

ON THE NATIONAL INCOME OF IRĀN 1959-1967

Hussein Azimi

Bank Markazi Irān. (The Central Bank of Irān), Economic Research and Statistics Department, *bar avord-e moqaddamati-ye daromad-e milli-ye Irān, 1338-1342* (A Preliminary Estimate of the National Income of Iran 1959-1963)* Tehran, Bank Markazi Iran, Dey 1344 (December 1964-January 1965). Mimeographed.

Bank Markazi Irān. (The Central Bank of Irān), Economic Research Department, *National Income of Irān 1338-1344 (1959-1965)*. Tehran, Bank Markazi Irān, 1347 (1968).

Bank Markazi Irān. (The Central Bank of Irān), Economic Research Department, *National Income of Iran 1962-1967*, Tehran. Bank Markazi Irān, September 1969.

The task of calculating the National Income was initially in the hands of Bank Melli Irān but was transferred to the Bank Markazi (Central Bank) at the time of its foundation in 1960.¹ The object of this article is to review three reports on the national income of Irān in recent years published by Bank Markazi.

Preliminary Estimate of the National Income of Irān, 1338-1346(1959-1963)

This report is divided into five parts. In Part One and Part Two,

*March 21st 1959 to March 20th 1964. In this review the notation for dates used by Bank Markazi's own publications has been used in all instances. Thus, in dates indicating an extensive period the first date begins with March 21st and the second ends with March 20th of the following year.

1. Studies of the National Income, and other calculations which are considered guides to economic activity and criteria for assessing the economic stamina of the country began with surveys made by Robert Page and Ernest Luther, Point IV advisors. These two economists offered the following figures for the Gross National Product:

	Millions of Dollars		
	1955	1956	1957
Robert Page	2,160	2,250	2,490
Ernest Luther			2,300

the national income has been calculated on the basis of national production and Consumption, and in Part Three an analysis of the national income figures has been offered. Part Four deals with the presentation and analysis of samples which may be used in the drawing up of economic plans for the country, and Part Five contains a number of appendices.

In order to calculate national income on the basis of national consumption, the latter has been defined as consisting of four parts: private consumption expenditure; public consumption expenditure; gross domestic capital formation; and net exports, imports and services. The sum of these four represents the gross domestic product from which the gross national income is calculated by adding the net receipts of Iranian subjects from work and capital investment abroad. The cost of depreciation of fixed capital is then deducted from this to obtain the net national product, from which the national income is derived by deducting net indirect taxes.

To collect information on each of these factors a variety of statistical sources have been used. Then, by introducing certain assumptions and estimates results have been obtained which have, in many cases, been generalised and used in the calculation of the national income. A table on pages 29 and 30 of the report in which the national income has been calculated at current prices shows these results, while on pages 33 and 34, figures for the gross national product at constant prices are given.

Pages 35-37 deal with the calculation of the national income on the basis of the national product which has been divided into the following twelve sectors: agriculture, livestock raising, forestry and fishing, manufacture of industrial products, extraction of petroleum products, construction, water and electricity, transportation and communications, insurance and banking, trade, rents of dwelling places, governmental services, other services. A calculation of the value added in these sectors gives the national product, which is reported in a table found on pages 71 to 72.

Part Three of this report, which includes 21 tables and 9 charts (pages 73-96), deals with the analysis of the figures for Iran's national income for the years 1338 to 1342 (1959-1963) and explains the changes in these figures. In Section Four, three models upon the basis of which the economic growth of the country could proceed have been suggested. Relevant calculations based on the objectives of each model which show the amount

of capital required for each case have also been included.

In the first model the aim is to absorb the entire increase in the rural and urban population into non-agricultural activities. In order to attain this aim, and on the basis of the formula for growth suggested, 32 per cent of the gross national product should be allocated to investment within the five-year period of the Fourth Plan. Since the allocation of such a high proportion of the gross national product to investment is considered unfeasible, this objective is rejected as unattainable. In the second model, the first aim has been modified to a gradual absorption of the increased population into non-agricultural activity. In this case 525 thousand million rials is considered to be the necessary sum for investment during the period of the Fourth Plan. In model three, whose aim is to ensure a 6 per cent growth-rate, the amount of capital required has been estimated at 28 per cent of the gross national product.

