Taxation

Theocharis Papadopoulos ©

WHAT ARE WE TALKING ABOUT TODAY

INTRO TO TAXATION

TYPES OF TAXATION

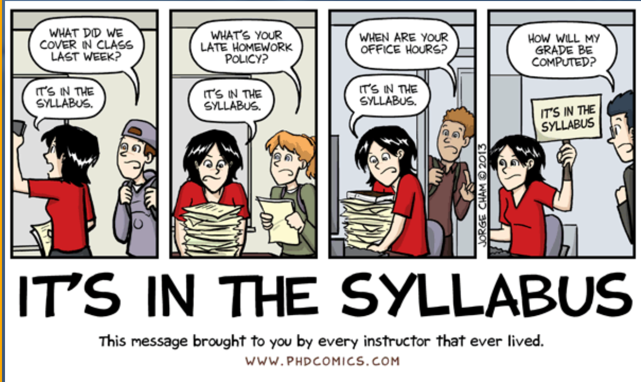
TAX SYSTEMS

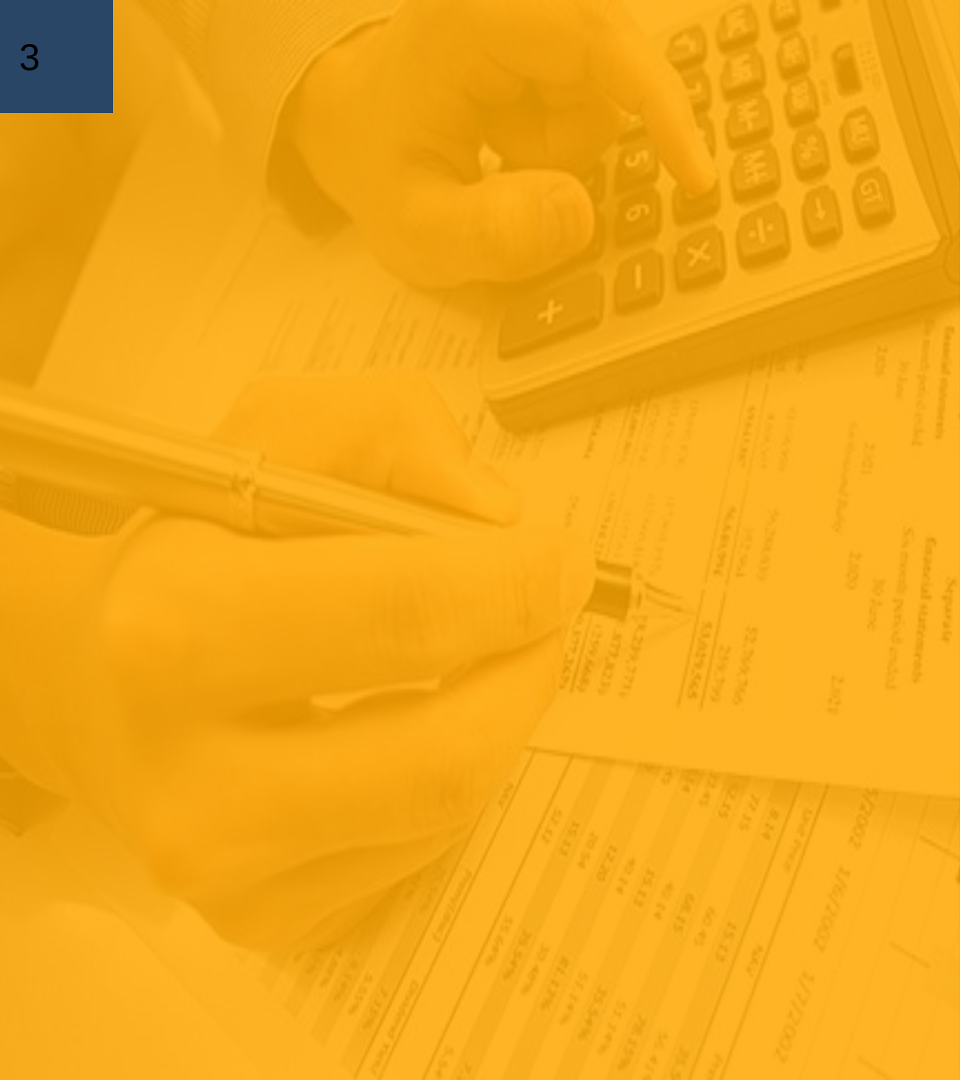
TAX INCIDENCE

DISCLAIMER

This is a new Course, and although I have spent an awful lot of time to develop it, it has not been tested on real students - even worse on real Hult students.

Don't forget!





Intro to taxation

Why do we pay taxes?


USA TODAY NETWORK
People have been complaining
about taxes for centuries.

Intro to taxation

Taxes are an involuntary fee levied on individuals or corporations that is enforced by a government entity, whether local, regional or national in order to finance government activities.

Unlike most transfers of money, which are entered into voluntarily, taxation is compulsory.

In previous classes we showed that government must intervene in order to provide adequate amount of public goods.

We also showed that contributions to support public services need to compulsory to avoid the free rider problem.

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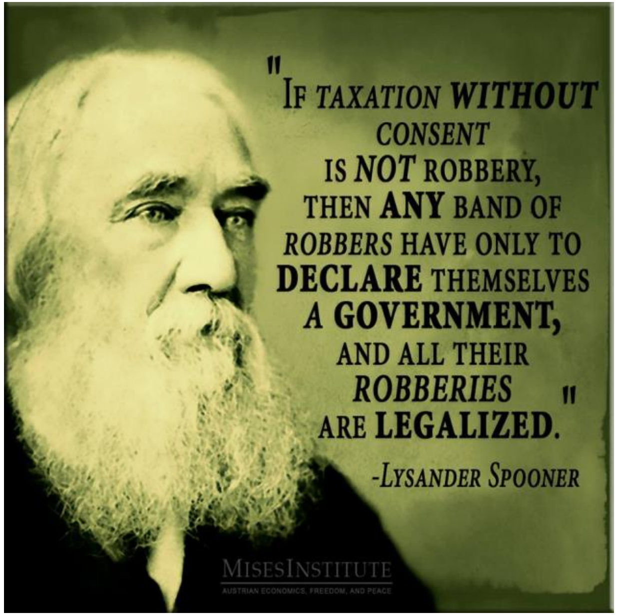
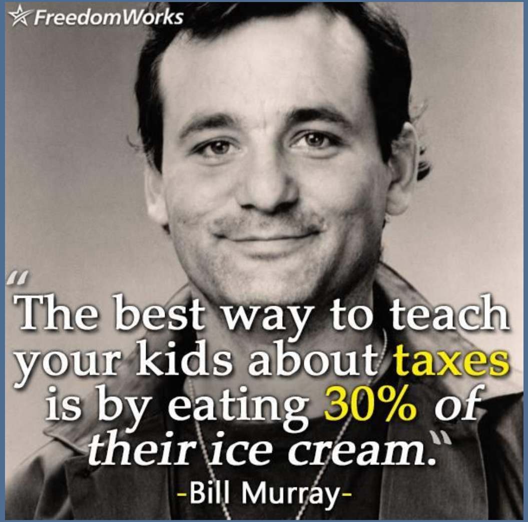
Is taxation theft?

