

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

**PROSPECTS FOR SUSTAINED DEVELOPMENT
OF THE PALESTINIAN ECONOMY
IN THE WEST BANK AND GAZA STRIP, 1990-2010:**

A QUANTITATIVE FRAMEWORK



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A QUANTITATIVE FRAMEWORK

Prepared by the UNCTAD secretariat

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OVERVIEW

The UNCTAD secretariat embarked, in 1990, upon an action-oriented intersectoral project to: (i) examine the current economic and social situation in the occupied Palestinian territory; (ii) investigate the potential for its development; and, (iii) propose alternative options, strategies and policies for its revival and growth. Parallel with the preparation of 25 field studies on specific sectors/issues within the scope of this project, the secretariat also embarked upon the preparation of a quantitative framework aimed at investigating under alternative scenarios future growth paths of the Palestinian economy in the West Bank and Gaza Strip. The relevance of such an outlook has acquired increasing importance as a result of the accord concluded between Israel and Palestine and the emergence of the Palestinian Interim Self-Government Authority.

The methodology followed for the preparation of the framework is based on a macroeconomic analysis of resources availability and use. Given the paucity of data, emphasis was placed on ascertaining, through parametric exercises, the internal consistencies among major aggregates by, *inter alia*, investigating gaps between labour force and employment, savings and investments, and imports and exports. The quantitative framework thus established uses a series of identities and functions based on the behaviour of key variables during the 1970-1990 period to project trends for the period 1991-2010 under different scenarios.

The data base supporting this exercise was compiled from statistics for the period 1970-1990 released by the Israel Central Bureau of Statistics (CBS) in three major publications. Preparing and reconciling the required historical time series presented a number of technical constraints, not all of which were amenable to acceptable solution. The choice of the technique used in designing and structuring the quantitative framework was influenced by a number of factors, namely: (a) the economy of the occupied territory was unsophisticated and had been subject to the severe shocks of erosive forces; (b) the statistical limitations of the historical period prevented the structuring of a detailed approach without compromising its specificity and the validity of subsequent analysis; and, (c) the resources available to undertake the exercise were limited.

Accordingly, the framework is organized in three recursive blocks, involving demographic, labour force and macroeconomic variables.

The demographic block: Although expressed as a single equation, this block is the most detailed and comprehensive part of the framework. While the available demographic statistics are less than wholly reliable, the nature of this form of analysis renders the results quite robust. However, migration remains the most intractable variable to deal with in any form and is subject to many unpredictable forces which are difficult to envisage in such an exercise.

The labour-force block: This block is fairly straightforward, with the labour force being primarily a function of participation rates by age, sex and the age-sex structure of the population, as determined in the demographic block. Some effort is made to provide details by economic sector for both labour-force size and productivity. However, as the scenarios were developed on the basis of derived assumptions regarding the total labour force productivity, the sectoral aspects of the framework are not fully exploited.

The macroeconomic block: This block consists of a simple supply system driven by productivity and labour force, on the one hand, and a straightforward set of demand equations governing the main economic aggregates. The gap between the two represents excess capacity and unemployment. Exports were treated as exogenous in the first instance, determined by historical trends.

In the scenario analysis, the **baseline scenario**, which relies on a "minimum policy intervention" hypothesis, addresses the question of what the consequences would be of a continuation into the future of the trends and behavioral patterns that prevailed in the recent past. The main results emerging from this

illustrative scenario were: (i) the labour force growth rate rapidly outpaced the growth rate of population; (ii) the dependency structure of the economy (reflected in the ratio of GDP to GNP) remained prevalent; and, (iii) unemployment reached 50 per cent by the end of the projection period. The conclusion was that the baseline scenario represented a grossly untenable socio-economic situation. The results were not only unacceptable but were also highly unrealistic. Indeed, given the nature of developments since September 1993, both the assumptions and the results of the scenario have come to appear improbable.

In a variant to this scenario the impact of a gradual easing of policy constraints and disturbances in economic activity associated with the 1988-1991 period was reflected in higher absolute levels and growth rates of most indicators. However, these did not signify notable changes regarding key features of the economy, namely, its distorted and fragile structure, its sluggish performance, poor interaction between key aggregates and its inability to break with patterns and relations engendered by prolonged occupation. Accelerated population and labour force growth coupled with limited job opportunities did not ameliorate the employment gap. Despite rapid initial increases in GDP, the saving/investment gap as well as the merchandise trade gap both widened.

A more activist approach was called for to improve prospects for the economy, primarily through a careful consideration of feasible policy options aimed at addressing the salient problems depicted under the baseline scenario and its variant. Accordingly, a set of five alternative scenarios were developed, moving from the least desirable to the most feasible and acceptable scenarios from the viewpoint of growth and development objectives and their policy options. Key policy variables and variations in each were selected following a careful process of sensitivity analysis. The variables involved in the first three alternative scenarios are exports, imports, private investments, government consumption and investment and net transfers from abroad.

Alternative I: Constrained unemployment with net external transfers as the instrument. As a first step in the process of addressing the major structural problems of the Palestinian economy, the framework was focused on an effort to reduce the employment/labour force gap. Assuming an overriding need to address unemployment, a target rate of maximum unemployment was fixed (at 10 per cent of labour force) and external transfers adjusted upwards so as to meet that target and maintain a semblance of economic stability. As the economy operates with the same structure, there is no adjustment process conceived. The increase in production and demand required to reduce unemployment to the designated level is assumed by net transfers. Similarly, the growth expected in both government and private consumption and investment is dependent on external transfers. The savings-investment gap would thus reach 62 per cent of GNP by the year 2010. The trade gap would equally widen, reaching -70 per cent of GNP by the end of the period.

As such, while the scenario is sustainable from a purely technical point of view, this is at the cost of several billions of dollars in additional external support as of the sixth year of the projection period, reaching US\$4.5 billion by the year 2010. More importantly, at the end of the period the economic structure will remain essentially unchanged and will be less viable and more dependent on external support. Therefore, in the absence of serious policy measures to address the structural problems and operational constraints, a massive inflow of unrequited external transfers would be required to sustain high income and consumption levels.

Alternative II: Intensified trade-oriented investment programme. Under this scenario, explicit policy options and changes in the behaviour and growth of key variables are introduced with a view to addressing the problem of structural transformation of the economy. These are primarily intended to reduce the trade gap, increase production, and restructure demand away from consumption and in favour of investment. This general aim is translated into the following policy measures; accelerating private investment in the productive sector and encouraging its orientation towards export promotion and selective import substitution, while also expanding government consumption and investment. Obviously, the effective realization of these fundamental changes implies the lifting of constraints that have come to stifle the economy and the emergence

of an indigenous authority committed to development and capable of formulating and managing a set of policy measures aimed at improving the situation.

In this scenario, the impact of the policy measures on key variables in the economy is encouraging. The unemployment situation witnesses a dramatic improvement, falling respectively to 5 and 2 per cent in the Gaza Strip and the West Bank by 2010, reflecting greater attention paid to domestic employment generation. The latter part of the period is especially underpinned by strong growth in sectoral production, particularly in industry and construction. The importance of private consumption and imports is reduced in favour of investment and exports. Both private and government investment achieve impressive rates of growth. As a result of extra investments, export performance shows marked gains. Despite an increase in the merchandise trade deficit, the trade gap in terms of both GDP and GNP narrows substantially, to -27 per cent of GNP by the year 2010.

While the national savings ratio initially shows a decline, in terms of GDP a net amelioration is perceived indicating a significant improvement in the ability of the economy to mobilize domestic savings. However, this remains insufficient, particularly in the face of the acceleration of investment required for structural transformation. Similarly, the financing of increased government expenditures (consumption and investment) remains uncertain and dependent on various policy options. Despite these limitations, the results of this scenario show that it is possible to rebuild a vigorous economy. Nevertheless, medium term costs associated with unemployment are high and it is difficult to conceive of reasonable means of supporting the additional investment from domestic sources alone.

Alternative III: Intensified trade-oriented investment with substantially increased net transfers from abroad. Under this scenario, the relatively constrained level of external transfers is relaxed in order to allow for the increased levels of investment and narrow the gaps much more rapidly than would otherwise be the case. Thus, a combination of the macroeconomic policy measures used under Alternative II and a less constrained level of external transfers linked to a target level of unemployment is applied. The main strength of this alternative is that it illustrates the sensitivity of the Palestinian economy to the availability of external financial support and investment during a period of intensive domestic policy efforts for structural transformation.

The availability of extra finance gives the economy a substantial and immediate boost to its employment generation capacity which subsequently becomes self-supporting. By the end of the projection period, unemployment could return to historically low levels (well under 5 per cent). While consumption grows so does investment at both the private and public sector levels. In the 1996-2010 period, private investment grows by 12.5 per cent annually, while public investment is intended to grow at around 8 per cent per annum. Increased investments (of a total of some \$1 billion over the period) lead to a growth in production, a more rapid improvement in exports and a reduction in imports, bringing the trade gap down to -26 per cent by the year 2010. While imports still remain important in the consumer basket, their significance in aggregate demand is diminished.

Under this scenario, the economy emerges with a stronger productive base able to absorb the majority of its labour force. The injection of a total of \$9 billion (i.e. an extra \$5.4 billion of transfers as compared to scenario II) for the whole period of 1996-2010 should be seen in the light of some of its beneficial effects, viz. significant gains in employment, narrowing of both saving-investment and trade gaps, and improvement of the current account deficit. The additional external transfers enable the economy to generate \$4.6 billion more of GDP during 1996-2010, thus allowing a much more rapid take-off with all domestic human and material resources mobilized. It is important to note that such an extra transfer will only be required in the first decade, after which a vigorous economy will emerge that should not require extra external financial support. If the total amount of external resources required is not met by unrequited transfers, the magnitude of operations envisaged may have to be scaled down or borrowing resorted to. The latter option has its own drawbacks under the present circumstances. The Palestinian economy does not yet have the international standing to acquire loans. Moreover, the burden of any loan

obtained is placed on the export sector to generate even more foreign exchange to finance increasing imports and provide for debt repayment.

Alternative IV: Absorption of returning population without external transfers. While the results emerging from the previous scenarios depict a gradual improvement in prospects for the revival and sustained growth of the Palestinian economy, they fall short of satisfying the broader objective that can be envisaged bearing in mind the total potential that the Palestinian people and their economy can muster. Under the previous scenarios, it was assumed that the Palestinian people presently living in the West Bank and Gaza Strip would constitute the future population of these areas on a *de facto* basis. This excludes three categories of Palestinian refugees who have resided outside these areas since 1948. These constitute an important stock of the *de jure* population, some of whom may be able to return to the territory should the future political and economic conjuncture permit. Therefore, an attempt has been made to inject this additional dimension into the picture. The assumptions and the emerging results are not prescriptive in nature. They merely serve as a rough indication of the scale of transformation the Palestinian economy will need to undergo in order to successfully absorb an increased population. A tentative figure of returning Palestinians is assumed and the annual number of returnees is expressed as a declining proportion of resident population.

Accordingly, Alternative IV is structured in the same manner as Alternative II with a main difference being that the changes brought about in the variables concerned and policies applied are accelerated and intensified so that projections with additional population yield similar results. As a result of the population influx, the role of growth in labour force is doubled during the period. Thus, unemployment will reach a low level under 5 per cent only by the end of the period from a level of 15-20 per cent during the period 1996-2000. Both GDP and GNP will register impressive rates of growth allowing per capita income to reach levels comparable to those under Alternatives II and III. Private consumption and investment equally show high rates of increase. A relatively higher rate of the extra investment is allocated to export promotion and import substitution in order to reduce the trade gap, hence more effort to boost productive activities. While this boosts exports, the current account deficit worsens as a result of higher imports of raw materials as well as consumption and investment goods. This suggests the need for more vigorous policies to further rationalize imports and diversify and expand exports. The savings-investment gap will also widen, calling for an intensification of policy measures and development of efficient mechanisms aimed at mobilizing domestic resources at levels needed to accommodate the returning Palestinians.

It can be concluded that the returning population at the specified rate can be successfully integrated into the economy, at least as far as the implications of the macroeconomic aggregates are concerned and provided the requisite policy measures and mechanisms are initiated, sustained and intensified. In fact, the results indicate that it is the very absence of relevant policy measures and mechanisms and the much needed structural transformation rather than rapid population dynamics that prevent the Palestinian economy from attaining a desirable path of sustainable growth. Nevertheless, the modest growth rate of GDP coupled with high unemployment rates prevailing during much of the early period following recovery needs to be addressed by a combination of intensified domestic policies and increased external support.

