DESIGNING GOOD TAX POLICY: A PRIMER

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OECD
BETTER POLICIES FOR BETTER LIVES

Outline of the presentation

1. Introduction
2. Tax Revenue
3. Efficiency and Tax Incidence
4. Equity
5. Other objectives and criteria
6. Reconciling conflicting goals

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Introduction: when should governments intervene in markets?

The role of government is to:

- improve the functioning of markets (i.e. when markets are “inefficient” or even fail)
  - Externalities
  - Imperfect competition
  - Imperfect & asymmetric information
  - Individual irrationality and other failures
- when Pareto efficient private market outcomes are undesirable due to redistributional concerns
- To finance public goods (non excludable and non-rivalrous):
  - in that individuals cannot be effectively excluded from use and
  - where use by one individual does not reduce availability to others

Positive and negative externalities

- *Externalities* occur when producing or consuming goods causes an impact on third parties not directly related/ taken into account in the transaction
- *Correct for negative externalities*:
  - i) social costs exceed private costs (e.g. agent's unhealthy way of living, which leads to high health costs for society; pollution);
  - ii) when private return exceeds the societal return (excessive financial sector risk taking; free-riding behaviour)
- Stimulate in presence of *positive externalities*: when private agents do not receive the full societal return – i.e. social return exceeds private return (R&D)
- Think of externalities also in terms of *markets which are incomplete/ missing markets* – in the absence of a market there will be no prices (e.g. pollution is often for free) or agents will not be able to transact (e.g. health contracts for the already sick)

A wide range of instruments is available to intervene in markets

TAXES

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- Subsidies (to stimulate the good): financial assistance or subsidies, including cash grants, tax preferences, loan guarantees and low-interest loans, etc.
- Command-and-control regulations, such as standards or mandates, which may be performance-based (e.g. maximum levels of SO_2 emissions from a plant or sulfur content in fuel) or technology-based (e.g. mandatory use of emissions scrubbers or bans on particular fuels)
- Price setting and creation of a market & market development (e.g. time dependent road-user charges)
- Price regulations
- Fines
- Permits
- Information programmes (e.g. equipment labelling requirements regarding environmental performance; advertising campaigns);
- Government procurement policies, voluntary industry agreements, etc.