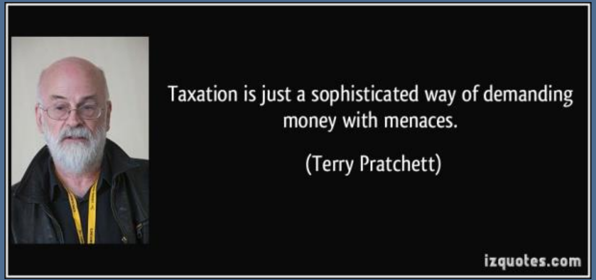


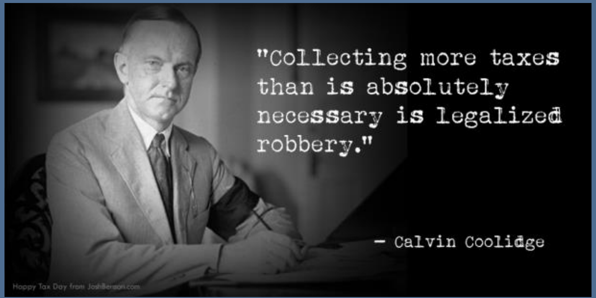
Such forced transfers have been likened to theft.

However there is a major difference: transfers through the government wear the mantle of legality and respectability conferred upon them by the political process.

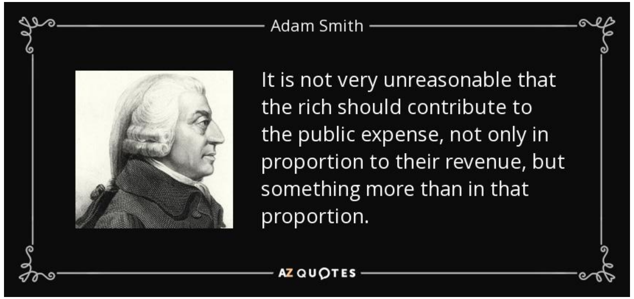
When the political process in a country becomes detached from the citizenry and its used to transfer resources to the groups in power, the distinction between taxation and theft becomes blurred at best.







Adam Smith's four Principles of Taxation



1. Equality: taxes should equally burden all individuals or entities in similar economic circumstances.

- **Equality of sacrifice:** the burden of taxation should involve an equal sacrifice for every individual.
- **Ability to pay**: taxes should be levied according a taxpayer's ability to pay.

2. Economic Efficiency: tax collection efforts should not cost an inordinately high percentage of tax revenues.

3. Convenience: taxes should be enforced in a manner that facilitates voluntary compliance to the maximum extent possible.

4. Certainty/Predictability: collection of taxes should reinforce their inevitability and regularity.

More Principles of Taxation

Adequacy: taxes should be just-enough to generate revenue required for provision of public services.

Broad Basing: taxes should be spread over as wide as possible section of the population, or sectors of economy, to minimize the individual tax burden.

Neutrality: taxes should not favour one group or sector over another, and should not be designed to interfere-with or influence individual decisions-making.

Simplicity: tax assessment and determination should be easy to understand by an average taxpayer.

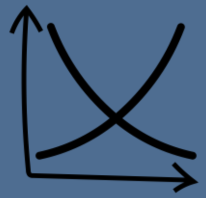
Effects of taxation

Behavioral Effects

Financial Effects

Organizational Effects

General Equilibrium Effects



Announcement effects

Economy does not adjust automatically to a tax. Often the long term distortions are bigger than the short term distortions, as the economy is able to respond more fully to the new circumstances.

However, in some cases the effects of a tax may be felt even before the tax is imposed, simply upon announcement.

We call those effect **announcement effects**.

For example, the announcement of a future increase in property tax, will impact the construction industry even before tax is imposed.

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Distortionary and nondistortionary taxation

A tax is **nondistortionary** if, and only if, there is nothing an individual or firm can do to alter the tax liability. Economists call taxes that are nondistortionary **lump-sum taxes**.

An example would be a head-tax, a tax one has to pay regardless of income, consumption or wealth.

However, most taxes are **distortionary**. If a tax is imposed on income, an individual can reduce his/her liability by simply working less hours. If a tax is imposed on consumption of a product, an individual can reduce his/her liability by simply purchasing less units.

Types of taxation

What is taxed?

The Economist

In 1696 in England, was introduced the Window tax. Houses with more than ten windows had to pay a steep ten shillings. Many houses bricked up their windows to reduce the number which caused health problems. After 156 years, it was repealed in 1851 following campaigners branded it a "tax on health" and "tax on light and air".

In 1698, Russia instituted a beard tax to bring Russian society in line with Western European models. Police could forcibly and publicly shave those who refused to pay the tax.

If you're in a hot air balloon in Kansas but it's tethered to the ground, the experience is taxed at a rate of 6.5%. But if the balloon is set free, it means you're traveling from one place to another (technically considered "air commerce") and therefore the ride is tax-free.

In New York, a bagel by itself is exempt from tax. But if you slice a bagel or smear anything on it, then it's a "prepared food" subject to an 8.875% sales tax.

Direct and Indirect Taxes

There are two broad categories of taxes: **direct taxes** on individuals and corporations and **indirect taxes** on goods and services.