Alternative V: Absorption of returning population with external transfers. Based on the structure of Alternatives III and IV, the purpose of this exercise is to ascertain the scale of external support needed to boost production and reduce domestic unemployment levels, thus putting the economy on the path of sustained growth and accommodating the returning population. Although the values that the main macroeconomic indicators reveal by the end of the period are not significantly different from those obtained under Alternatives III and IV, the increased level of additional external resources amounting to \$9.6 billion over the period 1996-2010 (for a total external resource flow of \$14.9 billion) will allow the economy to initially operate at a higher percentage of its potential capacity, including higher rates of private and public investment.

This additional external support and investment will make it possible to

maintain unemployment at a rate lower than 10 per cent and to generate higher values for GDP especially during the interim period of 1996-2005. This speeds up the pace of structural transformation and growth as of a relatively early date. By the year 2010 some 94 per cent of GNP is accounted for by GDP, as compared to 84 per cent in the year 1996. This is notwithstanding the considerable task of absorbing returnees with all that entails in terms of employment, income, shelter, social services, infrastructures and the like.

POLICY PERSPECTIVES

The scenario analysis revealed that prospects for the sustained growth of the Palestinian economy were dependent on a variety of factors which have largely remained beyond the control or influence of the Palestinian people. In addition to constraints acting on the mobilization and allocation of resources in the economy, the policy environment required to effect changes in and manipulate the performance of the economy has been lacking. This was amply demonstrated in the scenario exercise. The significance of domestic policy environment acquired greater importance as the scenarios gradually aimed at achieving a desirable structural transformation of the economy and its sustained growth. Undoubtedly, the creation and management of a successful domestic policy environment is a challenging task that will confront the Palestinian people in the years to come. In order to further examine the policy challenges that lay ahead regarding some issues, simulation exercises using a simplified quantitative framework were applied to clarify such points as: (1) the annual rate of growth that will be required to enable the Palestinian domestic economy to absorb Palestinians working abroad and to move away from its dependence on outside aid; (2) the rate of domestic saving that will be required to accomplish the task; and (3) the extra resources that will be needed in the transition period and the duration of the period itself.

Needless to say, clarifying these points is useful mainly to the extent that it indicates some trade-offs and sheds some light on the utility of different policies. It is assumed that national saving in the Palestinian economy in the transition period will be the sum of domestic savings and saving from net factor income from abroad and net transfers. As for net factor income, Palestinians are expected to be attracted to work in Israel as long as the wage rate there is higher than in the Palestinian territory. However, a situation of growth in the Palestinian economy may imply a gradual narrowing of the wage differential.

Regarding transfers, it is expected that in the transition period, there will be a net transfer of resources to the territory. Part of these transfers is made up of resources that have been directed to Israel in the form of tax revenue, in addition to Palestinian resources used by Israel and Israeli settlers free of charge (e.g. land and water). Another important part of these transfers will be from Palestinians abroad, as well as international aid. It is expected that the propensity to save from net transfers will be less than one, as the Government will be the receiver of most of the transfers and it may understandably be called upon to use a large part of it for the provision of necessary public goods and services in the transition period.

Different simulations of the simplified framework revealed that a relatively high rate of savings would guarantee a steady rate of growth in the economy. Obviously, much of these savings at the start will be expected to come from factor income and transfers. The total cost of growth in the economy in terms of transfer of resources reaches almost three times the amount of GDP at the start of the transition, or recovery, period. Higher rates of savings also reduce the transition period itself.

A major problem inherent in the Palestinian economy is the lack of articulation between the sources and uses of income and between the supply of and demand for goods and services. As a consequence, in addition to the persistent negative domestic savings, the situation is characterized by a virtual severance of the link between savings and productive investment, a noticeable mismatch between the supply of, and demand for, human capital and the ever-increasing dependence of the economy on external sources of income. Therefore, to bring about a better articulation of these forces, efforts are needed to encourage productive investment and employment in the territory itself and to

gradually reassert control and sound management by the Palestinian people of their natural and human resources.

A necessary, though not sufficient, condition for success in meeting these challenges, of course, is an optimally designed and implemented set of policies and their appropriate mechanisms. Bearing in mind the prevailing economic, political and institutional circumstances, the different scenario options provide broad guidance on the nature and extent of the required policy changes in the following areas, which are crucial for the sustained growth and development of the Palestinian economy:

First, there is clearly a need for infrastructural investments of various kinds, in some cases on a massive scale. Since many of these infrastructural investments are of the public goods type, they cannot all be accomplished by private sector activities. Such public investments, of course, have to be financed. Substantial proportions of such finance may be expected to come from external sources, as stipulated above. Nevertheless, very considerable efforts to raise (through taxation) the necessary revenues from within the resident Palestinian community will also have to be made.

Second, there is clearly a need to discourage domestic consumption in general and luxury consumption in particular and thereby to encourage domestic saving. This needs to occur in both the private and public sectors. The encouragement of certain forms and channels of domestic savings may require subsidies and tax cuts (for example, on savings deposits or equity investments), since the resulting decreased public savings may well offset the increased private savings rather than increasing savings as a whole. However, taxation may provide a more financially feasible approach to increasing domestic saving in both the private and public sectors. Nevertheless, every effort is required to mobilize savings through the establishment of an adequate and efficient financial system where banks and other forms of financial institutions are actively involved in the process of financial intermediation.

Third, there is a serious need to encourage modernization and start-up investments by the private sector in productive activities located within the Palestinian territory. In order to do this without distortional taxes and non-tariff barriers to trade, the exchange rate regime will have to be relatively free and outward-oriented. Such an exchange rate regime or policy will encourage both exports and the right kinds of import substitution. The encouragement of private investment in productive activities within the occupied territory will also require the encouragement of the demand for the goods and services resulting from such activities, and the avoidance of unnecessary and uneconomic costs on the supply side.

These considerations, in turn, may imply the need for vigorous efforts to: (1) maintain the competitiveness of labour markets; (2) improve the match between supply and demand with respect to the type and degree of labour skills required in domestic activity; (3) overcome externalities that may arise in the promotion of such activities, especially in entrepreneurial training, international marketing, small-scale credit provision, technology acquisition and research and development; and, (4) avoid unwanted inequities in income and wealth, and foster retraining so as to mitigate the need and the demand for sometimes popular, but efficiency-reducing, forms of protecting specific jobs and producers.

Fourth, in view of the fact that (1) the import requirements for infrastructural and other investments are forecast to increase dramatically in future years, and (2) difficulties and uncertainties exist with respect to obtaining adequate external financing in the present world economic environment (including the foreseen reductions in net factor income from abroad), substantial efforts will have to be made to limit the size of the current account deficit to manageable proportions. Indeed, the difficulty of fulfilling this objective provides still another important reason for adopting a relatively free and outward-oriented exchange rate regime.

Fifth, since inflation can (1) compound the difficulty of maintaining a stable and yet open and flexible exchange rate regime, (2) undermine the incentives for both private saving and the financial intermediation needed for efficiently converting savings into investment, and (3) make it difficult to maintain the real value of revenues collected and thereby also the level of public sector savings, vigilance against, and quick action to deter, inflationary pressures must be maintained.

Sixth, there is a need for measures to encourage Palestinian workers to seek employment opportunities within the domestic economy, at least when suitable opportunities are available there. While the choice of taxation instruments will in large part have to be a political one, one type of tax that would be particularly consistent with the goal of encouraging employment within the territory is a tax on the earnings of Palestinian workers in Israel and elsewhere. The reform of the income tax system could adequately deal with this issue without having any discouraging effect. Needless to say, while the taxation of imports is a common and often politically acceptable form of taxation, experience around the world has demonstrated that, unless used very carefully and temporarily, taxes on imports can distort resource allocation and thereby lower both efficiency and growth.

INTRODUCTION

A. Objectives

In light of the deteriorating economic and social situation in the occupied Palestinian territory¹ and bearing in mind the urgent need for the immediate revival of the Palestinian economy and prospects for its future development, the UNCTAD secretariat embarked in 1990 upon an action-oriented intersectoral project to: (i) examine the current economic and social situation in the occupied Palestinian territory; (ii) investigate the potential for its development; and (iii) propose alternative options, strategies and policies for its revival and growth. A total of 25 in-depth field studies covering various economic and social areas were initiated to provide inputs for the intersectoral project.² The field studies follow the structure of the intersectoral project and comprise three parts, which are also reflected in the structure of the present study (see section B below).

The first part of the field studies consists of a thorough examination of the economic and social situation of the Palestinian people in the West Bank and Gaza Strip since Israeli occupation in 1967. In particular, this part of the studies evaluates development trends at the aggregate and sectoral levels, identifies the impediments to the sustained growth of the Palestinian economy and proposes feasible measures for its revival. The main findings of this part of the field reports/studies were presented to a meeting of experts, held in 1992 at Geneva.³

The second part of the field studies attempts to discern probable future patterns of growth of Palestinian economic and social sectors and examines their implications for feasible strategies and policy options. The examination of different sectors and issues is extended under varying assumptions to consider alternative scenarios, including that of an independent and self-reliant Palestinian economy. The third part of these studies aims at formulating a framework for alternative strategies and policy options for action in various economic and social areas. The findings of these parts of the field studies will be consolidated separately within the overall context of the intersectoral project. It should be noted that the preparation of a number of the sectoral studies was made possible through extra budgetary contributions of the Arab Industrial Development and Mining Organization (AIDMO), the League of Arab States (LAS) and the OPEC Fund for International Development.

Parallel with the individual field studies, the UNCTAD secretariat embarked upon the preparation of the present study. Its main objective was to establish an aggregate quantitative framework for analysing alternative future growth paths of the Palestinian economy in the West Bank and Gaza Strip. This was aimed at providing the technical guidelines required for the preparation of the second and third parts of the individual field studies, and for the consolidation of their results within the scope of the intersectoral project. The salient features of the framework, including the results of the scenarios on the future prospects of the Palestinian economy, were also presented for consideration by the meeting of experts held in 1992 at Geneva.⁴ Following a discussion on the results of the scenarios, the meeting of experts recommended that, in addition to consideration of the illustrative baseline scenario, which depicted an undesirable and unlikely option, alternative scenarios III and V should be considered as the basis for investigating future development prospects for the Palestinian economy. Subsequently, a draft of this study and its technical supplement were presented to the parties directly concerned, soliciting their views. This was followed by consultations with the parties concerned.

B. Methodology and scope

The methodology followed in the present study is based on a macroeconomic analysis of resource availabilities and uses. Given the paucity of data, emphasis is placed on ascertaining, through parametric exercises, the internal consistencies among major aggregates by, *inter alia*, investigating gaps between savings and investments, imports and exports, and labour force and employment. A quantitative framework is thus established, using a series of identities and

functions based on the behaviour of key variables during the 1970-1990 period, to project trends for the period 1991-2010 under different scenarios.

This study comprises six chapters. Chapter I briefly reviews the major data sources used in the study, some of the problems encountered in managing available historical data and the methods adopted to prepare the data for subsequent statistical analysis. It includes several statistical tables with data on aggregate trends and developments in the economy of the occupied territory during the period 1970-1990.

Chapter II explains the structure and functioning of the quantitative framework proposed to investigate future developments in the Palestinian economy, using 'baseline' and 'alternative' scenarios. As a yardstick for comparison, the 'baseline scenario' in chapter III assumes a continuation of the historical economic trends that prevailed under Israeli occupation. Chapter III also presents a variant of the baseline scenario, which includes a different set of projections without a major alteration in the basic assumptions and conditions governing the baseline. 'Alternative scenarios' I to V, presented in chapters IV and V, introduce variations and exogenously determined changes in the assumptions affecting the key demographic, labour force and economic variables under consideration. This generates different projections of the future prospects for the Palestinian economy. In each of the 'alternative' scenarios, the problems and structural constraints expected to hamper the process of economic development are analysed. More specifically, in each case, the projections provide estimates of the imbalances or gaps between the required and expected capacities as related to labour and employment, savings and investments, exports and imports.

The policy implications of each of these projections and the requisite measures to bridge the gaps and create the conditions for sustained economic growth and development may then be analysed for possible action. Thus, chapter VI of the study presents a brief overview of the severity of the Palestinian economic problems, and an estimate of the magnitude of resources needed to put the Palestinian economy on the path of developing its production and service sectors and generating employment opportunities for its labour force. This is followed by a discussion of some macroeconomic policy recommendations in areas crucial for the revival and sustained growth of the Palestinian economy.

