

Value-Added Tax

What is a Value-Added Tax - VAT

A value-added tax (VAT) is a consumption tax placed on a product whenever value is added at each stage of the supply chain, from production to the point of sale. The amount of VAT that the user pays is on the cost of the product, less any of the costs of materials used in the product that have already been taxed.

BREAKING DOWN Value-Added Tax - VAT

More than 160 countries around the world use value-added taxation, and it is most commonly found in the European Union. But it is not without controversy. Advocates say it raises government revenues without punishing success or wealth, as income taxes do; it is also simpler and more standardized than a traditional sales tax, and there are fewer compliance issues. Critics charge that a VAT is essentially a regressive tax that places an increased economic strain on lower-income taxpayers, and also adds bureaucratic burdens for businesses.

Value-added taxation is based on a taxpayer's consumption rather than his income. In contrast to a progressive income tax, which levies greater taxes on higher-level earners, VAT applies equally to every purchase.

How VAT Works

VAT is levied on the gross margin at each point in the manufacturing-distribution-sales process of an item. The tax is assessed and collected at each stage, in contrast to sales tax that is only assessed and paid by the consumer at the very end of the supply chain.

Say, for example, Dulce is an expensive candy manufactured and sold in the country of Alexia. Alexia has a 10 percent value-added tax.

1. Dulce's manufacturer buys the raw materials for \$2.00, plus a VAT of \$0.20 – payable to the government of Alexia – for a total price of \$2.20.
2. The manufacturer then sells Dulce to a retailer for \$5.00 plus a VAT of 50 cents for a total of \$5.50. However, the manufacturer renders only 30 cents to Alexia, which is the total VAT at this point, minus the prior VAT charged by the raw material supplier. Note the 30 cents also equals 10 percent of the manufacturer's gross margin of \$3.00.
3. Finally, the retailer sells Dulce to consumers for \$10 plus a VAT of \$1 for a total of \$11. The retailer renders 50 cents to Alexia, which is the total VAT at this point (\$1), minus the prior 50-cent VAT charged by the manufacturer. The 50 cents also represents 10 percent of the retailer's gross margin on Dulce.

VAT vs. Sales Tax

VATs and sales taxes can raise the same amount of revenue; the difference lies in at what point the money is paid – and by whom. For an example: Again, assume a VAT of 10 percent. A farmer sells wheat to a baker for 30 cents. The baker pays 33 cents; the

extra 3 cents represents the VAT, which the farmer sends to the government. The baker uses the wheat to make bread and sells a loaf to a local supermarket for 70 cents. The supermarket pays 77 cents, including a 7 cent VAT. The baker sends 4 cents to the government; the other 3 cents were paid by the farmer. Finally, the supermarket sells the loaf of bread to a customer for \$1. Of the \$1.10 paid by the customer, or the base price plus the VAT, the supermarket sends 3 cents to the government.

As with a traditional 10 percent sales tax, the government receives 10 cents on a \$1 sale. The VAT differs in that it is paid at different stops along the supply chain; the farmer pays 3 cents, the baker 4 cents and the supermarket 3 cents. However, a VAT offers advantages over a national sales tax. It is much easier to track. The exact tax levied at each step of production is known; with a sales tax, the entire amount is rendered after the sale, making it difficult to allocate to specific production stages. Additionally, because the VAT only taxes each value addition and not the sale of a product itself, assurance is provided that the same product is not double-taxed.

VAT in the Real World

The vast majority of industrialized countries that make up the Organization for Economic Cooperation and Development (OECD) have a VAT system. The United States remains the only notable exception.

Most industrial countries with a VAT adopted their systems in the 1980s. Results have been mixed, but there is certainly no tendency among VAT countries to have small budget deficits or low government debt. According to one International Monetary Fund study, any state that switches to VAT initially feels the negative impact of reduced tax revenues despite its greater revenue potential down the road.

VAT has earned a negative connotation in some parts of the world where it has been introduced, even hurting its proponents politically. In the Philippines, for example, Senator Rafael Recto, the chief proponent of VAT in the 1990s, was voted out of office by the electorate when he ran for re-election. But in the years that followed its implementation, the population eventually accepted the tax. Recto ended up finding his way back to the Senate, where he became the proponent an expanded VAT.

In 2009 and 2010, respectively, France and Germany famously implemented huge cuts in their VAT rates — France by almost 75 percent, from a 19.6 percent rate to a 5.5 percent rate.

VAT in the U.S.

There's been much debate in the U.S., about replacing the current income tax system with a federal VAT. Advocates claim it would increase government revenue, help fund essential social services and reduce the federal deficit.

In 1992, the Congressional Budget Office conducted an economic study on implementing a VAT. At the time, the CBO concluded that a VAT would only add \$150 billion in annual revenue, or less than 3 percent of the national output. If you adjust

\$150 billion to current dollars, it comes out to just under \$250 billion; 3 percent of the 2016 gross domestic product (GDP) comes out to just over \$557 billion. Using these approximations, it can be estimated that a VAT might raise between \$250 billion and \$500 billion in revenue for the government.

Of course, these figures don't account for all of the outside impacts of a VAT system. A VAT would change the structure of production in the United States; not all firms will be equally able to absorb the hike in input costs. It is unknown if the additional revenue would be used as an excuse to borrow more money – historically proven to be the case in Europe – or reduce taxes in other areas (potentially making the VAT budget-neutral).

The Baker Institute, in conjunction with Ernst & Young, conducted a macroeconomic analysis of the VAT in 2010. The three principal findings were that the VAT would reduce retail spending by \$2.5 trillion over 10 years, the economy could lose up to 850,000 jobs in the first year alone and the VAT would have "significant redistributive effects" that would harm current workers.

