

SYSTEM DYNAMIC REPRESENTATION OF KEYNESIAN MODEL

The Keynesian economy represents a new way of reviewing costs, production and inflation. According to this classical theory, if aggregate demand in the economy falls, the weakness of production and jobs will lead to lower prices and wages. Lower inflation and wages encourage employers to invest in capital and attract more people. The Keynesian economy denies the notion of some economists that wage cuts could resume full employment, arguing that employers will not increase the number of workers to produce goods that cannot be sold because demand is weak. Similarly, poor business conditions can make companies reduce investment, rather than use lower prices to invest in new plants and equipment. It will also help reduce overall costs and employment.

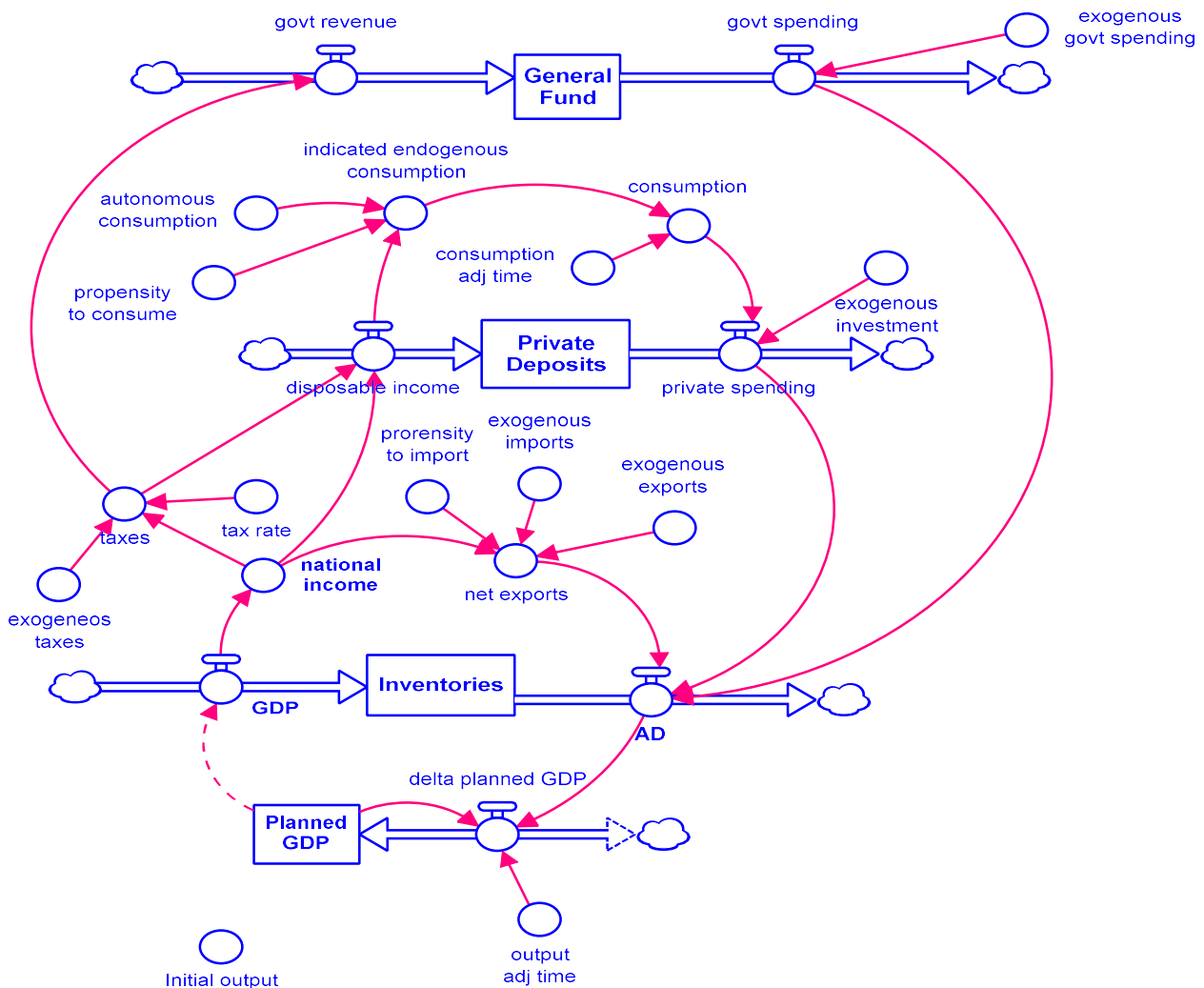


Figure 1. System Dynamic Representation of Keynesian Model

According to Keynesian history, such a functional dependence is seen: the growth of money supply causes a fall in interest rates, which leads to an increase in investment, and ultimately an increase in employment and production. The interest rate thus becomes the leverage of the monetary impact on the economy as a whole. The analysis of the money market, which consists in the level of interest rates under the influence of the interaction of supply and demand, is an important element of the Keynesian doctrine.