At the time of preparation of this study, reliable data for 1991 and 1992 were not available, thus precluding the incorporation of developments in these years in the empirical investigations. However, since these years fall within the projection period, economic performance since 1990 had to be treated in this study as projected estimates. The results of the baseline variant and alternative scenarios appear to offer reasonably accurate approximations of actual performance as has since been reported by preliminary published data.⁵ It should be noted that, in view of the early completion of this study, the implications of the accord concluded between Israel and Palestine in late 1993 are not reflected in this study. In particular, the new situation has rendered the baseline and variant results all the more unlikely. The assumptions made under the relevant alternative scenario(s), however, appear compatible with the requirements of the interim self-government status emerging from the accord.

This study is supported by a technical supplement (UNCTAD/ECDC/SEU/6/Add.1) which provides full details and explanations on data sources, methodology and assumptions used in constructing the quantitative framework, as well as an analysis of the quantitative functions examined and selected in the course of establishing the framework.

In the course of the implementation of the intersectoral research project and this study, the UNCTAD secretariat has benefited from the valuable observations and inputs provided by a number of consultants, in particular Dr. George Abed, Ms. Randa Alami, Mr. Graham Dyer, Professor Laurence Harris, Professor Fadle Naqib, Professor Jeffrey Nugent and Dr. Sara Roy.

CHAPTER I

DATA SOURCES AND TREATMENT

Introduction

The data base supporting this exercise was compiled from statistics released by the Israel Central Bureau of Statistics (CBS) in three major publications, namely the annual Statistical Abstract of Israel (SAI), and the Administered Territories Statistical Quarterly (ATSQ) subsequently published as Judea, Samaria and Gaza Area Statistics (JSGAS). Preparing and reconciling the required historical time series presented a number of technical problems, not all of which were amenable to acceptable solution. The methods used are indicated in footnotes and outlined in the technical supplement to this study.⁶ Notwithstanding their limitations, the overall consistency, coverage, and continuity of the statistical series published by CBS render them the only existing adequate basis for analysing historical trends and for projecting future prospects under alternative scenarios. Subsequent intensive and varied data analysis further revealed these series to be robust enough for the purpose of this study.

Regarding territorial coverage, the Strip and the West Bank have been treated separately in the quantitative framework in order to capture the specificities of the two economies and to ascertain their particular development needs and prospects. However, both the Gaza Strip and the West Bank are also treated jointly both in terms of the impact of the policy environment and in order to ascertain the overall prospects for the two areas together, including the magnitude of the resources required. Since the demographic, labour and economic data on the West Bank for 1970-1990, published by Israel, do not cover east Jerusalem and as no other historical series were available to fill the gaps, east Jerusalem is not covered in the empirical analysis of developments in the period 1970-1990 and in the initial conceptualization and application of the framework. However, an attempt has been made to integrate east Jerusalem into the framework at the stage of obtaining projections for the occupied territory as a whole, i.e. the West Bank including east Jerusalem. Projections for east Jerusalem are introduced, essentially by defining them in relation to the specifics of the framework obtained for the West Bank.⁷

While many series are available from 1968, the starting date in most calculations is 1972, since data for some key variables, such as investment and sectoral output, are not available for earlier years. For the first few years of the Palestinian uprising (intifada), i.e. 1988-1990, estimates were calculated on the basis of available official Israeli as well as Palestinian statistics and integrated into the time series analysis.⁸ As data were not available for 1991 and 1992, these years were instead treated as projection years in the scenario analysis.

A. Demographic data

For the construction of a comprehensive quantitative framework, the elaboration of the structure of the Palestinian population and labour force over time constituted a fundamental task. For this purpose, a 'demographic accounting system' was used to track the evolution of the population's age and sex structures over time on the basis of age-specific fertility and mortality rates.

1. Population structure by age and sex

Developments in the structure of the population of the Gaza Strip and the West Bank by age and sex groups are depicted in the annual data published by the CBS, covering the 1968-1988 period. Population estimates quoted by the CBS (and used here) are widely believed to underestimate the de jure population, mainly because they count de facto (i.e. "physically present") population of the territory and exclude de jure residents who are "temporarily living abroad". From the official Israeli point of view, the latter category includes only those who have maintained their residence permits for the territory regardless of the period of absence. Their total number could be 8-10 per cent more than the de facto population.⁹ Though some studies provide various estimates of the "missing" population,¹⁰ these could not be incorporated into the framework in

a systematic fashion. It is only in the baseline variant scenario that an attempt is made to reintroduce to the population base a part of the non-resident Palestinian population which is excluded from the de facto population (i.e. temporary and other emigrants and refugees abroad). Furthermore, the population census on which the present series are based was carried out in 1967, with no other census taken since. In the absence of other consistent time series of reasonable length,¹¹ CBS data was relied upon. Nevertheless, population projections based on these series alone must be viewed with prudence.

2. Mortality and fertility patterns

Very little information is available on age-specific mortality rates in the occupied territory, with only a few estimates published by the Israeli authorities. Consequently, an indirect estimation method suggested by Brass¹² was followed to estimate age-specific mortality rates based on overall life expectancies and rates of infant and child mortality. To arrive at fertility schedules for the populations of the West Bank and Gaza Strip, the demographic accounting system required the following data:¹³ birth rates; age-specific fertility rates; and total fertility rates.

3. Migration

The emigration of Palestinians from the West Bank and Gaza Strip has had a major influence on the evolution of the population of the two areas from the outset of the period under study, because of both the large-scale population movements caused by the 1967 war and the significant continued migration since. Despite annual fluctuations, emigration has absorbed the equivalent of one third to one half of the natural increase in population. Since the flows are intrinsically linked with the highly elastic nature of the labour market and with the state of the economy's productive base, they have far-reaching implications for economic policy. Furthermore, the existing stock of emigrants represents a major potential for 'reverse migration', explored under some future scenarios.¹⁴

B. Labour force data

In monitoring human resource development in the occupied territory during the period under consideration, analysis was focused on three aspects of the Palestinian labour force: size and age structure; sectoral distribution and sectoral labour productivities; and dependence on work in the Israeli economy. Data used for this purpose were obtained from the labour force surveys and other statistical estimates provided by the Israel CBS, covering the period 1968-1989.¹⁵ The main variables examined were: (i) male, female and total labour force; (ii) labour participation rates by age and sex, (iii) sectoral distribution of the domestically employed labour force; and, (iv) Palestinian labour force employed in Israel.

Unemployment series published by the CBS were not used; since historical participation rates applied to age- and sex-specific population cohorts resulted in total employment (and hence unemployment) levels which were significantly different. Furthermore, a number of definitional and methodological problems render Israeli official data on unemployment inadequate.¹⁶

C. Economic data

1. Scope and quality of data

The economic time series compiled on the basis of published CBS statistics for the years 1968-1990 suffer from a number of definitional limitations. These are discussed in some detail in the technical supplement to this study.¹⁷ A prominent omission is the exclusion of occupied east Jerusalem from data on the West Bank, thus necessitating its inclusion at a later stage in the framework in an indirect manner. As the specification and estimation techniques inherent in much of the CBS data could have affected empirical calculations and projections in a fundamental way, a number of the problems posed by CBS data had to be resolved. In some cases, it was possible to reorganize or group series and recalculate totals from disaggregated data. Furthermore, the quantitative

framework itself was designed to be sufficiently robust and flexible to compensate for irregularities or deficiencies in data.

2. Conversion into constant price series

In order to examine the underlying economic trends and structures, the time series had to be estimated in constant, as well as current values. Normally, the process of deflating economic variables would rely on various indices published by national authorities or intergovernmental organizations. However, the only price index ever systematically collected and updated for the West Bank and Gaza Strip has been the consumer price index (CPI), based on 1976 prices in both cases. Other constant price series published by CBS covered inconsistent and shorter periods.¹⁸ This also implied that no deflator could be derived for the occupied territory as a whole (i.e. the occupied Palestinian territory - OPT), and that corresponding constant price series had to be derived via component series for the West Bank and Gaza Strip.

Given the lack of price indices, a GDP deflator (DEF) for each area was devised according to the following assumed relationship:

$$CPI_x = DEF_x$$

$$CPI_{opt} = DEF_{opt}$$

where CPI_x = CPI of a country_x which has strong economic links and parallels with the OPT, and

DEF_x = the GDP deflator of that country

opt = either the West Bank or Gaza Strip.

Choice of the country_x having strong economic links with the occupied territory was limited to Jordan and Israel. Of the two, Israel proved to be more suitable, in view of the correspondence between the structures of the CPIs used in the formula, as well as the greater dominance in the Palestinian consumer basket, and hence in the CPI_{opt} , of goods imported from Israel.

Estimation of the deflators required a number of steps involving the smoothing, adjustment and alignment of the components of the above-mentioned formula. The process resulted in two series (one for OPT and the other for Israel) based in 1985, which were then used to deflate all the economic time series needed for the quantitative exercise. Having obtained the series expressed in constant 1985 new Israeli shekels, these were then converted into United States dollars for the purpose of international comparisons. Thus, all 1968-1990 data were converted to 1990 US dollars before the estimations were made. The average exchange rate in that year was 2.016 new Israeli shekels per US dollar.¹⁹

TABLES

Unless otherwise stated, the historical analysis on which this study is based uses statistics referred to above and compiled in the economic time series (ETS) of the UNCTAD data bank. The values for key demographic and economic indicators are presented in table 1/1 below, while their annual growth rates and the most important ratios are presented in tables 1/2 and 1/3. Owing to the technical and forward-looking thrust of this exercise, for analysis of aggregate and sectoral economic performance and of the factors and developments affecting the Palestinian economy, reference is made to the annual reports of the UNCTAD secretariat on the Palestinian economy,²⁰ and to the individual in-depth studies, prepared within the context of the intersectoral project.

Table 1/1. WEST BANK AND GAZA STRIP: MAIN AGGREGATES, 1972-1990

	1972	1975	1980	1987	1990
<hr/>					
WEST BANK					
		(thousands)			
Population	628.0	672.4	721.4	852.9	933
Labour force	126.6	133.9	137.2	182.2	201
Total domestic employed	90.3	91.9	94.2	114.7	116
Employed in Israel	34.9	40.4	40.6	62.9	65
		(millions of constant 1990 US\$)			
Value added in					
Agriculture	128.9	180.9	301.7	251.9	372
Industry	28.6	49.9	53.4	100.4	65
Construction	29.8	94.0	108.5	224.4	99
Services	163.0	285.6	321.4	751.7	412
Gross domestic product (GDP)	376.3	646.6	809.6	1400.2	1002
Private investment	63.4	104.1	241.8	349.1	276
Government investment	10.9	28.4	18.0	72.2	19
Exports	106.3	199.7	221.9	268.4	130
Imports	233.5	483.7	582.1	884.5	496
Net factor income	133.8	209.3	223.9	384.9	354
Gross national product (GNP)	490.1	855.9	1033.4	1785.1	1356
Net transfers	49.6	15.2	65.6	76.4	55
Gross disposable income	539.7	871.1	1099.0	1861.5	1411
		(constant 1990 US\$)			
Private consumption p.c.	610.7	1153.8	1150.8	1702.4	1008
GNP p.c.	780.4	1272.9	1432.5	2161.4	1452
<hr/>					
GAZA STRIP					
		(thousands)			
Population	382.9	419.8	450.6	555.3	613
Labour force	64.6	72.7	81.3	101.7	113
Total domestic employment	46.1	46.5	46.4	54.2	59
Employment in Israel	17.5	25.9	34.5	46.0	40
		(millions of constant 1990 US\$)			
Value added in					
Agriculture	59.5	86.4	63.4	87.8	72
Industry	11.8	27.8	33.3	64.4	40
Construction	19.1	52.3	72.0	103.0	52
Services	92.6	127.5	173.6	179.9	128
Gross domestic product (GDP)	183.5	292.9	346.3	481.2	300
Private investment	27.5	63.3	103.1	142.3	138
Government investment	15.7	33.5	14.4	28.5	17
Exports	89.8	155.7	193.1	189.1	19
Imports	189.7	372.1	404.0	597.7	298
Net factor income	73.0	132.1	181.3	347.6	194
Gross national product (GNP)	256.5	425.0	527.6	828.8	494
Net transfers	61.7	52.8	60.4	61.5	94
Gross disposable income	318.2	477.8	588.0	890.3	588
		(constant 1990 US\$)			
Private consumption p.c.	546.6	869.5	862.8	1177.6	568
GNP p.c.	669.9	1012.4	1170.9	1492.5	806

