

Economics II

Labor Market, Unemployment and the Phillips Curve, Part I.



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



Labor market and unemployment

The aim of the lecture is a thorough explanation of the features neoclassical labor market, its elements and mechanisms constituting real and nominal wage rates, improving knowledge macroeconomic context, classical and original Keynesian model of the labor market and their different effects on economic variables, particularly on unemployment. The second main objective of this lecture is the explanation of the individual characteristics of unemployment as a complex economic phenomenon.



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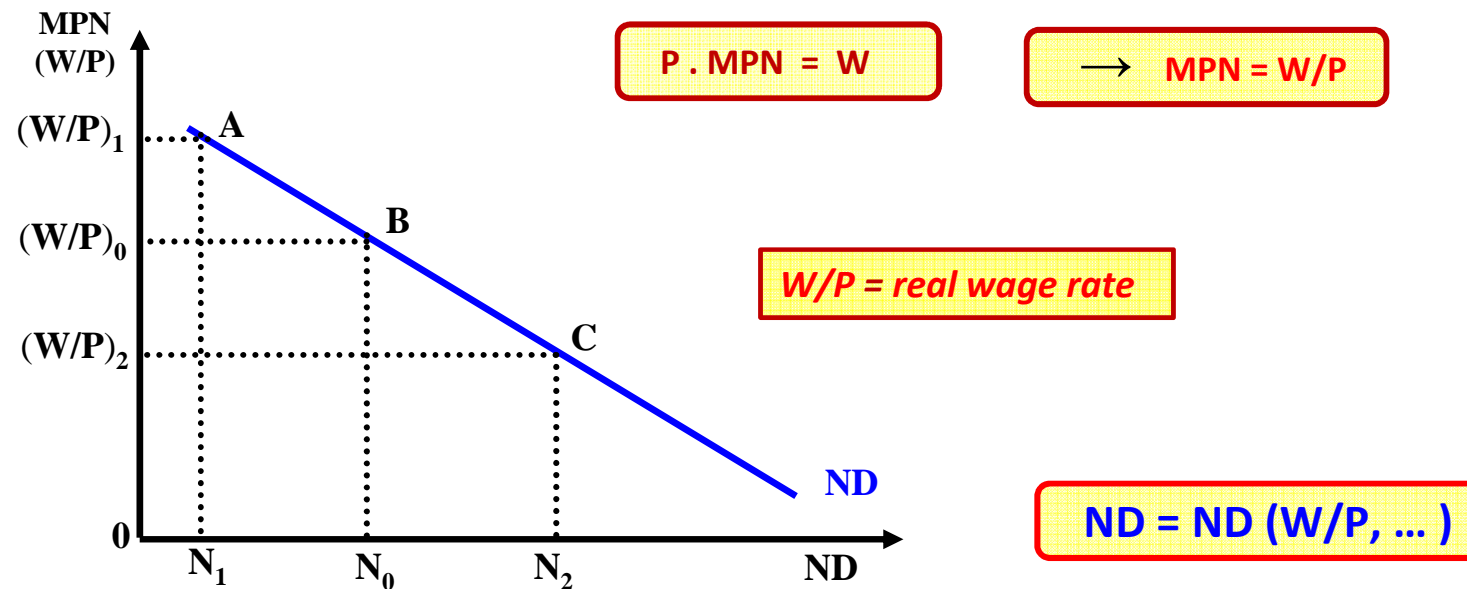
- ❖ Introduction
- ❖ Labor market: aggregate demand for labor and aggregate labor supply
- ❖ Macroeconomic relationships of the classical labor market
- ❖ Macroeconomics relationships of the original Keynesian labor market (rigid wages)
- ❖ Unemployment and its characteristics
- ❖ Conclusion – summary, list of tasks for student



