Economic Policy and Business Activity

Academic Year 2017-2018
2nd Semester

Theory Lecture 3

1. Introduction to economic policy

1.1. A primer on economic policy

1.2. The whys and hows of public intervention

    1.2.1   Three functions of economic policy

    1.2.2   Why intervene?

1.3. Economic Policy Evaluation: Decision Criteria

1.4. Conclusion

Learning outcomes for lecture 2

- Explain the Tinbergen rule relating policy objectives to instruments, and how it relates to trade-offs in economic policy making

- Define institutions and explain how they are related to economic policy

- Distinguish between economic management and structural reforms

- Define and explain the three functions of economic policy

Learning outcomes for lecture 3 (today)

- Explain the main justifications for government intervention, and possible interventions adopted, regarding:
  - Allocation function,
  - Stabilization function, and
  - Redistribution function

- Explain the degree to which demand-side policies provide an effective response to negative supply-side shocks in the short and long term

1.2.2 Why is public intervention needed?

- The **first theorem of welfare economics** establishes that *under certain conditions* any **competitive market equilibrium** is **Pareto optimum** – i.e. it is not possible to improve the welfare of someone without reducing that of someone else (i.e. efficiency of competitive markets)

- When the *conditions* for perfect competition are not present there is justification for public intervention to address what we call **market failures**

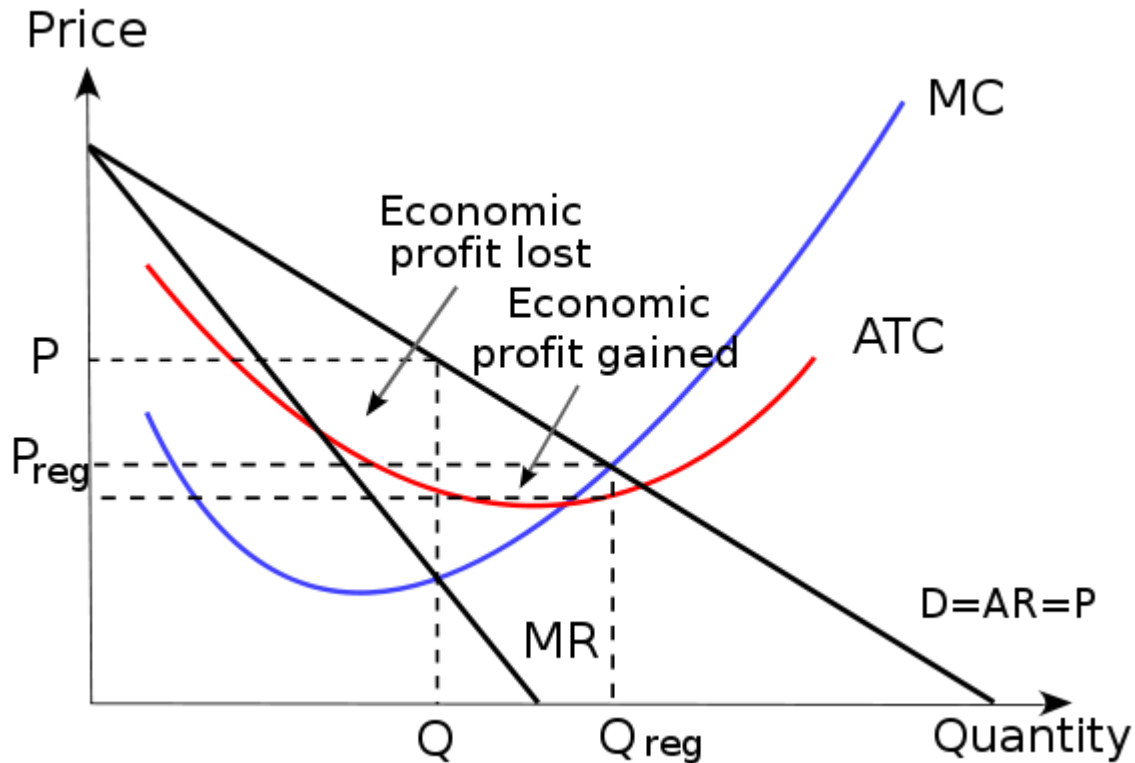# 1.2.2 Why is public intervention needed? Allocation

- Government intervention is justified when it is able to remedy **market failures**, i.e. to improve the efficiency of resource allocation in comparison to the market outcome

- The arguments for allocation-related intervention are studied in microeconomics and public economics and recommend **regulatory policies, corrective taxation, the public provision of a number of goods and services, or public subsidies**

- The most frequent reasons for such failures are: the presence of **monopolies, externalities, public goods, information asymmetry, market incompleteness**

1.2.2 Why is public intervention needed? Allocation

- **Monopolies and imperfect competition**

- **Externalities**

- **Public goods**

- **Information asymmetries**

- **Market incompleteness**

1.2.2 Why is public intervention needed? Allocation

- **Monopolies and imperfect competition**

- Level of output of monopolist is lower than under perfect competition and the price charged is higher

- Government can set up **competition policy** or **market regulation** to avoid monopolist power

1.2.2 Why is public intervention needed? Allocation

- **Monopolies and imperfect competition**

- Under perfect competition, the marginal revenue is the market price of the product and profit maximisation leads to a social optimum

- If a firm holds a monopoly position or, more generally, has some **market power**, it takes into account the downward slopping demand curve for its product and the fact that its marginal revenue is less than the market price

- In comparison with the perfect competition outcome, this leads the firm to reduce quantities sold and increase price, reducing consumer welfare

1.2.2 Why is public intervention needed? Allocation

- **Monopolies and imperfect competition**

- **Public intervention** aims at restoring perfect competition conditions, for example, by blocking mergers leading to excessive market power

- However, when production involves **high fixed costs** or when there are **increasing returns to scale**, larger firms or even monopolies are thought to be more efficient – we call this a **natural monopoly**

- Can you think of common examples of natural monopolies?

