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INVESTMENTS IN EDUCATION DEVELOPMENT

Course: World economy

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Contents: The aim of the course is to acquaint students with the basic characteristics of economic variables, their method of calculation, measurement methods and their meaning and interpretation. A partial order is characteristic of economic variables in selected economies of the world.

1. Inflation

Inflation is an increase in the average price level, not just the prices of specific goods. The average price level may rise or fall may remain unchanged. The reduction in average prices - deflation - occurs when the price drops on certain goods and services outweighs the price increases of other goods and services.

The process of reducing inflation over time will be referred to as disinflation (inflation rate decreases over time for example from 5 % to 4 %, then 3%). Given that the inflation or deflation measured in terms of average price levels, it is not possible to make individual prices continuously increased or decreased without thereby altering the average price level.

Example: price of bananas can grow without increasing the average price of fruit, unless the price of some other fruits, such as oranges, decreases. Under these circumstances, the relative prices, but the average price is not. The increase in the relative price of bananas means that compared to other fruit more expensive. The change in relative prices may occur in a period of stable average prices during periods of inflation or deflation.

Inflation, which does not change the relative prices of goods and services, call for settlement. Unbalanced inflation then implies that the relative prices of goods and services changes .

If the economy does cause the price level growth and change in the price index, we talk about an open inflation. In the case of certain prevention of price increases due to the economic policy of the country it is containing inflation, which has implications in the form of the existence of scarce goods is characterized by the growth of forced savings and by a boom black market.

Inflation not captured in the price index is referred to as hidden. Arises even if the deteriorating quality of products and services, while the company is sold for the same price. (1)

Causes of inflation:

• **Excessive demand** - demand pull inflation

Imagine a situation where the government decides to support the increasing demand for social benefits. Higher population transfers increase household consumption.

• **Cost inflation**

The rise in prices as production due to increased costs in the form of higher wages or more expensive materials, energy and services or changes in technology leads to the so-called cost-push inflation , cost -push inflation (cost push inflation). The source of inflation may also aggregate supply shock (supply - shock inflation), which is either inflation shock , or shock affecting potential output.

Methods of treating inflation:

• **Cold turkey** - fast and significant reduction in AD

The cost of this treatment is a significant decline in real GDP below its potential level, causing major production losses and high unemployment rate. Recession is therefore deeper, but shorter. (6)

• **Gradualist approach** - slow and gradual reduction in AD. (5)

Recession induced by this method is milder, it is even lower rate of unemployment, recession, however, lasts longer. (7)

Inflation can be distinguished:

- Moderate inflation
- Runaway inflation
- Hyperinflation

Mild inflation

Reaches 10 %. Is it significant that the rate of growth of the price level does not exceed the rate of growth of the economy. While moderate inflation is increasing in both nominal and real product. Businesses are willing to keep the money.

Runaway inflation

Reaches values from 10 % to 1000 %, it is a faster increase in the price level. The purchasing power of money decreases rapidly and businesses reduce their holdings of money to a minimum. In the case of high inflation numbers may lead to the escape of money (from the domestic currency). It may be preferred other currency.

Hyperinflation

Reaches values above 1000 %. This is an extreme situation. Money ceases to perform its function, set the escape from money and begins to prefer barter - barter in kind, or uses a different currency . Monetary reform is inevitable.

Inflation measuring

Measuring inflation serves two purposes: to quantify the rate and examine its negative impacts. To measure the movement of the price level to use price indexes. The most common include the consumer price index (CPI), producer price index (PPI) and the implicit price deflator (GDP deflator).

• **Consumer Price Index (CPI)**

This price index is a means for measuring changes in the average price of consumer goods and services. If we know the average price of consumer goods, we will be able to see if this average increases. From monitored the extent to which prices increase, then we will be able to calculate the rate of inflation. Calculation process begins by identifying market basket of goods and services that the typical consumer buys. Number of items in the consumption basket changes over time to more closely express the structure of household consumption basket. Weight of goods and services (price representatives) in the consumer basket is the proportion of the type of consumption in total household consumption. The consumer basket for measuring inflation in the Czech Republic foodstuffs (food, beverages, tobacco), other products (clothing, furniture, household goods, cosmetic and small goods, goods for transport, leisure, personal care products, etc.) and services (repair of housing, household operations, health, welfare, transport, leisure, education, catering and accommodation, personal care and financial services).