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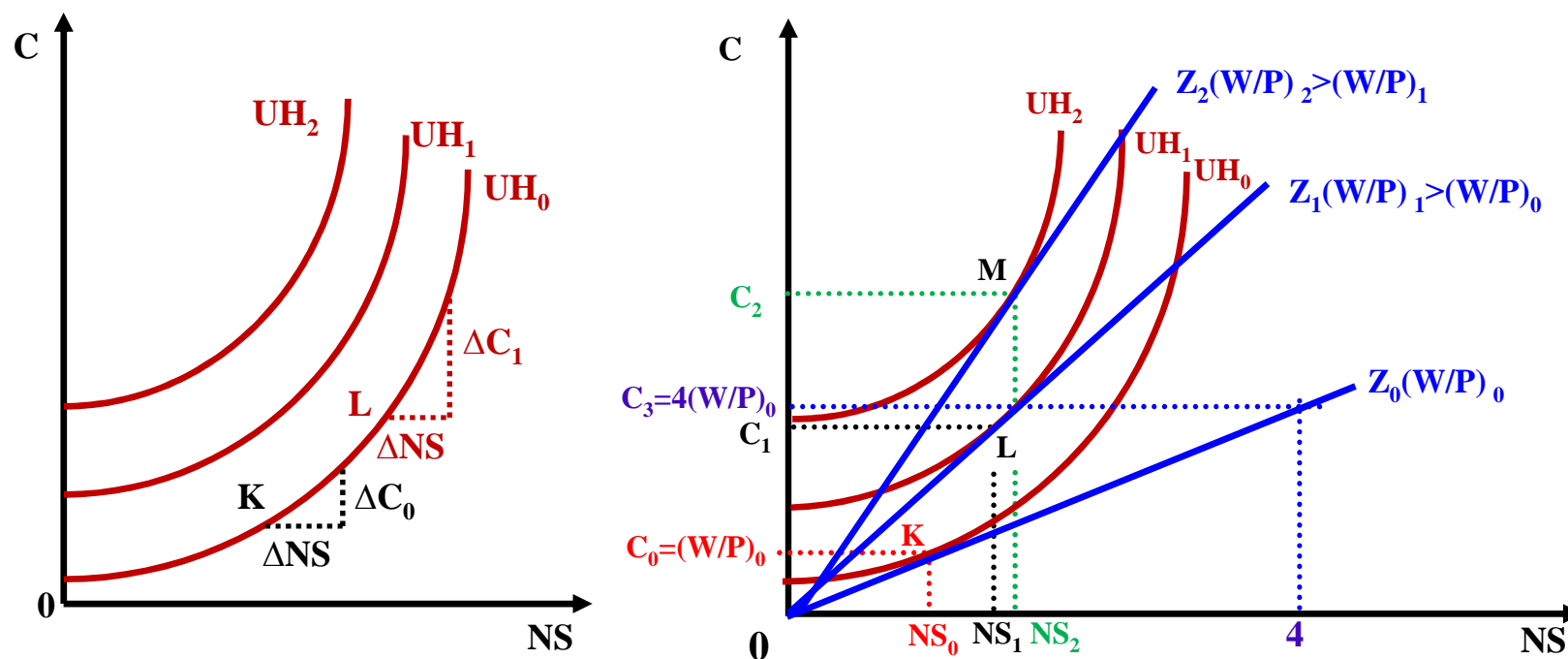
Demand for labor



Profit-maximizing firm is looking for a quantity of labor input (ND), where the marginal product of labor (MPN) is equal to the real wage (W/P): here in terms of the company's profit, respectively companies optimize the scope of employment.

Labor supply

$$UH = UH(C, NS)$$



The line Z represents a combination of consumption and leisure, respectively work hours that are accessible for households, respectively for a worker at a given real wage rate.



