

# INTERTEMPORAL COMPARABILITY OF NATIONAL INCOME IN CZECHOSLOVAKIA

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The national income and product account (United Nations concept) in current prices itemized by distributive shares and by type of expenditure is given for the period 1929–1937. The national income by industrial origin and the reproducible national wealth are computed for the year 1930. Differences between the U.N. and the material concept are explained by means of the 1939 data.

The national product series in real terms are computed (a) by means of the price deflation of the types of expenditure, and (b) as the physical output of goods and services by industrial origin (since 1926). Major changes in distributive shares are explained with the help of price-cost analysis.

The national product in real terms attains the lowest point in 1935 and not in 1933, as the industrial production and foreign trade series indicate. The structure of gross national expenditure reveals the same pattern of shifts, as is well known from other industrially developed countries during the business cycle.

The development of national product by industrial origin, however, reveals some conspicuous singularities. Especially the uninterrupted increase in trade services (in terms of both persons engaged and turnover in constant prices) is an anomaly in the period of 1929–1937.

Further, the increase of rent (due to the gradual abolition of rent control), contrasting with the general fall of prices, led to a major shift in the distribution of national income during the early thirties. The other remarkable change resulting mainly from the changing price structure was the decrease of the farmers' share in national income.

The production, transportation and distribution series in real terms reveal some time-lags. These result partly from the shift from the foreign to the home market, partly from the compensatory effects of stock movements, and partly from the delayed adjustment of consumers to declining income.

## 1. INTRODUCTION

The comparability of national income and wealth aggregates in time series depends upon (a) a fairly plausible conversion of nominal values to real terms, and (b) an adequate exposition of possible conceptual differences of aggregates concerned.

The present memorandum is a case study showing the size and scope of the necessary adjustments on the Czechoslovak material on hand.

The Czechoslovak gross social product and national income series both at current market value and at constant prices have been published since 1957 continually in the Czechoslovak statistical yearbooks. Here, the national aggregates going back to 1948 are conceived as totals of labour value in material production, i.e., production of goods and connected productive services. The most detailed figures itemized according to industrial origin and to types of expenditure are published up till now in the Statistical Yearbook of 1966.

The pre-war national income series, both at current market prices or costs and in real terms, are computed in the present study. The computation is based on a comprehensive collection and appraisal of figures published in official

statistical yearbooks and periodicals and in a few private estimates of national income.

Of these estimates, especially that elaborated by Miloš Stádník<sup>1</sup> covering the period from 1929 to 1944 (from 1938–1944 Czech inland provinces only) has been until now the most comprehensive pre-war computation. Unfortunately, with the exception of the war years it is limited to one approach only (national income by distributive shares), and in order to get the estimates in real terms, the national income at factor cost as a whole is deflated by the index of cost of living.

In the present study the national income is conceived not as a total summed up by a single method but as an account confronting, as far as possible, all the three standard aspects—and what is still more important—all the three different computation methods, i.e. national income divided by distributive shares, by type of expenditure and by industrial origin. This is, as commonly agreed, the best way to obtain the least objectionable results and to reduce the margin of error hardly avoidable in the computations of comprehensive national aggregates.

The national income and product concept applied in this paper is, with slight deviations, in accordance with the UN standard definitions as recently published in the *Yearbooks of National Accounts Statistics*.<sup>2</sup> This procedure has been chosen because of the nature of the pre-war statistics which do not allow a treatment identical with the post-war (i.e. material) income and product concept.

With regard to this conceptual difference which is a matter not only of totals but of their structure as well, special attention is given to the problems of concepts in the final chapter of this paper.

Most series computed here cover the period 1929–1937; only some computations in real terms (Chapter 3) go back to 1926. 1937, being the last pre-war year of not-dismembered Czechoslovakia, is in every case the final point of our time series.

Whereas the computation of national income aggregates in current prices is dealt with only summarily in this paper, the computation in real terms is—with regard to the agenda of the 1967 IARIW session—elucidated in more detail and an economic interpretation of results is given.

The computation of depreciation allowances needed to get the gross product total necessitated an auxiliary estimate of national reproducible wealth. Because of the possibility of combining this estimate with net investment in the respective years (as in current so in constant prices) the approximative national wealth series in real terms are added (Chapter 5).

## 2. NATIONAL INCOME IN CURRENT PRICES

The pre-war national income and product at current prices and/or costs are shown in Tables 1 and 2. The necessary methodological explanations are given in the footnotes to the respective tables.

Unlike the computation by distributive shares and by type of expenditure (both in Table 1), the national income (product) by industrial origin can be

1. Miloš Stádník, *Národní důchod a jeho rozdělení* (National income and its division), Praha 1946.

2. E.g. United Nations Yearbook of National Accounts Statistics 1965.

computed with the statistical evidence at our disposal only for the census year 1930 (Table 2).

The differences in the national aggregates in Tables 1 and 2 can be explained as follows.

As can be seen in the statistical discrepancy, Table 1, Row 19, the original data, summed up to the gross national product by the income and expenditure methods, are mutually consistent to such a degree that the discrepancy between their respective totals is (a) comparatively very small and (b) in addition to that, it can be—with the exception of perhaps 1937—interpreted as the change of stocks. This hypothesis is corroborated by the economic fluctuations as illustrated by the national income component series in real terms (see Tables 6 and 9).

TABLE 1  
NATIONAL INCOME AND PRODUCT ACCOUNT  
(thousand million of Kč at current costs or prices)

Years	1929	1930	1931	1932	1933	1934	1935	1936	1937
(A) Division by distributive shares									
(1) Compensation of employees	38.5	38.3	36.9	33.7	30.9	30.2	30.4	32.4	35.4
(2) Income from unincorporated enterprises in agriculture and forestry	16.6	13.3	10.6	8.7	10.1	8.8	7.4	9.1	9.8
(3) Other income from unincorporated enterprises	10.7	10.4	9.8	9.2	8.8	8.8	8.6	8.5	8.8
(4) Corporate profits <sup>a</sup>	5.9	5.0	4.2	1.0	0.6	0.9	1.1	2.9	4.6
(5) Interest <sup>b</sup>	4.0	4.2	4.3	4.4	4.1	4.0	4.1	3.6	3.5
(6) Rent <sup>c</sup>	2.1	2.7	3.8	4.6	5.2	5.7	6.2	6.2	6.2
(7) DOMESTIC INCOME at factor cost	77.8	73.9	69.6	61.6	59.7	58.4	57.8	62.7	68.3
(8) Net income from abroad	-0.4	-0.6	-0.4	-0.3	-0.3	-0.3	-0.5	-0.5	-0.5
(9) NATIONAL INCOME at factor cost	77.4	73.3	69.2	61.3	59.4	58.1	57.3	62.2	67.8
(10) Indirect taxes net of subsidies	7.8	7.6	7.8	7.2	6.8	7.0	7.1	7.1	8.0
(11) NET NATIONAL PRODUCT at market prices	85.2	80.9	77.0	68.5	66.2	65.1	64.4	69.3	75.8
(12) Depreciation allowances <sup>d</sup>	8.2	8.4	8.1	8.2	7.7	7.5	7.6	8.0	8.9
(13) GROSS NATIONAL PRODUCT at market prices	93.4	89.3	85.1	76.7	73.9	72.6	72.0	77.3	84.7

<sup>a</sup>Distributed (dividends etc.) and undistributed profits of corporations before taxes.

