Economic Policy and Business Activity

Academic Year 2017-2018
2nd Semester

Chapter 1

Introduction to economic policy

Theory Lecture 2

1. Introduction to economic policy

1.1. A primer on economic policy

1.2. The whys and hows of public intervention

1.3. Economic Policy Evaluation: Decision Criteria

1.4. Conclusion

1.1. A primer on economic policy

1.1.1 Three alternative approaches to economic policy

1.1.2 What do policymakers do?

1.1.3 The objectives, instruments and institutions of EP

1.1.4 Trade-offs, structural reforms and better institutions

1.2 The whys and hows of public intervention

1.2.1 Three functions of economic policy

1.2.2 Why intervene?

Learning outcomes for lecture 1

• Define and compare the three approaches to economic policy

• Explain the main activities of policy makers

• Describe the main objectives and instruments of economic policy

• Define institutions and their role in economic policy

Learning outcomes for lecture 2 (today)

- 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

1.1.4 Trade-offs, structural reforms and better institutions

- Suppose a government has **n target variables Y_1, Y_2, ... Y_n** represented by a vector Y= (Y_1, Y_2, ... Y_n) with **n corresponding objectives**.

- Its preferences can be summarised by a **loss function L** that measures the welfare loss associated with a divergence between the values taken by the target variables Y_i and their objective values $\tilde{Y}_i$:

$$L(Y_1 - \tilde{Y}_1, Y_2 - \tilde{Y}_2, \ldots, Y_n - \tilde{Y}_n)$$

1.1.4 Trade-offs, structural reforms and better institutions

- There are **p independent policy instruments** that can be grouped in a p-dimensional vector X = (X_1, X_2, ... X_p)

- With **I** representing the **institutions**

- The functioning of the economy can be represented by: $Y = H_I(X)$

- Economic policy then consists in **selecting X such that L is minimised, conditional on institutions** $H_I(X)$

1.1.4 Trade-offs, structural reforms and better institutions

- Economic policy consists in **setting the *p* policy instruments such that the loss function L is minimized**
  - If *p = n*, the n policy objectives can all be achieved because there is an equal number of instruments
  - If *p < n* and the ***n* objectives cannot be achieved simultaneously, requiring trading off one objective against another**

- **Tinbergen rule** - to reach *n* independent policy objectives, the government needs at least an equal number of policy instruments p

1.1.4 Trade-offs, structural reforms and better institutions

- The problem is that governments generally have **many objectives but only a limited number of instruments** -> so **trade-offs** are part of governments' everyday life

- If governments know the trade-offs, their choices are conditional on their preferences. Ex: how much more wage inequality they tolerate for a reduction of 1 percentage point in unemployment rate

1.1.4 Trade-offs, structural reforms and better institutions

- **If n = p**, it is usually possible to find the vector X which allows Y to be exactly at its required target level

- **If n > p, the government faces trade-offs:** it will chose values for $(X_1, X_2, \ldots X_p)$ such that, at the margin, it is not possible to improve on any of the targets without reducing welfare due to divergence on other targets. This is illustrated by the equations below for any pair (i, j) of target variables:

$$dL = \sum_{i=1}^{n} \frac{\partial L}{\partial Y_i} \, dY_i = 0$$

$$\left. dY_i \middle/ dY_j \right. = - \left. \frac{\partial L}{\partial Y_j} \middle/ \frac{\partial L}{\partial Y_i} \right.$$

marginal rate of substitution between Yi and Yj

1.1.4 Trade-offs, structural reforms and better institutions

- Trade-offs illustrate the limits of economic management

- To **modify economic policy trade-offs governments need to implement structural reforms that improve their institutions**

- According to the IMF, **structural reforms** are **"measures that, broadly speaking, change the institutional framework and constraints governing market behaviour and outcomes"**