1.2.2 Why is public intervention needed? Allocation

- **Monopolies and imperfect competition**

- **Examples of natural monopolies**: it is more efficient to have the railway network managed by a single entity than by several, but this implies regulating its behaviour or subjecting it to potential competition in order to prevent it from exploiting its monopoly power.
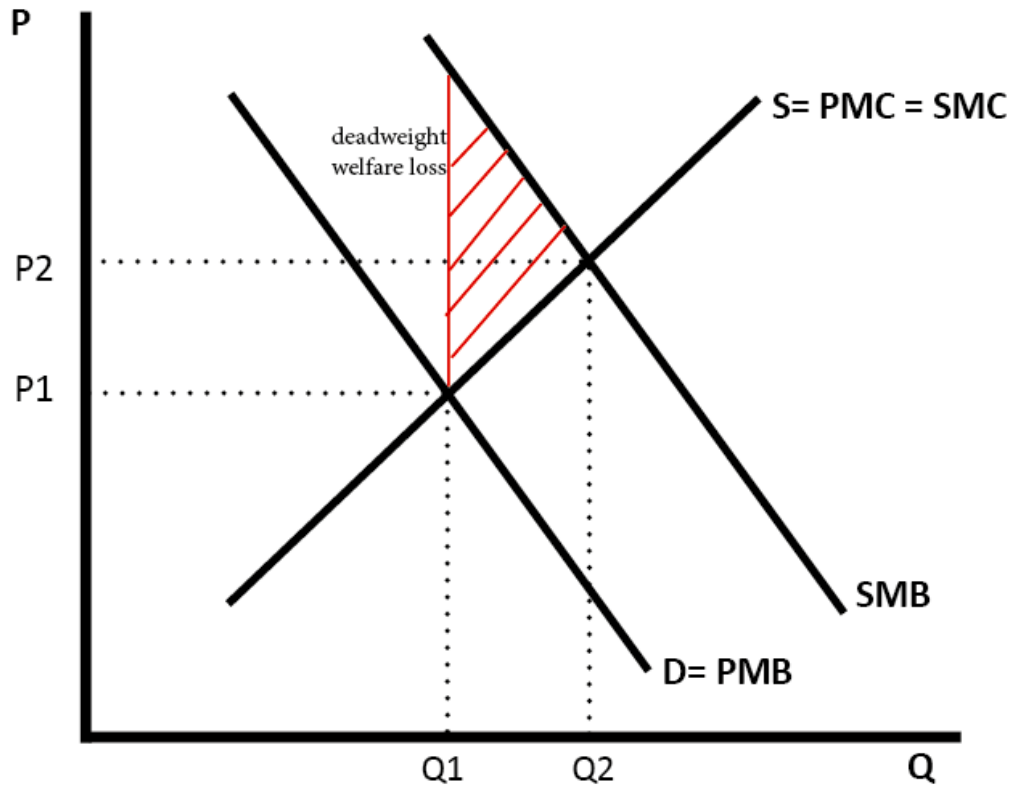
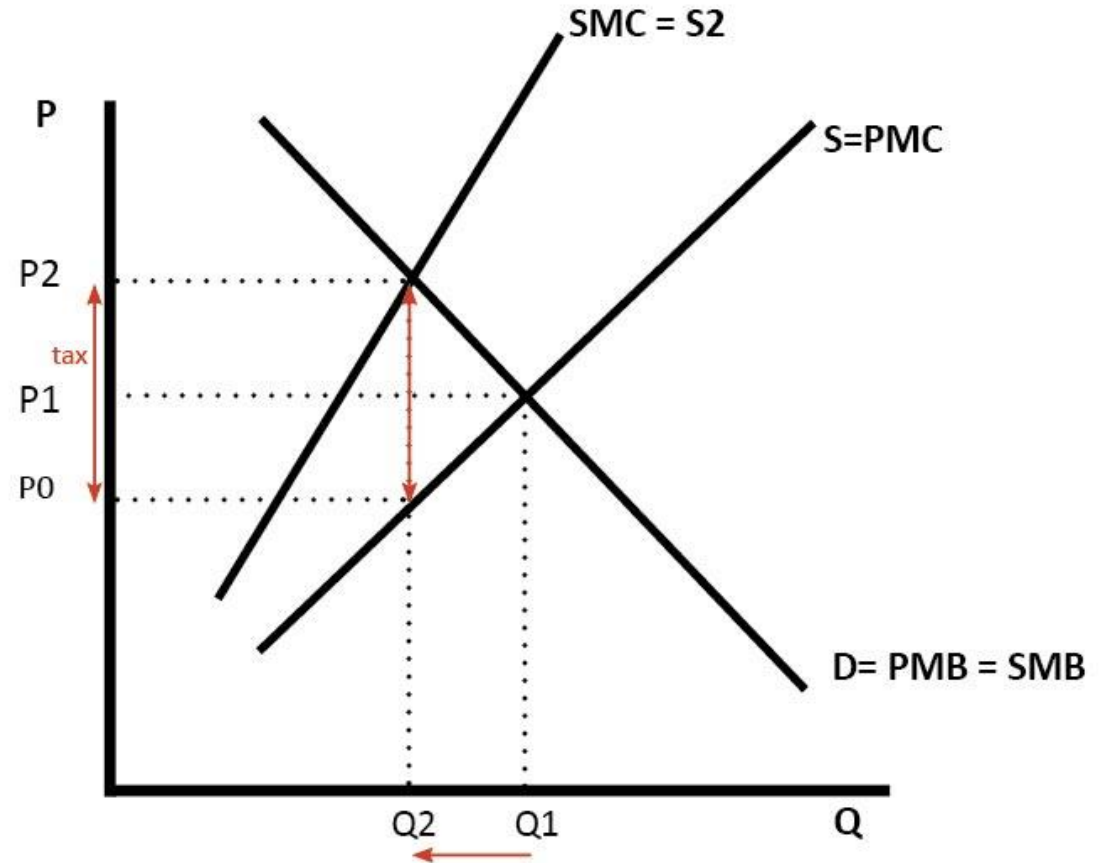# 1.2.2 Why is public intervention needed? Allocation

