The Israel Economy The First Decade

by Don Patinkin

THE MAURICE FALK INSTITUTE FOR ECONOMIC RESEARCH IN ISRAEL

The Maurice Falk Institute for Economic Research in Israel, affiliated to the Kaplan School of Economics and Social Sciences, is an independent nonprofit organization whose purpose is to encourage research, with particular emphasis on the economy of Israel.

ABOUT THE AUTHOR

Dr. Patinkin has been Director of Research of the Falk Propect for Economic Research in Israel since 1956. He received his Ph.D. from the Chicago University in 1947, where he served as Assistant Professor of Economics during 1947–48. In 1949 he immigrated to Israel to join the staff of the Hebrew University, where he is now the head of the Department of Economics.

His publications include: Money, Interest and Prices: An Integration of Monetary and Value Theory, 1956, and articles on monetary, employment and price theory in various scientific journals.



to moggie - we way thanks - 'sind 1, 5/2 /m 150 24. VIII.85



THE ISRAEL ECONOMY: THE FIRST DECADE



THE ISRAEL ECONOMY THE FIRST DECADE

by

DON PATINKIN

The Eliezer Kaplan School of Economics and Social Sciences, The Hebrew University, Jerusalem

> with a foreword by SIMON KUZNETS

THE MAURICE FALK INSTITUTE FOR ECONOMIC RESEARCH IN ISRAEL

JERUSALEM, AUGUST 1967

First issued in the Fourth Report 1957 and 1958 of the Falk Project for Economic Research in Israel in November 1959

> Second impression (with minor corrections and with index and bibliography) 1960 Third impression 1967

Published simultaneously in Hebrew and English

Printed in Israel by S. Monson, Jerusalem

Distributed by IBRAEL UNIVERSITIES PRESS Kiryat Moshe, Jerusalem, Israel, P.O.B. 7145 - Tel. 27225

> for the FALK INSTITUTE 17 Keren Hayesod Street JERUSALEM

THE MAURICE FALK INSTITUTE FOR ECONOMIC RESEARCH IN ISRAEL

The Maurice Falk Institute for Economic Research in Israel is an independent nonprofit organization whose purpose is to encourage research, with particular emphasis on the economy of Israel.

The Institute was founded in January 1964 as the successor to the Falk Project for Economic Research in Israel. The general administration of the Institute is the responsibility of the Board of Trustees, originally nominated by the Hebrew University of Jerusalem in consultation with the Maurice and Laura Falk Foundation of Pittsburgh, Pennsylvania. The decision of the Board to publish a study reflects its judgement that the work has met the standards of scientific research. The interpretations and conclusions of the study are, however, those of the author, and do not necessarily reflect the views of other members of the Institute staff or of the Board of Trustees.

Board of Trustees

E. Lehmann (*Chairman*) Jacob Arnon R. Bachi Haim Barkai I. Eilam S. N. Eisenstadt A. L. Gaathon Haim Halperin David Horowitz J. Katz Simon Kuznets Don Patinkin Nathan Rotenstreich Dan Tolkowsky

Director of Research: Don Patinkin

Secretary: Hasida Nitzan

Editors: Yaakov Kop, Susanne Freund



FOREWORD

THE FOLLOWING ESSAY by Professor Patinkin, is an attempt to utilize the results of past studies, both of the Falk Project and of other research agencies, to present a cogent picture of the movements in the Israel economy for the first decade, and to indicate some policy problems which an examination of these movements suggests. The study of economic phenomena has not as yet produced, if it ever will, invariant laws that can be simply applied to any and all countries-even were the empirical data needed for such application fully available. Both the limitations of data and the scarcity of fully established generalizations do not permit one to draw hard and fast conclusions as to causes, consequences, and policy implications of the movements in Israel's economy during the past decade. Yet the weight of evidence and the knowledge of responses of human beings within the framework of familiar economic and social institutions do permit a perceptive scholar to draw conclusions that at least merit careful scrutiny and wide discussion. It is a major purpose of economic study in democratic societies to induce widespread examination of problems of economic policy in the light of known measures of economic changes that are taking place and that cast their shadow into the future. Professor Patinkin's essay is an attempt to serve this purpose; and our sincere hope is that the essay, representing as it does an effort by a scholar to use fully the available evidence and to indicate the major policy problems that its examination raises, will be widely read, carefully scrutinized, and thoroughly discussed.

SIMON KUZNETS



CONTENTS

FOREWORD by Simon Kuznets List of Tables

List of Diagrams

Symbols and Abbreviations

I.	THE ISRAEL ECONOMY: THE FIRST DECADE by Don Patinkin	
	Acknowledgements	15
	Introduction	17
	Chapter 1. IMMIGRATION, POPULATION, LABOR FORCE AND UNEMPLOYMENT	19
	Chapter 2. THE GROWTH OF NATIONAL PRODUCT AND INCOME A. National Product and Its Composition B. National Income and Its Composition C. The Growth in National Product	43 43 61 69
	Chapter 3. INVESTMENT, SAVING, AND THE IMPORT SURPLUS A. The Investment Program B. The Import Surplus and Domestic Saving	80 80 92
	Chapter 4. THE INFLATIONARY PROCESS	108
	Chapter 5. Conclusions: The Progress Toward Economic Independence	126
	Appendixes: A. National Income and Net National Product B. Monetary and Price Developments in Israel C. The Evaluation of the Import Surplus	141 142 146
Inde	ex	149
Bibl	liography	153



LIST OF TABLES

1. THE ISRAEL ECONOMY: THE FIRST DECADE

Chapter 1	
1. Net Immigration and Population	20
2. Jewish Immigration, by Continent of Birth	22
3. Jewish Population, by Continent of Birth	25
4. Educational Characteristics of Jewish Population Aged 14 and Above:	
June 1954	26
5. Literacy Level of Jewish Population Aged 14 and Above: June 1957	27
6. Indexes of Specific Labor Force Participation Rates: June 1954	29
7. Civilian Labor Force, Employment, and Unemployment	32
8. Depth of Unemployment	35
9. Distribution of Jewish Unemployment	36
10. Educational and Literacy Levels of Jewish Labor Force, by Employ-	
ment Status	37
11. Industrial Distribution of the Labor Force: Israel and Other Countries	41
Chapter 2	
12. Total Resources and Their Disposal: Current Prices (IL Millions)	45
13. Implicit Price Indexes	47
14. Total Resources and Their Disposal: Current Prices (Per cent)	48
15. Composition of National Expenditure: Some International Comparisons	50
16. Balance of Payments: 1950-58	52
17. Relative Burden of Defense in Various Countries: 1953-54	57
18. Total Resources and Their Disposal: Constant Prices	59
19. Total Resources and Their Disposal: Per Capita	60
20. National Income	62
21. Distribution of Domestic Product at Factor Cost, by Industrial Branch:	
Israel and Selected Countries	63
22. Distribution of Disposable Income among Urban Income Units: 1957/58	66
23. Average Personal Income of Income Units, by Continent of Birth and	
Residence Status: 1957/58	67
24. Average Personal Income of Urban Workers' Families, by Residence	
Status	68
25. Compounded Rates of Growth in Real GNP in Various Countries: 1950-56	70
26. Determinants of the Growth in Israel's Real NNP	75
Chapter 3	
27. Per Capita Domestic Investment in Various Countries: 1950-56	81
28. Composition of Gross Domestic Fixed Capital Formation, by Type of	00
Capital Good	82

1	29.	Composition of Gross Domestic Fixed Capital Formation, by Type of Capital Good (1952 IL Millions; Index: 1950=100)	82
	30.	Composition of Gross' Domestic Fixed Capital Formation, by Industrial	84
~	31.	The Role of Government in the Financing of Gross Domestic Capital	86
~	32.	Composition of Gross Domestic Capital Formation, by Type of Pur- chaser: 1950-54	89
20	33.	Share of Public Financing in Investments, by Economic Sectors: 1956 and 1957	90
	34.	Total Resources Available to the Israel Economy and Their Uses: 1950-58	93
2	35.	The Extent of Domestic Dissaving: 1950-58	94
-	86.	Indicators of Domestic Dissaving: 1950-58	95
3	7.	The Financing of Gross Domestic Capital Formation: Current Prices	96
3	8.	Transfer Payments: Current Prices	98
Ch	apt	er 4	
-	39.	The Quantity of Money and the Price Level	110
4	10.	Causes of the Increase in the Quantity of Money	112
4	11.	The Velocity of Circulation	116
4	12.	The Applicability to Israel of the Quantity Theory of Money	117
4	13.	Exchange Rates in Israel: 1948-58	121
4	4.	Commodity Exports to Clearing Agreement and Other Countries, by	104
		Type of Good: 1949, 1955 and 1957	124
Ch	apt	er 5	
4	15.	Indexes of Economic Dependence	129
Ap.	per	ndixes	
ł	١.	National Income and Net National Product	141
I	3.	Monetary and Price Developments in Israel	142

LIST OF DIAGRAMS

THE ISRAEL ECONOMY: THE FIRST DECADE

Figure no.

10.	
1. Immigration to Israel	23
2. Relative Wage Rates	39
3. Ratio of Import Surplus to GNP	51
4. Indexes of Agricultural, Manufacturing and Building Activity	64
5. Money and Prices	109
6. Credit of Banking System	114
7. Indexes of Nominal and Real Average Daily Earnings in Manufacturing	120
8. Official and Black Market Exchange Rates	122

ABBREVIATIONS

CBS	Central Bureau of Statistics
FP	Falk Project for Economic Research in Israel
HMSO	Her Majesty's Stationary Office
ILO	International Labour Office
NBER	National Bureau of Economic Research, New York
UJA	United Jewish Appeal
UN	United Nations
GNP	Gross National Product
NNP	Net National Product
IL	Israel Pound
Abstract	Central Bureau of Statistics, Statistical Abstract of Israel, Hebrew and English, annual
Bulletin A	Central Bureau of Statistics, Statistical Bulletin of Israel: Part A- Social Statistics, Hebrew, monthly
Bulletin B	Central Bureau of Statistics, Statistical Bulletin of Israel: Part B- Economic Statistics, Hebrew, monthly
	Prior to June 1953 these parts were included in one volume which appeared in Hebrew and English
ITC	Control Burnow of Statistics Labour Force Survey

SYMBOLS IN TABLES

	Not available
-	Zero or negligible
()	Figures not too reliable



ACKNOWLEDGEMENTS

THIS STUDY could not have been carried out were it not for the possibility of drawing on the advice and assistance of my colleagues at the Falk Project and at the Hebrew University—as well as on many additional individuals.

I have a special debt to Simon Kuznets—Chairman of the US Advisory Committee of the Falk Project—who first suggested this study and who subsequently was a constant source of encouragement and advice. Daniel Creamer, A. L. Gaathon, David Kochav, Harold Lubell and S. J. Prais have also provided many valuable criticisms. In addition, the research staffs of both the Bank of Israel and the Central Bureau of Statistics have been most cooperative in answering questions and supplying unpublished data.

Among my colleagues at the Falk Project and the Hebrew University, I am particularly indebted for their helpful comments to Alfred Bonné, and also to Uri Bahral, Yehuda Grunfeld, Avner Hovne, Ephraim Kleiman, Ruth Klinov-Malul, Nissan Liviatan, Michael Michaely, and Amotz Morag.

Needless to say, none of the foregoing individuals is to be held responsible for the views expressed here. Nor should these views be in any way interpreted as representing any 'official position' of the Falk Project as such. Instead, this essay represents the personal interpretation of the writer—and only he should be held responsible for it.

The study also owes much to the assistance of Susanne Freund who, with conscientiousness, precision and ingenuity, has checked all the tables and cross-references in the text—and has also made many pertinent suggestions. Her expertise has been particularly invaluable in the bringing up to date of Tables 12, 13, 31, and 37 for the period subsequent to 1954.

I am also greatly indebted to Morris Gradel, who has carefully and efficiently borne the responsibility of editing the study and seeing it through the press. A similar debt exists to Giora Hanoch, who translated

ACKNOWLEDGEMENTS

part of the essay into Hebrew and was in general responsible for the Hebrew version. Amiram Lev-Tov translated the remaining part of the essay.

Thanks are also due to Ephraim Ahiram, who at an earlier stage of the work supplied technical assistance; and to Hasida Nitzan, Lillian Harbater and Erela Malberger, who have carefully typed the manuscript through its various drafts.

INTRODUCTION

AMONG THE three fields marked out for research in the First Annual Report of the Falk Project for Economic Research in Israel was one designated as "Measures of Aggregate Economic Performances". Now almost five years after the inception of the Project—the question may well be asked: What has research in this field shown us about the functioning of the economy? Where have been its points of strength and its points of weakness? What are the economic accomplishments of Israel's first decade—and what are the failings?

From the beginning, the aforementioned aggregate measures were designed to be comparable with the standard ones published for many countries by the United Nations.1 In this way we shall be able to evaluate Israel's economic performance against the objective background of the corresponding performance of other countries in like position. This evaluation will be made primarily on the basis of the following studies carried out by the Falk Project in cooperation with the Central Bureau of Statistics: Daniel Creamer, Israel's National Income: 1950-1954; Nadav Halevi, Estimates of Israel's International Transactions: 1952-1954; Michael Barkay, The Public Sector Accounts of Israel: 1948/49-1954/55; and Harold Lubell, Israel's National Expenditure: 1950-1954. Fortunately, the initial work represented by these studies has been largely continued by the appropriate government agencies-namely, the National Accounts Unit of the Central Bureau of Statistics and the Economic Research Department of the Bank of Israel. Correspondingly, we shall be able to draw on the work of these two groups for estimates subsequent to 1954.

At the same time it is greatly to be regretted that no intensive benchmark studies have been made since the publication of those cited above.

¹ See UN, A System of National Accounts and Supporting Tables, Studies in Methods, Number 2, New York, 1953; Statistics of National Income and Expenditure, Statistical Papers, Series H, No. 10, New York, January, 1957; Yearbook of National Accounts Statistics: 1957, New York, 1958.

INTRODUCTION

This means that all subsequent estimates are ultimately based on the original benchmark studies of 1952. The more this year recedes into the background, the less the reliability of the estimates. This is a particularly serious situation in view of the rapid structural changes that have taken place in the economy since the original studies. It follows that unless additional benchmark studies are made in the very near future, the reliability and usefulness of Israel's current national income estimates will be greatly impaired.

In any event, the margins of error to which our estimates are subject must be kept very much in mind as we proceed with our analysis. Because of these margins, we shall restrict our analysis to changes significantly large enough to be meaningful—or to sustained movements of the data that are not likely to have arisen due to chance.

We begin our discussion with 1950—one and a half years after the establishment of the State. This choice of date is dictated, first of all, by the availability of data: there are no reliable estimates of national income or other basic economic magnitudes before this date. Secondly, the period before 1950 is one of the War of Independence and the disruption of normal economic activity that resulted from it. Hence it is definitely not suitable as a base period for subsequent comparisons. Thirdly, by the end of 1949 practically all of the available abandoned Arab property had already been settled by the new immigrants or brought into economic production. Consequently the behavior of the Israel economy from 1950 onwards can more or less be taken as indicative of its normal functioning.

CHAPTER 1

IMMIGRATION, POPULATION, LABOR FORCE AND UNEMPLOYMENT

THE INGATHERING of the Exiles'. This is the policy and the reality which has left its deepest imprint on every aspect of Israel society. Reaching a peak shortly after the establishment of the State, falling off sharply afterwards, and resuming its growth in more recent years—this mass immigration has created for the economy both basic potentialities and basic problems. Indeed, the ultimate criterion by which the Israel economy must be judged is its success in solving these very problems: its success in integrating these new immigrants into its productive labor force.

The legal bases of this mass immigration were the May 1948 Proclamation of the Establishment of the State of Israel—and the subsequent (1950) Law of Return—both of which enunciated the principle of unrestricted Jewish immigration to Israel. The financial costs of the immigration itself—transportation, initial rehabilitation, and the like—were borne for the most part by the Jewish Agency, the American Joint Distribution Committee, and the Government of Israel. Thus (in sharp contrast to the situation which existed during the mandatory period), the extent of immigration has been determined not by legal barriers, but by the desire of Jews abroad to emigrate to Israel—and the desire and ability of the aforementioned agencies to finance this emigration.

The major facts about the first wave of immigrants—their numbers, age and sex composition, family status, country of origin, and occupational structure—have been presented in detail by Moshe Sicron in his *Immigration to Israel: 1948–1953.*¹ Some of these data are brought up to date in Tables 1 and 2—which show the year-to-year changes

¹ FP and CBS joint publication—appearing together with a Statistical Supplement, and with an introduction by Professor Roberto Bachi, Jerusalem, 1957. On the material of the preceding and following paragraphs, see in particular Chapter 3 of Sicron's study. See also the illuminating report on "The Immigration and Its Absorption" in Israel Government Year Book: 5717 (1956) (Hebrew), pp.359-364.

					0		-					
Immigration and population	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	Total 1948–58
1. Total immigration ^a	101,837	239,954	170,597	175,245	24,610	11,575	18,491	37,528	56,330	72,634	27,287	936,088
2. Total emigration	1,154	7,407	9,966	10,476	13,500	13,000	7,500	6,400	11,400	11,400	11,700	103,903
3. Net immigration (1. less 2.)	100,683	232,547	160,631	164,769	011,110	-1,425	166'01	31,128	44,930	61,234	15,587	832,185
 Average population (absolute numbers) a. Jews b. Archard 	: :	1,046,050 901,050	1,266,753 1,1 <i>0</i> 3,005	1,494,284 1,323,984	1,606,153 1,429,772	1,650,248 <i>1,467,689</i>	1,689,471 1,500,648	1,750,416 1,555,311	1,828,363 1,626,346	1,930,470 1,721,160	2,000,078 1,782,727	
others	:	145,000	163,748	170,300	176,381	182,559	188,823	195,105	202,017	209,310	217,351	
 Average population (per cent) a. Jews 	: :	100.0 86.14	100.0 87.07	100.0 88.60	100.0 89.02	100.0 88.94	100.0 88.82	100.0 88.85	100.0 88.95	100.0 89.16	100.0 89.13	
b. Arabs and others	:	13.86	12.93	11.40	10.98	11.06	11.18	11.15	11.05	10.84	10.87	

TABLE 1. Net Immigration and Population

Includes tourists who settle in country.
 SOURCE: CBS, Bulletin A, February 1959, pp. 35, 38, 41.

which have taken place both in the volume of immigration and in its geographical source.

A graphical representation of these results (by month) is given in Figure 1. This shows the two cycles—and the intervening plateau through which Israel's immigration has passed in the first decade of its existence. The first cycle begins, of course, in May 1948 and might be said to end during the first quarter of 1952—though its basic character had already changed drastically by the summer of 1951. This cycle is marked by an early peak in the first half of 1949—representing the rapid emptying of the Cypriot and European refugee camps that took place immediately after the establishment of the State; and a later peak in the middle of 1951—representing primarily the migration of the entire Jewish communities of such countries as Iraq, Iran, and Yemen ('Operation Magic Carpet').

During the course of this cycle, almost 700,000 immigrants entered the country. This represents a rate of immigration of 266 per thousand residents in 1949; 154 per thousand in 1950; and 132 per thousand in 1951. These rates are far higher than those of any other country of immigration. Thus in the most intense year of immigration into the United States—1854—the rate there reached only 16.1 per thousand. In Canada and Argentina for 1913, the rates were 38.4 and 38.3 per thousand, respectively.²

This pace could not go on unabated. By the end of 1951 the number of immigrants in all forms of temporary housing—in immigration centers, in transit camps, and the like—reached a peak level.³ Per capita GNP over the period 1950–52 was barely holding its own (see Table 19). All this was further complicated by the severe drought of 1950/51. It seems a safe conjecture that these and similar factors were partly responsible for the sharp curtailment in the middle of 1951 of the immigration financed by the Jewish Agency. The very low levels which continued through 1952 and 1953 and the middle of 1954 resulted in a net immigration which was close to zero—and, in 1953, even negative.

Immigration picked up again in the middle of 1954, when it became possible and—because of the political situation existing there necessary to remove the North African Jewish communities to Israel. This movement, however, was rapidly overtaken (during the end of

² For the United States, see Historical Statistics of the United States: 1789-1945, pp. 26 and 36; for Canada and Argentina, See Sicron, op. cit., p. 37.

³ Israel Government Year Book: 5717 (1956) (Hebrew), p. 362.

Bu
of
Continent
by
Immigration,
Jewish
ci
TABLE

rth

Immigrants and continent of birth	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	Total 1948-1958
Total *	101,828	239,576	170,249	175,095	24,369	11,326	18,370	37,478	56,234	71,224	27,084	932,833
TOTAL (per cent) ^b	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Asia °	5.3	30.6	34.4	59.5	28.7	27.8	19.0	4.3	5.9	8.2	29.3	29.6
Africa	9.1	16.7	15.2	11.5	42.9	47.3	67.2	87.1	80.3	34.6	15.0	25.0
Europe °	85.1	52.1	49.8	28.6	26.2	19.6	9.9	6.7	12.5	55.8	52.6	44.5
America and Ocea	inia 0.5	0.6	0.6	0.4	2.2	5.3	3.9	1.9	1.3	1.4	3.1	0.9

·/C-+CEI

Primarily Turkey, Iraq, Iraq, Remen, and Aden.
 Primarily Turkey, Iraq, Iran, Yemen, and Aden.
 Primarily Poland, Rumania, Morosco, and Libya.
 Primarily Poland, Rumania, and Bulgaria.
 Sources: First line: CBS, Bulletin A, February 1959, pp. 41-42.

Other lines:

1948-53: Sicron, op. cit., p. 45, and Sicron, Statistical Supplement, p. 23, Table A33. Sicron has also shown that carrying out the classification in terms of continent of prior residence does not affect the data significantly (op. cit.,

pp. 45–47).
1954 : CBS, Abstract No. 6, 1954/55, p. 33.
1955 : CBS, Abstract No. 7, 1955/56, p. 34.
1956 : CBS, Abstract No. 8, 1956/57, p. 33.
1957 : CBS, Abstract No. 9, 1957/58, p. 60.
1958 and total column:

CBS, Bulletin A, February 1959, p. 42.

22

POPULATION AND LABOR FORCE

1956 and first half of 1957) by the exodus of thousands of Jews from Hungary and Poland following the political upheavals which took place there. In addition, there was a significant immigration from Egypt after the Sinai Campaign. In the last quarter of 1958 and the beginning of 1959 immigration from these sources was superseded by that from Rumania—which suddenly began to issue exit permits to its Jewish residents. It is still too early to know how the immigration from this and other Soviet bloc countries will develop in the near future—and what, accordingly, will be the full extent of the second wave of immigration.



FIGURE 1. IMMIGRATION TO ISRAEL

SOURCES: CBS, relevant Bulletins; figures do not include travellers settling.

In any event, the extent of this wave has been considerably smaller than that of the first. Indeed, total immigration for the period 1954–58 was less than that for the single year 1949. Because of this quantitative factor—as well as the demographic and occupational structure of this later immigration—the economic problems of absorbing it have been relatively much less severe than those of the first immigration wave. Another factor diminishing the relative severity of these problems has been the rapid economic growth of the country in the intervening period.

Immigration has, of course, been the main cause of the more-thandoubling of the population during the first ten years of Israel's exist-

CHAPTER 1

ence. Indeed, of the total increase in population which took place from the inception of the State until the end of 1957, roughly 70 per cent is to be attributed to net immigration, while only 30 per cent is due to natural increase. (The annual rate of natural increase has fallen from a peak of 2.7 per cent in 1950 to the neighborhood of 2.2 per cent in the past few years.⁴) Furthermore, the contribution of immigrants to population growth would appear even higher if (as is reasonable for this purpose) their Israel-born children were to be counted with them.

Immigration has also been the major cause of the changing composition of the Jewish population of Israel with respect to continent of birth. This is shown in Table 3. Under the impact of this immigration the percentage of native-born population declined until 1951. Then the falling-off of immigration—together with the increasing number of births of the newly arrived population—caused this percentage to climb slowly back towards its original level. Table 3 also shows the steady and marked decline in the percentage of Europeans among the foreign-born, the rise of the Asian-born (through 1954), and the even sharper rise of the African-born.

To a certain extent, the tremendous increase in population must be offset by the decrease in population resulting from the departure of the former Arab residents. Accurate figures are difficult to obtain. But a rough estimate prepared by Avner Hovne puts the total Jewish and Arab November 1947 population of the area now included in Israel at 1,370,000.⁵ This means that the population of Israel did not return to its pre-state level until the end of 1950. Similarly, taking 1947 as a base, Israel's growth in population until 1958 was only 45 per cent, instead of the more than 100 per cent that is obtained by taking 1948 as a base.

There is no doubt that the availability of abandoned Arab property greatly simplified the task of absorbing the new immigrants in 1949–50.

^{*} CBS, Abstract No. 9, 1957/58, pp. 8, 28.

⁵ The Labor Force in Israel, FP (preliminary), p. 19, Table 1. Hovne's figure is based on an estimated 1947 Arab population some 65-100,000 smaller than that implicit in two UN estimates of the number of Arab refugees (UN Conciliation Commission for Palestine, Final Report of the United Nations Economic Survey Mission for the Middle East: Part I—The Final Report and Appendices, New York, December 1949, p. 28; UN General Progress Report and Supplementary Report of the UN Conciliation Commission for Palestine, Covering the Period from 11 December 1949 to 23 October 1950, New York, 1951, p. 24). The method of estimation used by the UN is not given. Hovne's method is based on an extrapolation of the 1944 Census.

POPULATION AND LABOR FORCE

Still, it would be a misleading oversimplification to treat the immigration movement until the end of 1950 as representing a mere exchange of population. First of all, the internal geographical distribution of the new immigrants is quite different from that of the absent Arabs. Secondly, and more generally, the former Arab residents had to a significant extent maintained an almost self-subsistent agricultural economy which was barely in contact with the modernly-oriented, industrial economy which characterized the Jewish section of Palestine. In contrast, the explicit policy of the Israel government was to integrate the new immigrants—both as consumers and as producers—into the existing industrial economy.⁶ Hence, one cannot in fact consider the new immigrants as constituting a mere replacement of the departed Arab population.

Continent of birth	8.XI.48	31.XII.51	31.XII.54	31.XII.57
TOTAL	100.0	100.0	100.0	100.0
Born in Israel	35.4	25.2	30.9	33.4
Born abroad	64.6	74.8	69.1	66.6
TOTAL: Born abroad	100.0	100.0	100.0	100.0
Asia	12.5	27.5	27.7	25.3
Africa	2.6	9.4	11.5	18.6
Europe and America	84.9	63.1	60.8	56.1

TABLE 3. Jewish Population, by Continent of Birth (Per cent)

Sources: 1948, 1951, and 1954: CBS, Abstract No. 9, 1957/58, p. 20. 1957: CBS, Bulletin A, August 1958, p. 1077.

The magnitude of the task of integrating the new immigrants economically—as well as socially—into the framework of Israel society must be viewed against the background of their differing educational levels as compared with the veteran (that is, pre-1948) population. Some data on these differences are presented in Tables 4 and 5. Despite their independent sources, both tables tell the same story: Jews of Asian or African origin were of lower educational and literacy level than those of European or American origin; but in each category the level of the

⁶ Cf., e.g., "Basic Principles of the Government Programme", Israel Government Year Book: 5711 (1950), pp. 50-51; and 5717 (1956), pp. 27-28. On the structure of the Arab Palestinian economy—and its relationship to the Jewish one—see R.R. Nathan, Oscar Gass, and Daniel Creamer, Palestine: Problem and Promise, Washington, 1946, pp. 4-5. Cf. also Ludwig Gruenbaum, National Income and Outlay in Palestine: 1936, Jerusalem, 1941.

Residence status and continent of	Did not attend	Did not complete	E	ducation complet	ted	Total	Populo	ation aged
birth	school	education	Primary	Post-brimary	Hipher	(1)through (5)	17 11	114 a000e
	(1)	(2)	(3)	(4)	(2)	(9)	(1)	(8)
				Per cent				Thousand
Veterans —male	4.1	22.3	39.6	26.8	7.2	100.0	24.7	258.5
Native-born	2.0	24.0	49.8	21.4	2.8	100.0	7.1	74.2
Asia-Africa	21.8	39.8	28.7	7.6	2.1	100.0	3.4	36.1
Europe-America	1.0	17.7	37.7	33.4	10.2	100.0	14.2	148.2
Vew immigrants ^b -male	12.0	40.8	31.0	13.4	2.8	100.0	25.8	269.6
Asia-Africa	22.5	49.5	19.5	7.8	0.7	100.0	12.5	130.7
Europe-America	2.6	33.1	41.2	18.3	4.8	100.0	13.3	138.9
Veterans ^a -female	11.8	18.5	39.9	26.1	3.7	100.0	23.2	243.1
Native-born	7.3	21.2	48.7	20.6	2.2	100.0	6.8	717
Asia-Africa	53.2	23.4	18.5	4.5	0.4	100.0	3.0	31.3
Europe-America	4.8	16.3	40.4	33.4	5.1	100.0	13.4	140.1
Vew immigrants ^b -female	30.3	29.2	27.7	11.6	1.2	100.0	26.3	275.6
Asia-Africa	57.8	26.2	13.0	2.8	0.2	100.0	12.4	1997
Europe-America	6.3	31.9	40.6	19.2	2.0	100.0	13.9	145.9
COTAL							100.0	1.046.8

26

CHAPTER 1

SOURCES: CBS, Standard of Education of the Population: June 1954, Special Series No. 66, Jerusalem, January 1958, pp. 10-11. The data were derived from questions asked in the Labour Force Sample Survey of June 1954. Data in columns (7) and (8) from CBS files.

POPULATION AND LABOR FORCE

new immigrants as compared with the veterans was significantly lower once again.

As Sicron has emphasized in his study, a further complication to the task of economic integration was the fact that the occupational structure of the immigrants "did not conform with Israel's economic structure and development needs... Abroad, immigrants were concentrated in

Residence status and continent	Unable to read	Able only to read	Able to read and	Total 1)through(3)	Popul 14	lation aged and over
0) 01111	(1)	(2)	(3)	(4)	(5)	(6)
	-		Per cent			Thousands
Veterans-male	2.9	0.9	96.2	100.0	24.5	283.6
Native-born	1.8	0.8	97.4	100.0	8.3	96.0
Asia-Africa	14.0	4.3	81.7	100.0	2.8	32.4
Europe-America	a 1.1	0.3	98.6	100.0	13.4	155.2
New immigrants-	-					
male	12.3	1.7	86.0	100.0	25.9	299.1
Asia-Africa	22.2	3.0	74.8	100.0	13.0	150.3
Europe-America	2.3	0.5	97.2	100.0	12.9	148.8
Veterans-female	8.4	0.3	91.3	100.0	23.0	266.5
Native-born	4.9	0.3	94.8	100.0	7.7	89.2
Asia-Africa	46.7	-	53.3	100.0	2.3	27.3
Europe-America	3.3	0.3	96.4	100.0	13.0	150.0
New immigrants-	-					
female	28.0	1.0	71.0	100.0	26.6	307.4
Asia-Africa	52.0	1.1	46.9	100.0	12.7	146.7
Europe-America	a 6.2	0.8	93.0	100.0	13.9	160.7
TOTAL					100.0	1,156.6

TABLE 5. Literacy Level of Jewish Population Aged 14 and Above:June 1957

In any language.

Sources: CBS, Bulletin A, March 1958, p. 383.

The data were derived from questions asked in the Labour Force Sample Survey of June 1957.

Data in columns (5) and (6) from CBS files.

the crafts and industry, particularly handicrafts, and in commerce, and in some instances also in clerical occupations. An insignificant number of immigrants received agricultural training before immigrating; and there was a lack of agricultural workers. Members of the liberal and technical professions were also in short supply... Thus a basic and far-

CHAPTER 1

reaching change in the occupations of many of these immigrants was unavoidable. Figures from the sample labor force survey conducted in June 1954 show that between 50 and 70 per cent of the new immigrants were working in different occupations from those they had held abroad (and the proportion would have been higher yet if changes in specific groups within occupational categories had been taken into account)."⁷ Furthermore, the skills of even those immigrants in the 'right' general occupational categories were frequently not in accordance with Israel's specific needs.

As might be expected, the new immigrants were the main source of the growth in the economy's labor force. Reliable and comparable data on this force are available only from the inception of the CBS's sample labor force surveys in June 1954.⁸ These surveys have been analyzed by Avner Hovne, who has also extrapolated some of their estimates back to 1950.⁹ From these estimates it appears that the civilian labor force grew by almost 65 per cent from 1950 to 1958 (Table 7, line 1).

It might be noted that there are several factors which tend to reduce the relative number of new immigrants who participate in the labor force. Firstly, there is the relatively large number of both children (aged under 14) and old persons among the new immigrants.¹⁰ Secondly—as brought out in Table 6—the specific participation rates of many age-sex groups among the new immigrants were lower than the corresponding rates of the veteran population. Furthermore, the rates of Jews from Asia-Africa were lower than those from Europe-America. Hence, to the extent that immigration caused an increase in the relative size of the Asia-Africa group (see Table 3), this too had a depressing effect on the overall participation rate. Both of the foregoing lower participation rates prevailed particularly among women and older men. It might also be noted that the general participation pattern just described remained true in 1958 as well.¹¹

⁸ The findings of various surveys are reported in the following publications of the CBS: LFS: June 1954, op. cit.; LFS: November 1955, Special Series No. 61, September 1957; LFS: June 1956, Special Series No. 68, March 1958; "Labour Force Surveys: June and November 1957", Bulletin B, February 1958, pp. 283-97; LFS: 1957, Special Series No. 82, January 1959; LFS: 1958 (Hebrew), March 1959.

⁷ Sicron, op. cit., p. 119; see also CBS, LFS: June 1954, Special Series No. 56, April 1957, pp. 48-51.

⁹ The Labor Force in Israel, op. cit, Appendix, p. 80; see also project report 8. ¹⁰ Ibid., p. 91.

¹¹ Unpublished findings, LFS: 1958.