1.1.4 Trade-offs, structural reforms and better institutions

- Consider we wave two objectives Y_1 and Y_2 but only one instrument X, and I represents institutions

$$Y_1 = h_I^1(X), \qquad Y_2 = h_I^2(X)$$

- Policy instrument X can be replaced in both equations so that we obtain a function illustrating the existence of trade-offs between Y_1 and Y_2, conditional on institutions *I*:
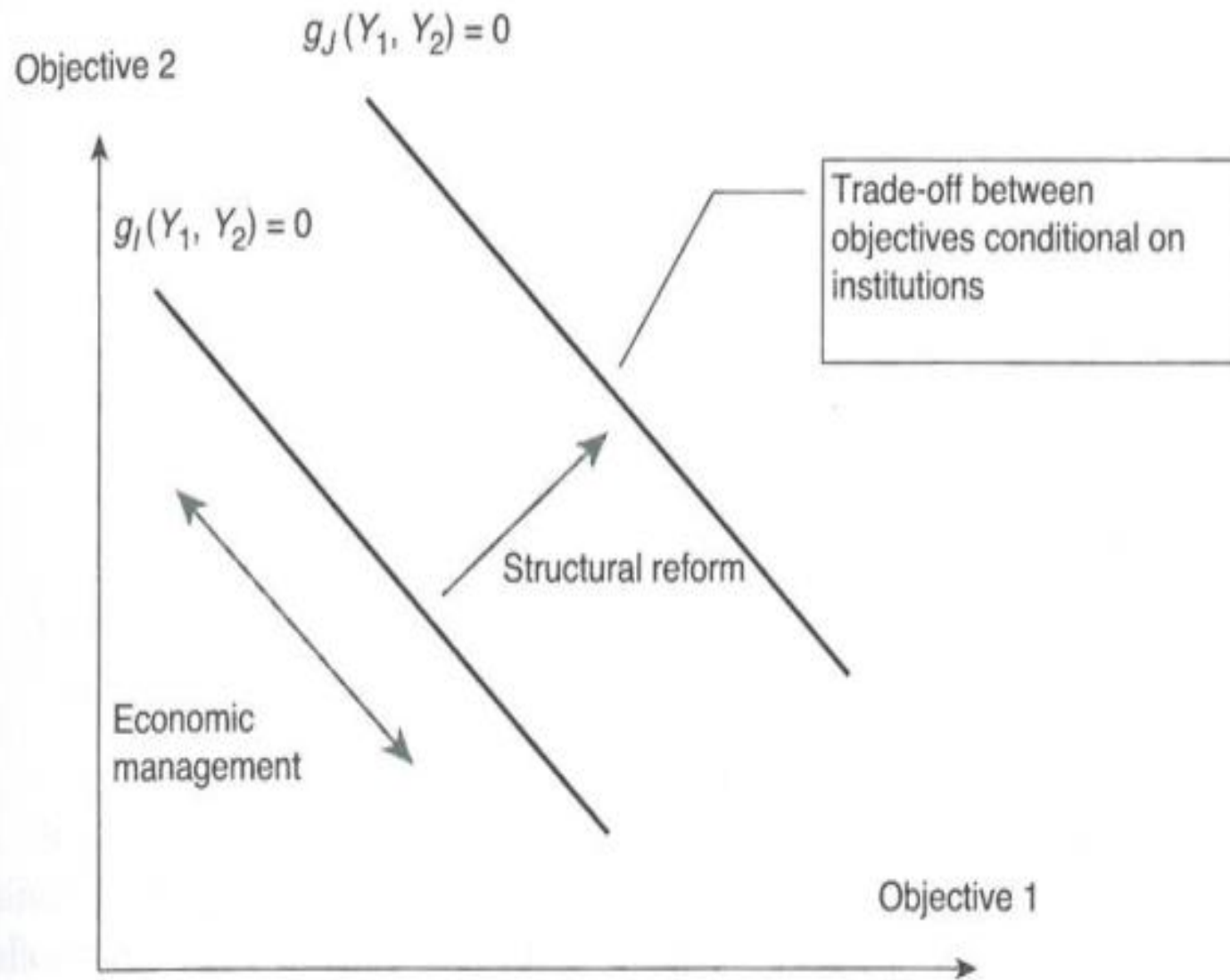
$$g_I(Y_1, Y_2) = 0$$

Figure 1.3 From managing trade-offs to reforming institutions: An illustration.