- **Externalities**

- In the presence of externalities, the private cost of a resource or the private benefit from production does not coincide with the social cost or the social benefit
    - In the case of **negative externalities**, the firm or consumer tend to **over-produce or over-consume** resources so the market equilibrium does not equal the social optimum. E.g.: car producer, drivers
    - In the case of **positive externalities**, the firm or consumer tend to **under-produce or under-consume** resources so the market equilibrium does not equal the social optimum. E.g.: education, innovation

1.2.2 Why is public intervention needed? Allocation

- positive externality on consumption (e.g. vaccination, education)

- negative externality on production (e.g. carbon emissions from factories)

1.2.2 Why is public intervention needed? Allocation

- **Public goods**

- The reason for market failure is one of missing markets

- The **non-rivalry and non-excludability** nature of public goods, means that people may not reveal their true preferences for the good – that is, they undervalue the willingness to pay for the good because they know they can consume/access the good without paying for it (**free-rider problem**)

- The free-rider problem leads to sub-optimal under-production of teh public good

1.2.2 Why is public intervention needed? Allocation

- **Imperfect information and asymmetric information**

- Competitive equilibrium assumes **perfect information** hypothesis. However, if information has a **strategic character** and if agents use it to their benefit, the market outcome is no longer necessarily **Pareto optimum**

- **Imperfect information** is **widespread** in an economy and affects the decisions made by firms, households and governments, leading to sub-optimum outcomes

1.2.2 Why is public intervention needed? Allocation

- **Imperfect information and asymmetric information**

- Examples of credit market: when the creditor (bank) has less information than the debtor (company, household) on the risk incurred in lending, the creditor cannot accurately price the risk in setting the interest rate on the loan

- Other examples: your decision to invest in education, your choice of degree, dating markets, credit markets, etc. (generally any example of matching markets)

1.2.2 Why is public intervention needed? Allocation

- **Incomplete Markets**

- **Optimality of the competitive market equilibrium** relies on existence of markets for all necessary transactions at all relevant horizons. When such markets are missing, **Pareto optimality** is **not guaranteed**

- Typical **examples of incomplete markets include quasi-public goods and merit goods** such as infrastructure (transport, water, electricity), education, new technology, and the **presence of imperfect or asymmetric information**

1.2.2 Why is public intervention needed? Allocation

- **<u>Incomplete Markets</u>**

- E.g. getting a loan to finance your education is made difficult by the absence of collateral on which the loan can be guaranteed. The **near-absence** of a market on which young people could borrow to finance investment in their own human capital limits access to higher education

- In the absence of **public intervention** private investment in human capital would be **sub-optimal**

1.2.2 Why is public intervention needed? Allocation

- Note that **these arguments for public intervention are linked:** e.g. externalities and public goods, asymmetric information and incomplete markets, etc.

- Spot the linkages!
  - Mariana Mazzucato: Government -- investor, risk-taker, innovator

