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THE BALANCE OF THE NATIONAL ECONOMY PART II

THE BALANCE OF PRODUCTION AND UTILIZATION OF SOCIAL PRODUCT

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Introduction

This memorandum is a continuation of the previous memorandum which dealt with the theoretical principles of the balance of the national economy.

The balance of production and utilization of social product is the basic balance within the framework of the balance of the national econony. The fundamental, key position of this balance follows from the fact that the balance of social product comprises the material side of reproduction and the main spheres of reproduction - production, consumption and accumulation. This balance is typical for the system of national balances used in socialist countries. Similar balances are not used within the framework of national accounts in market economies. The reason lies in fact that in socialist countries the economic development is directed by the comprehensive, over-all state development plan, which includes both the production and utilization of social product. Therefore the possibility exists to construct and analyse the balance of production and utilization of social product in statistical, orientation and planned forms. The balance of production and utilization of social product represents also the basis for construction the interbranches balances (input-output tables).

From above mentioned reasons the memorandum may be interesting for a reader.

I. CONSTRUCTION OF THE BALANCE OF PRODUCTION AND UTILIZATION OF SOCIAL PRODUCT

1. Meaning and Scheme of the Balance of Production and Utilization of Social Product.

Generally we can say that the significance of the balance of production and utilization of social product consists in the fact that this balance represents a macrosconoric over-all model of material side of reproduction and characterizes nost generally, in an aggregative form the process of production and utilization of social product in the national economy as a whole. The balance of production and utilization of social product is the basic balance within the framework of the balance of the national economy. The fundamental position of this balance follows from the fact that the balance of social product comprises the material side of production and the main spheres of reproduction-production, consumption and accumulation.

In a statistical form it enables us to analyze the past development of the national economy as a whole. In analysis, as we shall see later, the attention is concentrated on these fields:

- the rate of economic growth
- the tendencies in development of main propertions of reproduction
- the raising of living standard.

For the purposes of analysis the balance of production and utilization of social product must be constructed in constant prices. One remark in this connection: when we want to weller: the physical, material side of reproduction (the flows of goods) we must use the constant prices for evaluation of production. When we want to reflect monetary, financial side of reproduction, we must use the current prices.

In a planned form the balance of production and utilization of social product enables us to check the consistency of different parts of state development plan and to verify if the state development plan as a whole is balanced and harmonized.

In an orientation, preliminary form the balance of social product is a tool for forecasting the future development of main economic aggregates, such as social product, national income, consumption and accumulation.

Scheme of the balance of production and utilization of social product

Statistic and statistic rest of the statistic strategy and statistic rest	1
PRODUCTION:	UTILIZATION:
I. Production of social product	I. Productive consumption
l. Industry	l. Industry
2. Agriculture	2. Agriculture
3. Forestry	3. Forestry
4. Construction	4. Construction
5. Transportation and communication	5. Transportation and communication
6. Material technical supplies	6.Material technical supplies
7. Domestic trade	7. Domestic trade
8. Purchase of agricultural produc-	8. Purchase of agricultural produc-
9. Foreign trade tion	9. Foreign trade
10. Other branches	10. Other branches
II. <u>Import</u> RESOURCES TOTAL (I. + II.)	II. Final consumption 1) Personal consumption a) Retail sales for population b) sales on agricultural market c) non-monetary farmer's con- sumption of their own production d) other personal consumption (water, gas, electricity)
	 2) <u>Collective consumption</u> a) Material consumption in the non-productive services b) material consumption in the other non-productive organizations.

UTILIZATION:

3) Depreciation of non-productive fixed assets

III. Accumulation

1) aditions to fixed assets (both in productive and non-productive sphere)

2) changes in stocks

IV. Reserves

V. Export

UTILIZATION TOTAL (1.+11.+111.+IV.+V)

2. Definition of Main Aggregates

a) Social Product.

In preceding memorandum we have defined social product as an aggregate which includes all the utilities, commodities, which were produced in the productive sphere of the national economy during one year.

For purposes of practical measurement of social product the above-mentioned definition is insufficient. In statistics and planning we must solve two problems before measuring the social product:

- 1) We must determine the branches of a productive sphere where social product is produced.
- 2) We must define the methods of calculation (measurement) of social product in individual branches of a productive sphere

Ad 1) The problems of determining the branches of a productive sphere we have discussed in second lecture. For repetition we can say, that the border line between a productive and non-productive sphere in the national economy is in many cases (especially as far as services is concerned) the matter of statistical convenience.

Conception of social product in socialist countries is based on principle, that social product is created:

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a) in the branches which produce social product in physical sense (commodity branches)

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b) in the branches which don't produce social product in material form, but add a value to commodities which were created in commodity branches (productive services)

Ad 2) Methods of measurement of social product.

Generally these methods of measurement of social product are used in Czechoslovakia:

- a) Enterprise method (in industry and construction)
- b) Method of gross turnover (in agriculture and forestry)
- c) Method of value-added (in other branches)

Enterprise method.

This method is used for calculation the value of social product in industry and construction. According to this method only such a value of production which is leaving the enterprise and enters in economic turnover of country is included in social product. The value of production which circulates only inside the enterprise (for example among different establishments or workshops of this enterprise) and don't leave the border of enterprise (is not sold, realized), such a value is not included in social product.

The value of production calculated according to the enterprise method" is called ugross value of industrial production" or a gross production of enterprises.

Gross production includes:

- a) production for final consumption (both personal and collective)
- b) production for accumulation (in the case of production of capital goods the exception is made from enterprise method and the capital goods are included in gross production also in the case when they are delivered for own investment and general repairs in enterprise)

c) intermediate products (raw materials, fuel, energy, semifinished products) - but only in the case that intermediate products will be delivered to other enterprises and will not circulate inside the same enterprise.

As we can see the problem of calculating the gross productionlies in inclusion of intermediate products. The border line is obviously a matter of convenience. As we shall see later, the enterprise method is insufficient for construction of interbranches balances (input-output tables). If we want to apply commodity - to - commodity conception of interbranches balances and if we want to reflect also interbranches relationships inside the enterprise we must change the enterprise method and replace it by so called branch method of calculation of gross production.

Method of gross turnover.