Source: UNCTAD secretariat calculations, 1991

Table 1/2. WEST BANK AND GAZA STRIP: GROWTH RATES OF MAIN AGGREGATES, 1972-1990
(average annual growth rates)

	1972-1975	1976-1980	1981-1987	1988-1990
<u>WEST BANK</u>				
Population	2.3	1.4	2.4	3.0
Labour force	3.3	2.8	2.4	3.1
Total domestic employment	1.9	0.4	4.0	0.6
Value added in				
Agriculture	11.9	10.8	-2.5	14
Industry	20.5	1.3	9.4	-14
Construction	46.6	2.9	10.9	-24
Services	20.6	2.4	12.9	-18
Gross domestic product	19.8	4.6	8.1	-11
Private consumption p.c.	20.8	1.3	5.8	-16
Private investment	17.9	18.4	5.4	-7
Government investment	37.5	-8.7	21.9	-36
Exports	23.4	2.1	2.8	-21
Imports	27.5	3.8	6.1	-18
Net factor income	22.5	1.4	8.1	-3
Gross national product (GNP)	20.4	3.8	8.1	-9
GNP p.c.	17.7	2.4	5.6	-12
Net transfers	-32.6	34.0	2.1	-11
Gross disposable income	17.3	4.8	7.8	-9
<u>GAZA STRIP</u>				
Population	3.1	1.4	3.0	3.3
Labour force	3.9	3.3	2.8	3.3
Total domestic employment	4.4	2.2	3.1	-0.4
Value added in				
Agriculture	13.2	-6.0	3.9	-6
Industry	33.2	3.6	9.9	-15
Construction	39.9	6.6	5.3	-20
Services	11.3	6.4	3.8	-17
Gross domestic product	16.9	3.4	4.8	-15
Private consumption p.c.	16.7	-0.2	4.5	-22
Private investment	32.1	10.2	4.7	-1
Government investment	28.7	-15.6	10.3	-16
Exports	20.1	4.4	-0.3	-54
Imports	25.2	1.7	5.8	-20
Net factor income	21.9	6.5	9.7	-18
Gross national product (GNP)	18.3	4.4	6.6	-16
GNP p.c.	14.8	2.9	3.5	-19
Net transfers	-5.0	2.7	0.2	15
Gross disposable income	14.5	4.2	6.1	-13

Source: UNCTAD secretariat calculations, 1991

Table 1/3. WEST BANK AND GAZA STRIP: SELECTED INDICATORS, 1972-1990
(ratios in per cent)

	1972	1975	1980	1987	1990
WEST BANK					
Unemployment/labour force	2.4	1.2	1.7	2.5	10*
Employment shares (domestic)					
Agriculture	38	35	33	26	27
Industry	15	16	15	17	18
Construction	7	8	11	12	11
Services	40	41	41	45	44
Employment in Israel/ employed labour force	28	31	30	35	36
Labour productivity (GDP/employment)	4	7	8	12	8
Savings / GDP	-14	-23	-12	-14	-7
Savings / GNP	12	7	12	11	21
Investment / GDP	20	20	32	30	29
Investment / GNP	15	15	25	24	22
Housing / private investment	69	81	82	79	.
Housing / total investment	47	88	59	70	.
Imports / private consumption	61	67	70	61	53
Imports / GDP	62	76	72	63	50
Trade balance / GDP	-34	-44	-44	-44	-37
	(millions of current US\$)				
Current account balance	23	-39	-55	-100	166
Merchandise trade balance	-48	-118	-211	-405	-242
GAZA STRIP					
Unemployment/labour force	1.5	0.4	0.5	1.6	12*
Employment shares (domestic)					
Agriculture	25	27	19	16	19
Industry	13	12	19	18	15
Construction	4	5	8	8	12
Services	58	56	55	58	54
Employment in Israel/ employed labour force	27	36	43	46	40
Labour productivity (GDP/employment)	4	6	7	9	5
Savings / GDP	-31	-41	-27	-49	-41
Savings / GNP	6	3	17	13	14
Investment / GDP	23	33	34	35	52
Investment / GNP	17	23	22	21	31
Housing / private investment	51	68	88	77	.
Housing / total investment	32	50	78	64	.
Imports / Private consumption	91	102	104	91	85
Imports / GDP	103	127	117	124	99
Trade balance / GDP	-54	-74	-61	-85	-93
	(millions of current US\$)				
Current account balance	13	-25	30	20	74
Merchandise trade balance	-32	-96	-114	-252	-214

Source: UNCTAD secretariat calculations, 1991

* Ratios estimated under the quantitative framework

CHAPTER II

STRUCTURE AND FUNCTIONING OF THE QUANTITATIVE FRAMEWORK

Introduction

The main objective of the quantitative framework is to project and analyse the behaviour of major demographic and economic variables which have implications for the sustained growth and development of the Palestinian economy. The variables investigated include: population, labour force and employment (both at the aggregate and the sectoral levels); domestic production and the main components of aggregate demand, namely, income, consumption, saving, investment, and transfers from abroad, as well as the export and import of goods and services.

The framework is based on a time series analysis of empirical data for 1972-1990, with the resultant set of equations providing the necessary parameters for projections. Most of the relationships expressed are simple trend-based functions fitted to time series. The primary use of the framework is to generate credible values of key variables under different parametric assumptions. In other words, the framework does not attempt to construct complex models for explaining the historical behaviour of individual sectors or economic variables, for several reasons. Firstly, the main purpose of this exercise is to assess possible future macroeconomic performance in light of prevailing circumstances and based on assumptions reflecting possible changes in political climate, rather than to test behavioral hypotheses. Secondly, the scope of the exercise is constrained by the availability of the time series, which are highly aggregated and do not allow a more detailed specification of equations. Thirdly, the poor quality of the data limits the applicability and usefulness of complex econometric analysis. Hence, attempting overly-sophisticated formulations did not seem fruitful.

In preparing projections based on time series, the last few years of the period covered are important determinants of future trends. In the case of the occupied territory, normal economic activities since 1987 have been seriously disrupted by strikes, curfews and an intensification of restrictive measures. Thus, it was imperative to incorporate the impact of this period in an explicit manner. In order to avoid mis-specification and to capture the effect of the turbulence during this period, a dummy variable (labelled INT) reflecting intensification of the harsh policy environment was introduced alongside other variables, with its value set to 0 for the years up to 1987, and to 1 thereafter. The coefficient of the variable gives the average impact of the three years of 1988-1990 on the trends indicated for other variables.

The quantitative framework is structured in three component blocks which are linked in a recursive way. The first block consists of the demographic accounting system which generates projected population breakdown by age and sex, both emigrated and resident in the territory. This set of information leads to the second block, which is concerned with the projected evolution of the total and sectoral labour force, its employment and productivity. In the third block, the main macroeconomic relationships are analysed and projected, and labour-employment, export-import and savings-investment gaps are calculated. The major functions established under the quantitative framework are presented in table 2/1. The following paragraphs provide a brief description of the structure and the functioning of the three components, and of the main assumptions affecting the functioning of the framework.²¹ These assumptions are comprehensively presented at the beginning of chapter III and variations therein are subsequently introduced in the baseline variant as well as in the alternative scenarios presented in chapters IV and V. It should be noted that the year 1990 serves both as the final observation year for purposes of generating parametric functions, and as the first year for which values are projected by the framework (in a manner that ensures correspondence between the actual and the projected values for 1990).

In view of the absence of historical data for east Jerusalem, a special set of mathematical functions was established which calculates projections for east Jerusalem on the basis of results obtained for the West Bank. The manner in which this has been handled is explained in section E of this chapter.

A. The demographic component

The demographic component, which consists of a demographic accounting system, projects the evolution of the population by age and sex (POP) under exogenously set assumptions on fertility and mortality patterns and emigration rates. These projected behavioral parameters are estimated on the basis of the available data for the 1970-1990 period, with certain possible adjustments according to the scenario envisaged. The total fertility rate is expected to decline to around six children per woman before the year 2000, and 4-4.5 around the year 2010.²² While total fertility levels and life expectancy are extrapolated using countries of the region as bases of comparison, parameters referring to the age-specific distribution of fertility and mortality rates are kept constant in the baseline scenario projections.

Similarly, emigration rates, which also affect population levels, are kept constant at rates according to the scenario envisaged. In the baseline scenario, the average rates prevailing in the 1980s (i.e. 1 per cent and 0.8 per cent of total population in the West Bank and Gaza Strip, respectively) are assumed. In each case, the corresponding rate is applied to all age cohorts since reliable age-specific estimates for emigration are not available. Contrary to what might be expected, this method should not introduce a great degree of bias, as emigration of Palestinians from the 1970s onwards primarily a family phenomenon, rather than mainly an emigration of working age persons.

Given these parameters, the accounting system generates projections for male and female population at single ages in the following way. For the age group 0 to 1, in each projection year the new population is derived as the product of female population of childbearing ages and its corresponding age-specific fertility rate, minus infant mortality, minus emigration. For all other age cohorts, the new population is derived as previous year's population, one year younger in age, reduced by the number of persons expected to have died or emigrated in that age cohort.²³

B. The labour force component

In the labour force block, the quantitative framework focuses on three aspects of the labour force, namely size, sectoral productivity and sectoral employment in the domestic economy and in Israel. The size of the labour force (LF) is calculated by applying fixed age and sex-specific labour force participation rates to their respective population cohorts, and then adding them up. As for the sectoral distribution of the employed labour force, labour employed in the domestic economy was divided into four main sectors (agriculture, industry, construction, services), with the labour force employed in Israel treated effectively as a fifth sector. Sectoral labour shares (LSi) are calculated and regressed against time. The resulting time trends are then used to extrapolate the future sectoral labour force distribution. As for the workforce employed in Israel, it is treated for projection purposes as a variable whose level changes according to the scenario being considered. In all scenarios, it is assumed that the number of Palestinians employed in Israel remains constant at 1991 levels over the projection period.

Having calculated labour shares, total and relative sectoral labour productivity (LFP) levels are derived, with the latter defined as the ratio of the sectoral labour productivity over total labour productivity. These levels are projected either according to regression results or (when the latter are inconclusive) to exogenously determined assumptions. This allows the calculation of future sectoral shares, and hence of total domestic output levels.

The time trends and logistic curves used in this block to extrapolate the trends in sectoral labour are presented in table 2/2, while table 2/3 gives the selected equations for relative labour productivities. Variables whose future growth paths are determined by exogenously set assumptions (such as total labour productivity) do not appear in the tables, but are discussed in chapter III.²⁴

C. The economic component

The economic component of the framework focuses on: the productive capacity of the occupied territory; the main macroeconomic components of demand in gross domestic product (GDP); gross national disposable income (GNDI); and the current account balance (CAB). The estimated relationships are based on 1972-1990 data in constant prices converted into 1990 US dollars. The main behavioral relationships are detailed below.

On the demand side, private consumption (CP) is regressed on gross national disposable income (GNDI), which includes GDP and two components on which private expenditure depends to a considerable extent, namely net factor income (NFI—mainly from Palestinians working in Israel) and net transfer payments (NTR). As a constraint which is active in the baseline scenario, it is assumed that the real per capita consumption in the occupied territory in the projection period would not fall below levels projected for 1991, which are believed to be some 50 per cent lower than in 1987. Taxes, usually considered as a component of NTR and GNDI, are not calculated separately nor could they be satisfactorily integrated into the framework, owing to the incomplete coverage of available series and the absence of any explanatory variables for those series that do exist.

Private investment (IP), which is only classified in official data by "building and construction" and "machinery and equipment", is also explained as a function of GNDI.²⁵ For projection purposes (where private investment is a single aggregate) and assuming a capital output ratio of 3, housing investment may be derived as a residual after directly productive investment has been deducted from total investment. This can give a rough estimate of the resources that would be available for construction purposes.

Government consumption (CG) and investment (IG) are assumed to grow at the same rate as GDP, reflecting both the need for government expenditures as well as the potentially taxable income. While this assumption is maintained in the baseline scenario, other options are considered in alternative scenarios, reflecting different priorities and goals.

Regarding foreign trade, since imports (M) depend on the availability of foreign exchange and are destined mainly for consumption, they are also regressed against GNDI.²⁶ Exports (X) are exogenously determined in the framework owing to the poor explanatory power of the time variables. Under the baseline scenario, the selected rates of growth of (X) reflect the average performance of the past 20 years as captured by the two log-time equations.