<sup>b</sup>Interest payments on credit for productive purposes, net of operating cost of financial intermediaries.

<sup>c</sup>Net of costs of operation, including the corresponding rental value of owner-occupied dwellings and farm-houses.

<sup>d</sup>Compare section 5, Estimate of National Reproducible Wealth.

**TABLE 1**  
**NATIONAL INCOME AND PRODUCT ACCOUNT (continued)**  
(thousand million of Kč at current costs or prices)

Years	1929	1930	1931	1932	1933	1934	1935	1936	1937
<b>(B) Division by type of expenditure</b>									
(14) Private consumption <sup>e</sup>	63.2	62.8	60.5	58.2	55.9	54.2	54.5	55.6	57.5
(15) Public consumption <sup>f</sup>	10.3	10.1	10.6	10.2	9.3	9.5	10.4	12.0	13.7
(16) Gross domestic fixed capital formation <sup>g</sup>	18.1	15.9	13.9	10.0	7.7	7.8	8.1	10.6	14.5
(17) Net foreign investment <sup>h</sup>	0.3	1.2	0.6	-0.5	-0.2	0.7	0.2	-0.5	0.4
(18) TOTAL	91.9	90.0	85.6	77.9	72.7	72.2	73.2	77.7	86.1
(19) Statistical discrepancy = hypothetical increase in stocks <sup>i</sup>	1.5	-0.7	-0.5	-1.2	1.2	0.4	-1.2	-0.4	-1.4
(20) GROSS NATIONAL PRODUCT at market prices	93.4	89.3	85.1	76.7	73.9	72.6	72.0	77.3	84.7

<sup>e</sup>Including the imputed market value of owner-occupied dwellings and of home-grown food consumed by farm families. The computation is based on the analysis of family incomes and expenditures (workers', employees' and farmers' sample) and of the retail trade turnover. Figures based on the sample statistics are checked with the corresponding income aggregates, and the regional differences between the industrialized western provinces and the less developed east are taken into account.

<sup>f</sup>State and local government noninvestment expenditure on goods and services and the same expenditure of social insurance agencies.

Of the total (years as in the table):

Expenditure on:

Services	6.3	6.8	6.8	6.8	6.3	6.2	6.6	6.7	6.9
Goods	4.0	3.3	3.8	3.4	3.0	3.3	3.8	5.3	6.8

<sup>g</sup>Hereof (years as in the table):

Construction	7.9	7.6	7.6	6.7	4.6	4.1	3.5	4.6	5.7
Machinery and equipment	10.2	8.3	6.3	3.3	3.1	3.7	4.6	6.0	8.8

<sup>h</sup>Exports of goods and services less imports of goods and services; hereof:

Exports	23.0	19.7	15.0	8.7	6.9	8.4	8.8	9.5	13.7
Imports	22.7	18.5	14.4	9.2	7.1	7.7	8.6	10.0	13.3

<sup>i</sup>Checked with other sources (physical output of agriculture and industry, general index of sales, and increase in stocks of corporate enterprises).

The difference between the national income by industrial origin (Table 2) and the national aggregates by distributive shares and by type of expenditure (Table 1) can be explained by the only implicit and therefore inappropriate treatment of indirect taxes and net income from abroad in the computation of Table 2. This explanation can be elucidated in the following comparison (Table 3).

This chapter can be concluded by the comparison of relative productivity (measured as the value added per person engaged) in the main groups relevant to the morphology of economic growth<sup>3</sup>. In comparison with Table 2, the item

<sup>3</sup>Compare Colin Clark, *Conditions of Economic Progress*, first edition, London 1940.

dwellings (i.e. services of existing flats)—having no corresponding numbers of producers—is omitted and the total value of services is subdivided into (a) commercial (i.e. with regard to the market economy—heteronomous) and (b) budget (i.e. autonomous) services. In this last subgroup the value added represents factor cost rather than productivity.

TABLE 2  
NATIONAL INCOME BY INDUSTRIAL ORIGIN IN 1930

	Thousand million of Kč	Percentage
(1) Agriculture and forestry	16.7	22.2
(2) Mining and manufacturing	28.4	37.9
(3) Building and construction	4.6	6.1
SUBTOTAL: Primary and secondary production	49.7	66.2
(4) Transportation and communication	4.8	6.4
(5) Wholesale and retail trade	4.6	6.1
(6) Restaurants, hotels and personal services	2.1	2.8
(7) Banking and insurance	1.8	2.4
(8) Professions	1.5	2.1
(9) Paid household services	0.5	0.7
(10) Dwellings (owned and rented)	3.2	4.3
(11) Government (state and local)	6.8	9.0
SUBTOTAL: Tertiary production	25.3	33.8
<b>TOTAL</b>	<b>75.0</b>	<b>100.0</b>

TABLE 3  
DIFFERENCES BETWEEN THE TOTALS OF TABLES 1 AND 2  
(thousand million of Kč)

Main Aggregates		Differential Items	
Domestic income	73.9		73.9
National income by industrial origin	75.0	Turnover tax and similar charges	4.4
		Other indirect taxes	3.2
		Net income from abroad	-0.6
Net national product	80.9		80.9

### 3. NATIONAL INCOME IN REAL TERMS

The conversion of nominal values to real terms is undertaken in the consideration that no simple one-way solution can bring about a plausible result.

The advantage of a many-sided approach in summing up the national aggregates in nominal values can be equally utilized in computing the same aggregates in real terms. Here, similarly, several methods can be envisaged:

- (a) statistical deflation of GNP by type of expenditure,
- (b) statistical deflation of GNP by industrial origin,
- (c) weighted average of the physical output by industrial origin.

A statistical deflation of distributive shares meets with hardly surmountable obstacles; usually only wages, salaries and farmers' income can be computed in real terms.

In our test-case, adequate data are available for two methods only,—i.e. statistical deflation of GNP by type of expenditure, and weighted average of physical output by industrial origin.