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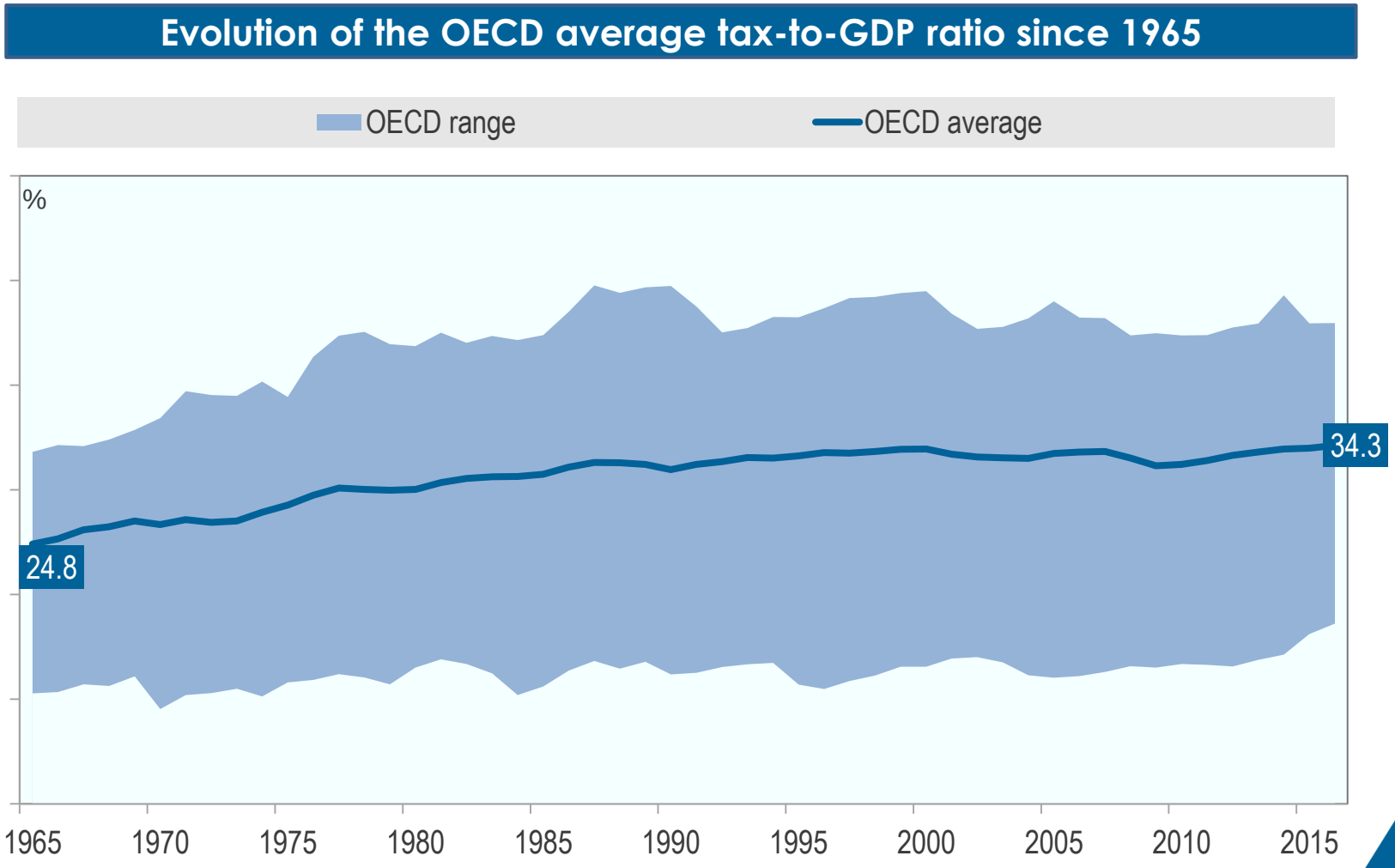
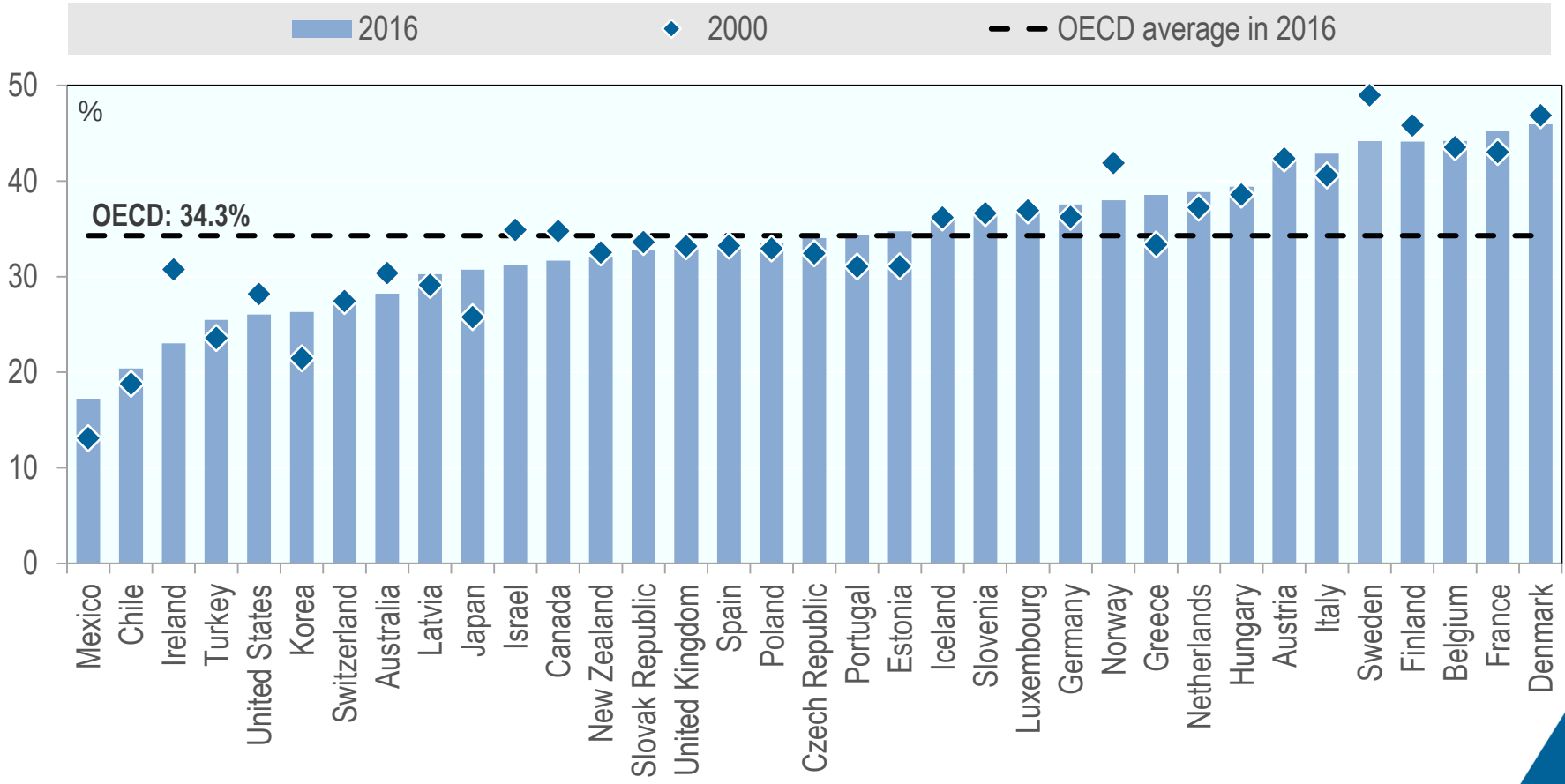
The OECD average tax-to-GDP ratio reached a new record level in 2016