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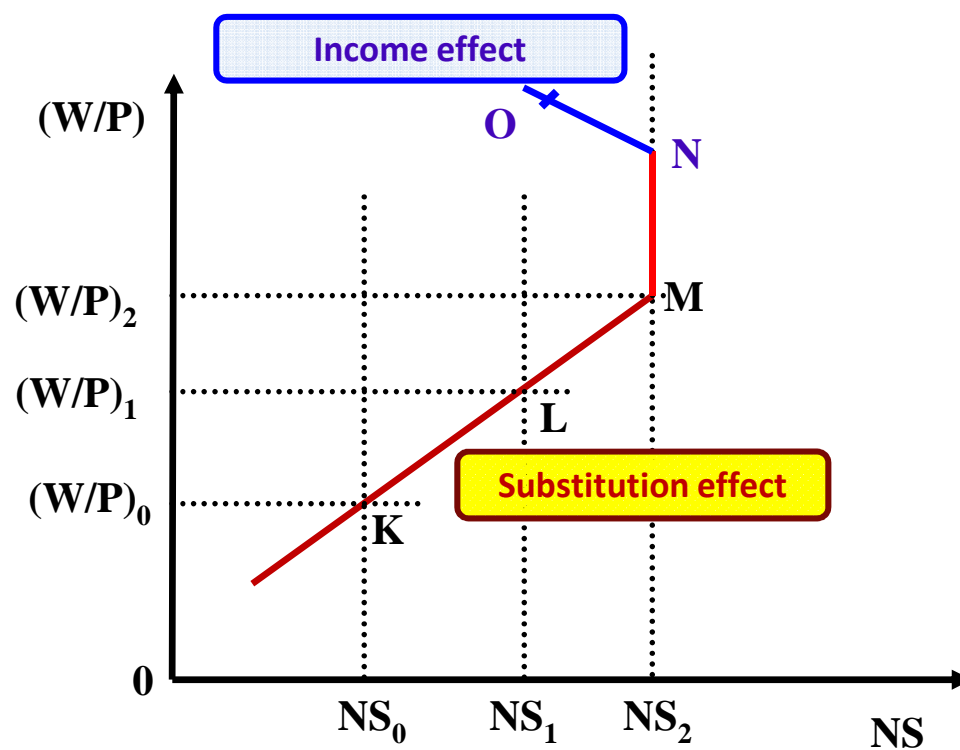


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Labor supply

Income and substitution effects.

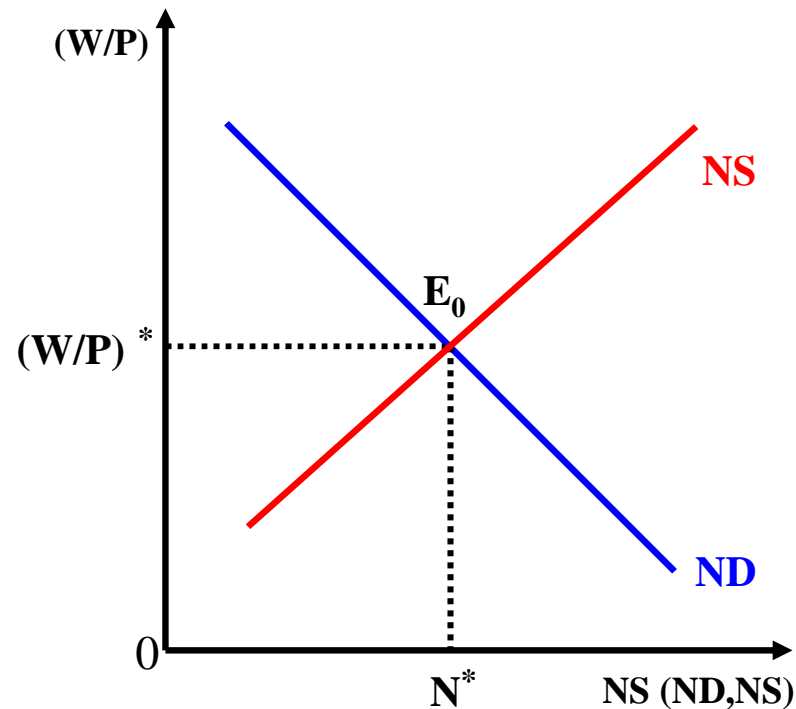


Equilibrium at labor market

The equation:

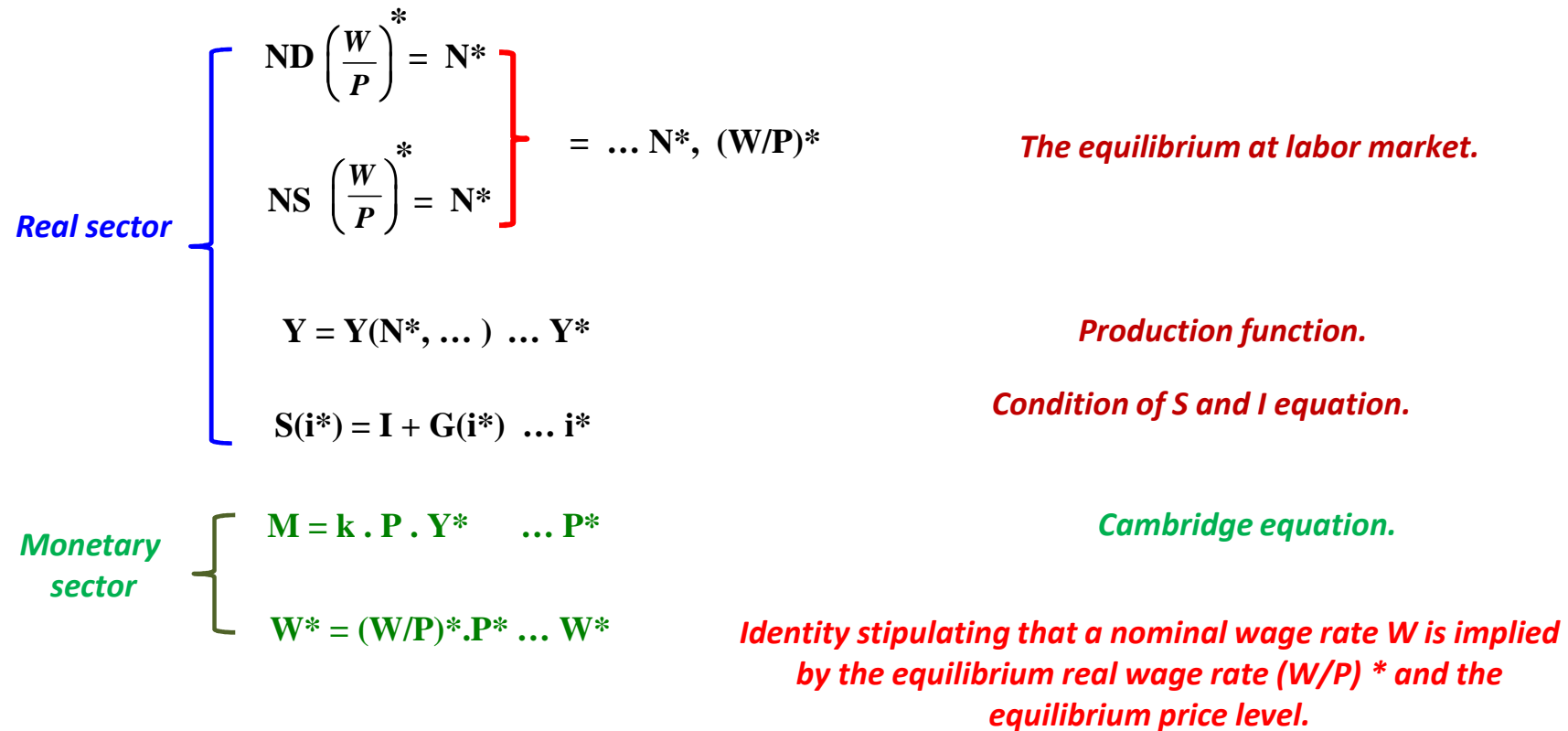
$$ND(W/P, \dots) = NS(W/P, \dots)$$

The level of employment N^* is the level of full employment, at equilibrium real wage (W/P) . This corresponds to the level of employment at potential output Y^* . The equilibrium real wage $(W/P)^*$ is the wage that cleans the labor market.