Both resulting national income aggregates—gross national expenditure in constant prices (Table 5) and national product volume (Table 6) after being mutually checked and compared with employment statistics (Table 7) represent, in our opinion, a relatively fair approximation to economic development in reality.

TABLE 4  
VALUE ADDED PER PERSON ENGAGED IN 1930

Production (Economic group)	Persons Engaged <sup>a</sup>		Value Added		Productivity	
	Number per 1,000	Percen- tage	Thousand million of Kč	Percen- tage	Kč per person engaged	Relative value
Primary	2,675	40.0	16.7	23.2	6,240	0.58
Secondary	2,524	37.8	33.0	46.0	13,070	1.22
Tertiary:						
Commercial services	1,046	15.6	15.3	21.3	14,630	1.36
Budget services <sup>b</sup>	438	6.6	6.8	9.5	15,520 <sup>c</sup>	1.44 <sup>c</sup>
TOTAL	6,683	100.0	71.8	100.0	10,745	1.00

<sup>a</sup>Workers, employees, working owners and helping family members.

<sup>b</sup>Incl. military pay and allowances.

<sup>c</sup>Here factor cost.

All price indices used for the statistical deflation are official indices published in the statistical yearbooks. The nominal values to be deflated are those of section 2 of this paper. As indicators of the physical output in the primary and secondary production, indices computed by special pre-war agencies (agriculture, industry, construction) are used, completed—when necessary (as in the case of industry)—by supplementary computations. The indices of the physical output in tertiary production (services) are computed on the basis of primary data in the statistical yearbooks.

The computation methods and sources are described in the footnotes to the individual items of subsequent tables.

The index of physical output which has been computed on the basis of more detailed evidence seems to reflect the volume of national production more adequately than the gross national expenditure in constant prices. However, neither the differences in the quality of computation methods, nor those in the magnitudes of results are so significant that the arithmetic average of the two series should not be considered the most acceptable indicator. This conclusion

is corroborated by the development of employment of workers and employees, covering almost 60% of the total labour force in 1930.

Whereas the difference between the volume of GNE and the physical output is due mostly to the inaccuracies of the computing methods, the difference between the average of these series on one side, and the employment index on the other side, reflects two phenomena widely observed in other countries during the business cycle:

TABLE 5  
GROSS NATIONAL EXPENDITURE IN CONSTANT PRICES  
(thousand million Kč of 1929)

Years	1929	1930	1931	1932	1933	1934	1935	1936	1937
(1) Private consumption <sup>a</sup>	63.2	62.9	63.6	62.0	60.3	59.2	57.6	58.3	59.3
(2) Public consumption <sup>b</sup>	10.3	10.5	11.4	11.3	10.4	10.7	11.5	13.6	15.2
(3) Gross domestic fixed capital formation <sup>c</sup>	18.1	16.6	15.8	11.8	9.6	10.2	10.5	13.2	16.8
(4) Other capital formation <sup>d</sup>	1.8	0.6	0.1	-2.3	1.4	1.5	-1.3	-1.2	-1.2
(5) Gross national expenditure	93.4	90.6	90.9	82.8	81.7	81.6	78.3	83.9	90.1

<sup>a</sup>Figures in current prices deflated by the cost of living of the workers' and employees' families, the weights being 4 : 1 (on the assumption that these two consumer patterns represent in the stated proportion the whole population; this assumption is corroborated by a more detailed analysis of consumer expenditure undertaken in connection with the computation of private consumption in current prices).

<sup>b</sup>Public expenditure on goods deflated by the index numbers of wholesale prices; public expenditure on services (salaries of civil servants and military personnel) is supposed to have the same real as nominal value; this assumption is based on the following considerations: (a) neither the numbers of employees in this category, nor the aggregate nominal value of their earnings underwent any appreciable fluctuation; (b) the only possible operation, i.e., statistical deflation by means of a cost of living index, would reflect the development of real purchasing power and not the development of the physical output of services which is the result required in this context.

<sup>c</sup>The investment in building and construction and the investment in machinery and equipment are deflated separately by specific price indices.

<sup>d</sup>Net investment abroad and increase in stocks deflated by the general index of wholesale prices.

(a) The changes in employment of workers and employees are more sensitive to economic fluctuations than the changes in the remaining labour force (i.e. working owners and helping family members).

(b) The picture of productivity as measured per man in work is distorted by the wide use of short time work during the depression years. Nevertheless, the development during the whole business cycle allows the plausible conclusion that productivity (at least per man-hour) grew steadily.

With the above mentioned reservations the figures in Table 7 may be envisaged as mutually consistent and fairly reflecting the real development of aggregate economic activity during the period concerned.

TABLE 6

PHYSICAL OUTOUT OF GOODS AND SERVICES  
(Index numbers: 1929 = 100.0)

Branches	Weights	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
(1) Agriculture	22	101.0	90.6	100.7	100.0	97.4	95.9	91.4	103.5	96.2	82.1	85.2	98.6
(2) Industry	38	80.0	89.7	97.2	100.0	90.4	83.3	66.7	62.8	68.9	72.2	81.0	97.0
(3) Construction	6	58.5	87.3	134.0	100.0	84.4	110.0	117.9	65.6	52.8	43.2	66.6	73.6
(4) Transport and communication	7	84.2	88.2	94.9	100.0	96.4	87.7	79.8	72.4	72.3	70.8	80.1	99.6
(5) Trade	6	—	—	—	100.0	102.2	112.3	114.6	116.7	119.1	120.2	121.4	126.4
(6) Other commercial services	3	—	—	—	100.0	97.4	96.2	94.9	93.0	93.1	91.3	91.3	92.8
(7) Banking	2	85.0	89.7	100.5	100.0	94.4	92.6	84.3	81.5	81.7	79.0	86.2	98.9
(8) Professions	2	73.0	84.0	90.0	100.0	109.0	102.0	87.0	80.0	78.0	82.0	86.0	94.0
(9) Dwellings	5	91.0	93.0	96.0	100.0	103.0	106.0	110.0	111.0	113.0	114.0	116.0	118.0
(10) Government	9	92.5	(95.0)	(97.5)	100.0	101.0	(101.0)	(98.0)	(95.0)	(93.0)	95.0	97.0	101.0
(11) Total Hereof:	100	85.7	90.7	100.2	100.0	95.0	93.4	86.6	82.7	82.7	80.5	87.2	99.1
(12) Goods	66	85.0	89.8	101.7	100.0	92.2	89.9	79.5	76.6	76.5	72.9	81.1	95.4
(13) Services	34	87.7	91.3	96.1	100.0	100.3	100.1	100.2	91.8	92.0	92.5	99.0	106.3

Notes on the following page.