Source: OECD Revenue Statistics Database

…but tax-to-GDP ratios vary widely across countries

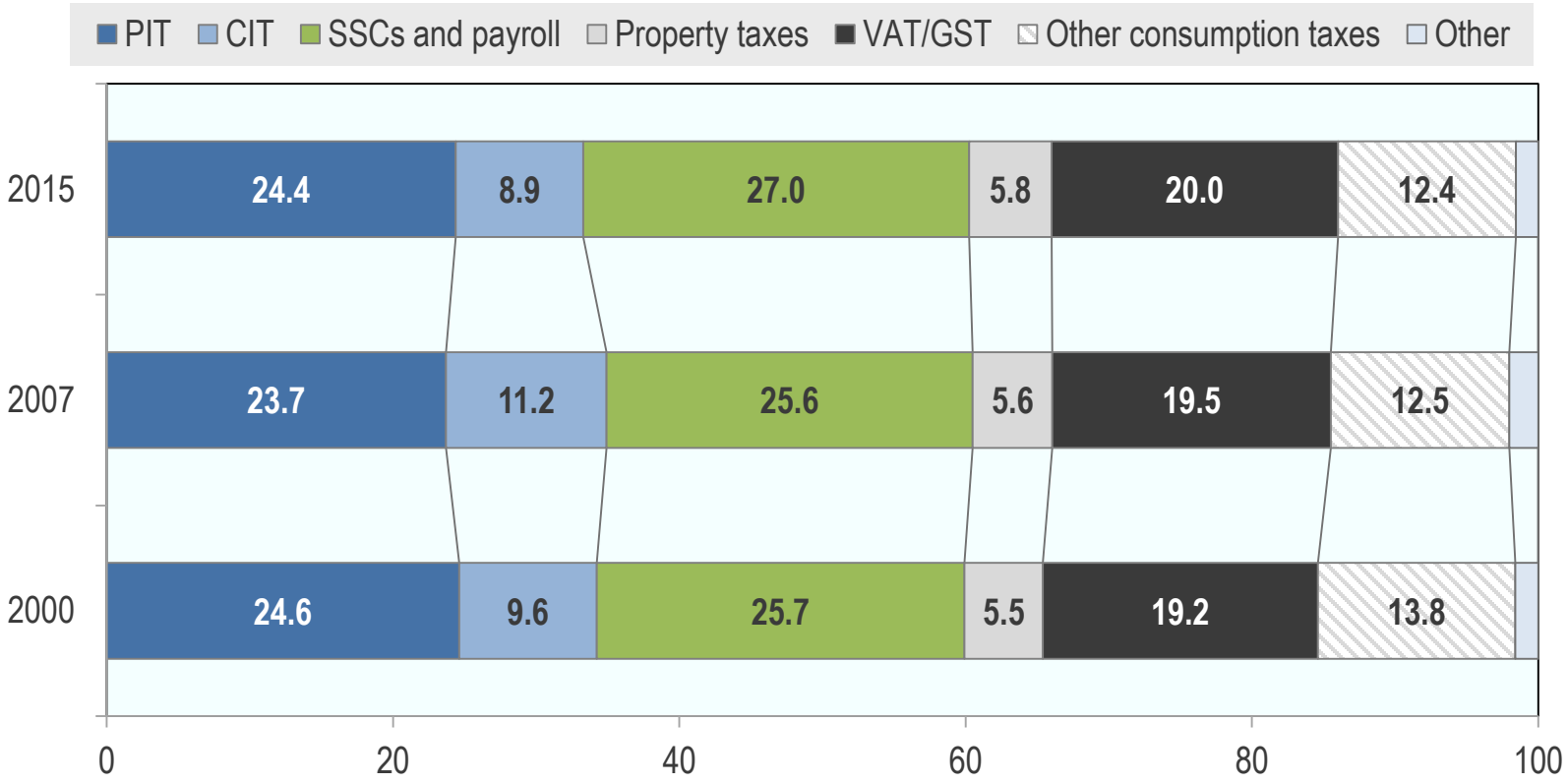
Tax-to-GDP ratios in OECD countries in 2000 and 2016



Source: OECD Revenue Statistics Database

SSCs, PIT and VAT are the main sources of revenues in the OECD

Evolution of the OECD average tax mix – 2000, 2007 and 2015



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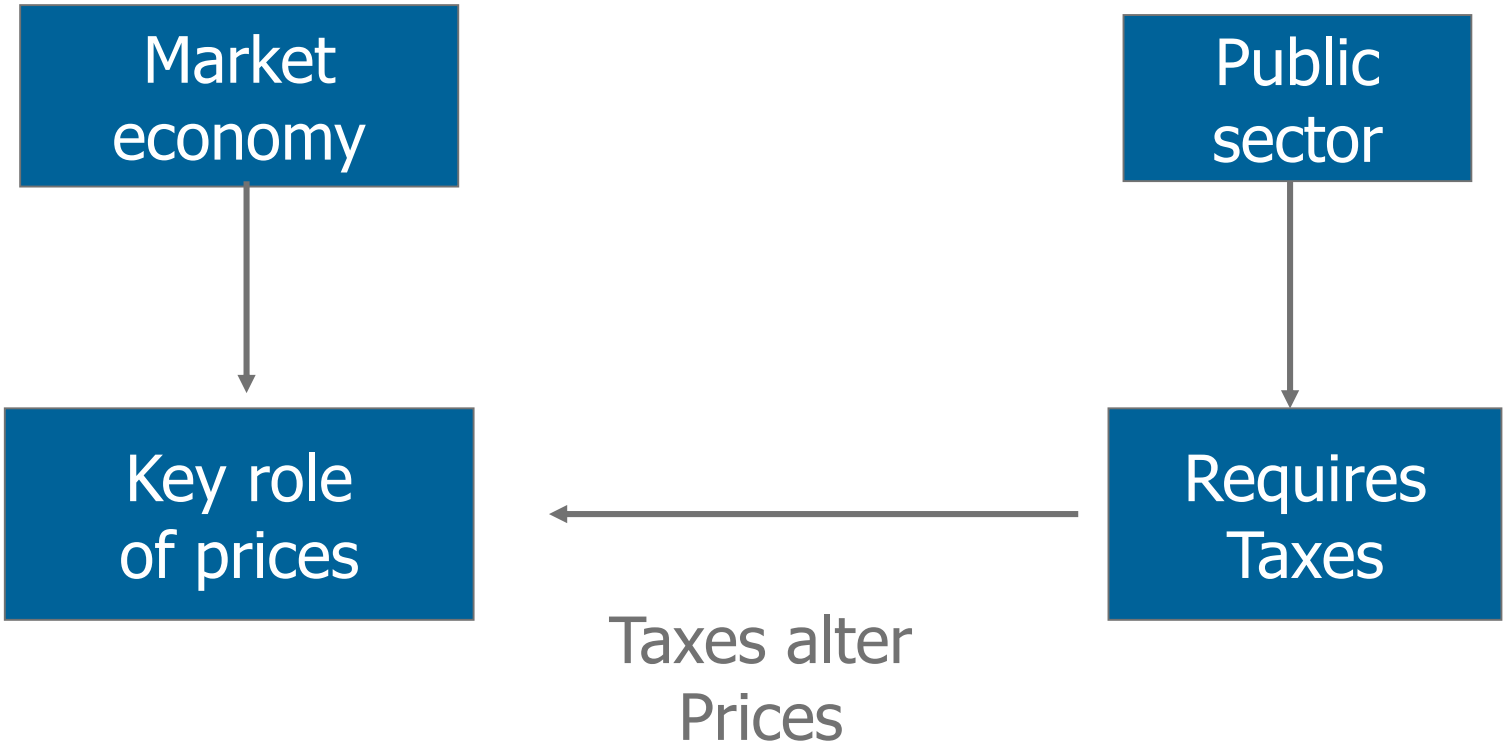
Efficiency and Tax Incidence