In agriculture is a different situation from that in industry. A great part of agricultural production is not sold, monetized, and is absorbed inside the agricultural enterprises. This production has non-money character. For example seed for sowing, fodder for livestock, farmer's consumption of their own production. What to do with this production? To include or not in social product? We think that this non-monetary production must be in present conditions included in social product, because of different division of labour in agriculture in comparison with industry. Specialization and cooperation in agriculture is on lower level than in industry and has a different character. Therefore we use so called "method of gross turnover" in agriculture and forestry. According to this method all the utilities (agricultural products) are included in gross production which were produced in agriculture (including non-monetary production). If we used the enterprise method how in industry, the value of agricultural production would be very low in comparison with industry. Some difficulties arise, as we shall see later, in evaluation of this non-peculiary production.

Method of added value.

This method of computation of social product is used in such branches of productive sphere of the national economy, where social product is not created in physical sense (material form) and where a value is only added to commodities created in commodity branches. These socalled "productive services" ensure the circulation of goods in national economy. Circulation of the consumer goods is provided by "domestic trade circulation of the means of production by "material technical supplies , circulation of agricultural production by "purchase of agricultural products" and circulation with the rest of world by "foreign trade". To those branches are affiliated transportation and communications.

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The added value in productive services is given by the discrepancy between the sale and purchase prices. For example gross production in domestic trade is given by a margin of trade - it is the difference between the retail prices and wholesale prices (plus turnover tax). The gross production of transportation and communication is given by the earnings of these branches.

b) Productive Consumption (Material Costs of Production)

Productive consumption is represented by the value of raw materials, fuel, energy, simifinished products and other inputs which were absorbed in productive branches of the national economy in the process of production or circulation. Besides consumption of intermediate products the depreciation (consumption of capital goods) is also included in productive consumption.

Productive consumption so includes:

- a) consumption of intermediate products
- b) consumption of capital goods

Definition and measurement of productive consumption is very important, as we shall see later, for calculation of national income, because the measurement of national income in Czechoslovakia is first of all based on the indicators of production (output) and productive consumption (material inputs). The difference between the total output (gross production) and material inputs (productive consumption) equals to the net production (national income).

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Schematically:

S - c = Y

= Y S.... social product c.... productive consumption Y.... national income

This method of measurement of national income is called the production method, because national income is measured in the sphere of production as the sum of net productions of all productive branches .

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c) Final Consumption.

Final consumption is represented by the consumption of consumer goods both by households (private consumption) or by non-productive organizations in the national economy (sollective consumption). Final consumption is form of utilization of national income. The criterion for differentiation of personal and collective consumption is the financial source of payments. If the final consumption is paid by population (from their final incomes) it is the personal consumption. If it is paid by government (from the incomes of society) we speak about collective consumption.

Collective consumption we divide into the two subgroups:

a) material consumption in the services which help to increase the living standard of population (housing, municipal services, personal transport and communication, health services, education, culture).

b) material consumption in the organizations which ensure some functions of state (defence, administration, banks and insurance companies, police, scientific and reseach organizations).

Such a differentiation is necessary for measurement of raising of living standard, because the level of living standard is given first of all by the size and structure of personal consumption and the magnitude and composition of material consumption in the services which help to increase the living standard, besides the other components (leisure, leave, social ensurance etc.). Material consumption in the organizations which ensure the functions of state is not a component of living standard.

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d) Accumulation

Accumulation is the second great fund of utilization of national income (besides final consumption). Accumulation is represented by such goods, which were not consumed (both in productive consumption or in final consumption) in a given period of time, but was accumulated. In accumulation enter both the means of production (increase in productive fixed assets, changes in stocks of intermediate products) and the consumer goods (increase in non-productive fixed assets, changes in stocks of consumer goods).

On the size, structure and quality of accumulated goods (especially on the increase in productive fixed assets) depends the future economic development of country, its rate of growth.

Sometimes it is very difficult to draw the border line between consumption and accumulation, between consumed and accumulated goods. This regards mainly the durable consumer goods - as refrigerators, cars, television sets, household facilities etc. It is obvious that they are consumed gradually in the period longer one year. If we want to be accurate, we must calculate also the depreciation of durable consumer goods and only this amount include in final consumption and the rest of prices of durables include in accumulation. From the practical difficulties in reckoning the depreciation of durable consumer goods we include them all in final consumption in the moment of their realization (when they are sold to population or to non-productive organizations). If they are sold to productive organizations for productive purposes they are included in accumulation. The tendency is towards admitting more and more durable goods into the category of fixed assets. Final consumption and accumulation represent two basic funds of utilization of national income. When we calculate the national income in the sphere of its utilization, we speak about <u>an utilization method</u> of measurement of national income.

3. Mutual Relationships between the Production of the Means of Production and Consumer Goods on one Side and the Funds of Utilization of Social Product on the Other Side.

For the purposes of analysis and planning it is necessary to see important interrelationships between the production and utilization of social product. On one hand the magnitude and composition of production directly predetermines the magnitude and composition of utilization of social product (when we abstract from foreign trade). On the other hand the utilization of social product (in particular the size and structure of accumulation) predetermines the future size and structure of production. In planning these connections must be fully respected. When we shall discuss the problems of interbranches balances (input-output tables), the interdependencies will be clearer.

For better understanding of those inter-relationships we can show in the form of scheme, how the production of social product and its subdivision on the means of production and consumer goods determines the structure of utilization of social product. We shall abstract from foreign trade.

PRODUCTION UTILIZATION					
MEANS OF PRO- DUCTION	PRODUCTIVE CONSUMP- TION				
80	60				
CONSUMER	ACCUMULATION AND RESERVES 30				
GOODS 80	FINAL CONSUMPTION (PERSONAL AND COLLECTIVE) 70				
TOTAL PRODUCTION == 160	TOTAL UTILIZATION =160				

The value of social product in our scheme equals to 160 units. From it 80 units is the value of the means of production (intermediate products and capital goods) a 80 units is the value of the consumer goods. This structure of social product directly determines the structure of utilization of social product, because the means of production can be used only in productive consumption or in accumulation (here again exist interdependencies between the production of the means of production and its subdivision on the intermediate products and capital goods and productive consumption and accumulation on the other hand - the size of accumulation is determined first of all by the size of production of capital goods and by the depreciation). In our schematical example from 80 units of means of production 60 units is absorbed in productive consumption and 20 units enter in accumulation as additions to productive fixed assets and incroments in stocks of intermediate products. From 80 units of consumer goods 70 units is consumed in final consumption and 10 units is accumulated as the additions to non-productive fixed assets and as the increments in stocks of consumer goods. 2

Our picture of production and utilization of social product will nevertheless changed by foreign trade. Therefore is necessary to observe also the influence of foreign trade on production and utilization of social product.