Notes to Table 6:

- (1) *Agriculture*: this is a fairly comprehensive total (plant and animal production in 1931–1932 prices), computed by the pre-war Institute of Agricultural Accountancy and Economy in Prague and published in its monthly Reports, ear 1938 No. 4. On the computation method, see J. Bruthans, *Hodnota zemědělské výroby v Československu* (The value of agricultural production in Czechoslovakia), *Obzor národohospodářský*, 1938 No. 1. The figures for the last two years are corrected with regard to the statistics of State corn monopoly purchases.
- (2) *Industry*: a weighted average of 44 physical indicators representing the output of about 93% (estimate of the value added) of the industrial production (published currently in the monthly *Obzor národohospodářský*—Economic Review) and supplemented by the further 3 indicators (flour, sugar, alcohol) representing the remaining food processing industry not covered by the original index. On the construction of the original index see K. Maiwald, *Index průmyslové výroby* (Index of industrial production), *Obzor národohospodářský* 1934, No. 6.
- (3) *Construction*: index of newly constructed flats in residential agglomerations with over 5,000 (since 1931) or 10,000 (before 1931) population respectively; both indices (computed by the Statistical Office and published in its Statistical Yearbooks) in comparison with other similar indicators of building activity (newly constructed rooms since 1932, value of overall building activity since 1929 deflated by construction costs), are a fairly adequate representation of the branch concerned. On the overall building activity see M. Stádník, *Národní důchod a jeho rozdělení* (National income and its division), page 241.
- (4) *Transport and communication*: a weighted average of six physical indicators (weights computed on the basis of receipts in 1930 are given in brackets): number of ton-kms in railway traffic (50), number of passenger-kms in the same traffic (20), number of persons conveyed by buses or (before 1933) number of buses in use (5), number of packets delivered by post (10), number of posted letters (10), number of telephone-posts (5); source: Statistical Yearbooks.
- (5) *Trade*: the physical output of services is supposed to be given by the number of persons engaged (employees, owners and helping family members); the indices are computed from a sample covering about 15% of persons engaged in 1930. Source: Maiwald, *Vnitřní obchod během poslední hospodářské krise* (Internal Trade during the last Economic Crisis) Praha 1940, Tabular appendix. These figures have been checked with the insurance statistics of employees in administrative and commercial services of private enterprises. The number of these persons of whom in 1930 more than a third was employed in trade grew almost steadily during the whole period; only from 1932 to 1933 there was a slight decline; the index stood in 1937 at 135.2 (1929 = 100).
- (6) *Other commercial services*, as hotels, restaurants, hairdressers and other personal services: the only statistical series of this group in real terms being that of unemployment, a complementary value of it is chosen as a representative indicator of the physical output of services under this heading. Source: Statistical Yearbooks.
- (7) *Banking and insurance*: in absence of any real indicators, the assumption is made that the volume of financial intermediaries' services correspond to the development of other economic activities; therefore the physical output index of this branch is computed as a weighted average of all other economic branches, with the exception of government services (i.e., all the branches mentioned in the previous notes plus professions and dwellings, the weights being the same as in the resulting index of national product).
- (8) *Professions, incl. cultural enterprises*: the number of persons put up in private sanatoriums and the amount of the levies on entertainment, summed up as a simple average of the respective indices. Because of the stable rate of levy during the period concerned, this nominal indicator is supposed to be identical with the real development. Source: Statistical Yearbooks.
- (9) *Dwellings*: the physical output is given by the number of flats in use; the index is computed on the basis of the census figures in 1930 (in 115 residential agglomerations covering 27% of all households in the Czechoslovak republic) and of the flats accruals in 75, since 1931 in 133 agglomerations. Source: Statistical Yearbooks.
- (10) *Government*: as in trade, the number of persons employed. Government employees' statistics with complete coverage are only those for the years 1930 and 1935–1937. The special census of government employees in 1926 excludes all the local governments; therefore the same proportion of state- and local-government employment as in 1930 is supposed. Figures for the other missing years have been interpolated with the help of incomplete statistics of social insurance agencies.

*Weights*: the weights are identical with the relative contributions of all the branches to the national income divided by industrial origin (Table 2).

#### 4. APPRAISAL OF RESULTS

The structure of the gross national expenditure both in current prices (Table 1B) and in constant prices (Table 5) reveals the usual pattern of development during the business cycle. Domestic capital formation drops, during the leanest years, to the level of necessary repair and maintenance. The recovery of 1937 does not reach the level of the preceding boom.

Private consumption is less sensitive to the depression; its retarded decline is due partially to the usual time-lag in the income-expenditure pattern, and partially, to the unintended deficit spending in 1931 resulting from previous legal commitments.

TABLE 7  
COMPARISON OF TWO COMPUTATIONS IN REAL TERMS AND OF EMPLOYMENT  
(Index numbers: 1929 = 100)

	1930	1931	1932	1933	1934	1935	1936	1937
(1) Gross national expenditure (Table 5)	97.0	97.3	88.7	87.5	87.4	83.8	89.8	96.5
(2) Physical output (Table 6)	95.0	93.4	86.6	82.7	82.7	80.5	87.2	99.1
(3) Average of Row 1 and 2	96.0	95.3	87.6	85.1	85.0	82.1	88.5	97.8
(4) Employment (workers and employees) <sup>a</sup>	98.9	94.9	87.0	80.4	79.3	80.4	85.4	92.5

<sup>a</sup>Private and government but exclusive of members of the armed forces.

Public consumption, being to a certain degree an autonomous factor in the interdependencies of the market economy, appears to be the steadiest component of GNE during the depression. Its decline after 1932 is comparatively insignificant. The steep increase, especially of expenditure on goods (Table 1B, note *f*) since 1935 is due to the growing defence needs under the Nazi menace.

The structure of physical output (Table 6) reveals many differences in the rhythm of the individual series during the business cycle. The most conspicuous differences are those (1) between primary production (agriculture) and secondary production (mining, manufacturing and construction) and (2) between the total output of goods and the total output of services.

Whereas the special rhythm of agricultural production, due to the hazards of nature<sup>4</sup>, is self-evident, the development of services, far less sensitive to the business cycle than secondary production, calls for special consideration.

The steadily growing output of retail and wholesale trade services depends, in our computation, on the increasing number of persons engaged in both branches. This phenomenon is due to the following reasons: (a) big industrial enterprises used to open their own retail-shops in times of decreasing demand, (b) persons excluded from work in the production of goods sought refuge in independent commercial activity.

<sup>4</sup>This effect is especially noticeable in 1935, when the poor harvest of 1934-1935 influenced in a decisive way the over-all index of the national product.

