

ECONOMIC POLICY

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Course Material Developed by Department of Economics,

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Week 1

Introduction

Macroeconomic models

Introduction

- Course outline, requirements, literature, presentations, exams
- Assigned material is to be read beforehand class
- All participants will give at least one presentation
- Exam: end of term oral exam

Introduction - repetition

- Economic Policy as such
- Purposeful set of actions carried out by the state, by the government
- A series of measures, regulations and rules to achieve specific economic goals
- An enormously wide range of targets and tools

Makro policy

- Still a very large set of goals and tools
- Examples:
- Enhancing economic growth:
- promoting skills and education,
- improving labor market flexibility
- policies to fasten technology development
- Tools: tax system, building institutions and markets, etc.
- Incomes policy, redistribution
- Trade policy
- Regulating foreign trade and investment, exchange rate policy
- This course deals with counter-cyclical policies only, other issues emerge if they are related to that

Counter-cyclical policy

- General notion: large economic cycles lead to misutilization of the economic resources (unemployment) and to other kinds of harmful tensions and economic problems.
- Counter-cyclical policy: an attempt to reduce the size of fluctuations, to stabilize the economy around the natural rate of output in time

Models

- Logical constructs to pin down those elements and relationships of the economy that are relevant from the point of view of the concrete problem
- Abstractions, assumptions, conclusions
- We expect them to be: logically coherent, empirically relevant
- We have been using models for description, we will use them now for interpreting economic policy.
- Positive economics (Friedman)
- Descriptive and normative approaches. How to avoid „wishful thinking“?
- Model: system of interrelated markets. Behavior is described by mathematical functions
- Ends up as a system of equations to be solved

General Equilibrium model

- Market for goods $S(\dots) = D(\dots)$
- Labor market $S(\dots) = D(\dots)$
- Money market $S(\dots) = D(\dots)$
- Forex market $S(\dots) = D(\dots)$
- Etc., Etc.
- Relevant macroeconomic variables appear among the arguments of the supply and demand functions of markets.

Solution, operation

- Solution of a model: for given values of exogenous variables (such as G, T, M) we search for the values of the endogenous variables (Y, P, C, N etc.) resulting from economic behavior
- Operation of a model: how would a change in some endogenous factors modify equilibrium values or time paths of the endogenous variables?

Normative questions

- Economic policy requires a normative approach. We use the same model, but switch the role of exogenous (tool) and endogenous (target) variables.
- We set targets for certain values, volatility (variations) or dynamic paths of certain macro variables.

- For example, we set targets for the level and the rate of growth of output, level of prices or rate of inflation, unemployment rate, etc.
- We search for the values of macroeconomic policy variables, (or for the rules in setting these variables) that would produce the set values of the target variables.

A simple example

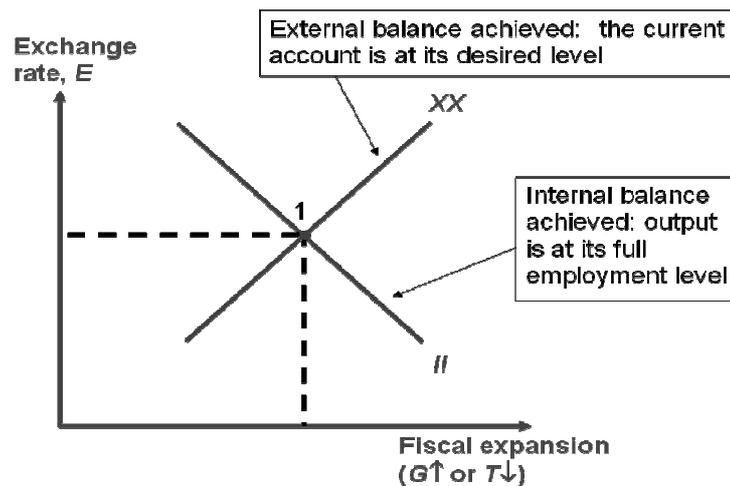
- Open economy, fixed exchange rate, short run (see: Krugman-Obstfeld) economic policy in the Bretton Woods system.
- T, I G e. P^* , P are given
- Equilibrium in the goods market:
- $Y = C(Y-T) + I + G + CA(eP^*/P, Y)$
- Current account balance:
- $CA(eP^*/P, Y) = ?$

Operation of the model

- Descriptive approach:
- Effect of expansionary fiscal policy:
- Y grows, CA worsens
- Effect of a devaluation:
- CA improves, Y grows
- The disturbance does not have to be policy initiated.
- Economic policy approach:
- We set desired value for Y^* , internal balance

- We set desired X value for CA, external balance
- Question: what values of G and e would result in external and internal equilibrium simultaneously?

Swan diagram



Policy debates

- Differences of opinion are large and frequently happen for obvious reasons.
- Preferences among policy targets vary widely.
- There are significant differences among analysts about how the economy actually works, what model describes it properly.
- Economic policy decisions always involve income redistribution one way or another. Opinions differ with respect to the „fair” income distribution.
- All recall the concept of „national interests” but they see its content differently.