Pros and Cons of Value-Added Taxation

In addition to the fiscal arguments, proponents of a VAT in the U.S. suggest that replacing the current income tax system with a federal VAT would greatly simplify the complex federal tax code and increase the efficiency of the Internal Revenue Service (IRS).

More importantly, it would make it much more difficult to avoid paying taxes. A VAT would collect revenue on all goods sold in America, including online purchases. Despite efforts to close tax loopholes that allow internet companies to avoid charging customers taxes in states where they do not have a brick-and-mortar business, unpaid taxes on online sales cost states billions in potential income that could fund schools, law enforcement and other services.

If a VAT supplants American income tax, it eliminates the disincentive-to-succeed complaint levied against such progressive tax systems: Citizens get to keep more of the money they make and are only affected by taxes when purchasing goods. This change not only confers a stronger incentive to earn, it also encourages saving and discourages frivolous spending (theoretically).

Opponents, however, note many potential drawbacks of a VAT, including increased costs for business owners throughout the chain of production. Because VAT is calculated at every step of the sales process, bookkeeping alone results in a bigger burden for a company, which then passes on the additional cost to the consumer. It becomes more complex when transactions are not merely local, but international. Different countries may have different interpretations on how the tax is calculated. This not only adds another layer to the bureaucracy, it can also result in unnecessary transaction delays.

In addition, while a VAT system may be simpler to maintain, it is costlier to implement. And tax evasion can still continue, even be widespread, if the general public does not give it its wholehearted support. Smaller businesses in particular can evade paying VAT by asking their customers if they require a receipt, adding that the price of the product or service being purchased is lower if no official receipt is issued.

In the U.S., a federal VAT could also create conflicts with state and local governments across the country, which currently set their own sales taxes at varying rates.

Critics also note that consumers typically wind up paying higher prices with a VAT. While the VAT theoretically spreads the tax burden on the added value of a good as it moves through the supply chain, from raw material to final product, in practice the increased costs are typically passed along to the consumer.

Even so, the better-off consumers could ultimately benefit if a VAT replaced the income tax: As with other flat taxes, VAT's impact would be felt less by the wealthy and shouldered more heavily by the poor, who spend a larger percentage of their take-home pay on necessities. In short, lower-income consumers would pay a much higher proportion of their earnings in taxes with a VAT system, critics charge. That could be mitigated to some extent if the government excluded certain necessary household goods or foodstuffs from the VAT, or it provided rebates or credits to low-income citizens to offset the tax's effects.

Sales Tax

A sales tax is a consumption tax imposed by the government on the sale of goods and services.

Consumption Tax

A consumption tax is a tax on the purchase of a good or service. It also refers to a taxing system in which people are taxed based on how much they consume rather than how much they add to the economy (income tax).

Goods and Services Tax - GST

The Goods and Services Tax (GST) is a value-added tax levied on most goods and services sold for domestic consumption.

Stealth Taxes

Governments levy stealth taxes to increase their revenues without raising the ire of taxpayers.

Cascade Tax

A cascade tax is tax that is levied on a good at each stage of the production process up to the point of being sold to the final consumer

Taxation

Taxation is a term for the act of levying or imposing a tax by a taxing authority.

How to calculate VAT?

The basis for VAT is the net price of the goods or services i.e. the taxable amount. It must contain all surcharges based on an agreement between the seller and the purchaser.

Examples of such surcharges are invoicing and delivery charges.

How to calculate VAT using the taxable amount

The taxable amount of the goods or services is the net price including all additional surcharges. Examples of what you must include in the taxable amount:

- Invoicing charges
- Delivery charges, postal charges
- Per diem allowances and kilometre allowances

The surcharges listed above are subject to the same VAT rate as the good and service itself.

Apply the following formula to calculate VAT:

$$\text{VAT} = \text{the taxable amount} \times \text{applicable VAT rate} / 100$$

Example: A computer repairman visits his customer to pick up their computer and bring it over to the shop. The repair work costs €100.00 without VAT. An additional charge is made for kilometres driven and for writing up a paper invoice: €8.00 + €10.00. The general 24-percent rate of VAT must be applied on the sale, including the added charges.

The way to calculate at the VAT and the total price with VAT is as follows:

The taxable amount: €100.00 + €8.00 + €10.00 = €118.00

$$\text{VAT: } \text{€}118.00 \times 24/100 = \text{€}28.32$$

$$\text{Total price with VAT: } \text{€}118.00 + \text{€}28.32 = \text{€}146.32$$

VAT amount must be expressed with two decimal points.

How to calculate the VAT and the taxable amount

The price “including VAT” of goods and services consists of the VAT and the taxable amount. You can work them out with the following formulas:

$$\text{VAT} = \text{applicable rate} \times \text{the price including VAT} / (100 + \text{the rate})$$

$$\text{The taxable amount} = 100 \times \text{the price including VAT} / (100 + \text{the rate})$$

Example: The total repair cost is €146,32 including VAT; the VAT rate is 24%.

The way to calculate the taxable amount and the amount of the VAT is as follows:

Price incl. VAT: €146.32

$$\text{Taxable amount: } \text{€}100.00 \times \text{€}146.32 / (100 + 24) = \text{€}118.00$$

$$\text{VAT: } 24 \times \text{€}146.32 / (100 + 24) = \text{€}28.32, \text{ or alternatively: } 24/100 \times \text{€}118.00 = \text{€}28.32$$

VAT amount must be expressed with two decimal points.