However, the real value of increasing trade services has to be discounted for the fact that the volume of goods conveyed in such a way to the customers lagged behind and even dropped in the worst years of the depression. The diminishing volume of sales intensified trading activity and therefore improved the quality of services which, however, were not used to their full extent. The gap between the volume of services offered and received can be demonstrated by a comparison of persons engaged and volume of goods sold (Table 8). Figures contained in this table reveal also the comparatively successful stand of wholesale trade, the statistics of which, however, are derived mainly from the enterprises serving the home market.

TABLE 8  
INDICES OF TRADE ACTIVITY AND SALES  
in real terms (1929 = 100)

	1930	1931	1932	1933	1934	1935	1936	1937
(1) Persons engaged	102.2	112.3	114.6	116.7	119.1	120.2	121.4	126.4
(2) Retail sales <sup>a</sup>	103.1	106.6	103.4	100.4	99.5	97.4	100.0	104.3
(3) Wholesale turnover <sup>b</sup>	105.8	104.7	104.1	97.6	93.9	91.6	98.3	104.9

<sup>a</sup>Nominal values deflated by the index of retail prices (cost of living, from which rent and other services have been excluded).

<sup>b</sup>Nominal values deflated by the index of wholesale prices.

The high level of the retail and wholesale trade turnover, in comparison with the foreign trade (Table 9), indicates the degree of reorientation of the national economy towards the home market<sup>5</sup>, and in comparison with investment, the enhanced propensity to consume<sup>6</sup>.

After 1931 the drop in foreign trade was most conspicuous, followed closely by the decline of freight transport and investment. Later on, the transport of goods moved along the middle road between retail and wholesale turnover on one side, and exports and imports on the other, until in 1937 it attained almost the level of the former. These changes reveal how far, in the early thirties, freight transport was dependent on the volume of exported and imported goods, when the home market was largely supplied from the stocks of trade enterprises. Also, the incipient recovery of freight transport was more connected with the foreign trade, although the home market was more important in determining the magnitude of the recovery attained.

Since 1932 the second largest decline was domestic fixed investment, with the lowest level, as in foreign trade and freight transport, in 1933. The recovery of investment was much more pronounced than the recovery of foreign trade, the level of which, in 1937, attained only about two thirds of its 1929 volume.

The physical output of goods (primary and secondary production) reveals also the growing dependence on the requirements of the home market with its

<sup>5</sup>In 1929, retail trade turnover amounted approximately to 30 thousand million Kč, the same as the value of exports and imports.

<sup>6</sup>The same shift, evidently, is revealed in Tables 1B and 5 as well.

**TABLE 9**  
**VOLUME OF PRODUCTION, DISTRIBUTION AND THE FINAL USE OF GOODS**  
 (1929 = 100)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
(1) Physical output of goods <sup>a</sup>	85.0	89.8	101.7	100.0	92.2	89.9	79.5	76.6	76.5	72.9	81.1	95.4
(2) Volume of transport of goods <sup>b</sup>	82.8	90.4	96.8	100.0	90.5	79.8	62.9	56.7	62.3	68.8	74.8	97.8
(3) Volume of exports <sup>c</sup>	84.9	92.7	97.5	100.0	94.7	76.1	46.6	38.6	47.3	45.8	50.1	72.1
(4) Volume of imports <sup>d</sup>	71.5	84.9	91.6	100.0	92.6	83.0	56.8	43.6	45.6	46.8	53.5	65.5
(5) Volume of wholesale trade turnover <sup>e</sup>	—	—	—	100.0	105.8	104.7	104.1	97.6	93.9	91.6	98.3	104.9
(6) Volume of retail-trade turnover <sup>f</sup>	—	—	—	100.0	103.1	106.6	103.4	100.4	99.5	97.4	100.0	104.3
(7) Volume of gross domestic fixed investment <sup>f</sup>	—	—	—	100.0	91.7	87.3	65.2	53.0	56.5	58.0	72.9	92.8

<sup>a</sup>Table 6, Row 12.

<sup>b</sup>Ton-kms in railway traffic.

<sup>c</sup>Value of exports deflated by the general index of wholesale prices (therefore a very rough approximation only).

<sup>d</sup>Value of imports deflated by the special price index of imported goods.

<sup>e</sup>Table 8.

<sup>f</sup>Index computed from Table 5, Row 3.

lowest point in 1935. On the whole, the development of this index corresponds roughly to the weighted average of the other series in Table 9.

Besides trade, another type of services with particular development in our case study are dwellings. Conceived as services provided by existing flats (i.e. part of national wealth) they do not depend so much as other components of economic flows on market fluctuations. Expenditures on dwellings are comparatively fixed costs of household accounts. Our index of existing flats (Table 6, Row 9) reflects this fact so far as these flats are really occupied. Under the conditions of the buyers market there remained always a number of flats unrented, and this portion grew during the years of depression. Nevertheless, with regard to the total of dwellings, rented and owner-occupied, the part composed of flats out of use can be regarded as comparatively negligible.

All the remaining branches of tertiary production (Table 6, Rows 4, 6, 7, and 8) are more or less positively sensitive to the business cycle, i.e. they fluctuate, with a few exceptions, in accordance with the development of secondary production. This is in the first place the case of transport, especially freight (see Table 9, Row 2). In case of banking, however, the parallel is given *a priori*, by statistical definition and not on the basis of independent computation. The groups of other commercial services and professions follow the same line of development, although the former with less pronounced variations, and the latter with considerable time-lag; however, the statistical basis of both indices is not broad enough to allow a more reliable conclusion.

A special note is needed on the services of government agencies. Unlike public expenditure in constant prices (Table 5, Row 2), the physical output of state and local government services is more in accordance with the general development of the business cycle. The difference is due to the purchases of goods, especially for defence purposes which were then the main autonomous factor in the government expenditure. With regard to civil expenses, both on goods and services, the government proceeded independently of the shrinking market only in the first years of the depression, seemingly underestimating the depth and the duration of the crisis ahead. With the slackening demand and with money supply getting scarcer, the government tried to restrict its expenditure to the level of its revenues, although not very successfully, without being aware that just the opposite policy should be pursued under the conditions of a deflationary gap. Only needs of defence were imperative enough to overcome the careful attitude of the fiscal authorities; these embarked after 1935 on deficit spending through extending credits.