A. Minimizing excess burden

B. Correcting Externalities and Market Failures

C. Tax incidence

A. The efficiency cost of taxation



A. The efficiency costs of taxation

- Classical economic theory suggests that 'lump-sum' taxation can be carried out without welfare loss. In practice this is not possible.
- In reality, taxation or sales/work/income/economic activity of **any kind** causes taxpayers to change behaviour from the no-tax optimum.
- We think of behaviour without taxes as being optimal (though not always the case!)
- Thus, the more taxation

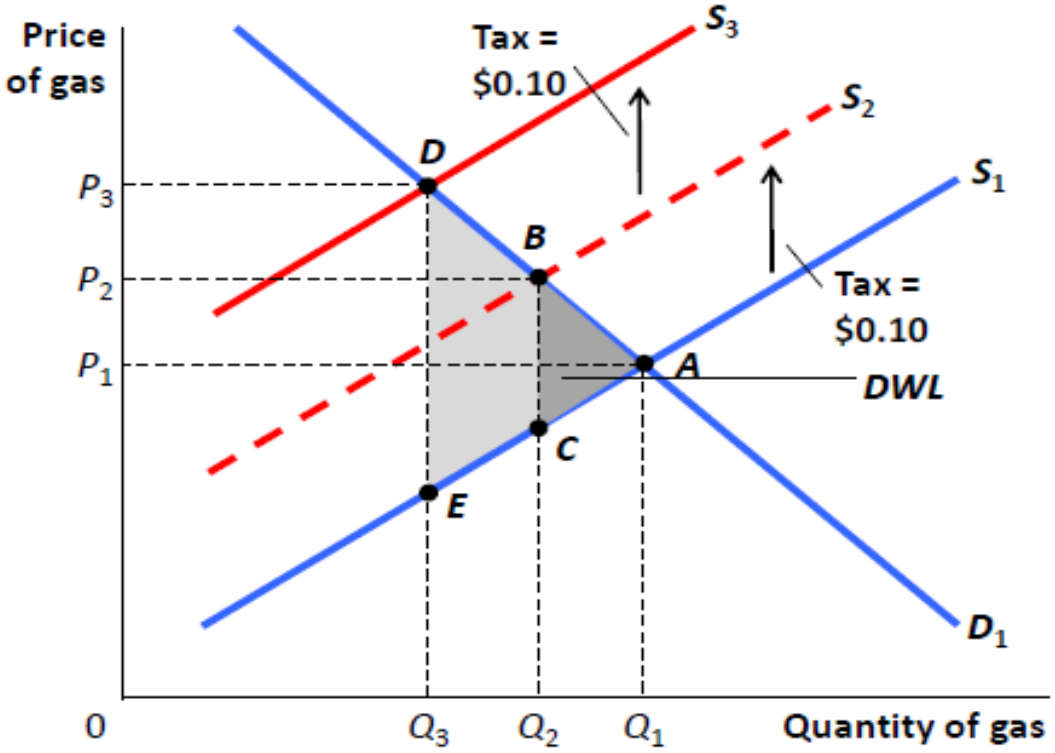
  →the more behaviour change

  → the more efficiency loss.
- How can we tax best? Involves taxing where behaviour change is minimised (or when behaviour changes are good for taxpayers).
- How much behaviour changes is also known as the **elasticity** with respect to taxation.
- In general, the higher the tax rate, the larger the economic distortion and welfare cost as a result of taxation. It is more efficient to spread taxes across all goods to keep each tax rate low.

A. The efficiency costs of taxation

	No taxation	With taxation
Sales/Consumption Taxes	The price the consumer pays equals the revenue of the producer	Market price > producer price The tax system inserts a wedge.
Income/Payroll Taxes	Return from work = cost for hiring the worker for the employer	Net wage < labour cost
Capital/Corporate Income Taxes	Return from savings (s) = cost of capital (p)	s < p

A. Marginal Dead Weight Loss increases with level of the tax rate



A. Taxation and economic growth

- Recent (2008) OECD research

- Some taxes are more distortive than others and harm economic growth to a greater degree

- "Ranking" of taxes in terms of their negative impact on GDP per capita:
  - 1. Corporate income taxes (CIT, financial transaction taxes)
  - 2. Personal income taxes
  - 3. Consumption taxes (VAT, excise & ecological taxes)
  - 4. Recurrent taxes on immovable property

→ Shift part of the revenue base from income to consumption and property

- Broad tax bases and low tax rates
- Reduce tax progressivity
- But need to also consider equity considerations…

B. Correcting for Externalities and Market Failures

- Taxes can cause economic distortions when they change behaviour away from what it might be otherwise. But not all behaviour changes are bad.
- Often, the tax system is adjusted for various purposes where the no-tax behaviour is not optimal.
  - Specific tax provisions are offered to encourage or discourage a kind of economic activity.
  - Known as either ‘tax incentives’ or ‘Pigouvian taxes. ’

B. Negative Externalities and "Taxing Bads"

- Taxing "bads" can allow government to charge taxpayers for external costs
  - 'Internalises' external costs
  - Increases tax revenue
  - With no efficiency loss
  - It is not "acting against the market"
  - But it corrects market failures
  - The same holds in the case of inelastic demand
- Examples
  - Carbon Taxes, Tobacco Taxes, Sugar/Health Taxes