1954
June
Rates:
Participation
Force
Labor
Specific
fo .
Indexes
6.
TABLE

ex and age	All groups	Veterans: Europe- America	New immigrants: Europe– America	Veterans: Asia- Africa	immigrants: Asia- Africa	Native- born	Arabs
fales							
5-19	100	4	82	A	135	58	135
0-24	100	97	102	101	102	94	107
5-34	100	101	100	102	66	66	101
5-44	100	103	101	101	96	96	96
5-54	100	106	101	98	89	96	66
5-64	100	124	102	٩	56	٩	۵
emales							
5-19	100	4	117	٩	123	87	•
0-24	100	142	125	76	59	151	4
5-34	100	119	94	67	54	115	4
5-44	100	138	103	59	48	66	4
5-54	100	150	102	52	34	84	۵
5-64	100	199	89	٩	31	4	۵

POPULATION AND LABOR FORCE

29

• Estimate unreliable because of small number of observations in cell.
• Estimate unreliable because of small number of observations in cell.
Source: Howne, op. cit., p. 67, Table 16. These figures were adjusted by Howne to correct for the labor force in the army. That is, they represent an estimate of the ratio of civilian labor force to civilian (and not total) working-age population.

CHAPTER 1

The overall civilian labor force participation rate during 1957-58 averaged (according to the labor force survey) 53.7 per cent.¹² It is difficult to make meaningful comparisons between this overall figure and that of other countries. But Hovne has shown that the specific participation rates of Israel males compare favorably with those of such economically advanced countries as France, West Germany, Great Britain and the United States-though the older men (aged 55-64) do tend to have lower rates. As already implied, the real weakness in Israel's labor force structure lies in the low participation rates of women. In part, this is a cultural phenomenon-reflecting the status of women in Asian-African Jewish families. But for certain groups (particularly among the older men) Hovne has demonstrated the existence of a significant correlation between low participation and high unemployment rates. All this suggests that as the new immigrants become more fully integrated into the existing social framework-and as their rate of unemployment drops from its present high level (Table 9)-their specific rate of labor force participation will rise.13

The level of unemployment is one index of the economy's success in integrating the increased population into its productive working force. Unfortunately, the first accurate estimate of unemployment is that of the November 1955 labor force survey. This and subsequent surveys recorded an individual as unemployed if he had not worked at all (neither full nor part-time) during the week preceding the survey. An extrapolation of this unemployment series back to 1950 is presented in line 2 of Table 7-though, for reasons explained in the notes to the table, the extrapolation is of unknown reliability. According to the series, a fairly constant proportion of the civilian labor force was unemployed during 1950-52. During 1953, however, this proportion increased sharply. This process probably began in the second half of 1952 and was undoubtedly connected with the significant decrease in the extent of government deficit spending which took place at that time. A related-and contributory-factor was the concurrent sharp contraction in construction activity (see Figure 4, p. 64).

For the purpose of measuring the absorption of immigrants, however, account must also be taken of the residents of immigration centers. These residents—no less than the unemployed—represented individuals who had not yet been integrated into the employed labor force of the eco-

¹² LFS: 1958, p. 12. This is the ratio of the civilian labor force to the total working-age population—including that in the army.

¹³ Hovne, op. cit., pp. 66-72, 85-88, 110, 122-23.

nomy. They were maintained for varying periods of time by the Jewish Agency and were not permitted during these periods to register at the labor exchanges. Consequently, they are not included in the unemployment estimate of line 2. Only as the immigration centers were replaced (either by change of place or change of name) by self-supporting transit camps (ma'abarot), did their residents enter the labor market proper. This is the process which took place from 1950 onwards.¹⁴

In any event, once the residents of immigrant centers are included, the picture becomes that shown in lines 7 and 8 of Table 7. The peak unemployment rate (in this broad sense) occurs in 1950. But even the 11.5 per cent recorded for that year—representing an estimated unemployment of 51,800—seems low in the light of the roughly 50,000 individuals who were added to the labor force by the immigration of 1950, and the 80,000 who had been added during the preceding year.¹⁵ Furthermore, to these should be added the thousands of individuals who had been released from the army during the same period.¹⁶ This is another reason for doubting the reliability of our estimates for these early years. Be that as it may, the rate revealed by them drops steadily after 1950, until the sharp increase of 1953.

As already noted, the unemployment estimates for the later years being based on labor force surveys—are much more reliable. These show an overall unemployment rate of roughly 7 per cent. (It is still too early to judge the significance of the sharp drop in 1958.) Due to the statistical difficulties already mentioned, it is impossible to make a precise comparison between this rate and that of the earlier years. Nevertheless, the general picture presented by line 8 of Table 7 does seem reasonable: namely, a lower unemployment rate during 1954–58 than during the mass-immigration period of 1950–53. On the other hand, even the 7 per cent rate of the last few years is significantly higher than that which obtained during 1951–57 in such countries as Canada (2.0–4.6 per cent), the United States (2.9–5.6 per cent) and Japan (1.1–1.6 per cent).¹⁷

¹⁴ Israel Government Year Book: 5717 (1956) (Hebrew), pp. 360-61, and Hovne, op.cit., Appendixes, p. A-89.

¹⁵ These rough estimates were obtained by multiplying the number of immigrants recorded for these years in Table 2 by one third: the approximate ratio of 'earners' to total immigration in 1950 (see Sicron, op.cit., p. 104, Table 3).

¹⁷ ILO, Year Book of Labour Statistics: 1958, pp. 169 ff. These estimates are based on labor force surveys making use of the same definition of unemployed as in Israel: i.e., in labor force but not working during week preceding survey.

¹⁸ Israel Government Year Book: 5717 (1956) (Hebrew), p. 361.

Labor force and employment	1950	1951	1952	1953	1954	1955	1956	1957	1958
 Civilian labor force, exclusive of immigration centers (annual average—thousands) 	427.0	529.6	580.9	596.6	608.7	623.4	644.8	676.0	698.3
2. Unemployed civilian labor force (thousands)	(28.5)	(33.3)	(36.8)	(52.9)	(44.8)	39.6	46.4	49.2	40.7
3. Employed civilian labor force (thousands) (1. less 2.)	(398.5)	(496.3)	(544.1)	(543.7)	(563.9)	583.8	598.4	626.8	657.6
4. Unemployment rate (per cent)(2. ÷ 1.)	(6.7)	(6.3)	(6.3)	(8.9)	(7.4)	6.4	7.2	7.3	5.8
5. Estimated potential labor force in immigration centers (annual average—thousands)	23.3	12.3	5.9	1.9	1.6	1.6	1.3	1.3	
 G. Civilian labor force, inclusive of immigration centers (thousands) (1.+5.) 	(450.3)	(541.9)	(586.8)	(598.5)	(610.3)	625.0	646.1	677.3	698.3
 Unemployment inclusive of immigration centers(thousands) (2.+5.) 	(51.8)	(45.6)	(42.7)	(54.8)	(46.4)	41.2	47.7	50.5	40.7
 Unemployment rate inclusive of immigration centers (per cent) (7.÷6.) 	(11.5)	(8.4)	(7.3)	(9.2)	(7.6)	6.6	7.4	7.5	5.8
9. Average number employed in work relief (thousands)	(3.2)	(5.2)	(5.4)	(0.9)	8.2	10.8	11.4	15.6	16.7
10. Index of depth of unemployment	100	88	124	155	143	128	111	104	109

CHAPTER 1

32
- Line 11: 1950-57-Average of year-end estimates as given by Howne, op.cit., Appendix, p. 80. (For 1955-57), the averages are of November 1 estimates.)
- 1958—CBS, LFS: 1958, p. 10. The Hovne data of this and the following lines are preliminary and subject to further revision; see p. 24, footnote 5, above.
- Line 2: Howne's general method is to extrapolate the LFS unemployment estimates backwards by means of the data on unemployed workers registered at the labor exchange ($\phi p. cit$, Appendix, p. 93). The specific series used here is that on the total number registering per month; of all the various classifications reported by the labor exchanges this gives the highest correlation (r=0.69) with the LFS estimates. The average weighted (by size of sample) ratio of the LFS figure to the corresponding monthly labor exchange figure (1.28) was applied to the average monthly figure for each year as given in *Statistics of Labor Exchanges* (Hebrew), No. 8, 1958, p. 20, to obtain the figures in line 2.

The figure for 1958 is compiled from monthly releases of the Labor Exchange.

Since the foregoing two series are quite different conceptually —and since the correlation between them is low for the purpose in mind—this extrapolation is not too reliable. Hence the earlier estimates have been placed in parentheses. The estimates for 1955–58 are, of course, close to the LFS estimates—though there are discrepancies arising at least in part from seasonal fluctuations. The LFS estimates for these years are 45.5, 46.0, 47.6, and 40.0 thousands, respectively. (The last two estimates are averages of the LFS figures for the respective years.)

33

Line 5: 1950–55-Working-age population of immigration centers for 1950–1955 as estimated by Hovne, *op.cit.*, Appendix, p.91. To the annual average of Hovne's end of year figures

p. 91. To the annual average of Hovne's end of year figures was applied the participation rate (53.6) found to obtain in the November 1955 LFS ((CBS, Special Series No. 61, p. 2).

1956-57—Total population of immigration centers from *Abstract No. 9*, pp. 14–15. To this was applied the same ratio of working-age to total population as existed in 1955. Finally, estimated working-age population was multiplied by participation rates yielded by respective LFS (1958, p. 10). 1958—Classification of immigration center abolished: see *Abstract No. 9*.

Line 9: 1950-53, and 1958-Unpublished files, Economic Research Unit, Ministry of Labor. These figures are not strictly comparable with those of 1954-57. 1954-57-Economic Research Unit, Ministry of Labor, Employment and Unemployment Tendencies (Hebrew), No. 21, September 1958, Appendix A. Comparable data for earlier years unavailable. These sources refer to those employed on work relief as 'underemployed'. They then provide estimates of two quantities: (a) the total of registered unemployed and underemployed, and (b) the total registered unemployed. The data in the table here are derived by subtracting (b) from (a). Line 10: Index of ratio of registered 19 days or more during month to those unemployed seven days or more. (Statistics of Labor Exchanges, (Hebrew), No. 8, 1958, p. 20.) Figure for 1958 compiled from monthly releases of the

Figure for 1958 compiled from monthly releases of the Labor Exchanges.

In view of this extended discussion of the unemployment question, it should be emphasized that a low level of unemployment is only a necessary—but not a sufficient—condition for the successful absorption of immigrants. To the extent that the economy provides full employment at the expense of creating balance of payments crises, it is not really solving its problem. The same thing is true if it keeps unemployment low by means of 'make-work' projects of a governmental or semigovernmental nature. Conversely, a temporary rise in unemployment may be the concomitant result of a policy directed toward the solution of other basic problems of the economy. This was undoubtedly the case with reference to the increased unemployment of 1952–53—which resulted from the government's 'New Economic Policy', directed at stopping (at least temporarily) the rapid inflationary process of 1949–51 (see Chapter 4).

Before concluding this discussion we must emphasize that in addition to the unemployment proper recorded by the labor force survey, there are other types of unemployment in the economy. Thus, there are, first of all, those people who are employed on a part-time basis due to their inability to find full-time work. The June 1954 survey reported that out of 74,900 part-time workers, there were 9,100 who had looked for additional work.¹⁸ Similarly, the June 1956 survey (using a somewhat different question) reported that out of 77,500 part-time workers, there were 27,100 who desired full-time work. All this is in addition to the 46,000 workers reported unemployed by this survey.¹⁹

Another relevant factor here are the government work-relief projects mentioned above. Line 9 of Table 7 provides an estimate of this type of employment. It might be noted that the work-relief program since 1954 has been connected with the government policy of providing individuals with at least half a month's employment.²⁰ This means that there would be double counting if we were to add these workers to the unemployed reported by the labor force survey in an attempt to reach an estimate of the total number of workers not employed in regular

¹⁹ CBS, LFS, June 1956, op cit., pp. 2, 60. The 27,100 workers consist of 6,100 who normally worked full-time, but who for 'economic reasons' (labor disagreements, temporary cutting down of working staff, dismissals, etc.) were working only part-time; and 21,000 who normally worked part-time but who wanted to work full-time.

Since the questions asked here were different from those of the June 1954 survey, the estimates are not comparable.

²⁰ Ministry of Labor, Labour and National Insurance (Hebrew), April 1957, p. 4.

¹⁸ CBS, LFS: June 1954, op.cit., p. 2.

POPULATION AND LABOR FORCE

jobs. For since the relevant criterion of the labor force survey was the employment status of the individual in the week preceding the survey, some of the individuals on work relief appear among the partially unemployed reported by the survey—and some even among the completely unemployed.

It has also been contended that the unusually high percentage of Israel's labor force engaged in governmental and personal services (see Table 11) represents a form of disguised unemployment'.²¹ Neither the conceptual nor statistical basis of this contention has yet been fully clarified. Nevertheless, it does seem highly likely that there are many individuals whose services in government and public institutions are redundant—and whose employment accordingly represents a form of work relief.

	Percenta	ge of total unen	ployed
Depth of unemployment	November 1955	June 1956	1958 -
Total	100.0	100.0	100.0
Under four weeks	27.8	23.2	31.8
Five-eleven weeks ^b	21.0	19.5	23.2
Twelve-twenty-five weeks ^b	30.9	27.7	19.4
Twenty-five weeks and over ^b	20.3	29.6	25.6

TABLE 8. Depth of Unemployment

* Average of the four quarterly surveys.

^b This corresponds to the month and week breakdown used in the LFS.

SOURCES: CBS, LFS: November 1955, p. 36; LFS: June 1956, p. 71; unpublished findings of 1958 survey.

Two further—and related—facts are of great importance with respect to unemployment; the first is its depth, and the second its structural nature. The relevant data on the first of these questions are given in Table 8. Each of the surveys cited reported that from 20 to 30 per cent of the unemployed had been out of work for over half a year. No comparable data are available for earlier years. But an index of depth of unemployment based on employment exchange data shows (as might have been expected) that the year-to-year changes in this depth were correlated (0.65) with corresponding changes in the rate of

²¹ Cf. Economic Advisory Staff, The Israel Economy in 1954, mimeographed, Jerusalem, July 1955, p. 57; Bank of Israel, Annual Report: 1955, p. 96.

unemployment exclusive of immigration centers (lines 4 and 10 of Table 7). The general picture is one of significant depth of unemployment during 1952-54, with a slow decline subsequently. This decline may be connected with the fact that an increasing number of people found part-time employment in work-relief projects during this subsequent period.

a de la	Natine	Veterans	born in	New imm born	igrants in	
Classification	born	Europe- America	Asia- Africa	Europe- America	Asia- Africa	I otal
Total labor force	100.0	100.0	100.0	100.0	100.0	100.0
Employed	90.5	97.7	94.0	93.9	88.0	93.2
Unemployed	9.5	2.3	6.0	6.1	12.0	6.8
Employed	15.4	30.9	5.2	27.5	21.0	100.0
Unemployed	22.0	10.0	4.5	24.4	39.1	100.0

TABLE	9.	Distribution	of	Jewish	Unemploymen
		(Pe	T C	ent)	
	14	nergae of June	and	Novemb	er. 1957)

SOURCE: CBS, LFS: 1957, pp. 20-25.

In any event, the data of Table 8 make it clear that the unemployment problem of Israel is not a frictional one. Some further light on this question is shed by Table 9, which shows that unemployment is higher among Jews of Asian-African origin than of European-American origin, and that in each case it is higher among new than among veteran immigrants. The particular data here refer to 1957, but much the same picture is reported by the labor force surveys from 1954 onwards. In general, the concentration of unemployment is among new immigrants from Asia-Africa. At the same time, there is a secondary concentration of unemployment among the native-born. It is difficult to understand the reasons for this fact; the demographic characteristics of the native-born provide only a partial explanation.

In view of the similar concentration of low education and literacy levels in the Asian-African group (Tables 4 and 5), one might well ask if there is not a correlation between the rate of unemployment and these educational levels. Table 10 shows that this is indeed the case. The unemployed were consistently—and significantly—less educated and more illiterate than the employed. This suggests that unemployment is concentrated among those workers without special skills to offer

			LFS J	une 1954						LFS June	1957		
					Comp	heted		F	-				
Employment status	Tot Jewish fore	al labor ce	Did not attend primary	Did not complete primary	Prim-	Secon- dary and	Total (3) through	Jewish	labor ce	Unable to read or	Able only to read	Able to read and	Total (10) through
	(Thou- sands) (1)	(Per cent) (2)	school (3)	school (4)	school (5)	nigner educa- tion (6)	(a) (1)	(Thou- sands) (8)	(Per cent) (9)	(10)	(11)	(12)	(13)
Males	371.1	717	64	29.3	35.8	28.5	100.0	380.5	59.5	5.1	0.9	94.0	100.0
Unemployed	33.6	6.5	10.3	41.8	33.1	14.8	100.0	27.0	4.2	12.2	2.3	85.5	100.0
Females Employed ^b Unemployed	103.3 9.4	20.0 1.8	8.7 14.1	19.7 30.6	35.2 38.7	36.4	100.0	96.4 15.4	15.1 2.4	5.1 5.5°	0.1	94.5 94.5	100.0 100.0
Other status Total	517.4	100.0						120.6 ^b 639.9	18.8 100.0				

POPULATION AND LABOR FORCE

With reference to the 1954 data, 'employed' means everyone except unemployed—including part-time with porarily absent from their jobs. With reference to the 1957 data, 'employed' means only full-time employed.

The percentage for women partially employed was 18.1.
 The percentage for women partially employed was 18.1.
 Sources: CBS, Standard of Education of the Population: June 1954, Special Series No. 66, p. XI. CBS, Bulletin A, March 1958, p. 390.
 Column (1): CBS, Labour Force Survey: June 1954, Special Series No. 56, pp. 10–11.
 Column (8): CBS, Bulletin B, February 1958, pp. 292–93.

37

to the market. From this it follows that a good deal of the unemployment in Israel is structural in nature and will not find a satisfactory long-term solution until these workers acquire the educational characteristics necessary for a modern industrial economy.

At the same time, the question may well be raised if the short-term absorption of unskilled immigrants into the employed labor force could not have been speeded up by a reduction of their real wage rate. On a priori grounds-and without going into the social consequences of such a reduction-this is certainly what might have been expected. It might also be noted that to the limited extent that the government subsidized firms which increased the number of workers they employed, such a wage-reduction did occur-from the viewpoint of the employer.²² Unfortunately, we do not have the data on unskilled wages which are necessary for a detailed study of this question. Nor do we have any information on the relevant elasticities of demand for unskilled labor. What we do know is that an index of real average daily earnings (both skilled and unskilled) in manufacturing shows an almost continuous rise during the period under study (Figure 2).23 The only notable deviation from this general trend-and a very short-lived one at thatoccurred immediately after the depreciation of February 1952.24

Figure 2 shows that from 1950 to 1958 real daily earnings increased by a total of 41.2 per cent—which represents an annual (compounded) average of 4.4 per cent. The annual rate of increase has been greater in more recent years (4.7 per cent from 1953 to 1958) than in the earlier ones (3.9 per cent from 1950 to 1953). Indeed, if we take account of the fact that the cost-of-living index used to deflate nominal wages greatly underestimated the true rise in prices during this period,

- ²² The reference here is to the Employment Fund from which the Ministry of Commerce and Industry made loans to firms which promised to take on more workers. The number of workers so employed was 3,000 in the budget year 1954/55 and 2,900 in the budget year 1956/57 (Israel Government Year Book: 5719 (1958), p. 99).
- ²³ The data on which Figure 2 is based were spliced together from the CBS indexes by Uri Bahral in connection with his study on wages; see project report 16. For further details see Appendix Table B, columns (13) and (14).

For a presentation of these data for the period 1947-55, see S. Riemer's article on "Wages in Israel", *Hebrew Encyclopedia*, Vol. 6, p. 804. Riemer greatly emphasizes the discouraging effect of the real wage rate on employment. However, he carries his view to extremes which are not supported by the evidence.

²⁴ Further discussion of the interrelationship between wages, prices and the exchange rate will be presented in Chapter 4.

POPULATION AND LABOR FORCE

it might well be that the real wage rate declined during 1949 and 1950.²⁵



FIGURE 2. RELATIVE WAGE RATES

SOURCES: Index of real average daily earnings in manufacturing: Appendix Table B, col. (14). Index of ratio of average daily earnings in manufacturing to price of equipment: based on CBS, Abstract No. 9, 1957/58, p. 115, and Bank of Israel, Annual Report: 1958, p. 55, Table V-3.

This differential rise in real wages over the period may be connected with the fact that the rate of unemployment during these earlier years was probably higher than in the later ones (Table 7, line 8). It might also be noted that the sharper rise in the real wage rate takes place during that period in which—as we shall see in Table 26—the overall efficiency of the economy greatly increased. However, not too much should be made of this fact. For the real wage rate also increased during 1950–53—when according to these same calculations this efficiency decreased! More fundamentally, these efficiency calculations refer to the economy as a whole, and not specifically to the manufacturing sector.

25 Cf. Chapter 4 below.

The fact that our data are limited to manufacturing means that they bear on only part of the employment picture. There is evidence that from 1955 to 1957 wages in building and agriculture rose less than in manufacturing.²⁶ Furthermore, even within the manufacturing sector the foregoing data refer to the real wage rate in terms of the prices paid by the workers (i.e., the cost-of-living index)—whereas the relevant real wage rate for the analysis of employment is the one in terms of the prices received by the employers (i.e. an index of production prices). For this purpose an index of manufacturing prices is needed but, unfortunately, it is as yet unavailable. From all this it will be clear that much further study on these questions is required.

So far we have concentrated on the real wage rate—on the movement of wages relative to commodity prices. But a consideration of at least equal importance—for the question of the absorption of unskilled immigrants into the employed labor force—is the movement of unskilled wages relative to skilled wages, on the one hand, and to prices of capital equipment on the other. These crucial questions are now being investigated by Uri Bahral.²⁷ Some of his preliminary findings are presented in Figure 2—which shows that the ratio of nominal daily earnings (in manufacturing) to equipment prices fell sharply after the devaluation of 1952, and has remained more or less constant since 1954. Bahral has also found indications that wage differentials have widened since at least 1955—and that contrary to accepted opinion, this has been partly due to the workings of the cost-of-living allowance. From the viewpoint of their impact on employment, both these movements are, of course, desirable.

Before concluding this discussion of employment, we might note briefly the salient facts about its industrial distribution. These are set out in Table 11—where the situation in Israel is compared with that in other countries of its general income class or above (see Table 15). What stands out is the low percentage (separately and combined) in agriculture and manufacturing, and the extremely high percentage in the service industries. This has sometimes been explained as being the obverse side of Israel's heavy dependence on an import surplus. By its nature, this surplus is much more heavily weighted with commodities

²⁶ Bank of Israel, Annual Report: 1956, p. 111; 1957, p. 71.

²⁷ See project report 16.

Strictly speaking, what should be compared are the costs of labor with the costs of the *services* of capital equipment. Unfortunately, there are as yet no available data on the latter.

		(Per	cent)					
Economic branch	Israel (1958)	Austria (1951)	France (1957)	Italy (1951)	Nether- lands (1947)	Norway (1950)	Switzer- land (1950)	West Germany (1950)
Agriculture and manufacturing	39.3	60.6	54.1	62.8	44.6	52.4	55.0	57.2
Agriculture, forestry, and fishing	17.6	32.3	25.7	40.0	19.3	25.9	16.5	23.2
Manufacturing (industry, crafts,								
and quarrying)	21.7	28.3	28.4	22.8	25.3	26.5	38.5	34.0
Construction	9.8	8.0	7.4	7.1	7.0	9.3	8.1	8.2
Electricity, gas, water, and sanitation	2.0	0.8	0.7	0.5	1.0	0.8	:	0.7
Commerce and banking	12.3	8.8	31.9	12.4	14.1	10.8	11.7	9.6
Transport, storage, and communication	6.8	5.3	5.1	3.8	6.2	10.1	4.6	5.2
Services	29.8	15.3	•:	8.1	24.5	16.1	19.8	16.9
General government, and business services	21.9	:	:	8.1	:	:	7.6	:
Personal services and recreation	7.9	:	:	•:	:	:	12.2	:
Miscellaneous	I	1.2	0.8 °	5.3 °	2.6 4	0.5 4	0.8 °	2.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 11. Industrial Distribution of the Labor Force. : Israel and Other Countries

The figures for Israel are for employed labor force; for other countries for 'economically active population' (see ILO, Year Book of Labour Statistics: 1958, pp. 1 ff.)
 Included in commerce and banking.

TOTAL

· Unemployed.

41

⁴ Unemployed and status not known. Sources: Israel: CBS, LFS: 1958, p. 16 (average of the four 1958 surveys). Other countries, ILO, Year Book of Labour Statistics: 1958, Table 4.

POPULATION AND LABOR FORCE

than with services; hence (the argument goes) the emphasis of the economy's own productive efforts lies in the opposite—and complementary—direction.²⁸ But this can be only part of the explanation for otherwise we should expect to find the percentage of the labor force in commerce and transportation to be 'abnormal' to roughly the same extent as in services. The fact that this is not so indicates that other factors are also at work here—including the possibility of redundant government workers already referred to.

To summarize, even today the Israel economy remains confronted with an unemployment problem which is serious in its extent, in its depth, and in its structural nature. Furthermore, it can be assumed that this problem has been further complicated by the rigidity of real wages—and, indeed, by their apparent tendency to rise during most of the period under study. This unemployment problem is particularly severe among the new immigrants from Asia and Africa. Nevertheless, the integration of most of the increased population into its productive labor force has been one of the significant accomplishments of the Israel economy in the first decade of its existence. The obvious question which now arises is to what extent this growth in labor input has been accompanied by a growth in product output. It is to this question that we now turn.

²⁸ This point is made by Michael Michaely in a forthcoming study of Israel's balance of payments.

THE GROWTH OF NATIONAL PRODUCT AND INCOME

ISRAEL IS A modern economy. Like most oversimplifications, this one too is not completely valid. But it is much more valid than the opposite conception of Israel as an underdeveloped economy of the genus of Egypt, India, China, and the like. It is apparent from the preceding chapter that Israel does not have the basic population problems of these classical' underdeveloped countries. Nor-despite all the difficulties that confront it-is its problem of educating its labor force to any extent comparable in severity with that of these other countries. It is also clear from Table 11 that the industrial distribution of Israel's labor force is quite modern-and that in particular Israel is not confronted with the fundamental problem in underdeveloped countries of shifting a predominantly agricultural population into other activities, with all the disturbances and dislocations that such a movement involves. Finally, as we shall now see. Israel is not an underdeveloped economy from the viewpoint of both the level and the rate of growth of its per capita income and product.

There is, however, one respect in which Israel differs fundamentally from both modern and underdeveloped economies. This is in its high degree of dependence on an import surplus. In this chapter we shall merely indicate the dimensions of the problem; a more detailed analysis of its implications will be presented in Chapters 3 and 5.

A. NATIONAL PRODUCT AND ITS COMPOSITION

The national product estimates of Israel—in terms of current pounds —are presented in Table 12. This shows the total amount of resources available to the economy—as composed of the amount the economy itself produces (the GNP—or gross national product) *plus* the excess of imports over exports. It also provides details on the allocation of these resources among the alternative ends of private consumption, govern-

ment consumption, and gross investment, respectively.¹ As will be noted from the table, the estimate of allocation of resources for depreciation purposes is quite arbitrary; therefore most of the following discussion will be based on the gross—instead of net—investment figure.²

There is one point about the GNP estimate which will concern us repeatedly in what follows. This estimate is computed as the difference between the total resources of the economy and the import surplus. Hence its level is vitally dependent on the way in which the import surplus is evaluated. In particular, the fact that this surplus is evaluated at the official exchange rates (see Table 16)—and that during some years these rates have frequently overvalued the Israel pound—means that the GNP estimates of these years are also overvalued.

Because of the sharp inflationary price developments that took place during the period (to be discussed in Chapter 4) the absolute figures of Table 12 have little meaning in themselves. As the indexes in Table 13 show, the average price level of the GNP more than tripled during

¹ In accordance with the usual definitions, all expenditures of households for food, clothing, furniture, services, recreation, use of dwelling space, and the like, are included under the heading of private consumption. On the other hand, expenses in connection with the construction of these dwellings themselves are included under gross investment. This is *a fortiori* true for non-residential construction in the form of factories, roads, tarm buildings, and the like.

It might also be noted that—owing to lack of data—additions to inventory are for the most part not included in gross investment.

² In part, the absence of reliable figures on depreciation is due to the rapid price movements which have made book-value depreciation figures irrelevant.

The 7.5 per cent ratio of depreciation to GNP is based on the corresponding average annual ratio that existed during 1950-55 for the following 15 countries: Australia, Austria, Belgium, Canada, Chile, Denmark, Greece, Italy, Japan, the Netherlands, New Zealand, Norway, the Philippines, the United Kingdom, and the United States. Data were obtained from UN, Statistics of National Income and Expenditure, Series H, No. 10, New York, 1957.

This ratio has a somewhat smaller coefficient of variation than the 7 per cent ratio to national income used by the Bank of Israel in its estimates (Bulletin No. 7, p. 27). Furthermore, since the following analysis will deal primarily with the components of GNP, it is more desirable to use a ratio to that figure, and not to national income—for the usefulness of the latter ratio will also be impaired by the large and fluctuating discrepancy between the estimates of national income and net national product at factor prices (cf, Table 20, line 6, below).

The foregoing procedure is clearly defensible only to the extent that (1) the 15 countries listed did not use equally arbitrary procedures in constructing their estimates of depreciation, and that (2) there is some similarity between the capital structure of Israel and these other countries.

TABLE 12.	. Total R.	esources an	nd Their .	Disposal:	Current F	rices			
		(IL)	Millions)						
	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Private consumption	354.0	504.4	836.8	1,088.2	1,439.9	1,644	1,855	2,213	2,523
Consert consumption	94.1	123.2	192.6	244.6	340.8	428	675	625	683
a Civilian expenditure	52.3	70.4	128.7	170.5	222.6	268	335	370	429
b. Defense and special budgets	41.8	52.8	63.9	74.1	118.2	160	340	255	254
2 Gross domestic canital formation	127.4	191.2	296.3	332.8	415.3	551	655	868	924
Demeciation (7 5% of GNP in line f	6) 35.6	51.8	79.7	101.2	137.2	159	161	265 -	300
b. Net domestic capital formation	91.8	139.4	216.6	231.6	278.1	392	464	603	624
4. Total use of resources (1.+2.+3.)	575.5	818.8	1,325.7	1,665.6	2,196.0	2,623	3,185	3,706	4,130
5. Import surplus ^b	100.7	128.4	262.7	316.9	367.1	509	642	603	600
6 Gross national product (4. less 5.)	474.8	690.4	1,063.0	1,348.7	1,828.9	2,114	2,543	3,103	3,530
7. Total resources	575.5	818.8	1,325.7	1,665.6	2,196.0	2,623	3,185	3,706	4,130
 These depreciation estimates are not ca as presented in Bank of Israel, Anni ^b This is import surplus evaluated as in ^b This is import surplus evaluated as in Sources: 1950–54: Line 2b: Lubell, Isra 1955: Line 2b: Fiscal year f Table 1, p. rew), Jerusa Other lines: Bank of 1956: Line 2b: Calculated fr 1956: Line 2b: Calculated fr Other lines: Bank of 1957–58: Line 2b: Bank of Other lines: Ibid, p. 1 	alculated as ' Table 16, Li Table 16, Li Fable 16, Li Fable 16, Li Fable 4- fagures from 105; and Cl alem, May 19 fables from 105; and Cl alem, May 19 fables from fables, fable fable 11- 10, Table 11- 10, Table 11-	 7.5% of GN 7.5% of GN 1958, p. 10 1.4. 1.	P; instead , Table II , with slight e: 1950-19 e: 1950-19 itures and prorated :: 1957, p. in ancial R in ancial R in 1958, p. 2	they are the -1. ht differenc 954, FP an 954, FP an 91, Sector Receipts of 11, Table 1 11, Table 1 11, Table 1 11, Table 1 133, Table 2	perpetual i es due to r d CBS, Spr d CBS, Spr <i>Accounts o</i> <i>the Govern</i> <i>i</i> .1.1. <i>overnment:</i> <i>overnment:</i> <i>stv-9.</i>	inventory ounding. ecial Seri: <i>f Israel:</i> <i>iment: 19</i> <i>1955/56</i> <i>r</i> 1955 an	estimates es No. 74 1948/49 55/56 an and 19 d April-I	of A.L. C , Jerusale , 1956/55 d 1956/55 56/57 (F	iaathon, m, July 7 (Heb- (Ebrew), 1956.

NATIONAL PRODUCT AND INCOME

45

the period. An even sharper increase is recorded for import prices: according to the table, this increased by a little more than 5.5 times during the first decade. This is primarily a reflection of the successive devaluations which caused the official exchange rate to increase roughly fivefold from IL 0.357 per dollar in 1950 to IL 1.800 per dollar in 1958 (Table 16, line C).

The year-to-year changes of the import price index, however, are not an accurate reflection of the actual movements that took place. Thus, the fact that the pound in 1950 was seriously overvalued—and that in 1952 it was much closer to its 'true' value—means that the index overestimates the true' rate of increase in import prices between 1950 and 1952. Similarly the fact that the index has been constructed on the basis of the official IL 1.800 per dollar rate since 1955—despite the fact that this rate has become increasingly unrealistic—means that the rise from 1955 to 1958 is underestimated. Indeed, the import price index during these years merely reflects the changes in international prices of imports; it does not reflect the changes in their domestic prices.³

This sharp increase in import prices has undoubtedly affected the differential price movements of the other categories in Table 13 too. Thus, gross domestic capital formation—which has the largest import component of these categories—shows the most rapid increase in prices over the period. Similarly, government consumption—whose import component is higher than that of private consumption in more recent years —shows a more rapid increase than the latter.⁴

In view of these inflationary price movements, the relative figures in Table 14 are considerably more meaningful than those on nominal money quantities. Even these relative figures, however, are distorted by the unrealistic exchange rates used in constructing the absolute nominal estimates of, for example, 1950–51 and 1957–58; this has already been explained above. For the period of extensive price control and rationing (1950–51) they are also distorted by the fact that goods are evaluated at official prices—despite the existence of an extensive black market.