Having determined GDP at market price, it remains to specify foreign flows so as to determine gross national product (GNP) and GNDI. Thus, NFI is explained by the number of persons working in Israel and the growth of GDP per capita in Israel, the latter acting as the most suitable available proxy for the income these workers earn. As for NTR (mainly constituted by private transfers of emigrants), in the framework they are a function of the number of emigrants.

Finally, CAB is obtained by adding NFI and NTR to the balance of goods and non-factor services (TB). No specific assumptions are made on the capital account as concerns different sources of financing. Since available data on the Palestinian balance of payments only refers to net capital movements (liabilities, foreign assets and foreign exchange holdings of Palestinian residents), no meaningful capital account could be integrated into the framework.

As for the supply side of the economy, it is mainly determined by the availability of labour in the previously mentioned four economic sectors and by their respective levels of labour productivity. In this manner, it is possible to calculate potential domestic output, i.e. that output which would result from a full employment of the labour force. However, actual demand for GDP is assumed to determine actual production. And to the extent that this output can be produced at the corresponding prevailing productivity levels by fewer people than the total available labour force, there could be a gap between actual GDP as determined by demand, and potential GDP as determined by the supply of labour of the territory. According to this framework, this gap is balanced out by the

unemployment rate (UNEMPL), which measures the shortfall in the full utilization of the labour force.

The framework also permits the examination of other gaps that could hamper the full utilization of the productive capacity of the Palestinian economy in the occupied territory. Specifically, it considers the trade (or foreign exchange) gap resulting from the difference between future imports and exports, as well as the gap between required investments and available national and domestic savings. The main equations retained for the economic component of the framework are presented in Table 2/4.²⁷

D. The case of east Jerusalem

As pointed out earlier, a chief constraint posed by available empirical data on the occupied territory is the lack of information on economic activity in east Jerusalem, which is not treated by the CBS as part of the occupied territory, but as part of Israel. Published official data only cover population and some aspects of labour force and employment. Consequently, east Jerusalem could not be incorporated in the quantitative framework in the same way as the rest of the West Bank or Gaza Strip, since the set of equations and parameters necessary for the projections could not be obtained.

However, given the inter-linkages between east Jerusalem and other parts of the occupied territory (especially the rest of the West Bank), and in view of its particular economic importance, a solution was necessary, if only for illustrative purposes. East Jerusalem could be incorporated in the projections if actual relationships between its demographic and economic characteristics with those of the rest of the occupied territory could be more clearly determined. Given the integration of many of its economic activities with those of the West Bank, the values of economic, demographic and labour force variables for east Jerusalem can be expressed in terms of their significance *vis-à-vis* the corresponding known values of these variables for the West Bank. Furthermore, data on population, the labour force, and sectoral employment, for available recent years, can together trace the broad lines of economic activity in east Jerusalem. In other words, aggregate economic projections for east Jerusalem can be obtained once they are expressed as a ratio of the corresponding projections for the rest of the West Bank.²⁸

The framework established for east Jerusalem consists essentially of mathematical functions and accounting identities. Although organized in the same manner as the framework established for the rest of the occupied territory, the components of the framework for east Jerusalem are not linked to each other in a recursive way. Rather, they are calculated on the basis of projections for a number of key variables in the rest of the West Bank. Since these components vary depending on the scenario envisaged, projections for east Jerusalem under different scenarios will accordingly vary in proportion to the different projections for the rest of the West Bank.

While this method might obscure some of the important specificities of east Jerusalem's economy, the resulting projections provide the only quantitative illustration of the future trends in population, labour force, and economic activity that can be envisaged for east Jerusalem at present. Additional empirical data on variables such as domestic output, external sources of income, imports and exports, consumption and investment patterns, would certainly help to define more accurately this initial characterization of east Jerusalem's aggregate economy. The relationships used to incorporate east Jerusalem in the rest of the quantitative framework are briefly listed below, and are also presented in table 2/5.

1. Population

(a) East Jerusalem's **total population** is expressed as a constant proportion of the rest of the West Bank's total population, namely 16%.

2. The labour force component

(a) Projected **labour force** and total **employed labour** are equal to 14 per cent and 13 per cent of the rest of the West Bank's labour force and of total employment, respectively.

- (b) **Unemployment** is equal to the difference between projected labour force and total employment.
- (c) **Employment in Israel** is calculated as a constant proportion of total employment in east Jerusalem (i.e. 11 per cent).
- (d) **Domestic employment** is equal to the difference between total employment and projected employment in Israel.
- (e) **The shares of domestic sectoral employment** are equivalent to the average shares of domestic sectoral employment out of total domestic employment in 1986-1988.
- (f) **Sectoral labour productivity** levels are equal to levels prevailing in the West Bank in the projection period.

3. The economic component

- (a) **Projected sectoral output** is equal to the domestically employed sectoral labour force multiplied by the projected sectoral labour productivity for the West Bank.
- (b) **GDP at factor cost (GDPF)** is the sum of the projected values of sectoral components.
- (c) **Net indirect taxes on production (NITP)** can be calculated as a constant share of projected GDPF (i.e. 5.6 per cent).
- (d) **GDP at market price (GDPM)** is the addition of NITP and GDPF.
- (e) **The components of demand** are calculated in two steps. First, the GDPM in east Jerusalem is expressed as a proportion of the projected value of GDPM in the West Bank. Then, assuming that this proportional relationship also holds for the respective components of demand, the components of GDPM for east Jerusalem are calculated accordingly. This means that, for example, if projected GDPM in east Jerusalem equals *x per cent* of the GDPM projected for the West Bank, then consumption will also be *x per cent* of projected consumption in the West Bank.
- (f) **Net factor income (NFI)** is equal to the projected number of people from east Jerusalem working in Israel times the per capita NFI for other West Bank workers in Israel.
- (g) **Gross national product (GNP)** is obtained by adding net factor payments to GDP at market price.
- (h) **Net transfer payments (NTR)** is equal to the projected population of east Jerusalem times the projected NTR per capita in the West Bank.
- (i) **Gross national disposable income (GNDI)** is obtained by adding net transfer payments to GNP.
- (j) **Trade balance (TB)** is equal to the difference between the export and import of goods and non-factor services which are adjusted to meet the balance of payments definition.
- (k) **The current account balance (CAB)** equals the trade balance plus foreign transfers and factor income from abroad.

Table 2/1. FUNCTIONS, IDENTITIES AND VARIABLES OF THE QUANTITATIVE FRAMEWORK

1.	POP(age,sex)	=	f {POP(age,sex) _{t-1} , Fertility, Mortality, Emigration}
2.	LF	=	POP(age,sex) * LFPR(age,sex)
	LF(i)	=	f {LF,t}
	ELF(i)	=	LF(i) * (GDP/GDPP)
	ELF	=	sum{ELF(i)}
	UNEMPL	=	(LF-LISR) * (GDPP/GDP - 1)
	LFP	=	exogenous
	LFP(i)	=	f {LFP,t}
3.	GDPP(i)	=	f {LF(i),LFP(i)}
	GDPP	=	sum{GDPP(i)}
	GDP	=	CP + CG + IP + IG + X - M
	GDP(i)	=	GDPP(i) * GDP/GDPP
	GNP	=	GDP + NFI
	GNDI	=	GDP + NFI + NTR
	CP	=	f {GNDI, lagged CP}
	CG	=	f {GDP}
	IP	=	f {GNDI}
	IG	=	f {GDP}
	M	=	f {GNDI}
	X	=	f {t or exogenous}
	NFI	=	f {workers in Israel, GDP per capita of Israel}
	NTR	=	f {t, emigration}
	TB	=	(X - M)*
	CAB	=	(X - M)* + NFP+ NTR
<hr/>			
	POP	=	Population by age and sex
	LFPR	=	Labour force participation rates by age and sex
	LF	=	Labour force
	UNEMPL	=	Unemployment rate
	ELF	=	Employed labour force
	LISR	=	Labour force employed in Israel
	LFP	=	Total labour force productivity
	LFP(i)	=	Sectoral labour force productivity
	GDPP	=	Potential output resulting from full employment at current productivity levels
	GDPP(i)	=	Potential sectoral output
	GDP(i)	=	Actual sectoral output
	GDP	=	Gross domestic product at market price
	NFI	=	Net factor income from abroad
	NTR	=	Net current transfer payments
	GNP	=	Gross national product
	GNDI	=	Gross national disposable income
	CP	=	Private consumption
	CG	=	Government consumption
	IP	=	Private investment
	IG	=	Government investment
	M	=	Imports (* for balance of payments definition)
	X	=	Exports (* for balance of payments definition)
	TB	=	Trade balance
	CAB	=	Current account balance
	(i)	:	agriculture, industry, construction, or services

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(derived from 1972-1990 data; t-values in brackets; coefficients significant at 5%)

EXPLANATORY VARIABLES					REGRESSION DIAGNOSTICS			
Equation No.	Dependent Variable	Intercept	Dummy (INT)	Time (t)	Logtime (logt)	R2	Prob>F	First Order Autocorrelation
GAZA STRIP								
I.2.1 a	LSAGR (LSA10)	-0.290	0.256 (5.21)	-0.037 (-10.53)		.88	0.0001	-0.022
I.2.2	LSIND	7.546	-2.765 (-2.44)		3.416 (4.58)	.57	0.0012	0.341
I.2.3	LSCON	-0.639	1.800 (2.57)		3.279 (7.13)	.86	0.0001	-0.010
--	LSSVC	calculated as a residual share						
WEST BANK								
II.2.1 a	LSAGR (LSA10)	-0.270	0.0347 (1.71)	-0.0104 (-7.13)		.81	0.0001	-0.485
II.2.2	LSIND	14.815	0.706 (1.51)	0.077 (2.47)		.58	0.0010	-0.389
II.2.3	LSCON	3.285	-1.821 (-4.05)		3.175 (10.74)	.88	0.0001	0.325
II.2.4	LSSVC	39.258		0.2452 (5.037)		.60	0.0001	-0.137

(a) A logistic function, where LSA10 = LOG (1 - 10 / LSAGR), beginning in 1973 in the case of Gaza Strip, and 1972 in the West Bank

NOTES:

T-values: are used to test if the parameter estimated differs significantly from 0, which is usually the case when the t-value is around 1.9 at the 5% significance level.

R2: the coefficient of determination, which indicates the proportion of variance in the dependent variable that is explained by the knowledge of the explanatory variable.

Pr > F: gives the test statistic and the probability value for the null hypothesis that the regression does not explain the data. Low values of the statistic mean that the regression does explain the data and is significant overall.

Logistic function : is a functional form that places a ceiling/floor beyond which the future level of the dependent variable may not rise/fall, thus placing a limit on its rate of growth over time. The first case describes LSA10.

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(derived from 1972-1990 data; t-values in brackets; coefficients significant at 5%)

EXPLANATORY VARIABLES					REGRESSION DIAGNOSTICS			
Equation No.	Dependent Variable	Intercept	Dummy (INT)	Time (t)	Logtime (logt)	R2	Prob>F	First Order Autocorrelation
GAZA STRIP								
I.3.1	LFPAGR	1.546	0.312 (2.74)		-0.139 (-1.86)	.33	0.0412	0.342
--	LFPIND	calculated as the average of 1985-1989 LFPIND						
I.3.2 a	LFPCON (LFC09)	-0.170	-0.166 (-2.51)	-0.0126 (-2.65)		.71	0.0001	-0.052
I.3.3 b	LFPSVC (LFS11)	-0.367	1.410 (2.50)	-0.126 (-2.63)		.38	0.0461	0.140
WEST BANK								
II.3.1 c	LFPAGR (LFA08)	-0.013	2.265 (2.40)	-0.164 (-2.23)		.32	0.0690	-0.009
II.3.2	LFPIND	0.680			-0.068 (-4.89)	.58	0.0001	0.424
II.3.3 d	LFPCON (LFC15)	-1.191		-0.137 (-2.91)		.46	0.0155	-0.436
--	LFPSVC	calculated as the average of 1985-1989 LFPSVC						

Logistic functions

- a) LFC09 = LOG (1 - 0.9 / LFPCON), beginning 1973
b) LFS11 = LOG ((1.1 / LFPSVC) -1), beginning 1975
c) LFA08 = LOG (1 - 0.8 / LFPAGR), beginning 1974
d) LFC15 = LOG (1 - 1.5 / LFPCON), beginning 1974

NOTE: For explanations of t-values, R2, and Pr > F, and logistic functions, see notes on Table 2/2.