4. Foreign Trade in the Balance of Production and Utilization of Social Product.

Foreign trade can be included in the balance of social product in different ways. The simplified way is such one that the value of imported goods is on the left side of the balance and represents a source. The total sum of resources of social product is given by the value of domestic social product plus the value of the import. On the right side of the balance (utilization) we can't recognize whether the production is from domestic production or from import (especially in the case of competitive import). We only know that the value of social product which is determined to utilization inside the country, equals to the value of domestic social product plus import minus export. We can write this identity:

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$$S_u = S_p + I - E$$

Su···· used social product Sp···· produced social product I ···· import E ··· export.

Foreign trade thus changes the size and structure of used social product in comparison with the size and structure of produced social product in the country. In the case that the balance of foreign trade is positive (it means that the value of export is greater, excesses the value of import), the value of used social product is smaller than the value of produced social product and on contrary, when we reach the negative foreign trade balance (the value of import excesses the value of import), the value of used social produced is greater than the value of produced social product. From the point of view of used social product it looks better when we reach negative foreign trade balance. But we must always confront the balance of foreign trade with the balance of foreign payments. For the latter we can only recommend that in a long-term run it must be balanced.

5. <u>Methods of Measurement of the Aggregates in the Balance of Production</u> and Utilization of Social Product.

We shall try to show now in detail the technique of working out the balance of social product. The methodology of drafting the balance must be consisted as for the statistical balance as for the planned balance. Differences are only in the sources of information, but the technique of elaboration is the same.

We shall begin with the calculation of the value of gross production according to the individual branches of the national economy (its productive sphere).

Industry.

As we have already known, the gross production in industry is reckoned by so called enterprise method. The basic statistical unit is enterprise. By summarizing the gross productions of individual enterprises we obtain the gross production of whole industry. In statistical and planning practice in Czechoslovakia we use three main indices of the value of production in industry:

1) The value of sales.

This value is given by the amount and prices of goods which were really saled to other enterprises or to trade organizations.

2) The value of commodity production (or market-production)

This value is given by the value of sales plus or minus the changes in stocks of finished goods. The value of commodity production expresses the value of production which was produced in enterprise during the given period and which is determined for sale irrespective if this production was saled or not in this period. The value of sales (first indice) comprises not only the value of commodities which were produced in ent prise during the period, but also the value of commodities which were in stocks. In the case, that the value of stocks was increased, the value of sales was smaller than the value of commodity production because of increase of stocks and on the contrary. We can write this equation:

Value of sales = value of commodity production

changes in stocks of finished goods The value of commodity production includes also the value of products and services intended for own investment and capital-repairs.

3) The value of gross production

This value differs from the value of commodity production by the value of changes in work in progress and by the value of changes of stocks of intermediate products which were produced in enterprise.

Valuation of industrial production.

For information it is necessary to sketch the structure of price. The basic components of price are as follows:

CO	STS OF PRODUCTION	PROFIT	TURNOVER	TAX	TRADE MARGINS
_	WHOLESALE PRICE				
		RETAIL	PRICE		

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The valuation of industrial production is made in wholesale prices, which corresponded to the factor costs-term used in construction of national accounts in capitalist states.

When we calculate the gross production of industry for purposes of the balance of social product we have to add to the gross production in wholesale prices the value of turnover tax because of balancing the production with utilization.

The utilization of industrial production (especially personal consumption) is calculated, as we shall see later, in retail prices (including turnover tax). If we work out the balance of social product, the same prices must be used on both sides of the balance.

In connection with valuation of production one remark is necessary : all the indices of production of social product according to individual branches of the national economy reflect the value of production which was realized by individual branches. It is the realized value, not created one. The main cause why the indices of statistics and planning don't show the created value, lies in fact, that the prices of goods don't correspond to the theoretical value which is given by the amount of socially necessary labour. The prices deviate from values. The prices are a tool of redistribution of national income.

The value of gross production is calculated both in current and constant prices.

Agriculture.

Measurement of gross production in agriculture is complicated by two reasons:

a) Existence of different sectors (state ownership, co-operative ownership and private ownership). Due to these different sectors the sources of information are also different. In private ownership we must rely on sample surveys.

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- b) Existence of non-monetary form of production. This non-monetary production serves for:
 - productive consumption (fodder', seed)
 - private consumption

As we have said before, in agriculture due to different division of labour, different cooperation between enterprises, we must use a different method of reckoning of gross production. This method is called the method of gross turnover (of total production) and according to this method the non-monetary production is also included. This fact is important in developing countries where the share of agricultural production in social product is relatively high and also the share of non-monetary production in gross agricultural production may be high.

The calculation of gross production in agriculture is based on so called the balance of agricultural production.

The scheme of this balance looks as follows:

		Market Production				ket on	Non-Market Production											
AGRICULTURAL PRODUCTS		Sales to the State			Sales on Co-operative Markets		tal Mari roducti	Interme- diate pro- ducts		Private Consump- tion		re np-	Changes in Stocks		es s	ss Produ n Total		
		Amount	Price	Total	A	Р	Т	0 E L	A	P	Т	A	P	т	A	P	Т	Gro Gro
I.	PLANT PRODUCTION 1. Wheat 2. Barley 3. Rice 4. Cotton 5. Vegetable 6. Fruit ANIMAL PRODUCTION 1. Cows 2. Pigs 3. Milk 4. Eggs	area or bourdaryor of option desired desire (10 ed) Freens 1. wrongen after pa arrea a desired	ps izoles kontragun internationender indhein Afrike Riter a jamit britten och the Angles Afrike Riter and state britte and the Angles	whit forth "gree 7% Trajnessing o. sits output the	the active of the set of the sector function of the	pre vijne of Enote brougerior we belo with the	Section 201	. Bertyb ommant with sparat balase. De esche andrester juter internation fa osto	anoidagagagagagagagagagagagagagagagagagagag	ande strader of upper Drographies after all a					At a pulling a support of the support	1. 1. 1. Constant	The WT of the state of the stat	
								Le.	5087	200		18	.*	199		1		

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Individual agricultural products included in the balance are given by the classification of agricultural production which is used in the country. A breakdown according to the different sectors (state ownership, cooperative ownership and private ownership) is also made.

Valuation of agricultural production represent a difficult problem because of non-market production. Usually the market production is valuated in actual prices of sales and the non-market production is valuated in average prices of market production weighted by the amounts of different components of market production.