³ Symbolically, the index of import prices can be represented as $\frac{S_t}{S_0} = \frac{R_t q_t}{R_0 q_0}$,

where S=import prices in pounds, R=exchange rate (pounds per dollar), q= dollar prices of imports, and t and o represent the current and base year, respectively. If R_t is constant, then the movement in S_t/S_0 is proportional to that of q_t/q_0 .

⁴ On the import components, see Bank of Israel, Annual Report: 1957, p. 22, Table II-8; 1958, p. 18, Table II-7.

	1950		1952	1953	1954	CCET	0061	1957	1958
1. Private consumption	56.1	64.1	100.0	125.6	137.4	145.4	154.7	169.3	173.5
2. General government consumption	52.7	62.8	100.0	122.8	135.1	153.1	171.9	184.3	196.8
3. Gross domestic capital formation	41.0	56.0	100.0	134.1	146.3	161.8	179.8	190.9	194.2
4. Total resources	51.4	61.8	100.0	126.8	138.6	149.8	162.8	176.4	181.4
5. Imports	34.3	41.3	100.0	125.4	151.1	184.0	195.3	203.6	192.7
6. Gross national product	57.4	68.1	100.0	127.1	136.4	143.4	156.3	171.9	179.6

NATIONAL PRODUCT AND INCOME

TABLE 14. Total Resources and Their Disposal: Current Prices

		(Per	cent)						
	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Private consumption	61.5	61.6	63.1	65.3	65.6	62.7	58.2	59.7	61.1
2. General government consumption	16.4	15.0	14.5	14.7	15.5	16.3	21.2	16.9	16.5
a. Civilian expenditure	9.1	8.6	9.7	10.2	1.01	10.2	10.5	10.0	10.4
b. Defense and special budgets	7.3	6.4	4.8	4.5	5.4	6.1	10.7	6.9	6.1
3. Gross domestic capital formation	22.1	23.4	22.4	20.0	18.9	21.0	20.6	23.4	22.4
a. Depreciation	6.2	6.4	6.0	6.1	6.2	6.1	6.0	1.7	7.3
b. Net domestic capital formation	15.9	17.0	16.4	13.9	12.7	14.9	14.6	16.3	15.1
4. Total use of resources (1.+2.+3.)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
5. Import surplus	17.5	15.7	19.8	19.0	16.7	19.4	20.2	16.3	14.5
6: Gross national product (4. less 5.)	82.5	84.3	80.2	81.0	83.3	80.6	79.8	83.7	85.5
7. Total resources	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
As per cent of GNP:									
8. Gross domestic capital formation $(3, \div 6.)$	26.8	27.7	27.9	24.7	22.7	26.1	25.8	28.0	26.2
9. Import surplus $(5, \div 6)$	21.2	18.6	24.7	23.5	20.1	24.1	25.2	19.4	17.0
10. Defense (2b.÷6.)	8.8	7.6	6.0	5.5	6.5	7.6	13.4	8.2	7.2

SOURCE: Table 12.

Keeping these reservations in mind, we note that lines 1 to 3 of Table 14 show that the relative proportions of total resources going to private consumption, government consumption, and gross domestic capital formation have moved within a narrow range around the levels of 62 per cent, 16 per cent, and 22 per cent, respectively. During years of 'special circumstances' these percentages did, of course, change. The clearest case of this occurred during the year of the Sinai Campaign, when the share of government consumption jumped from 16.3 per cent in 1955 to 21.2 per cent in 1956.

Similarly, higher than usual proportions for gross domestic capital formation are to be found in 1950–52, whereas relatively lower proportions mark the years 1953–54. This would seem to be related primarily to changes in the level of immigration and the consequent changes in the level of construction activity which accompanied them (see Figure 4). On the other hand, the relatively low percentages for private consumption in 1950–51, as compared with the period immediately following, may reflect the rationing and price controls of those years.

Describing Israel's performance in terms of its national accounts enables us to make some simple comparisons with that of other countries. This is done with full awareness of the potential pitfalls and superficialities inherent in such comparisons. There is, first of all, the differing reliability of estimates of the various countries—not to speak of the differing definitions of the same term (e.g. investment). Second, other countries might differ so much from Israel in their economic structure as to make comparisons with them of doubtful meaning. We have tried to avoid this latter difficulty to some extent by concentrating on countries whose per capita income is similar to that of Israel. In any event, it is only by making such international comparisons that one can have a basis for determining what is special in Israel's economic circumstances, and what has been the nature of its economic performance.

From Table 15 we see that Israel's average per capita national product during 1952-54 placed it near or above that of the richer underdeveloped countries of South America (such as Argentina and Colombia), above the poorer countries of Europe (such as Ireland, Austria, and Italy), but below those moderately well off (such as the Netherlands, West Germany, and Finland). However, due to Israel's relatively rapid development after 1954 (to be described below), its standing by 1956 had improved and had almost reached that of the last-mentioned group of countries. At the same time, it undoubtedly remains true that Israel's per capita product is still significantly below such advanced

Country	Per capita product at	net national factor cost US	Ratio of gross investment	domestic to GNP	Ratio of gro. investmen resou	ss domestic ut to total urces	Ratio of im- port surplus to GNP	Ratio of gov- ernment con- sumption to total resource.
	1952-54 (1)	1956 (2)	Per cent (3)	Rank (4)	Per cent (5)	Rank (6)	(7)	cent (8)
Norway	740	849	28.2*	1	27.4 *	1	3.0	11.6
Venezuela ^b	540	656°	27.7	2	24.8	33	11.7	16.1
Israel	445	596	26.8	3	21.8	9	23.3	15.7
Finland	670	879	25.0	4	25.0	2	0.0	11.9
Netherlands	500	614	23.9	5	24.1	4	-1.7	14.6
West Germany	510	660	23.8	9	24.1	5	-1.0	16.7 ^d
Austria	370	494	22.1	2	21.3	7	4.0	12.5
Union of South Africa	300	342	20.7	8	20.5	8	1.1	12.2
Argentina	460	426	20.2	6	20.0	6	0.9	13.0
Italy	310	380	20.2	10	19.8	10	2.1	11.1
France	740	916	18.9	11	18.8	11	0.8	14.8
USA	1,870	2,031	18.5	12	18.6	12	-0.5	16.7
Ireland	410	423	14.8	13	13.7	13	7.7	12.7
UK	780	006	13.5	14	13.6	14	-1.0	17.5
Panama	250	249°	13.1	15	12.3	15	6.4	12.5
Puerto Rico	430	444	12.8	16	11.4	16	12.2	12.1
Colombia ^b	250	312 *	11.1	17	11.0	17	0.5	12.5

TABLE 15. Composition of National Expenditure: Some International Comparisons

Ingin The Norwegian estimates of gross investment include repair and Estimates not too reliable.

• 1955

^d Includes occupation costs.

• 1954.

Sources: Israel:

-- Tables 1 and 20; exchange rates from UN, Statistical Yearbook: 1957, Table 166. - Table 14. Cols. (1) and (2) Cols. (3), (5), (7), (8) Other countries:

--- UN, Per Capita National Product of Fifty-five Countries: 1952-1954, Statistical Papers, Series E, National income estimates: UN, Yearbook of National Accounts Statistics: 1957. No. 4, p. 7, Table 1. 1 Col. (1) Col. (2)

Population estimates: UN, Monthly Bulletin of Statistics, February 1958.
Rates of exchange on \$: UN, Statistical Yearbook: 1957, Table 166.
Cols. (3), (5), (7), (8) - UN, Statistics of National Income and Expenditure, Statistical Papers, Series H, No. 10. For Panama, Puerto Rico and Colombia, the unweighted average of 1950, 1952, and 1954, and for Venzuela for 1952 and 1954; for other countries the unweighted average of 1950, 1952. and 1955; the figures would not change significantly if they were computed on the basis of *Yearbook of National Accounts Statistics: 1957*.

CHAPTER 2

50

economies as France, Norway, the United Kingdom and Sweden—not to mention the United States. Fuller details of these comparisons are provided in the first two columns of Table 15.

Lines 5 and 9 of Table 14 reveal the most distinctive characteristic of the Israel economy—the high degree of dependence on an import surplus. Indeed, no other country comes even close to this degree of dependence. This is brought out in Figure 3—which makes a comparison with 33 other countries.





Other countries: UN, Statistics of National Income and Expenditure, Series H, No. 10; unweighted averages of years 1950, 1952 and 1955, except for Malaya—1950, 1952 and 1953; Mexico—1952, 1954 and 1955; Switzerland—1954 and 1955; Yugoslavia—1953 and 1954.

The size of Israel's import surplus is, of course, the obverse side of the international loans (Export-Import Bank, Independence Loan) and large unilateral transfers of various types (United Jewish Appeal, us grant-in-aid, German reparations and restitution payments, and the like) which it receives. The role of this import surplus in Israel's economy will be discussed further in Chapters 3 and 5. For the moment we merely note the details on the sources of financing the import surplus and the changing relative importance of these sources over time—as described in the balance of payments (Table 16). We also note that there is no indication of any decrease in the absolute size of the surplus as measured in dollars; nor is there any indication of a significant

<sup>KEY TO COUNTRIES (in ascending order of magnitude): a—Malaya; b—Switzerland;
c—Japan, Netherlands, Ecuador, Australia, West Germany; d—UK, USA, Sweden, New Zealand, Finland; e—Mexico, Chile, Belgium, Colombia, Denmark, France, Argentina; f—South Africa, Brazil, Canada; g—Italy, Turkey, Yugoslavia; h—Norway; i—Austria, Portugal; j—Panama; k—Ireland; l—Greece; m—Venezuela; n—Puerto Rico; o—Israel.
SOURCES: Israel: Table 14.</sup>

TABLE 16. Balance of Payments: 1950-58

(\$ Millions)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
A. Imbort surblus									
1. Imports of goods and services	327.6	426.1	393.2	365.2	373.2	426.6	534.5	557.2	572.1
a. Payments of dividends and interest	1.0	• 1.0*	12.8	18.9	19.0	20.3	25.6	28.1	34.0
b. Other imports of goods and services	326.6	425.1	380.4	346.3	354.2	406.3	508.9	529.1	538.1
2. Less exports of goods and services	-45.8	-66.6	-86.4	-102.3	-135.2	-143.9	-177.9	-222.0	-238.7
3. Import surplus (1. less 2.)	281.8	359.5	306.8	262.9	238.0	282.7	356.6	335.2	333.4
B. Financing of import surplus									
1. Net receipts from unilateral transfers	89.6	136.8	1.191.1	172.8	260.6	210.4	240.5	245.4	251.0
a. US grant-in-aid ^b	I	14.0	84.0	44.7	37.2	20.5	6.8	24.1	11.2
b. Technical assistance ^b	:	:	2.3	2.6	1.8	0.4	0.4	0.4	0.3
c. Reparations from Germany	1	١	1	40.9	82.3	87.5	79.2	77.9	69.7
d. Personal restitutions from Germany	1	1	1	1	6.1	18.8	25.7	45.0	65.4
e. Private cash remittances	19.6 °	38.8 °	6.9	8.1	14.8	24.3	25.5	21.2	25.3
f. UJA and other institutional cash									
remittances	70.04	84.0 ^d	46.2	47.3	87.2	43.1	87.6	55.7	60.8
g. Transfers in kind	•	•	51.71	29.21	31.21	15.8	15.3	21.1	18.3
2. Net receipts from capital movements	106.4	115.6	116.4	75.3	1.0	76.4	100.4	78.6	68.6
a. Long and medium term capital	44.4	87.6	114.9	9.69	71.2	76.3	78.4	69.4	93.6
(i) State of Israel Bonds	1	50.4	46.3	36.1	29.2	32.2	47.4	44.7	33.7
(ii) Export-Import Bank	44.4	27.7	27.5	4.4	1.8	-2.1	-2.1	-11.4	-6.5

52

43.9	-2.2	1 24.7	-25.0	13.8	333.4	1.800	600.1
20.4	1.3	14.4	9.5	11.2	335.2	1.800	603.3
32.6	-5.8	6.3	22.0	15.7	356.6	1.800	641.9
25.4	8.7	12.1	0.1	- 4.1	282.7	1.800	508.9
1	21.2	19.0	-70.2	-23.6	238.0	1.543	367.2
I	7.2	21.9	5.7	14.8	262.9	1.206	317.1
I	11.2	29.9	1.5	- 0.7	306.8	0.856	262.6
I	9.5	:	28.0	107.1	359.5	0.357	128.3
1		:	62.0	85.8	281.8	0.357	100.6
nment loans within of grant-in-aid	ernment obligations	pital	ital	su	import surplus		id in IL ^b (A.3.x C.)
(iii) US Gover framework	(iv) Other gove	(v) Private cal	b. Short term capi	3. Errors and omissio	4. Total financing of (1. through 3.)	C. Exchange rate ⁸	D. Import surplus value

1955-58: The official exchange rate which has been in force since 1954, as used by the Bank of Israel, Annual Report: 1958, p. 9 and footnete ^b to Table II-1, p. 10. See also other Bank of Israel Annual Reports.

53

decrease in relative terms as measured in terms of total resources (Table 14, line 5). We shall return to both these points in Chapter 5.

Another characteristic brought out by Table 14 is the extremely high ratio of gross investment to GNP (line 8). This is a reflection of the intensive and continued developmental program undertaken by the economy. The magnitude of this program can best be appreciated by comparing Israel's ratio to that of other countries in roughly the same per capita income class. This is done in the third and fourth columns of Table 15 which show that Israel ranked third in this respect. Obviously, due to possible differences in the definition of 'gross investment'—as well as to other statistical inaccuracies—no great importance can be attached to this particular ranking as such. Nevertheless, it is clear that Israel is at least among the first half or third of the countries in Table 15.

At the same time it must be emphasized that the ratio of gross investment to GNP is not a proper index of the degree to which an economy allocates the scarce means at its disposal to investment ends. For that purpose we need instead to make a comparison of the ratio of gross investment to the *total* resources available to the economy—that is, the GNP *plus* the import surplus. And because of Israel's relatively large import surplus, the intensity of its investment efforts as revealed by this measure must necessarily be less than that revealed by the preceding one.

This fact is brought out in the fifth column of Table 15. As might be expected, the change of the base of comparison from GNP to total resources affects the relative standing of Israel more than that of any other country. Indeed, the ranking of most other countries is unaffected, while Israel drops from third to sixth. Nevertheless, even under this modified measure Israel's investment effort ranks high in comparison with other countries.

There is obviously a relationship between Israel's relatively high level of capital formation and its concomitantly high degree of dependence on its import surplus. By definition, this surplus enabled the economy to carry on the investment program without requiring a sharp decline in the level of consumption. Furthermore, there is a significant positive correlation (r=0.67) between the annual import surplus and annual gross domestic capital formation—both measured in real terms.⁵ Never-

⁵ The correlation is much higher (r=0.94) when these quantities are computed in nominal terms—for then both reflect the common influence of the inflationary price movement. For this reason, it is the correlation between the real magnitudes which is relevant for the present discussion.

NATIONAL PRODUCT AND INCOME

theless, this should not lead us into concluding that a large import surplus is a necessary condition for carrying out a large investment program. A comparison of columns (3) and (7) of Table 15 shows how wide of the mark this conception is. The correlation between the ratio of gross investment to GNP and the ratio of import surplus to GNP as given in these columns is close to zero. More particularly, of the six countries with the most intensive investment programs, three do not even have an import surplus and one has a fairly small one. Only Venezuela has a large import surplus—and even in this case the relative importance of the surplus is less than half that of Israel's. In other and obvious—words, investment can be financed by domestic savings as well as by an import surplus.

To say the same thing from an alternative viewpoint, it is undoubtedly true that Israel could readily decrease its import surplus by curtailing its investment program. But the same objective could also be achieved by reducing its level of consumption. The marginal activities being financed by the import surplus lie in the field of consumption as well as of investment. Hence it is a dangerous and misleading oversimplification to rationalize Israel's continued large import surplus as being the inevitable outcome of its large investment program. As will be indicated in Chapter 3, factors of a more disturbing nature are also at work.

The final characteristic revealed by Table 14 is the high proportion of total resources going to government consumption. Even if we abstract from such exceptional years as 1956, the ratio in Israel is still among the highest in its income class. This is shown in the last column of Table 15—where, it should be noted, the high percentage of West Germany reflects also occupation costs. In this connection, however, our opening provisos about the meaning of international comparisons are particularly relevant. For the percentage of government consumption in GNP in various countries is greatly affected by their differing conceptions as to the proper role of government in the economic life of the community. Thus the same type of activities which in some countries are listed as private consumption are in others listed as government consumption (e.g. medical services, secondary education, and the like).

In part, the high percentage of Israel's government consumption is due to its high costs of defense: in recent normal years over one third of its current budget went for this purpose—and in the year of the Sinai Campaign this proportion reached more than one half. These costs are a reflection of the continued state of border tension which has prevailed—with varying intensity—throughout the existence of the State.

An estimate of the comparative burden which these defense expenditures have placed on the Israel economy is given in Table 17. In making this comparison, use has been made of the data for 1955, 1957 and 1958 —and not 1953 and 1954—in view of the fact that these latter years are not representative, being years of unusual quiet on the borders. Table 17 shows that, in general—in terms of both the percentage of government current expenditure and the percentage of GNP— Israel's burden is below that of those powers with international or colonial commitments, but significantly above that of the lesser powers. In particular, it is above that of such countries as Italy, Sweden, and New Zealand, who are in the same per capita income class as Israel, if not higher. This picture is, of course, somewhat modified if we measure the defense burden (as we should) in terms of the total resources of the economy instead of the GNP; but the general ranking just described is not thereby affected.

It should, however, be emphasized that comparisons on this point are particularly dangerous. First of all, there are some classified defense expenditures in Israel which are probably not reflected in the figures at all. Second, both the manpower and armament elements of the defense budget are underpriced in Israel: the last, because of the artificially low exchange rate at which their import components are evaluated; the first, because of the low salary scale of the armed forces. This salary consideration is, of course, relevant for other countries too. But it seems likely that it is more important for Israel—whose relatively high degree of dependence on manpower reflects itself in the universal conscription of males for two and a half years' service (and of many females for two years' service), as well as in an extensive system of about 30 days' annual reserve duty for all adult males under 39.

On the other hand, it might be noted that part of the army expenditures have not been for defense purposes. This was particularly true in the early years of Israel's existence when the army helped perform the very important educational function of aiding in the integration of new immigrants into the society. Hence at least part of what appears under the heading of defense should more properly be charged to education. But even taking this factor into account, it is clear from what has just been said that the nominal money figures underestimate the true alternative cost to the economy of its defense expenditures.

There is another consideration which may be the most important one in the understatement of the defense burden. This is the fact that defense

Burden of defense	Israel •	United States	United Kingdom	France	Italy	Sweden	New Zealand	India	Ceylon	Jamaica
. Defense as percentage of total government expenditure on current account	28.9	50.7	29.1	36.8	21.7	15.9	12.4	21.6	3.4	1.1
C. Defense as percentage of GNP	7.7	13.9	6. 6	9.5	5.3	3.7	3.7	1.9	0.5	0.1
3. Defense as percentage of total resources	6.4	13.9	10.0	9.4	5.2	3.8	3.7	1.9	0.5	0.1

Fotal government expenditure on current account as sum of government consumption (Table 12) ptus subsidies Bank of Israel, Annual Report: 1957, p. 11, Table II-1, and 1958, p. 10, Table II-1) plus transfer payments (Bank of Israel, Annual Report: 1957, p. 18, Table II-6, and 1958, p. 16, Table II-5). Lines 2 and 3-Table 14.

Other countries: Lines 1 and 2-A. Martin and A. Lewis, "Patterns of Public Revenue and Expenditure", The Manchester School, XXIV, 1956, as cited by E.A.G. Robinson, "The Size of the Nation and the Costs and Efficiency of Administration", mimeographed paper submitted to the International Economic Association Round Table on the Economic Consequences of the Size of Nations, held at Lisbon in September 1957.

Line 3 —UN, Yearbook of National Accounts Statistics: 1957.

NATIONAL PRODUCT AND INCOME

57

requirements impinge on expenditures in many other parts of the economy. This is true for the construction of roads, the establishment of frontier settlements, the dispersion of population, the subsidization of high-cost defense industries, and the like. No estimate is available of the costs involved in these additional defense activities, but there are grounds for believing that they are substantial.

In concluding this discussion of the importance of government expenditure, we must emphasize that Table 14 reveals only part of the story: for the role of the government on the investment side of the economy is even more important than its role on the consumption side. Indeed, in 1954 almost 80 per cent of all gross investment were financed either directly or indirectly by the government-though in 1955-58 this percentage fell to an average of roughly 60. This question will be discussed in greater detail in the next chapter.

Let us now turn to the picture in real terms as given by Table 18. The year-to-year changes during this period are obviously of considerably less significance than the overall trend-for the annual estimates are affected both by the margin of error involved in reaching the nominal sum, and (perhaps even more so) by the conceptual and statistical difficulties involved in deflating the nominal terms to reach the real ones.⁶ For these reasons no statistical significance can be attached to the apparent slight decrease in total real GNP that is recorded for 1952-53. Nor is it likely that there really took place a 26 per cent increase in real GNP and a 21 per cent increase in real consumption during the single vear 1953-54.

What is, however, valid is the overall picture of almost continuous growth in real GNP. On the average-for 1950-58-this grew at the compounded annual rate of 11.4 per cent. The data also permit us to say that this rate was not even over the period: that it was considerably slower during the first half of the period (an average of 8.7 per cent for

⁶ Note however that the movement of the real figures (though not their level) is not affected by the failure to use an exchange rate which describes the 'true' value of the pound; cf. above p. 44. For whatever exchange rate is used will cancel out in the process of deflating the nominal figures.

More specifically, real GNP is defined as the difference between total real re- $R_t q_t X_t = R_0 q_0 X_t.$

sources and real import surplus. The latter is defined as $\frac{R_t q_t \alpha_t}{R_t q_t / R_0 q_0}$

where X, represents the import surplus in current dollars, and the other symbols have the same meaning as in footnote ³ above. Thus no matter what exchange rate R, is used to evaluate the import surplus in nominal terms it will be evaluated in real terms at the base period rate R_0 .

Constant Prices	
Disposal:	1950=100
id Their	s; Index:
Total Resources an	(1952 IL Million.
TABLE 18.	

		1950	1951	1952	1953	1954	1955	1956	1957	1958
A.	Millions of 1952 IL									
	1. Private consumption	631.2	786.5	836.8	866.2	1,048.0	1,130.7	1,199.1	1,307.1	1,454.2
	2. General government consumption	178.7	196.2	192.6	199.2	252.3	279.6	392.7	339.1	347.1
	a. Civilian expenditure	99.4	112.1	128.7	138.9	164.8	175.1	194.9	200.7	218.0
	b. Defense and special budgets	79.3	84.1	63.9	60.3	87.5	104.5	197.8	138.4	129.1
	3. Gross domestic capital formation	310.5	341.2	296.3	248.2	283.9	340.5	364.3	454.7	475.8
	a. Depreciation	86.8	92.5	7.62	75.5	93.8	98.3	106.2	138.8	154.5
	b. Net domestic capital fermation	223.7	248.7	216.6	172.7	1.001	242.2	258.1	315.9	321.3
	4. Total use of resources (1.+2.+3.)	1,120.4	1,323.9	1,325.7	1,313.6	1,584.2	1,750.8	1,956.1	2,100.9	2,277.1
	5. Import surplus	293.5	310.8	262.7	252.8	242.9	276.6	328.7	296.2	311.4
	6. Gross national product (4. less 5.)	826.9	1,013.1	1,063.0	1,060.8	1,341.3	1,474.2	1,627.4	1,804.7	1,965.7
	7. Total resources	1,120.4	1,323.9	1,325.7	1,313.6	1,584.2	1,750.8	1,956.1	2,100.9	2,277.1
B.	Quantity index: 1950=100									
	1. Private consumption	100.0	124.6	132.6	137.2	166.0	179.1	190.0	207.1	230.4
	2. General government consumption	100.0	109.8	107.8	111.5	141.2	156.5	219.8	189.8	194.2
	a. Civilian expenditure	100.0	112.8	129.5	139.7	165.8	176.2	196.1	201.9	219.3
	b. Defense and special budgets	100.0	106.1	80.6	76.0	110.3	131.8	249.4	174.5	162.8
	3. Gross domestic capital formation	100.0	109.9	95.4	79.9	91.4	109.7	117.3	146.4	153.2
	a. Depreciation	100.0	106.6	91.8	87.0	108.1	113.3	122.4	159.9	178.0
	b. Net domestic capital formation	100.0	111.2	96.8	77.2	85.0	108.3	115.4	141.2	143.6
	4. Total use of resources	100.0	118.2	118.3	117.2	141.4	156.3	174.6	187.5	203.2
	5. Import surplus	100.0	105.9	89.5	86.1	82.8	94.2	112.0	100.9	106.1
	6. Gross national product	100.0	122.5	128.6	128.3	162.2	178.3	196.8	218.2	237.7
	7. Total resources	100.0	118.2	118.3	117.2	141.4	156.3	174.6	187.5	203.2
So	URCES: 1950-54: Lubell, ob. cit., p. 51, Ta 1955-58: Lines 1,2,3,5,-The corres Lines 2a, 2b-Lines 2a	ble 4–1C. ponding lines of Tab	of Table ble 12 di	12 divided ivided by	d by the line 2 o	appropria f Table 1	te indexe 3.	s in Table	e 13.	
	Lines 3a, 3b-Lines 3a a	nd 3b of lab	ole 12 di	vided by	line 3 o	I lable I	3.			

59

NATIONAL PRODUCT AND INCOME

a
+
.0
\$
2
-
(7
-
~
0
0
-
-
-
N
0
S
0
5
. ~
~
0
-
*
0
- ~
-
E .
~
-
0
2
~
0
5
0
0
1
-
2
0
0
5
0
~
-
2
R
-
5
0
E .
-
-
0)
-
[1]
-
H
m
-
<
-

(1952 IL; Index: 1950=100)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
. 1952 IL					-				
1. Private consumption	498	526	521	525	621	646	656	677	727
2. General government consumption	141	131	120	121	149	160	215	176	174
a. Civilian expenditure	78	75	80	84	97	100	107	104	109
b. Defense and special budgets	63	56	40	37	52	60	108	72	65
3. Gross domestic capital formation	245	229	184	150	168	194	199	235	238
a. Depreciation	68	62	49	46	55	56	58	72	11
b. Net domestic capital formation	177	167	135	104	113	138	141	163	161
4. Total use of resources (1.+2.+3.)	884	886	825	964	938	1,000	1,070	1,088	1,139
5. Import surplus	231	208	163	153	144	158	180	153	156
6. Gross national product (4. less 5.)	653	678	662	643	794	842	890	935	983
7. Total resources	884	886	825	964	938	1,000	1,070	1,088	1,139
3. Quantity index: 1950=100									
1. Private consumption	100.0	105.6	104.6	105.4	124.7	129.7	131.7	135.9	146.0
2. General government consumption	100.0	92.9	85.1	85.8	105.7	113.5	152.5	124.8	123.4
a. Civilian expenditure	100.0	96.2	102.6	107.7	124.4	128.2	137.2	133.3	139.7
b. Defense and special budgets	100.0	88.9	63.5	58.7	82.5	95.2	171.4	114.3	103.2
3. Gross domestic capital formation	100.0	93.5	75.1	61.2	68.6	79.2	81.2	95.9	97.1
a. Depreciation	100.0	91.2	72.1	67.6	80.9	82.4	85.3	105.9	113.2
b. Net domestic capital formation	100.0	94.4	76.3	58.8	63.8	78.0	79.7	92.1	91.0
4. Total use of resources	100.0	100.2	93.3	0.06	106.1	113.1	121.0	123.1	128.8
5. Import surplus	100.0	0.06	70.6	66.2	62.3	68.4	77.9	66.2	67.5
6. Gross national product	100.0	103.8	101.4	98.5	121.6	128.9	136.3	143.2	150.5
7. Total resources	100.0	100.2	93.3	0.06	106.1	113.1	121.0	123.1	128.8

Source: Table 18 divided by population figures in Table 1.

60

CHAPTER 2

NATIONAL PRODUCT AND INCOME

1950-53) than for the second (an average of 13.1 per cent for 1953-58). This difference shows up even more strikingly in the per capita data of Table 19. Line 6 of this table shows us that the increase in real per capita GNP over the period as a whole was 50 per cent. But this increase occurred entirely during the second half of the period (1953-58). During the first half (1950-53) there might even have been a slight decrease.

It might also be noted that the changes over time in the relative distribution of the *real* resources among their various uses implicit in Table 18 are quite different from the changes in the relative distribution of *nominal* resources given in Table 14. This difference is, of course, due to the differential price movements—particularly that of the import surplus—already discussed in connection with Table 13. For the problems that concern us here, it is only the relative distribution in terms of current prices (i.e., Table 14) which is of interest; for this reflects the changing scarcity of the various goods over time.⁷

The nature of this growth in real GNP will be analyzed in more detail in the final section of this chapter. Before embarking on that analysis, however, it will be worthwhile to supplement the foregoing description of the development in national product with a corresponding description for national income.

B. NATIONAL INCOME AND ITS COMPOSITION

The salient facts about Israel's national income are set out in Table 20. For the most part, these estimates are derived independently of the national product estimates. Correspondingly, line 6 shows that there were in some years substantial discrepancies between the two. Never-theless—with all the qualifications that have been made as to the accuracy of the estimates—it is reassuring to note from lines 4 and 5 that the annual real movements of these two series have been quite similar since 1951.

It would be interesting—and important—to know how this growth in total real national income has been distributed among the various industrial sectors from which the income originates. Unfortunately, the sectoral price indexes necessary to carry out such a computation are not available. The only thing we do know in this connection is that there has not been much change over the years in the industrial structure

⁷ This is discussed more fully in Chapter 5. See also Appendix C.

TABLE 20. National Income

(IL Millions and Per cent)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
	-			-					
1. National income (current factor cost)	352.9	554.3	829.2	1,087.5	1,380.7	1,646	1,963	2,409	2,728
2. Implicit price index for NNP at market prices	59.3	.69.4	100.0	126.6	135.6	142.1	154.6	170.4	178.3
 Real national income(1952 factor cost) (1.÷2.) 	595.1	798.7	829.2	859.0	1,018.2	1,158.3	1,269.7	1,413.7	1,530.0
 Real national income: quantity index (1951=100) 	74.5	100.0	103.8	107.5	127.5	145.0	159.0	177.0	191.6
5. Real GNP: quantity index (1951=100)	81.6	100.0	104.9	104.7	132.4	145.5	160.6	178.1	194.0
6. Errors and omissions as per cent of GNP	7.1	1.9	5.6	3.0	6.2	3.8	4.8	2.5	2.1

Lune 1: 1950-54-Daniel Creamer and Others, Israel's National Income: 1950-1954, FP and CBS, Special Series No. 57, Jerusalem, May 1957, p. 23, Table 6, with slight revisions as given by Lubell, op. cit., p. 8, Table 2-2.
1955, 1956-CBS, Abstract No. 9, 1957/58, p. 111.
(The figures for 1950-56 have been adjusted to the revised depreciation estimate given in Table 12; for details see 1957, 1958-CBS, adjusted by Bank of Israel, Annual Report: 1958, p. 12, Table 12.
Line 2: GNP less depreciation from Table 12: GNP less depreciation from Table 18.
Line 5: Table 18. Sources: Line

2 CHAPTER

62

TABLE 21. Distribution of Domestic Product at Factor Cost, by Industrial Branch: Israel and Selected Countries

To Provided Learned	Isro	lel	Denmark	Nether- lands	Egypt	Greece	Italy	Turkey
Industrial Ordnen	1953	1958			195	3		
Agriculture, forestry and fishing	12.2	12.2	21.3	12.5	31.6	38.4	25.7	52.3
Mining and manufacturing	21.2	20.6	28.4	38.0	8.3	20.1	33.2	10.9
Construction	9.9	6.5	6.9	6.2	2.3	3.6	5.1	4.6
Transportation, communication and utilities	9.7	9.7	10.4		9.9	6.5	8.6	6.6
Wholesale and retail trade	10.7	10.0	16.5	50.0	15.0	10.8	12.0	10.6
Ownership of dwellings	3.3	11.9*	3.8	4.5	6.7	4.0		2.8
Public administration and defense	22.0	19.5	8.3	6.6	12.7	7.8	15.3	8.0
Other services	14.1ª	9 .6	4.4	12.2	16.8	8.7		4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

63

ATIONAL PRODUCT AND INCOME

of the national product evaluated at current prices. This is shown in Table 21. From this table—as from Table 11 on the industrial structure of employment—we also see the high concentration of the Israel economy in public administration and services. Some of the possible explanations of this fact have already been discussed (p. 40). Similarly, the high percentage of Israel's national income originating in government activities has been discussed in connection with Table 14.



FIGURE 4. INDEXES OF AGRICULTURAL, MANUFACTURING AND BUILDING ACTIVITY

SOURCES: Electricity : CBS, Abstract No. 9, 1957/58, p. 172. Agriculture : CBS, Bulletin B, June 1959, pp. 668-69. Building : CBS, Abstract No. 10, 1958/59, p. 184.

In view of the unavailability of precise data, we have tried in Figure 4 to give some rough indication of the growth in real output of three different sectors of the economy. That of manufacturing is arbitrarily measured in terms of its consumption of electricity—though there are many reservations on the validity of such an index. It might also be noted that the index of agricultural output would show similar results if instead of an index based on 1948/49 prices, a chained price index were to be used.⁸ Both manufacturing and agriculture are marked by a

⁸ Based on unpublished CBS and Bank of Israel Research Department data.

NATIONAL PRODUCT AND INCOME

fairly steady rate of growth; the disturbances in this rate in the case of agriculture were due to droughts. Building activity, on the other hand, showed marked variation. There was a great upsurge of such activity in connection with the mass immigration of 1949–51, and an equally sharp contraction from 1952 to 1953. Though the level of activity rose subsequently, it still has not returned to the peak levels of 1951–52. On the other hand, there has been an improvement in the quality of construction work which is not reflected in these figures.