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(derived from 1972-1990 data; t-values in brackets; coefficients significant at 5%)

EXPLANATORY VARIABLES					REGRESSION DIAGNOSTICS				
Equation No.	Dependent Variable	Intercept	Dummy (INT)	Variable (1)	Variable (2)	R2	Prob>F	First Order Autocorrelation	
GAZA STRIP									
I.4.1	CP	39.892	-104.390 (-3.77)	0.416 GNDI (3.33)	0.333 CP_ (1.98)	.84	0.0001	0.345	
I.4.2	IP	-29.456		0.216 GNDI (8.76)		.82	0.0001	0.349	
I.4.3	LogX	4.893	-1.797 (-5.04)	0.026 T (1.47)		.67	0.0001	0.155	
I.4.4	M	19.415	-160.589 (-7.11)	0.6787 GNDI (11.96)		.91	0.0001	0.178	
I.4.5	NTR	36.614	76.996 (6.45)	7.032 MOV (2.580)		.74	0.0001	-0.213	
I.4.6	NFI	-10.575	-65.149 (-3.33)	0.0009 LYISR (10.34)		.87	0.0001	0.153	
WEST BANK									
II.4.1	CP	9.402	-144.505 (-4.91)	0.770 GNDI (22.77)		.97	0.0001	-0.484	
II.4.2	IP	-48.207		0.217 GNDI (9.77)		.85	0.0001	-0.108	
II.4.3	LOGX	4.798	-0.775 (-5.64)	0.053 T (5.76)	(10.74)	.71	0.0001	0.086	
II.4.4	M	58.384	-176.649 (-4.25)	0.4723 GNDI (10.86)		.88	0.0001	0.108	
II.4.5	NTR	30.018	49.510 (3.54)	2.376 MOV (2.56)		.47	0.0088	-0.245	
II.4.6	NFI	33.521		0.0004 LYISR (2.92)	0.358 NFI__ (1.86)	.86	0.0001	0.085	

NOTE: For explanations of t-values, R2, and Pr > F, see notes on Table 2/2.

Table 2/5. FUNCTIONS AND IDENTITIES FOR EAST JERUSALEM

1.	POP(t)	=	16% POP(t) _{WB}
2.	LF(t)	=	14% LF(t) _{WB}
	TELF(t)	=	13% TELF(t) _{WB}
	UNEMPL(t)	=	LF(t) - TELF(t)
	LISR(t)	=	11% TELF(t)
	ELF(t)	=	TELF(t) - LISR
	ELF(i)	=	ELF(i)(1986-1988)/ELF(1986-1988) * ELF(t)
	LFP(i)	=	GDP(i) _{WB} /ELF(i) _{WB}
3.	GDPF(i)	=	LFP(i) * ELF(i)
	GDPF(t)	=	sum{GDPF(i)}
	NITP(t)	=	0.056 * GDPF(t)
	GDP(t)	=	GDPF(t) + NITP(t)
	SHARE(t)	=	GDP(t)/GDP(t) _{WB}
	CP	=	RATIO(t) * CP(t) _{WB}
	CG	=	RATIO(t) * CG(t) _{WB}
	IP	=	RATIO(t) * IP(t) _{WB}
	IG	=	RATIO(t) * IG(t) _{WB}
	X	=	RATIO(t) * X(t) _{WB}
	M	=	RATIO(t) * M(t) _{WB}
	NFI(t)	=	(NFI _{WB} /LISR _{WB})(t) * LISR
	GNP(t)	=	GDP(t) + NFI(t)
	NTR(t)	=	(NTR _{WB} /POP _{WB})(t) * POP(t)
	GNDI	=	GDP + NFI + NTR
	TB	=	(X - M)*
	CAB	=	(X - M)* + NFI+ NTR

POP	=	Population by age and sex
LF	=	Labour force
UNEMPL	=	Unemployment
TELF	=	Employed labour force
LISR	=	Labour force employed in Israel
ELF	=	Domestically employed labour force
ELF(i)	=	Domestically employed sectoral labour force
LFP(i)	=	Sectoral labour force productivity
GDPF(i)	=	Sectoral output
GDPF	=	Gross domestic product at factor cost
NITP	=	Net indirect tax on production
GDP	=	Gross domestic product at market price
NFI	=	Net factor income from abroad
NTR	=	Net current transfer payments
GNP	=	Gross national product
GNDI	=	Gross national disposable income
CP	=	Private consumption
CG	=	Government consumption
IP	=	Private investment
IG	=	Government investment
M	=	Imports (* for balance of payments definition)
X	=	Exports (* for balance of payments definition)
TB	=	Trade balance
CAB	=	Current account balance
(i)	:	agriculture, industry, construction, or services

CHAPTER III

SCENARIO ANALYSIS, 1990-2010: BASELINE AND BASELINE VARIANT

Using the quantitative framework described in chapter II, several scenarios are projected, each governed by a different set of assumptions affecting the behaviour of variables and the functioning of their parameters in the framework. The baseline scenario and its variant represent purely a hypothetical situation. Accordingly, projections for the economy under this scenario and its variant rest on the general assumption of a continuation into the future of the major trends and policy constraints that characterized the first 23 years under Israeli occupation (i.e. 1967-1990).

As such, the resultant projections do not represent a likely, nor desirable, outcome for the period ahead. Rather, the unconstrained trend analysis extrapolates the past performance of the Palestinian economy (with the structure and policy environment still prevailing in 1990) over a 20-year time horizon, showing what would happen should the future situation continue to be governed by prevailing circumstances. They are thus presented in this study purely for illustrative purposes, and as a technical yardstick and basis for comparison for the alternative scenarios. The projection period is divided into five-year intervals, with the analysis of future developments and emerging problem areas presented accordingly.

BASELINE SCENARIO

A. Main assumptions and qualifications

The following points summarize the major assumptions affecting data and calculations in the context of the quantitative framework for 1990-2010. All assumptions and subsequent calculations of the baseline scenario are based on the framework established for the period 1972-1990 for the West Bank and Gaza Strip.

1. The demographic component

(a) Data on the population of the occupied territory are assumed to reflect the features of the de facto population of the West Bank and Gaza Strip; the exclusion from those data of temporary "non-residents" does not affect the results.

(b) Parameters influencing mortality rates are held constant at their averages prevailing in 1980-1985.

(c) Life expectancy levels in the occupied territory are assumed to evolve in line with those of neighbouring Arab countries. Male life expectancy is assumed to rise from 63 years in 1985 to 64.2 in 1990, to 70 years in the year 2010. Female life expectancy for the same years would rise from 66 to 68 and to 74 years, respectively.

(d) The levels of infant and child mortality in the occupied territory are currently estimated in the range of 70-160 deaths/1,000 live births. This range gives an estimated average of 88.5/1,000 births in 1985, which is assumed to fall to around 80/1,000 in 1990 and to 46/1,000 by the year 2010.

(e) Parameters determining the fertility schedule are not expected to change in the projection period.

(f) Total fertility rates are assumed to decline in line with projections made for neighbouring countries in the region.²⁹ Thus, it is expected that the fertility rate will reach 6 births/woman before the year 2000, and 4-4.5 around the year 2010, compared to 4.33 and 3.33, respectively, expected by then for Western Asia.

(g) The emigration rate is assumed to remain constant at 1.1 for the West Bank and 0.78 for the Gaza Strip, this being the average percentage share of emigrated population out of end-year population in 1980-1987.

2. The labour force component

(a) Participation rates for female, male and total population age cohorts in the projection period are held constant at the averages prevailing in 1985-1989.

(b) The projected change in sectoral employment shares is a direct continuation of trends established over the whole historical observation period.

(c) The absolute number of Palestinian workers employed in Israel is assumed to be constant throughout the projection period, beginning in 1991 at 45,000 and 30,000 workers for the West Bank and Gaza Strip, respectively (i.e. the levels actually reached in mid-1991 and which have remained the effective ceiling since). Only for east Jerusalem is there assumed to be a gradual rise in the levels of employment in Israel, consistent with historical trends.

(d) In the base year for projections, namely 1990, the unemployment rate is assumed to be equal to the percentage difference between projected GDP at market price and potential GDP (i.e. that GDP which would be produced by the full employment of the labour force). The resultant rates were 10 per cent and 12 per cent for the West Bank and Gaza Strip, respectively, a realistic estimate of the actual unemployment rates in that year.

(e) Total labour productivity in both the West Bank and Gaza Strip is set to grow at exogenously determined rates, namely at 1 per cent and 0.50 per cent per annum, respectively, with the differential between the two areas similar to that indicated by empirical data.

3. The economic component

(a) Private per capita consumption in both areas is assumed not to fall below levels forecast (in the framework) for 1991.

(b) Regarding private investment:

(i) Expenditure on the purchase of residential dwellings is counted historically (and for the projection period) as an investment flow, not as a component of consumption expenditure.

(ii) Given the lack of estimates on capital depreciation, it is assumed that data for gross fixed capital formation refer to gross capital formation.

(iii) The incremental capital output ratio (ICOR) in the occupied territory is assumed to be equal to 3.³⁰

(c) Government consumption and investment expenditures are expected to grow at a rate equal to the growth in domestic output, on the assumption that their share of the latter will remain the same over the period as in 1990.

(d) The historical relationship between LYISR and NFI will hold in the projection period assuming that real wage rates of Palestinians working in Israel will grow at a rate equivalent to the average rate of growth in real GDP per capita in Israel between 1980 and 1988, i.e. 1.5 per cent.

(e) Exports are assumed to grow at the same average growth rate as for the 1972-1990 period, i.e. 5 per cent and 3 per cent per annum in the West Bank and Gaza Strip, respectively.

(f) The INT dummy variable (active in the framework since 1988) remains operational throughout the projection period, reflecting a continuation of intensified restrictions and economic turbulence for the whole period.

B. Baseline scenario: main results (excluding east Jerusalem)

The main baseline projection results are summarized below and are also presented in tabular form. Table 3/1 presents data in constant 1990 US dollars for benchmark years in the projection period (i.e. 1990, 1995, 2000, 2005 and 2010), while table 3/2 gives selected ratios. Table 3/3 shows compound annual growth rates of selected indicators for five-year intervals (1990-1995, 1996-2000, 2001-2005 and 2006-2010). Table 3/4 combines projections for the Gaza Strip and the West Bank excluding east Jerusalem, while table 3/5 provides the same information for the occupied territory including east Jerusalem.

All projections for the period 1991-1995 commence at an especially low level owing to the disruptive and generally depressive impact of developments in 1988-1990. In particular, events in 1990 (and 1991) led to severe declines in production and a fall in transfers and remittances from abroad, as well as a sharp decline in employment in Israel and hence in net factor income. After the initial period of 1991-1995, most variables would regain the trends established over the entire 1970-1990 period. Nevertheless, the assumption of the continued operation of the INT variable throughout the projection period introduces a strong depressive influence affecting calculations of all variables.

As such, the baseline scenario reflects what are probably the worst possible economic prospects (as in conditions of prolonged occupation). Indeed while it may be unlikely that baseline conditions will prevail, several considerations seem pertinent to presenting the baseline scenario for the 1990-2010 period. First is the historical record, whereby the baseline conditions reflect the situation that has been reached after 23 years of occupation. Secondly, the baseline scenario exhibits just how undesirable are the implications for the Palestinian economy of a future dominated by the same circumstances as during the past period of occupation. More importantly, the baseline scenario is useful especially in illustrating the main problems to be tackled in elaborating the subsequent alternative scenarios which are geared to ameliorating the future performance of the economy. These issues are depicted in greater detail in subsequent chapters with an analysis of implications for the future of the Palestinian economy.

To sum up, according to the baseline scenario:

(a) Population, which was over 1.4 million in 1987, would increase from 1.5 million in 1990 to over 2.4 million in the year 2010, despite assumed continued migration.

(b) Labour force would grow at above 3 per cent per annum (i.e. an average increase of 30,000 workers per annum) to reach 600,000 persons at the end of the projection period. This compares with a labour force of around 284,000 in 1987 and 314,000 in 1990.

(c) Domestic employment would rise from over 168,900 persons in 1987 to 175,000 in 1990 and to under 227,000 in 2010. Employment in Israel, which reached some 109,000 workers in 1987, is assumed to remain constant at 75,000 workers as of 1990.

(d) The labour-employment gap would widen significantly over the period. **Unemployment**, which was officially reported at around 2 per cent of the labour force in 1987 and otherwise estimated at 10-12 per cent of the 1990 labour force, would reach some 50 per cent of the labour force by the year 2010.

(e) The growth of **value added in agriculture** would fail to reach 1 per cent. Thus its value, which increased from \$340 million in 1987 to \$444 million in 1990, would fall to \$371 million in the year 2010. **Industry**, whose value added stood at \$165 million in 1987, would grow at 2.8 per cent from \$104 million in 1990 to \$179 million in 2010. Other sectors would grow at around 3 per cent per annum after the year 1995, with the **services** sector expanding most.