  - **Joseph Stiglitz: The financial crisis as a market failure**

1.2.2 Why is public intervention needed?

Stabilization

- Public intervention for **allocation** aims at **altering the long-run market equilibrium**, while intervention for **stabilisation** aims to **limit short-term deviations from it**
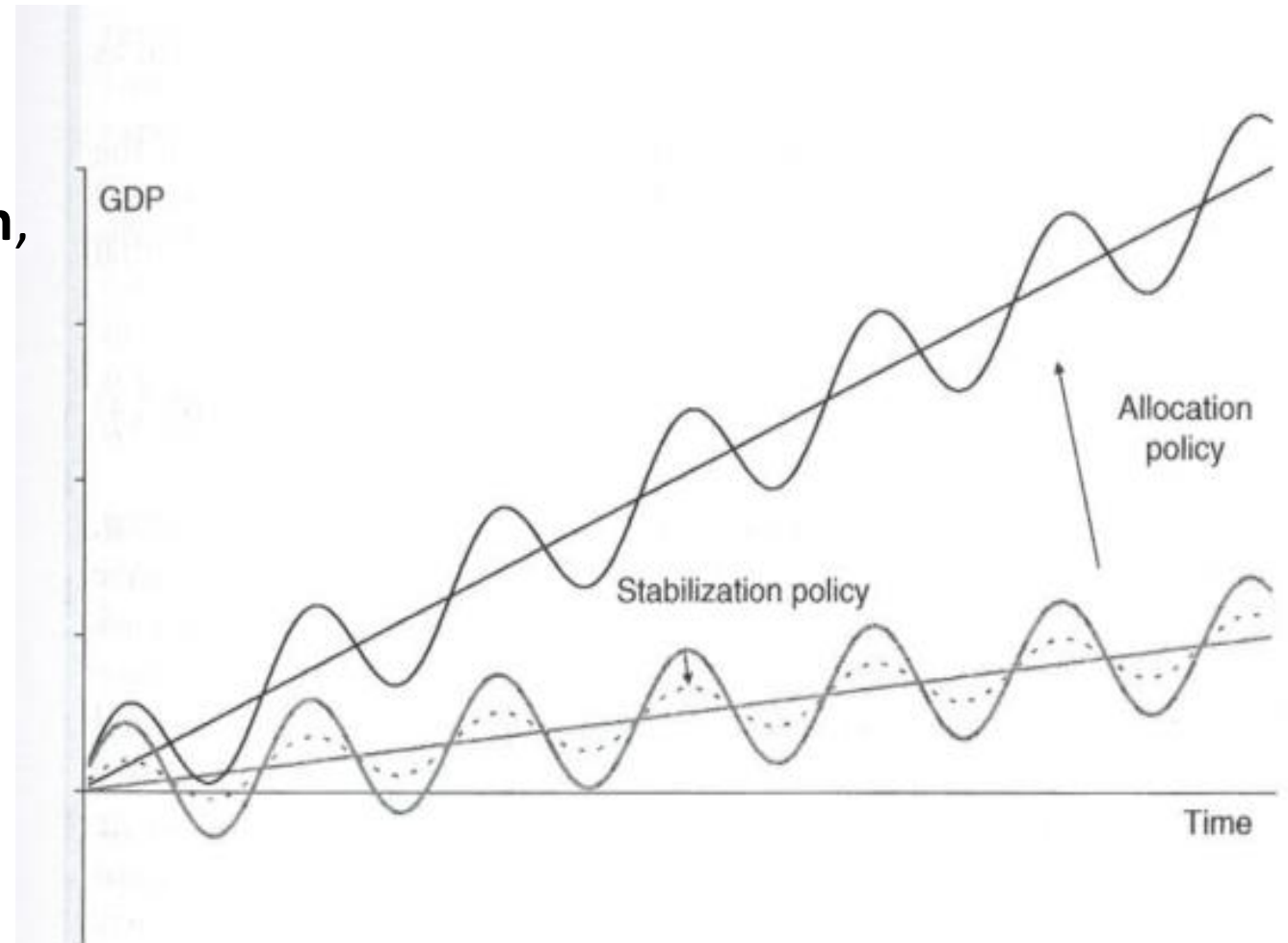

Figure 1.5 Stabilization versus allocation policies.

1.2.2 Why is public intervention needed? Stabilization

- Keynes gave **two reasons for intervention for stabilisation purposes**:

1. **animal spirits**, the instability of private behaviour under the influence of **spontaneous expectations** (vs. rational calculation) leading to excessive optimism followed by excess pessimism

2. **nominal rigidities** of wages and prices stop the self-correcting market mechanisms from operating and moving the economy back to equilibrium. Especially, nominal wage rigidity implies that the real wage does not fall in a downturn, preventing the restoration of full employment

- The combination of private behaviour instability and ineffective self-correcting mechanisms provided a justification for using counter-cyclical monetary and fiscal policies to smooth out economic fluctuations and prevent economic depressions

1.2.2 Why is public intervention needed? Stabilization

- Contemporary macroeconomics provides a framework for thinking about the **role of stabilisation policy**, and for **distinguishing between situations where it is effective and situations where it is ineffective**