B. Positive Externalities and Tax Incentives to "Encourage Goods"

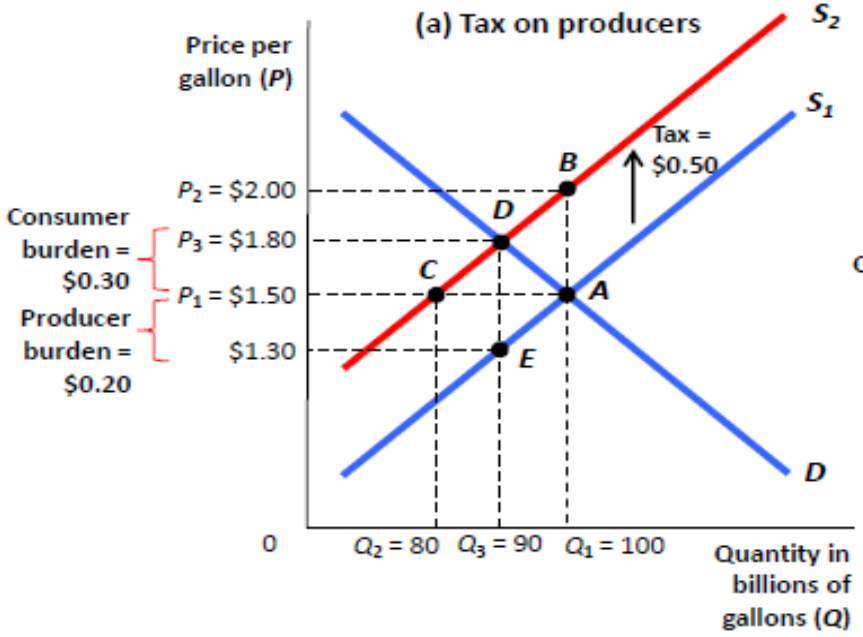
- Just as 'taxing bads' can potentially improve efficiency by internalising externalities, so tax incentives can improve efficiency when well designed.
- Case of positive externalities
  - Research and Development
  - Energy savings schemes
  - Housing ?
- Market failures
  - Pension savings
  - SME's (financing)
- Most of the tax incentives are not justified by market failures or externalities, they just reflect specific tax policy goals

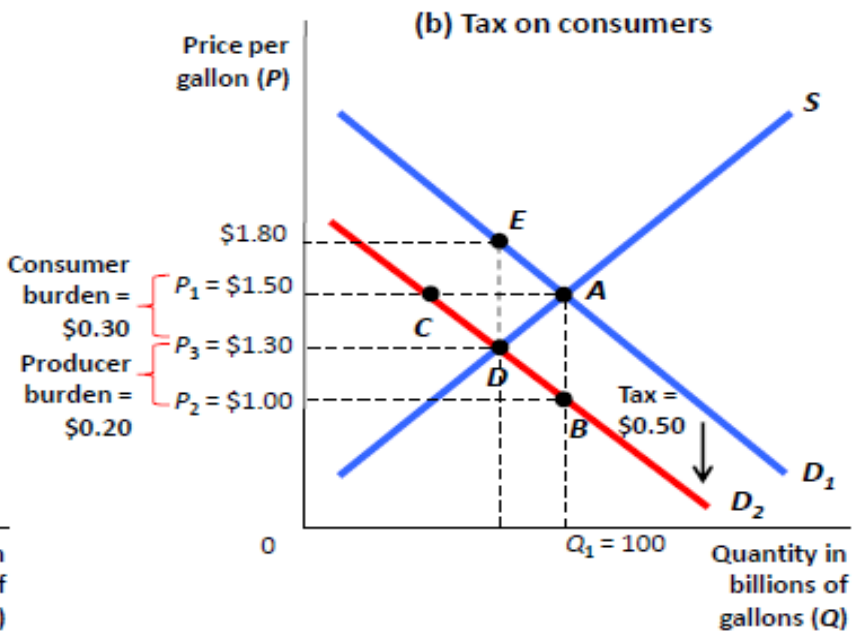
B. Tax incentives

- Additionnality or windfall gain?
  - Does the tax system create new good behaviour?
  - Or just provide a wasteful subsidy to good behaviour that would happen anyway?
- Distribution of the incentives
  - Does it incentivise new taxpayers? High-income taxpayers? Low-income taxpayers?
- Add to the complexity of the tax system

C. Tax Incidence: Introducing a unit tax per littre on producers or consumers

The Statutory Burden of a Tax Does Not Describe Who Really Bears the Tax, and Is Irrelevant to the Tax Burden





C. Tax Incidence

Tax incidence is the study of the effects of tax policies on prices and the welfare of individuals

Who pays the tax is not necessarily the agent who bears the burden of the tax

- Statutory incidence is NOT equal to the economic incidence
- The market equilibrium is independent of who nominally pays the tax

Why?

Because taxes can be shifted: taxes affect directly the prices of goods, which affect quantities because of behavioural responses, which affect indirectly the price of other goods

Who then bears the burden of the tax? The agent who is the least sensitive to the tax; i.e. the agent who changes her/his behaviour the least in response to the tax!