(f) GDP at market price would increase at an average rate of 1.7 per cent per annum, from \$1,300 million in 1990 to \$1,827 million in the year 2010. Even with this addition of \$527 million over the 20 year period, GDP in 2010 would still be below its level of \$1,881 in 1987.

(g) Net factor income would shrink from \$732 million in 1987, to \$548 million in 1990 and to \$492 million in 2010. **GNP** would thus increase at a slower rate than GDP, reaching \$2,319 million in 2010, which would be slightly higher than the 1990 level of \$1,849 million but well below the level of \$2,614 million in 1987.

(h) GNDI would rise to \$2,504 million, in the year 2010, compared to \$2,752 million and \$1,998 million in 1987 and 1990, respectively. Meanwhile, **net transfer payments** would grow at around 1 per cent a year to reach \$185 million in 2010, having been equal to \$138 million in 1987.

(i) Per capita GDP for the occupied territory as a whole would decline from \$1,336 and \$842 in 1987 and 1990, respectively, to \$750 in 2010. The corresponding levels for the Gaza Strip alone for the same years are \$867, \$489, and \$411. Similarly, **per capita GNP** would fall from \$1,856 in 1987, to \$1,196 in 1990, and to \$952 by 2010 in the occupied territory as a whole; in the Gaza Strip, per capita GNP would decline from \$1,492, to \$806, and to \$616, respectively.

(j) Private consumption would continue to grow as fast as GDP. It would reach \$1,709 million in the year 2010, compared with \$1,289 million in 1990. Compared to the 1987 level, private consumption in the year 2010 would decline by \$397 million. In the Gaza Strip, private consumption would reach a level of \$507 million in 2010, exceeding the expected level of GDP by \$77 million. **Government consumption** would track the growth in GDP, reaching the order of \$307 million by the end of the projection period, up from \$207 million in 1990 and \$208 million in 1987.

(k) **Private investment** would increase at around 2 per cent per annum, reaching \$538 million in the year 2010. Only around a fifth of this amount is expected to go into directly productive activities. Private investment stood at \$494 million in 1987 and \$414 million in 1990. **Government investment**, which fell from \$101 million in 1987 to \$36 million in 1990, would recover to \$54 million by the end of the projection period.

(l) **The ratio of total investment to GDP and GNP** would remain high at 33 per cent and 26 per cent, respectively, through most of the period after 1995. In 1987, these ratios equalled 31 per cent and 23 per cent; in 1990, they stood at 35 per cent and 24 per cent, respectively.

(m) The negative **ratio of domestic savings to GDP** would narrow from -23 and -15 per cent of GDP in 1987 and 1990, respectively, to -11 per cent in 2010. By the same token, the **ratio of national savings to GNP** would improve marginally from around 11 per cent in 1987 to 19 per cent in 1990, before falling back to 13 per cent in 2010.

(n) In the year 2010, national savings would be able to cover only half of investment needs, leaving a **savings-investment gap** of around \$300 million, i.e. 13 per cent of that year's GNP. That gap had narrowed from 12 per cent of GNP in 1987 to 5 per cent in 1990.

(o) **Exports** would reach \$379 million in 2010, with the Gaza Strip accounting for only \$34 million of total exports. Although this would represent a large rise from the 1990 level of \$149 million, it is below the \$457 million achieved in 1987.

(p) **Imports** would continue to grow faster than GDP to \$1,169 million by the year 2010, equal to 68 per cent of private consumption and 64 per cent of GDP in the occupied territory. This corresponds to 83 per cent of GDP in the Gaza Strip and 62 per cent of GDP in the West Bank. In 1990, total imports amounted to \$794 million, down from \$1,482 million in 1987.

(q) **The trade gap** would narrow marginally from 37 per cent of GNP in 1990 to 34 per cent in 2010. The latter ratio is equivalent to \$788 million. In the Gaza Strip, this percentage would worsen, rising from 56 per cent to 60 per cent of GNP over the same period. In 1987, the corresponding trade gap stood at 39 per cent of GDP in the occupied territory as a whole, and at 49 per cent of GDP in the Gaza Strip.

In conclusion, the baseline scenario shows clearly that if the economy of the occupied territory were to continue to operate under the structure and constraints prevailing in 1990, its performance and its ability to satisfy the needs of the Palestinian population would continue to deteriorate. The Palestinian economy would become increasingly burdened by the problems that have hampered its development in the past and in particular by: the weaknesses and disarticulations in and between domestic productive sectors, especially the stagnation of industry; an exceedingly high import dependency; the inability to mobilize sufficient domestic savings; and the strong dependency on external finance, a large part of which is generated from work in Israel. Furthermore, the absence of an active role for a central authority in planning, coordinating and safeguarding the interests of the domestic economy, would leave the occupied territory vulnerable to the vagaries of external developments. This is not to mention the depressive influence of the climate of uncertainty and risk.

According to the baseline scenario, these structural weaknesses would reinforce each other in such a way that they would prevent the economy from growing at rates achieved in the historical period. Indeed, a considerably less pronounced expansion of both GDP and GNP is depicted. Furthermore, since most variables would not regain their 1980s levels until around the year 2000, the 1990-2000 period would be a decade of forgone growth and development.

The scenario implies that Palestinian economic initiatives aimed at reducing conspicuous consumption and excessive import dependency, and at shifting consumer preference in favour of local produce would give two main results: private consumption would not grow faster than GDP, and the trade gap would narrow in the West Bank, while worsening marginally in the Gaza Strip, where it would continue to exceed 55 per cent of GNP. The Gaza Strip would also be unable to narrow its savings-investment gap, which would rise to 27 per cent of GNP.

However, these structural adjustments and problems are dwarfed by the unabated worsening of the unemployment situation, which would acquire

increasingly dramatic proportions by the end of the projection period. Indeed, this seems to be the most pressing problem highlighted by the scenario, and it underlines the urgency of boosting domestic employment, aggregate demand and the productive capacity of the economy. Failing that, the inherited pattern of economic growth would soon bring the occupied territory to an untenable situation, if not to the brink of economic crisis and grave social pressures. These weaknesses would be further aggravated by demographic factors, especially the high rate of population growth, and to a lesser extent by the uncertainties related to emigration. While population growth would slow down and even fall slightly below the growth of output in the West Bank, both areas would witness a worsening of per capita GDP and GNP levels. In other words, the ailing economy would not even be able to maintain the resources currently available to the individual. Indeed, it becomes difficult to envisage the occupied territory surviving through the baseline scenario without the onset of total economic collapse.

C. Baseline scenario: main results (including east Jerusalem)

The inclusion of east Jerusalem does not affect the general conclusions drawn from the results obtained under the baseline scenario for the occupied territory as a whole. However, the fact that east Jerusalem receives less net factor income than the rest of the West Bank, and that its economy is more services-oriented, imply minor changes in results for all of the occupied territory:

- (a) The growth of **value added** in industry, construction, and services is marginally lower.
- (b) **The sectoral distribution of labour** shows a slightly smaller share of agriculture (16 per cent) and slightly larger share for services (53 per cent) at the end of the projection period.
- (c) **The ratio of GDP to GNP** would rise from 79 per cent in 1995 to 80 per cent in 2010, compared with 77 per cent and 79 per cent, respectively, excluding east Jerusalem.
- (d) **The ratio of savings to GNP** for the occupied territory as a whole is marginally lower, at 18 per cent in 1990 (against 19 per cent without east Jerusalem) and falling to 12 per cent in 2010 (against 13 per cent previously).
- (e) **The surplus on the current account balance** is some \$10 - \$15 million smaller, and amounts to \$146 million at the end of the period compared with \$153 million excluding east Jerusalem, reflecting a wider deficit on the merchandise trade balance and a smaller surplus in the balance on services.

The inclusion of east Jerusalem does not affect the size of the major gaps in the economy. Hence, unemployment would still reach 50 per cent of the labour force in 2010, while the trade gap would still narrow to 34 per cent of GNP at the end of the period. The savings-investment gap would end marginally larger in the year 2010, at 14 per cent of the combined GNP compared to 13 per cent previously. Table 3/5 presents the main aggregate results for the combination of the three areas (i.e. the Gaza Strip and West Bank including east Jerusalem) under the baseline scenario.

Table 3/1. BASELINE SCENARIO: MAIN AGGREGATES, 1990-2010

	<u>1990</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>
WEST BANK*					
		(thousands)			
Population	933	1053	1170	1285	1390
Labour force	201	233	272	319	367
Total domestic employed	116	118	131	142	151
Employed in Israel	65	45	45	45	45
		(millions of constant 1990 US\$)			
Total investment	295	275	310	349	389
Gross domestic product (GDP)	1002	980	1110	1250	1397
Net factor income from abroad	354	220	237	257	278
Gross national product (GNP)	1356	1199	1347	1507	1675
Net transfers	55	58	61	64	67
Gross disposable income	1411	1258	1408	1571	1742
Merchandise trade balance	-242	-226	-236	-238	-229
Current account balance	166	52	62	83	116
		(constant 1990 US\$)			
Private consumption p.c.	1008	865	865	865	865
GDP p.c.	1073	930	949	973	1005
GNP p.c.	1452	1139	1152	1173	1205
GAZA STRIP					
		(thousands)			
Population	613	710	816	931	1045
Labour force	113	136	164	197	233
Total domestic employed	59	59	64	70	75
Employed in Israel	40	30	30	30	30
		(millions of constant 1990 US\$)			
Total investment	155	153	169	186	203
Gross domestic product (GDP)	300	309	347	388	430
Net factor income from abroad	194	156	174	194	214
Gross national product (GNP)	494	465	521	582	644
Net transfers	94	100	106	112	118
Gross disposable income	588	565	627	694	762
Merchandise trade balance	-214	-204	-233	-265	-296
Current account balance	74	53	47	41	36
		(constant 1990 US\$)			
Private consumption p.c.	568	485	485	485	485
GDP p.c.	489	435	425	417	411
GNP p.c.	806	655	639	625	616

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem.

Table 3/2. BASELINE SCENARIO: SELECTED INDICATORS, 1995-2010
(ratios in per cent)

	1995	2000	2005	2010
<u>WEST BANK*</u>				
Unemployed/ total labour force	30	35	42	47
Employment shares (domestic)				
Agriculture	25	23	21	20
Industry	18	19	19	19
Construction	12	12	13	13
Services	45	46	47	48
Employed in Israel/ employed labour force	28	25	24	23
Savings / GNP	12	13	14	16
Investment / GDP	29	28	28	28
Investment / GNP	22	23	23	23
GDP / GNP	82	82	83	83
Trade balance / GNP	-29	-28	-26	-24
Imports / private consumption	57	58	60	62
<u>GAZA STRIP</u>				
Unemployed / total labour force	35	43	50	55
Employment shares (domestic)				
Agriculture	16	15	14	13
Industry	16	17	17	18
Construction	12	12	13	13
Services	56	56	56	56
Employed in Israel / employed labour force	34	32	30	29
Savings / GNP	9	7	6	5
Investment / GDP	50	49	48	47
Investment / GNP	33	32	32	32
GDP / GNP	66	67	67	67
Trade balance / GNP	-57	-58	-59	-60
Imports / private consumption	83	83	83	83

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem.