In spite of the fact that the national income divided by distributive shares cannot be computed in real terms, some outstanding features of its development can, nevertheless, be revealed by means of auxiliary statistics. In analysing the development of individual distributive shares (Table 1, A), we are struck by two major changes of proportions: a conspicuous decrease of farmers' income (from 21.3% of domestic income in 1929 to 14.3% in 1937) and a surprising increase of rent and rental value of owner-occupied dwellings (from 2.7% to 9.8% of the same total in the same period). These changes cannot be explained (as can be easily seen in Table 6) by the development in real terms. Agricultural production in 1937 was in line with the general index of national product which in that year

almost attained the 1929 level, and the services of existing flats were only 18% above the 1929 level. It follows that the change in the shares in nominal values must have been caused by differentiated price movement. This conjecture, in case of dwellings already corroborated by the method of computation of rents in nominal value, can be, in both branches concerned, tested by the price-cost ratio development (Table 10). In order to get a more comprehensive view of the tendencies in question, the price-cost ratios of the last pre-war year and the general indices of wholesale prices and of cost of living are added.

TABLE 10  
PRICE-COST RATIO IN AGRICULTURE AND DWELLINGS

Year (1)	Agriculture			Dwellings			General Price Level	
	(2) Prices	(3) Costs	(4) Ratio (Column 2 : 3)	(5) Rent <sup>a</sup>	(6) Construc- tion Costs	(7) Ratio (Column 5 : 6)	(8) Whole- sale Prices	(9) Cost of Living <sup>b</sup>
1914 <sup>c</sup>	13.1	10.6	1.23	24.4	10.0	2.44	11.0	13.5
1926	102.0	95.7	1.07	72.7	90.6	0.80	103.3	96.1
1927	111.3	98.9	1.12	74.4	92.7	0.80	106.1	99.7
1928	106.4	100.5	1.06	82.7	103.6	0.80	106.1	99.8
1929	100.0	100.0	1.00	100.0	100.0	1.00	100.0	100.0
1930	85.9	95.7	0.90	115.1	95.4	1.21	88.8	99.8
1931	76.9	90.8	0.85	138.0	88.2	1.56	80.6	95.1
1932	66.4	87.8	0.76	151.5	86.4	1.75	74.5	93.8
1933	64.6	83.2	0.77	161.2	83.1	1.94	72.2	92.7
1934	66.7	80.7	0.83	167.8	76.0	2.21	74.0	91.6
1935	75.7	82.4	0.92	179.0	76.1	2.35	77.2	94.5
1936	76.7	82.6	0.93	177.1	77.7	2.28	77.4	95.4
1937	74.3	83.6	0.89	179.8	84.0	2.14	82.0	96.9

<sup>a</sup>The weighted average of the free market and state-regulated rent (stop-rent) of a worker's family flat.

<sup>b</sup>Inclusive rent; weighted average of the indices pertaining to the worker's and employee's family.

<sup>c</sup>In agriculture average of 1913-1914, otherwise July of 1914.

Whereas, in the years of slackening demand, the prices of agricultural products lagged behind costs, and even in the recovery years did not catch up with the 1929 ratio, the rent-construction costs ratio moved steadily on, from 1929 to 1935, in favour of house-owners. However, here it has to be borne in mind that the rent-construction costs ratio was strongly influenced in favour of tenants by the legislation of the early twenties. Taking as a base the last year of "normal" conditions (in the sense of free market economy) which is the first half of 1914<sup>7</sup> we can see how the gradual abolition of rent control during the early thirties made it possible for rents to catch up with construction costs in 1935. This was, accidentally, the worst year of the depression, measured by the most comprehensive of our indicators (compare Table 7).

<sup>7</sup>The base of the respective indices is July 1914 = 100.

Quantitatively, however, only the big increase in average rent, not proportionate to the construction cost and to the general price development, combined with the 18% increase in the stock of flats, can explain the big increase in the proportion of rent and rental value of owner occupied dwellings in the domestic income. The deterioration of price-cost ratio in agriculture cannot sufficiently explain the big decrease of farmers' share in the national income. Here, a further factor has to be taken into consideration, *viz.* the structure of agricultural production and prices. Whereas, in the harvest year 1936–1937, the real volume of the plant production was at 90% and prices at 82% of the 1928–29 level, the real volume of animal production was at 108% and prices at 67% in the same period respectively. These changes also contributed considerably to the decrease of farmers' share in the national income. This drop, however, has to be interpreted with regard to the decreasing number of farmers which, unfortunately, cannot be statistically assessed in the period concerned.

##### 5. A TENTATIVE ESTIMATE OF THE REPRODUCIBLE NATIONAL WEALTH

Whereas the flow of economic values as reflected by the national income and product accounts, both in nominal and in real terms, allows on the whole a satisfactory expression in numbers, the quantification of the stock of economic values remains, more or less, a field of guesses.

The first attempt of this kind in Czechoslovakia was undertaken by the State statistical office in the early twenties, on the request of the League of Nations under the auspices of Professor Corrado Gini. The subject of the estimate was not only the reproducible wealth, but all private and public property on the territory of the Czechoslovak Republic shortly before World War I. The method used for this computation was that of Professor F. Fellner<sup>8</sup> and was based partly on the estimated capitalization of yields, partly on estimated purchase costs. The result, with the description of the computation method, has been published by František Bíbl in the *Československý Statistický Věstník* of 1927<sup>9</sup>.

Since that time, only partial attempts have been undertaken to estimate the national wealth. Agriculture in particular was the field of thorough-going studies, conducted mainly by the Czechoslovak Agricultural Academy and the Institute of Agricultural Accountancy and Economy.

A general quantification of national reproducible wealth was not realized until 1954, when the government of the Czechoslovak Republic ordered a general inventory of all investment stock on the date of January 1st 1955. The results of this inventory, in million Kčs of 1955, developed into a time-series stretching from 1948 to 1965, are published in the *Statistical Yearbook* of 1966<sup>10</sup>.

As regards the period under discussion, an estimate of the reproducible wealth has been undertaken by the author of this study, in connection with the evaluation of depreciation allowances (see Table 1, Row 12). The starting point

<sup>8</sup>Friedrich von Fellner, "Das Volksvermögen Österreichs und Ungarns," *Bulletin de l'Institut International de Statistique*, Tome XX, 2e livraison, 1915.

<sup>9</sup>*Bulletin Statistique de la République Tchécoslovaque*, VIII Année, Praha 1927.

<sup>10</sup>*Statistická ročenka ČSSR* 1966, Praha 1966.

has been the estimate of national wealth in 1930 (Table 11), based on different sources quoted in the notes to the resulting table. In addition, the capital-product ratio is computed and, in this way also, the plausibility of the estimate is tested.

The coverage of this estimate corresponds, on the whole, to the post-war concept of investment funds assessed by the above mentioned general inventory; the value of land and of circulating capital (stocks etc.) are in both cases not included.