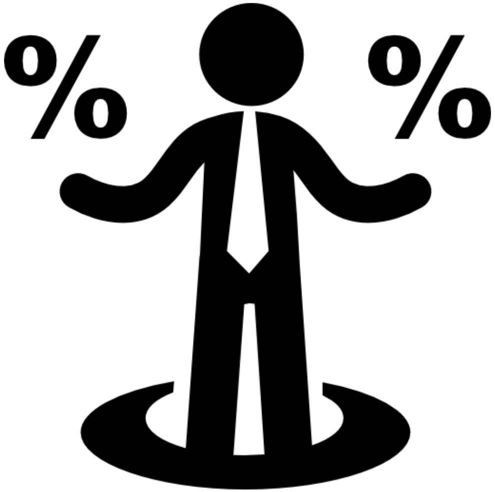
Direct taxes include:

- Taxes on **income**: personal income tax, payroll tax, social security contributions, capital gains tax, corporate tax
- Taxes on **wealth**: estate tax, inheritance tax, solidarity tax

Indirect taxes include:

- Taxes on **Consumption/sales**: VAT, sales tax, excise taxes (tobacco, alcohol etc.)
- Taxes on **Imports/Exports**: tariffs/duties

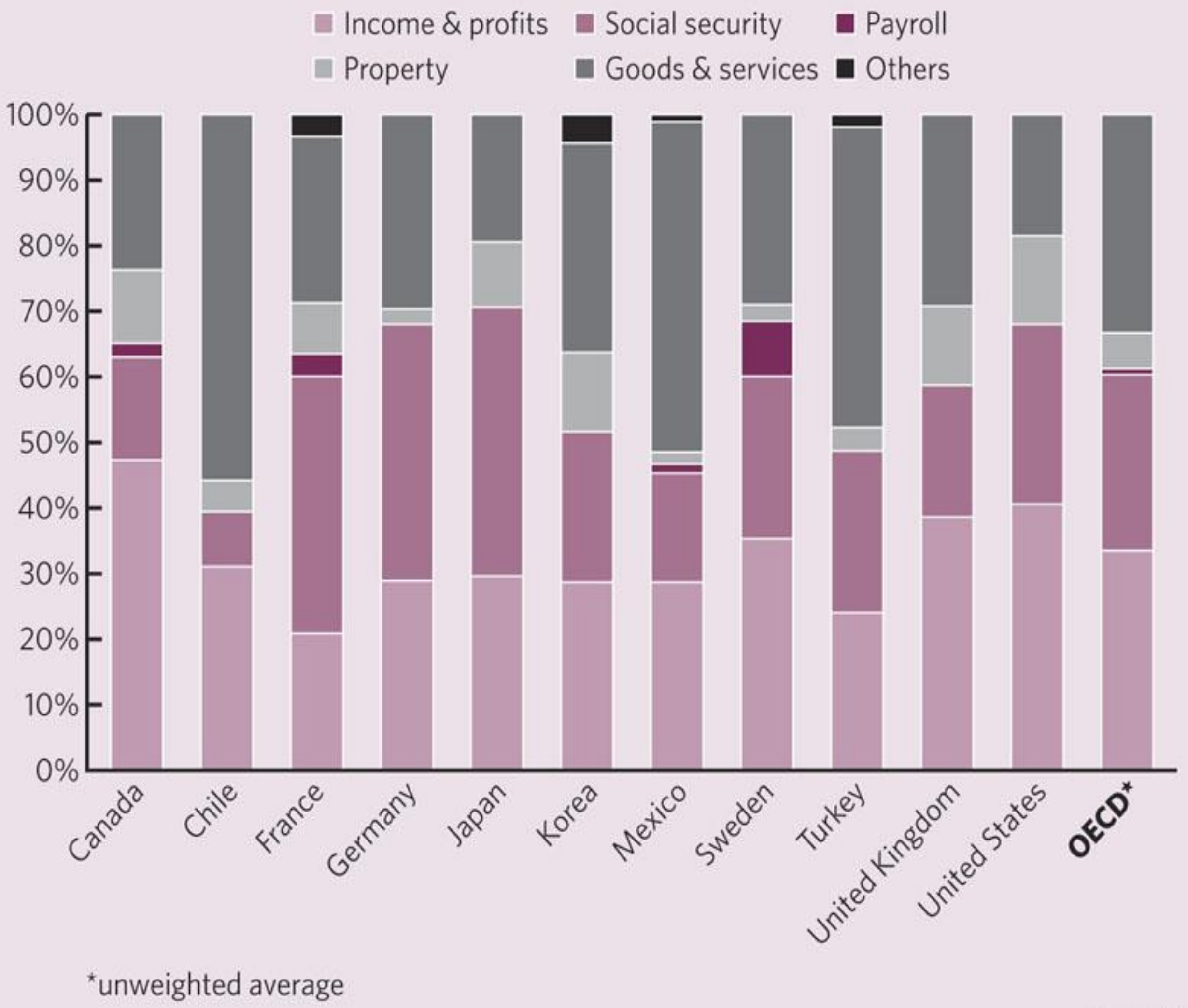
Per Unit and Ad Valorem Taxes



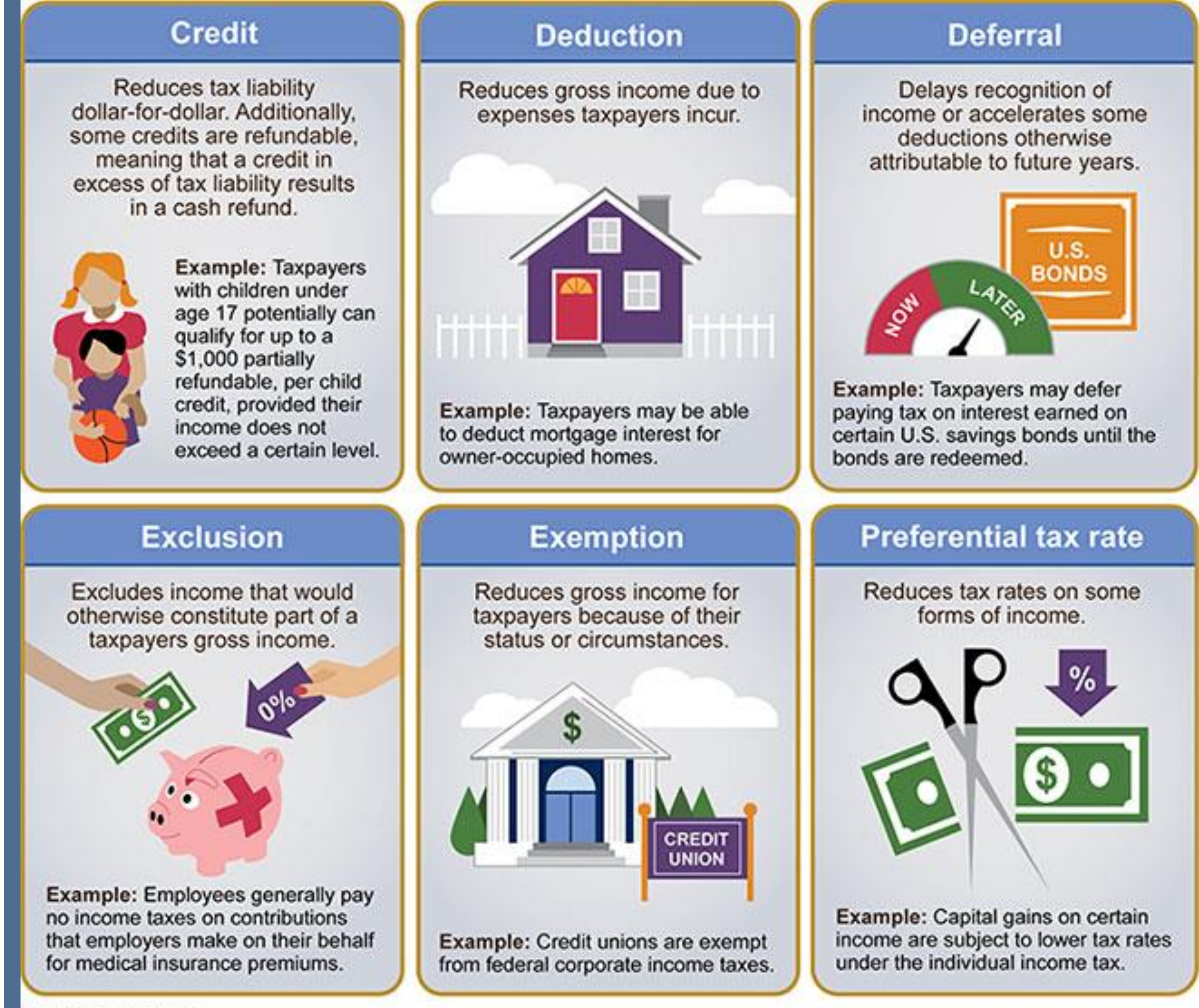
A **per unit tax** is a set amount of tax per unit sold, such as a 10p tax on packets of cigarettes.