Part Five of the report contains suggestions on the criteria for dividing each section of national production and consumption into smaller sectors and on the methods which might be used in calculating the statistics for such sectors. A study of these passages is necessary for purposes of analysis and for a better understanding of the figures appearing in the text of the report.

The National Income of Irān, 1338-1344 (1959-1965)

The first part of this report (pages 3-20) discusses the gross national product and expenditure in 1344 (1965-1966) and the national product has been divided into four sectors (agriculture, industries and mines, oil and services) for purposes of analysis. There is no mention, either here, or in other sections, of the methods used in the various calculations, or of the sources of the statistics quoted. Indeed each section contains only a descriptive account of the figures relating to the various sectors of the national product and expenditure.

In the next section, in which the national product for the year 1344 (1965-1966) is calculated on the basis of the national expenditure, approximately the same sectors have been used as in the first report.

In Part Two, (pages 21-62) Irān's gross national product, and expenditure during the period 1338-1344 (1959-1965) is discussed. Changes in

the figures relating to the national income are analysed and have been represented in a number of charts. Part Three consists of 55 tables dealing with various economic factors.

This report differs from the previous one in the following general respects:

1. In the previous report emphasis was upon methods of calculation and statistical sources, whereas in the present report emphasis is upon a descriptive analysis of figures. As a result the reader is unable to acquire information on how the results were obtained nor is he given the opportunity to evaluate the quality and quantity of the statistical sources used.
2. The previous publication uses tables to report its figures, while the present places more emphasis on charts.
3. This report also gives figures for the years 1343-1344 (1964-1965) and so can, in principle, be considered a complement to the previous one.

National Income of Irān 1962-1967

Pages 1 to 5 of this report consist of an introduction and a preface in which the general condition of the Irānian economy during the years 1962-1967 is described. The discussion is supplemented by five important tables: Table 1 shows the distribution of the growth rate of gross domestic product by economic activities, Table 2 shows the contribution of economic activities to the gross national product at constant prices, Table 3 shows annual changes in economic activities at constant prices, Table 4 shows the distribution of national expenditure by the main components at constant prices, and Table 5 shows annual changes in national expenditure by the main components at constant prices.

In the first part of the report, the national product and expenditure during the years 1962-67 have been analysed and the changes that have occurred have been illustrated by means of charts. Four charts deal with the distribution of per-capita monetary income in urban districts but it must be said that these are rather unclear. The analysis of the national product has been carried out under four headings (agriculture, industries and mines, oil and services), and that of the national expenditure under five headings (private consumption expenditure, government consumption

expenditure, gross domestic fixed capital formation, net exports of goods and services, and net income of production factors from abroad).

The next part, pages 28-81, consists of statistical tables containing figures relating to the calculation of the national income. The third section consists of a number of appendices. The first of these reviews and discusses sources of statistics on the Iranian economy: a valuable and welcome innovation. The second appendix (page 96) explains the methodology that has been used in the calculation of Iran's national product and expenditure and lists the statistical sources employed in this calculation; and the third (pages 119-128) discusses the population of Iran and its rate of growth (which is put at 2.8 per cent for the years 1962-1967). The fourth appendix is entitled "Calculation of Some Important Economic Magnitudes" and contains estimates of the capital/output ratio, the marginal propensity to consume, the marginal propensity to invest, the marginal propensity to import, the multiplier, price elasticity of demand, and terms of trade. The fifth and last appendix (pages 147-195) shows some important indices of the Iranian economy.

By making use of the third report, the following data on the gross national product and some other indices can be derived:

1. The gross national product increased from 281,139 million rials in 1959 to 484,626 million rials in 1967, during which period the average annual growth rate was 7.1 per cent. The division of these figures into sectors is as follows:

Table 1

Sector	1959	1967	Average annual growth rate
Agriculture	85,119	110,853	3.2
Mining	594	1,393	11.2
Industry	21,377	48,911	10.9
Oil*	47,719	122,958	12.6

*This figure represents the domestic value-added of oil production, which also includes the consortium's share in Iran's oil income (not included in Iran's production factors). If the Consortium's share in the income from oil is excluded, the national value-added for oil can be obtained.