The gross production in agriculture is calculated similarly as in industry both in current and constant prices.

Construction.

The value of gross production in construction is given by the amount of building works done in a given period in this branch of the national economy. The calculating of gross production in construction is complicated by the fact, that building works are done not only in building organizations, but also in industrial or agricultural enterprises and also by population as a selfbuilding (for example building of houses in countryside). In these cases we must oftenly use the qualified estimations. When we reckon the gross production in construction (especially in planning) we simultaneously draft the balance of building production which links up the value of building production with the value of investment and ensures thus the consistency of production of capital goods (in construction and machiner with their utilization in investment, repairs and maintenance. This balance includes of course imported capital goods.

RESOURCES Building Machinery (PRODUCTION) Production Production UTILIZATION Capital Investment (in state plan) Maintenance Repairs The Value of Simple and Expanded Reproduction of Basic Funds Depreciation Productive (in the balance Productive con-Accumulation or Final of social prosumption Consumption duct)

The scheme of the balance of building production is following:

The scheme shows important relationships between production of capital goods (machinery and construction) on one side and the size of investment, repairs and maintenance on the other side. The balance between those two sides must be kept. In the volume of machinery and building production is also included the machinery production from abroad (import). The scheme shows later the relationships between the size of investment and capital-repairs on one side and the size of accumulation of fixed assets on the other side. Accumulation is given by an excess of investment and capital-repairs over the depreciation which express the consumption of capital goods.

Transportation and communication.

The value of gross production in these branches of the national economy is calculated as the receipts for sale of services of railway transport. road transport, air transport, river and sea transport. Similarly in communications (post, radio, television).

Branches of circulation of production

(trade, material-technical supplies, purchase of agricultural products)

The value of gross production in these branches is given by the trade margins (a difference between the sale prices and purchase prices, or letween the consumer's prices and producer's prices).

Productive consumption

Industry

When we measure the value of productive consumption in industry, we get out from calculations of costs of production. The costs of production are calculated in all the industrial enterprises in accountancy and statistics (for purposes of statistical balance of the national economy) or in financial plans (for purposes of planned balance of the national economy).

Costs of production are divided into these main groups according to so called economic division of costs

- a) consumption of intermediate products (raw materials, fuel, energy, semifinished products)
- b) consumption of capital goods (depreciation)
- c) consumption of labour forces (wages, salaries, premiums)
- d) consumption of productive services (transportaion, communications)

The items a), b) and d) represent productive consumption or so called material costs of production.

In connection with calculating the value of productive consumption it is necessary to stress that we have to use the same method in reckoning the material costs of production as we used in calculating the value of gross production. In the case of industry it concretely means that we must use the menterprise method" with reductions of such production which is produced and also consumed inside the enterprise. Productive consumption (material costs of production) in industry comprises besides the depreciation only such consumed intermediate products and services which were bought from other enterprises (inside-enterprise turnover of goods is excluded).

Agriculture

Calculation of productive consumption in agriculture is complicated by the two reasons:

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- a) lack of information (in particular in the private ownership, where sample surveys and quesses must be made)
- b) different method of measurement of gross production in contradistinction to industry (method of gross turnover)

Productive consumption (material costs of production) in agriculture comprises these three main groups of costs:

- a) purchased material costs, such as fertilizers, purchased fodders and seeds, building materials, oil, electricity etc. These costs have money character.
- b) non-monetary productive consumption of its own agricultural production. This item includes the production which was produced in agricultural enterprise in order to be productively consumed inside this enterprise, such as fodders, seeds.
- c) Depreciation of building and equipment in agriculture.

Other branches

In other branches of the productive sphere of the national economy we reckon the productive consumption similarly as in industry, by dividing the total amount of costs of production upon two groups.

- a) material costs of production
- b) non-material costs of production

Note: The value of productive consumption expresses the mutual relationships, interdependencies between the different enterprises, branches or commodities in the framework of productive sphere of the national economy. These interdependencies are very complicated. Their description is necessary for understanding of dynamic economic life in society. Observation, description and analysis of the transactions between the various productive branches is nevertheless not the subject of the balance of production and utilization of social product. Measurement and analysis of the transactions and consequently of the interdependencies of the different branches of production, that is the chief purpose of the interbranches balances (input-output tables). The balance of production and utilization of social product must be linked up with the system of interbranches balances. The total sum of productive consumption (minus depreciation) in the balance of production and utilization of social product must correspondent to the value of productive consumption which represents the content of square matrix (1. quadrant) in the interbranches balance.

The productive consumption and the social product contain many duplications. The number and amount of duplications depend on the method which we choose for calculating the gross production and social product. The number and amount of these duplications will be another if we choose:

- the method of gross turnover (of total production without reductions)
- the establishment method
- the enterprise method
- the branch method

The choice of suitable method can't be arbitrary. It depends on many factors, as the level of economic development of country, complexity of mutual interdependencies in the national economy, organizational structure, available statistical data etc. Therefore is not possible recommend methodology of one country to another, especially when the economic structure considerably differs. Nevertheless the choice of suitable method for calculating the productive consumption and interindustry relationships is very important in working out the methodology of interbranches balances.Different methods show in different ways the picture of the national economy and the flows of goods and services which link all the branches together. The objection can arise in connection with measurement of social product. Why is necessary to reckon social product which includes many duplications? The necessity of calculating social product has these main reasons:

- the necessity of planned economy to verify whether the whole production in the national economy is consistent with its utilization
- 2) the necessity of constructing the interbranches balances
- 3) the necessity of reckoning the national income by the production method (social product minus productive consumption equals to national income)

Social product is thus the indice which serves first of all to the purposes of <u>balancing</u> of the national economy and not for expressing the rate of growth of the national economy. For these purposes is necessary to use the national income.

Personal consumption

a) Retail sales for personal consumption.

Retail sales for personal consumption represent the great item in personal consumption. Retail sales express the amount of goods which was sold to population or some other organizations for retail prices. When we want to obtain retail sales for personal consumption we must substract from the total value of retail sales the purchases of public sector (enterprises, cooperatives, non-productive institutions) and also the purchase of population for productive purposes (this refers especially to farmers).

b) Non-money personal consumption.

This item comprises the farmer's consumption of their own production and is obtained from the balance of agricultural production (see the measurement of gross production in agriculture)

c) Sales on cooperative markets

The sales on cooperative markets are realized by agricultural cooperatives or farmers and the value of these sales for personal consumption is obtained from the balance of agricultural production.

d) Other personal consumption (consumption of gas, water, electricity).

