

ECONOMIC POLICY

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Fiscal policy

Multiplicator

Fiscal policy

- Manipulation of the revenue or the spending side of government budget in order to influence certain macro variables.
- Typical goals: enhancing output, reducing unemployment, stabilization.
- Taxation and spending are not inherently macro tools. Their macro effect is a „side effect”. In this respect fiscal policy is very different from monetary policy.
- Providing, financing and distributing public goods
- Income redistribution. Fiscal actions always have redistributive consequences.
- Quite often redistribution is the goal of fiscal policy.

- We deal with macroeconomic consequences only.
- The channels through which it exerts its influence are very complicated, much more so than the one of the monetary policy.
- Monetary policy is more general, changes in liquidity effect different sectors and units more evenly.
- Effects of fiscal policy are more specific. It depends on whose tax, what type of tax is changed, whose product the government buys.

General notions

- Very hard to describe it via comprising into the effect of one single macro indicator
- GDP identity: aggregate income = aggregate spending
- $Y = C + I + G + CA$
- The output level or the welfare level should be the goal of fiscal policy?
- Higher output would not necessarily mean higher welfare as well.
- Welfare also depends on how they spend the money, what it is the government buys.
- C, I and CA represent private demand. Money is spent in exchange of something, the buyer values. The government spends other peoples' money, can spend on „superflues” things. Resources can be wasted.

Empirical problems

- Fiscal actions have enormous identification problems.
- Why? We take time series of G, T, Y, C etc, and run regressions.
- Problem: endogeneity
- It is not just G and T that influence Y, but the effect goes backwards as well. The actual standing of the economy has strong effect on the value of taxes and spending.
- It is enormously difficult to separate the back and forth effects.

Endogeneity

1. Automatic stabilizers

- a) Tax collection fluctuates with income.
 - b) Transfers are determined by entitlements, they are also sensitive to cyclical variations.
- Result: during cyclical upswings government deficit (net government demand) decreases.
 - During recessions: tax collection decreases, transfer payments increase. Deficit increases.
 - These do not require any discretionary government action.
 - These processes smooth the business cycle, but make it difficult to identify exogenous government shocks.

- How to handle endogeneity of the revenues?
- Calculating high employment deficit
- Identifying large scale tax reforms

2. Endogeneity of G

- In the long run G and Y are both endogenous, G is largely spending on public goods.
- With continuous increase of per capita incomes people want to consume more public goods as well.
- They do not make decisions on those individually, but this does not make them exogenous.

Identification

- Due to endogeneity, identification of an independent fiscal shock is difficult.
- Methods:
 1. Running VAR regressions. The unusually high value of the residual may signal an exogenous spending decision.
- Blanchard–Perotti and others
 2. Searching for and identifying special episodes. War expenditures or budget stabilization.
- Barro–Redlick, Ramey–Shapiro
- Problem: In case of forward looking expectations, effect of an expected or unexpected fiscal shock is different. It makes identification of the shock hard.

Multiplier

- Quantified measure of the fiscal shock on output
- How much change is the result of a unit (or one percent) change in G or T?
- Immediate and cumulative effects
- In the static case: dY/dG or dY/dT
- The cumulative effect is more important, as the shock itself can last longer than one period, and there are also lags in the consequences.
- The expected size of the indicator depends on the way we model the economy.
- How the shock itself is interpreted.
- What channels and transmission mechanisms among different macro variables are introduced into the model.
- Alternatives:
 1. Demand oriented model is used, or the supply behavior is also elaborated.
 - Original keynesian models concentrate on the demand only. Introduction of explicit supply functions reduce the value of the multiplier.
 2. Dynamic or static models
 - A static model is simpler but poorer.
 3. Open and closed economy models
 - In a small open economy economic policy has smaller influence in general, this holds for fiscal policy in particular.
 4. The way, openness is modeled

- Exchange rate regime, level of openness, flexibility of capital flows
5. Nature of expectations
 - Forward looking expectations limit the government's ability to manipulate the economy.
 6. The way asset markets are modeled.
 7. Aggregate or micro based macroeconomic models
 8. Deterministic or stochastic frameworks
 9. Flexibility of the nominal prices. In keynesian models prices are rigid.
 10. The way market imperfections are introduced and modeled.
 11. Status of monetary policy, the way monetary policy is expected to react to fiscal actions.

Empirical results

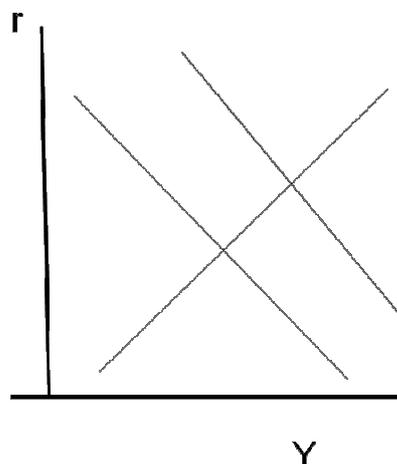
- Depending on the opportunities listed above, the model can include or ignore a large number of effects.
- Not surprisingly empirical estimates using those different models provide a wide range of results. Estimated multipliers vary .in between the limits of -3.5 and $+3.5$
- See Romer–Bernstein for the current crisis in the USA

Original keynesian multiplier

- A depression model
- Fully demand oriented assuming large scale underutilization of the productive resources
- The only problem is lack of demand.
- Closed economy, static model, static expectations, no asset markets, fixed prices.
- $Y = C(Y-T) + I + G$
- Spending multiplier: $1/(1-MPC)$
- Tax multiplier: $-MPC/(1-MPC)$
- Assumption: taxes and spending can move independently from each other
- A grain of truth: in an exchange economy income can be earned only via selling something to others.

Crowding out

- Through the money market expansionary fiscal policy crowds out investment
- IS-LM
- $Y = C(Y-T) + I(r) + G$
- $M/P = L(Y,r)$

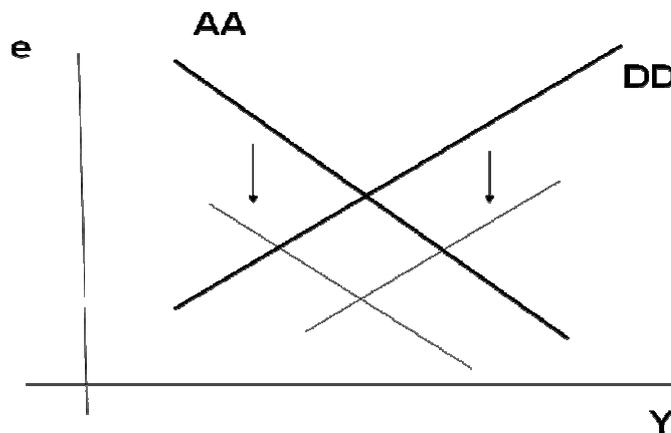


Open economy

- Openness in the market for goods reduces the size of the multiplier. A part of domestic spending will fall on imports.
- Open economy multiplier:

$$1/(1-MPC+MPI_m)$$
- In case of floating exchange rates the appreciation of the currency reduces the effect on income further.

AA – DD modell



Literature

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