- This approach is based on a **simple aggregate supply-and-demand framework (AD-AS model)** that explains the equilibrium price level and output as a result of the relationship between aggregate demand and aggregate supply –see next slide
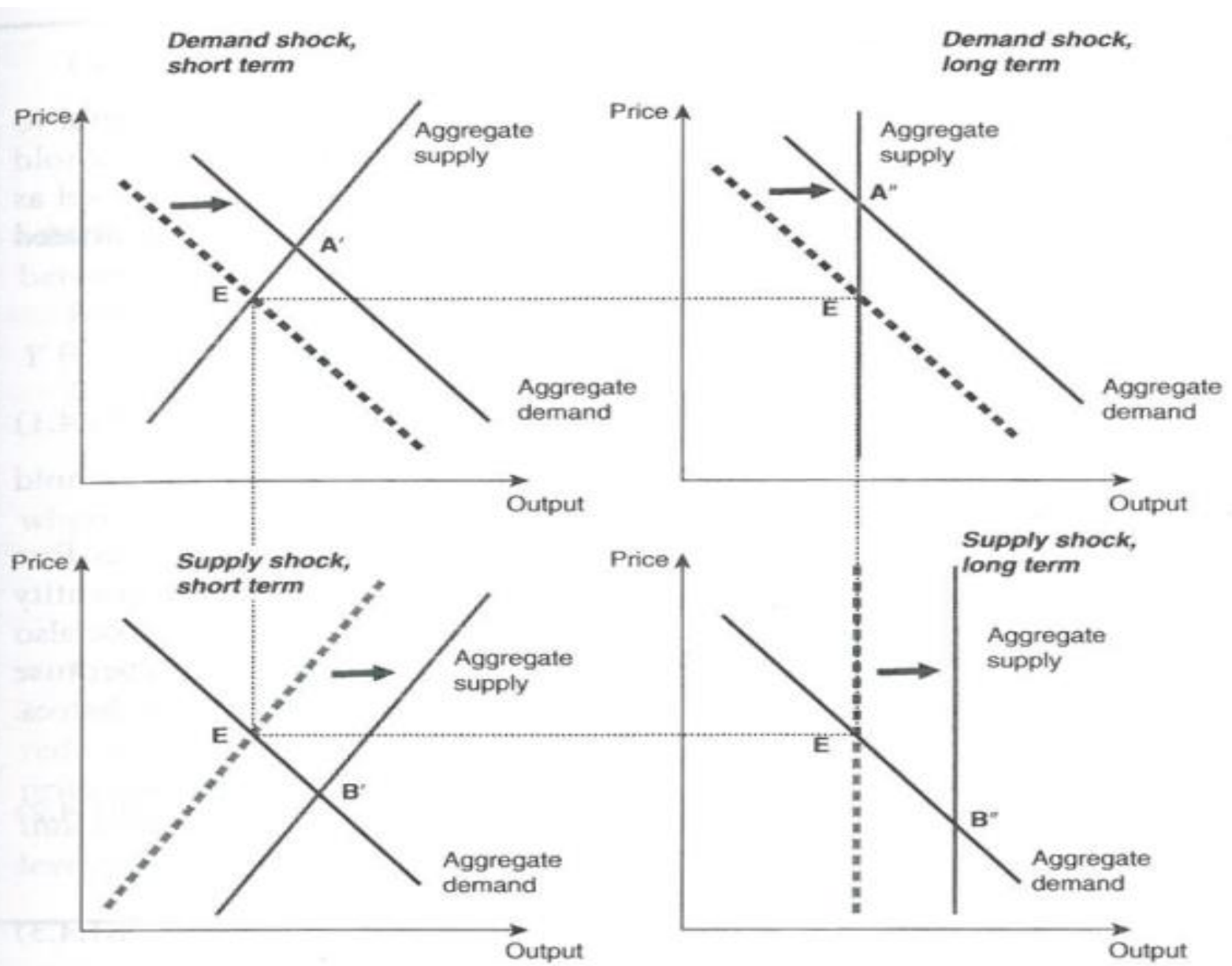
Figure 1.6 Supply and demand shocks in an aggregate supply–aggregate demand framework.

1.2.2 Why is public intervention needed? Stabilization

- **Aggregate demand** depends negatively on the product price as a rise in prices reduces the real values of nominal assets and consumption

- **Aggregate supply**:
  - In the **short-run**, **aggregate supply depends positively on the product price** because in the presence of nominal rigidities [of wages] a rise in the price level reduces the **real wage** and makes production more profitable
  - In the **long-run**, **aggregate supply** is **fixed** as unemployment is at its equilibrium level and output is equal to potential output, so the **curve is vertical**.

1.2.2 Why is public intervention needed? Stabilization

- **Two distinctions** need to be made

1. Variations of the quantity supplied or demanded in response to a **change in the product price** (a move along the supply-and-demand curve) **vs.** **exogenous perturbations** (shift of the whole curve) interpreted as **shocks** to the economy

2. **Exogenous shocks to supply** and/or **to demand**. **Supply shocks** (e.g. change in oil price, technological innovation) and **demand shocks** (e.g. rise in public spending) have become part of every macroeconomic policymaker's toolkit

1.2.2 Why is public intervention needed? Stabilization

In the short-term:

- **positive exogenous shock on aggregate demand** shifts the demand curve to the right, moving equilibrium from E to A': it **increases output and price simultaneousy**