2. Private consumption expenditure increased from 207,625 million rials in 1959 to 312,799 million rials in 1967; the average annual growth rate was 5.3 per cent. The same figure for urban areas is 6.6 per cent, and for rural areas, 3.7 per cent. Government consumption expenditure increased from 30,157 million rials in 1959 to 65,191 million rials in 1967, the average annual growth rate was 10.1 per cent. The change in gross domestic fixed capital formation was from 50,445 million rials in 1959 to 108,625 rials in 1967; the average annual growth rate was 9.8 per cent.

The cost of living index increased from 100 in 1959 (base year) to 118.9 in 1967; its average annual growth rate was 2.2 per cent. The average annual growth rate for the years 1959 to 1967 was 3 per cent for food, 1.3 per cent for clothing, and 8 per cent for dwelling places.

3. The average growth rate of the population for the years 1956-1966 was 2.8 per cent. The rate of population growth for various regions was as follows:

Table 2

Year	Tehran	9 large cities	22 small cities	Other cities	Urban areas	Rural areas
1956	7.2	4.21	3.8	4.97	5.19	1.75
1966	6.0	4.07	3.73	4.67	4.83	1.65

The total population increased from 19,455,000 in 1956 to 25,785,000 in 1966. The projection given in this report shows that it will reach 30,534,000 by 1972.

4. The capital/output ratio fell from 3.22 in 1960 to 1.85 in 1967; the average for 1959-1967 being 2.76. The marginal propensity to consume fell from 59 per cent in 1960 to 55 per cent in 1967 and the multiplier from 4.38 in 1963 to 2.25 in 1966.

Table 3 has been drawn up by using all the three reports under review, and shows the relative contribution of agriculture, industry and mines, oil, and services to the gross national product.

Table 3
Iran 1959-1967: Contribution of Economic Activities to the Gross National Product

Year	Gross national product* (Billions of rials)			Contribution of economic activities to GNP (per cent)											
	1st report	2nd report	3rd report	Agriculture			Industry + Mines			OII			Services		
	1st report	2nd report	3rd report	1st report	2nd report	3rd report	1st report	2nd report	3rd report	1st report	2nd report	3rd report	1st report	2nd report	3rd report
1959	303.8	380.251	281.139	28.7	33.3	12.4	13.5	15.3	10.7	41.6	38.3	41.1			
1960	338.6	293.039	295.241	28.6	32.0	13.1	17.4	15.1	11.3	43.2	39.6	41.3			
1961	357	311.343	307.916	28.0	31.3	13.2	16.3	15.4	12.3	43.4	37.5	41.9			
1962	363.7	317.425	322.075	26.1	30.9	29.1	13.8	17.0	14.9	43.3	38.2	41.9			
1963	382.6	338.692	339.155	23.8	30.0	14.8	18.1	16.1	13.4	44.0	38.5	42.7			
1964		353.365	364.634		27.3	18.2	18.2	16.7	14.4		40.1	41.4			
1965		393.534	408.673		27.4	25.5	19.2	17.1	14.5		39.5				
1966			433.304			24.7		18.0			15.9				
1967			484.626					18.9			17.0				

* Figures from the first report are on the basis of current prices, and from the second and third, on the basis of fixed prices.

A brief study of these three reports brings the following points to light:

1. Since the calculation of the national income in Irān is inaccurate, it is necessary to provide information on the marginal error of statistics which relate to the national product and income, and other economic indices. The determination of this figure is of the utmost importance for any analysis of the economy and for the drawing up of economic plans. It therefore seems strange that no reference to the problem has been made in any of the three reports, specially since the only authority competent to calculate the margin of error is the Bānk Markazi itself.

2. The third report (with the exception of the tables of economic indices) concerns the years 1962 to 1967. However, since the aim of this report was the analysis of changes in the national income over the five-year period of the Third Development Plan, a more logical temporal span would have included the years prior to the start of the Plan. If data for the previous years had been included, it would have been possible to make a more fruitful comparison, of the economy "before" and "after". A proper evaluation of the effects of the Plan cannot, for example, be made on the basis of increases in national income which are calculated on the basis of the first year (1962) because the effects of economic cycles cannot be taken into account. It is always possible that the first year coincided with the beginning of an economic boom which contributed a great deal to the rise in national product.