As far as items a) and d) (retail sales for personal consumption and other personal consumption) are concerned, relatively accurate statist cal data are available. In the cases of non-monetary personal consumption and sales on cooperative markets, the sample surveys are necessary.

Collective consumption

a) <u>Material consumption in the services which help to increase the living</u> <u>standard of population</u> (housing, municipal services, personal transport and communications, health services, education, culture) is surveyed and planned by local authorities which at a great part manage this non-productive sphere of the national economy.

b) <u>Material consumption in the organizations which ensure some functions of</u> <u>state</u> (defence, administration, banks and insurance companies, police, sci tific and research organizations) is surveyed and planned by appreciate or nizations.

Accumulation

Fund of accumulation comprises two main ideas.

- a) Additions to fixed assets (both in a productive and non-productive sphe of the national economy).
- b) Changes in stocks.

Additions to fixed assets, which present the decisive part of accumulation, are calculated in a following way:

- Investments (i.e. capital formation both in productive sphere in a form of new buildings and equipments and in non-productive sphere in the form of new houses, hospitals, schools, roadways, administrative buildings etc.).
- 2) + Capital-repairs (only the greater repairs, so called general repairs are included in this item, because smaller repairs are included in current costs of production).

3) + Value of investment projects

4) Total value of simple and expanded
 reproduction of fixed assets (replacement of worn-out capital and new 1)+2)+3)

5) - Depreciation allowances

6) Additions to fixed assets (including also the changes in uncompleted 4)-5) construction)

<u>Changes in stocks</u> include changes in stocks of intermediate products and finished goods in productive sphere of the national economy, changes in stocks of products in the circulation branches (trade, material-technical supplies) and changes in stocks in non-productive sphere of the national economy'.

II. ANALYSIS OF THE BALANCE OF PRODUCTION AND UTILIZATION OF SOCIAL PRODUCT

The elaboration of the balance of production and utilization of social product is only the first stage in utilization the balance of social product in planning. On the basis of worked out balance of production and utilization of social product in a planned form, we can see, whether the state development plan as a whole is balanced or inbalanced. In the case of disparity between production and utilization of social product, the targets of the state development plan must be changed in order to reach the equilibrium in the national economy. This is the first function of the balance of social product in planning. The other functions lie in the field of macroeconomic analysis and projections. We shall begin with the analysis of the balance of production and utilization of social product. Main fields of analysis are the following:

- a) The rates of economic growth of the national economy as a whole.
- b) The general long-run tendencies in development of main proportions of reproduction process.

1. The Rate of Economic Growth.

The rates of economic gowth we can express or in the gross production terms (as the rate of growth of social product) or in the net production terms (as the growth rate of national income). For the purposes of measurement of the rate of growth of the national economy as a whole we usually use the national income, because social product comprises too many duplications which may distort the actual growth rate of production. When we want to express the growth rates, national income or social product must be reckoned in constant prices (real terms).

In planning we must solve very important and complicated questionat what rate of growth the national economy as a whole will develop in future? It is, as a rule, the first question which arises in connection with elaboration of plan. Can we assume that the national economy will increase its production at the same rate as in past? Or that the rate of growth of production will be quicker or smaller? The answer on these questions is not easy. The experiences from many countries show that the extrapolation of past rates of growth is unrealistic. According to our experiences it is necessary, as a first approximation in the process of determining the future rates of growth, to provide at least two things:

- a) to analyze the past economic development, its rate of growth and major factors affecting this development
- b) to determine main factors, which will influence on the future economic development and on its rates of growth.

2. Fundamental Factors Affecting the Economic Development of a Country.

Thus, we come to the question of fundamental factors which cause the rate of economic growth. We can explain these factors only generally, because in each country the weight of each factor is different and analyses on the basis of available statistical data are necessary.

We can divide the factors of economic development into the two main groups:

- 1) The growth of population and labour forces.
- 2) The growth of productivity of labour.

Increase in the amount of employed population is one important factor of economic development and of increasing the value of production. This factor of economic growth is almost exhausted in many countries of . Europe, but in developing countries it represents relatively important source of raising the volume of production.

How can the increase in the amount of employed population increase the value of production? In a simple way we can imagine that some enterprises have only one shift work time. Where we introduce two shift work time, we must double the number of production. Obviously in such a way the increase in the amount of employed population doesn't affect the increase of production. Such a way is possible only in a case, when we have idle capacities. In normal circumstances we must combine the increase of employed population with the increase of investment and capacities. Nevertheless, different branches of the national economy and different directions of technical progress are more or less capital-intensive or labour-intensive. We must choose such a structure of the national economy and such technical solutions in investment prospects. /which enable us to solve the difficult problem which is typical for most of developing countries - employment of population with relative lack of capital.

The increase in the amount of employed population in the productive sphere of the national economy, which is the factor of raising the value of production, depends on these main factors:

- a) The amount and growth of the population as a whole
- b) <u>The distribution of population by age</u> (age pyramid), because the possibility of increasing the number of employees in the national economy depends on the amount and growth of the population of working age. The lower limit of working age is mostly the age of the finishing of obligatory school education and the upper limit is the age of entitlement to pension.
- c) The distribution of employed population between the productive and non-productive spheres of the national economy. The increase of the value of production (social product or national income) is influenced directly by the increase of employed population in productive sphere. Employees of non-productive sphere (clerks, soldiers, servants, teachers, doctors etc.), don't create social product or national income according to the marxist conception of these aggregates.
- d) The length of working time. The changes in the length of working time influence as a rule the value of production in the same way how the changes in the number of employees.
- e) The average intensity of labour. The changes in the intensity of labour involves the changes in the volume of production. The factors of economic growth, which are connected with the increase of the amount of employed population in productive sphere of national economy, we usually call the extensive factors of economic growth.

The second group of factors influencing the economic development of a country are the factors of the growth of productivity of labour. These factors we usually call <u>the intensive factors of economic growth</u>:

a) <u>Natural resources and conditions of a country</u>. Natural conditions influence especially the level of productivity of labour in agriculture, forestry and fish ing and in mining and quarrying.

b) <u>Skill and qualification of people</u>. The stock of trained personnel and its distribution is in present conditions one of the most important factor of increasing the productivity of labour.

c) <u>Application of scientific and technical progress in production</u>. This factor is very closely connected with the qualification of people, because only highly trained people can introduce in production modern methods and inventions.