Once we know what the typical consumer buys, it is relatively easy to calculate the average cost of the basket. Measuring inflation using CPI is based on the comparison of the prices of the consumer basket, and in the current and base period. The price level in the base period for the calculation is usually set at a value of 100 Suppose, for example, that last year was the consumer basket 10 000 CZK and that the same basket of goods and services worth CZK 11 000 this year. From these two figures, one can infer that consumer prices for the year increased by 10 %.

When expressing the rate of inflation using the CPI are often given different numbers, although different, are correct. For a correct interpretation of the price index should be aware, to the period in question. The condition is accurate factual, spatial and temporal definition. This means clearly state the period for which the inflation rate is indicated and the basis on which the designated period compared.

Now look at the general formula for calculating the rate of inflation. First, we calculate the CPI, in the time (t - 1) and then calculate the rate of inflation, as the growth rate of CPI. The CPI captures the dual award of a representative consumer basket in which i = 1 , 2, 3, ... n types of goods. The numerator appears valuation basket at current prices and the denominator valuation basket at constant prices of the base period (marked by the subscript 0) . The letter p denotes the price of the goods for example amount or if the share of commodity consumption (weight in the consumer basket).

• The Producer Price Index (PPI)

In addition to the consumer price index (CPI), there are three price indices. PPI monitors the average prices which relate to producers. One index covers the prices of raw materials, intermediate goods other covers and covers the latest final products. These three indices PPI prices do not include all manufacturers, but focus primarily on producers in heavy industry, manufacturing industry and agriculture.

In the long term, the CPI and PPI generally reflects the same rate of inflation. In the short term, however, usually PPI indices increase before the CPI because it takes some time before the increase in the producer price reflected in prices paid by consumers. Therefore, the PPI indexes very closely monitored, since they act as a signal of potential changes in consumer prices.

• **The implicit price deflator (IPD)**

Broadest price index is the implicit price deflator or if the GDP deflator. This price index covers all output. Unlike the CPI, PPI and the GDP deflator is not based on a fixed basket of goods and services. Allows the basket by changing patterns of consumption and investment in the company. GDP deflator is a measure of pure price changes. Its value reflects both changes in prices and market response to these price changes, reflected in the new model costs. As a result, the GDP deflator typically experience lower rates of inflation than the CPI index. The GDP deflator is used to adjust the nominal value of output (GDP) to change price levels. It is calculated as the ratio of nominal and real gross domestic product of the economy.(2)

2. Unemployment

Unemployment is seen as one of the most serious disorders (instability) of the economic system. It is a phenomenon that brings negative, especially economical and social consequences, and one of the most complex problems that deal with the state in its economic policy.

Unemployment can not be seen as solely an economic problem. It is necessary to take into account the social and cultural aspects. Term unemployment does have a distinct economic characteristics, but also their individual human dimension. It carries with it serious psychological, medical and social consequences. That is why it is so difficult complex scientific reflection of this phenomenon.

At a certain age interval, people are economically active. If you are working or wish to work and actively seeking work, talking about work force or if the economically active population. Economically active population are employed and those unemployed who are seeking work and are willing to in a short time to return to work (within 14 days).

Those who work for certain reasons can not or do not want to belong to a group of economically inactive persons (children, students, retired people, disabled, homemakers, people who have stopped looking for work). The population is divided into economically active population, employed and unemployed, and the economically inactive population.

In the Czech Republic, as employed are all persons aged 15 years and over who during the reference week worked at least one hour for wage, salary or other remuneration, or were not working but had a formal job attachment. This includes all employed and paying all busy in their own business (entrepreneurs and family workers), as well as self-employed (self-employed). According to international methodologies are also employed include professional members of the military and those on maternity (or parental) leave, which worked before.

(Drawn from the CSO methodology, http://www.czso.cz)

Unemployed in the Czech Republic are persons fifteen and over who during the reference week were not employed and were ready to take to work (within 14 days) and that during the last four weeks were actively seeking work. This group also includes those who do not seek work because she had found it, and starts to work within 14 days.

(Drawn from the CSO methodology, http://www.czso.cz)

The labor force is one of the basic factors of production and the determinants of the production potential of the economy. If labor is fully utilized, the economy operates at the level of potential output. If you are not fully exploited the workforce, the economy is in the output gap and unemployment arises.

Unemployment is a social phenomenon, which is what the internal structure, dynamics, but also highly variable manifestations. Therefore, it can not be seen in any way as static, although in terms of methodology, interpretation try to describe phenomena and contexts as relatively independent, in fact, in terms of their interaction.