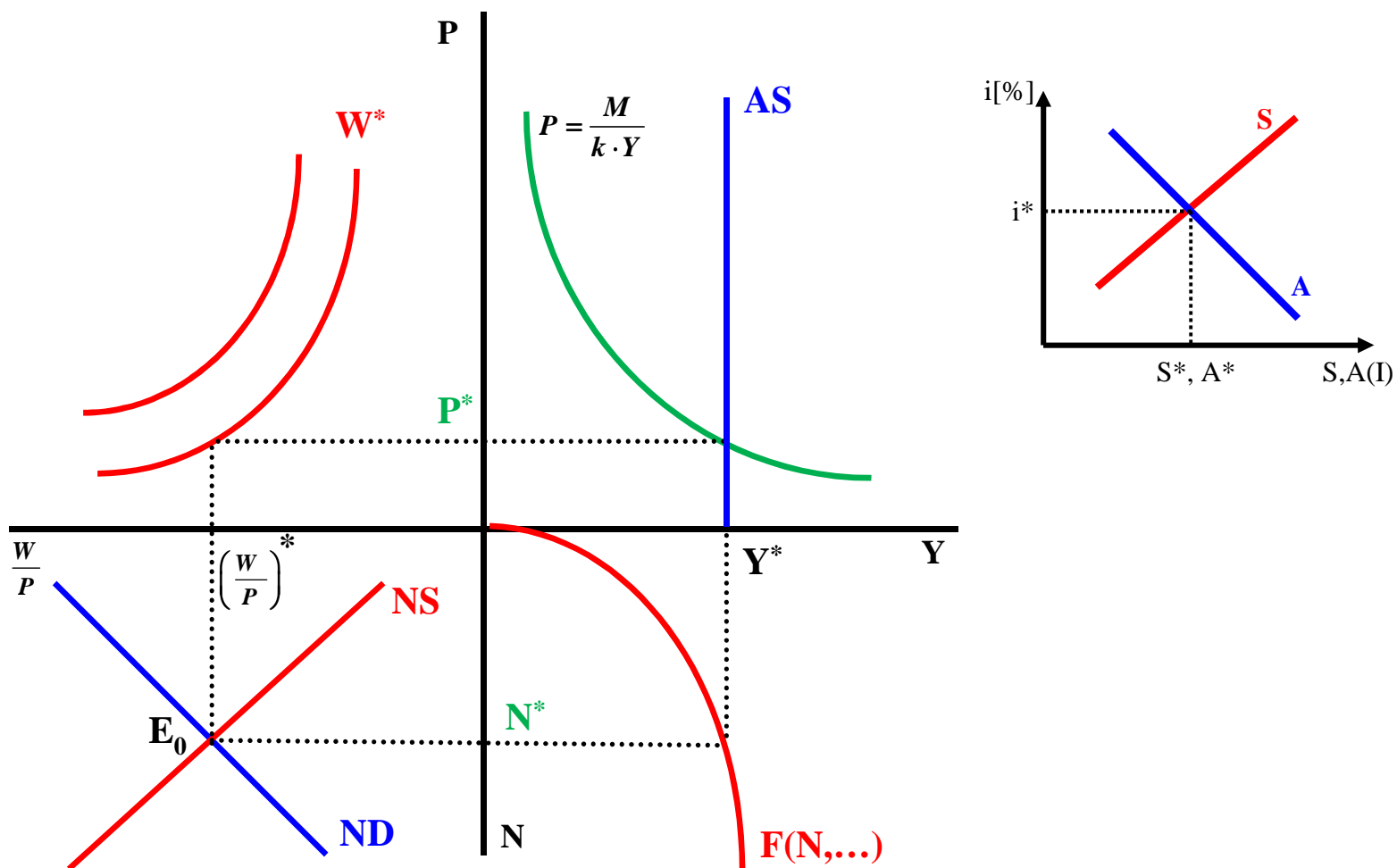


Potential GDP (Y^*) is the level of product produced at full employment (N^*), and by the use of existing (unchanging) number of other factors of production.

Macroeconomic relationships at classical labor market



Macroeconomic relationships at the classical labor market



Macroeconomic relationships at the original Keynesian labor market (assuming rigid wages)

$$N = ND\left(\frac{W}{P}, \dots\right) < NS\left(\frac{\bar{W}}{P}, \dots\right) \dots N_0, \left(\frac{\bar{W}}{P}\right)$$

Inequality expressing that at the rate of nominal wage W (exogenously given) and real wage rate there is an excess of NS , and thus the level of real wages is higher than the equilibrium wage.

$$Y = Y(N, \dots)$$

$$\dots Y_0$$

Production function.

$$IS \dots S(Y) = A(i)$$

$$LM \dots L(i, Y) = M/P$$

$$\left. \begin{array}{l} IS \dots S(Y) = A(i) \\ LM \dots L(i, Y) = M/P \end{array} \right\} i_0, P_0$$