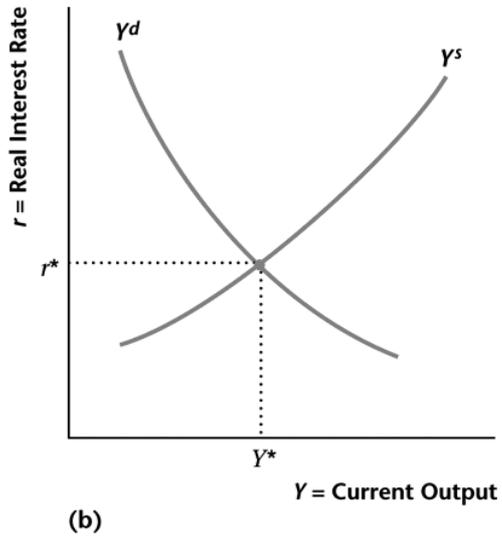
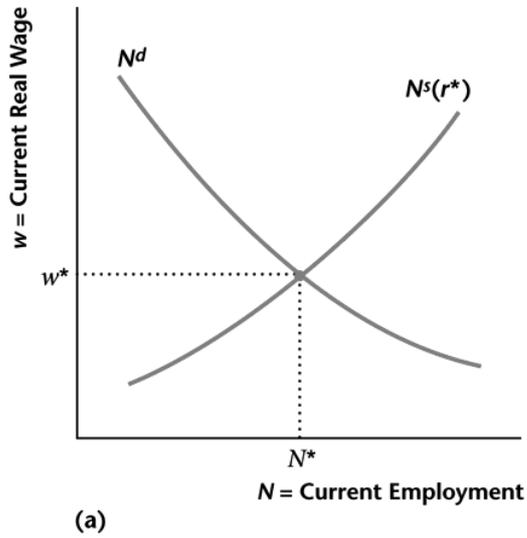
Models – brush up

- RBC
- Williamson-style RBC model, two periods, the general model has infinite time horizon.
- Formally: a set of difference equations that goes toward a steady state
- Expectations are rational, there is perfect foresight.
- We concentrate on the market for goods and on the labor market

RBC

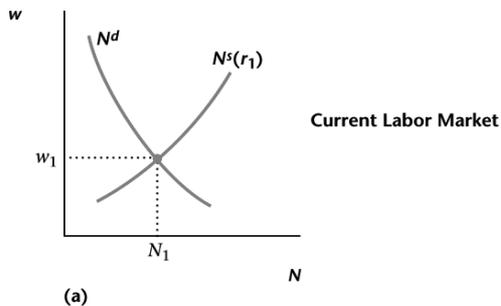
- Demand for goods:
- $Y_t = D(Y_t, Y_t, r_t, T_t, \dots) + G_t$
- Where D is private, G is government demand
- Ricardian Equivalence holds, timing of taxes do not matter
- Consumer demand comes from intertemporal optimization of the consumer, investment demand comes from profit maximization of the firm.
- Supply of goods
- $Y_t = z_t F\{K_t, N_t(r_t)\}$
- Where $N_t(r_t)$ is equilibrium employment, z_t is TFP
- Labor market equilibrium:
- $N_t^d(w_t, z_t, K_t) = N_t^s(w_t, r_t)$
- Demand for labor comes from profit maximization of the producer, labor supply comes from consumer choice.

The complete model



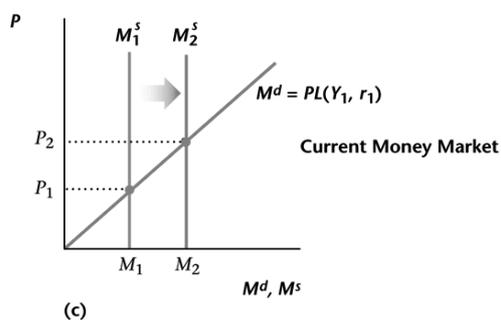
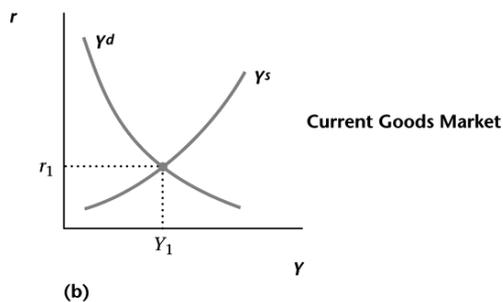
Money

- Money does not have a significant role in this model (Why is it so?). Still, money market can be added.
- $M_t/P_t = L(Y_t, r_t)$
- Due to the lack of any nominal price rigidities, money is neutral in this model.
- Y and r are determined by real factors only. M influences only P through the money market.



One time increase in M

The classical dichotomy holds, a one time increase in M does not cause any change in Y or r , it changes the price level only.



Model characteristics

- Micro based macromodel
- Dynamic, has forward looking expectations
- Perfect competition, Pareto-optimality
- No frictions, adjustment costs, information problems, uncertainties are assumed.

Economic policy

- There is no role assigned for economic policy in this model. In a perfect market where all participants behave optimally and all market failures are assumed away, nothing can be improved.
- The system is always at the natural rate, all markets are in equilibrium. For useful economic policy we need market failures.

Literature

- Mankiw (1989): Real Business Cycles: A New Keynesian Perspective, The Journal of Economic Perspectives, Vol. 3, No. 3
- Mankiw (2006): The Macroeconomist as Scientist and Engineer, The Journal of Economic Perspectives, Vol. 20, No. 4