C. Tax Capitalisation

Price “P” before the introduction of the tax “t”

Price after the introduction of the tax:

price before tax (i.e. net of tax): P^*

price after tax (i.e. gross of tax): $Q = P^*+t$

In general: $P^* < P < Q=P^*+t$

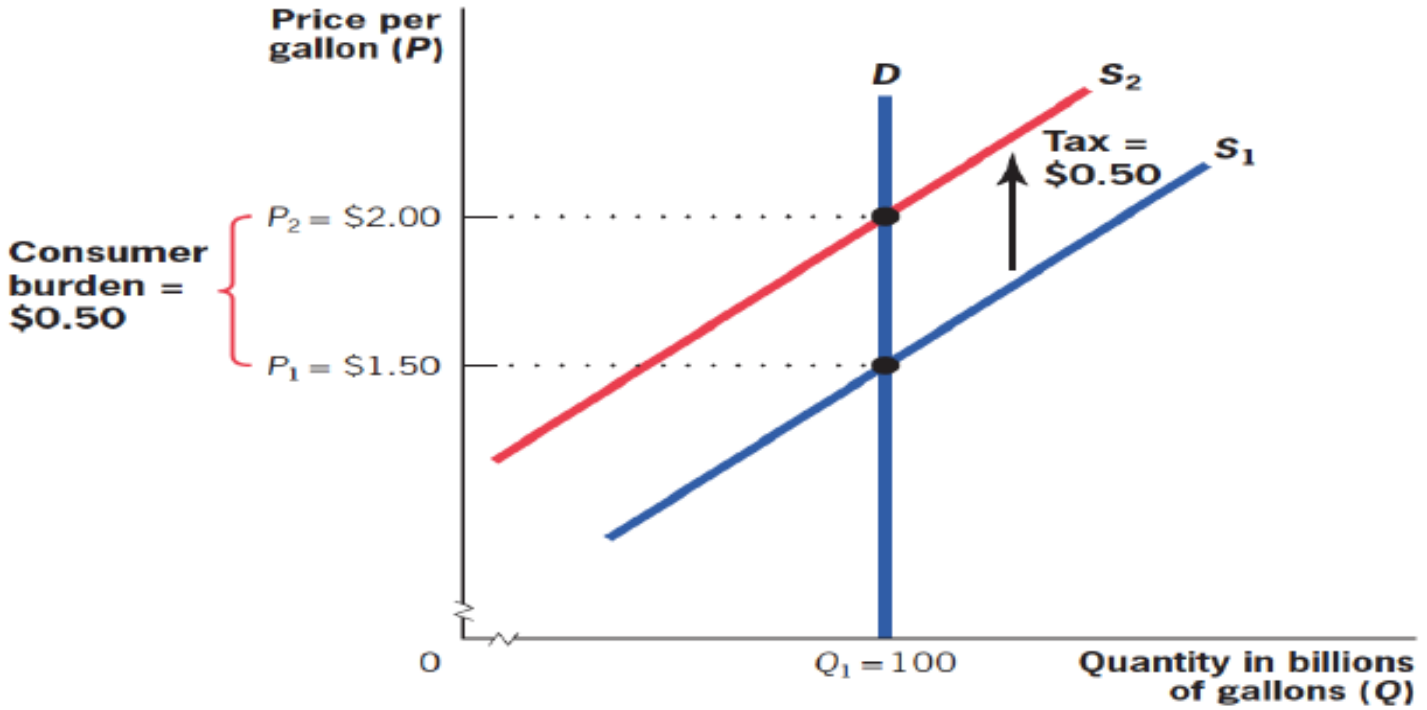
The tax t is fully capitalised in the price/ value of the asset) if: $P - t = P^* < P = Q$

$dP/dt=-1$ and $dQ/dt=0$: supplier bears entire burden of the tax as she will now receive a price which is 100% reduced by the tax t while the consumer does not pay anything more than before the introduction of the tax (as Q=P)

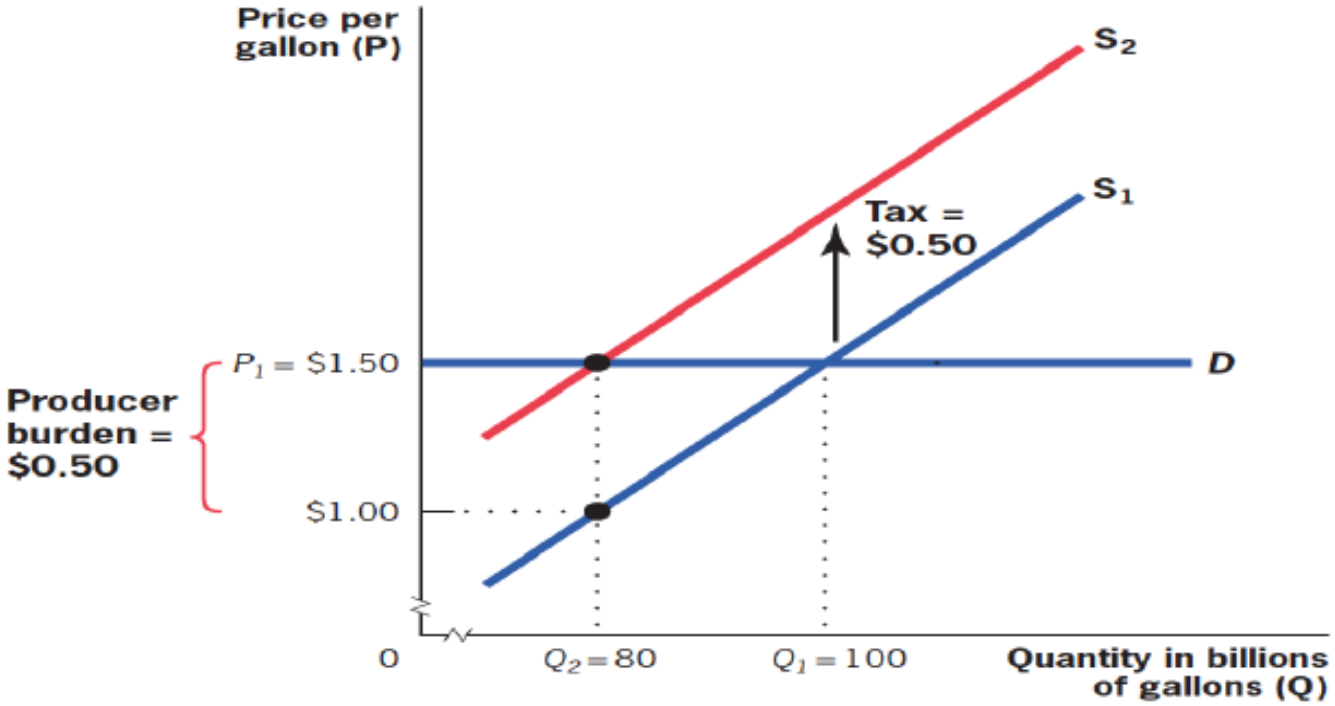
The tax t is not capitalised in the price/ value of the asset if: $P^* = P < Q = P + t$

