FOUNDATIONS · VALUE ADDED TAX

VAT, explained from the ground up

What VAT is, why almost every country uses it, the rates and treatments that make it complicated, how a VAT return is actually calculated — and one product followed from the forest to the living room, to show where every euro of tax comes from.

For
Anyone new to indirect tax

Level
Foundations, no prior knowledge

Status at
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Prepared by
30 Advisory

Educational document, not tax or legal advice. Examples use a 21% standard rate and simplified figures for clarity; real rules differ by country and change over time. Confirm the treatment of any real transaction with a qualified adviser.

01 What VAT is

A tax on consumption, collected in slices

Value Added Tax is a tax on what people spend. It is paid in the end by the final consumer, but it is collected step by step by every business in the chain that brings a product or service to market — each one paying over only the tax on the value it added itself.

170+ Countries operating a VAT or GST, under one name or another	**19.3%** Average standard rate across OECD countries (2024)	**1954** The year France introduced the first modern VAT	**1** OECD country without a VAT: the United States

The idea in one picture

Imagine a relay race where each runner carries the baton a little further. VAT works the same way: each business charges tax on its full selling price, but deducts the tax it already paid to its suppliers. What it hands to the tax authority is the difference — the tax on its own leg of the race. When the baton reaches the consumer, who cannot deduct anything, the full tax has been paid, in instalments, by everyone along the way.

Four principles that explain almost everything

PRINCIPLE	WHAT IT MEANS IN PRACTICE
Consumption	The tax is meant to fall on final consumption, not on businesses. For a business, VAT should be neutral — collected and passed on, not a cost
Fractional collection	Every business in the chain pays part of the tax, so no single link carries it all — which makes evasion harder
Right to deduct	Businesses recover the VAT on their purchases. This is what keeps the tax off business and on the consumer
Destination	VAT is generally due where the goods or services are consumed — exports leave free of tax, imports are taxed on arrival

What VAT is not

- **It is not a tax on profit.** A loss-making company still charges and pays over VAT.
- **It is not income.** VAT collected belongs to the state; it sits on the balance sheet, not in revenue.
- **It is not a sales tax** — a distinction explained in section 02, and the reason the US system works so differently.

Three roles, often confused

ROLE	WHO	WHAT IT MEANS
Bears the tax	The final consumer	Pays it in the price and cannot recover it
Collects the tax	Every VAT-registered business	Charges, deducts, declares and pays over the difference
Receives the tax	The state	In instalments, from every link in the chain

MANY NAMES, ONE MECHANISM

VAT in the UK and Ireland; **IVA** in Spain, Italy, Portugal and Latin America; **TVA** in France, Belgium and Romania; **MwSt** or USt in Germany; **BTW** in the Netherlands; **KDV** in Türkiye; **GST** in Australia, Canada, India, New Zealand and Singapore. The labels differ; the logic is the same.

02 Why it exists

The problem VAT was invented to solve

Before VAT, many countries taxed turnover: every time goods changed hands, a percentage of the full price was taken. The longer the chain, the more tax piled up — tax charged on prices that already contained tax. VAT was designed to remove that cascade. The French official Maurice Lauré is credited with the modern design, adopted in France in 1954; the European Economic Community made it the common system for its members from 1967.

1954	1967	1993	2006	2025–30
France introduces the first modern VAT	First EEC directives make VAT the common system	Single market: border checks end, intra-EU rules begin	The VAT Directive consolidates the EU rules	VAT in the Digital Age adopted; digital reporting by 2030

Three ways to tax consumption

	TURNOVER TAX	RETAIL SALES TAX	VAT
Where collected	Every sale in the chain, on the full price	Only the final sale to the consumer	Every sale, on the value added
Tax on tax?	Yes — cascades	No	No
Depends on chain length?	Yes	No	No
Evasion risk	Spread out	Concentrated at the last link	Spread, and self-checking
Exports	Hard to relieve precisely	Not taxed	Relieved exactly
Example	Historic Europe	United States	Most of the world

Why governments like it

- **It raises a lot, reliably.** A broad base and a single rate generate large, stable revenue — typically around a fifth of total tax revenue in OECD countries.
- **It polices itself.** A buyer who wants to deduct VAT needs a valid invoice from the seller, so each business has an interest in the other's compliance.
- **It is neutral for trade.** Exports leave without tax and imports bear the same tax as domestic goods, so neither is advantaged.
- **It is collected continuously.** Monthly or quarterly returns bring revenue in throughout the year.