In contrast, an **ad valorem tax** is a percentage tax based on the value added by the producer, such as a 20% VAT.

Tax revenues around the world



Some Useful Terms



Tax Evasion and Tax Avoidance

Both aim to reduce tax liability.

Tax Evasion is illegal. Breaking the letter and the spirit of the law.

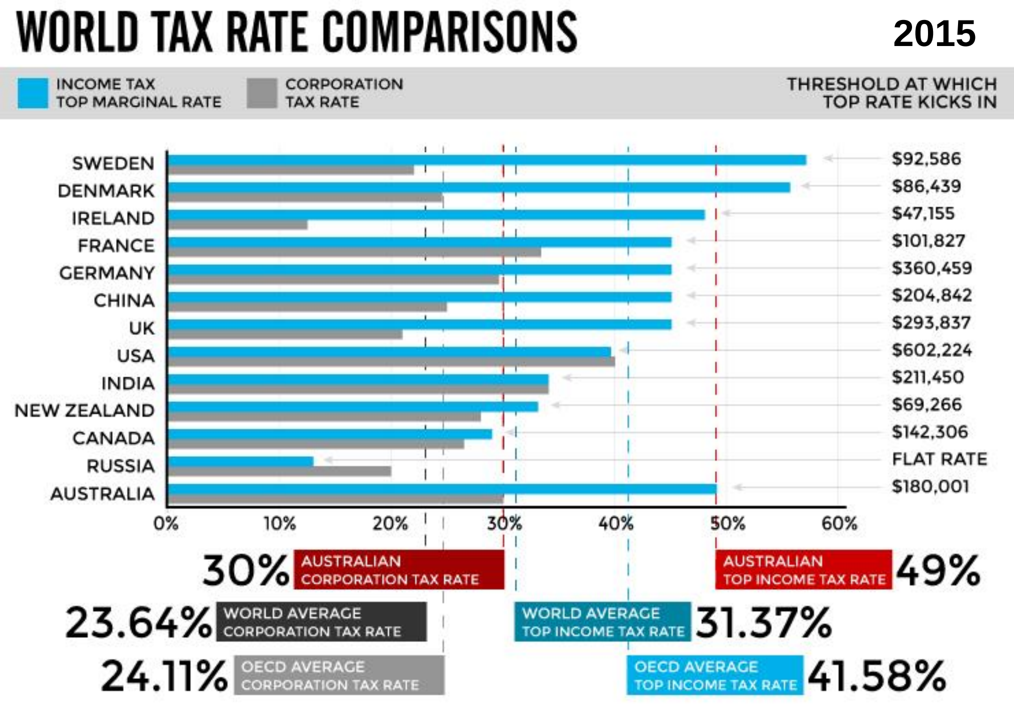
Tax Avoidance is Legal. Breaking the spirit, not the letter of the law.

Income tax

An **income tax** is a tax imposed on individuals or entities (taxpayers) that varies with their respective income or profits (taxable income).

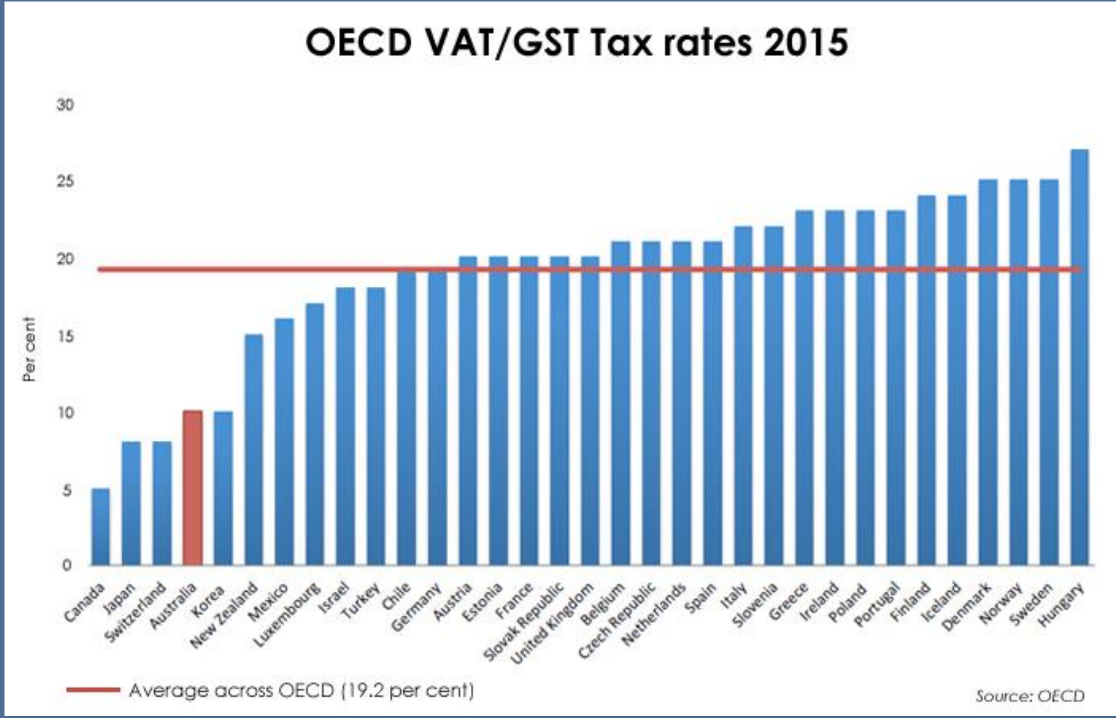
Income can be taxed at source (payment of income is done after the deduction of tax) or can be taxed after receipt of income.