The role of the state is to increase costs without departing from the deficit of the state budget (when the state expenditures exceed its revenues) and in regulating household income and firms through the taxation system. Taxes, on the one hand, form the income of the state, and on the other hand, they reduce the marginal tendency towards saving (MPS), since excess revenue is withdrawn by the state, which increases the animation of income and employment.

In the case of a large inflation or deflationary gap, the state must take measures either in relation to rising prices or mass unemployment. Taxes and government expenditures change the level of equilibrium income. It finds expression in fiscal economic policy, the essence of which is the state regulation of the economy through the system of taxation and the formation of the state budget. Taxes and government expenditures are closely interrelated: collecting taxes and forming their own budget at their expense, the state creates preconditions for own purchases (expenses).

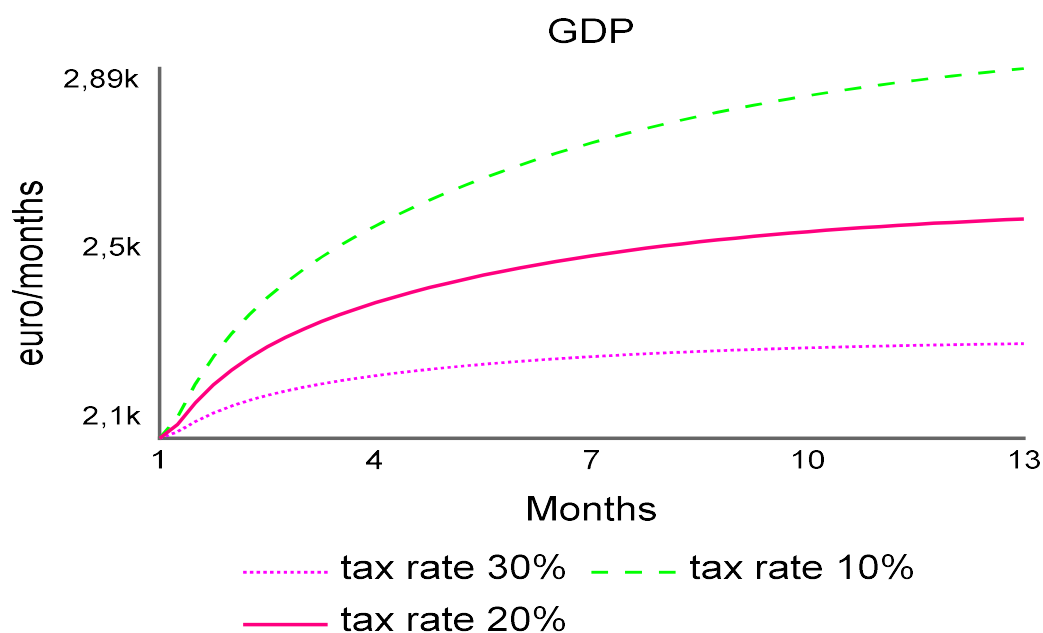


Figure 2. **Dynamics of GDP for different values of tax rate**

Using the methods of monetary policy, the state has the opportunity to influence the level of interest rate, and through it to the level of investment, thus ensuring the full use of productive resources. Then the economy can fall into the so-called "liquidity trap", for which the increase in money supply does not affect the change in national income. The "Liquidity Trap" is that the interest rate is at a very low level and it will not fall further. It is only possible to increase it. Under these conditions, money owners do not want to invest them. Growth of money is not

directed towards investment, but absorbed by speculative demand, that is, it stays on hands. As the interest rate does not change, investments and production levels remain constant.

The impact of taxes on equilibrium GDP is quite complicated:

- Taxing will reduce personal income after taxes. Its reduction will reduce both consumption and savings. At the same time, this decrease will occur in the proportions resulting from the marginal propensity to consume and save.
- Reducing consumer spending reduces overall costs.

The interest rate is the strongest influence on the volume of investments, since it is the cost of obtaining a loan to finance investment decisions. Increasing the interest rate reduces the volume of investments, and, thus, the volume of GDP

Taxation aims at obtaining and concentrating the funds necessary for solving social, economic, scientific and technical problems of the population, regions, industries, countries. Thus, tax regulation is the reallocation of revenues and financial resources by the state authorities in order to provide cash, financial resources of those individuals, organizations, institutions, industries, sectors and spheres of the economy, where there is a feasible, socially recognized need for resources, but they do not is able to provide it from its own sources. Therefore, the tax legislation raises the task of obtaining and concentrating the funds necessary to address the social, economic, scientific and technical problems of the population, regions, industries, countries.

References

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