1.1.4 Trade-offs, structural reforms and better institutions

- With institutions I and only one policy instrument we cannot increase Y_1 without reducing Y_2 - **economic management** (*movements along the curve*)

- To obtain a new nature of trade-offs we need to carry out **structural reforms by changing institutions**, in this case from I to J (*shifts the curve*)
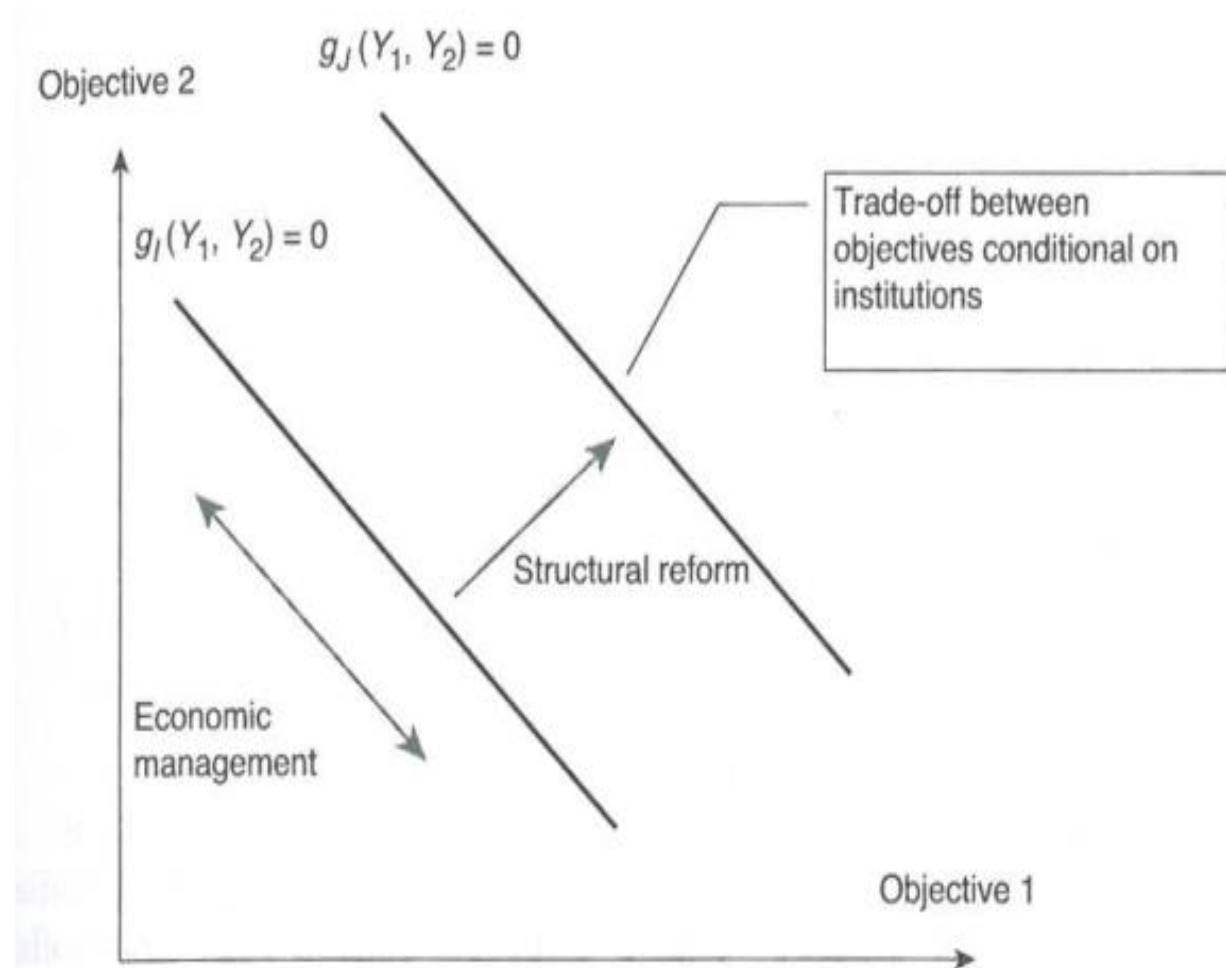

Figure 1.3 From managing trade-offs to reforming institutions: An illustration.