Why businesses feel it anyway

- **Cash flow** — VAT on purchases is paid before it is recovered
- **Administration** — invoices, returns and records, all with deadlines
- **Exempt activities** — where VAT cannot be recovered, it becomes a real cost
- **Liability** — mistakes are the business's, even though the tax is the consumer's

THE AMERICAN EXCEPTION

The United States is the only OECD member without a VAT. Instead, most states levy a retail sales tax, collected only on the final sale. It avoids taxing business inputs in principle — but it depends entirely on the last seller, and exemptions for business purchases rely on paperwork. Our separate US briefing covers what that means for companies operating there.

03 How many kinds of VAT are there?

One tax, many treatments

There is one VAT, but every transaction falls into one of a handful of **treatments**. The treatment decides two things: whether VAT is charged, and whether the seller can recover the VAT on its own costs. Most confusion about VAT comes from mixing these two questions up.

TREATMENT	VAT CHARGED?	SELLER RECOVERS INPUT VAT?	TYPICAL EXAMPLES
Standard rate	Yes, at the main rate	Yes	Most goods and services
Reduced rate	Yes, at a lower rate	Yes	Food, hospitality, books, transport
Super-reduced rate	Yes, below the reduced rate	Yes	Basic foodstuffs, medicines, in some countries
Zero rate	Yes — at 0%	Yes	Exports; some essentials in some countries
Exempt	No	No	Financial services, insurance, healthcare, education
Out of scope	No — not a taxable transaction	Depends	Wages, dividends, compensation payments

The distinction that matters most: zero-rated versus exempt

Zero-rated

The sale is taxable, at 0%. The seller charges no VAT but **keeps the right to recover** the VAT on its purchases. An exporter often ends up with a refund.

Exempt

The sale is outside the charge. The seller charges no VAT and **cannot recover** the VAT on its purchases. That VAT becomes a cost — which is why banks and insurers care so much about VAT.

Rates across Europe

COUNTRY	STANDARD RATE	NOTES
Hungary	27%	The highest in the EU and the OECD
Spain	21%	Reduced 10%, super-reduced 4%
France	20%	Reduced 10% and 5.5%, special 2.1%
Germany	19%	Reduced 7%
Luxembourg	17%	The lowest standard rate in the EU

EU law sets a minimum standard rate of 15% and allows a limited number of reduced rates. Several member states raised their rates in 2024–25; confirm current rates before relying on them.

ONE PRODUCT, SEVERAL RATES

A restaurant meal, the same food as takeaway, and a bottle of wine with it can carry three different rates in some countries. **Rate is decided by what is supplied and how**, not by who supplies it — which is why product classification matters so much in the systems that calculate VAT.

04 The special mechanisms

When the normal rules are switched around

The basic model — seller charges, buyer deducts — does not work well everywhere. For cross-border trade, for sectors prone to fraud, and for small businesses, VAT systems use special mechanisms. They do not change the tax; they change **who** accounts for it, **when**, or **how**.

MECHANISM	WHAT IT DOES	WHERE YOU MEET IT
Reverse charge	The buyer, not the seller, accounts for the VAT — declaring it as output and deducting it as input in the same return	Cross-border services; domestic sectors at risk of fraud
Intra-EU supplies	Goods sent to a VAT-registered business in another EU country leave exempt; the buyer self-assesses at destination	Trade between EU member states
Import VAT	Charged at the border, like customs duty, and then deducted by a registered importer	Goods from outside the customs territory
Export relief	Goods leaving the territory are zero-rated, with evidence of export	Any exporter
One-stop shops	Sellers to consumers in other EU countries declare the foreign VAT in one return at home	E-commerce and digital services
Margin schemes	VAT only on the dealer's margin, not the full price	Second-hand goods, art, travel agents
Cash accounting	VAT due when paid, not when invoiced	Smaller businesses, where allowed
Split payment	The buyer pays the VAT directly to the state rather than to the supplier	Italian public sector; Brazil from 2027

Where is the VAT due? The place-of-supply rules in one table

TRANSACTION	GENERAL RULE (EU)
Services to a business (B2B)	Where the customer is established — usually via reverse charge
Services to a consumer (B2C)	Where the supplier is established, with many exceptions
Digital services to consumers	Where the consumer lives — declared through the one-stop shop

Reverse charge, step by step

1 A Spanish company buys consultancy from a German firm

The German invoice shows no Spanish VAT.