Another question of particular interest in Israel is the distribution of net domestic product by type of enterprise-ownership. This question has been studied in detail by Creamer, who showed that roughly 55 per cent of the net national product of 1953 originated in private businesses, while 20 per cent originated in Histadrut (General Labor Union) and cooperative enterprises, and another 25 per cent in government. These percentages varied greatly from one sector to another—with the Histadrut and cooperatives being particularly strong in agriculture, bus transportation, and building materials; while private enterprises dominated every other branch of manufacturing and trade. Naturally, government was strong in the public utilities.⁹ Unfortunately, this study has not been repeated for a later date, so that we do not at present know what changes have since taken place.

The structure of national income from the viewpoint of its distribution by size and by type of income share, are other questions of fundamental importance. On the latter, the only benchmark study available is that of Creamer for 1952.¹⁰ This showed that the return to labor was about 60 per cent of the national income, and that to capital 40 per cent. In interpreting these figures, however, we must take account of the fact that all proprietors' withdrawals are included under returns to capital—with no allowance made for the labor they have contributed. Similarly, the incomes of all members of collective settlements are considered as returns to capital.¹¹

Insofar as the distribution of income by size is concerned, Table 22 presents the preliminary findings of the Savings Survey of 1957/58.¹²

⁹ Creamer, op. cit., pp. 37-42.

¹⁰ Ibid., pp. 43 ff.

¹¹ Ibid.

¹² For a description of this survey—which is being carried out jointly by the Bank of Israel, Ministry of Finance, Central Bureau of Statistics, Israel Institute of Applied Social Research and The Falk Project—see below, project report 18. For the results of an earlier study see Moshe Zandberg, "Gross Personal Saving in Israel", Bank of Israel, Bulletin No. 5, August 1957, pp. 55-86.

These show a noticeable degree of inequality—though (as measured by the area above the Lorenz curve) one significantly less than that to be found in (say) the United States or even Britain. Of even more interest is the distribution of income by continent of birth and length of residence in Israel. Here again, there are some preliminary findings of the Savings Survey (Table 23). The data correspond more or less to the educational pattern of Tables 4–5: veterans had higher average in-

Colore T	Per	cent of
Annual income (IL)	Total income units	Total disposable income
0 - 999	12.8	2.9
1,000-1,499	9.1	4.1
1,500-1,999	10.3	6.5
2,000-2,499	13.9	11.3
2,500-2,999	16.4	16.3
3,000-3,499	11.7	13.6
3,500-3,999	7.6	10.2
4,000-4,499	5.1	7.9
4,500-4,999	4.2	7.1
5,000-7,499	7.7	16.1
7,500 and over	1.2	4.0
TOTAL	100.0	100.0

TABLE 22. Distribution of Disposable Income among Urban Income Units: 1957/58

SOURCE: Family Savings Survey: 1957/58, preliminary findings, June 1959, Table 1; see project report 18.

comes than new immigrants; and European-American born higher than Asian-African born. In view of the fact that Asian-African families are on the average larger than European ones, the difference per capita is even greater. The native-born—with an average income of IL 3,435 —occupied an intermediate position between these two groups. All these figures are to be compared with an average income of all income units of IL 3,196.¹³

The significant question here is how these income patterns have changed over time. Unfortunately, we do not as yet have precise information on this point. If we take the cross-section data of Table 23 as indicating also the time trends, we can say that the longer an individual

¹³ Figures from same source as for Table 23.

NATIONAL PRODUCT AND INCOME

is in the country, the higher his income will be. At the same time, there seems to be no tendency for a narrowing of the gap between the incomes of Asian-African born and European-American born. Indeed, column(3) of Table 23 would seem to suggest that this gap might even grow over time: for whereas the newest immigrants from Asia-Africa receive 69.6 per cent of the incomes of their European co-immigrants, the most veteran immigrants receive only 63.7 per cent of the corresponding European incomes. Roughly the same picture emerges from data on disposable income—though, as might be expected, the gap in this case grows somewhat less than in the case of personal income (from 74.3 per cent to 70.1 per cent). However, further analysis of these and other data is required before we can be sure that these differences are significant.¹⁴

	В	orn in	Ratio of incomes
Residence status	Asia– Africa (1)	Europe- America (2)	(per cent) (1) \div (2) (3)
Veterans	2,707	4,250	63.7
New immigrants			
1948-54	1,996	2,959	67.5
1955-58	1,393	2,001	69.6

 TABLE 23.
 Average Personal Income of Income Units, by Continent of Birth and Residence Status: 1957/58

SOURCE: Family Savings Survey: 1957/58, preliminary findings, Table 3.

Nor does there seem to be any indication of a narrowing of the gap between the incomes of veterans and new immigrants as the length of stay of the latter increases. Due to differences in the definition of income used by various surveys—as well as differences in their general reliability—it is difficult to obtain definitive information on this question. Yet even if we discount the apparently out-of-line figure for 1958, Table 24 suggests that this gap too has been widening. In other words, all groups have benefited from the increase in income over the period but the veteran group may have benefited relatively most. On these data, too, further analysis is required.¹⁵

These findings—preliminary as they may be—are disturbing for their implications as to the success of integrating the new immigrants into the

¹⁴ Such an analysis is being carried out by Giora Hanoch; this paragraph as a whole draws on the preliminary findings of Liviatan and Hanoch (see project report 18).

¹⁵ See footnote ¹⁴. I am indebted to Giora Hanoch for the preparation of Table 24.

economy. Much further study is required before we can have a clear picture of what has been happening. One factor that must be studied is the possible influence of educational factors on these income differences. To the extent that this influence has been of importance, the spreading of educational opportunities can be expected in the long run

Year	New immigrants	Native- born and	Ratio of incomes (per cent) $(1) \div (2)$
	(1)	(2)	(1) - (2) (3)
1950/51 ^b	768	971	79.1
1954	2,220	2,942	75.5
1956/57	2,980	3,894	76.5
1957/58°	2,442	3,455 °	70.7 °

TABLE 24. Average Personal Income of Urban Workers' Families, by Residence Status

* Includes all recipients of wages and salaries.

^b Average of August 1950 and March 1951.

* Refers to disposable income of income units. The ratio of disposable incomes in 1956/57 was 78.9 per cent. SOURCES: 1950/51: CBS, Family Expenditure Survey: 1950/51, unpublished data.

Average of August 1950 and March 1951 multiplied by twelve.

1954 : M. Zandberg, The Distribution of Incomes in Israel in 1954 (Hebrew), Israel Institute of Applied Social Research, Jeru-salem, 1956, mimeograph, Table 18.
 1956/57: CBS, Family Expenditure Survey: 1956/57, unpublished data.

1957/58: Family Savings Survey: 1957/58, preliminary findings, Table 3.

to narrow these differences once again. This, however, will not come about automatically. For secondary education in Israel is neither free nor obligatory; and the expenditures of European families on this education are significantly greater than those of Asian-African families. Hence the present tendency might well be one of growing educational inequality. It is in this area, then, that the Israel society must make some fundamental policy decision.16

16 This paragraph draws on the preliminary findings of the Klinov-Malul, Grunfeld, Liviatan, and Hanoch studies; see below, project reports 14, 15, and 18.
NATIONAL PRODUCT AND INCOME

C. THE GROWTH IN NATIONAL PRODUCT

Let us now return to the increase in real output as measured in Table 18. Despite the slow start already noted, Israel's rate of growth in real GNP during 1950–58 stands out as the highest in the non-Soviet world. This is shown in Table 25. Meaningful comparisons of this type are, however, difficult to make. Israel was starting from a low point in its production: and if a corresponding point were to be taken for the Western European countries in Table 25—say immediately after World War II—much higher rates of growth would be recorded for them. On the other hand, the fact that the really high rates of growth in Israel begin only five years after independence—and that these rates remain high in more recent years too—diminishes the weight of this reservation.

A more relevant consideration is that what interests us is the level of performance of the Israel economy in the period under question; and a proper measure of this performance must take account of that part of the growth in GNP which is simply the result of the corresponding growth in inputs. In other words, what we are interested in measuring is not the growth in total output, but the growth in output per unit of input. It is this which is generally considered to measure the increasing efficiency of the economy in organizing the resources at its command.¹⁷ This is particularly true for the Israel economy—whose increased inputs of both labor and capital were for the most part the result not of internal operations of the economy, but of factors exogenous to it.¹⁸

Thus we note first of all that—as might be expected—as soon as the discussion turns to the rate of growth in *per capita* GNP, Israel loses its pre-eminence. As shown in Table 25, it then drops from a ranking of first to a ranking of sixth. But this is only part of the story; for we have yet to take account of the increase in the input of capital. Only then will we have a true indication of the economy's efficiency.

The method to be applied in measuring this increased efficiency is similar to that of several recent studies of economic growth.¹⁹ First, an

¹⁹ Cf. Moses Abramowitz, Resource and Output Trends in the United States Since 1870, NBER Occasional Paper 52, and John W. Kendrick, Productivity Trends: Capital and Labor, NBER Occasional Paper 53.

I have also benefited from seeing some preliminary mimeographed results of a study on productivity being carried out by W. B. Reddaway at the Department of Applied Economics, Cambridge.

¹⁷ Cf. Solomon Fabricant, Basic Facts on Productivity Change, NBER Occasional Paper 63, New York, 1959, pp. 3-6.

¹⁸ On the import of capital, see Chapter 3.

	Ann	ual growth
Country	In per capita GNP	In aggregate GNP
Iceland (1952-56)	8.5	10.8
West Germany	7.4	8.5
Austria	6.4	6.6
Greece	5.8	6.9
Burma*	5.3	6.5
Israel (1950-58)	5.2	11.4
Italy	5.0	5.6
Portugal (1952-56)	3.9	4.8
Puerto Rico	3.7	4.2
France	3.5	4.3
Brazil (1950-54)	3.2	5.7
Netherlands	3.0	4.3
Belgium	2.8	3.4
USA (1937-57)	2.6	4.1
UK* (1950-56)	2.5	2.8
Canada	2.3	5.1
UK* (1946-56)	2.3	2.7
Sweden	2.2	3.0
Guatemala	2.0	5.1
USA (1950-57)	1.8	3.6
Norway (1952-56)	1.8	2.9
Ireland	1.3	0.9
Honduras	1.2	4.2
Denmark	0.9	1.7
Luxembourg	0.6	1.4
Ceylon	0.2	3.0
Chile	-0.2	2.1
Argentina *	-0.5	1.6

TABLE 25. Compounded Rates of Growth in Real GNP in
Various Countries: 1950-56

(Per cent)

^a Gross domestic product at market prices. Sources: Israel : Tables 18 and 19.

UK :	HMSO, National Income and Expenditure:
	1957, p. 7, Table 11.
USA :	US Department of Commerce, Survey of Cur-
	rent Business, Vol. 38, No. 7, July 1958, pp. 10-11, Table 7.
Other countries :	UN, Yearbook of National Accounts Statis- tics: 1957.
Data on population:	West Germany (including West Berlin): UN, Statistical Year Book: 1957, Table 1. Israel: Table 1.
	Other countries: UN, Monthly Bulletin of Statistics, February 1958.

70

NATIONAL PRODUCT AND INCOME

estimate is made of the contribution of increased labor input to the increase in net national product which took place in the period under study. This is done by multiplying the NNP per employed person in the base period by the increase in such persons over the period. Thus, if the number of employed persons increased over the period by 100,000, and if the average NNP per employed person was IL 5,000 at the beginning of the period, then the total contribution of labor to the increased NNP over the period is estimated at IL 500 million.

It should be emphasized that this method will generally overestimate labor's contribution on two accounts. First, by using as its multiplicand NNP per employed person—instead of just that part of NNP which originates in labor—it attributes to labor part of the increase that belongs to capital. Scarcity of data makes it difficult to correct this factor—for the base-period figure which should have been used includes a good part of independent (entrepreneurial) incomes as well as wages and salaries—and for the most part detailed information exists only for the latter.

The second source of bias lies in the implicit assumption that despite its increased numbers—labor could have continued to maintain the same output per head even if there were no growth in capital. If the law of diminishing returns has any relevance, this is something not to be expected. In other words, in assuming the constancy of average NNP per worker despite the increase in employment, this method again attributes to labor a contribution which is not entirely its own. From an alternative viewpoint, the foregoing assumption implies that there are increasing returns to scale: that a proportionate increase of labor and capital results in a more than proportionate increase in output.

An additional source of distortion in the case of Israel is the fact that the calculations are carried out on the basis of civilian, and not total, employment. No reliable estimates exist for the latter. The GNP figure, on the other hand, reflects the output of the armed forces as well. Hence, if the proportion of the armed forces to civilian employment (say) decreased during the period in question, the foregoing method will be biased upwards in its estimate of labor's contribution. It is not likely that this factor has been of quantitative importance for our estimates.

Let us now turn to the contribution of capital. Unfortunately, there are no reliable time series available on the stock of capital in Israel. Consequently, this contribution has been estimated by applying an arbitrarily chosen yield (7.5 per cent) to the *increase* in capital over

the period. In order to estimate this increase we sum up real net investment over the period—though deleting half of the investment of the first and last years. This procedure reflects the arbitrary assumption that the gestation period for investment is on the average half a year. On this assumption, investments made during the first half year of the period are already reflected in the NNP of that (the first) year and so should not be taken into account in our attempt to explain the increase of NNP since that year. Similarly, the investments of the last half year have not yet had the time to express themselves in an increased NNP; hence they too should be excluded. It should, however, be emphasized that lengthening the assumed gestation period will not significantly affect our results.

We have also followed the alternative procedure of estimating the contribution of capital by arbitrarily attributing a 10 per cent yield to the cumulated real gross investment over the period. The rationale of this procedure is that what interests us is the physical productivity of capital; and that (during the first years of the existence of the capital equipment) depreciation estimates are not a proper indication of the decrease in this productivity. This consideration is particularly important for Israel-where so much of the capital equipment is new, so that the amount of older capital equipment going out of use is relatively small. Strictly speaking, the proper procedure in the light of these considerations would be to use an estimate of capital growth somewhere in between cumulated net and gross investment. We have used the purely gross figure because of its statistical simplicity and the fact that it measures the maximum possible influence of the factor just considered. It might also be noted that the estimates of capital's contribution computed from this cumulated gross figure are similar (for Israel) to those obtained by attributing a 15 per cent yield to net investment.

The contributions of labor and capital as calculated in this way are then deducted from the total increase in NNP over the period. What remains is that part of the increase in NNP which is not explained by increased factor inputs. A residual of this type appears in almost every study of economic growth in modern economics. It is customarily regarded as a measure of the increased efficiency' achieved by the economy during the period in question: that is, a measure of the increased productivity per unit of input of both capital and labor. This increased productivity, in turn, is assumed to reflect such influences as the increased education and skills of the labor force, improved organization and management, economies of scale of a larger economy, improved

NATIONAL PRODUCT AND INCOME

quality of capital goods, and the impact of general technological progress.²⁰

It should be noted that the foregoing method 'charges' the economy only for the amount of labor actually employed, and not for that potentially available. Thus, if the unemployment rate fell (rose) over the period, this is not reflected as an increase (decrease) in efficiency though from the viewpoint of the proper organization of economic resources it should be. The opposite approach, however, has been used for capital. If initially some of the capital equipment was idle (due, say, to lack of raw materials—a frequent complaint during 1949–51) and if in the final year the extent of idle equipment decreased—then this would be reflected as an increase in efficiency. Conversely, if more equipment was idle at the end of the period than at the beginning, this would be reflected in a lower efficiency index.

Since there are no data on actual utilization of capital equipment, it is impossible to apply to capital the same method as that used for labor. On the other hand, we could make the treatment of labor consistent with that of capital by using labor force—instead of employment figures. This, however, would not cause a significant difference in the following analysis.

The results of our computation are given in Table 26. As might be expected, that part of the growth in NNP to be 'charged' to the increased input of labor has always been considerably more important than that to be 'charged' to the increased input of capital. For the period as a whole, labor's contribution was around half—while capital's was roughly one seventh (on the basis of a 7.5 per cent yield on net investment) or one quarter (on the basis of a 10 per cent yield on gross investment). Ever taking account of the overestimate of labor's contribution implicit in our method (see above), this difference would seem to be large enough to warrant the conclusion that despite the intensive investment program that has been carried out the growth in population—and thereby labor force—still remains the primary cause of Israel's growth in NNP.

Combining these two contributions, we see that only 58-70 per cent of the total growth in NNP over the period is to be explained by the concomitant growth in inputs of labor and capital. This means that 30-42 per cent of the growth can be attributed to an 'increase in efficiency'. Much the same estimates are obtained if calculations are carried out

²⁰ Cf. the references cited in footnotes ¹⁷ and ¹⁹ above.

instead for 1950-56 or 1950-57—so that these results cannot be attributed to the choice of the particular year used in the calculations. It should also be emphasized that all the qualifications explained above with reference to our method of estimation are in the direction of an overestimate of the contribution of labor—without any offsetting underestimate of the contribution of capital. Hence the method tends to underestimate the increase in efficiency.

Clearly, however, little meaning can be attached to these figures by themselves. They do show us that the increase in output is greater than that to be expected solely from the increase in inputs: but, as already noted, this holds for almost every modern economy. A true measure of Israel's economic performance could be obtained only if it were possible to compare these figures with corresponding ones of other countries in 'like circumstances'. Unfortunately, it is impossible to do this in any precise way. A crude comparison that we have carried out with some Western countries does, however, seem to indicate that Israel's performance—in terms of the contribution of increased efficiency to the total growth in NNP—is at about their average level.²¹

At the same time, it will be recalled that our method tends to overestimate the contribution of labor to the increased NNP. And since the increase in labor has been relatively greater in Israel than in other countries, the correction of this factor would tend to improve its relative efficiency standing. Another factor to be considered is that increases in productivity are generally more marked in agriculture and manufacturing than in the service industries; and since a relatively high proportion of Israel's NNP derives from services, this fact too would tend to reduce the overall estimate of increased efficiency. In other words, if it were possible to make calculations of the contribution of increased efficiency in each industrial classification separately (agriculture, manufacturing, services) Israel's specific performance in each classification might well compare more favorably with other countries than does its overall performance. On the other hand, to the extent that the increased productivity was simply a result of the fact that technological improvements abroad enabled Israel to import capital equipment with more productive power per unit of cost, the foregoing method attributes

²¹ The countries with which comparisons were made are Austria, Belgium, Canada, France, West Germany, Netherlands, Norway, United Kingdom, and United States. The period taken was mostly 1950-56. Data were obtained from UN, Yearbook of National Accounts Statistics: 1957 and ILO, Yearbook of Labour Statistics: 1957, Table 9.

Period of NNP of NNP (compounded)percentage rate of NNP of NNP (compounded)percent of NNP of NNP (compounded)percent of NNP of NNP (compounded) $Asuming 7.5\%$ (f) $Asuming 7.5$	1	Average annual	Total arouth	Percentage of	Percentage of g attributable in capital	rowth of NNP to increase l input	Total percenta of NNP of by increas	ige of growth explained ed inputs
1950-58 11.8 100.0 44.9 13.4 25.4 58.3 70 1951-58 10.1 100.0 33.6 14.1 26.9 47.7 60 1950-53 10.1 100.0 33.6 14.1 26.9 47.7 60 1950-53 10.0 100.0 110.0 20.3 37.4 130.3 147 1950-53 10.0 100.0 25.0 11.4 21.9 36.4 46 1950-54 14.0 100.0 60.5 12.5 23.3 73.0 83 1950-54 18.0 100.0 55.0 11.4 21.9 36.4 46 1954-58 9.8 100.0 36.8 14.3 27.3 51.1 66	Period	percentage rate of growth of NNP (compounded) (1)	of NNP over of NNP over period (per cent) (2)	growth of NNP attributable to increase in labor in put (3)	Assuming 7.5% yield on cumu- lated net in- vestment (4)	Assuming 10% pield on cumu- lated gross investment (5)	Assuming 7.5% pield on cumu- lated net in- vestment (3)+(4) (6)	Assuming 10% yield on cumu lated gross investment (3)+(5) (7)
1950-58 11.8 100.0 44.9 13.4 25.4 58.3 70 1951-58 10.1 100.0 33.6 14.1 26.9 47.7 60 1951-58 10.1 100.0 33.6 14.1 26.9 47.7 60 1950-53 10.0 100.0 110.0 20.3 37.4 130.3 147 1950-54 12.9 100.0 25.0 11.4 21.9 36.4 46 1950-54 14.0 100.0 60.5 12.5 23.3 73.0 83 1950-54 9.8 100.0 36.8 14.3 27.3 51.1 66								
1951–58 10.1 100.0 33.6 14.1 26.9 47.7 60 1950–53 10.0 100.0 110.0 20.3 37.4 130.3 147 1950–53 10.0 100.0 110.0 20.3 37.4 130.3 147 1953–58 12.9 100.0 25.0 11.4 21.9 36.4 46 1950–54 14.0 100.0 60.5 12.5 23.3 73.0 83 1950–54 14.0 100.0 50.5 12.5 23.3 51.1 64 1954–58 9.8 100.0 36.8 14.3 27.3 51.1 64	1950-58	11.8	100.0	44.9	13.4	25.4	58.3	70.3
1950-53 10.0 100.0 110.0 20.3 37.4 130.3 147 1953-58 12.9 100.0 25.0 11.4 21.9 36.4 46 1953-54 14.0 100.0 25.0 11.4 21.9 36.4 46 1950-54 14.0 100.0 60.5 12.5 23.3 73.0 83 1954-58 9.8 100.0 36.8 14.3 27.3 51.1 64	1951-58	10.1	100.0	33.6	14.1	26.9	47.7	60.5
1953-58 12.9 100.0 25.0 11.4 21.9 36.4 46 1950-54 14.0 100.0 60.5 12.5 23.3 73.0 83 1954-58 9.8 100.0 36.8 14.3 27.3 51.1 64	1950-53	10.0	100.0	110.0	20.3	37.4	130.3	147.4
1950-54 14.0 100.0 60.5 12.5 23.3 73.0 83 1954-58 9.8 100.0 36.8 14.3 27.3 51.1 64	1953-58	12.9	100.0	25.0	11.4	21.9	36.4	46.9
1954–58 9.8 100.0 36.8 14.3 27.3 51.1 64	1950-54	14.0	100.0	60.5	12.5	23.3	73.0	83.8
	1954-58	9.8	100.0	36.8	14.3	27.3	51.1	64.1

TABLE 26. Determinants of the Growth in Israel's Real NNP

G SOURCES: Cols. (1), (4) and (5): Table 18. Col. (3): Table 7, line 3, and Table 18.

NATIONAL PRODUCT AND INCOME

to the Israel economy an increase in efficiency which really originates in other economies.

Interestingly enough, formal education does not seem to have played too great a role in the development of Israel's efficiency over the period as a whole. It would appear from the educational characteristics of the population as reported in Table 4 above-and from the geographical composition of the immigration as given by Table 2-that this level was probably somewhat lower in 1954 than in 1950. This conjecture is based on the somewhat oversimplified argument that the immigration of 1950-54 was predominantly Asian-African-and that the average educational level of immigrants from Asia-Africa is significantly lower than the rest of the population's. It is quite possible that-as a result of the operations of Israel's school system in the intervening periodthe educational level since 1954 has risen once again. But it is unlikely that it is even now much higher than it was in 1950.22 It might, however, be expected that the contribution of formal education to this rate of growth will become increasingly important as Israel overcomes the bottleneck in its secondary and vocational school system-and thereby enables a corresponding expansion at the university level.²⁸

On the other hand, the role of *informal* education has possibly been much more significant. This may have expressed itself at the simplest levels in the acquisition by the new immigrants of both the language of the country and of its ways of life and work; and at the managerial levels in the acquisition of the experience necessary to run large undertakings—including government. Unfortunately, it is difficult—if not impossible—to quantify these factors.

Table 26 also shows us that the nature of the growth in NNP has varied considerably over the period. As might be expected, labor's contribution was much more important during the period of mass immigration than subsequently. And—due to fluctuations in the rate of unemployment (Table 7, line 8)—this difference would be even greater if the contribution were estimated on the basis of labor force—instead of employment—figures. The contribution of capital has also varied over the period—though within narrower limits. Similarly, the contribution of increased efficiency has not been equal over the period. Thus, in fact, just moving the base year of comparison from 1950 to 1951

W. a.

²² These are some of the preliminary observations emerging from the studies by Yehuda Grunfeld and Ruth Klinov-Malul—see project reports 14 and 15.

²³ On the nature of this bottleneck, see Muhsam, Hanoch, and Klinov-Malul, project report 7.

causes a significant increase in the percentage of output explained by increased efficiency. This is the result of the fact that the increase in NNP from 1950 to 1951 is entirely explained by the increase in the employed labor force resulting from the mass immigration of those years.

More generally, the data clearly show that the proportion of growth unexplained by the increase in inputs—and therefore to be attributed to a growth in efficiency in some sense—is significantly greater for the second half of the period than for the first. This is true whether we divide the period at 1953 or 1954. Indeed, the increase in output during 1950–53 is considerably less than that which should have resulted from the increase in inputs alone! In other words, a decrease in efficiency took place during these years. This might be connected with the conjectured decrease in average educational level from 1950 to 1953 noted above.

What were the reasons for the differing increases in efficiency during these two sub-periods? The years 1950–53 differed from 1953–58 in many fundamental respects—and we cannot separate out the impacts of the various influences that were at work: 1950–53 were years of mass immigration, and 1953–58 were not; 1950–53 were years of severe rationing and price and exchange control—and a consequent heavily distorted price structure—and 1953–58 were not; 1950–53 were years of inflationary upheavals, while 1953–58 were years of relative mone-tary stability.²⁴

The more general question is to what extent this difference in the rate of growth reflects the results of different economic policies that were in force during the periods in question; and to what extent it reflects the inevitable outcome of the changing external forces-migration, foreign aid, and defense-which operated on the economy during these periods. It is probably impossible to answer this question in any precise quantitative way. Yet one's general impression is that the low rate of growth during 1950-53 is primarily the reflection of the short-run difficulties of absorbing the unparalleled mass immigration of the period: of the time that was necessary in order to rehabilitate and resettle the new immigrants in the appropriate parts of the country before they could properly become part of the productive labor force; of the time that was necessary in order to acquire the experience to run the thereby greatly expanded economy. In other words, the assumption used in the foregoing estimates-that an increase in employment causes a proportionate increase in output, could not hold for 1950-53.

24 On the monetary background, see Chapter 4.

Similarly, our assumption of a half year gestation period for capital investment is probably much too short for the basic investments in transportation, communications, and public utilities that were made during this first period. Thus, the results of these investments did not actually become evident until the second period. This, however, cannot be the main explanation for the slow increase in efficiency from 1950– 53—for, as Table 26 shows, even if we were not to 'charge' the national product for any returns to net investment, the increase in labor would more than 'explain' the growth in NNP.

There are more fundamental questions relating to the period as a whole. All of the above refers to the rate of overall growth. But growth is a process which necessarily involves structural changes within the economy. Hence, even more important than the overall rate are the specific—and differential—rates of growth of the various industrial sectors: agriculture, manufacturing, services—and the sub-branches thereof. Information on these rates is essential for any evaluation of the extent to which Israel's expansion has followed an optimum industrial pattern. A particular question here is the extent of Israel's expansion in 'non-productive' services. Unfortunately—as noted—the data necessary for such an evaluation are as yet unavailable.

We might also note—though it is obvious—that the fact that our estimates yield an unexplained residual of growth in NNP even after 'charging' net capital formation for a yield of 15 per cent, does not mean that all the investments undertaken in Israel have been successful ones. This is true at two levels of discussion. First, the foregoing estimates reflect an *average* of both successful and unsuccessful investments; they do not reflect the situation at the *margin*. Thus there is nothing in our preceding discussion to preclude the possibility that a reduction in the intensity of the investment effort would have led to a greater selectivity of investment projects—and therefore a greater increase in the efficiency of the economy.

Second—and at a more general level—the unexplained residual is a reflection of the increased efficiency of the economy as a whole—and not only of its new investments. Thus it might also represent the increased efficiency with which the economy used its original stock of capital. More important, it might represent the improved quality of this original stock as it depreciated and was replaced by new equipment.²⁵ There are other

²⁵ This reservation is obviously valid only with reference to the calculation which attributes the yield to *net* investment; it is not relevant to the calculation in terms of gross investment.

possibilities which might be mentioned; but enough has been said to show that this finding of increased efficiency should not be taken to imply a blanket justification of the investment program as a whole.

Another fundamental problem relates to the institutional framework within which development took place. This was a framework with a certain division of power among government, private enterprise, and Histadrut—and with government having a predominant influence on the direction of investment (cf. Table 31 below). This naturally raises the question as to how the economy might have developed if the division of powers had been different.

To summarize, Israel's rate of growth during the period under study has been a very rapid one. More important, the growth since 1953 has to a significant degree been the result of the increasing efficiency with which the economy operated. It is, however, difficult to judge how this increase in efficiency compares with that of other countries in like circumstances. In any event, we may note that during the past few years Israel's NNP has grown at the average annual rate of about 10 per cent—and that at least one third of this growth has been due to the increased efficiency with which the economy obtained outputs from its inputs of labor and capital.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

IF MASS immigration has been one major theme of Israel's first decade, economic development has been a second—and corollary—one. This development has taken the form of an intensive investment program carried out primarily with the aid of the government development budget. The preceding chapter gives a general picture of the extent and consequences of this program. The present chapter will first of all describe the program in somewhat greater detail. It will then briefly discuss the relative importance of the import surplus and of domestic saving in financing this program.

A. THE INVESTMENT PROGRAM

The relatively high intensity of Israel's investment program-in terms of percentage of GNP devoted to gross investment-has already been noted in Table 15 above. A similarly high ranking is obtained if this intensity is measured in terms of net and gross investment per capita. This is shown in Table 27-which gives the comparison with those countries of Table 15 for which data are available. The difference in the ranking of the various countries in Tables 15 and 27 is, of course, due to the fact that investment per capita depends on GNP per capita as well as on the percentage of GNP devoted to investment.1 Hence a country with a high GNP per capita will-other things being equal-rank higher in Table 27 than in Table 15. It might also be noted that Israel's ranking in terms of net investment per capita is even higher than in terms of gross investment. This is a reflection of the low proportion of depreciation in Israel's gross investment. Nevertheless, its per capita net investment during this period was still only slightly more than half that of the United States.



INVESTMENT, SAVING, AND THE IMPORT SURPLUS

The intensity of this investment effort has not, however, been constant over time. The levels of 1950–52 and 1955–58—in terms of percentage of total resources—were fairly similar. But those of 1953–54 were lower (Table 14). The same force seems to have been at work in both these years—though in differing contexts. The low level of 1953 represented the economy's preference for maintaining and even raising per capita consumption levels—despite the slight decline in total real resources. The low level of 1954 represented the preference for devoting most of the greatly increased per capita resources of that year of breakthrough to an even greater increase in consumption (Table 19).

	Per capit	a domestic inves	stment (\$)
Country	Of average annual	Of 1956	population
	(Gross)	Gross	Net
France	1,304	1,275	604
Is, ael *	1,150	974	689
West Germany	1,089	1,056	627
Netherlands	1,076	1,038	662
Austria	737	735	501
Puerto Rico	590	582	401
Italy	565	555	314
Ireland	484	490	383
UK	982	974	455
USA	2,823	2,685	1,421

TABLE 27.	Per Capita Domestic Investment in Var	ious
	Countries: 1950-56	

* Includes only some of the additions to inventories.

Sources: Israel: Table 18, converted as per IL 1.800=\$1; and Table 1.

Other countries:

Domestic investment—UN, Yearbook of National Accounts Statistics: 1957, converted by exchange rates given in UN, Statistical Yearbook: 1957, Table 166.
Population—UN, Monthly Bulletin of Statistics, February 1958, except for West Germany (incl. West Berlin), taken from UN, Statistical Yearbook: 1957, Table 1.

A similar picture emerges from the data on total real investment in Table 18. The low years are again 1953 and 1954. Since then, gross capital formation has been increasing even more rapidly than either GNP or total resources.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

The composition of gross fixed investment by type of capital good is shown in Tables 28 and 29. As might be expected, the proportion of investment devoted to housing has always been high-particularly during the years of mass immigration, 1950-51. Indeed, in these years, housing constituted almost half of total capital expenditure. A sharp drop took place in the immediately succeeding years-in both relative and absolute terms. The share of housing from these years on has fluctuated in the neighborhood of 30 per cent. But even this is high compared with other countries of Israel's income class. Thus, of the countries listed in Table 15, Italy, France, Ireland, and Panama devoted around 25 per cent of their gross investment during 1950-56 to dwellings; while Austria, the Netherlands, and Norway devoted from 15-20 per cent.² One of the basic questions about future investment policy in Israel is how soon the backlog of demand for housing of its greatly expanded population will be met-so that the percentage of gross investment devoted to this purpose can fall to these lower levels, with a corresponding release of resources for investment in other sectors.

A similar picture emerges from Table 30—which shows the industrial composition of the investment. The share of housing in gross capital formation is in every year greater than that of any other industry. We also see that—except for 1952—investment in agriculture exceeded investment in manufacturing throughout 1950–54 and that this relationship was reversed in 1955. This change in emphasis represents the increased recognition that the country must develop its manufacturing industry if it is to progress toward economic independence.

The predominant role of government in financing the investment program is shown in Tables 31 and 32. ('Government' or general government' in this context includes central government, local authorities, and the national institutions—namely, Jewish Agency and Jewish National Fund.) It fulfilled this role in many different ways. In part it carried out the capital formation by itself; this is shown in line 1 of Table 31 and represents such activities as road construction, irrigation and drainage, afforestation, and the like.⁸ But for the most part it either granted, invested, or lent its funds to public sector and private enterprises—and even to households. The total of its financing in all these

² UN, Yearbook of National Accounts Statistics: 1957.

³ For a detailed list of the construction activities included here, see Harold Lubell, Hadassah Weisbrod, Rivka Kahana, *The National Expenditure of Israel: 1950-54*, (preliminary draft), FP and CBS, Jerusalem, January 1957, Vol. 2, Appendix Table E-2, pp. 156-61.