TABLE 11  
NATIONAL REPRODUCIBLE WEALTH IN 1930 AND ITS RATIO TO GNP  
(thousand million of Kč)

(1) Agriculture <sup>a</sup>	—	45.3	—
(2) Mining, manufacturing and construction <sup>a</sup>	—	62.3	—
(3) Transport and communication <sup>b</sup>	—	21.5	—
Of which: (a) State Enterprises <sup>c</sup>	17.3	—	—
(b) Private Enterprises	4.2	—	—
(4) Trade	—	5.0	—
(5) Other commercial services and professions	—	5.0	—
(6) Banking and insurance	—	1.5	—
(7) Dwellings	—	94.0	—
(8) State government property <sup>d</sup>	—	5.7	—
(9) Local government property <sup>e</sup>	—	9.7	—
(10) Total reproducible capital	—	—	250.0
(11) Gross national product (Table 1, Row 13)	—	—	89.3
(12) Capital-product ratio (Row 10: Row 11)	—	—	2.8

<sup>a</sup>Inclusive of state-owned enterprises.

<sup>b</sup>Exclusive of local government-owned enterprises.

<sup>c</sup>Railway and post.

<sup>d</sup>Without state-owned enterprises.

<sup>e</sup>Inclusive of local government-owned enterprises but exclusive of dwellings.

*Sources and methods for Table 11:*

- (1) *Agriculture*: K. Osaulenko, "K stanovení zemědělského jmění v Československu" (To the Evaluation of the Agricultural Property in Czechoslovakia), *Věstník československé akademie zemědělské* (Bulletin of the Czechoslovak Academy of Agriculture), 1938, No. 1-2, page 17. From this estimate, however, are excluded: the value of land (but not of improvements and additions), two-thirds of buildings (estimated as dwellings and included under our heading 7), and all circulating capital.
- (2) *Mining, manufacturing and construction*: the estimate is based on the combination of investment per person employed in stock companies in 1930 (primary source) and investment per working person in 1950 (auxiliary source); the resulting estimate is multiplied by all persons engaged in 1930. Sources: Statistical Yearbooks.
- (3) *Transport and communications*: (a) state enterprises (railway and post)—closing budget accounts; (b) private enterprises—an estimate on the base of the same capital-worker ratio as in the state-post.
- (4) *Trade*: estimated capitalization of depreciation allowances computed analogically with the statistical results of 1941 (Czech inland provinces only).
- (5) *Other commercial services and professions*: about one half of the capital-employee ratio in trade.
- (6) *Banking and insurance*: Balance sheets of the stock- and other companies (Statistical Yearbooks).
- (7) *Dwellings*: double computation method: (a) average rent multiplied by the average life-time of a flat building; result: 91-97 thousand million Kč; and (b) an approximate evaluation in Kč of dwellings in different types of residential agglomerations (average value of a flat being 26,000 Kč); result 94.5 thousand million Kč.
- (8) and (9) Statistical Yearbooks.

The depreciation allowances shown in Table 1 are computed on the base of the national reproducible wealth estimate and include only technical (industrial and construction) and not biological depreciation. (The latter comes into consideration in the case of livestock and growing crops in agriculture.) The respective yearly amortization percentages are then evaluated, with regard to the structure of investment in individual branches, as follows: agriculture 3%, mining, manufacturing and construction 6%, transport and communication 5%, trade and other commercial services 4%, local government property 2%, and all the remaining items 1.5%.

By combining the value of reproducible capital stock with the flow of net investment in the individual years and recalculating it to the price base of 1930, we get an estimate of national reproducible wealth from 1929 to 1937 in real terms (Table 12). Having, however, no possibility of checking these data by means of another approach and computation method—as was the case with the national product—we have to be more careful in interpreting these figures. And, because the value of domestic fixed investment does not include changes in livestock (which in 1930 represented about 5% of real reproducible wealth), the development of this component, measured in natural standard units, is added as a separate item.

TABLE 12  
THE DEVELOPMENT OF NATIONAL REPRODUCIBLE WEALTH IN REAL TERMS

Years	1929	1930	1931	1932	1933	1934	1935	1936	1937
(A) Thousand million Kč of 1930									
(1) Real capital at the beginning of the year	233.1	242.5	250.0	256.3	258.3	258.1	258.4	259.0	262.1
(2) Gross domestic fixed investment	17.3	15.9	15.1	11.3	9.2	9.7	10.0	12.6	16.1
(3) Depreciation	7.9	8.4	8.8	9.3	9.4	9.4	9.4	9.5	9.8
(4) Real capital at the end of the year (row 1 + 2 - 3)	242.5	250.0	256.3	258.3	258.1	258.4	259.0	262.1	268.4
(B) Indices (1929 = 100)									
(5) Real capital	100.0	103.0	105.6	106.3	106.3	106.3	106.8	107.8	110.7
(6) Live-stock <sup>a</sup>	100.0	99.3	99.0	97.8	96.2	101.1	97.5	95.6	103.3

<sup>a</sup>Cattle, horses and pigs.

## 6. CONCEPTUAL DIFFERENCES

As the final aspect of the intertemporal comparison of national income, the conceptual problem should be briefly touched on. As stated in the introductory section, national income and gross social product aggregates published in the post-war Statistical Yearbooks are conceived as the monetary equivalent of the labour value, i.e., the objective exchange value resulting from productive work in accordance with Marx's understanding of this concept. In this sense, as it is maintained, only that work can be classified as productive which results in

material products, separated from the working process. This means that productive output includes only (a) work in production of goods, and (b) services directly connected with transport and distribution of these goods<sup>11</sup>. Other services are implicitly included in the national income only so far as they enter as costs into the prices of material goods and services; in such a case, they do not form a separate item but are included in the net value of the respective productive branches which then consequently exceed the value added in the UN concept. On the other hand, goods used in non-productive, i.e., non material, branches of consumer services, and the depreciation costs of non-productive buildings have to be counted as a part of the final private or public consumption<sup>12</sup>.

Further it has to be noted that the difference between the gross social product and the national income is not given merely by depreciation allowances. The gross social product is conceived as the sum of the gross production values of all the branches classified as material production, on the base of primary statistical economic units (enterprises). It follows that the smaller these units are, the greater are their mutual input-output relations and consequently the greater is their total—the gross social product.

As stated in the introductory remarks, the statistics of the pre-war period do not allow a reliable computation of the material product and income. Only the statistics of the war-period, covering the inland Czech provinces only, furnish a sufficient base for such a computation.