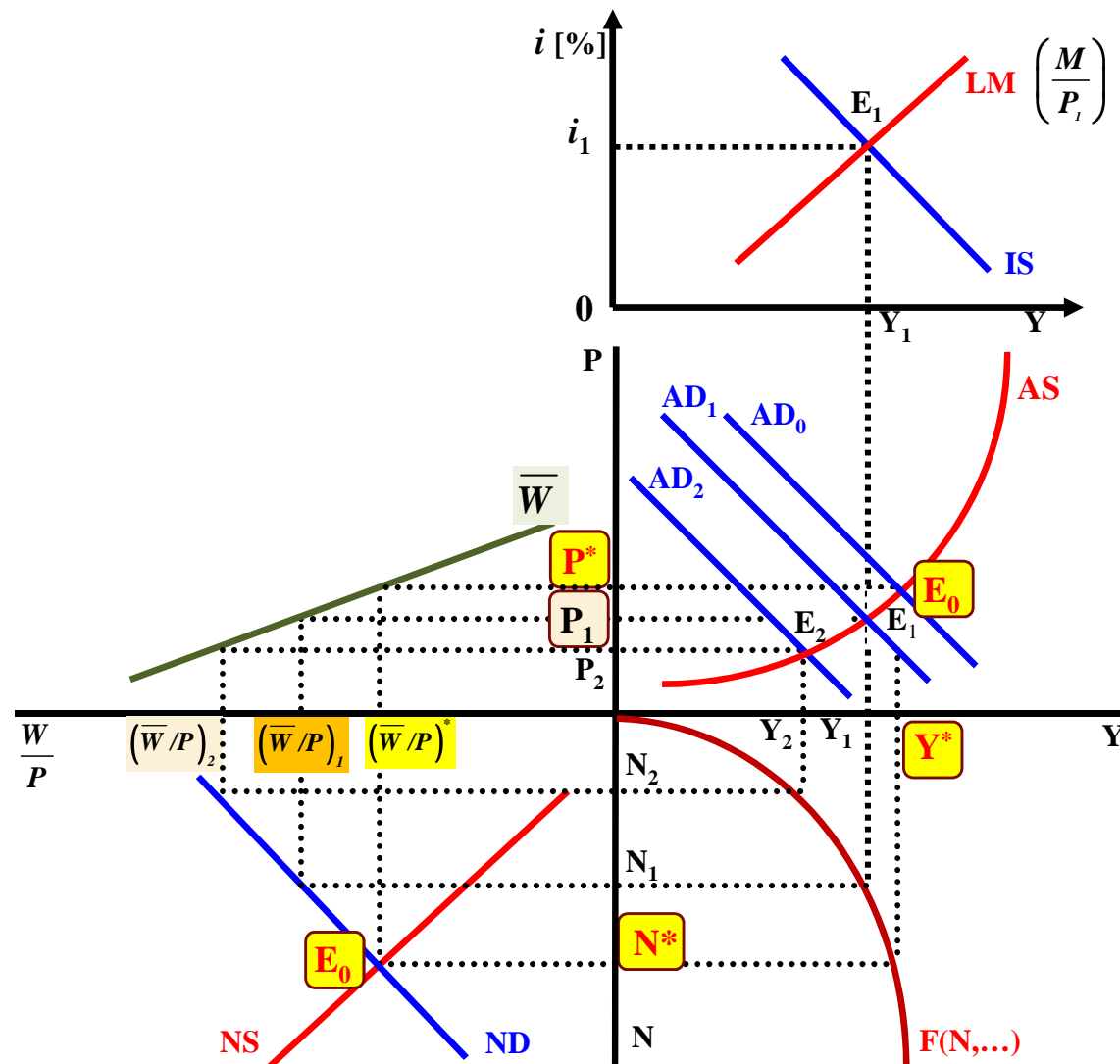
IS curve.

LM curve.

$$\left(\frac{W}{P}\right) = \left(\frac{\bar{W}}{P}\right)$$

Real wage rate depends on the price level, because the nominal wage rate is determined exogenously.

Macroeconomic relationships of original Keynesian model (rigid wages)



References

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List of tasks for students

Exercise „The labor market and unemployment“

1. Explain and characterize the nature and structure of the individual components of the classical labor market.
2. Analyze macroeconomic context of the classical labor market using graphical presentation.
3. Analyze macroeconomic context of original Keynesian labor market model using graphical presentation.
4. Define and explain unemployment measurement of unemployment, types, duration and frequency of unemployment and using models of employment and unemployment (simple and an advanced) characterize the natural rate of unemployment
5. Analyze the determinants of the natural rate of unemployment and unemployment costs.