Industrial use	1950	1951	1952	1953	1954	1955	1956	1957	1958
Agriculture	16.5	18.2	18.3	25.0	27.8	20.1	18.9	17.4	20.3
Manufacturing, construction, electricity, gas, water, mining and quarrying	16.2	16.3	23.0	23.4	22.6	24.7	28.2	21.2	23.3
Transportation, storage and communications	13.4	10.2	12.8	11.0	9.8	13.5	13.3	17.1	13.1
Wholesale and retail trade and services	5.9	5.8	6.8	6.7	4.6	8.4	9.2	12.0	12.2
Ownership of dwellings	47.1	48.2	38.0	32.8	34.6	32.7	29.9	32.3	31.1
Public administration	0.9	0.8	1.1	1.1	0.6	9.0	0.5	•	
TOTAL (per cent)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Torat (absolute numbers: IL millions)	124.5	188.6	286.9	320.2	395.8	539.0	613.7	848.4	893.3

Composition of Gross Domestic Fixed Capital Formation, by Industrial Use TABLE 30

* Included in services. Sources: 1950-54: Lubell, Draft Appendix, Table B-1, as adjusted by CBS in Abstract No. 9, 1957/58, p. 115. 1955-58: See sources to Table 28.

84

ways reached a peak of 80 per cent of gross domestic capital formation in 1954 and (except for the slight rise in 1958) has declined ever since (Table 31, line 9). It might also be noted that the year-to-year changes in the *relative* share of government financing for the most part reflect corresponding changes in the *absolute* level of its investment activity.⁴

A detailed analysis of these year-to-year changes in the relative levels of government investment activity has yet to be made. For the moment we merely note that the level of this activity in Israel is very high as compared with other countries. Thus, for example, the percentage of gross capital information carried out by general government or government sector enterprises in 1954 was 11.0 per cent in France, 28.7 per cent in the UK, 30.0 per cent in India, 32.3 per cent in Greece, 43.0 per cent in Burma, and 59.6 per cent in Ceylon. As can be seen from Table 32, the corresponding figure for Israel in the same year was 50.2 per cent.³

It should also be emphasized that government's participation is frequently conditional on additional funds being forthcoming from private sources. In many cases this undoubtedly enables government to influence investment activity over and above the extent that the percentage of Table 31 would indicate. But this lever can work in the opposite direction too: for private investors have on some occasions exerted pressure to have the government help finance investment projects which were of interest to them, but which the government would not otherwise have supported.

The institutional arrangements by which government has carried out its investment program have also changed over time. Of particular interest here are the public sector enterprises. These are subclassified into government enterprises—which are financially integrated into the government budgets (e.g. post, railways); and public corporations—which are not so integrated, but in which the government owns more than half

- The only exceptions are 1956 and 1957—when the decline in the percentage of government financing was accompanied by increases in the scope of the government's real investment activity. This activity is measured by applying the percentages of line 9 of Table 31 to the estimates of gross domestic capital formation in real terms of Table 18.
- ⁵ On the foreign percentages see Lubell op. cit., p. 23, Table 2-14. Note that Table 32 (and the foreign percentages just quoted) classify investment by type of *purchaser*—regardless of the ultimate source of financing. Table 31, on the other hand, refers to financing. Thus, for example, private investment financed by a government loan (or grant) appears under the private sector in Table 32—but as part of government activity in Table 31.

TABLE 31. I he note of Governm	ent un un	e rinanc	o lo But	noss nom	lesuc cat	putal Forn	nation: I	8C-DCR		
	1950	1951	1952	1953	1954	1955	1956	1957	1958	
. Gross capital formation by general government	45.6	44.4	41.4	34.6	33.2	29.5	28.2	23.1 -	27.3	
. Capital grants by general government	3.4	3.8	8.9	12.1	10.3	8.8	7.3	1.0	1.3	
a. To households and private nonprofit institutions	I	I	4.2	3.6	0.8	1.1	0.2		,	
b. To private enterprises	1	1	1.0	4.6	3.9	1.4	2.8	9.0 {	0.7	(
c. To public sector enterprises	3.4	3.8	3.7	3.9	5.6	6.3	4.3	0.4	9.0	CH
. Loans granted by general government	51.0	51.8 *	41.8	49.3	49.5	56.6	61.7	72.3	64.1	APTER
a. Housing loans to households	:	:	I	1.4	1.3	:	:			2 3
b. To private enterprises	:	:	23.7	24.4	33.3	33.3	34.8	48.4 °	44.8	
c. To public sector enterprises	:	:	18.1	23.5	14.9	23.3	26.9	23.9	19.3	
. Purchase of shares by general government	•:	•:	7.9	4.0	7.0	5.1 °	2.8 °	3.6	7.3	
a. From private enterprises	:	:	1.4	0.9	3.8	0.0	0.3	1.2	5.2	
b. From public sector enterprises	:	:	6.5	3.1	3.2	5.1	2.5	2.4	2.1	
. Subtotal: Grants, loans and purchase of shares (2. through 4.)	54.4	55.6	58.6	65.4	66.8	70.5	71.8	76.9	72.7	
. Total: Government financed capital formation (per cent) (1.+5.)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

7 352 397 494 5	3 551 655 868 9	9 63.9 60.6 56.9 5	n of government enterprises; in pre- hanges in stock. eposits.	changes in livestock only.		948/49-1954/55, (mimeograph), FP ables 71-73, 76-77, 80-81, converte	converted to calendar years by using	es Irom p. 330, 1able 94. calendar years—for line 3c by using	a curreptines more total, vol. 4, p.	1955/56 and 1956/57 (Hebrew), T	ent—p. 233, Table XV–9; local aut 244, Table XV–16. The figures used	ntory changes, but including purchas	oted in source to line 1.
50.8 331.	32.8 415.3	75.4 79.	ital formatio not include c increase in d	58 includes	ble C-1.	of Israel: 1 0.293 ff., T	-79, 81-83,	5. 5. converted to	hand score	over nment:	ral governm itutions-p.	cluding inve	ael data quo
148.9 25	296.3 33	50.2	on) and cap prises; does r shares and	stock; 1955-	, Table 2-15	tor Accounts 57, Vol. 2, pl	quarters. les 73-75, 77	4, Table 2–1 9, Table 1, c	l grants	res of the G	rt:1958: cent national inst	account ex	Bank of Isr
103.5	191.2	54.1	ital formati tector enter purchase of	s and live	p.cit., p. 24 ndix, op.cit	Public Sec	96 ff., Tab	capital gr p.cit., p. 2. I. 1, p. 10	data.	Expenditu	e XV-17;	on capita	underlying
77.8	127.4	61.1	only new cap its to public i.e. includes	tor inventorie	l on Lubell, o l, Draft Appe	Barkay, The Jerusalem, De	dar years by I Vol. 2, pp. 2	n lactor lor on Lubell, c ly, op.cit., Vo	94. blished CBS	Receipts and Paner 9 Iem	of Israel, An	otal purchases and buildings	blished data
ormation	ormation	formation stic capital	(i.e. not under grar than cash; holds.	public sec	2b- Based - Lubel	- R.M. CBS,	calen — Ibid.	- Based	Table Table	- CBS,	- Bank ties-	for to land	- Unpu
iced capital f	stic capital f	iced capital 1 l gross dome: .).	al purchases re included assets other ns to housel 3.	nt only. changes in	Lines 1, 2a, Line 2c	Line 3	Line 3a	Line 3b Lines 3c, 4	Lines 1, 2, 5	Line 4	Line 1		Line 2
iovernment finan IL millions)	otal gross dome IL millions) ¹	Fovernment finants for the second se	ncludes all capita sars the latter al otal increase in ncludes total loan ncluded in item	entral governmer 950–54 includes	0 through 1954:	0 and 1951:	2 through 1954:		5 and 1956:		7 and 1958:		

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

87

the shares.⁶ The latter became of importance only after 1951/52.⁷ As can be seen from Table 31 the share of government investment carried out through public sector enterprises grew from 1952 to 1956—when it reached roughly one third—and declined subsequently.⁸ At the same time, the share of investment activity which the government carries out directly has fallen steadily over the period.⁹ In contrast, the share going to the private sector has increased almost steadily.

From Table 31 we also see that most of the government's participation in investment activity—particularly in more recent years—has been in the form of loans granted to both private and public sector enterprises. Over the last three years roughly two thirds of the government's investment activity has taken this form. The share of capital grants, on the other hand, is much smaller.

A comparison of Tables 31 and 32 shows us that the share of private investment activity financed by the government increased sharply from 23 per cent in 1952 to roughly 70 per cent in 1954. This is to be compared with government's financing of 80 per cent of public sector enterprise investment in the year 1954. On the other hand, government grants and loans to public sector enterprises in 1952 and 1953 exceeded the total amount of investment carried out by these enterprises in those years! It is, however, not clear whether this result merely represents inconsistencies in the data—or whether it represents such substantive phenomena as the building up of net liquid assets on the part of these enterprises, or their use of these funds to cover current deficits To say the least, this question deserves much further study: The breakdown given by Table 32 is not available with regard to years subsequent to 1954—so that later comparisons of this kind cannot at present be made.

The relative importance of government investment in the various industrial sectors is described in Table 33. Comparable data for earlier years are at present unavailable. If and when they do become available, it will be interesting to see to what extent the changes in overall government investment activity have been connected with changes in the com-

- ⁶ On these definitions, see Lubell, op. cit., p. 2. For a list of all government corporations as of March 31, 1956—as well as a breakdown by economic classification—see Barkay, op. cit., Vol. 2, pp. 323-27.
- 7 Ibid, p. 321.
- ⁸ Because of the change in definition for the 1957-58 figures (see footnote ^a to Table 31), it is difficult to know the exact extent of this decline.
- ⁹ There was, however, a decided upturn in 1958—though it is still too early to know the significance of this movement (see Table 31).

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

position of this activity—as well as with the changes that have taken place in the industrial distribution of gross investment as a whole (Table 30).

Type of purchaser	1950	1951	1952	1953	1954
Private enterprises and private nonprofit institutions)	70.1	75.0	66.0	55.4	49.8
Public sector enterprises)	72.1	15.9 (13.2	18.5	23.7
General government	27.9	24.1	20.8	26.1	26.5
TOTAL	100.0	100.0	100.0	100.0	100.0

TABLE 32. Composition of Gross Domestic Capital Formation, by Type of Purchaser: 1950-54 (Per cent)

Source: Lubell, op. cit., p. 69, Table 4-7B.

Let us turn now from the expenditure side of the investment program to its financing side. For the period in its entirety we do not have a detailed breakdown of the sources from which the government sector as a whole obtained the funds to finance its investment activity.¹⁰ But the development budget roughly indicates the sources which served the main constituent of this sector—namely, the central government. During the fiscal years 1949/50 and 1950/51 roughly half the expenditures in this budget were financed by internal loans—primarily inflationary sales of Land Bonds to the banking system (see next chapter). The other half was largely financed by the loan from the us Export-Import Bank. This pattern changed sharply in 1951/52—when only one fourth of the expenditures were financed by the sale of Land Bonds. During the following year these sales disappeared completely—though inflationary borrowing in other ways continued on a smaller scale.

Beginning with 1951/52 and 1952/53 we find the pattern which was to characterize the financing of the development budget in all subsequent years. The primary sources were foreign loans and grants: us grant-in-aid, Independence Loan, German reparations, and us Export-Import loan. The relative importance of these items changes from year to year. Thus us assistance has covered between 30 and 40 per cent of the development budget in each year, while reparations reached a peak in 1954/55 and have been declining since. All in all, these sources

¹⁰ For the fiscal years 1952/53, 1953/54, and 1954/55, such information is provided by Barkay, op. cit., Vol. 1, Table 1A.

have covered about 80 per cent of the development budget in the years since 1952/53.11

The financing of the remaining part of the budget has varied from year to year. In 1952/53 most of this remainder was financed by the compulsory loan which accompanied the conversion of the currency in June 1952. In more recent years funds have been received from the National Insurance Institute-which is the responsible authority for

1-		
Economic sector	1956	1957
Agriculture	70	60
Industry	32	29
Electricity	80	80
Mining and oil	65	85
Transportation *	85	45
Building construction	35	45
Services	50	60

TABLE	33.	Share of	Public	Financing	g in	Investments.
	by	Economic	Sector	s: 1956 d	ind	1957
			(Per c	ent)		

* The decline in the financing of this item is due to the fact that government payments designed for the financing of these imports, which were delivered in 1957, had been made in previous years and were accounted for under public financing.

Source: Bank of Israel, Annual Report: 1957, p. 61, Table V-4.

social security payments of various types. There have also been some special bond issues which were subscribed to primarily by the various provident funds. To the extent that the latter operation has occurred, the government has effectively acted as a middleman through which private domestic savings have been channelled to the business sector. Even here, however, the role of government has not been a passive one. This is obviously true with respect to the decision as to which sectors to direct the investment funds. But it is also true with respect to the fact that it is the government's credit standing-and particularly its ability to tie its securities to the cost-of-living index or exchange rate-which has made the provident funds willing to invest their funds in these ways.

This leaves the question as to the source of those investment funds

¹¹ For data on the development budget see CBS, Abstract No. 5, 1953/54, pp. 188-89; No. 8, 1956/57, pp. 214-15; and No. 9, 1957/58, pp. 320-21.

⁹⁰

which did not go through government channels. The details of this picture are still not available.¹² What is however clear is that foreign private investment played a minor role here. In 1952 (which is the first year for which data on this question are available) private funds from abroad provided only 8.6 per cent of the total financing of gross capital formation. Furthermore, this was the peak level; for the percentage then fell steadily to 4.0 in 1955 and 1.7 in 1956. During the last two years, it has, however, risen again to 3.0 per cent and 4.8 per cent, respectively.¹³

Similarly, a minor role has been played by the security market which is very limited in its overall scope and deals primarily with government securities. The general inflationary situation means that there is little possibility of selling debentures on this market. Furthermore, the fact already noted that many government debentures are linked to the cost-of-living index or to the exchange rate—while private companies cannot generally risk obligations of this type—has made it even more difficult for private firms to borrow from the market. At the same time, for reasons which have yet to be fully analyzed, even the sale of shares of private companies has been quite limited.

This naturally raises the oft-discussed question as to whether the role of private (in the sense of non-governmental) investment in Israel could have been greater than it actually was—or whether it was directly or indirectly restricted by the government activity that has been described above. One simple fact that stands out is that for the most part the government did not obtain funds for financing its investment program by either taxing the private sector or otherwise diverting funds from it. Instead the government obtained its funds from sources which were largely inaccessible to the private sector. This is certainly true for us grant-in-aid, Export-Import loan, and reparations. It is also probably true of the Independence Bonds: for it is doubtful if private firms could have sold their own debentures to those people who bought these bonds.

This means that the large degree to which government was respons-

¹² They are being studied for the period 1950-54 by Rachel Floersheim; see project report 11. For certain aspects of these finances in later years, see Bank of Israel, Annual Report: 1956, Chapters 18 and 19; 1957, Chapters 15 and 16. The following statements are based on these sources.

¹³ These figures are obtained by multiplying line B. 2a(v) of the balance of payments in Table 16 above by the rate of exchange appearing in line C there, and then dividing this product by the estimates of gross domestic capital formation in Table 12.

ible for the financing of the investment program was the inevitable consequence of the nature of the funds that could be obtained for this purpose. Government's share of financing could have been drastically reduced only by a corresponding reduction of the investment program as a whole. In particular, private investment from abroad would have had to increase many times over before it could have replaced these government funds. And there is no basis for believing that such a manifold increase could possibly have taken place.

This still leaves the question as to the degree of influence exerted by government on the use of those funds which were channelled through it. A very detailed study would be necessary in order to answer this question—if it could be answered at all. For the moment we merely repeat the facts already noted about the increased share of government funds going to the private sector—and the increased share dispensed in the form of loans. Both these developments might be taken as indications of a decreased degree of direct control by government over the use of the funds which it provides.

B. THE IMPORT SURPLUS AND DOMESTIC SAVING

Let us now turn to a consideration of the nature of the ultimate real resources upon which the economy has drawn to carry out the foregoing investment program. These potential resources are two in number: domestic savings and an import surplus. The relative importance of these sources for the decade as a whole is described in Table 34. The data in this table are offered with many reservations; in particular, the depreciation item is subject to even more than the usual reservations.¹⁴ But even allowing for large margins of error, the table would seem to indicate that over the period as a whole the import surplus was more than enough to finance net domestic capital formation; that, in other words, domestic savings were not only not a source of financing the investment program, but were probably even negative.

But this is not all. The figures of Table 34 are based on the official and usually overvalued—rate of exchange of the pound (cf. above, Chapter 2, p. 44). If a more realistic value were to be used, the relative importance of the import surplus would appear even greater. Unfortunately, it is impossible to get an accurate estimate of the degree of undervaluation of imports. For illustrative purposes, however, let us

¹⁴ Cf. above, Chapter 2, p. 44, footnote 2.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

arbitrarily assume that imports should have been evaluated at a level 20 per cent higher for the period as a whole. This would represent an average of periods such as 1950 and 1958 when the degree of undervaluation was undoubtedly greater; and periods such as 1952, 1954 and possibly 1955—when it was undoubtedly less.¹⁵ Using this estimate would mean that the import surplus in Table 34 would appear as roughly IL 3,000 million instead of IL 2,500 million. Correspondingly, the GNP would be decreased by IL 500 million to IL 11,700 million.¹⁶

(19	52 IL Mill	ions)	
1. Private consumption	9,260		
2. Government consumption	2,378	Gross national product	12,177
a. Civilian expenditure	1,433	Import surplus	
b. Defense and special budgets	945	(net capital import)	2,576
3. a. Depreciation	926		
Subtotal	12,564		
b. Net domestic capital formation	n 2,189		
Total use of resources	14,753	Total resources	14,753

 TABLE 34. Total Resources Available to the Israel Economy and Their Uses: 1950–58

Source: Aggregation of Table 18.

An immediate consequence of this revaluation is that the estimate of domestic dissavings increases from IL 390 million to IL 900 million. Or, to describe the same thing from another viewpoint, the excess of consumption and capital maintenance over GNP increases from 3 per cent to 8 per cent. This is shown in Table 35 which also presents the same information in terms of the ratio of net domestic capital formation to capital import. From this table we see that while an estimated 85 per cent of the import surplus was embodied in domestic capital formation

¹⁵ Note that even for 1952, 1954 and 1955 the rate of exchange was near equilibrium only within the existing framework of tariffs and special levies on imports. Hence, strictly speaking, even for these years the rate of exchange used in the calculation of Table 34 (i.e. that appearing in line C of Table 16) overvalues the pound.

¹⁶ In reaching this revised figure we have used the same method of estimating GNP as in Table 12: namely, GNP=total resources less import surplus.

An alternative procedure—which can be justified under certain assumptions would be to distribute the increase in the (revalued) import surplus among the various uses in accordance with their import components. This would not affect the general argument presented here.

when the surplus is evaluated at the official exchange rate, this drops to 71 per cent when an exchange rate 20 per cent higher is used.

	Original estimate	Import surplus revalued 20 per cent higher
Excess of consumption (private and general government) <i>plus</i> depre- ciation charges over GNP i.e., domestic dissavings) (millions		
of 1952 IL)	387	902
Ratio of consumption (private and general government) plus		
depreciation charges to GNP	1.03	1.08
Ratio of net domestic capital		
formation to import surplus	0.85	0.71

TABLE 35. The Extent of Domestic Dissaving: 1950-58 (1952 Prices)

SOURCE: Table 34.

It should also be emphasized that the existence of dissavings was a characteristic not only of the period as a whole, but also of most of the individual years which constituted it. Thus Table 36 shows that dissavings occurred in every year except 1951 and 1958. And even the small savings of these years would be converted into dissavings if the import surplus were to be revalued 20 per cent higher. Furthermore, the savings of 1951—and the relatively low rate of dissavings for 1950—probably reflect the impact of the extensive system of rationing and price control that prevailed in these years. At the same time, it appears that—except for the year of the Sinai Campaign—the extent of this dissaving has tended to decline in recent years.

Given this state of domestic dissavings, the question then arises as to its nature: whether it originates in the private¹⁷ or government sector (central government, local authorities, Jewish Agency, and Jewish National Fund). Due to the deficiencies in the data, no definite answer can be given to this question. The information we do have is given in Table 37. From it we see that the general government sector has

¹⁷ There is no breakdown available of the distribution of private savings amongst its various components: households, private nonprofit institutions, unincorporated enterprises, and corporations.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

dissaved in every year-particularly in the Sinai Campaign year 1956.

Year	Ratio of consumption (private and general government) plus depreciation charges to GNP	Ratio of net domestic capital formation to import surplus
1950	1.02	0.91
1951	0.98	1.09
1952	1.04	0.82
1953	1.06	0.73
1954	1.05	0.76
1955	1.06	0.77
1956	1.07	0.72
1957	1.00	1.00
1958	0.99	1.04

TABLE 36. Indicators of Domestic Dissaving: 1950-58 (Based on current price data)

SOURCE: Calculated from Tables 12 and 18.

As regards the private sector, we cannot consider the estimates in line 3 of Table 37 apart from the errors and omissions item of line 4. The latter represents the excess of net national product at factor cost (as derived from the estimates of GNP) over the estimates of national income (as computed directly from data on wages, profits, and other income sources). The positive nature of these numbers indicates that in each year either some expenditure item has been overestimated, or some income items underestimated, or both.¹⁸ To the extent that the estimate

¹⁸ Cf. above, beginning of Chapter 2, Part B.

The discussion in the text can be further clarified by noting that savings *plus* errors and omissions of Table 37 equals the excess of GNP over the sum of consumption (private and government) and depreciation in Table 12. This can be readily deduced from the following definitions:

Government savin	gs=direct taxes plus net indirect taxes plus government propert	y
	income less government consumption of goods and service	s
	less net transfer payments.	
Drivate covings	-dimension in and the second second	

Private savings

=disposable income less private consumption

=GNP less depreciation less net indirect taxes less errors and omissions less government property income plus net transfer payments less direct taxes less private consumption.

Errors and omissions=errors and omissions.

If these three identities are added up, the sum of the right-hand sides condenses to GNP less private consumption less government consumption less depreciation; whereas the left-hand sides add up to savings *plus* errors and omissions.

1950 1951 1952 1953 1954 1955 1956 195 1955 1956 1955 1956 1955 1956 1955 1956 1955 1956 1955 1955 1956 1955 1956 1955 1956 1955 1956 1955 1956 1955 2655 866 3. Saving a. General government ^b -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 b. Private sector: Households, private nonprofit -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 b. Private sector: Households, private nonprofit -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 b. Errors and omissions 33.9 12.8 59.3 40.4 113.6 <td< th=""><th>1950 1950 195 1. Gross domestic capital formation 127.4 191. 2. Depreciation allowance 35.6 51. 3. Saving -30.2 -27 a. General government^b -30.2 -27 b. Private sector: -30.2 -27 h. Private sector: -30.2 -27 b. Private sector: -30.2 -27 b. Private sector: -12.6 25 prises, and corporations -12.6 25 4. Errors and omissions 33.9 12</th><th>1951 195 91.2 296 51.8 79 -27.2 -40</th><th>2 1953 5.3 332.8 5.7 101.2 5.9 -60.1</th><th>1954 415.3 137.2</th><th><i>1955</i> 551</th><th>1956 655</th><th>1957</th><th>1958</th></td<>	1950 1950 195 1. Gross domestic capital formation 127.4 191. 2. Depreciation allowance 35.6 51. 3. Saving -30.2 -27 a. General government ^b -30.2 -27 b. Private sector: -30.2 -27 h. Private sector: -30.2 -27 b. Private sector: -30.2 -27 b. Private sector: -12.6 25 prises, and corporations -12.6 25 4. Errors and omissions 33.9 12	1951 195 91.2 296 51.8 79 -27.2 -40	2 1953 5.3 332.8 5.7 101.2 5.9 -60.1	1954 415.3 137.2	<i>1955</i> 551	1956 655	1957	1958
1. Gross domestic capital formation 127.4 191.2 296.3 332.8 415.3 551 655 86 2. Depreciation allowance 35.6 51.8 79.7 101.2 137.2 159 191 26 3. Saving a. General government ^b -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 3. Saving a. General government ^b -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 b. Private sector: Households, private nonprofit -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 b. Private sector: Households, private nonprofit -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 f. Errors and omissions 33.9 12.8 59.3 40.4 113.6 642 60 6. Total financing of gross domestic capit	 Gross domestic capital formation Gross domestic capital formation Depreciation allowance Soving Saving Saving General government^b Private sector: Private sector: Households, private nonprofit institutions, unincorporated enter-prises, and corporations Errors and omissions Errors and omissions 	91.2 296 51.8 79 27.2 -40	.3 332.8 .7 101.2 .9 -60.1	415.3 137.2	551	655	000	100
 Depreciation allowance Soving Saving <	 Depreciation allowance 35.6 51. Saving Saving Saving Ceneral government^b -30.2 -27 Private sector: Households, private nonprofit institutions, unincorporated enter-prises, and corporations -12.6 25 Errors and omissions 33.9 12. 	51.8 79 -27.2 -40	0.7 101.2 0.9 -60.1	137.2			808	176
 Saving Saving 	 3. Saving 3. General government^b -30.2 -27 b. Private sector: b. Private sector: Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25 4. Errors and omissions 33.9 12. 	-27.2 -40			159	191	265 -	300.
a. General government ^b -30.2 -27.2 -40.9 -60.1 -35.9 -36 -188 -2 b. Private sector: Households, private nonprofit institutions, unincorporated enter- -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 thouse holds, private nonprofit private sector: -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 the sector surface anter- prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 the Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital 100.7 128.4 262.7 316.9 367.1 509 642 60	a. General government ^b -30.2 -27 b. Private sector: Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25 4. Errors and omissions 33.9 12.	-27.2 -40	0.9 -60.1					
b. Private sector: Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 4. Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital 100.7 128.4 262.7 316.9 367.1 509 642 60	 b. Private sector: Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25. 4. Errors and omissions 33.9 12. 			-35.9	-36	-188	-29	-17
Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 4. Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital 100.7 128.4 262.7 316.9 367.1 509 642 60	Households, private nonprofit institutions, unincorporated enter- prises, and corporations -12.6 25. 4. Errors and omissions 33.9 12.							
institutions, unincorporated enter- prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 4. Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital	institutions, unincorporated enter- prises, and corporations -12.6 25 4. Errors and omissions 33.9 12.							
prises, and corporations -12.6 25.4 -64.5 -65.6 -166.7 -162 -112 -4 4. Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital 100.7 128.4 262.7 316.9 367.1 509 642 60	prises, and corporations -12.6 25 4. Errors and omissions 33.9 12							
4. Errors and omissions 33.9 12.8 59.3 40.4 113.6 81 122 7 5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital 100.7 128.4 262.7 316.9 367.1 509 642 60	4. Errors and omissions 33.9 12	25.4 -64	4.5 -65.6	-166.7	-162	-112	-48	-33
5. Import surplus 100.7 128.4 262.7 316.9 367.1 509 642 60 6. Total financing of gross domestic capital		12.8 59	9.3 40.4	113.6	81	122	11	74
6. Total financing of gross domestic capital	5. Import surplus 100.7 128	28.4 262	2.7 316.9	367.1	509	642	603	600
	6. Total financing of gross domestic capital							
formation 127.4 191.2 296.3 332.8 415.3 551 655 86	formation 127.4 191	91.2 296	3 6 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	415.2	551	655	868	924

96

CHAPTER 3

of income items was too low—or to the extent that the overestimated expenditure category is that of private consumption—the sums in line 4 really represent savings that should be recorded in line 3b. But even after private savings have been estimated in this way (i.e., as the sum of lines 3b and 4), they still emerge as either negative or very small. On the other hand, private dissavings are then smaller in every year (except for 1954 and 1955) than government dissavings.

In the context of the Israel economy, however, this distinction between private and government dissavings is somewhat misleading. To a significant extent it is the arbitrary product of the economy's institutional arrangements as reflected in the UN system of national accounts used in the construction of Table 37. According to this system, government transfer payments to households are recorded as a current expenditure of the former and an income receipt of the latter. At the same time, international transfer payments to government from abroad (many of which can reasonably be assumed to have been intended for ultimate distribution to households) are not considered part of the government's current income.¹⁹ Hence, if an alternative institutional arrangement had existed under which transfer payments from abroad would have been made directly to households—and not by intermediation of government —this would simultaneously have increased the saving of government and decreased the saving of households.

For both conceptual and statistical reasons, it is impossible to estimate exactly the quantitative implications of this consideration. The very concept of 'international transfers intended for distribution to households' is a somewhat fuzzy one. Yet some idea of the magnitudes involved may be obtained from Table 38. Line 4 of this table shows the net transfer payments of government to households-after the elimination in line 2 of those payments which are clearly not related to international transfer payments from abroad. From line 6 we see, in turn, that net transfers to government from abroad always exceeded government's transfer payments to households. Finally, if we deflate the figures in line 4 by the price index of government consumption as given in Table 13, we obtain net transfer payments for 1950-58 of 177 million 1952 IL. This is 47 per cent of the total real government dissavings over the same period. No great stress should be laid on this percentage as such. But it does indicate that a good deal of what is now recorded as government dissavings would appear as private dissavings if funds from

19 Cf. the system of national accounts used by Lubell, op. cit., Chapter 5.

	TABLE 38. Trans	er Payn	nents: C	urrent	Prices					
		IL Millio	(su							
	Transfer payments	1950	1951	1952	1953	1954	1955	1956	1957	1958
÷	Current transfers by general government to house- holds and private nonprofit institutions	17.9	21.4	21.5	34.3	51.3	58	73	123	169
5	Of which: National insurance payments and premia on capital transfers from abroad*	I	1	I	1	5.2	16	18	36	67
3	Current transfers by households and private non- profit institutions to general government	9.5	8.7	13.9	15.0	17.7	22	29	27	31
4.	Net transfer payments by general government to households and private nonprofit institutions (1. less 2. less 3.)	8.4	12.7	7.6	19.3	28.4	20	26	60	11
5.	Net international transfers to households, private nonprofit institutions and corporations	12.3	3.6	52.4	27.2	93.9	97	110	147	180
6.	Net international transfers to general government	24.9	45.0	93.4	163.3	375.3	282	322	295	272
N a	 Premia on foreign capital transfers were paid only during DURCES : Lines 1, 3 : 1950–54: Lubell, op. cit., p. 79, Ta 1955, 56: Bank of Israel, Annual R. 1957, 58: Bank of Israel, Annual R. 1957, 28: Bank of Israel, Annual R. Line 2 : Adapted from fiscal year data in ditures and Receipts of the Govern and 1956. Lines 5 and 6 : 1950–53: Lubell, op. cit., p. 80, Tal 	1957 ar le 5-5. <i>port:</i> 19, <i>port:</i> 19, X.M. Ba <i>ment:</i> 15 de 5-6.	id 1958 57, p. 18, 58, p. 16, 758, p. 16, 755/56	as follow Table 1 Table 1 Table 1 <i>cit.</i> , p. <i>and</i> 19	rs: 1957- 1-6. 1-5. 126, Tal 56/57 (1	-IL 7 m ble 2, for Hebrew)	illion; r 1954, , op. ci	1958—I and fro tt, Tab	L 22 mil m CBS, le 1, fo	lion. <i>Expen-</i> r 1955
	1934 : Nadav Halev, <i>Dsimutes</i> ber 1956, Table 18, p. 10 1955 : Bank of Israel, <i>Annual R</i> 1956 : Bank of Israel, <i>Annual R</i> 1957, 58: Bank of Israel, <i>Annual Re</i>	of Israel 8. port: 19 port: 195 bort: 195	s Intern 56, p. 46 57, p. 28 8, pp. 22	, Table , Table , 23, Ta	III-1. III-2. ble III-2	190 (auto), 190	1001-2	, rr, Jo	er usarenn,	-000

98

abroad were channelled to Israel households under institutional arrangements differing from the present ones.

It should now be emphasized that the exclusion of international transfer payments from the current income of the various sectors of the economy—the UN practice which we have adopted so far—obviously affects the total estimate of savings as well as its distribution among the sectors. The inclusion of these transfer payments would, of course, cause a corresponding increase in the total of savings. But there is as little justification for including all transfer payments as for excluding all of them. There are many difficult conceptual and statistical problems involved here. The main question is to what extent the recipients of these transfers—in making their current expenditure (and hence saving) plans—treat them as part of their current incomes.

For illustrative purposes, let us consider the case of households. Their receipts of international transfer payments (line 5 of Table 38) are of three types: immigrant transfers, restitution payments, and other nonimmigrant transfers. Let us assume that the first of these is not considered part of current income at all. Insofar as restitution payments are concerned, some preliminary findings of the 1957/58 Savings Survey indicate that the average propensity to consume out of current restitutions is less than one third of that out of ordinary disposable income.²⁰ In order to take account of the possible additional effect of restitution payments received in earlier years, let us increase this ratio arbitrarily and assume that one third of the restitution payments are considered by their recipients to be on current account. Let us also apply this same proportion to other non-immigrant transfer payments.

As a result of these revisions, both savings and disposable income in each year increase by one third the amount of international transfers exclusive of those of immigrants. What is important to note is that

²⁰ The general approach of the present discussion is due to Nissan Liviatan. Cf. project report 18 and Bank of Israel, Annual Report: 1958, p. 259, Table XVI-4, columns (2) and (5). The exact ratio of the average propensities is 20.9 per cent [=(17.1+9.4) ÷ (86.7+4.8)].

It will be clear from the above that there is no justification for the Bank of Israel's procedure of including *all* international transfer payments in disposable income and therefore savings. This inclusion is the main reason why the Bank's estimates of private saving are much higher than those given in line 3b of Table 37 here. (See Bank of Israel, *Annual Report: 1958*, pp. 15–16; this gives estimates of private savings of IL142 and IL200 million in 1957 and 1958, respectively.) The other (and quantitatively much less important) reason for the Bank's higher estimate is the factor noted in the sources to line 3b of Table 37.

these revisions are in each year significantly less than the errors and omissions items of Table 37 (line 4). Except for 1958, they do not convert any of the dissavings estimates of line 3b of this table to positive savings. And even for 1958, private savings (in this revised sense) were only IL 24 millions—representing a savings ratio (with respect to disposable income) of 1.0 per cent. Furthermore, this revision is also small relative to the offsetting revision that has to be made in order to take account of the overvaluation of the pound (see above p. 44). In brief, then, the broadening of the concept of income in the foregoing manner does not affect the basic picture of Israel's savings behavior as described above.