E.g. Pay as you Earn (PAYE) vs Self Assessment.



Sales Tax

A **value-added tax (VAT)**, also known in some countries as **goods and services tax (GST)**, is a type of general consumption tax that is collected incrementally, based on the increase in value of a product or service at each stage of production or distribution.



VAT vs Sales Tax

VAT (Value-Added Tax) is collected by all sellers in each stage of the supply chain. Suppliers, manufacturers, distributors and retailers all collect the value added tax on taxable sales. All pay the VAT on their purchases. Businesses must track and document the VAT they pay on purchases that will be resold in order to receive a credit for the VAT paid on their tax return. Tax jurisdictions receive the tax revenue throughout the entire supply chain as opposed to at the sale to the final consumer chain.

In United States there is no VAT (the only OECD country without one). Instead a **sales tax** is collected by the retailer when the final sale in the supply chain is reached via a sale to the end consumer. End consumers pay the sales tax on their purchases. Unlike VAT, sales tax is levied on the total value of goods and services purchased.

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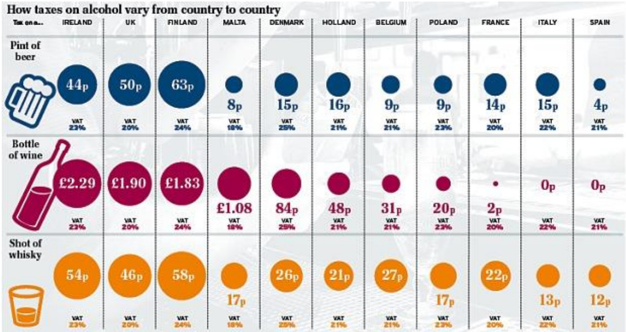
Excise Taxes



An earmarked tax is a tax whose revenues are by law reserved solely for a specific usage.

Excise taxes or duties are taxes paid when purchases are made on a specific good or service. Often in attempt to reduce its consumption. Excise taxes are sometimes referred to as sin taxes.

Although referred to as taxes, most times they are duties as they are levied at the moment of manufacture, rather than at sale. An excise is typically a per unit tax that applies to a narrow range of products and is typically heavier, accounting for a higher fraction of the retail price of the targeted products.

As a deterrent, excise is typically directed towards three broad categories of harm:

- health risks

- environmental damage

- socially damaging / morally objectionable activity

Monies raised through excise may be **earmarked** for redress of specific social costs commonly associated with the product or service on which it is levied.

Wealth Tax

A **wealth tax** (also called a capital tax or equity tax) is a levy on the total value of personal assets, including: bank deposits, real estate, assets in insurance and pension plans, ownership of unincorporated businesses, financial securities, and personal trusts.

Tax Systems

Progressive, Proportional and Regressive

Tax rate, average tax rate and marginal tax rate

Tax rate is the ratio (usually expressed as a percentage) at which a business or person is taxed.

Tax liability (T) is the total amount of tax due.

Tax base (B) is the measure upon which the assessment or determination of tax liability is based. E.g. income is the tax base for income tax, value is the tax base for property tax

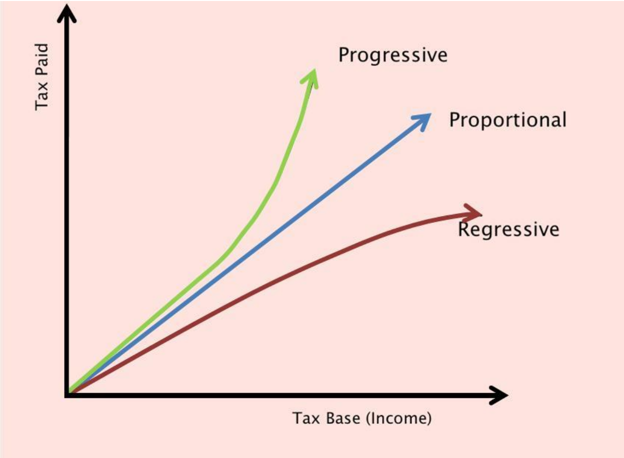
Average tax rate (t) is the ratio of the total amount of taxes paid to the total tax base, often expressed as a percentage

$t = T/B$

Marginal tax rate (MTR or t') is the tax rate an individual would pay on one additional dollar of income. It is the ratio of change in tax liability to the change in tax base

$MTR = \Delta T/\Delta B$

Progressive, Proportional and Regressive Taxation



A **progressive tax** is a tax imposed so that the tax rate increases as the taxable amount increases.

For a progressive tax ***MTR > t***

- Personal Income Tax is usually a progressive tax

A proportional tax is a tax imposed so that the tax rate is fixed, with no change as the taxable base amount increases or decreases.

For a proportional tax ***MTR = t***

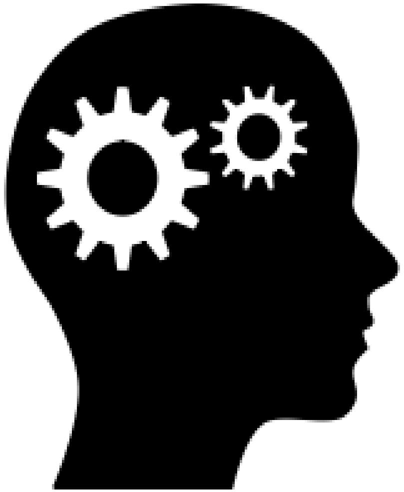
- VAT and Corporate Tax are often proportional taxes

A **regressive tax** is a tax imposed so that the tax rate decreases as the amount subject to taxation increases.