3. The tables in the third report are not clear enough to enable us to make a thorough study of the Irānian economy. The reason for this is the lack of sufficient attention to the components of the national product and national expenditure. For example, Table 61 on page 77 reports the gross domestic fixed capital formation and divides the statistics into capital formation in the private and government sectors on the one hand, and machinery and equipment and construction on the other hand. But this division is inadequate for a full understanding of the question. We cannot, for instance, use it to find what part of the machinery has been employed for the production of consumer goods, and what part for capital goods. We might also, in this connection, mention that in none of the tables of the report has any reference been made to the question of the geographical dispersion or concentration of capital investment in Irān. Therefore, we

have no means of knowing whether, during the period of the Third Plan, capital investment has taken place mostly in the cities or in the countryside. Similar criticisms can be made in many other cases.

However, to be fair we should mention that the third report is much better than the first two as far as the question of differentiation of the components of various indices are concerned. The reader might refer to tables 30 and 31 (pages 53-54), which show great improvements.

4. The statistics related to national income and expenditure have, for the most part, been treated in a descriptive rather than an analytical manner, and no reference is made to the causes of the changes shown. This criticism refers to the first and second reports more than to the third, which shows considerable improvements in this respect.

5. There is a conflict in the usage of concepts between the Persian and English editions of the third report. On the thirteenth line of page 3 of the Persian edition the following statement is made: "The increase in the ratio of infrastructural capital investment to gross national product was, as expected, an effective element in reducing the capital/output ratio, the ratio declined from 4 to 1.9 (between 1962 and 1967)...." However, the same statement in the English edition (found on the twelfth line of page 4) uses the concept of "fixed capital formation" instead of "infrastructural capital investment". It is not clear as to whether this is an intentional correction but, if the latter concept is used the following points can be made:

(i) Infrastructural capital investment takes time to yield any results and meanwhile tends to absorb part of the society's capital. Moreover, short-term investments have relatively insignificant production value. Therefore, the capital/output ratio tends to increase.

(ii) Once this type of capital investment has come to fruition, facilities are provided which increase the profitability of investment in other projects, thus reducing the capital/output ratio.

If, as is stated in the Persian report, infrastructural investment was of such great importance in the Third Plan, and taking into account the period of the Plan, such a striking decrease in the capital/output ratio seems illogical. To prove this we can make use of the statistics quoted in Table 1 (page 135 capital/output ratio for the years 1959 to 1907). The following shows us a selection of these statistics:

Table 4

	1960	1961	1962	1963	1964	1965	1966	1967
Capital/output ratio	3.22	4.20	4.03	3.62	2.45	1.68	3.33	1.85

The text of the report (page 4) compares the figures for 1962 and 1967 (the first and the last years of Third Plan) and thus obtains the exceptional decline of approximately 2.1 in the capital/output ratio. However, apart from the existence of the Third Plan there seems to be no logical reason why these, rather than other years should be compared. If, for example, we take the years 1961 and 1966, the decline would be approximately 0.87. In this case, our judgment on the decline in the capital/output ratio caused by infrastructural capital investment would be upset. This puts the results of other comparisons in question.

6. The figures relating to all economic magnitudes (national production, national expenditure etc.) for all the years from 1959 to 1967 differ from one another. It is probable that the Economic Research Department of the Bank Markazi, while drawing up the second and third reports, took steps to correct the earlier figures. If this is the case, then it was certainly necessary to furnish readers with explanations of these changes.

7. The tables of economic indices included at the end of the third report are incomplete. For example, no index of changes in per-capita income, one of the most useful indices for studying changes in the economic condition of the country, is present. Moreover, the meaning of the figures given is not clear. This ambiguity arises primarily from the lack of an adequate explanation of the methods of calculation used. In this respect we might mention that it would be praiseworthy if these reports were prepared in such a way as to be of use to the laymen as well as the specialist.