- d) The level of division of labour in society, which includes:
- the level of cooperation and specialization
- the level of concentration and centralization of production
- the level of organization of labour in enterprises

These factors represent also a significant source of increasing the productivity of labour in a great part of countries.

e) The amount and standard of productive fixed assets in society.

On the rate of growth of productive fixed assets and their technical standard depends the capacity of production. In fixed assets is also materialized the scientific and technical progress and skill and qualification of people. Therefore in solving the problems of rate of economic growth the emphasize is given to the investment policy, through which new fixed assets are introduced in production.

f) The level of management and planning in society.

The role of this factor is increasing, especially in circumstances, when government or state owns a great part of the national economy and is responsible for the utilization of all resources in society, for raising the rates of economic growth and for increasing the living standard of population.

These all above-mentioned major factors of economic growth are very closely connected, one factor causes the other, and therefore a comprehensive analysis of all main factors is necessary, when we want to determine the rate of growth of social product or national income. This approach to the planning of the rates of growth of national income is very important. because sometimes the rate of growth of national income is given before and the possible factors of economic growth are looked for afterwards. In this case the actual development of national economy, its rates of growth, is very often different from the planned one. It is natural that the actual development is almost ever different from the planned one. But when the discrepancy between the planned targets and these actually reached is very great, then we are on the best way to the discredit of planning. Therefore we must strive for a realistic, scientific planning. Sometimes for the rough estimates of the growth rates the production functions are used according to which the rate of growth of national income is the function of some variables (investment, labour forces) and some parameters (capital to output ratio, productivity of labour etc.). These functions are mathematically formulated. We can benefit by these functions especially in long-term planning when we draft the first rough approximations in the process of elaboration of the plan.

3. Proportion between Consumption and Accumulation.

Proportion between consumption and accumulation is a key-proportion on a side of utilization of social product. Consumption (personal and collective) and accumulation are too basic funds of utilization of national income. At a first look these two funds are contradictory, because what is consumed, can't be accumulated and on the contrary. In planning, first of all in longterm planning, we face the difficult problem of determining the right relationship between consumption and accumulation. The choose is not easy, because the quick economic development of a country needs relatively high share of accumulation in the utilization of national income and this is, as a rule, in contradiction with the policy of raising the standard of living. To what give the preference? To consumption or accumulation? Before decision-making it is necessary to see the mutual relationship of consumption and accumulation in

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a long-term range, because from a long-term point of view we shall see, that consumption is very closely connected with accumulation, that in a long-term run the size of accumulation determines the size of consumption. The higher is the accumulation in present, the higher may be the consumption in future. The present interests of people (relatively high share of consumption in the utilization of national income) are contradictory with the future interests of people (relatively high share of accumulation in the utilization of national income). We must look for the reasonable connection between the present and future interests of people. This is not only economic question, but also highly political one, because people are touched very strongly by the situation on market, by prices and by the size of consumption. In normal circumstances we may not plan the decrease in living standard and in consumption per capita. It means, that the lowest border of the rate of growth of consumption is the rate of growth of population. But in normal circumstances we want to increase the consumption per capita. It is one from the important economic goals of socialist society. It is the sense of planning. At what rate can we increase the consumption?' First of all it will depend on the rate of growth of national income. The higher is the rate of growth of national income, the higher consumption we may plan. And here we see the connection of consumption with accumulation, because the rate of growth of national income is caused first of all by the size of accumulation in the past.

The rate of growth of consumption is therefore very closely connected with the rate of growth of national income. But what rate may be quicker? The rate of growth of national income or the rate of growth of consumption? According to the experiences gained from past development in socialist countries, the rate of growth of national income must be quicker, especially in the process of socialist industrialization, then the rate of growth of consumption. From that follows, that the rate of growth of accumulation must be higher than the rate of growth of consumption. This is general tendency which is typical for most countries in the process of industrialization. Of course, that the share of accumulation in the utilization of national income may not increase to infinity, because we don't uwant production for production, but production

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for consumption. Therefore we think that after reaching the optimal relationship between accumulation and consumption in the utilization of national income, the share of accumulation will not increase, but will be constant. In such a case the rate of growth of national income, accumulation and consumption will approximately be the same. On the base of available statistical data in socialist countries such an optimal share of accumulation in the utilization of national income is between 25 to 30%. It means that the share of consumption in the utilization of national income is between 70-75%.

Of course that in various countries and in different stages of their economic development the shares of accumulation and consumption in utilization of national income will differ. Therefore is not possible to give the uniform answer. Nevertheless, the general tendency in development of the proportion between consumption and accumulation, is the tendency to wards the increasing of the share of accumulation in the utilization of national income, in particular in the process of industrialization of a country.

4. Proportion between the Social Product and National Income.

Proportion between the social product and national income is only another expression for the proportion between productive consumption and national income, which are two great funds of utilization of social product, because, as we have seen, social product is used or in the form of productive consumption or as a national income.

Schematically:

Utilization of social product



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According to the methodology of drawing up the balance of production and utilization of social product, that is used in socialist countries, the share of productive consumption in the utilization of social product is approximately 50%. Productive consumption is therefore the greatest fund of utilization of social product. What is the general tendency in development of mutual relationship between productive consumption on one hand and national income on the other hand? Which side of this proportion will grow quicker? The answer on these questions is not easy. Of course, that we wish to reduce the share of productive consumption and increase the share of national income in the utilization of social product, because productive consumption represents the production for production and it is a necessary "evil" in the reproduction process. But what we wish is one thing and what is in given economic conditions realistic is another thing. Therefore the objective economic analysis of main factors affecting the development of productive consumption must precede the planning of this proportion. Main factors influencing the development of productive consumption in its relation to the national income are as follows:

a) The sectoral (branch) structure of the national economy.

The breakdown of the national economy according to the branches is very important factor, because each branch is differently material-intensive, the share of material costs (productive consumption) in the value of production differs according to the individual branches. If we give the priority to the material-intensive branches in economic development of a country, then the share of productive consumption in the utilization of social product will increase and the share of national income will decrease. In other words, the future economic development is necessary to judge also from the materialintensity point of view, especially in situation when we have to import a great part of raw materials. The sectoral structure of the national economy can thus influence positively or negatively on the rate of growth of national income. The analysis of material intensity of individual branches of the national economy is possible, as we shall see later, on the basis of interbranches balances (input-output tables), which show us not only the direct

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productive consumption (direct inputs), but also the indirect productive consumption in the other branches which is indirectly connected with the direct consumption.