From the most general terms, we distinguish in economic theory voluntary and involuntary unemployment.

Voluntary unemployment refers to a condition where the number of unemployed is less than or equal to the number of current vacancies. People are not willing to work for wages offered a rather prefer other activities at the expense of employment. Monetarists for example, considers all unemployment as voluntary, because in their opinion the only consequence of the fact that people are not willing to work for the wages offered. It can also be a person who is already sufficient economic security.

Involuntary unemployment means that the number of vacancies is less than the number of job seekers. Unemployed to actively seek employment. The author of the concept of involuntary unemployment is considered to J.M. Keynes. (2)

Types of unemployment :

Frictional unemployment

Arises from the fact that the scale of employment is in continuous motion. People voluntarily transferred from one job to another, looking for a better alternative to applying their knowledge, skills and experience. The rate of unemployment in European economies, estimated at 1-2 %. Its bearers are usually employees with higher educational attainment or operating in emerging market segments (information technology, computer engineering, installation profession, etc.). The main problem for the functioning of frictional unemployment is the possibility of labor mobility in the context of housing and transportation worker. In terms of the flow of time is usually short. The unemployment rate is a component of the natural rate of unemployment.

Structural unemployment

It is caused by the mismatch between the skill requirements for different types of work on the part of firms in the area, on the one hand and the existing skilled workforce on the other. It is often caused by technical and technological progress and rapid development of production system than the education system. It affects the professions, sectors or regions. This type of unemployment is also conditioned by the changing structure of demand for certain products or services for which there is a long-term interest, but that in the previous period were significantly conditional on the labor market. An example here might be the extraction of coal and other mineral resources, heavy industry and more. The production structure are often bound by educational institutions and preparing people for future employment, which can flexibly respond to changes in demand. Change qualification of workforce is a matter of longer duration. Restructuring is one of the most difficult but also the most costly challenges for economic policy. Structural unemployment is involuntary unemployment and is usually long-term.

Cyclical unemployment

It is associated with cyclical fluctuations in the economy - the existence of the output gap when the actual performance of the economy is below potential output. Unlike structural unemployment is affecting all sectors, regions and professions without significant differences. Size cyclical unemployment depends on how flexible the labor market and how it reacts to negative or positive change. These are involuntary unemployment. This unemployment is not a component of the natural rate of unemployment.

Seasonal unemployment

It is associated with shifts in labor demand depends on the season or weather conditions. Typical example of work in agriculture, construction, construction of road and rail communications , etc. Employees in these occupations have his hands full this season. Except this time either remain in the register of unemployed and registered at labor offices or remain on paid leave in different ways (for key professions) that they do not lose employers or unpaid leave unskilled wage laborers and easily. It is a type of involuntary unemployment and consider it a component of frictional unemployment is therefore part of the natural rate of unemployment. Nominal wage understand any gross remuneration for their work, including remuneration, allowances etc. before paying premiums and income tax. The decisions of economic agents - firms and employees - is crucial real wage. Employee wants to know what is the purchasing power offered rewards for work and employers interested in the relationship between paid back wages and inflation in the economy, which defines the limits for the rise in prices of its production. The real wage index accurately the real wage is calculated as the ratio of nominal wages and consumer price index. The decisions of economic agents is important but not the actual expected inflation, so that real wages for the calculation we use the expected inflation. If employees are expected to rise in prices of goods and services, for example inflation rate of 5% and employers will expect the same increase in prices of its products are easy to agree on the nominal wage increase of 5%. The above approach to determine fair wages is the forward -looking or ex ante. But there can be a situation where inflation is difficult to predict (due to upcoming changes in indirect taxes or due to excessive volatility, inflation , etc.). In this case, the wage bargaining after all, we follow past inflation. In practice, this approach (ex post) takes the form of so-called indexing or indexing clauses. Indexing generally binds a variable to grow past price developments. The most frequently are indexed wages, rents and leases or social benefits as well as retirement pensions, etc. (1)

3. GDP

Gross domestic product (GDP) is the primary indicator used to measure the performance of the entire economy.

Gross domestic product (GDP Gross Domestic Product - GDP) is used to determine the performance of the economy and is expressed in monetary units. It is the sum of the total value of goods and services newly produced in a given period (usually one year) in a given territory. It is the sum of the crovn value of consumption, investment, government purchases, and net exports.