- **positive exogenous shock on aggregate supply** (e.g. reduction in oil price or technological innovation) shifts the aggregate supply curve to the right moving equilibrium from E to B': **higher output level but lower price**
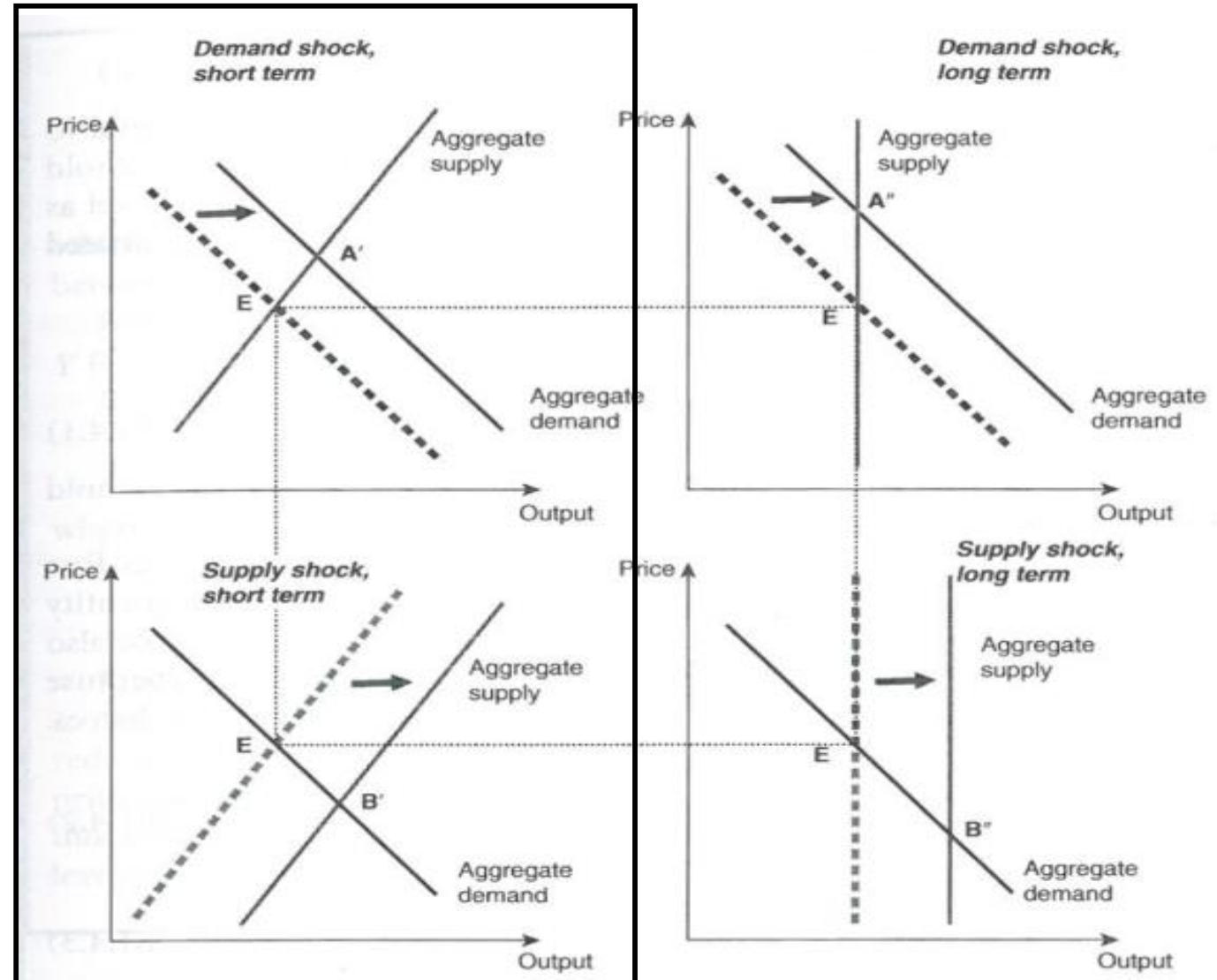

Figure 1.6 Supply and demand shocks in an aggregate supply–aggregate demand framework.

1.2.2 Why is public intervention needed? Stabilization

In the long run:

- **aggregate supply curve is vertical and fixed**

- **exogenous shocks to the aggregate demand only lead to increases in prices** (and no change in output)

- **exogenous shocks to the aggregate supply lead to an increase in output** (and reduction in the price)
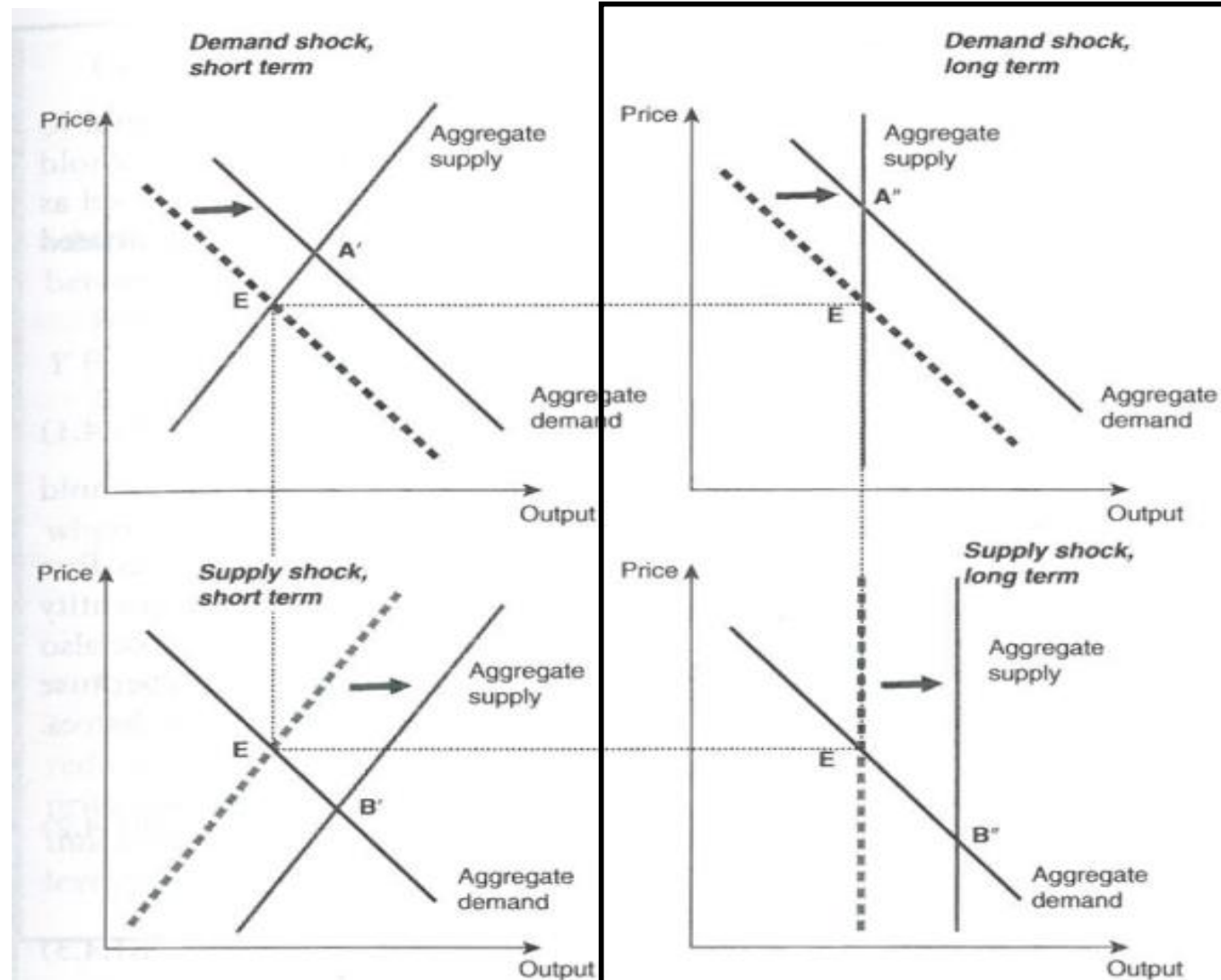