For a regressive tax ***MTR < t***

- National Insurance Contributions in UK have a regressive character as there is a cap above which you pay a lower rate

Arguments against progressive taxation



- *Progressive taxation generates a more complicated a less applicable tax system*
- *In a democratic society progressive taxation might lead to politically irresponsible solutions (tyranny of the majority / tyranny of the masses)*

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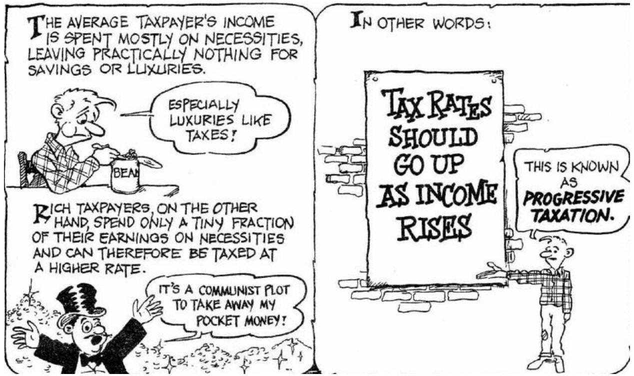
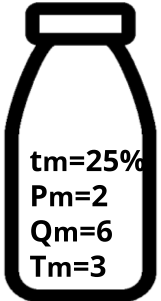
Arguments for Progressive Taxation





- *Progressive taxation is an automatic stabilizer for the economy*. Progressiveness makes smoother the fluctuations of the economic cycle. During the recovery/growth phase progressive tax (T) increases faster than income (Y), so the disposable income (income after tax) increases slower. Of course the opposite happens during the recession.

- *People with higher income have more opportunities to gain income.* For example, some investments are only available to people with a minimum amount to invest.

- *The needs covered with further income increases have a lower value from a societal perspective.*

- *Progressive taxation counterbalances other taxes which are essentially regressive, like VAT and many consumption taxes.*

Y = 100
T = 3
t = 3%

Y = 200
T = 3
t = 1.5%

Y = 600
T = 3
t = 0.5%

Tax Incidence

Who pays the tax?

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Tax burden and tax incidence, tax shifting

The **tax burden** is the true economic weight of a tax. Economists distinguish between those who bear the burden of a tax and those on whom the tax is imposed or levied.

The burden is not just the quantity of tax paid (directly or indirectly), but the magnitude of the lost consumer or producer surplus. The concepts are related but different.

A £1,000/pint of beer tax will raise no revenues (sales will stop), but will reduce both consumer and producer surplus.

Tax incidence is a term used for the analysis of the effect of a particular tax on the distribution of economic welfare. (*What is the incidence of the tax? = Who actually pays the tax?)*

A tax **shifts forward** when the burden falls on the consumers than the suppliers.

A tax **shifts backwards** when the burden falls on a production factor.

There might be full shift, partial shift, or no shift.

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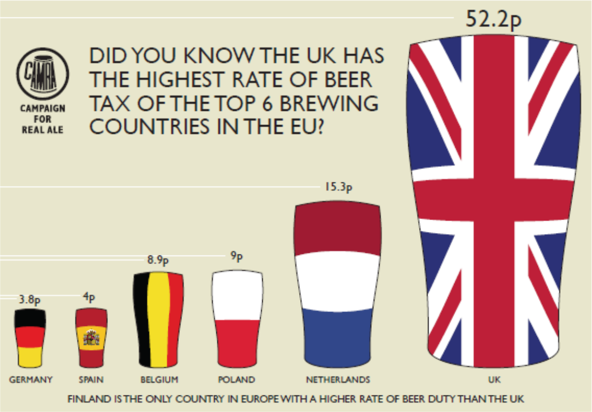
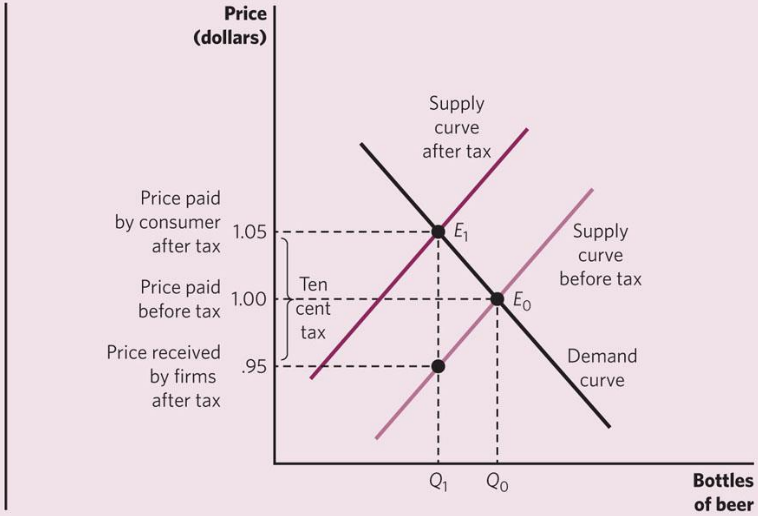
The impact of a tax on market equilibrium

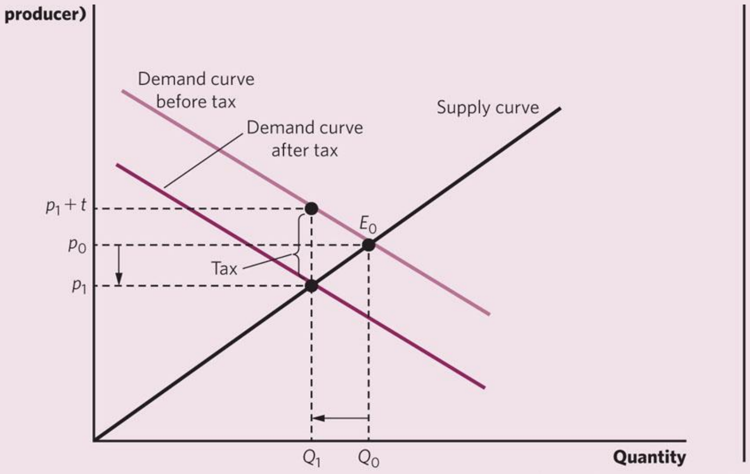


The graphs show how a tax of 10 cents per bottle of beer (or 10% of price) impacts the market.

The effects of a tax can be seen as either an upward shift in the supply curve (Fig. 18.2) or as a downward shift in the demand curve (Fig. 18.3).