2 The Spanish buyer self-assesses

It declares 21% output VAT on the service in its own return.

3 …and deducts it in the same return

If fully taxable, the two amounts cancel. No cash moves, but both lines must appear.

WHY "NO CASH MOVES" DOES NOT MEAN "NOTHING TO DO"

A reverse-charge transaction left out of the return is still an error — and for a company that cannot fully recover VAT, the two lines no longer cancel, so there is real tax at stake. **Mechanisms that net to zero are among the most commonly missed**, precisely because they look harmless.

05 From producer to consumer

One wooden table, four businesses, one consumer

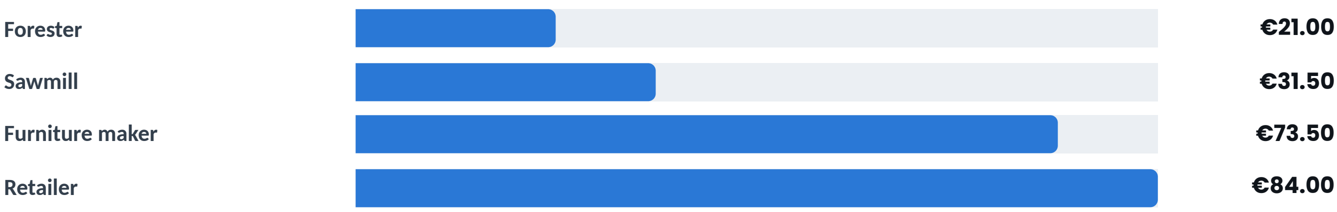
Follow a dining table through its supply chain, with VAT at 21%. Each business charges VAT on its selling price, deducts the VAT it paid to its supplier, and pays the difference to the tax authority.

STAGE	SELLS FOR (NET)	VAT CHARGED	VAT DEDUCTED	PAYS TO THE STATE	VALUE ADDED
1 · Forester → sawmill	€100.00	€21.00	€0.00	€21.00	€100.00
2 · Sawmill → maker	€250.00	€52.50	€21.00	€31.50	€150.00
3 · Maker → retailer	€600.00	€126.00	€52.50	€73.50	€350.00
4 · Retailer → consumer	€1,000.00	€210.00	€126.00	€84.00	€400.00
Total	—	—	—	**€210.00**	**€1,000.00**

Simplified: each business is assumed to have no other costs carrying VAT. The forester's own inputs (tools, fuel) would, in reality, give it a small deduction too.

VAT paid to the state at each stage

Each stage pays 21% of the value it added. Together they equal 21% of the final price: €210.



What the example shows

- **The consumer pays €1,210 and bears all €210 of the tax** — and cannot deduct any of it.
- **No business bears any VAT.** Each recovers what it paid and collects what it charges.
- **The state receives the tax in four instalments,** each equal to 21% of that stage's value added.
- **If the retailer disappeared without paying,** the state would still have €126 of the €210 — that is the resilience of fractional collection.

WHAT HAPPENS IF A LINK IS EXEMPT

Suppose the table is bought not by a consumer but by a bank for its offices. Banking is exempt, so the bank cannot deduct the €210. The tax becomes part of the bank's costs — and is built into what it charges its own customers. **Exemption in the middle of a chain turns VAT back into a hidden cost**, which is why exempt sectors are so sensitive to how VAT is structured.