In order to show the magnitude of differences among the various concepts, under conditions closest to the period under study, four national aggregates

TABLE 13  
COMPARISON OF NATIONAL INCOME AGGREGATES BY INDUSTRIAL ORIGIN  
(Czech inland provinces, 1939, thousand million Kč)

	MATERIAL CONCEPT		UN CONCEPT	
	Gross social product	National income	Gross national product	Net national product
(1) Agriculture and forestry	12.7	10.6	10.4	9.8
(2) Mining, manufacturing and construction	57.0	21.7	22.3	20.1
(3) Trade	10.1	6.6	6.2	6.0
(4) Transportation and communication	2.4 <sup>a</sup>	1.8 <sup>a</sup>	3.9	3.4
(5) Banking and insurance	—	—	1.3	1.2
(6) Miscellaneous services	—	—	1.6	1.5
(7) Dwellings	—	—	3.3	3.1
(8) Government	—	—	5.1	4.9
Total	82.2	40.7	54.5	50.0

<sup>a</sup>Only freight transport and communication services delivered to the material production.

<sup>11</sup>In this connection a classification problem can arise, i.e., as to whether the surplus value realized in trading enterprises should be assigned to them, or whether it should be transferred to the respective productive branches.

<sup>12</sup>The above described interpretation of Marx's productive work concept has been, however, discussed and put into serious doubt in the last two years. Compare esp. Jan Adam, "Národní duchod a služby" (National income and services), *Politická ekonomie*, 1965 No. 11.

(two in material and two in UN concept), itemized as to industrial origin and as to type of expenditure, are compared for 1939 (Tables 13 and 14).

The national product divided by distributive shares, which can be computed only in the UN concept, is added separately (Table 15).

TABLE 14  
COMPARISON OF NATIONAL INCOME AGGREGATES BY TYPE OF EXPENDITURE  
(Czech inland provinces, 1939, thousand million Kč)

	MATERIAL CONCEPT		UN CONCEPT	
	Gross social product	National income	Gross national product	Net national product
(1) Depreciation allowances in the productive branches of economy	3.5	—	3.5	—
(2) Other productive consumption	38.0	—	—	—
(3) Depreciation allowances in the non-productive branches	1.0	1.0	1.0	—
(4) Private consumption of goods	30.8	30.8	30.8	30.8
(5) Private consumption of services	—	—	6.7	6.7
(6) Consumption of goods in connection with services	1.4 <sup>a</sup>	1.4 <sup>a</sup>	— <sup>b</sup>	— <sup>b</sup>
(7) Public consumption of goods	2.7	2.7	2.7	2.7
(8) Public consumption of services	—	—	5.0	5.0
(9) Net domestic fixed investment	3.8	3.8	3.8	3.8
(10) Increase in stocks	1.4	1.4	1.4	1.4
(11) Current transfers to the rest of the world	-0.4	-0.4	-0.4 <sup>c</sup>	-0.4 <sup>c</sup>
TOTAL	82.2	40.7	54.5	50.0

<sup>a</sup>Residual item.

<sup>b</sup>Consumption of goods in connection with consumers' services is included in the private consumption of services; services delivered to business enterprises, being not final, do not form a part of national expenditure in the UN concept.

<sup>c</sup>Foreign trade only. No difference, otherwise inevitable, is shown between the material and the UN concept, due to the lack of a balance of payments account for the respective year and territory.

It is evident from these tables that the total of the material national income is closest to that of the national income at factor cost; structurally, however, these totals are quite different. The material income is evaluated always in market prices; therefore, in its division by distributive shares, the non-material costs and indirect taxes (paid by the material branches of economy) must be included, instead of incomes from all non-material services (forming a component of net national income at factor cost). It depends upon the magnitude of both these groups which total, in the end, will be higher.

It is perhaps also sufficiently demonstrated that the recalculation of one concept to the other (i.e. of the material to the U.N. concept and vice versa) cannot be worked out by a simple addition or subtraction of the critical items. A more detailed analysis of most components forming part of national aggregates has to be undertaken. The differences in the resulting tables are, naturally, not constant (even approximately) magnitudes, but depend on the changing structure

of the economy. The stage of social and economic development and the institutional framework (socio-economic formation) are the main factors in the changing differences between the national income and product concepts over time.

TABLE 15  
NATIONAL INCOME AND NATIONAL PRODUCT BY DISTRIBUTIVE SHARES  
(Czech inland provinces, 1939, thousand million Kč)  
UN concept

(1) Compensation of employees	23.7
(2) Income from unincorporated enterprises in agriculture and forestry	7.9
(3) Other income from unincorporated enterprises	5.3
(4) Corporate profits	1.7
(5) Interest	2.0
(6) Rent	3.1
(7) DOMESTIC INCOME = NATIONAL INCOME at factor cost	43.7
(8) Indirect taxes net of subsidies	6.3
(9) NET NATIONAL PRODUCT at market prices	50.0
(10) Depreciation allowances	4.5
(11) GROSS NATIONAL PRODUCT at market prices	54.5

Le concept de revenu et de produit national aux prix courants, tel qu'il est utilisé par les Nations Unies, classifié par parts distributives et par type de dépenses est donné pour la période 1929-1937. Le revenu national par origine industrielle et la fortune nationale reproductible sont calculés pour l'année 1930. Les différences entre le concept des Nations Unies et le concept matériel sont expliquées à l'aide des données de l'année 1939.

Les séries de produit national en termes réels sont calculées (a) au moyen d'une déflation-prix des types de dépense, et (b) en tant que production physique de biens et services par origine industrielle depuis 1926. Les changements significatifs dans les parts distributives sont expliqués à l'aide de l'analyse prix-coûts.

Le produit national en termes réels atteint son point le plus bas en 1935 et non pas en 1933, ainsi qu'il en ressort de l'analyse des séries de production industrielle et de commerce extérieur. La structure de la dépense nationale brute fait apparaître les mêmes types de changements, ce qui a été observé dans l'autres pays développés pendant le cycle économique.

Le développement du produit national par origine industrielle met cependant à jour certaines particularités frappantes. En particulier, la croissance ininterrompue des services commerciaux (aussi bien en termes de personnes employées qu'en termes d'écoulement à prix constants), est une anomalie dans la période 1929-1937.

De plus, l'augmentation des loyers, attribuée à l'abolition progressive du contrôle des loyers, contraste avec la baisse générale des prix et devait conduire à une modification importante dans la distribution du revenu national pendant le début des années trente. L'autre changement significatif résultant essentiellement de la structure changeante des prix est la diminution de la part des fermiers dans le revenu national.

Les séries de production, de transports, et de distribution en termes réels font apparaître certains décalages. Ceux-ci découlent en partie d'un déplacement du marché extérieur vers le marché domestique, en partie des effets compensatoires de mouvements de stocks, et en partie également des ajustements différés de la part des consommateurs au déclin de leur revenu.