FIGURE 18.2



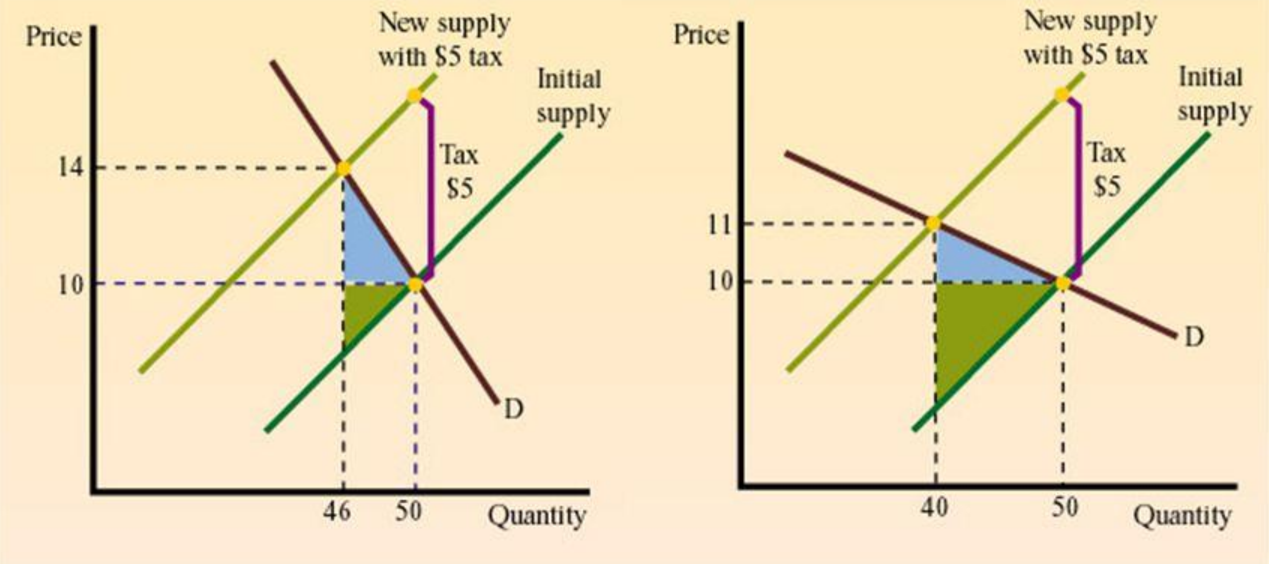


Tax Shifting and Elasticity

The relative price elasticity of supply and demand will determine the incidence of a tax.

Tax Shifting: Forward and Backward

- When demand is relatively **inelastic**, the tax burden is forward-shifted.
- When demand is relatively **elastic**, the tax burden is backward-shifted.



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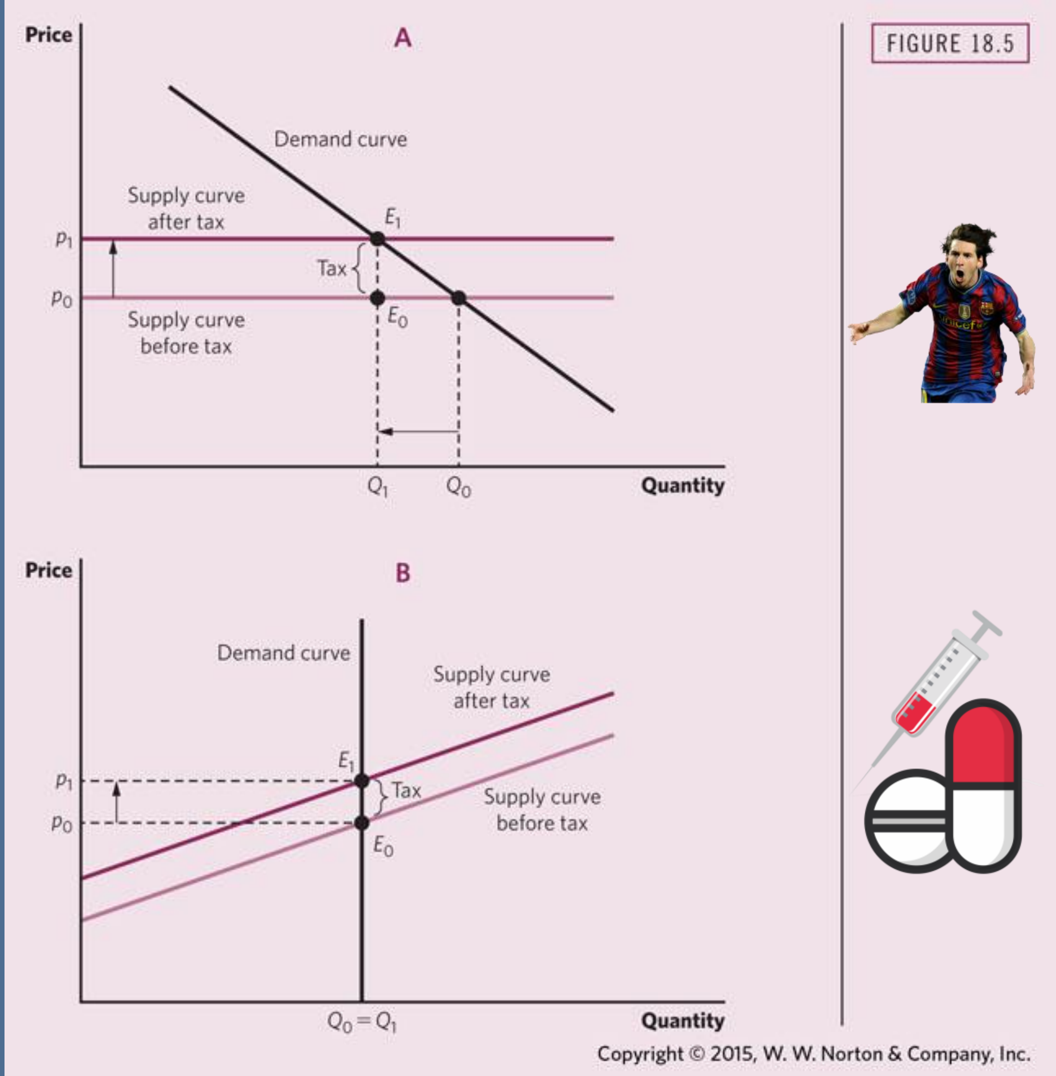
Elasticity of Supply and Demand – Tax borne by consumers