THE SAME CHAIN UNDER A 5% TURNOVER TAX

With tax on the full price at every stage, the chain would levy 5% of €100, €250, €600 and €1,000 — €97.50 in total, with tax charged on prices already containing tax. Lengthen the chain and the burden grows; shorten it by merging companies and it falls. **VAT makes the burden independent of how the chain is organised.**

06 How a VAT return is calculated

Output minus input, with the details that matter

Every VAT return rests on one subtraction: **VAT charged on sales (output VAT) minus VAT recoverable on purchases (input VAT)**. If the result is positive, the business pays; if negative, it is owed a refund or carries the credit forward. Everything else is detail — but the detail is where errors live.

A worked quarter

LINE	TAX BASE	RATE	VAT
Output VAT — on sales			
Domestic sales, standard rate	€500,000	21%	€105,000
Domestic sales, reduced rate	€80,000	10%	€8,000
Exports outside the EU	€120,000	0%	€0
Goods bought from another EU country (self-assessed)	€50,000	21%	€10,500
Credit note issued to a customer	−€10,000	21%	−€2,100
Total output VAT			**€121,400**
Input VAT — on purchases			
Domestic purchases, standard rate	€300,000	21%	€63,000
Domestic purchases, reduced rate	€20,000	10%	€2,000
Goods bought from another EU country (same amount, deducted)	€50,000	21%	€10,500
Import VAT paid at customs	€20,000	21%	€4,200
Total deductible input VAT			**€79,700**
Result: payable to the tax authority			**€41,700**

What the worked quarter shows

- **Exports are reported even though they carry no tax.** The zero line is evidence of why output VAT is lower than sales suggest.
- **The EU purchase appears twice** — once as output, once as input — and cancels out for a fully taxable business.
- **Credit notes reduce output VAT** in the period they are issued, not the period of the original invoice.
- **Not all input VAT is deductible.** VAT on items such as some entertainment or private use is excluded before the total is struck.

WHEN THE RESULT IS NEGATIVE

An exporter with the same purchases but mostly zero-rated sales would have more input than output VAT — and would be owed money. Refunds are legitimate but closely checked; **large or repeated refund claims are among the most common triggers for a tax audit**.

07 Where VAT goes wrong

The gap, the fraud, and the everyday errors

The difference between the VAT that should be collected and what actually arrives is called the **VAT gap**. Across the EU it reached an estimated **€128 billion in 2023**, up from €101 billion the year before. Some of it is fraud; much of it is insolvency, error and weak administration.

€128bn
EU VAT gap in 2023, per the European Commission's latest estimate

+€27bn
Increase on 2022, driven largely by post-pandemic insolvencies

2030
Digital reporting of intra-EU trade under the VAT in the Digital Age package

How carousel fraud works

The best-known fraud exploits the rule that intra-EU sales leave exempt. A fraudster buys goods VAT-free from another country, sells them domestically charging VAT, and disappears without paying it over. The buyer — sometimes innocent, sometimes complicit — deducts that VAT and the goods are exported again, VAT-free, often returning to the start of the circle. The state refunds tax it never received.

The everyday errors

ERROR	WHY IT HAPPENS
Wrong rate or treatment	Products or services classified incorrectly, often once, at master-data level, and repeated on every invoice
Invalid invoices	Missing tax numbers or mandatory details — which can cost the buyer its deduction
Reverse charge missed	Foreign purchases booked without the self-assessed lines
Wrong period	Invoices or credit notes declared in the wrong return
Deduction of blocked VAT	Input VAT claimed on costs where the law excludes it

What authorities look for

- Returns that do not match invoice data already held
- Large or recurring refund claims
- Sharp changes in margins or deduction rates
- Suppliers that vanish soon after registering
- Circular flows of the same goods between countries
- Differences between a buyer's and a seller's records

A USEFUL WAY TO THINK ABOUT IT

The tax law decides **what** the treatment should be. The SAP configuration decides **whether** the system applies it — on every line, every time. **A correct tax opinion implemented through wrong master data produces wrong VAT at scale**, which is why the two conversations must happen together.

WHY GOVERNMENTS ARE GOING DIGITAL

Real-time e-invoicing, clearance platforms, standard audit files and pre-filled returns all answer the same problem: **closing the gap by seeing each transaction as it happens**, rather than a summary months later. That is the story told in our country briefings — and the reason VAT has become a systems topic as much as a tax one.