$dp/dt=0$ and $dq/dt=1$: consumer/investor bears the entire burden of the tax as she will now have to pay a price which is 100% increased by the tax t while the supplier continues to receive the same price as before the introduction of the tax

Perfectly inelastic demand: p does not change (dp/dt =0) and q increases fully with t (dq/dt=1) so consumers bear entirely the burden of the tax



Perfectly elastic demand: dp/dt = -1 but q does not change, so producers/suppliers bear the entire burden of the tax



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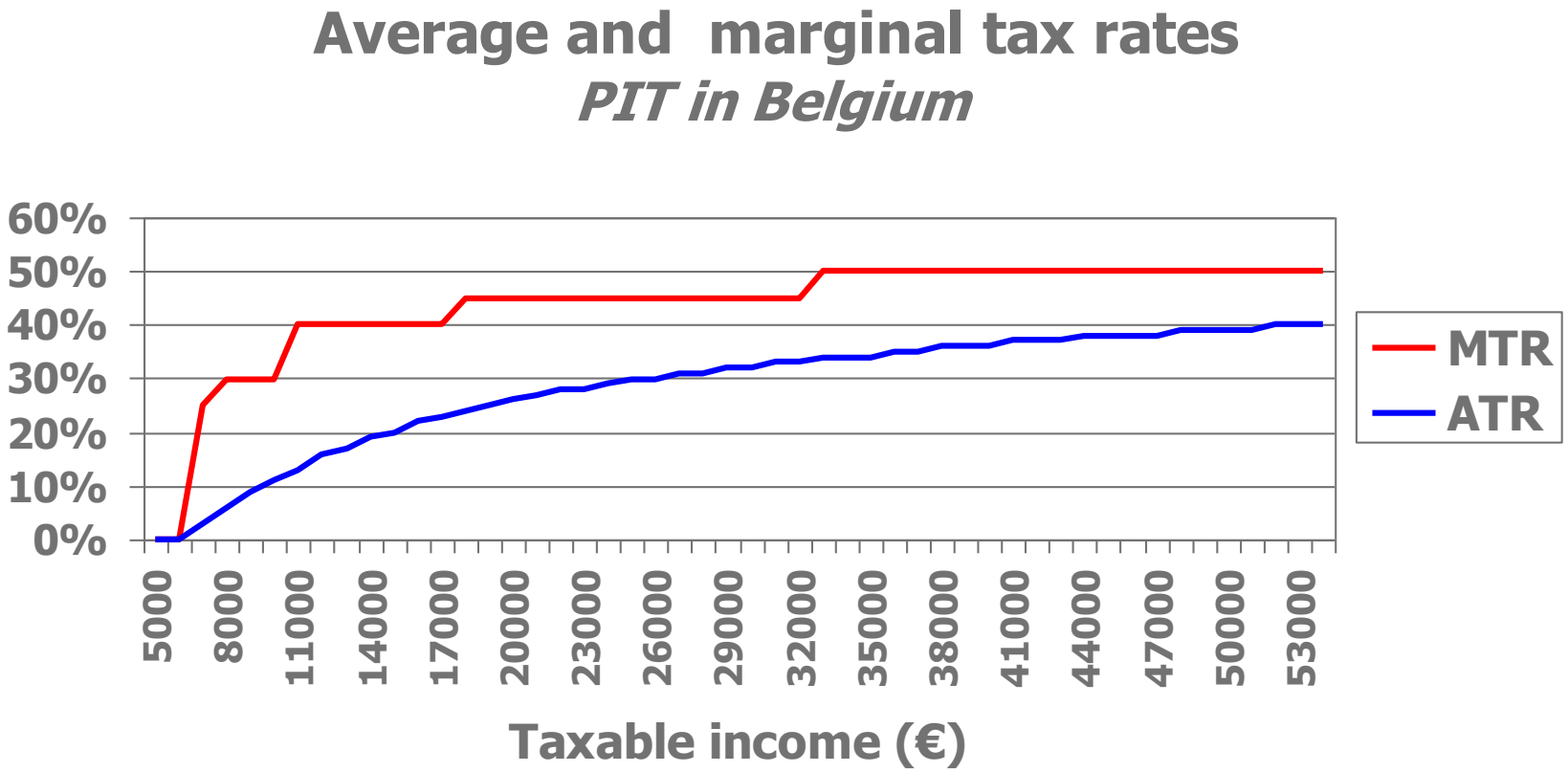
Horizontal Equity

- What does horizontal equity mean?
  - Equal treatment of equals
  - Equal in well-being, equal in ability to pay
  - “Ability to pay” = income, consumption or wealth
  - Equal treatment of various types of income, consumption and assets
- But…..
  - Capital income : real or nominal?
  - Taxing family or individuals ?
  - Does a child and/or a non-working spouse reduce ability to pay ?