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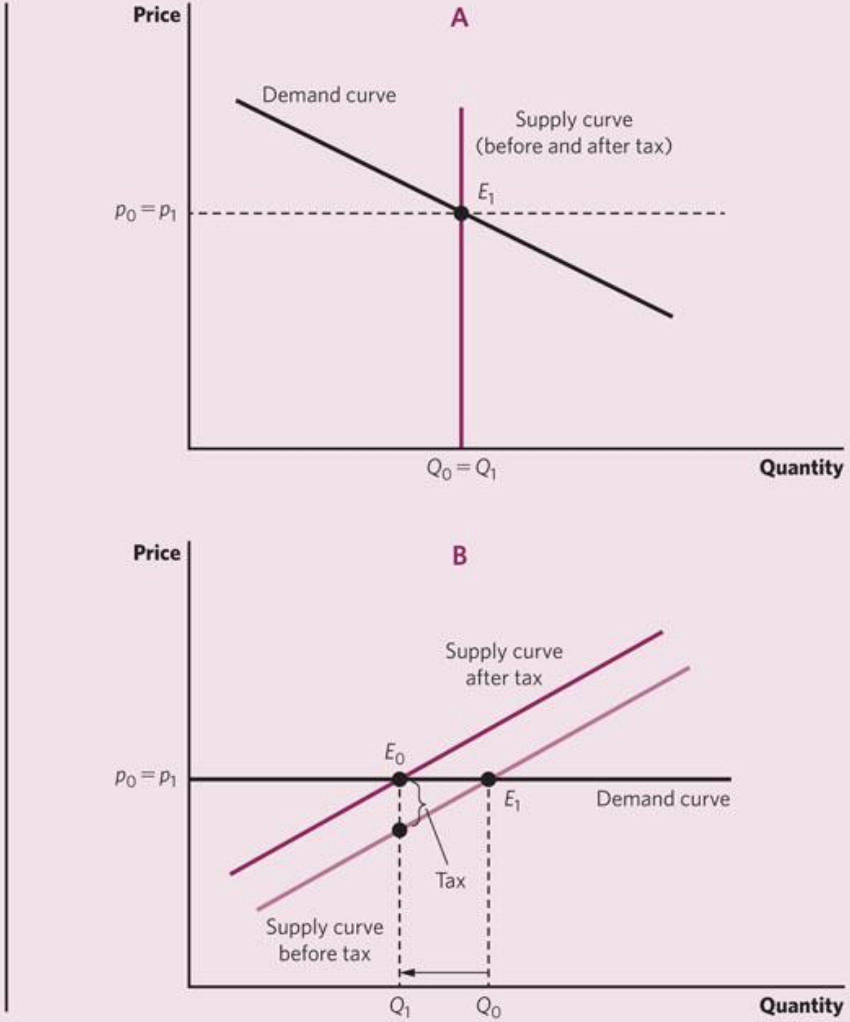
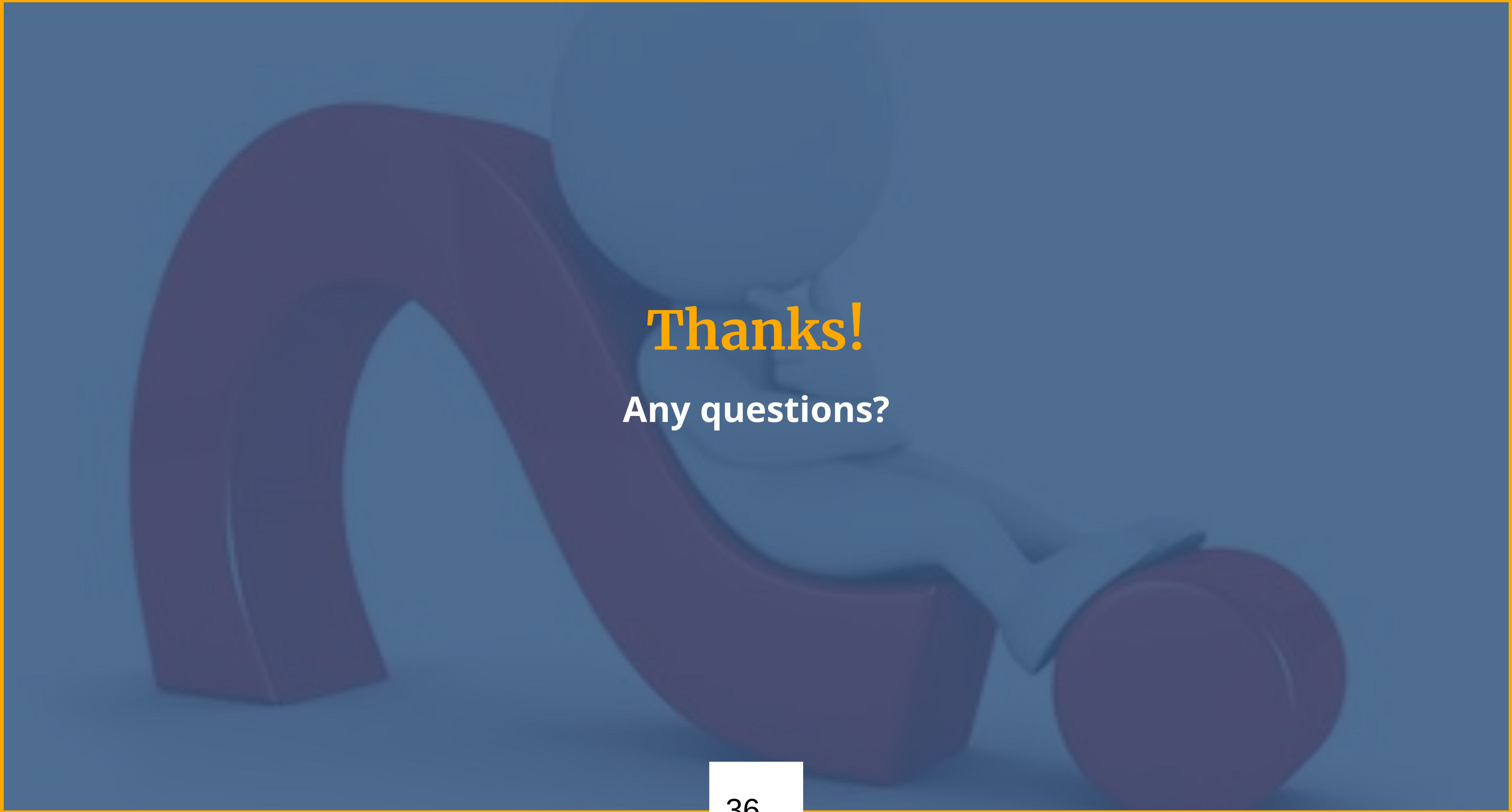
Elasticity of Supply and Demand – Tax borne by Suppliers

FIGURE 18.6

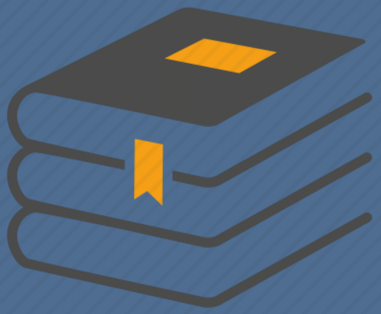




Thanks!

Any questions?

Bibliography



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