,
  - some distortions may be created by the place of taxation rules applicable to international trade,
  - small traders are exempt from VAT in many countries,
  - on some supplies businesses don't pay VAT but they are in tax credit situation.
- These factors include both policy decisions and compliance levels and the VRR is combination of Policy Efficiency Ratio (the "Policy Gap") and Compliance efficiency ratio (the "Compliance Gap").

VAT GAP IN THE EU

- The “Compliance Gap” or the “VAT Gap” is estimated for the EU member countries by the Center for Social and Economic Research.
- The VAT Gap is defined as the difference between the tax collected and the tax that should be collected if all taxpayers, consumers, and businesses fully complied with the VAT rules. The VAT Gap includes not only VAT avoidance or gaps in enforcement but also unpaid VAT due to bankruptcies, insolvencies, or legal tax optimization.
- It is calculated as the difference between the VAT collected and the theoretical tax liability according to tax law, the VAT total tax liability (VTTL).
- The indicator is then expressed in relative terms as a percentage of VTTL.

VAT Gap in the EU Member States 2018



Note: EU-28 includes the United Kingdom.
Source: Center for Social and Economic Research (CASE), Economisti Associati, European Commission: DG Taxation and Customs Union, "Study and Reports on the VAT Gap in the EU-28 Member States: 2020 Final Report," 2020.