08 VAT inside an SAP system

Where each concept lives

In an ERP, VAT is not calculated by people; it is calculated by rules. Every concept in this document has a counterpart in the system, and most VAT errors trace back to one of them being set up — or maintained — wrongly.

VAT CONCEPT	WHERE IT LIVES IN SAP
Rate and treatment	The **tax code** on each line — one code per combination of rate, treatment and reporting purpose
How VAT is calculated	The country's **tax procedure**, which defines the conditions and accounts behind each code
Which code applies	**Tax determination** from customer, product and country attributes on the sales or purchase document
Output and input VAT	Dedicated **G/L accounts**, posted automatically with each invoice
Reverse charge	Tax codes that post both the output and the input side at once
The VAT return	Statutory reporting — in modern landscapes through SAP Document and Reporting Compliance
E-invoices and real-time reporting	The electronic-document side of the same framework

A day in the life of a sales invoice

1. **Order**
   The customer, product and delivery country are recorded on the sales order.
2. **Determination**
   SAP derives the tax code from those attributes — for example, domestic, standard rate.
3. **Calculation**
   The tax procedure applies the rate to the base and shows VAT on the invoice.
4. **Posting**
   Revenue goes to the income account; VAT goes to the output VAT account, tagged with its code.
5. **Reporting**
   At period end, the return aggregates VAT by code into the boxes the authority requires.

An illustrative set of tax codes

CODE	MEANING	RETURN BOX
S1	Domestic sale, standard rate	Output, standard
S0	Export, zero-rated	Exports
P1	Domestic purchase, standard rate	Deductible input
RC	EU purchase, reverse charge	Output and input

Code names are illustrative; every company defines its own.

Four questions that reveal a VAT set-up's health

- **Can users choose the tax code by hand,** or is it determined by rule? Manual choice is where wrong treatments start.
- **How many tax codes exist,** and are any obsolete but still usable?
- **Does the VAT return reconcile to the VAT accounts** in the general ledger every period?
- **Who maintains product and customer tax attributes** when the catalogue or the law changes?

09 Glossary, and how we help

The words you will hear most

TERM	MEANING
Output VAT	VAT charged on sales
Input VAT	VAT paid on purchases, which may be deductible
Taxable person	A business registered for and accounting for VAT
Place of supply	The rule deciding which country's VAT applies
Tax point	The moment VAT becomes due — usually the invoice or delivery date
Pro-rata	The share of input VAT a partly exempt business may recover
VAT group	Related companies treated as a single taxable person
Clearance	A model where the tax authority validates an invoice before it is valid
SAF-T	A standard audit file of the accounting records, sent to the authority
Reverse charge	The buyer accounts for the VAT instead of the seller
Zero-rated	Taxable at 0%, with the right to deduct input VAT kept
Pre-filled return	A VAT return drafted by the authority from data it already holds
ViDA	"VAT in the Digital Age" — the EU reform bringing digital reporting from 2030

Five things to remember

- **VAT is a tax on consumers, collected by businesses.** For a fully taxable business it should cost nothing but administration.
- **Every return is output minus input.** The difficulty is in deciding what goes on each side.
- **Zero-rated is not exempt.** One keeps the right to deduct; the other loses it.
- **Mechanisms that net to zero still have to be declared.**
- **Authorities increasingly see every invoice.** What the system does on each line is what gets reported.

How 30 Advisory helps

We are an SAP finance and compliance practice. We do not give tax advice — we make sure the treatment your advisers decide is the one your system applies, on every invoice, and reported correctly wherever you operate.

VAT set-up review

Tax codes, determination rules and master data checked against how the business actually trades.

Return reconciliation

The VAT return tied to the ledger, period by period, with differences explained.

Digital mandates

E-invoicing, real-time reporting and audit files, country by country.

Sources consulted 27 September 2026 — OECD Consumption Tax Trends 2024 (average rate and country rates); European Commission VAT Gap report, as summarised by vatcalc and VATupdate (2023 gap); Council Directive 2006/112/EC on the common system of VAT; Fonoa and Tax Foundation on VAT adoption worldwide. All worked examples are illustrative.

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