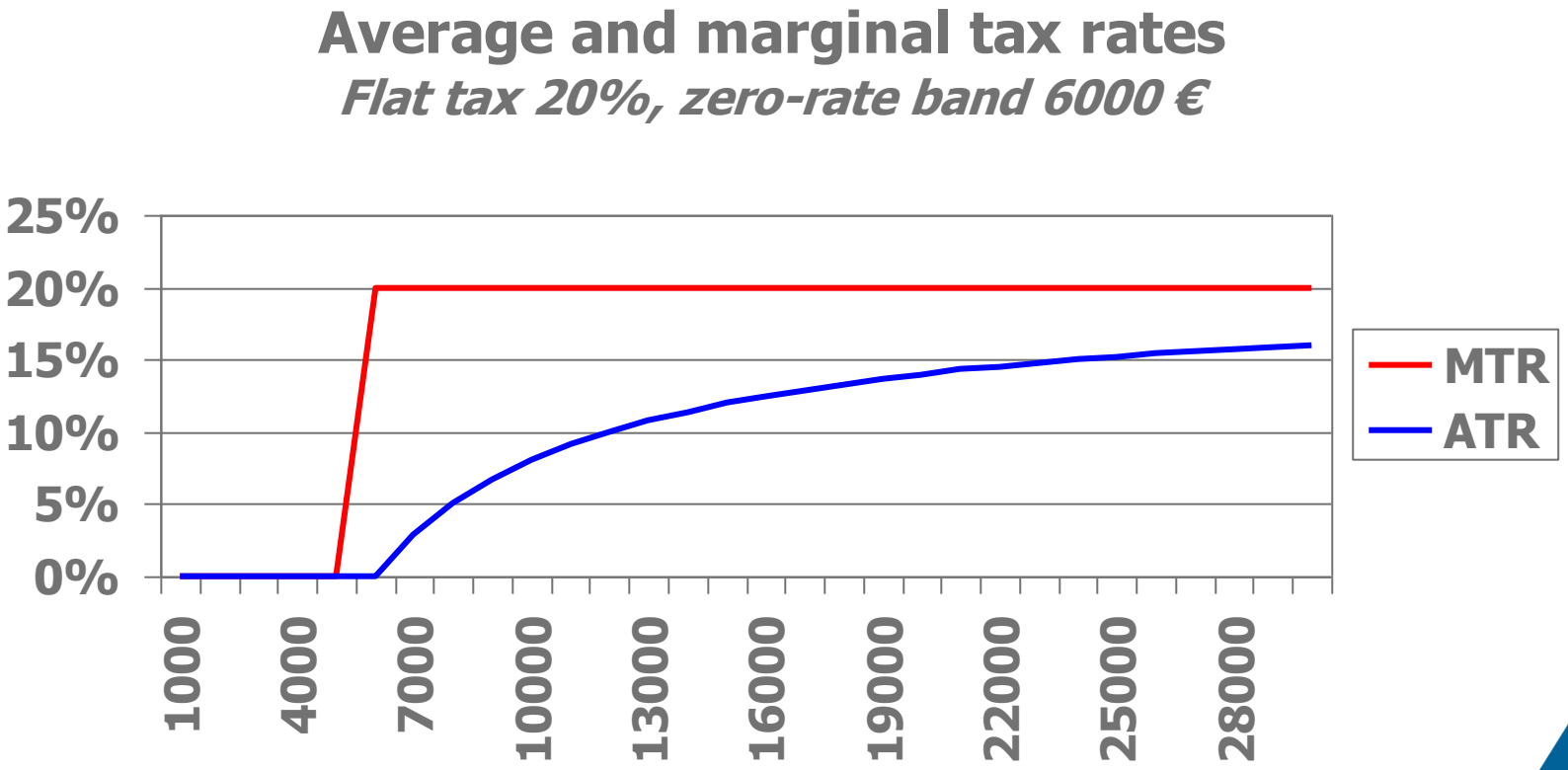
Vertical Equity

- Vertical equity requires that income after tax has to be distributed more equally than income before tax
- What has to be achieved depends on value's judgments about a "fair income distribution"
  - Among the main differences between OECD and Asean countries
  - Pre-tax inequality is higher in Asean countries, compared to the OECD
  - Inequality as a result of different levels of effort might be OK
  - Relative magnitude of the middle class and of the part of the population below the poverty threshold
- Vertical equity implies redistribution, which requires progressive taxation
  - Increasing marginal tax rates
  - Average tax rate increases with the tax base

Vertical Equity



Vertical Equity



Channels through which tax policy affects inequality

Tax revenues finance expenditure which may reduce inequality

- Most redistribution occurs through transfers

Taxes can reduce disposable income inequality

- PIT progressivity is the key tool to narrow the distribution of disposable income

Taxes can reduce market income inequality

- Taxes affect pre-tax opportunities and behaviours, e.g. tax and skills
- Equality of opportunity

The tax system can redistribute income across the lifecycle

- Intra-personal as opposed to inter-personal redistribution, e.g. SSCs to finance future benefits

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Other tax objectives and criteria

- Effective tax system allows government to manage the business cycle through fiscal policy
- Minimise administrative and compliance costs, which are often the result of:
  - Specific rules for various types of income
  - (Targeted) tax incentives
- Limit tax avoidance and tax evasion opportunities
- Stability of tax system
- Simplicity – complexity breeds complexity
- Provide tax certainty

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Tax policy guidelines

- Ramsey-rules: higher tax rates for inelastic tax bases
- Lower tax rates for mobile tax bases
- Broad bases, low rates
- Tax bads and subsidise goods
- Making tax system fair – progressivity and raising tax revenues to spend in fair ways

Some tax policy design principles for inclusive growth

1 Broadening tax bases	2 Taking into account overall tax system progressivity	3 Affecting pre-tax behaviours and opportunities	4 Enhancing tax administration and policy
Keep bases broad and rates low	Equitable taxation of capital income	Provide incentives for formalisation	Fight against tax avoidance and evasion
Remove inequitable tax expenditures	Horizontal equity to enhance vertical equity	Promote the optimal use of human capital	Increase value for tax money
Broaden social security financing	Strengthen link between lifetime taxes & benefits	Align private & social costs and returns	Monitor income & wealth distribution
	Compensate losers of reforms		

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