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b) The technical progress in individual branches of the national economy.

The technical progress is one of the most significant factors affecting the productive consumption in a positive sense, because technical progress and increase of productivity of labour economize not only the labour power, but also the materialized labour, the material costs of production. New technological processes and new equipments result, as a rule, in reductions of consumption of raw materials, fuel and semifinished products per one unit of production. As a result of this factor, the national income will grow faster than productive consumption and then social product.

c) The level of management and planning with the system of material incentives.

This factor is very important in particular in socialist economy. where public ownership of the means of production predominates. The system of material incentives in socialist economy must be set up in such a way. that each enterprise, establishment and each worker would be interested in reducing material costs of production and in this a way in increase of the national income. The experiences from past development in socialist countries show us that building up the interest of enterprises only on the fulfillment of planned targets in the volume of production is insufficient and in many cases harmful for socialist society. Fulfillment of quantitative targets in production (the value of gross production and some quantitative targets in the physical terms) is of course important. But the qualitative side of production, especially the costs of production, must be also reckoned and such material incentives must be created to support the interest of enterprises and workers on reductions of costs of production. The profitability of socialist enterprises must be ensured. Therefore according to the new system of management and planning in Czechoslovakia, the wages of workers will depend not upon fulfillment of the value of gross production as in past, but upon the fulfillment of so called "gross income of enterprises" which is in

substance the national income of enterprises. It means that in a new model of management and planning the enterprises will be interested in decrease of material costs of production (productive consumption).

d) The methodology of calculating of social product and national income.

In this case we have in mind first of all the prices, in which the social product and national income are calculated. In the case, that we use current prices, social product and productive consumption will grow faster than national income (as a long-term tendency). This is a result of fact that the prices reflect in a long run the changes in productivity of labour. When the productivity of labour is increasing, the share of material costs (dead labour) is going upwardand and the share of live labour (wages) is going downward in one unit of production. In the whole production both productive consumption and the wages are increasing (absolutely), but relatively the productive consumption grows faster than the national income.

In the case, that we use constant prices in calculation of social product and national income, the national income will grow as a long-run tendency facter than social product. It is due to the fact, that the constant prices don't reflect the changes in productivity of labour and reflect the economies as a result of technical innovations.

In planning we must strive for the faster rate of growth of national income in comparison with the rate of growth of social product on the basis of scientific analysis of all major factors influencing the proportion between social product and national income and on the basis of creation all the favourable conditions for the faster growth of national income (especially in the fields of the sectoral structure of the national economy, in introduction of technical progress and in the field of material, incentives on reductions of material costs of production).

5. Proportion between the Production of the Means of Production and Consumer Goods.

Proportion between the production of the means of production and consumer goods is related to the production side of the balance of production and utilization of social product. Orientation of a country on the faster growth of the means of production or consumer goods is very important decision-making. It is obvious that a country must develop both the production of the means of production and the production of consumer goods. But to which group to give the priority? What is the objective tendency in the development of both groups? It is correct that the production of means of production is growing faster than the production of consumer goods, or not? At the beginning we shall assume a closed economy, because foreign trade, as we shall see later, can significantly change the structure of production and the rates of growth of the production of means of production and consumer goods.

In a closed economy the structure of production is directly determined by the structure of requirements, by the structure of demand, by the structure of utilization of social product. In a planned economy the production of the means of production and of consumer goods is given by the planned utilization of social product. This approach to the planning of a structure of the national economy (also to the planning of the production of means of production and of consumer goods) is very important - primary is the demand, requirements and utilization of production and on the basis of their analyses we can determine the structure of production. With changing the demands the structure of production will also change. Therefore in economics we can hardly find the laws and tendencies which are given once for ever. This regards also to the tendency, in the rates of growth of the means of production and consumer goods. In socialist economies have dominated up to now the issue that in a socialist economy exists a basic law of quicker rate of growth of the means of production in comparison with the rate of growth of consumer goods. Actually, almost in all the socialist countries the rate of growth of the means of production was greater than the rate of growth of consumer goods. Does it mean that also in future the rate of

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growth of the means of production must be higher than the rate of growth of consumer goods? The answer is not easy. Before giving the answer we must analyze the main factors and major relationships in the reproduction process which affect the rate of growth of both the groups of production.

If we accept the thesis that the structure of production is given by the structure of utilization (really, in balanced closed economy must exist mutual consistency between production and utilization not only as the total volume is concerned but also as the structure is concerned), then the volume of the means of production and the value of consumer goods are determined by the value of main funds of utilization of social product. The value of the means of production must correspond to the value of these funds of uvilization of social product:

- a) productive consumption
- b) accumulation in the productive fixed assets and in the stocks of intermediate products.

The value of consumer goods must correspond to the value of these funds of utilization of social product:

- a) final consumption
- b) accumulation in the non-productive fixed assets and in the stocks of consumer goods.

From this follows that the rate of growth of the means of production is determined by the rate of growth of productive consumption and accumulation in productive sphere, and the rate of growth of consumer goods is defined by the rate of growth of final consumption and accumulation in nonproductive sphere. In the case that the productive consumption and accumulation grow faster than the final consumption, the production of the means of production will exceed over the production of the consumer goods. This case was typical for the most of socialist countries in past development.

In the case that productive consumption grows slower and accumulation quicker than final consumption, the rate of growth of the means of production may be higher or lower than the rate of growth of consumer goods. It will depend upon the rate of excess of accumulation over final consumption and upon the rate of retardations of productive consumption behind the final consumption.

In the case that productive consumption grows slower than final consumption and accumulation reaches the same rates of growth as final consumption, in such a case the rate of growth of the consumer goods will exceed the rate of growth of the means of production.

Thus, from a formal balance viewpoint all three cases are possible as far as the mutual rates of growth of means of production and consumer goods is concerned:

- a) the production of the means of production grows faster than the production of consumer goods
- b) the rates of growth of both the groups are the same
- c) the production of the consumer goods exceeds the production of the means of production.

But nevertheless, where lie the reasons of the different type of development? How is possible that some countries reach a relatively great excess of the rate of growth of accumulation and productive consumption over the rate of growth of final consumption and as a consequence of this relatively great excess of the rate of growth of the means of production over the consumer goods while in other countries the discrepancy between the rates of growth of both the groups is very little?

According to my opinion there are three main reasons:

- a) A stage of economic development of a country.
- b) The rate of introduction the technical innovations, scientific and technical progress in production.
- c) The structure of an economy.
- d) The foreign trade.