Figure 1.6 Supply and demand shocks in an aggregate supply–aggregate demand framework.

1.2.2 Why is public intervention needed? Stabilization

In summary:

- exogenous shocks to the aggregate demand curve are fully ineffective in the long-run

- the effectiveness of exogenous shocks to the aggregate demand in the short term depends on the slope of the short-term aggregate supply curve

Figure 1.6 Supply and demand shocks in an aggregate supply–aggregate demand framework.
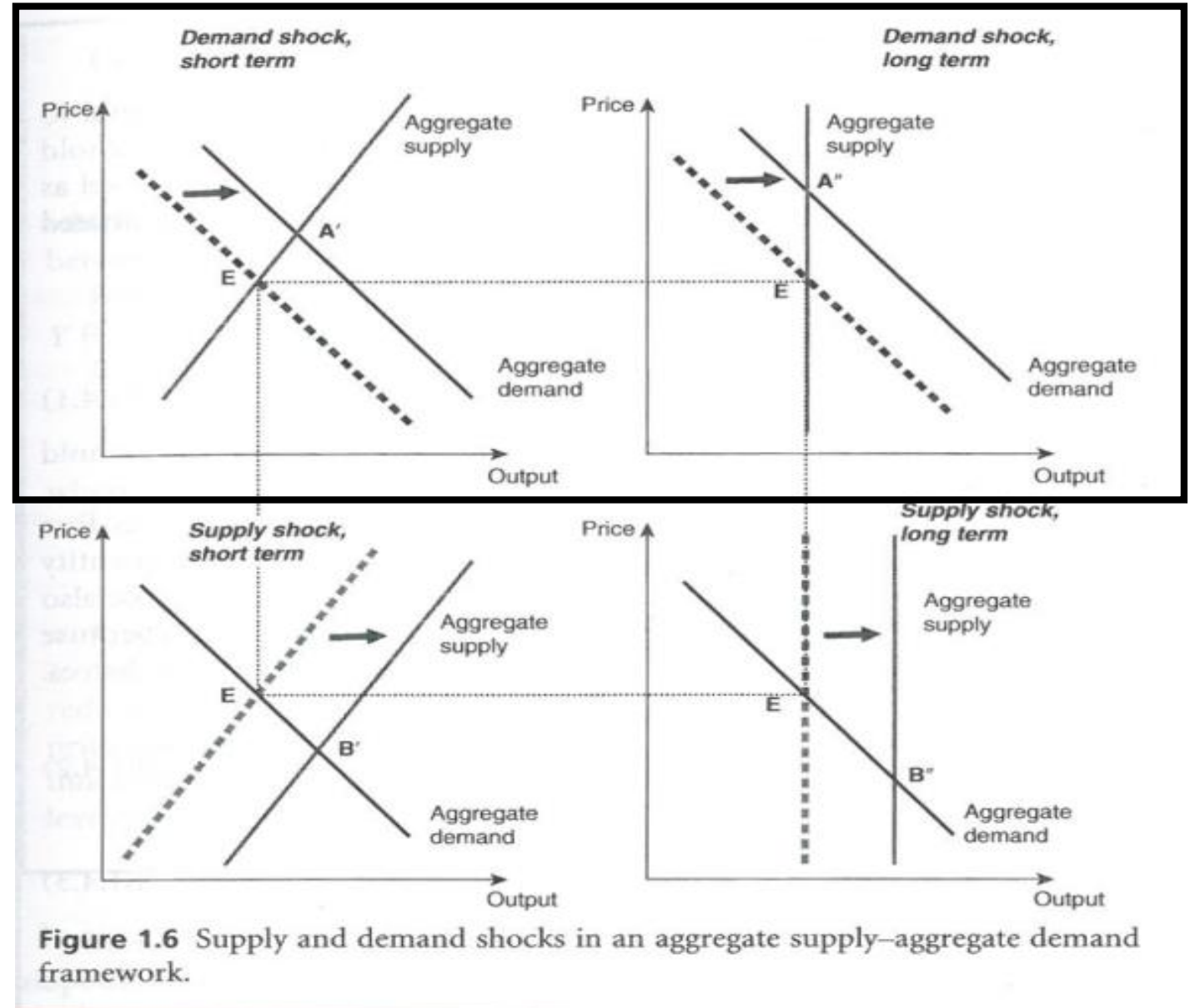
# 1.2.2 Why is public intervention needed?