So much for the description of savings as given by the national accounts. We must, however, emphasize that at least part of this description is apparently contradicted by the findings on household savings of the 1954 and 1957/58 surveys. Thus the former showed that wage and salary earners saved about 3 per cent of their disposable incomes.21 Again, the savings survey of 1957/58 yielded a savings ratio of 5.3 per cent for the urban population as a whole.22 It is true that these estimates make use of somewhat different definitions of household savings and income than does Table 37.23 But even after allowance is made for these differences, the savings ratio which they indicate is significantly higher than that which emerges from this table-or even from the revised estimates presented in the preceding paragraph. This question is now being given further study (see project report 18). It does, however, seem likely that in view of the fact that the private savings estimates of the national accounts represent residual items, the savings surveys give a more accurate picture of what has been happening. This, however, need not affect the general conclusion that total domestic savings-government as well as private-have been negative.

This stress on domestic dissavings is the result of our underlying assumption that the continued development of the Israel economy in the future is vitally dependent on the emergence of positive savings. The

²¹ Figure kindly supplied by M. Zandberg; see the description of his study in "Gross Private Savings in 1954", Bank of Israel, Bulletin No. 5, August 1957, especially p. 62, Table 3.

²² Family Savings Survey: 1957/58, unpublished, revised findings.

²³ The main differences are that they do not deduct depreciation on owner-occupied dwellings and that they include in income part of the transfer payments from abroad. The latter are completely excluded from the calculations that lie behind Table 37.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

reason for making this assumption is simply that within the next few years the economy will be confronted with a continuous dwindling of those sources which have so far financed the import surplus—and thus enabled the carrying out of the investment program. We shall return to this point in Chapter 5 below.

There are, of course, special factors at work in the Israel economy which have at least been partly responsible for the dissavings that have occurred to date. Two obvious ones are immigrant rehabilitation and the defense burden. Insofar as the latter is concerned, we have seen in Table 17 how Israel's burden is significantly greater than that of other countries in its income class. It is impossible to measure this excess burden-and the corresponding dissavings it has caused-in any precise way. But it might be worth noting that if Israel's defense expenditures during 1950-58 had been at the level of, say, Sweden and New Zealand (i.e. 3.8 per cent of total resources, instead of 6.4 per cent), then these expenditures would have been roughly 380 million 1952 IL less than they actually were. And even if they had been at the level of Italy's (5.2 per cent of total resources), they would have been reduced by IL 180 millions. It should also be noted that this calculation does not take account of the fact that Israel's actual defense burden is significantly higher than the recorded one.24

In a way, though, all this is academic. For if we are concerned with the possibility of developing positive domestic savings in Israel—and this is our primary concern—there is little likelihood that this will be forthcoming in the near future from any possible decrease in the burden of defense expenditure. There are no indications that the necessity for Israel to live like a 'garrison state' will be less in the foreseeable future than in the past. Hence, there is little point in considering the possibility of decreasing government dissaving in this way.

Let us now turn to the dissaving generated by the necessity of resettling and rehabilitating the new immigrants. By its very nature, this process required periods of varying lengths during which these immigrants were consumers, though not producers. No detailed estimates are available of the costs involved in this process. Let us then arbitrarily assume that new immigrants of working age needed a period of (say) one year before they were integrated in the productive cycle of the economy. This is an average of those immigrants who found permanent work within a very short time after arriving—and those who were still in need of assis-

24 Cf. the discussion of Table 17, p. 56.

tance even years afterwards. During this assumed average period of one year, the immigrant's needs for private and government consumption had to be satisfied by the rest of the economy—without his being able to make any contribution whatsoever. Similarly, the immigrant was not able to bear his share of the depreciation costs of the economy. Let us further assume that the immigrant consumed in all these three ways (private, government and depreciation) at the same level as the population as a whole. Then an estimate of the costs of rehabilitating the immigrants in any given year can be obtained by multiplying the immigration in that year by the total per capita expenditures of that year on consumption and depreciation.²⁵

The total estimate reached in this way is 465.3 million 1952 pounds for the period 1950–58. For many reasons, this is probably an overestimate of the maximum costs involved in rehabilitation. First of all, it is not at all clear that an average of one year should be considered as necessary for the rehabilitation of an immigrant. Or, to put it the other way around, to the extent that such a period was necessary in the case of some immigrants, there is a real question if this should be considered to be the result of immigration as such, or whether it should be considered to be the result of the personal characteristics of the immigrant and/or the employment policy which prevailed in the economy.

Secondly, we have attributed to the immigrant the per capita consumption level of the population as a whole. In actual fact, however, this level was undoubtedly lower. Thus the Savings Survey of 1957/58 showed that individuals who had arrived as immigrants during the years 1953–57 consumed on the average from one half (in the case of Asian–African immigrants) to two thirds (in the case of Europeans) of the average level of the economy as a whole for 1957/58.²⁶ Thus if we assume that roughly the same pattern obtained in earlier years; and if in order to be safe we use the factor of two thirds—despite the predominance of Asian-African immigration during these years (see

²⁵ The data for this calculation are obtained from Table 1, line 1 and Table 19, lines 1, 2, and 3a.

Actually, the relevant figure is not the immigration during any given year, but the average number of immigrants during the year who had been in the country less than twelve months. That is, during (say) parts of 1950 care must be taken of immigrants who arrived during 1949; conversely, almost all of the immigrants who arrived during 1950 were taken care of for only part of 1950.

Since, however, this whole estimate is very rough it has not been thought worthwhile to carry out this correction.

26 Unpublished findings; cf. project report 18.

Table 2)—then the estimated private consumption expenditure of immigrants is reduced from IL337.5 million to IL225 million.

On the other hand, one might well argue that as a result of the need to help them in many ways, immigrants were provided with more than their share of government non-defense expenditures. Let us arbitrarily assume that they consumed 50 per cent more than the average per capita for the economy as a whole. (There is no basis for this conjecture other than the desire to find a number that can serve as an upper limit.) This increases their consumption of government civilian services from IL 51.6 to IL 77.4 millions.

The result of these revisions is an estimated upper limit of rehabilitation costs of immigrants during 1950–58 of roughly 380 million 1952 pounds. This is to be compared with the original estimate of 390 million pounds of total dissavings of Table 35. We can regard this 380 million either as a once-and-for-all consumption expenditure; or (more usefully) as an investment in human beings in order to prepare them for productive participation in the labor force. From either viewpoint—on the assumption that the economy will not be confronted once again with a mass immigration—this maximum sum of IL380 million (and the dissavings which it represents) might be considered as largely constituting an expenditure not representative of the normal functioning of the economy.

But there are several additional viewpoints from which this figure represents an overestimate of the dissavings caused by immigration. First of all there is the already mentioned exclusion of international transfer payments from current income.27 If these payments had been included, we would have had to take account of the fact that a significant proportion of them were forthcoming only because Israel had undertaken the task of absorbing new immigrants. To the extent that this was true, the immigrants were in a sense financing themselves: their consumption was paid for by 'income' in the form of transfer payments from abroad. Hence the use of this revised definition of income causes a corresponding downward revision of the estimated dissavings generated by the immigrants-and for that matter, of the estimated dissavings of the economy as a whole. We should, however, once again mention the conceptual and statistical problems which make it difficult-if not impossible-to isolate the foregoing element of international transfer payments.

27 See above, p. 97.

Secondly, the foregoing discussion refers only to the dissavings caused by the transitional process of absorbing the immigrants. It does not deal with the much harder—and much more important—question of the total effect of immigration on the savings of the economy. Here two points are relevant. First, after the immigrants were absorbed, they themselves contributed to these savings. Indeed, the 1957/58 Savings Survey showed that their ratio of savings to disposable income was as high as—if not higher than—that of the veteran population.²⁸ Second, and more generally, the population increase brought about by the immigration was undoubtedly an integral part of the economy's rapid growth process. In the absence of immigration, this whole process would have been very much different; indeed, so much different that there can be no assurance at all that it would have resulted in higher savings than those which actually obtained.

So far we have not discussed the role of private consumption in creating dissavings. In a way, this is the most important question of all: for this variable is much more subject to policy decisions than the largely exogenous defense and immigration expenditures discussed above. It has frequently been claimed that the level of private consumption in Israel has 'grown excessively'—though no precise definition of this concept has been given. One possible definition—which might arbitrarily be used in order to get some idea of the dimensions involved— is growth in excess of an annual per capita rate of 3 per cent. This growth rate is at about the level achieved by other countries in Israel's income class during 1950–56; it is somewhat above that of Norway and the Netherlands (2.8 per cent) and below those of France (4 per cent), Italy (4 per cent), and Austria (5 per cent).²⁹

If this growth rate had obtained in Israel during 1950–58 there would have taken place an increase of 27 per cent in consumption levels over the period as a whole. In particular, per capita private consumption in 1958 should have been IL 632 and per capita civilian government consumption IL 99. This means total consumption levels in 1958 of 1,262 and 198 million 1952 IL, respectively, as compared with the levels of 1,454 and 218 million that actually prevailed. The differences —190 million for private and 20 million for civilian government consumption—represent our estimate of 'excess consumption' in 1958.³⁰

²⁸ Family Savings Survey: 1957/58, preliminary findings, Table 10.

²⁹ These rates refer to private consumption and were computed from the UN, Yearbook of National Accounts Statistics: 1957.

³⁰ The foregoing calculations are carried out on the basis of Tables 1, 18, and 19.
INVESTMENT, SAVING, AND THE IMPORT SURPLUS

It might be thought that 1950—being a year of 'austerity'—is not a proper point of departure for the foregoing comparisons. It is therefore worth noting that the last calculation would yield an even greater estimate of excess consumption if 1953 were taken as the base year instead of 1950. This is simply the reflection of the fact that the annual rate of growth in per capita consumption from 1950 to 1953 was less than 3 per cent.

An important question with reference to the rise in consumption levels is how this rise was distributed between the veteran and new population. There are as yet no adequate data on this point—though it is being studied.³¹ But if the differential movements in consumption levels have been like those in income (Table 24), then the rise in consumption levels would represent a more or less equally proportionate rise in the levels of both these sectors of the population; it could not be explained as resulting from a process of raising immigrant consumption levels while keeping those of the veteran population more or less constant.

The foregoing estimate of excess consumption should be compared with the total estimated domestic savings of 9.9 million 1952 pounds that actually prevailed in 1958 (Table 18).³² They should also be compared with the IL 311 million of import surplus that were used during that year to finance the investment program. There is no intention here to make the oversimplified argument that a decrease in consumption would cause an equal decrease in this surplus: this obviously depends on the degree of substitutability between goods. But whatever may be the case, there can be no doubt that a more restrained increase in consumption levels could have enabled a significant decrease in the extent of the import surplus that existed in 1958. We shall return to this point in Chapter 5.

In concluding this discussion we might ask: if Israel is to become like other nations in its degree of dependence on an import surplus, what other changes will have to take place in its capital formation account? Due to the absence of relevant data, the answer to this critical question can be conjectured only in a general, schematic way. First of all the percentage of GNP devoted to capital formation would probably have to fall; we shall return to this question in Chapter 5. Second, the general government sector would have to generate a surplus on current account—or at least stop running a deficit. Such positive government

³¹ Cf. below, project report 18.

³² This is the excess of GNP over the sum of consumption (private and government) and depreciation.

savings are characteristic of most European countries.³³ This objective can be accomplished either by increasing current tax receipts, or by decreasing current expenditures, or both. In this connection we might note that the part of Israel's GNP that went for taxation (net of subsidies) in 1955–56 (19.0 per cent) was less than that of Holland (22.0 per cent) and Britain (22.1 per cent), though greater than that of France (16.3 per cent) and Italy (14.3 per cent).³⁴ This would imply that there might yet be room for further (net) taxation—though the way in which this should be carried out would have to be carefully considered.

Insofar as the savings of households (including unincorporated enterprises) are concerned, the analysis of the Savings Survey of 1957/58 will soon be able to tell us if it is reasonable to expect an increase in the ratio of these savings to disposable income. The 5.3 per cent ratio for the urban population as a whole reported by this Survey is quite high in comparison with the corresponding 2.6 per cent ratio reported for the uk in 1954—though it is still far below the 8.4 per cent saving ratio of the us in 1950.³⁵

This leaves corporate savings—which are an important source of financing capital formation in most modern countries. Unfortunately, there are no data on the extent of such savings in Israel.

To summarize this chapter, the fact that the economy did not save a greater share of its greatly expanded national income during 1950–58 and 1954–58 in particular—may well be considered to be the major failure of Israel economic policy during the period under study. A corollary of this failure was the failure to bring about any significant decrease in the size of the import surplus. On the basis of the existing

- ³³ The UN's Yearbook of National Accounts Statistics: 1957 shows the following percentages of gross domestic capital formation financed by government saving in the following countries (unweighted averages of 1950, 1952 and 1955): Norway (25.4), the Netherlands (38.8), West Germany (26.9), Austria (22.4), France (11.9), and United Kingdom (12.3). The corresponding ratio for Israel in 1957– 58 was -2.6 per cent.
- ³⁴ Ministry of Finance, Fourth Report on State Revenues: 1957/58 (Hebrew), Jerusalem, 1959, p. 43.
- ³⁵ These problems are discussed by Liviatan in project report 18 described below. The figures for UK and US were also obtained from savings surveys and are to be found in L.R. Klein, "Patterns of Savings: The Surveys of 1953 and 1954", Bulletin of the Oxford University Institute of Statistics, Vol. 17, 1955, pp. 173-214, and I. Friend and I.B. Kravis, "Entrepreneurial Income, Saving and Investment", American Economic Review, Vol. XLVII, 1957, p. 273, Table II.

INVESTMENT, SAVING, AND THE IMPORT SURPLUS

evidence—incomplete as it admittedly is—it is hard to contend that these failures were primarily caused by the necessity of absorbing the mass immigration. Instead, a more important cause was the strong tendency for a general increase in per capita consumption levels.

THE INFLATIONARY PROCESS

THE PRIVATE and government expenditures described in the preceding chapter were to a large extent financed by inflationary measures which left their continued imprint on the economic developments of the period as a whole. We cannot here undertake a detailed analysis of this process, but shall limit ourselves to its salient features.¹

Figure 5 and Table 39 show how Israel's nominal money supply grew over six and a half times during its first decade. This growth did not proceed at an even pace. There was a first period which extended from roughly December 1948 to September 1951, during which the annual compounded rate of growth was highest: 36 per cent. A second period then lasted nine months, during which the nominal quantity of money actually declined slightly as a result of the currency conversion which took place in June 1952. Finally, over the period of the last six and a half years (June 1952-December 1958) the money supply has grown at the average rate of 17 per cent per year. The rate, however, has not been equal during this last period. In the beginning it grew at the rate of 18.6 per cent; during the year of the Sinai Campaign this increased to 23.3 per cent; and during the last two years it has fallen to an average of roughly 13 per cent. Part of this latter fall in the rate of growth reflects a shift out of demand deposits to time deposits-the latter not being included in the definition of money.²

Inflation is not a homogeneous phenomenon—and we can see how its character underwent changes at different phases of our ten-year period. Thus the 'austerity' period of 1949, 1950, and the first half of

The following discussion is based largely on these sources.

² See Bank of Israel, Annual Report: 1958, pp. 180 ff. The calculations in this paragraph are based on the end-of-the period data of Appendix Table B.

¹ For a more detailed analysis of the first part of this period, see D. Patinkin, "Monetary and Price Developments in Israel: 1949-53", Scripta Hierosolymitana, III, 1956, pp. 20-52. For later years, see the Annual Reports of the Bank of Israel, which have been appearing since 1955.

THE INFLATIONARY PROCESS

1951 was one of suppressed inflation during which the government attempted to maintain a policy of strict price control and rationing of food, clothing, building materials, and foreign exchange. This is reflected in the stability of the official price index during this period (Figure 5), though it should be noted that black markets (whose prices are not reflected in the index) began to appear at an early date. The result of this policy was a more-than-doubling of the real value of money balances in the hands of the public—though if we take into account blackmarket prices the increase is of course less. In any case, however, it was an increase far greater than that of the total resources of the economy. This unspent purchasing power created tremendous pressures of excess demand—leading to rampant black markets and the ultimate disintegration of the system as a whole.



FIGURE 5. MONEY AND PRICES

Sources: Appendix Table B, columns (6), (7) and (8)

This breakdown was accompanied by a depreciation of the pound which began administratively during the end of 1951—though it was

	Quantity (curre	of money nt prices)	Consum	ers' price dex	Real
Year	IL millions	Percentage increase over preceding year (2)	1952=100 (3)	Percentage increase over preceding year (4)	money supply (1952 IL millions) (1)÷(3) (5)
1948	93.1*		58		160.3
1949	128.9 ^b	38.5	60	3.4	214.8
1950	169.7	31.7	57	-5.0	297.7
1951	224.0	32.0	63	10.5	355.6
1952	247.3	10.4	100	58.7	247.3
1953	290.1	17.3	128	28.0	226.6
1953°	262.7 ª		128		205.2
1954	330.5	25.8	144	12.5	229.5
1955	398.2	20.5	152	5.6	262.0
1956	469.4	17.9	162	6.6	289.8
1957	560.4	19.4	173	6.8	323.9
1958	645.7	15.2	178	2.9	362.8

TABLE 39. The Quantity of Money and the Price Level (Annual Averages)

* This is the December 1948 figure multiplied by the ratio of the annual average in 1949 (computed as the average of the quarterly figures) to the December 1949 figure. See Appendix Table B.

^b Average of ten months (March-December).

* New series excluding demand deposits in foreign currency.

⁴ 1953 figure of old series (290.1)× ratio of new December 1953 figure to old one. Sources: Col. (1): 1948—Appendix Table B. 1949—CBS, Abstract No. 4, 1952/53, p. 118.

1949—CBS, Abstract No. 4, 1952/55, p. 118.
1950–53 (old series)—CBS, Abstract No. 5, 1953/54, p. 161.
1954—CBS, Abstract No. 6, 1954/55, p. 197.
1955—Bank of Israel, Annual Report: 1955, p. 157, Table 117.
1956—Bank of Israel, Annual Report: 1956, p.266, Table XV-2.
1957—Bank of Israel, Annual Report: 1957, p.185, Table XIV-1.
1958—Bank of Israel, Annual Report: 1958, p.182, Table XIII-1.
1948—57, CPS Abstract No. 0, 1957/58, p. 2082, Table XIII-1.

Col. (3): 1948-57-CBS, Abstract No. 9, 1957/58, p. 285. The c-o-l index as presented in this source shows a sudden increase in December 1950. This, however, actually reflects the introduction of an index with new weights. The CBS figures have therefore been adjusted by spreading this increase equally over the period December 1948 to December 1950. For further details see Appendix Table B, note to

column (7). 1958-CBS, Bulletin B, February 1959, p. 113.

THE INFLATIONARY PROCESS

not made official until February 1952. This depreciation was the major vehicle by which the accumulated pressures in the system were permitted to work themselves off in price increases. This is reflected in a rise of almost 60 per cent in the official cost-of-living index from September 1951 to June 1952. (It should, however, be noted that this rate of increase exaggerates the true one in view of the fact that the index for September 1951 does not reflect the rise that had already taken place in the black-market prices. In other words, a more representative index would show a rise from 1950 to 1951 too.) Correspondingly, the real value of money balances—and the excess-demand pressures which they represent—contracted sharply over the same period.³

One by-product of this experience has been a general recognition by the government of the dangers and undesirability of sharp inflationary developments. A more specific by-product-related to the suppressed phase of the inflation-has been that no subsequent government has seriously considered returning to comprehensive price controls and rationing as a primary means of dealing with inflationary pressures. There do still remain controls in the economy-particularly with reference to foreign exchange-but these are much less comprehensive and rigid than those of 1949-51. There is also a much greater recognition on the part of economic policy makers of the necessity of raising controlled prices in order to keep pace with uncontrolled ones and thereby prevent the reemergence of the distortions in the relative price structure that caused such considerable misallocation of resources during the period of suppressed inflation (e.g. feeding price-controlled bread to poultry, overequipping farms and factories with relatively cheap imported machinery, etc.). In brief, though the price system in Israel is still far from being free-and though it is still seriously distorted in many respects (as a result, for example, of subsidies on commodities, artificially low interest rates, special levies on imports, differential exchange rates and the like)-there is a much greater understanding than there once was of the important role that can be fulfilled by the price mechanism in allocating scarce economic resources.

As may be inferred from what has just been said, the inflation since 1952 has differed in its nature from the suppressed inflation which preceded it. It has been an open one—with little, if any attempt to hide its

³ It should be emphasized that we have used the real value of money balances here only as an index of excess demand pressures, and not as a criterion of monetary policy. A proper criterion for the latter should instead be (relative) stability of the price level, or steady growth in GNP, or the like.

		Percente	ige of change	due to cha	nges in		Ratio	of change	
Year or heriod	Total change in the quan- tity of money	Net foreign	Credit of bu systen	anking n		Total (2)through	In net foreign	In govern- ment credit	Annual percentage increase
	during period (IL millions)	banking system	To govern- ment	To public	Uther factors	(2)	balances to change in total	to change in public credit	in total credit
	(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)
[949	39.4	-13.7	78.4	47.2	-11.9	100.0	-0.11	1.66	62.4
1950	49.6	-33.5	104.0	57.9	-28.4	100.0	-0.21	1.80	62.3
1951	51.7	-17.0	86.8	54.0	-23.8	100.0	-0.12	1.61	34.8
1952	15.7	-17.2	26.1	186.0	-94.9	100.0	-0.08	0.14	11.8
1953	63.1	24.4	7.6	87.6	-19.6	100.0	0.26	0.09	19.1
1954	58.4	106.8	-31.8	46.6	-21.6	100.0	7.26	-0.68	2.3
1955	71.2	27.8	66.1	35.7	-29.6	100.0	0.27	1.85	18.7
1956	97.6	15.3	64.8	49.8	-29.9	100.0	0.13	1.30	24.3
1957	58.9	-29.9	91.3	104.6	-66.0	100.0	-0.15	0.87	20.2
1958	83.7	91.9	46.8	89.2	-127.9	100.0	0.68	0.52	16.6
Dec. 1948-Dec. 19.	51 140.7	-21.9	90.6	53.4	-22.1	100.0	-0.15	1.69	
Dec. 1951-June 19	55 157.9	64.0	0.1	77.6	-41.7	100.0	0.82	0.00	
June 1955-Dec. 19	58 260.5	27.2	76.2	75.8	-79.2	100.0	0.18	1.00	
Dec. 1948-Dec. 19	58 559.1	25.2	58.4	70.7	-54.3	100.0	0.20	0.82	

i 5

112

CHAPTER 4

manifestations. In particular—as Figure 5 shows—over the last six years money supply and the price level have risen concomitantly—with the latter increasing at first (June 1952–December 1953) rapidly at the annual rate of 22 per cent, and subsequently more slowly (and more regularly) at roughly the annual rate of 5 per cent in terms of the costof-living index.

The nature of the inflation has also varied over the decade with respect to its source. Table 40 shows us that during the first three years of this period there was a drawing down of foreign balances—exerting a downward pressure on the money supply—which was overwhelmingly counterbalanced by an internal expansion of bank credit. The data during these years do not permit us to make a precise division between credit to the central government and credit to the rest of the economy; but it does seem clear from the bottom of Table 38 that the central government was the main recipient of this credit. Indeed, central government credit during this period grew at the phenomenal rate of 75 per cent per annum. Most of this credit expansion was used to finance the development program described in the preceding chapter.⁴

The crisis that occurred at the end of this period brought a sharp though temporary—halt to this borrowing by the central government. By this time the foreign exchange reserves of the economy had also almost completely vanished—and so it was necessary to build them up again. The effects of both these policies are reflected in the data for the period December 1951–June 1955. Here the growth of foreign balances was almost as important a cause of the expanding money supply as the growth of bank credit. Furthermore, this credit expansion itself went entirely to the public: government borrowing at the end of the period was about the same as at its beginning—if not less.⁵

- ⁴ In connection with the present discussion, these technical points should be noted: a. 'Government' refers only to central government; it does not include local authorities, national institutions or public corporations. All these are included in the 'public'. Changes in bank credit to local authorities and national institutions have been relatively small since 1954; cf. Bank of Israel, Annual Report: 1958, p. 199. No specific data are available on bank credit to public corporations.
 - b. The bank credit here described does not include the loans of the Development Budget which the central government channelled through the banks as its agents. These loans appear under a separate classification (omitted here) entitled: 'credit from government deposits earmarked for loans'.
- ⁸ The reason it may have been less is that prior to December 1953 an undetermined (though probably small) amount of bank credit to government is included under credit to the public; see Appendix Table B, notes to columns (2) and (3).

In contrast, the last three and a half years have brought about a resurgence of central government borrowing from the banking system. During this period as a whole government borrowing has been just as important a cause of expanded bank credit as private borrowing. In part, this was the outcome of the Sinai Campaign. The sharp increase in government borrowing in the period before and after this campaign comes out clearly in Figure 6. But this is not the whole explanation: for this figure also shows us that government borrowing continued to increase rapidly even subsequently—during 1957 and 1958—though at an uneven pace. Thus, the government has again resorted to the banking system for inflationary loans in normal years too.



FIGURE 6. CREDIT OF BANKING SYSTEM

Sources: Appendix Table B, columns (2), (3) and (4).

From Figure 6 we also see that the rate of credit expansion to the public has been much less variable than that to the central government. Until December 1953, the former grew fairly regularly at the annual rate of 33 per cent; since then the rate has fallen to about 15 per cent.

Returning now to the disintegration of the system of controls at the end of 1951 and the beginning of 1952, we note that this was accompanied by a rapid increase in the velocity of circulation of money. Indeed, this must necessarily be true of such a period. For it is the inherent nature of a system of suppressed inflation—with its rationing and price controls—that people are forced to hold larger money balances than they normally would consider necessary. This change is described in Table 41. From two independent sources (columns (3) and (4)) we have the same picture of a doubling of the velocity of circulation as the economy moved from suppressed to open inflation.

It is also interesting to note the relative constancy of the velocity of circulation since 1954—and even (though to a lesser extent) since 1953. This shows that despite the continued inflationary process of this period, there has been no panicky flight from money. Israel—like many other economies in which inflation has become part of everyday life and considerations—has shown much greater stability in this process than might have been thought possible at one time. On the other hand, there is some evidence that the use of notes and postdated checks as a means of payment has increased the actual velocity of circulation beyond the levels indicated by Table 41. Unfortunately, there are no data available on the changes over time in the relative importance of these alternative means of payment. To the extent that this relative importance has not changed, the constancy shown by Table 41 will not be affected.

A somewhat more sophisticated explanation of the constancy of the velocity of circulation during 1954–58 is that the annual rate of price increase during this period also remained more or less constant at 5 per cent in terms of the cost-of-living index (Table 39) and at 8 per cent in terms of the implicit price index of total resources (Table 13). This means that the cost of holding money balances—in terms of purchasing power lost—has remained unchanged. Hence the relative demand for cash balances—that is, the proportion of their expenditures which people decided to hold in the form of these balances (the reciprocal of the velocity of circulation)—has also remained unchanged. The lower (as compared with later years) velocity of circulation in 1953—despite the much more rapid rise in prices during that year—might be explained as reflecting the retention of the money-holding habits that prevailed during the preceding period of suppressed inflation.⁶

⁶ This paragraph is based on the approach of Phillip Cagan, "The Monetary Dynamics of Hyperinflation", in *Studies in the Quantity Theory of Money*, ed. Milton Friedman, Chicago, 1956, pp. 31-32.

Another possible factor in explaining the higher velocity of the more recent years is the ease with which the public could obtain credit in 1950-52-as compared with the restrictions which have operated with varying severity since then. These increased difficulties in obtaining bank credit influence individuals in the same way as the increased rate of interest-which has also taken place. That is, it has caused them to reduce their relative demand for cash balances-which means that it has increased the velocity of circulation of these balances.

Year	Total resources in current prices (IL millions) (1)	Average quantity of money (IL millions) (2)	Annual 'income' velocity of circulation $(1) \div (2)$ (3)	Annual velocity og demand deposits (4)
1950	575.5	169.7	3.39	7.8
1951	818.8	224.0	3.66	9.8
1952	1,325.7	247.3	5.36	13.9
1953	1,665.6	290.1	5.74	15.9
1953 *	1,665.6	262.7	6.34	15.9
1954	2,196.0	330.5	6.64	18.8
1955	2,623.0	398.2	6.59	19.6
1956	3,185.0	469.4	6.79	18.8
1957	3,706.0	560.4	6.61	18.8
1958	4,130.0	645.7	6.40	17.8

TABLE 41. The Velocity of Circulation

* New series.

Sources: Col. (1): Table 11. Col. (2): Col. (1), Table 39.

Col. (4): CBS, Bulletin B, March 1959, p. 278.

An alternative-and equivalent-statement of this constancy in the velocity of circulation is that since 1954 monetary developments in Israel have been closely in accordance with those predicted by the crude MV=PT of the quantity theory of money. If we let T be represented by the total real resources of the economy, and P by their price levelthen a comparison of columns (3) and (4) of Table 42 shows us how closely the price changes predicted by the changes in $\frac{M}{T}$ correspond to those that actually took place since 1954. For the period 1950-51, however, the actual price index is far below the predicted one. This, of course, is the simple reflection of the suppressed inflation policy which then existed: a policy which did not-officially-permit the increased quantity of money to find expression in higher prices.

116

Still another statement of the preceding facts is that since 1953 the quantity of money has kept pace with the increasing resources of the economy evaluated at their current price level. This places in its proper perspective the complaint of practically all sectors of the economy —voiced continuously (though with varying intensity) since 1952—that they are suffering from a severe and 'deflationary' 'money shortage'. As is well known, this type of complaint is actually quite characteristic of inflationary situations.

Year	Index of average annual quantity of money	Index of total real resources	Price index predicted by quantity theory of money (1) = (2)	Actual price index of total resources
	(1)	(2)	(1) (3)	(4)
1950	51.3	70.7	72.6	37.1
1951	67.8	83.6	81.1	44.6
1952	74.8	83.7	89.4	72.2
1953	87.8	82.9	105.9	91.5
1953 *	79.5	82.9	95.9	91.5
1954	100.0	100.0	100.0	100.0
1955	120.5	110.5	109.0	108.1
1956	142.0	123.5	115.0	117.5
1957	169.6	132.6	127.9	127.3
1958	195.4	143.7	136.0	130.9

TABLE 42. The Applicability to Israel of the Quantity Theory of Money (Indexes: 1954=100)

* New series.

Sources: Col. (1): Col. (1), Table 39.

Col. (2): Table 18, line 7.

Col. (4): Table 13, line 4.

It might in this context be noted that having the money supply keep pace with the growth in population *per se* is not a proper criterion of monetary policy. Money buys goods, and not people. Hence the size of an economy's population is relevant for monetary policy only to the extent that an increased population results in an increased output of goods.

To say that prices have moved in accordance with the quantity of money is not to say that the causal relationship has necessarily run from the latter to the former. In other words, it is not to say that the economy has necessarily been undergoing a demand inflation: namely, one in which the expanding quantity of money—and the increased expenditures which it represents—is the independent variable and the motive force of the process. This was undoubtedly the case during the 1949– 52 period of suppressed inflation. But in subsequent years there were periods in which the inflation was of the cost-push type: in which the quantity of money was a dependent variable, expanded by the government in order to enable the economy to maintain full employment despite the higher prices initiated by depreciation, tax levies, and the like. I have elsewhere shown the grounds for believing this to be the case during 1952–53.⁷ This situation also prevailed during part of the subsequent period, though more recently there seem to have reappeared signs of demand inflation.⁸ But this, too, is a question that needs much more study—and clarification of basic concepts—than can be undertaken here.

This steady increase in the price level has brought about certain accommodating institutional arrangements. Thus, as already noted, wages are tied to the price index by a cost-of-living allowance. Similarly, in recent years it has become standard practice for long-term debts (especially those of the government) to be tied either to the index or to the exchange rate.

One further point which emerges from the preceding discussion is the limited ability of the central bank to control the inflationary process. As already indicated, the major turning point in the expansion of credit to government and the public, occurred, respectively, at the end of 1951 and 1953. Since the establishment of the Bank of Israel in December 1954, the rate of monetary expansion has fallen off somewhat once again; and it seems likely that this latter decrease would have been even greater were it not for the impact of the Sinai Campaign in 1956. Still, even the inflationary developments of 1958 were significant in their extent—and in their impact on the balance of payments (see end of chapter).

At most, then, the central bank has succeeded in acting as a restraining influence on the strong inflationary forces at work in the economy though this too would be a noteworthy accomplishment. Despite its

⁷ "Monetary and Price Developments in Israel: 1949-1953", op. cit., pp. 39-41. On the general theoretical distinction between money as a dependent and independent variable in an inflationary process, see my Money, Interest, and Prices, Evanston, Ill., 1956, pp. 209-10.

⁸ See Bank of Israel, Annual Reports: 1956, pp. 102, 252-54; 1957, pp. 177, 183.

THE INFLATIONARY PROCESS

repeated protestations,⁹ the bank has had to renew the expansion of credit to the government. It has also had to permit large expansions of bank credit to the private sector. Its control over bank credit in this respect has tended to be more of a qualitative nature than a quantitative one. For no attempt has been made to offset the growth in bank reserves. Instead the Bank of Israel has permitted the commercial banks to expand credit on the basis of these increased reserves and has been primarily concerned with directing this credit to those industries which have been given priority.¹⁰

Similarly, the Bank's rediscounting operations are not carried out in a classical context of affecting bank reserves and the interest rate, but are instead primarily means of qualitative control. They are in effect used to expand credit to 'priority sectors' of the economy. During 1958, an average of about 4 per cent of the total credit of the system to the public had been extended in this way.¹¹ In this use of rediscounting the Bank is similar to central banks of many underdeveloped countries.

So far we have concentrated on the concomitant rises in money, credit and prices. These have obviously affected other aspects of the economy too. Thus we have on several occasions referred to the escalator clause by which nominal wages are rigidly tied to the cost-of-living index. This clause applies to practically all wages in Israel. Its effect on wages in manufacturing is shown in Figure 7. Here we see how closely the two indexes have moved together. At the same time, there have also been increases in the basic wage rate—as well as a certain degree of 'wage drift'¹²—which have resulted in wages moving faster than prices and thereby increasing in real as well as nominal terms.