1.1.4 Trade-offs, structural reforms and better institutions

- Consider the trade-off between productivity and employment, i.e. more employment tends to reduce output per worker and hence the productivity level

- To increase both productivity and employment simultaneously we need to change the institutional framework that governs/regulates market behaviour and outcomes – i.e. we need structural reforms

- **Van Reenen: What determines productivity?**

For example: changing the rules and incentives to increase investment in technology, research & innovation, management procedures, etc. This will increase firm and employee productivity levels without increasing unemployment.

1.1.4 Trade-offs, structural reforms and better institutions

- It is common but wrong to associate structural reforms with supply-side policies.
  - Making the central bank independent, choosing a new currency regime, or adopting a framework for budgetary policy are structural reforms because they aim at improving existing trade-offs between various objectives.
  - Contrarily, a change in tax rates, which is mostly a supply-side measure, does not have the character of a structural reform.

1.1.4 Trade-offs, structural reforms and better institutions

- Structural reforms are often viewed as having negative short-term effects, but positive long-term effects (e.g. transition of former planned economies of Central and Eastern Europe and the former USSR to market economies)

- These **inter-temporal effects of structural reforms raise political economy** issues. For a democratic government facing a re-election, undertaking reforms with negative effects in the short term will not make voters happy…

1.2 The whys and hows of public intervention

1.2.1 Three functions of economic policy

1.2.2 Why intervene?

1.2.1 Three functions of economic policy

1. **Allocation of resources** (i.e. assignment to alternative uses)

2. **Macroeconomic stabilisation** in response to exogenous shocks that move the economy away from internal balance

3. **Income (re)distribution** between agents or regions

1.2.1 Three functions of economic policy

- **Allocation of resources** covers policies relating to the assignment of resources to alternative uses:

  - public interventions targeting the quantity or/and quality of factors of production (capital, unskilled and skilled labour, technology, land, etc.), and their sectoral or regional distribution
  - provision of public goods such as infrastructure building or environmental preservation are included in this category

1.2.1 Three functions of economic policy

- **Macroeconomic stabilisation covers policies aiming at bringing the economy closer to balance or equilibrium**

- Policies implemented in response to exogenous shocks that move the economy away from internal balance (i.e. full employment and price stability)

- This function is associated with the role that Keynesian economists usually assign to monetary and budgetary policies

1.2.1 Three functions of economic policy

- **Income (re)distribution** covers policies aiming at correcting the primary distribution of income

- Progressive taxation policies and social transfers are key instruments to this end

- Redistribution has a different scope of allocation and stabilisation because it addresses the distribution of income **within** society

1.2.1 Three functions of economic policy

- The differences between **allocation** and **stabilization** functions refer to the distinction between long-term output growth and short-term fluctuations around the trend:

  - allocation policies aim at increasing the maximum level of output that can be reached without creating inflation (**potential output**)

  - stabilisation policies aim at minimising the divergence between actual and potential outputs (i.e. **output gap**)

1.2.1 Three functions of economic policy

- Consider the **production function F**, where **Y is the output, K is the capital stock, and N is employment**. K and N depend on time, so does F as improvements in technology allow more to be produced with the same amount of factors.

$$Y_t = F_t(K_t, N_t)$$

- In the short-run K is exogenous ($K_t = \bar{K}_t$). $\bar{N}_t$ is the employment level when the unemployment rate is at the equilibrium level. **Potential output** can be defined as:

$$\bar{Y}_t = F_t(\bar{K}_t, \bar{N}_t)$$

1.2.1 Three functions of economic policy

- **Output gap:** difference between the demand-determined output Y_t and the supply-determined potential output $\bar{Y}_t$, measured as a percentage of the potential output:

$$output\ gap = \frac{Y_t}{\bar{Y}_t} - 1$$

  - A **negative** output gap means that production is below potential, implying non-equilibrium (or involuntary) unemployment
  - A **positive** output gap means that production is above potential. It can occur when there is excessive demand leading to pressure on resources to work beyond usual capacity (shift work, overtime work), which means there will also be an increase in the marginal cost and inflationary pressures. Thus, a positive output gap is not an indication of positive performance. Ideally, we want the output gap to be zero.
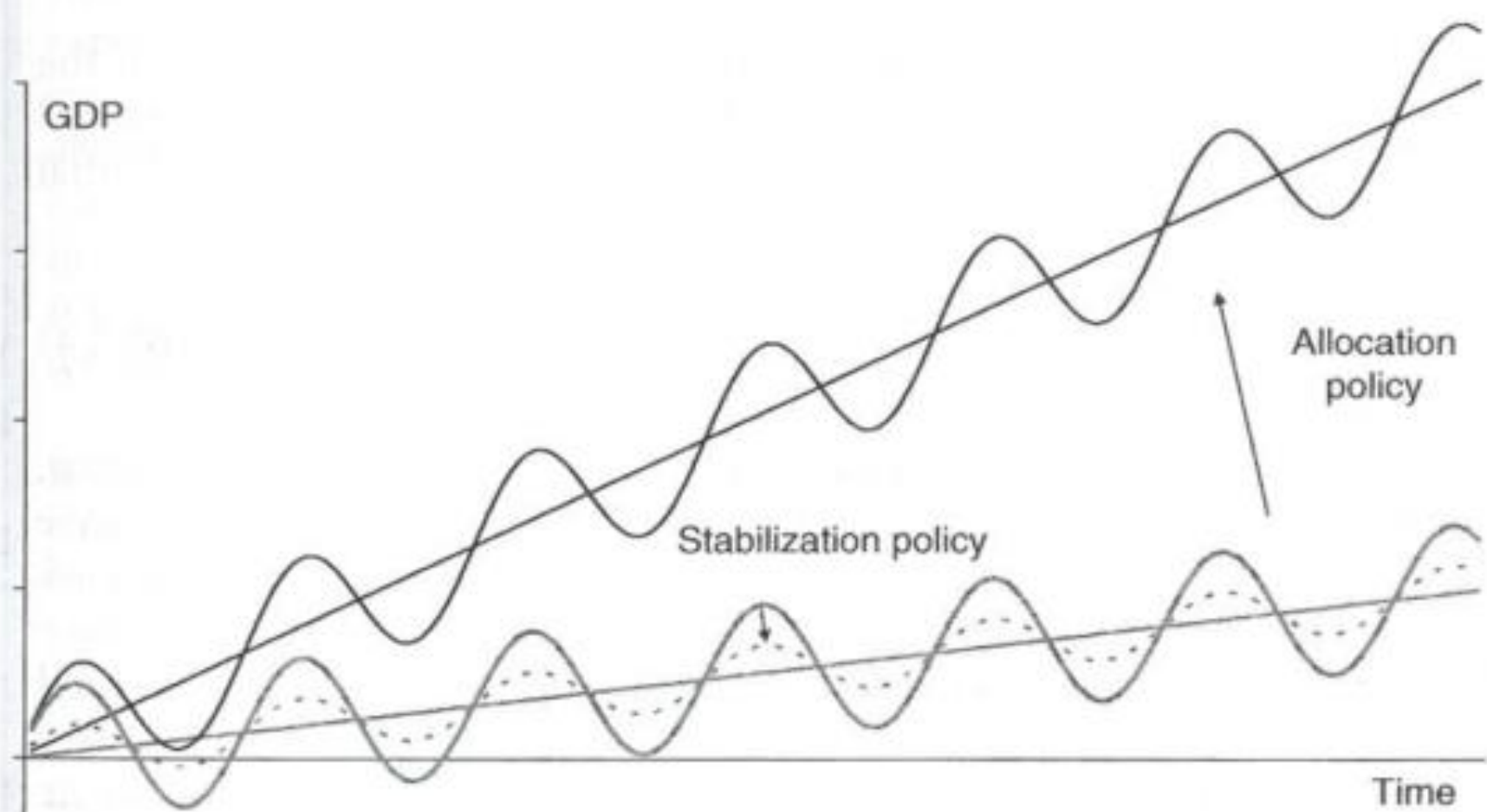
Figure 1.5 Stabilization versus allocation policies.

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- Define and explain the three functions of economic policy