Redistribution

- The argument for intervention is that the equilibrium competitive market-determined distribution of income does not necessarily ensure **social justice**

- The **motivation for intervention is a pure equity concern**

- A **normative criterion** is generally required to decide what constitutes an improvement in equity and which allows comparing different income distributions

1.2.2 Why is public intervention needed?

Redistribution

- Redistribution often involves an **equity-efficiency trade-off** when the redistribution of income leads to efficiency loss because taxes and transfers reduce the quantity of production factors and the way they are allocated to alternative uses (e.g. work vs. leisure)

- However, there can also be **equity-efficiency complementarity** when redistribution **improves** efficiency: for example, public policies aiming at ensuring access of the poor to education and health care frequently yield efficiency gains by improving the productivity of the labour force.

Figura 3.15 - O conflito eficiência e equidade (utilitarismo e rawlsianismo)

c: rawlsiano

b: utilitocioa
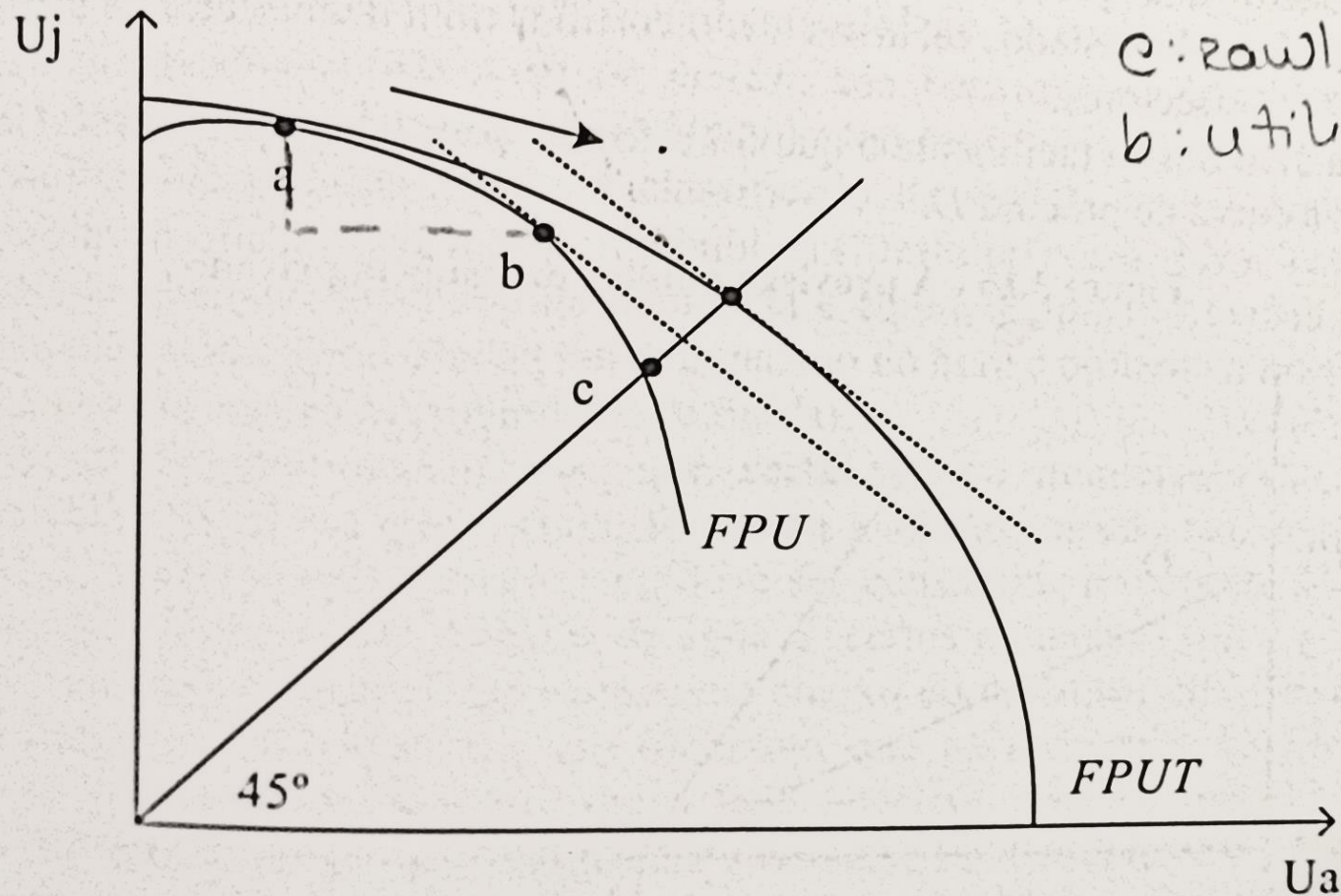
- FPUT: theoretical utility frontier

- FPU: actual utility frontier with redistributive taxation

- Suppose **a** is the efficient competitive equilibrium and state intervention is purely for social justice reason:

- **b**: Benthiam equilibrium. Redistribution cost = FPUT(b) − FPU(b)

- **c**: Ralwsian equilibrium. Redistribution cost = FPUT(c) - FPU(c)

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