The rate of real daily earnings—and its continuous rise—has been a cause of much concern to many students of the Israel economy.¹³ This is so because of the discouraging effect that this rate may be assumed

 ⁹ Bank of Israel, Report on the Increase in the Means of Payment (Hebrew): 15 November 1955, p. 21; 30 November 1956, p. 6; 26 August 1957, p. 33; and 10 September 1958, pp. 10-11 and 13. Cf. also Annual Reports: 1956, p. 257; 1957, p. 183 and 1958, pp. 7-8 and 191, Table XIII-7.

¹⁰ This is the picture which emerges from Bank of Israel, Annual Report: 1958 pp. 192-97.

¹³ Cf, e.g. Economic Advisory Staff, The Israel Economy in 1954 (mimeograph), Jerusalem, July 1955, p. 3; Bank of Israel, Annual Report: 1956, p. 134; Patinkin, op. cit., pp. 31-33. See also S. Riemer, "Wages in Israel", Hebrew Encyclopedia, Vol. 6, pp. 802-7.

¹¹ Ibid., p. 185.

¹² Cf. Patinkin, op. cit., pp. 32-33, 40; Bank of Israel, Annual Report: 1957, p. 72.

to have both on exports and employment. The employment question has been somewhat discussed in Chapter 1 above. Little detailed study



Figure 7. Indexes of Nominal and Real Average Daily Earnings (1952=100)

Sources: Appendix Table B, columns (7), (13) and (14)

has yet been made of the export question. However, in the case of one industry at least—cotton spinning—it has been shown that "productivity in the more efficient Israel mills will stand comparison with that in veteran producing countries such as Britain and France, and also with Italy and South-American countries"; but that nevertheless, the prices of even the most efficient Israel firm were 32–37 per cent higher than those of Italian mills and up to 45 per cent higher than those of us mills. This difference "is mainly due to the relatively high factor payments, particularly those to labor."¹⁴ It is dangerous to generalize from this one

¹⁴ Ruth Klinov-Malul, Productivity of Labor and Machines in Israel's Cotton Spinning Mills, Falk Project Research Paper No. 4, Jerusalem, 1958, pp. 37-40 (originally published in Hebrew in The Economic Quarterly, Vol. 5, No. 19, pp. 303-28. For a full description of contents see project report 5).

120

THE INFLATIONARY PROCESS

study; but there is a general impression that wages provide a similar impediment to exports in other industries too.

Period	Official rates (IL per \$)	Period	Average official ex- change rate for exports (IL per \$) (2)
and a second second	(-7	o trans will be	
1. December 1948-		December 1948_	
September 1949	0.333*	September 1949	0.333 *
2. October 1949-		October 1949-	
February 1952	0.357	February 1952	0.357
3. February 1952-	0.357		
May 1953	0.714	January-December 1952	0.877
(multiple-rate system)	1.000		
4. May 1953-December	/ 0.357	January-December 1953	1.293
1953 (multiple-rate	0.714		
system)) 1.000		
	(1.800		
5. January 1954-			
June 1955	(1.000	January_December 1954	1.760
(multiple-rate system)	(1.800		
6. July 1955-		January 1955-	
present	1.800	present	1.800

TABLE 43. Exchange Rates in Israel: 1948-58

The official rate was the same as the sterling rate—namely, IL 0.248=\$1. Actually, however, the rate at which most transactions were completed is that listed here.
 SOURCES: Col. (1): International Monetary Fund, International Financial Statistics, X, 1957, p. 255.

Col. (2): Ibid., and Lubell, op. cit., Appendixes, p. 54.

As might be expected, this continuous rise in price and wage levels has been accompanied by a continuous depreciation of the Israel pound on the foreign exchanges. Table 43 presents the essential information on this point. It shows how the Israel pound has fallen to roughly one sixth of its original value in the first ten years of its existence. From Figure 8 we also see how this decline—or, rather, the rise in the number of Israel pounds that must be paid for each dollar—is closely related to the rise in the internal price level.

Figure 8 also shows us how the black market rate shot upwards at the end of 1951 in anticipation of the depreciation of February 1952 and how (except for an upward flutter at the time of the Sinai Campaign) it has remained more or less constant since. This is largely a reflection of the increased availability of foreign exchange during these years which enabled the government to follow a more liberal allocation policy. Indeed, the black market in recent years has been a very thin one—and therefore quite unindicative of the 'true' value of the Israel



FIGURE 8. OFFICIAL AND BLACK MARKET EXCHANGE RATES (IL per \$)

Sources: Appendix Table B, columns (7) and (12), and Table 43, column (2).

pound. Most of the demand side in this market comes from Israel tourists and emigrants—while the supply side comes from various institutional recipients as well as tourists and, to a lesser extent, new immigrants. It is doubtful if the annual turnover of this market in recent years has exceeded 10–15 million dollars. This is to be compared with total current international payments of \$557 and \$572 millions in 1957 and 1958, respectively.¹⁵

The pressure of rising internal costs on an exchange rate fixed at any given point of time has created a continuous necessity for making arrangements of one type or another to enable exports to take place. From 1949 onwards a permanent feature of Israel exports has been the presence of clearing—and, to a lesser extent, barter—agreements. These have provided sheltered high-priced markets for Israel exports—particularly of manufactures—and thereby, effectively a higher rate of exchange. Table 44 shows the relative importance of these agreements over the decade. A detailed evaluation of such agreements—with particular emphasis on the terms-of-trade which obtained under them—has been carried out for 1953 in a study shortly to be published.¹⁶

The government has also provided exporters with direct premiums. In addition, in the middle of 1953, it introduced a system of export-proceeds retention schemes (*Pamaz*) which effectively—though indirectly—provided exporters with premiums of varying magnitudes. A study is now being completed of the relative size of these direct and indirect premiums.¹⁷ The government has also provided exporters with subsidies in the form of cheap credit, artificially low transportation charges, and the like.

In this way—despite the official constancy of the exchange rate at IL 1.800 per dollar over the past four years—effective depreciation of the Israel pound has taken place. Thus in February 1956 large classes of exporters were granted a direct premium of IL 0.500 on a dollar of net export proceeds. In August 1956 this was raised to IL 0.700, and in February 1957 to IL 0.850. By indirect means, however, this premium can be—and frequently is—considerably higher. Similarly, an extensive system of special import levies has in effect made the exchange rate on wide categories of imports considerably higher than IL 1.800 per dollar.¹⁸

To summarize, the Israel economy over the first decade has been marked by a repeated cycle of inflationary price increases, official and unofficial depreciations, and subsequent price increases which largely

¹⁶ See project report 13.

¹⁵ Cf. Table 16. Information on black market received from private sources.

¹⁷ See project report 9.

¹⁸ For details, see the International Monetary Fund's Annual Reports on Exchange Restrictions. The last of these describes a special additional premium of IL 0.350 per dollar on certain exports to West Africa.

offset the intended effect of the original depreciation and thus made further depreciation necessary. In other words, the subsequent price increases-which in many cases were initiated by the depreciation itself 19-significantly counteracted the attempt of the depreciation to increase the ratio of import and export prices, on the one hand, to domestic prices (and particularly wages) on the other. It is clear from Table 13 that this ratio did nevertheless increase over time. Our main point is that in order to accomplish this it has been necessary to carry out a policy not of once-for-all depreciation, but of continuous depreciation which is still going on. In the absence of such a continuous depreciation, prices of domestic goods and services would have long since caught up with prices of imported goods.

TABLE 44.	Commodity Exports to Clearing Agreement and Other
	Countries, by Type of Good*: 1949, 1953 and 1957
	(\$ Millions)

Designation	Citrus fruit	Diamonds	Other goods	Total	Total (per cent)
1949					
Clearing countries	1.3	-	1.5	2.8	9.8
Other countries	16.7	5.2	3.8	25.7	90.2
TOTAL	18.0	5.2	5.3	28.5	100.0
1953					
Clearing countries	6.0	0.1	14.3	20.4	35.5
Other countries	15.6	12.6	8.9	37.1 •	64.5
TOTAL	21.6	12.7	23.2	57.5	100.0
1957					
Clearing countries	16.2	1.1	29.5	46.8	34.4
Other countries	31.6	31.6	26.2	89.4	65.6
TOTAL	47.8	32.7	55.7	136.2	100.0

^a Includes total exports to countries with which Israel had clearing agreements, dur-

ing the time when such agreements were in force (CBS data). SOURCE: A. Kessler, Israel's Terms of Trade Under Its Clearing Agreements in 1953 (preliminary draft), FP, Tables I-2 and II-6.

An integral part of this process has been the continuous expansion of bank credit and, thereby, the money supply-which during certain periods represented the motive force of a demand inflation, and which

¹⁹ A case in point is the depreciation of February 1952-on which see my "Monetary and Price Developments in Israel: 1949-1953", op. cit., pp. 31-33 and 40-41.

during others represented the accommodation of the monetary authorities to a cost inflation. It is true that during the past two years the outward manifestations of inflation—the rates of increase in bank credit, money and prices—have shown some decline. But if we consider inflation in its fundamental sense of an excess of demand over supply—and if we further take the import surplus to be some index (inaccurate as it may be) of this excess demand in Israel—then there is no indication that the inflationary forces have changed significantly during the past two years.

Indeed, one cannot escape the impression that the failure to reduce the import surplus—and the decision to increase instead the foreign debt significantly in every year since 1954²⁰—at least partly represents the government's refusal to face up fully to the inflationary problems of the economy. Unwilling to attack the fundamental forces of excess demand (both its own and the public's) which are causing this inflation—and unwilling to reincur the embarrassment of the outward manifestations of inflation in the form of rapid price increases—the government has chosen instead the path of least resistance: it has absorbed the economy's excess demand with the goods of an import surplus financed by grants and loans from abroad. If this analysis be correct, one might well ask to what extent the further expansion of foreign debt is really in the best interests of the economy. We shall return to this question in the next chapter.

20 Cf. Table 16.

CONCLUSIONS: THE PROGRESS TOWARD ECONOMIC INDEPENDENCE

THE PRECEDING chapters have traced the development of the Israel economy in the first decade of its existence. In two fundamental and related aspects the economy has made great strides forward: in integrating most of its nearly doubled labor force into productive employment and in rapidly raising the aggregate and per capita levels of the GNP, as well as the efficiency with which it is produced. When one takes account of the internal and external pressures to which the economy has been subjected, these are truly noteworthy accomplishments.

These developments, however, have taken place against a background of continued dependence on foreign assistance—reflected in an import surplus of unprecedented magnitude (Table 15). The fundamental question which must now be asked is how the degree of this dependence has been affected by the rapid growth just described.

It is taken as axiomatic that a decline in this degree of dependence is one of the goals of the economy: indeed a necessary goal, in view of the anticipated decline over the next few years of those sources which have so far financed the import surplus. The last orders of goods under the German reparation agreement will probably be made in 1962 and the bulk of the restitution payments will also have been made by then; and though the gross sales of Independence Bonds have been holding their own, the increasing need to make repayments on these bonds will reduce the net receipts from this source considerably.¹

¹ Indeed, such a reduction has already taken place—though, according to the table of payments, it should occur only later. Independence Loan figures are as follows:

Receipts	Repayments	Net receipt
32.2		32.2
53.3	5.9	47.4
53.7	9.0	44.7
50.8	17.1	33.7
	Receipts 32.2 53.3 53.7 50.8	Receipts Repayments 32.2 53.3 5.9 53.7 9.0 50.8 17.1

Sources: 1955: M. Klibansky, Estimates of Israel's International Balance of Payments: 1955-1956, Ministry of Finance, April 1, 1957.

> 1956: CBS, Israel's Balance of Payments: 1956-57, Special Series No. 71. 1957, 1958: CBS, The Balance of Payments: 1958, April 1959.

It is also taken as obvious that the size of the import surplus can be significantly affected by the policy decisions of the economic authorities -and is not the automatic and inevitable outcome of the unilateral transfers Israel is receiving. First of all, not all of the import surplus has been financed by unilateral transfers; as can be seen from Table 16, a good percentage of the surplus in every year has been financed by new loans from abroad. Second, a substantial proportion of Israel's foreign exchange earnings comes from exports and from untied donations-and these can in principle be used either to repay outstanding foreign debt or to accumulate foreign balances. Needless to say, there is adequate scope for either one or both of these operations. For at the end of 1958 the net foreign obligations of Israel (excluding the pound obligations to the us government) amounted to roughly \$485 million-of which \$90 million were short-term.² And insofar as international reserves are concernedthough these have increased from the near-zero levels of 1951-52 to roughly 23 per cent of imports in 1958, they are still only at about half the 40 per cent level maintained on the average by continental European countries.3 Thus, in all these ways-by failing to increase debt, by repaying debt, or by building up reserves-it was and is within the power of economic policy to reduce the import surplus, even though the level of unilateral transfers might remain constant.

This is the proper place to emphasize that the continued reliance on foreign borrowing to finance part of the import surplus has generated an increasing burden of interest and dividend payments abroad. Indeed, net payments on this account in 1958 amounted to \$30 million⁴—or almost 10 per cent of the total import surplus. The longer the import surplus continues, the greater this burden will become—not to speak of the ultimate burden of debt repayment itself. This makes it all the more important to decrease the extent of the import surplus.

From an alternative viewpoint, net interest payments in 1958 amounted to roughly 12.5 per cent of total exports-whereas 10 per

³ On 1950-51, see "The Adequacy of Monetary Reserves", International Monetary Fund, Staff Papers, October 1953, pp. 206-7; on the European countries in 1958, see International Monetary Fund, International Reserve and Liquidity, Washington, 1958, p. 101. The 1958 figure is the ratio of the \$129.9 million of foreign balances and gold for the end of 1958 (Bank of Israel, Annual Report: 1958, p. 40, Table III-15) to total imports of that year (\$573.0 million). It might be noted that the end-of-the-year balances in 1958 are close to the annual average for that year.

² Bank of Israel, Annual Report: 1958, p. 40, Table III-15.

⁴ Bank of Israel, Annual Report: 1958, p. 22, Table III-2. Cf. also Table 16 above for a picture of the increasing burden of gross payments on this account.

cent is frequently considered to be a high level for such payments. On the other hand, this calculation does not take account of the fact that Israel effectively has other sources of current receipts besides exports.

All this would nevertheless not be a cause for concern as long as the investments financed by these marginal foreign loans were sufficiently productive to cover the interest charges. There are not adequate data to deal with this fundamental question in a systematic and comprehensive way. But we might first of all note that the marginal activities financed by the import surplus have lain in the field of consumption, as well as investment (see the concluding paragraphs of Chapters 3 and 4). We might also recall that the overall success of the development program does not necessarily imply that the marginal investment activities have yielded rates of return equal to or greater than the aforementioned rate of interest (p. 78 above).

To return to our main question, the goal of approaching economic independence may clearly conflict with other goals of the economy namely, immigration, defense, development, and a rising standard of living. When such a conflict occurs, decisions as to the relative importance of the various goals must be made. In what follows, we shall avoid the difficult questions of this type and shall concentrate instead on the extent to which the movement toward economic independence could have progressed without significant prejudice to these other goals.

The first task of any such discussion is to define an index of economic dependence. The obvious thing that comes to mind for this purpose is the absolute size of the import surplus. We see from Table 45 that after an initial sharp rise from 1950 to 1951 (caused primarily by the increase in dollar prices as a result of the Korean War) this surplus dropped steadily until 1954. Since then it has been rising almost continously—with an exceptional upward surge in 1956 due to defense purchases in connection with the Sinai Campaign.⁵ It might also be noted that in real terms the import surplus continued to grow even between 1957 and 1958—and was higher in the latter year than in any preceding one except 1956 (Table 18, line 5). Thus from this viewpoint the dependence of the economy has been greater in the second half of the decade than in the first.

It can, however, reasonably be contended that it is the relative—and not the absolute—size of the import surplus which is the relevant criterion. The question is: relative to what? If we take the surplus rela-

⁵ Bank of Israel, Annual Report: 1956, p. 45.

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. Import surplus (millions of current \$)	281.8	359.5	306.8	262.9	238.0	282.7	356.6	335.2	333.4
2. Per capita import surplus (current \$)	222	241	191	159	141	162	195	174	167
3. GNP as per cent of total use of resources (based on current price data)	82.5	84.3	80.2	81.0	83.3	80.6	79.8	83.7	85.5
 GNP as per cent of total resources used for consumption (private and govern- ment) plus depreciation (based on current rrice data) 	- 	101.6	959	94.1	95.3	94.8	93.5	100.0	100.7

SOURCES: Line 1: Table 16, line A.3. Line 2: Line 1 + Table 1, line 4. Line 3: Table 14, line 6. Line 4: Reciprocal of Table 36, line 2.

129

TABLE 45. Indexes of Economic Dependence

CONCLUSIO NS tive to population (a figure which is frequently quoted) we do indeed see that it was considerably less in 1957-58 than in 1950-51 (Table 45, line 2). Actually, though, this per capita figure does not seem as relevant as one which compares the import surplus with the overall output of the economy. From this viewpoint, growth in population can be said to decrease the relative burden of a fixed import surplus only to the extent that it brings about an increase in the output of the economy.

In other words, the most relevant criterion seems to be one which measures the importance of the import surplus relative to the total goods and services used by the economy. Such a measure tells us what proportion of these goods and services has come as unrequited transfers of one kind or another from abroad. Conversely, the ratio of GNP to total resources tells us what proportion has been produced by the economy itself. An increase in this latter ratio would thus indicate a decreased dependence of the economy on foreign sources. The precise figures for this index for Israel are given in line 3 of Table 45. They show only a slight decrease in this dependence over the decade: indeed a decrease well within the margin of error of our estimates.

It might, however, be claimed that in computing this index we should exclude expenditures on capital account, leaving only those on current account. The argument here is that capital expenditures ultimately decrease the dependence of the economy and so should be disregarded. This index is actually an index of savings as defined in Chapter 3 above. Growing economic independence in this sense thus means an increased domestic savings ratio. We see, however, from line 4 of Table 45 that the rate of progress toward economic independence as measured by this index is no faster than that given by the preceding one.

It should be emphasized that both these indexes are computed on the basis of current price data. Indexes computed from the constant price data of Table 18 would show considerably more improvement; but such indexes would be misleading in that they would fail to reflect the increased scarcity (and hence value) of foreign exchange relative to domestic goods. Over the decade the price of the former increased more than five fold (from IL 0.357 to IL 1.800), whereas the price level of the GNP increased only threefold (Table 13). The constant price index fails to take account of this worsening of the terms under which domestic goods can be substituted for international ones. But this worsening is a fundamental part of the reality facing the economy.⁶

⁶ See Appendix C for a more detailed comparison of these indexes.

CONCLUSIONS

In particular, as the economy expands, its demand for imports will *ceteris paribus* expand accordingly. Naturally, the same will tend to be true of its supply of exports. But since Israel's starting point was one of a heavy import surplus, the rate of increase of exports must be much greater than that of imports in order to achieve any decrease in the *absolute* size of the import surplus. Thus, despite the fact that Israel's exports have grown much faster than its imports—so that the ratio of exports to imports increased from 14 per cent in 1950 to 41.7 per cent in 1958 (Table 16)—the absolute size of the import surplus grew in the same period from \$281.8 million to \$333.4 million (Table 45). And it is this absolute size which is an index of the pressures which exist to increase the relative value of the foreign exchange which Israel receives.

It should also be emphasized that in the construction of the foregoing indexes—even more so than in the discussions of preceding chapters—a critical role is played by the exchange rate at which the import surplus is valued. The computations of Table 45 have all been carried out on the basis of the official exchange rates given in line C of Table 16. But as repeatedly indicated—both the IL 0.357 per dollar rate of 1950–51 and the IL 1.800 per dollar rate of 1957–58 reprcsent overvaluations. Hence we cannot know the real extent of progress made by the economy unless we know the relative degree of overvaluation which existed at the beginning and end of the decade. In particular, if this overvaluation was relatively greater in 1950–51 than in 1957–58 (which seems quite likely), then the movement toward economic independence was actually greater than indicated in Table 45.

It is, however, possible to deal with our problem somewhat more determinately (at least at one end of the period) if we take 1954–55 as our basis of comparison. It is reasonable to assume that the official exchange rates of these years more or less approximated the 'true' value of the pound. In the absence of detailed estimates, let us also arbitrarily assume that the average effective rate of exchange on imports during 1957 and 1958⁷—and, therefore, the rate of exchange that should have been used in the national accounts calculations of those years—was in the neighborhood of IL 2.300 per dollar. The use of this figure causes the percentage of GNP in total resources to fall to 79.2 and 81.4 in 1957 and 1958, respectively. The corresponding figures

⁷ Namely, the rate that takes into account the special levies that were imposed on imports during this period.

for GNP as a percentage of the sum of consumption and depreciation are 94.6 and 95.9.

The implications of these estimates are that the Israel economy since 1953 has not moved significantly closer to economic independence—and this despite the rapid increase in per capita GNP which has taken place since that time. This represents the major failure of Israel economic policy in its first decade.

One of the reasons for this failure has already been described at the end of Chapter 3 above: namely, the rapid rise in per capita consumption levels. As shown there, if this rate of increase had been 3 per cent per year—instead of the roughly 5 per cent for private consumption and $4\frac{1}{2}$ per cent for government civilian consumption that actually took place—then total consumption in 1958 would have been 210 million 1952 pounds less than the level that actually prevailed. Even if we were to evaluate the import surplus at a higher exchange rate, this represents a significant potential reduction that could have taken place in the degree of dependence on foreign sources.

The pity of it all is that these higher levels of consumption are already frozen into the structure of the economy—so that there is little point in discussing the possibility of reducing them now to what they could have been. But it is very much to the point to emphasize the crucial necessity of restraining the future rate of growth in consumption levels—and thus exploiting the economy's future growth for the purpose of decreasing its degree of dependence on an import surplus. But—as we shall see in a moment—this will probably not be enough.

Some illustrative figures here might be edifying—and it should be emphasized that they are only illustrative. Let us assume that GNP per capita will continue to grow in future years at the same high rate as in recent ones—roughly 5 per cent per year per capita. Let us also assume that the intensity of investment effort—measured as a percentage of GNP—will remain the same as in 1958. This means that gross domestic capital formation is also assumed to grow at the rate of 5 per cent per year. On the other hand, let us assume that consumption (both private and government) grows at the rate of 3 per cent per year. Then it would take nine years for these differential rates of growth to enable a potential reduction of the *per capita* import surplus to half its 1958 level.⁸

⁶ The period of nine years is the approximate solution of the following equation: $1602(1.03)^{n}+462(1.05)^{n}=1680(1.05)^{n}+192$,

where n is the number of years, 1602 is per capita level of private and government

CONCLUSIONS

In view of the impending reduction in the sources of financing the import surplus, this would obviously be too long a period. It thus seems reasonable to expect that a realistic policy of narrowing the import-export gap in the short run will have to attempt either to reduce the rate of growth in consumption levels below the 3 per cent per annum level mentioned above (i.e. to increase the rate of growth in domestic savings)-or to reduce the intensity of the investment effort. Taking into account the strength of the forces pressing towards a higher standard of living, it is quite possible that the emphasis will be in the latter direction. This is all the more likely in view of the fact that the investment effort in Israel (measured as a percentage of GNP) has been significantly higher than in other countries (Table 15). There is also the consideration that it was necessary during the first decade to make heavy investments in the 'infrastructure' of the economy and in residential construction-and that with a levelling off of population this may not be as essential in the future.

In any event, if we assume that—in addition to the abovc—the intensity of Israel's investment efforts drops to 20 per cent of its GNP—a level considerably closer to the 'normal' one of other countries as revealed by Table 15—it would take only three years for Israel to reduce its per capita import surplus to half its 1958 level.⁹ Roughly two thirds of this improvement would take place during the first year as a result of the reduction in investment activity. The remaining improvement would reflect the influence of the differential rates of growth in GNP and consumption.

Until now we have discussed the halving of the *per capita* import surplus. In view of the anticipated increase in population, the *total* import surplus would, of course, be less than halved over the foregoing three-year period. Because of the great uncertainty concerning the volume of future immigration, it is difficult to predict future population trends acurately. For illustrative purposes, however, let us take the 'medium' cBs population projection for 1965. This is based on an anticipated annual immigration of 40,000 people. According to this

⁹ This is the approximate solution of

 $1602(1.03)^{n}+0.2(1680)(1.05)^{n}=1680(1.05)^{n}+192,$

where the figures have the same meaning as in the preceding footnote.

consumption in current pounds; 462 is per capita level of gross domestic capital formation; 1680 is per capita GNP and 192 is half the per capita import surplus when the latter is valued at the effective exchange rate of IL 2.300 per dollar arbitrarily assumed above. All figures refer to 1958 and are in current pounds.

projection, total population at the end of 1965 will be 2,560,000 which represents an average annual rate of growth (since the end of 1958) of approximately 3.5 per cent per year.¹⁰

Using this anticipated rate of population growth, we can readily see that the foregoing set of assumptions implies that it would take four years to halve the absolute magnitude of the import surplus.¹¹ In other words, if the per capita annual rates of growth in real GNP and real consumption are 5 and 3 per cent, respectively; if real gross investment is reduced to 20 per cent of GNP; and if population grows at the annual rate of 3.5 per cent—then by 1962 Israel's import surplus would fall to half its 1958 level. Thus (assuming constant prices), the realization of the foregoing assumptions would enable the Israel economy to reduce its import surplus to \$165 millions by 1962.

Needless to say, all these calculations would become invalidated if any large-scale immigration were to take place. Such an immigration would require a fundamental reconsideration of the preceding estimate—particularly of the desirability of reducing the intensity of investment effort. On the other hand, it can be assumed that any such large-scale immigration would be financed to a large extent by increased aid from world Jewry—so that the sources of financing the import surplus would not diminish as sharply as anticipated above.

In all this, however, we have made the somewhat strained assumption that the GNP would continue to grow at the same rate despite the falling off in investment. This is something not to be expected if there is any constancy in the capital/output ratios. But there are some special factors at work here which might work in an offsetting direction. First of all, the economy has gained experience in the course of the last ten years, so that we might expect a smaller proportion of its future investments to be wasted on unprofitable ventures. In other words, its increased experience might enable the economy to achieve a higher rate of return—and therewith output—per unit capital invested.

¹⁰ B. Gil, Projections of the Population of Israel (1955-1970), CBS, Special Series No. 69, Jerusalem, April 1958, pp. v-xiii; see in particular p. xxx, Table E. Implicit in Gil's estimate is a rate of natural increase of about 2 per cent per year. This was also roughly the rate in 1957 (Abstract No. 9, 1957/58, p. 28).
¹¹ This is the approximate solution of

 $(2.0)(1602)(1.03)^{n}(1.035)^{n}+(2.0)(0.2)(1680)(1.05)^{n}(1.035)^{n}$

 $=(2.0)(1680)(1.05)^{n}(1.035)^{n}+(2.0)(192),$

where the factor 2.0 represents the average 1958 population in millions and all the other figures have the same meaning as in footnote ⁸.

134

CONCLUSIONS

Secondly, as already suggested—there may have been a higher emphasis on such capital-intensive investments as construction, utilities and the like during the first decade than will be necessary in the next one. That is, the future composition of investment might shift in the direction of sectors with a lower capital/output ratio than heretofore. It is, however, not at all clear that this will be the case.

In order to get some idea of the dimensions of the problem, we might note that the falling off of investment in the above estimate implies that the marginal capital/output ratio for the period 1958-62 will decline to 1.6—as compared with the 1.8 ratio that obtained for the period 1950-58.¹² In view of the factors described in the preceding paragraph, such a decline would seem to be possible of achievement.

Another way of checking the consistency of our assumptions is to note that they imply that the estimated increased inputs of labor and capital for the period 1958-62 would explain about 50 per cent of the increased NNP of the period (on the assumption of a 7.5 per cent yield on net investment) or 65 per cent (on the assumption of a 10 per cent yield on gross investment).¹³ This is to be compared, respectively, with the 51.1 per cent and 64.1 per cent figures which actually obtained

¹² The computations for 1950-58 are based on Table 18. The sum of net real investment for the period as a whole was first computed—leaving out, however, half the investment of the first and final years, respectively. (For an explanation of this procedure, see above, p. 72.) This sum was then divided by the increase in NNP over the period.

The same procedure was used for 1958-62. The point of departure here is the 1958 GNP figure of 3360—obtainable from Table 12 by revaluing the import surplus at IL 2.300 per dollar. To this figure were applied the rates of growth specified in the text—and a rate of depreciation of 8.9 per cent of GNP. The latter was the ratio which obtained in 1958.

It might be noted that revaluing the 1950-58 import surplus in the proportion 2.300/1.800 has no significant effect on the calculation of the capital/output ratio for that period.

¹³ It will be recalled that (in the case of Israel) a 10 per cent yield on gross investment gives roughly the same figure as a 15 per cent yield on net investment (p. 72 above).

The calculations on which the text is based were carried out in the same way as in Table 26 above—using the same 1958 point of departure described in the preceding footnote.

We have assumed that employment from 1958 to 1962 would increase at the same rate as population. This is the consequence of the following two assumptions: (a) labor force will increase in the same proportion as population; and (b) the rate of unemployment will remain constant. Assumption (a) is taken from Hovne's analysis in his forthcoming study (see project report 8).

for the period 1954–58 (Table 26).¹⁴ In other words, the unexplained residual of growth implicit in our assumption—and hence the anticipated contribution of increased efficiency—is not much different from that which has actually prevailed in recent years. From this viewpoint, then, there would seem to be no *a priori* reason why the economy should not be able to accomplish the objective of halving its total import surplus by the end of 1962.

It may, nevertheless, turn out that our assumptions are inconsistent so that given the decreased intensity of investment, the economy will not be able to continue growing at its present rate. In such an event Israel's position would bear certain analogies to that of the European economies in the 1930s: it would improve its balance of payments at the expense of a deterioration in its (rate of growth of) GNP. The major alternative to this rather undesirable method of dealing with the balance of payments problem would be to increase domestic savings, thereby maintaining the same intensity of gross investment, and hence the same rate of growth in GNP.

Once again, we should emphasize the illustrative nature of the foregoing discussion. In particular, this discussion is greatly oversimplified in its treatment of the problem as if it were one of simple arithmetic: as if any decrease in investment would automatically reflect itself in reduction in the import surplus. This would, of course, be true in the completely hypothetical case in which the import component of investment goods were 100 per cent. But since this is far from being the case and since, furthermore, the import component of the main investment activity whose relative decline is foreseen (construction) is low¹⁵ then it is obvious that the reduction in investment activity will not achieve a reduction in the import surplus unless a significant reallocation of resources takes place. In other words, the foregoing calculations are based on the implicit assumption that the domestic resources released from investment activity are redirected to other activities in which in one way or another they help produce import substitutes or exports.

Both of these components were estimated on the basis of IL 1.800 per dollar.

136

¹⁴ Revaluing the import surplus of this period in the proportion 2.300/1.800 has no significant effect on these figures.

¹⁵ Bank of Israel, Annual Report: 1958, p. 18, Table II-7, gives the import component of investment as 33.1 per cent. Similarly, the import component of dwellings in 1957 was 21.0 per cent. (The import component of dwellings in 1957 is estimated as \$32.0 millions in Appendix to Bank of Israel, Annual Report: 1957, p. 25, note e to Table B.1. This was computed as a percentage of total investment in dwellings as given by CBS, Bulletin B, May 1959, p. 575, Table 5.)

CONCLUSIONS

However, to the extent that the import surplus is reduced as a result of a GNP which grows faster than consumption, this problem of redirecting resources is much less complicated. Indeed, in this case no actual reallocation of resources is involved. For what must be done is to secure the proper direction of productive potential that will become available in the future-not to reallocate productive resources that are already committed to various activities in the economy. It is the relative ease of carrying out adjustments in the former way that is one of the great advantages of a dynamic-as contrasted with stationaryeconomy. Nevertheless, even in this case there must be some changes in the accepted patterns of expansion in order to accomplish the objective. Thus, producers must be induced to direct their efforts toward new commodities, new productive techniques, and new markets. It is only as a result of such developments that the expansion of GNP will be in the direction of import-substitutes and exports-instead of commodities for the sheltered domestic market.

The difficulties of making these adjustments should, however, not be underestimated. Indeed, they necessitate radical changes in the structure of the economy's production. Thus in terms of the ratio of GNP to total resources, the successful achievement of the objective of halving the import surplus by 1962 would require the economy to move from supplying 81.4 per cent of its total use of resources in 1958 to roughly 92 per cent four years later—a projected movement in sharp contrast to the failure of the economy to make any significant improvement in this ratio during all the years preceding 1958.¹⁶

The necessary changes appear even more radical if we trace out the

Total .	Resources	and Their	Allocation		
	19	58 1962		1958	1962
Private consumption	2,522	3,257	GNP	3,360	4,687
Government consumption	682	881			
Gross investment	924	937	Import surplus	768	388
Total use of resources	4,128	5,075	Total resources	4,128	5,075

¹⁶ Cf. Table 45 and pp. 131-32, above.

The figures in the text are computed from the following table:

The import surplus—and hence the GNP—in this table is computed at the assumed effective rate of exchange of IL 2.300 per dollar. The 1962 projections are, of course, those yielded by the assumptions on pp. 133-34 above.

implications for imports and exports separately-instead of for the import surplus as a whole.17 Thus, if we assume that the import components in 1962 will be the same as those which prevailed in 1958, then 1962 imports and exports would have to equal 2,517 and 2,129 million 1958 Israel pounds respectively in order to decrease the import surplus of that year to 388 million 1958 pounds.18 These are to be compared with the 1958 import and export figures of 1,316 and 548 millions, respectively. In other words, under these assumptions, the achievement of the foregoing objective would require the approximate quadrupling of exports over a four year period! This points up very sharply the impossibility of succeeding in our objective (or anything close to it) unless the economy is able to effect a significant reduction in the import-component ratios that have obtained heretofore. Thus-by way of contrast-exports would only have to double by 1962 if the overall import-component ratio¹⁹ could be reduced to 25 per cent-as compared with the 28.1 per cent that prevailed in 1958.20

This raises the question as to whether increased reliance should not be placed for this purpose on the market mechanism. On theoretical grounds we should expect this mechanism to be particularly suited for the purpose of bringing about the necessary reallocation of resources that has just been described. More specifically, the objective of increasing import substitutes and exports might best be served by fixing an exchange rate close to its estimated long-run equilibrium value—and

¹⁸ The import components used are the following: private consumption—19.7 per cent; government consumption—25.8 per cent; gross investment—42.3 per cent; and exports—58.8 per cent. These are the Bank of Israel estimates revised from their IL 1.800 per dollar rate of exchange to the effective rate of exchange of IL 2.300 per dollar used in the text here. Cf. Bank of Israel, Annual Report: 1958, p. 18, Table II-7.