Measurement of GDP is based on a system of national accounts, which are usually treated uniformly in UN methodology. It also allows the addition of analysis and international comparisons across countries. Put these five accounts: business, households, state, relations with foreign countries and capital account. Within each account is actually comparing inputs and outputs, respectively. income and expenses. Because different products and services expressed in monetary units, the prices are a factor which may due to inflation, GDP distort. A distinction is therefore two categories of gross domestic product by way of awards:

- Nominal GDP

- Real GDP

While nominal GDP is an indicator of the current (real) prices, real GDP is an indicator in comparable (constant) prices the price of a default , the base year. Indicator is therefore adjusted for inflation and an increase in real GDP implies a real increase in the volume of the product during the period.

Gross National Product (Gross national product, **GNP**) represents all final production in monetary units (total volume of goods and services), created for a certain period (usually one year) national factors of production of the country, regardless of the country in which it operates (at home and abroad).

The final output is output that is produced and sold to be consumed by households, government, used for investments or exported as export.

GDP (Gross domestic product, GDP) is the total amount of the final production in monetary units, created during a specific period of production factors within the territory of the country, regardless of ownership or origin of capital (the nationality of the owners). (1)

GDP can be defined , respectively . computed in three ways:

- Production method

- Expenditure approach and

- The income approach .

The production method of calculating GDP

Gross domestic product consists of the sum of all final goods and services that have been made for a certain period at a given territory.

In actual practice, it is difficult to determine whether the farm is final or whether it is an intermediate that will be further processed. In order not included in the calculation several times, calculates the value added at each stage of production. When using the production method is thus a sum of values added every stage of production from all sectors.

The expenditure method of calculating GDP

Another way to determine the amount of GDP, to quantify the costs of individual sectors in the purchase of final goods and services. This method of aggregating consumer and investment spending, which will allow us to determine the total domestic expenditure at current (market) prices. All expenditure on intermediate lapsed because it counts only the value of final purchases.

Gross domestic product is represented as the sum of the following items :

1. household consumption expenditures (C)

2. gross private domestic investment (I)

3. state expenditures for the purchase of goods and services (G)

4. net exports, respectively export minus import (X)

Clearly we can write :

GDP = C + I + G + X

The income method of calculating GDP

The income approach, GDP is the sum of national income (ND), which is represented by the sum of income (income) households, amortization (a) and indirect taxes (n). Within the ND in the calculation of pensions include the following:

• gross wage (w)

• Annuities - pensions landowners, real estate, etc. (r)

• gross corporate profits (before tax) (z)

• Net income - the difference between the collected and paid (i)

• pensions selfemployee - income business owners, etc. (y)

But if we add to ND mentioned depreciation and indirect taxes, the result is gross domestic product, and to illustrate the calculation may be written as:

GDP = w + y + z + i + y + a + n

The income approach ignores all pensions, but only income individuals or corporations whose origin is in the normal production of goods and services. Thus excludes transfer payments (for example pensions, which have the character of payments for routine production services). (2)

4. Balance of payment

Balance of payments (BP) captures all the economic transactions of entities (residents) with foreign countries. It is an international movement of goods and services, income, transfers in the international sphere, long-term and short-term capital and reserves.

BP = CA + CF

CA ... current account

CF ... capital account

The balance of payments is always balanced accounting - does not mean that the balance of payments is in equilibrium imbalances which balance the conflicting movements of its individual accounts or in the final stage of change of foreign exchange reserves. (4)

The financial balance

Any current account deficit PB cover is a surplus of capital and financial account and or drawing of foreign exchange reserves of the country. Surplus on the contrary, used to cover the financial account deficit or to increase foreign exchange reserves of the country.

He spends the bodies, NH abroad more than income from abroad (current account (CA) as the balance of payments deficit is getting into), this deficit must be financed by surplus of the financial account, respectively. Capital, which is generated by capital inflows or even a decrease in official reserves.

Current account deficit can be financed either by selling assets to private entities abroad and their foreign borrowings or by the state (CB) reduces its foreign Exchange reserves, so it sells to foreign markets.

Current account surplus of the private sector to use its foreign revenue to repay foreign debts or to purchase assets abroad, or the CB excess foreign currency received by the private sector to buy and connect them to their foreign exchange reserves.

Perfect capital mobility exists in the international sphere if investors can buy assets in any country they choose, with low transaction costs, quickly and in an unlimited range. Under conditions of perfect capital mobility can not be domestic interest rates too high and too long a deviation from the average world rate. (3)

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