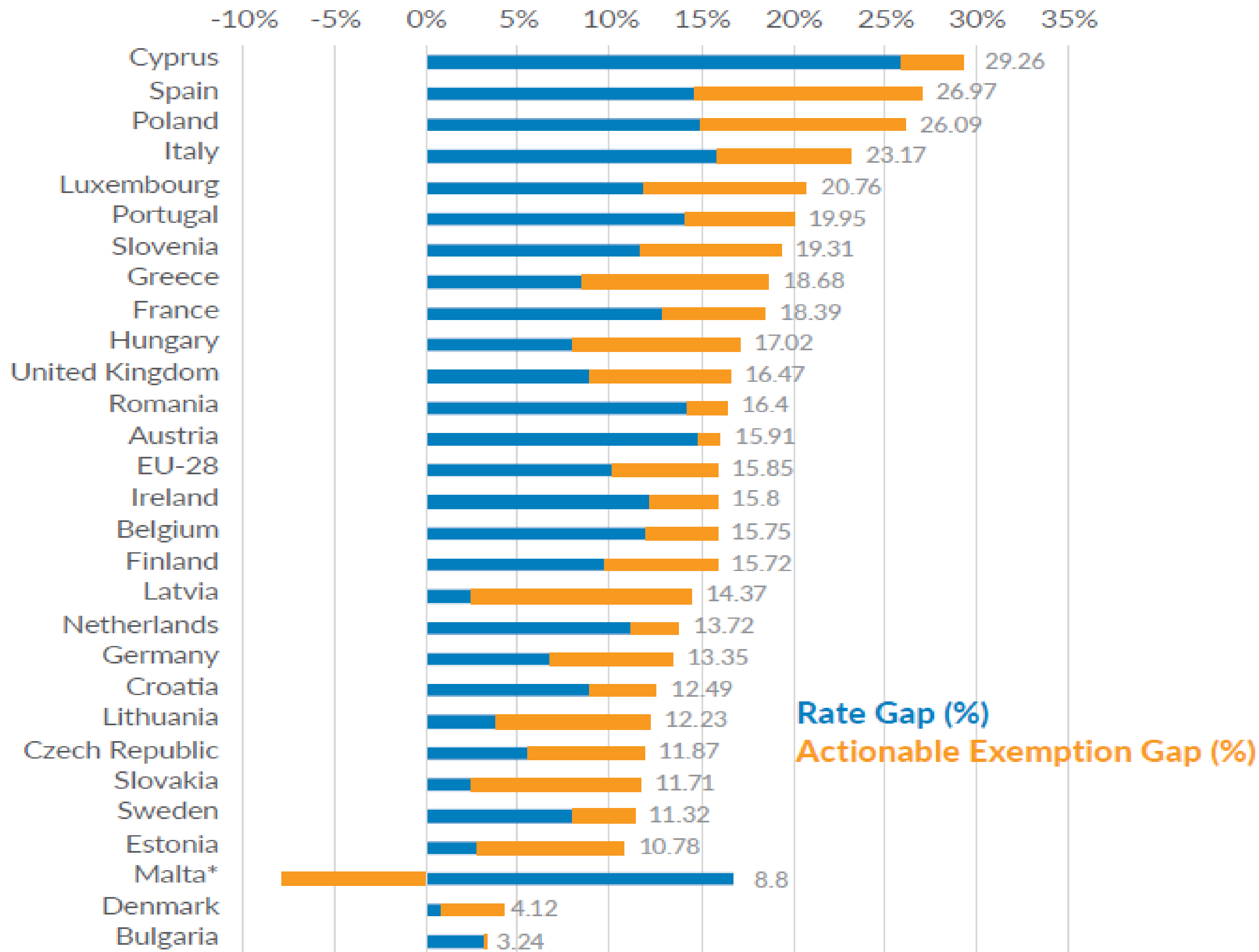
VAT POLICY GAP

- The other factor determining the VAT Revenue Ratio is the Policy Gap. The Policy Gap is an indicator of the additional VAT revenue that could theoretically be generated if a uniform VAT rate is applied to the final domestic use of all goods and services.

- The Policy Gap has two components:
  - the Rate Gap and
  - the Exemption Gap.

- The Rate Gap represents the loss in VAT revenue due to reduced VAT rates, the Exemption Gap is connected to the implementation of exemptions.

Rate and Actionable Exemption VAT Gap in EU Countries 2018



Notes: * Although the Exemption Gap could become negative in periods when input VAT exceeds potential output VAT, like periods of increased investment or when losses are incurred, the negative value might be due to a measurement error that results from difficulties to decompose the components of the base, such as sectorial Gross Fixed Capital Formation and net adjustments, and inaccuracies in the underlying data and parameters. EU-28 includes the United Kingdom.

Source: Center for Social and Economic Research (CASE), Economisti Associati, European Commission: DG Taxation and Customs Union, "Study and Reports on the VAT Gap in the EU-28 Member States: 2020 Final Report," 2020.

THE IMF RECOMMENDS TO THE VAT DESIGN

- a single rate rather than multiple rates;
- a single, relatively high threshold regarding turnover;
- a broad base with minimal exemptions to avoid distortion of purchase (input) decisions and to provide transparency;
- use of the destination principle whereby exports are zero rated and imports are taxed;
- use of the invoice credit method whereby output VAT remitted is reduced by input VAT paid on purchases and imports;
- the timely provision of input credits for the purchase of capital goods.

SALES TAXES

- While VAT is a levy that applies to the net value added at each stage of production or distribution, a sales tax is generally a levy on the gross value of a good or service at final sale in the supply chain. In principle, only the final consumer should be charged the sales tax. If this is the case, the outcomes of VAT and sales tax should be identical. The retailers are therefore exempt as they are not the end-users of the products and are normally required to provide the seller with a “resale certificate,” which states that they are purchasing an item to resell it.
- However, it is common for businesses to pay sales taxes even if they are not the final consumers of a product or service.
- While no OECD country levies a national sales tax, subnational sales taxes are applied in Canada and the United States.

CANADA'S PROVINCIAL SALES TAX

- The federal Goods and Services Tax (GST) and the Harmonized Sales Tax (HST) applied in Canada and its provinces discussed in the previous chapter operate as a VAT, but the Provincial Sales Tax (PST) is a sales tax.

Three Provinces in Canada Apply Sales Taxes

Province	Tax Rate
British Columbia	7.00%
Manitoba	7.00%
Saskatchewan	6.00%

Source: PwC, "Worldwide Tax Summaries," last updated Dec. 10, 2020, https://taxsummaries.pwc.com/canada/corporate/other-taxes.

SALES TAXES IN THE UNITED STATES

- In the United States consumers face state-level and local sales taxes in most states. Alaska, Delaware, Montana, New Hampshire, and Oregon do not have statewide sales taxes. Of these, Alaska allows localities to charge local sales taxes.
- In total, 38 states apply local sales taxes.
- The average local rate for each state is a population-weighted average of local sales taxes as of July 1, 2020.
- State-level tax rates range from 2.9 percent in Colorado to 7.25 percent in California.
- The average local sales tax rates range from 0.03 percent in Idaho to 5.22 percent in Alabama. Tennessee has the highest state and local combined tax rates of 9.55 percent, followed by Louisiana with a 9.52 percent rate.

SALES TAX BASE

- A well-designed sales tax should apply to all final retail sales of goods and services but not intermediate business-to-business transactions in the production chain, as this might result in double taxation or tax pyramiding.
- However, the application of most state sales taxes in the United States is far from this ideal.
- The structure of sales taxes, defining what is taxable and non-taxable, varies greatly from one state to another.
- For example, while most states exempt groceries from the sales tax, others tax groceries at a limited rate, and still others tax groceries at the same rate as all other products.
- Some states exempt clothing or tax it at a reduced rate.
- States tend to include most goods, but relatively few services, in their sales tax bases.