A stage of economic development of a country has a great influence on the rates of growth of the means of production and consumer goods. In the process of socialist industrialization almost all the countries reach a high rate of growth of the means of production from these reasons: - Tendency towards the relatively high share of accumulation in the utilization of social product. From this follows that the rate of growth of accumulation is higher than the rate of growth of final consumption.

- Construction of new plants, new branches of the national economy especially in manufacturing industries. With this greater division of labour, specialization and cooperation in the national economy, also the number of stages of process of production and the value of productive consumption will increase. It is also tendency towards the increase of the share of productive consumption in the utilization of social product and towards the increase of the share of the means of production in the production of social product.

When the share of accumulation and productive consumption is increasing on the side of utilization of social product, the share of the production of the means of production must also increase on the side of production of social product.

After reaching relatively high level of the industrialization of a country, the discrepancy between the rates of growth of the means of production and the consumer goods will diminish. It is caused by the fact that the share of accumulation in the utilization of social product remains relatively stable (constant) and also attempts are made to reduce the share of productive consumption in the utilization of social product. In this stage of economic development of a country preferences are given to the production of consumer goods and to raising the living standard. The planned growth rates are also relatively constant and not so high as in the stage of the industrialization of a country.

In a developing economy the process of industrialization directs to the relatively high growth rates of the production of means of production.

In a developed economy the rates of growth of both mentioned groups will depend mainly upon the introduction of technical and scientific progress in the production. The technical progress as a rule directs to the reductions of material costs of production and to the decrease of the share of productive consumption in the utilization of social product.New technical inventions may

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also cut the capital-output ratio and the share of accumulation in the utilization of social product. As a result of such development is the slow-down of the growth rate of the means of production and possible acceleration in the rate of growth of consumer goods. But nevertheless, the influence of technical progress is not so simple as we have said because sometimes the introduction of technical innovations needs new investment and directs to the increase of accumulation in the utilization of social product. The time lag between investment startings and the production on new capacities is also necessary to take into account.

Among the main factors influencing the growth rates of means of production and consumer goods is the structure pattern of the national economy. The influence of the structure division of the production on the production of means of production and consumer goods is very strong, because some branches of the national economy are relatively highly material-intensive and capitalintensive while the others need not so much of materials and capital for their production.

By the term material-intensive and capital-intensive we mean the ratio between the material costs of production or capital on one side and the value of output of corresponding branch of the national economy on the other side.

 $m_i = \frac{c}{p}$

Schematically:

m_i... material-intensive
c ... productive consumption
 (material costs of pro duction).

p ... the value of output

This fraction represents the value of material costs of production which we need for production of one unit of output.

c _i	=	F p	c _i	capital-intensive							
		-	- F	the	value	of	fixed	assets			
				and	stock	s.					

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This fraction expresses the value of capital which we need for production of one unit of output.

It is obvious that if we accelerate the growth rate of output in branches which are highly material-intensive and capital-intensive, such economic development must direct to the high rate of growth of the means of production and to the retardation of consumer goods. Such economic development is as a rule also import-intensive and for the national economy is not effective. Therefore we must choose such a structure pattern of the national economy which enables us to develop the production of the means of production and the production of the consumer goods in mutual consistency. It is a difficult task for planning. Its solution is possible on the basis of interbranches balances (input-output tables).

Finally, the foreign trade can significantly influence the production of means of production and consumer goods. It depends on structure of export and imports from the viewpoint of the means of production and consumer goods. If in import the means of production prevail and in export the consumer goods predominate, this pattern of foreign trade balance leads to the quicker development of the consumer goods and on the contrary. It is therefore possible to reach relatively high share of productive consumption and accumulation in the utilization of social product in case when in production prodominates the share of consumer goods, because the exchange of consumer goods for the means of production is made through the foreign trade.

6. Proportion between Industry and Agriculture.

Proportion between industry and agriculture is very important proportion within the framework of the interbranches relationships on the production side of the balance of production and utilization of social product. Industry and agriculture represent the basis of the national economy. These two branches of the national economy create mutual market for their products and help each other to the development of their production. Right connection of these two branches is important not only from the economic viewpoint, but also from the political viewpoint, because it represents the economic side of

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the bunch of the two basic classes in society - the worker class and rural class. Industry absorbs a great part of agricultural production, because most agricultural products are the raw materials for foodstuffs and light industries and industry is the greatest delivering sector for agriculture by delivering fertilizers, machines, equipments, oil, energy etc. for productive purposes besides delivering consumer goods for rural population. Mutual interdependencies between those two branches of the national economy are very close. Nevertheless, the chief position in this branch belongs to the industry. It is reflected also in the long-range tendency of development industry and agriculture. According to our present knowledges the faster rate of growth of industrial production in comparison with the agricultural production is a necessary tendency. In particular, in the period of industrialization the excess of the rate of growth of industrial production is much more greater than in the later periods. Nevertheless, the role of agriculture in developing countries is greater than in developed countries because of a large share of agricultural production in total output and because of the food supplies of population which is increasing at a high rate of growth. In order to maintain and increase per capita consumption levels, the increase in agricultural output must be higher than the rate of growth of population if we don't wish to increase the volume of imported food.

The main reasons of higher rate of growth of industrial production in comparison with agricultural output are following:

a) The capital goods (machinery equipment) are mainly produced in industry. This group of products reaches high growth rates because of increasing requirements for investment and accumulation. As we have mentioned before, the accumulation grows faster than consumption and main delivering sector for accumulation is industry. This is the first factor influencing the higher rates of growth of industry.

b) In the framework of consumption we can see the general tendency according to which the demand for industrial consumer goods is greater than the demand for foodstuffs. It is the second main factor influencing the faster rates of growth of industry.

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From this follows that general long-run tendency in mutual relationship between industry and agriculture is the tendency towards the higher share of industrial production in the value of social product and national income and tendency towards decreasing of the share of agricultural production. This of course doesn't mean that also the significance of agriculture in the national economy and attention devoted to agriculture in elaboration of development plans will decrease. On the contrary. Agriculture represents especially in developing countries crucial branch of national economy from many aspects - from viewpoint of labour forces, investment, living standards, foreign trade.

To analyze and plan right mutual interdependencies between industry and agriculture and also among other branches of national economy, to choose right and realistic proportions is one from the main task of national planning. The methodical tool of analysis and planning of these interdependencies is, as we shall see later, the input-output technique.