The estimated exports (X) for 1962 were computed from the following equation: [0.197(3,257)+0.258(881)+0.423(937)+0.588X-X]=388,

where the numbers 3,257, 881, 937, and 388 are taken from footnote ¹⁶. Imports were then computed as the difference between exports and the assumed import surplus.

¹⁹ Defined as the ratio of imports to the sum of consumption, gross investment and exports.

²⁰ Source for 1958 and projection for 1962 as in footnote ¹⁸ above.

The actual reduction here is greater than appears—since the increased exports in 1962 (with their high average import-component ratios) would raise the overall ratio in that year to approximately 35 per cent in the absence of reductions in the specific import-component ratios.

¹⁷ I am indebted to Hollis Chenery for this important point.

CONCLUSIONS

letting the different units in the economy work within this framework to find their various and intricate ways of economizing on foreign exchange, on the one hand, and earning foreign exchange, on the other. The success of any such policy obviously depends on the possibility of preventing any mass flight of capital; but the danger of such a flight would seem to be much less now than in earlier years. The success also depends on the assumption that such a policy does not set off a renewed wage-price inflationary spiral.

It should be emphasized that to the extent that the foregoing reallocation of resources is successfully carried out, the reduction in the import surplus will not generate any long-term unemployment. Employment is a function of the GNP, and not of the total resources of the economy. And the whole meaning of a successful reallocation of resources is that the level of the GNP is maintained despite the drop in the total resources. Workers who lose their jobs by (say) the curtailment of building activity —or the curtailment of certain industries heavily dependent on imports —will be reemployed in those industries (import-substitutes and exports) that will expand as a result of the foregoing policies.

To summarize, the generally rapid rate of growth in Israel's GNP provides it with the basic potential to make rapid progress toward greater economic independence. But in order to realize this potential it will probably be necessary to effect changes in certain policies. First, it will probably be necessary to reduce the extent of investment activity. The preponderant role of the government in financing this activity (Table 31) makes it easy to carry out such a curtailment. Indeed, since the receipts of the development budget are likely to get the first impact of the dropping off of foreign aid, such a curtailment would come almost automatically.

Second, it will be necessary to decrease the rate of growth in per capita consumption—i.e. to increase the rate of growth in domestic savings. This objective is politically much more difficult to achieve. There does seem to be some room for accomplishing it in part by increasing the tax burden—and thereby decreasing the ratio of disposable to national income. Greater monetary stability may also encourage greater saving.

For both objectives—and primarily the first—it will be necessary to make changes in the present allocation of resources. The market mechanism could probably be used here to greater advantage than it has been heretofore. But even with its aid, the shifting of resources takes time. Conversely, the shorter the period in which the shifts must be accomplished, the greater and sharper the difficulties that accompany them.

All this underlines the importance of beginning the process of adjustment as soon as possible. Furthermore—if the past is any indication this process will not take place of itself. Unless definite policies are adopted to change the relative structure of the economy's production in favor of import-substitutes and exports, the economy will once again be in danger of failing to exploit its growing GNP for the purpose of significantly increasing its degree of economic independence.

1
APPENDIX A

NATIONAL INCOME AND NET NATIONAL PRODUCT

(IL Millions)

	1950	1951	1952	1953	1954	1955	1956	1957	1958
1. National income (original estimate)	370.0	580.0	876.3	1,146.9	1,469.2	1,750	2,089	2,599	2,943
2. Depreciation (original estimate)	18.5	26.1	32.6	41.8	48.7	55	65	75	85
3. Less depreciation (adjusted estimate)	-35.6	-51.8	-79.7	-101.2	-137.2	-159	-191	-265	-300
4. National income (adjusted estimate)									
(1. through 3.)	352.9	554.3	829.2	1,087.5	1,380.7	1,646	1,963	2,409	2,728
5. Gross national product at market prices	474.8	690.4	1,063.0	1,348.7	1,828.9	2,114	2,543	3,103	3,530
6. Less depreciation (adjusted estimate)	-35.6	-51.8	-79.7	-101.2	-137.2	-159	-191	-265	-300
7. Less indirect taxes net of subsidies	-52.4	-71.5	-94.8	-119.6	-197.4	-228	-267	-352	-428
8. Net national product at factor cost									
(5. through 7.)	386.8	567.1	888.5	1,127.9	1,494.3	1,727	2,085	2,486	2,802
9. Errors and omissions (8. less 4.)	33.9	12.8	59.3	40.4	113.6	81	122	17	74
10. Errors and omissions as per cent of gross									
national product $(9.\div 5.)$	7.1	1.9	5.6	3.0	6.2	3.8	4.8	2.5	2.1

Line 2: 1955, 56: CBS, Abstract No. 9, 1957/58, p. 111. 1957, 58: Net domestic product less net factor payments abroad as given CBS, Bulletin B, May 1959, p. 572. Line 2: 1950–54: Lubell, op. cit., p. 8, Table 2-2. 1955–57: CBS, Abstract No. 9, 1957/58, p. 111. 1958 : CBS, Bulletin B, May 1959, p. 572. These figures are consistent with the original national income

estimate. : Table 12. : 1950-54: Lubell, op. cit., p. 8, Table 2-2. 1955, 56: Bank of Israel, Annual Report : 1957, p. 11, Table II-1. 1957, 58: Bank of Israel, Annual Report : 1958, p. 10, Table II-1.

Lines 3, 5, 6 Line 7

APPENDIX A

APPENDIX B

APPENDIX

MONETARY AND PRICE

Date (end of month)		In current prices (IL millions)								
		Net foreign balances of banking system	Credit	of banking	Other	Nominal				
			To gov- ernment	To public	Total (2)+(3)	(6) less (1) less (4)	quantity of money			
		(1)	(2)	(3)	(4)	(5)	(6)			
1948	December	38.4	30.1	49.2	79.3	-16.9	100.8			
1949	March June September December	33.0	36.4 43.3 53.8 61.0	54.2 61.1 63.8 67.8	90.6 104.4 117.6 128.8	-21.6	114.4 127.9 135.5 140.2			
1950	March June September	16.4	75.5 85.3 99.9	78.4 80.8 89.2 96.5	153.9 166.1 189.1 209.1	-35.7	159.6 169.1 185.1 189.8			
1951	March June September December	7.6	124.9 134.0 150.2 157.5	109.2 116.5 125.5 124.4	234.1 250.5 275.7 281.9	-48.0	213.0 225.5 240.9 241.5			
1952	March June September December	4.9	159.6 158.9 162.2 161.6	135.1 136.8 146.4 153.6	294.7 295.7 308.6 315.2	-62.9	240.0 231.2 252.2 257.2			
1953	March June September December	20.3	162.9 161.9 162.7 166.4	164.7 178.5 196.8 208.9	327.6 340.4 359.5 375.3	-75.3	278.8 285.6 308.4 320.3			
	December*	23.0	171.4	207.1	378.5	-111.4	290.1			
1954	March June September December	40.4 55.3 69.1 85.4	159.6 166.8 169.3 152.8	199.6 199.7 223.1 234.3	359.2 366.5 392.4 387.1	-87.3 -90.9 -108.3 -124.0	312.3 330.9 353.2 348.5			
1955	March June September December	106.3 108.6 115.8 105.2	159.7 157.7 180.4 199.9	245.4 247.0 257.1 259.7	405.1 404.7 437.5 459.6	-129.4 -113.9 -138.2 -145.1	382.0 399.4 415.1 419.7			
1956	March June September December	143.9 147.5 107.2 120.1	179.5 193.9 242.9 263.2	271.2 285.7 298.3 308.3	450.7 479.6 541.2 571.5	-145.9 -161.1 -161.9 -174.3	448.7 466.0 486.5 517.3			
1957	March June September December	126.3 128.2 132.7 102.5	283.8 298.5 292.1 317.0	316.0 326.9 351.0 369.9	599.8 625.4 643.1 686.9	-187.8 -188.4 -194.9 -213.2	538.3 565.2 580.9 576.2			
1958	March June September December	131.9 169.9 139.1 179.4	333.5 355.6 380.3 356.2	383.6 390.5 419.8 444.6	717.1 746.1 800.1 800.8	-235.8 -259.2 -267.2 -320.3	613.2 656.8 672.0 659.9			

* New series, not strictly comparable to previous data For details see source notes

DEVELOPMENTS IN ISRAEL

.	In con	stant prices	(1952 IL		Index of average		
living index (1952=100)	$ \begin{array}{c} Real \\ quantity \\ of \\ money \\ (6) \div (7) \\ (8) \end{array} $	Credit of banking system			Black market	daily earnings in	
		$\begin{array}{c} To \ gov-\\ ernment\\ (2) \div (7)\\ (9) \end{array}$	<i>To public</i> (3) ÷ (7) (10)	Total (9) + (10) (11)	(IL per \$) (12)	(1952=	100)
(7)						Nominal (13)	Real (14)
63	160.0	47.8	78.1	125.9	0.405	47	75
64 61 58	178.7 209.7 233.6	56.9 71.0 92.8	84.7 100.1 110.0	141.6 171.1 202.8	0.379 0.425 0.435	46 50 50	72 81 85
56	250.4	108.9	121.1	230.0	0.546	50	89
56 58 58	285.0 302.0 319.1 327.2	134.8 152.3 172.2 194.1	140.0 144.3 153.8 166.4	274.8 296.6 326.0	0.588 0.654 0.833 0.847	51 52 53	91 93 93
61 62 65 70	349.2 363.7 370.6 345.0	204.8 216.1 231.1 225.0	179.0 187.9 193.1	383.8 404.0 424.2	1.538 1.163 1.269	56 62 65	93 100 102
86 103 110 116	279.1 224.5 229.3 221.7	185.6 154.3 147.4 139.3	137.1 132.8 133.1 132.4	402.7 342.7 287.1 280.5 271.7	2.800 2.650 2.670 2.544 2.240	69 77 97 110 117	100 97 99 102 103
120 129 134 139	232.3 221.4 230.1 230.4	135.8 125.5 121.4 119.7	137.2 138.4 146.9 150.3	273.0 263.9 268.3 270.0	2.516 2.346 2.330 2.514	124 131 136	104 105 103
139	208.7	123.3	149.0	272.3	2 514	141	103
142 140 148 149	219.9 236.4 238.6 233.9	112.4 119.1 114.4 102.6	140.6 142.7 150.7 157.2	253.0 261.8 265.1 259.8	2.740 2.580 2.590 2.425	146 153 155	103 104 108 107
150 152 156 156	254.7 262.8 266.1 269.0	106.5 103.8 115.6 128.1	163.6 162.5 164.8 166.5	270.1 266.3 280.4 294.6	2.280 2.200 2.330 2.460	165 172 173	111 114 113
159 163 170 163	282.2 285.9 286.2 317.4	112.9 118.9 142.9 161.5	170.6 175.3 175.5 189.1	283.5 294.2 318.4 350.6	2.380 2.383 2.430 2.704	186 190 211	112 118 117 129
171 169 175	314.8 334.4 331.9	166.0 176.6 166.9	184.8 193.4 200.6	350.8 370.0 367.5	2.640 2.460 2.485	202 208 217 221	123 123 126 127
172 175 175 183 179	350.4 375.3 367.2 368.7	190.6 203.2 207.8 199.0	215.1 219.2 223.1 229.4 248.4	399.4 409.8 426.3 437.2 447.4	2.405 2.313 2.303 2.460 2.506	224 220 232 241 238	128 125 131 134 132

or respective columns at end of table.

APPENDIX B

SOURCES TO APPENDIX TABLE B

Col. (1): December 1948-December 1953: Net foreign balances of banks, credit cooperatives, and Issue Department of the Bank Leumi LeIsrael. Includes also notes of the Palestine Currency Board held by the Issue Department.

> Data from Statistical Abstracts of Israel for the relevant years. The estimates are subject to an upward bias due to the non-deduction of public deposits in foreign currency—which are not listed separately in the balance sheets of these years.

December 1953-December 1956: We are indebted to Nurit Wahl of the Bank of Israel's Research Department for quarterly data with regard to this and other columns as noted below.

The discrepancy between the two sources used for December 1953 is primarily due to the Bank's estimate being based on a higher exchange rate for foreign currency than the estimate of the CBS.

1957: Bank of Israel, Annual Report: 1957, p. 192, Table XIV-6.

1958: Bank of Israel, Annual Report: 1958, pp. 186-87, Table XIII-4.

- Col. (2): December 1948-December 1953: Sum of land bonds, treasury bills, and other government securities held by banks, credit cooperatives, and the Issue Department of the Bank Leumi LeIsrael. The actual December 1948 figure for credit cooperatives is unavailable and was arbitrarily estimated as equal to that of January 1949. Data obtained from Controller of Banks and CBS Statistical Bulletin B. Data do not include undetermined (though, presumably, relatively small) unfunded bank credit to government which is not classified separately in the banks' published balance sheets for this period. See Bulletin B, December 1954, p. 884, and current notes on cover of this Bulletin.
 - December 1953-December 1956: Quarterly data from Nurit Wahl, Bank of Israel (see note to col. (1)).

The series from December 1953 onwards is not entirely comparable with that for the earlier period.

1957: Bank of Israel, Annual Report: 1957, p. 204, Table XIV-12.

1958: Bank of Israel, Annual Report: 1958, pp. 186-87, Table XIII-4.

- Col. (3): December 1948-December 1953: Loans and discounts of banks and credit cooperatives *plus* investments in domestic securities (excluding those of subsidiaries). Includes undetermined (though, presumably, relatively small) amount of credit to government (see note to col.(2)). Data obtained from Controller of Banks and CBS, Statistical Bulletin.
 - December 1953-December 1956: Quarterly data from Nurit Wahl, Bank of Israel (see note to col. (1)).

The series from December 1953 onwards is not entirely comparable with that for the earlier period.

1957 and 1958: Bank of Israel, Annual Report: 1957, p. 197, Table XIV-9, and Annual Report: 1958, pp. 186-87, Table XIII-4-plus

investments in domestic securities (excluding those of subsidiaries) from unpublished files of the Bank of Israel.

Col. (6): December 1948-December 1955: Currency outside banks and credit cooperatives plus demand deposits-Bank of Israel, Annual Report: 1955, p. 156, Table 116.

> From December 1953 the series excludes foreign currency deposits of the public and is not therefore entirely comparable with the December 1948-December 1953 series, which does not exclude these deposits.

1956: Bank of Israel, Annual Report: 1956, p. 266, Table XV-2.

1957: Bank of Israel, Annual Report: 1957, p. 185, Table XIV-1.

1958: Bank of Israel, Annual Report: 1958, pp. 186-87, Table XIII-4.

Col. (7): As from December 1950 this is the official cost-of-living index as published by the CBS.

> For December 1948-December 1950, this represents a splicing together of the old and new cost-of-living indexes at December 1950. For this month, the new index exceeded the old one by 4 per cent. This difference was distributed equally over the preceding period. For further details see Patinkin, "Monetary and Price Developments in Israel", *Scripta Hierosolymitana III*, 1956, p. 48, footnote ^b to Table 4.

Col. (12): Rate on Tel Aviv black market.

1948-56: CBS, Abstract No. 8, 1956/57, pp. 148-49.

Data for December 1948, March 1949 and June 1949 interpolated from price of gold sovereigns in Tel Aviv (see CBS, *Abstract No. 8*, p. 148).

Data for September 1951 and September 1952 interpolated from rate in Zurich (see *ibid.*).

Figure for March 1956 is average of February and April 1956.

1957: CBS, Abstract No. 9, 1957/58, p. 216.

1958: CBS, Abstract No. 10, 1958/59, p. 210.

- Col.(13): CBS, *Bulletin*, relevant months. The various indexes were spliced together by Uri Bahral (see project report 16 below). The figure for any month refers to the average of that month and the preceding two months.
- Col.(14): 1948-51: Col. (13) divided by quarterly average of the cost-of-living index.

^{1952-58:} Monthly figures underlying Col. (13) divided by monthly figures underlying Col. (7).

APPENDIX C

THE EVALUATION OF THE IMPORT SURPLUS

Let

p=general price level of the GNP or national income, as the case may be; q=general price level in dollars of the import surplus;

R = actual exchange rate: Israel pounds per dollar;

X = real import surplus, measured in constant dollars;

Y=real GNP or real national income (measured in constant Israel *pounds*), as the case may be.

Let t and o be the current and base year, respectively. In accordance with this notation, q_tX_t represents the value of the import surplus measured in current dollars, R_tq_t represents the level of import prices as measured in current pounds, and $R_tq_tX_t$ represents the value of the import surplus measured in current pounds. Our index of economic independence in line 3 of Table 45 is then

(1)
$$\frac{p_t Y_t}{p_t Y_t + R_t q_t X_t}$$

Clearly, changes in the ratio of domestic prices (p_t) to import prices (R_tq_t) will reflect themselves in this index.

If we were to compute this index in constant prices (from Table 18), we would instead obtain

(2)
$$\frac{\frac{p_t Y_t}{p_t / p_0}}{\frac{p_t Y_t}{p_t / p_0} + \frac{R_t q_t X_t}{R_t q_t / R_0 q_0}} = \frac{p_0 Y_t}{p_0 Y_t + R_0 q_0 X_t} ,$$

i.e. the import surplus would be evaluated at the dollar price level and rate of exchange prevailing in the base year. Thus the ratio of domestic prices to the exchange rate and to import prices is kept constant in every year for which the index is computed.

Creamer's method (op. cit., p. 23) is effectively to compute an exchange rate based on purchasing-power-parity (denoted by R^*), to convert national income to dollars with the aid of this rate, and to compute the ratio of national income to total resources using these measures. According to the purchasing-power-parity theory,

(3)
$$R_t^* = R_0 \frac{p_t}{p_0} / \frac{q_t}{q_0}$$
;

146

THE EVALUATION OF THE IMPORT SURPLUS

that is, the rate of exchange will vary in proportion to the differential movement of domestic and international prices. Creamer's index is then

(4)
$$\frac{\frac{1}{R_t^*} p_t Y_t}{\frac{1}{R_t^*} p_t Y_t + q_t X_t} = \frac{p_t Y_t}{p_t Y_t + R_t^* q_t X_t} = \frac{p_t Y_t}{p_t Y_t + (R_0 \frac{p_t}{p_0}) q_0 X_t}$$

That is, the same real import surplus (in terms of dollars) which appears in (2) is here evaluated at a rate of exchange which has moved in the same proportion as domestic prices. Thus once again no account is taken of the differential movements of prices and the exchange rate. For this reason Creamer's index shows a considerably more rapid improvement over the period 1950–54 than does ours.



INDEX

- Agriculture: 41, 63-65, 74, 78; investment in, 83-84, 90; training, 27; workers, 24, 40
- Arabs: 20, 24-25, 29; abandoned property of, 18, 24

Army: 29-31, 56, 71

- Balance of payments: 34, 42, 52-53, 91, 118, 136
- Banking: 41, 63, 89, 114, 142-43
- Bank of Israel: 17, 44, 118-19
- Black market: 46, 109, 122, 143, 145
- Building (construction): 40-41, 44, 49, 63-65, 82, 84, 90, 133, 135-36, 139
- Capital: 69, 71-74, 78-79, 83, 98, 130, 134-35, 139; formation, 45-49, 54, 59, 60, 78, 81-87, 89, 91-96, 105-06, 132-33; grants, 86-87; returns, 52-53, 65
- Commerce (trade): 27, 41-42, 63, 65, 84
- Consumption: 55, 58, 64, 96, 103, 128, 132-33; excess, 93-94, 104-105; government, 44-50, 55, 57, 59, 60, 93-95, 102, 104, 129, 132, 137-38; level of, 54-55, 81, 102, 104-05, 107, 132-33; per capita, 81, 102, 104, 132, 139; private, 43-45, 47-49, 55, 59, 60, 93-95, 97, 102-104, 129, 132, 137-38; consumers, 25, 101
- Cost-of-living index: 38, 40, 90-91, 110-11, 113, 115, 118-19, 143, 145
- Credit: 90, 112-14, 116, 118-19, 123-25, 141-44
- Defence: 45, 48, 55-60, 63, 77, 93, 101, 104, 128

- Depreciation: 44, 62, 92-96, 101, 105, 129, 132, 135; estimates, 72, 141; as part of capital formation, 48, 59, 60, 80
- Devaluation (depreciation): 38, 40, 46, 109, 111, 118, 121-24
- Development: 27, 49, 79, 80, 128; budget, 80, 89, 90, 139; program, 54, 113, 128
- Economic independence: 83, 126, 128, 130-32, 139-40, 146
- Education: 26, 37, 55-56, 66, 68, 72, 76; educational level, 25, 36-37, 77
- Efficiency: 39, 57, 69, 72-74, 76-79, 136 Electricity: 41, 64, 84, 90
- Employment: 32, 35, 38, 40, 73, 76, 120, 139; policy, 34, 102; status, 35, 37; full employment, 34, 118; increase in, 71, 77, 135; part-time, 36; productive, 126; structure of, 64
- Exchange rate: 38, 46, 56, 58, 111, 121-23, 131, 146-47; effective e.r., 133, 137; high, 123, 132, 144; linking to e.r., 90-91, 118; official e.r., 44, 46, 53, 91-94, 121-23, 131
- Export: 43, 52, 119, 121, 123-24, 127-28, 131, 133, 136-40

Foreign debt: 125, 127

- Foreign exchange (currency, balances): 77, 107-13, 121-22, 127, 130-31, 139, 142, 144-45.
- Government: 19, 42, 53, 55, 64, 76, 85-88, 90-92 95-8, 112-14, 142-44; agencies (institutions), 17, 35; expenditures and receipts, 30, 45, 56-58,

108; investment, 58, 79, 83, 85, 88–92, 139; policy, 25, 34, 38, 111, 118, 122– 23, 125; saving, 95–97, 100, 105–06; sector, 85, 89, 94, 105; services, 41, 103

- Inhmigrants: 18, 21-25, 27-28, 53, 77, 122; consumption, 102-03; education, 26-27, 76; employment, 28-33, 36, 42; income, 66-67, 99; rehabilitation, 101-03; integration of immigrants, 19, 25, 27, 30, 42, 56, 67-68, 101
- Immigration: 20-25, 28, 49, 102-04, 128, 133-34; by continent, 22, 26-27, 29, 36; centers, 30-33, 35; absorption of immigration, 23-24, 30, 34, 38, 40, 103-04, 107; mass immigration, 19, 65, 77, 80, 83, 103
- Import: 47, 93, 111, 131, 133, 138; component, 46-47, 56, 136, 138; of goods and services, 52; prices, 46-47, 124; surplus, 40, 43-55, 58-61, 80, 92-96, 100, 105-06, 125-39, 146-47
- Income: 55, 66-68, 71, 83, 97, 99-101, 103; average income, 66-68; disposable income, 66-67, 95, 99, 100, 104, 106, 139; national income, 17-18, 25, 43-44, 61-62, 64-65, 95-96, 106, 139, 141, 146; per-capita income, 43, 49, 54, 56
- Industry (see also Manufacturing): 27, 64, 90; industrial economy, 25, 38
- Inflation (inflationary process): 34, 44, 46, 54, 77, 89, 108-18, 123, 125, 139
- Investment: 49, 55, 58, 72–3, 78–81, 83, 85, 90, 128, 133–36, 144; activity, 85, 88, 128, 133, 136, -39; effort, 54, 78, 81, 133–34; private, 88, 91–92; program, 55, 73, 79, 80, 83, 85, 89, 91–92, 101, 105; gross investment, 44, 50, 54–55, 58, 72–74, 78, 80, 83, 89, 134–38; net investment, 72–74, 78, 80, 135; real investment, 72, 81, 85, 134–35

Jewish Agency: 19, 21, 31, 83, 94,

Labor (employment) exchanges: 31, 33,

35

- Labor force: 19, 24-43, 72-73, 76-77, 103, 126, 135
- Loans: 85-89, 92, 113, 125-28, 144; from Export-Import Bank, 51-52, 89, 91; compulsory loan, 90; Independence loan, 51, 89, 91, 126
- Manufacturing: 41, 63-65, 74, 78; investment in, 83-84; prices for, 123; wages (earnings) in, 38-40, 119-20, 143

(See also Industry)

- Money: 46, 56, 108–12, 115–19, 125, 142–43; supply, 108, 110, 113, 117, 122, 124
- National Expenditure: 17, 44-45, 50, 96
- National Product: 49, 61, 64, 78; Gross National Product (GNP), 43-45, 47-48, 50-51, 54-60, 69-71, 93-95, 105-106, 111, 129-37, 139-41, 146; per capita GNP, 69, 70, 80, 126, 132; real GNP, 58, 61-62, 69, 70, 134; Net National Product (NNP), 44, 50, 65, 71-76, 78-79, 95, 135, 141
- Output (see also Product): 64, 71, 130, 134-35; increase of output, 69, 74, 77, 117
- Population: 20, 24–25, 43, 58, 80–81, 102, 105, 130, 133–34; by continent, 24–27; participation in labor force, 28–30; educational level of, 26–27. 76; increase (growth) in, 23–24, 73, 104, 117, 130, 133–35; urban population, 100, 106; veteran population, 28, 104 Premium (on foreign exchange): 123
- Prices: 38, 40, 46–47, 54, 116–19, 124– 125, 141, 146–47; control, 46, 49, 77, 94, 109, 111; increases, 111, 115, 123–24; index, 46–47, 61–62, 109–10, 115–118, 122, 130; level, 44, 110, 113, 116–17, 121, 130, 146; constant prices, 59, 143, 146; current prices, 45, 48, 64, 98, 110, 116, 130, 142 Private sector: 88, 92, 94–96, 119

- Product: 42-43, 49, 63, 65, 70
 - (See also National Product)
- Production: 18, 20, 69, 137, 139; producers, 25, 101

Productivity: 72, 74, 120

(See also Efficiency)

Public sector: 83, 86, 88-89

- Rationing: 46, 49, 77, 94, 109
- Reparations from Germany: 51-52, 89,
- 91, 126; restitution payments, 51-52, 99, 126
- Resources (sources): 61, 73, 117, 128, 136-37, financing import surplus, 51, 101, 126, 132-34; for investment, 81, 83, 85, 91; allocation of resources, 43-44, 111, 136-39; real r., 58, 61, 81, 92; total r., 43-45, 47-50, 54-60, 81, 93, 101, 109, 115-17, 129-31, 137, 139, 146; use of r., 45, 48, 59, 60, 93, 129, 137

Salary: 56, 68, 71, 100 (See also Wages)

Saving: 94-95, 99, 100, 104, 106, 130, 139; dissaving, 94-97, 101, 104; domestic saving, 55, 80, 90, 92, 100-01, 105, 130, 133, 136, 139; government s., 95-97, 106; private s., 95-97, 99, 100; savings survey, 65-68, 100, 102, 104, 106

- Services: 35, 41-42, 44, 52, 63-64, 130; government services, 41, 95, 103; prices of s., 124 service industries, 40, 74, 78
- Sinai Campaign: 23, 49, 55, 94-95, 108, 114, 118, 122, 128
- Taxes: 91, 95-96, 106, 118, 139, 141
- Transfer Payments: 57, 95-100, 103
- Transit Camps (ma'abarot): 21, 31
- Transportation: 41-42, 63, 65, 78, 82, 84, 90, 123
- Unemployment: 19, 30-39, 42, 73, 76, 139
- United Jewish Appeal (UJA): 51-52
- U.S. Grant-in-aid: 51-53, 89, 91

Velocity of circulation: 115-116

Wages (earnings): 38-40, 68, 71, 100, 118-21, 124; nominal, 38, 40, 119, 143; real, 38-40, 42, 119, 143 Work relief: 32, 34-36



SELECTED BIBLIOGRAPHY OF WORKS CITED

OFFICIAL PUBLICATIONS

Bank of Israel Annual Reports Bulletins Report on the Increase in the Means of Payment, Hebrew (various dates) Central Bureau of Statistics Statistical Abstract of Israel, annual, in Hebrew and English. Statistical Bulletin of Israel: Part A-Social Statistics, Hebrew, monthly (various dates) Statistical Bulletin of Israel: Part B-Economic Statistics, Hebrew, monthly (various dates) Labour Force Survey (various dates) Balance of Payments of Israel, 1956-1957, Special Series No. 71, Jerusalem, June 1958. Balance of Payments 1958 (Hebrew) Receipts and Expenditures of Government: 1955/56 and 1956/57 (Hebrew), Technical Paper 2, Jerusalem, May 1959. Standard of Education of the Population: June 1954, Special Series No. 66, Jerusalem, January 1958. Government of Israel Israel Government Year Books Economic Advisory Staff, The Israel Economy in 1954 (mimeographed), Jerusalem, July 1955. Economic Research Unit, Ministry of Labor, Employment and Unemployment Tendencies (Hebrew), No. 21, September 1958. Ministry of Finance, Fourth Report on State Revenues: 1957/58 (Hebrew), Jerusalem, 1959 Ministry of Labor, Labour and National Insurance (Hebrew, monthly). International Monetary Fund International Reserve and Liquidity, Washington, 1958. "The Adequacy of Monetary Reserves," Staff Papers, October 1953. 153

BIBLIOGRAPHY

United Nations

- A System of National Accounts and Supporting Tables, Studies in Methods, No. 2, New York, 1953.
- Per Capita National Product of Fifty-five Countries: 1952-1954, Statistical Papers, Series E.

Statistics of National Income and Expenditure, Statistical Papers, Series H, No. 10, New York, January 1957.

Yearbook of National Accounts Statistics: 1957, New York, 1958.

United Nations Conciliation Commission for Palestine

- Final Report of the United Nations Economic Survey Mission for the Middle East: Part I-The Final Report and Appendices, New York, December 1949.
- UN General Progress Report and Supplementary Report of the UN Conciliation Commission for Palestine, Covering the Period from December 11 1949 to October 23 1950, New York, 1951.

OTHER PUBLICATIONS

- Moses Abramowitz, Resource and Output Trends in the United States Since 1870, NBER Occasional Paper 52.
- R. M. Barkay, The Public Sector Accounts of Israel: 1948/49-1954/55, FP and CBS (mimeographed), Jerusalem, 1957.
- Daniel Creamer and Others, Israel's National Income: 1950-1954, FP and CBS Special Series No. 57, Jerusalem, 1957.
- Solomon Fabricant, Basic Facts on Productivity Change, NBER Occasional Paper 63, New York 1959.
- B. Gil, Projections of the Population of Israel (1955-1970), CBS, Special Series No. 69, Jerusalem, April 1958.
- Ludwig Gruenbaum, National Income and Outlay in Palestine: 1936, Jerusalem, 1941.
- Nadav Halevi, Estimates of Israel's International Transactions, 1952-54, FP, Jerusalem, 1956.
- John W. Kendrick, Productivity Trends: Capital and Labor, NBER Occasional Paper 53.
- M. Klibansky, Estimates of Israel's International Balance of Payments, 1955-1956 (Hebrew), Ministry of Finance, April 1957.
- Ruth Klinov-Malul, Productivity of Labor and Machines in Israel's Cotton Spinning Mills, Falk Project Research Paper 4, Jerusalem, 1958.
- Labor Exchanges' Centre, Statistics of Labor Exchanges (Hebrew) No. 8, Tel Aviv, 1958.
- H. Lubell and Others, Israel's National Expenditure: 1950-1954, FP and CBS Special Series No. 74, Jerusalem, 1958.

BIBLIOGRAPHY

- A. Martin and A. Lewis, "Patterns of Public Revenue and Expenditure," The Manchester School, XXIV, 1956.
- R. R. Nathan, Oscar Gass and Daniel Creamer, Palestine: Problem and Promise, Washington, 1946.
- D. Patinkin, "Monetary and Price Developments in Israel: 1949-53," Scripta Hierosolymitana, III, Jerusalem, 1956.
- S. Riemer, "Wages in Israel," Hebrew Encyclopedia, Vol. 6.
- Moshe Sicron, Immigration to Israel: 1948-1953, FP and CBS Special Series No. 60, with an Introduction by Professor R. Bachi, Jerusalem, 1957.
- M. Zandberg, The Distribution of Incomes in Israel in 1954 (Hebrew), (mimeographed).







ABOUT THE BOOK

This book surveys the major economic developments of the Israel economy in the first decade of its existence. During this period Israel's population almost doubled, while its real GNP increased by about two and half times.

The study attempts to estimate the part of this growth that can be attributed to the increased efficiency of the economy. It also describes the nature and financing of the investment program which was a crucial element of Israel's rapid rate of growth. Another aspect of this program were the inflationary developments that accompanied it.

The book concludes with a discussion of Israel's progress toward economic independence.

PUBLICATIONS IN ENGLISH OF THE MAURICE FALK INSTITUTE FOR ECONOMIC RESEARCH IN ISRAEL

Nadav Halevi	Estimates of Israel's International Transactions, 1952-1954
Daniel Creamer and others	Israel's National Income: 1950–1954
Don Patinkin	The Israel Economy: The First Decade
Avner Hovne	The Labor Force in Israel
Nissan Liviatan	Consumption Patterns in Israel
Yair Mundlak	An Economic Analysis of Established Family Farms in Israel
Yair Mundlak	Long-Term Projections of Supply and Demand for Agricultural Products in Israel
Uri Bahral	The Effect of Mass Immigration on Wages in Israel
Ruth Klinov-Malul	The Profitability of Investment in Education in Israel
Meir Heth	Banking Institutions in Israel
Marshall Sarnat	Saving and Investment through Retirement Funds in Israel
Yoram Ben-Porath	The Arab Labor Force in Israel



Falk Institute publications are distributed throughout the world by the Israel Universities Press and the full list of all publications will be sent on request.