Table 3/3. BASELINE SCENARIO: GROWTH RATES OF MAIN AGGREGATES, 1990-2010
(compound annual growth rates of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
WEST BANK*				
Population	2.5	2.1	1.9	1.6
Labour force	3.0	3.2	3.2	2.8
Total domestic employed	0.3	2.1	1.6	1.3
Labour productivity	1.0	1.0	1.0	1.0
Value added in				
Agriculture	-4.8	-0.2	0.5	0.7
Industry	2.0	3.7	3.2	2.8
Construction	2.6	4.1	3.3	2.9
Services	1.9	3.6	3.0	2.7
Gross domestic product (GDP)	-0.5	2.5	2.4	2.3
Private consumption	-0.6	2.1	1.9	1.6
Private investment	-1.6	2.4	2.3	2.2
Government investment	0.8	2.5	2.4	2.3
Exports	5.0	5.0	5.0	5.0
Imports	1.0	2.6	2.5	2.3
Net factor income	-9.1	1.5	1.6	1.6
Gross national product (GNP)	-2.4	2.4	2.3	2.1
Net transfers	1.3	1.0	1.0	0.9
Gross disposable income	-2.3	2.3	2.2	2.1
Private consumption p.c.	-3.0	0.0	0.0	0.0
GNP p.c.	-4.8	0.2	0.4	0.5
GAZA STRIP				
Population	3.0	2.8	2.7	2.3
Labour force	3.6	3.9	3.8	3.3
Total domestic employed	-0.1	1.7	1.7	1.6
Labour productivity	0.5	0.5	0.5	0.5
Value added in				
Agriculture	-2.8	-0.2	0.4	0.6
Industry	1.4	2.9	2.9	2.6
Construction	-0.6	2.2	2.2	1.9
Services	2.6	3.3	2.8	2.3
Gross domestic product (GDP)	0.6	2.4	2.3	2.0
Private consumption	-0.2	2.8	2.7	2.3
Private investment	-0.5	1.9	1.9	1.8
Government investment	1.9	2.4	2.3	2.0
Exports	3.0	3.0	3.0	3.0
Imports	-0.7	2.8	2.6	2.4
Net factor income	-4.3	2.2	2.1	2.1
Gross national product (GNP)	-1.2	2.3	2.2	2.0
Net transfers	1.2	1.1	1.2	1.1
Gross disposable income	-0.8	2.1	2.0	1.9
Private consumption p.c.	-3.1	0.0	0.0	0.0
GNP p.c.	-4.1	-0.5	-0.4	-0.3

Note: Figures may not add up due to rounding.

*Excluding east Jerusalem.

Table 3/4. BASELINE SCENARIO, 1990-2010: WEST BANK* AND GAZA STRIP
(compound annual growth rates and ratios of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
	(compound annual growth rates)			
Population	2.7	2.4	2.2	1.9
Labour force	3.2	3.4	3.4	3.0
Total domestic employed	0.2	2.0	1.7	1.4
Value added in				
Agriculture	-4.5	-0.2	0.5	0.7
Industry	1.8	3.4	3.1	2.7
Construction	1.6	3.5	3.0	2.6
Services	2.0	3.5	3.0	2.6
Gross domestic product (GDP)	-0.2	2.5	2.4	2.2
Private consumption	-0.5	2.3	2.1	1.8
Private investment	-1.2	2.3	2.2	2.1
Government investment	1.3	2.4	2.4	2.1
Exports	4.8	4.8	4.8	4.8
Imports	0.3	2.7	2.5	2.3
Net factor income	-7.3	1.8	1.8	1.8
Gross national product (GNP)	-2.1	2.3	2.3	2.1
Net transfers	1.2	1.1	1.1	1.0
Gross disposable income	-1.8	2.2	2.2	2.0
Private consumption p.c.	-3.1	-0.1	-0.1	-0.1
GNP p.c.	-4.6	-0.1	0.0	0.2
	1995	2000	2005	2010
	(ratios in per cent)			
Unemployment / labour force	32	38	45	50
Employment shares (domestic)				
Agriculture	24	20	19	18
Industry	17	18	18	18
Construction	12	12	13	13
Services	47	50	50	51
Employed in Israel / employed labour force	30	28	26	25
Savings / GNP	11	11	12	13
Investment / GDP	33	33	33	32
Investment / GNP	26	26	26	26
GDP / GNP	77	78	78	79
Trade balance / GNP	-37	-37	-36	-34
Imports / private consumption	64	65	67	68
	(millions of constant 1990 US\$)			
Merchandise trade balance	-430	-469	-503	-525
Current account balance	105	109	124	152

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem

Table 3/5. BASELINE SCENARIO, 1990-2010: WEST BANK* AND GAZA STRIP
(compound annual growth rates and ratios of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
	(compound annual growth rates)			
Population	2.7	2.4	2.2	1.9
Labour force	3.2	3.4	3.4	3.0
Total domestic employment	-2.2	1.9	1.6	1.4
Value added in				
Agriculture	-4.5	-0.2	0.5	0.7
Industry	1.5	3.4	3.0	2.7
Construction	1.3	3.4	2.9	2.6
Services	1.0	3.3	2.8	2.5
Gross domestic product (GDP)	-0.6	2.5	2.4	2.2
Private consumption	-0.9	2.3	2.1	1.8
Private investment	-1.5	2.3	2.2	2.0
Government investment	1.1	2.5	2.4	2.1
Exports	4.4	4.8	4.8	4.8
Imports	0.1	2.7	2.5	2.3
Net factor income	-7.2	1.9	1.9	1.8
Gross national product (GNP)	-2.2	2.4	2.3	2.1
Net transfers	1.2	1.1	1.1	1.0
Gross disposable income	-2.0	2.3	2.2	2.0
Private consumption p.c.	-3.4	-0.1	-0.1	-0.1
GNP p.c.	-4.7	0.0	0.1	0.2
	1995	2000	2005	2010
	(ratios in per cent)			
Unemployment / labour force	32	38	45	50
Employment shares (domestic)				
Agriculture	20	18	17	16
Industry	17	17	18	18
Construction	11	12	12	13
Services	52	53	53	53
Employment in Israel / employed labour force	28	27	25	24
Investment / GDP	33	32	32	32
Investment / GNP	26	26	26	26
Savings / GNP	10	10	11	12
GDP / GNP	79	79	80	80
Trade balance / GNP	-37	-36	-35	-33
Imports / private consumption	64	65	66	68
	(millions of constant 1990 US\$)			
Merchandise trade balance	-467	-508	-542	-562
Current account balance	89	95	112	146

Note: Figures may not add up due to rounding.

* Including east Jerusalem

BASELINE VARIANT SCENARIO

A. Main assumptions and qualifications

The preceding examination of the baseline scenario highlighted the untenable economic conditions that would emerge should the circumstances prevailing in 1990 continue. In particular, the baseline scenario depicted wide labour-employment, savings-investment and export-import gaps; hence the need for drastic policy reform and effective action to address problems in these areas. Under the constraints of the baseline scenario, a basic underlying assumption is that there are no opportunities for policy measures to ameliorate conditions. A variant of the baseline scenario, which allows a limited relaxation of the most restrictive aspects of the economic environment operating since 1988, produces a different set of projections. This is effected without a major modification of the basic assumptions and conditions governing the baseline scenario.

The key feature of the variant allows the economy to attain pre-1988 trends. This recovery from the slump of the 1988-1991 period (as captured by the INT dummy variable) begins in 1992. The adverse influence of the INT variable is gradually reduced for the period 1992-1995, and is assumed no longer operational as of 1996. The lifting of this constraint affects most variables in the framework, allowing the economy to gradually attain its pre-1988 levels over as many years as INT was fully active. The choice of the pace of recovery, which commences in 1992 and continues through 1995 could be of longer or shorter duration depending on developments in the actual policy environment as of 1992.

The following points summarize the variations introduced into the major assumptions affecting data and calculations in the baseline scenario, in addition to the phasing out of the INT variable.

1. The demographic component

All features of the demographic component are assumed to be the same as in the baseline except that the net emigration rate is set at 0 for both the West Bank and the Gaza Strip for the whole period. This reflects the virtual end to movement of Palestinians out of the occupied territory to neighbouring countries since mid-1990, which is the culmination of a declining trend that has been apparent since the mid-1980s. Needless to say, this formulation does not exclude some outward migration, though at levels which would have to be equal to return migration in order to maintain the zero balance.

2. The labour force component

All features of the labour force component are assumed to be the same as in the baseline, except that in 1992-1995, growth rates of total labour productivity are determined within the framework as those which are required to regain pre-1988 levels of economic activity by 1996 (i.e. above 6 per cent annually). As of 1996, annual growth rates in the West Bank and Gaza Strip are set at the same exogenously determined rates as in the baseline, i.e. at 1.0 per cent and 0.5 per cent, respectively.

3. The economic component

All features of the economic component are assumed to be the same as in the baseline except for the following modifications:

(a) The compression in import levels and ratios witnessed in 1988-1991 is assumed to remain as a permanent change in Palestinian import behaviour over the entire period. Thus, the declines of that period are not reversed (i.e. are not added back to the import function) during the 1992-1995 recovery period as is the case with other variables affected by INT.

(b) Private per capita consumption in both areas is allowed to attain its pre-1988 trend, subject to the constraint that consumption will grow sufficiently fast to cope with population increase.

(c) After the 1992-1995 recovery period, exports are assumed to grow at 5 and 3 per cent per annum in the West Bank and Gaza Strip, respectively, i.e. the trend coefficient indicated by the historical period.

(d) Since the variant scenario assumes zero net emigration, the function determining projections for net transfers from abroad is not applicable in

the framework for the variant scenario. Instead net transfers are fixed at 1990 per capita levels throughout the projection period.

B. Baseline variant scenario: main results

The results of the variant scenario are presented in tables 3/6 to 3/10 below. The impact of the gradual easing of policy constraints and disturbances in economic activity associated with the 1988-1991 period is clear in terms of higher absolute levels and growth rates in most indicators under investigation. A comparison of the variant with the baseline scenario further highlights the extent to which the latter implies totally unfavourable (and untenable) Palestinian economic performance until 2010. It also illustrates the economy's potential for favourable response to positive external stimuli, such as those implicit in the variant's assumed relaxation of the intensified restrictions of the 1988-1991 period.

However, improved growth in the absolute values of most indicators in the variant is offset by the fact that there are few notable changes (from the baseline) with regard to key features of the economy, namely: its distorted and fragile structure and sluggish performance, the poor interaction between key aggregates and the inability of the economy to break with debilitating patterns of economic activity engendered by prolonged occupation, such as the Palestinian economy's weak labour-absorption capacity. Accordingly, by the year 1996, though the economy has attained pre-1988 trends, it has meanwhile forfeited at least eight years of growth with few achievements to show. The variant represents only some prospects of quantitative improvement over the baseline. However, these prospects are little more than a 'next-to-worst' situation in so far as the Palestinian economy under this variant is assumed to remain fragmented and lacking the means for policy action, resource mobilization and effective management.³¹

Thus, as compared to the baseline, the variant scenario leaves the occupied territory with greater population and labour force growth, decreased (but still high) unemployment, improved domestic output levels and growth, and boosted individual levels of income. However, this does not prevent the re-emergence of longstanding structural problems. In particular, the economy's high degree of external exposure and import dependency, and the inadequate and inequitable terms and conditions under which its external trading activities are pursued, combine to engender patterns and levels of consumption which are incompatible with domestic productive capacity and income. By the same token, the variant scenario exhibits wider savings-investment and export-import gaps than those depicted under the baseline, which means that the economy remains unable to boost domestic production, increase exports, rationalize growth in imports and raise the level of savings. These developments combined render the results of the variant scenario, although less harsh, as unsatisfactory as those portrayed under the baseline scenario.

To sum up, according to the variant scenario:

(a) The main change in population projections is seen in the slightly higher estimates of **population growth** over the period, owing to zero emigration from the occupied territory. This is manifested in annual population growth rates which would be 1 percentage point higher than in the baseline scenario throughout the period, reflecting the 1 per cent annual rate of emigration from the occupied territory that prevails in the baseline scenario and which is assumed to have ceased under the variant.

(b) As for **labour force growth**, it would reach higher levels than in the baseline (along with the higher population growth) and peak at 4.5 per cent per annum in 2001-2005. From a level of 20.8 per cent in 1995, the **labour force participation rate** for the occupied territory is expected to reach 24.5 per cent by the year 2010. The increasing rates of labour force participation during the period 1990-2010, albeit slow, would contribute to a labour force growth which would constitute a burden on the Palestinian economy.

(c) Accordingly, **unemployment** also features prominently, staying relatively low in the 1991-1995 period, but soon reaching much higher levels. By 2010, unemployment in the occupied territory would have re-emerged as a major problem. There is, however, a slight increase depicted in **domestic**

employment, such that by 2010 some 84 per cent of all employed Palestinians would find jobs in the domestic market. The variant indicates no change in **sectoral employment shares**, which would remain close to those of the baseline, along broad historical trends.

(d) **Gross domestic product** exhibits a strong response to the relaxation of constraints in the period 1992-1995, with its growth averaging 10 per cent per annum. In subsequent years, GDP growth in the occupied territory would settle down to more moderate rates. For the 1990-2010 period as a whole, GDP growth would average 5.3 per cent per annum.

(e) The leading sectors in the variant's short-lived recovery period of 1992-1995 would be **construction** in the West Bank and **industry** and **services** in the Gaza Strip. **Agriculture** in the West Bank is expected to recover slowly until 1995, reaching annual growth rates of around 2.5 per cent afterwards. In the Gaza Strip, however, a faster initial growth in agriculture would be followed by a slowdown. As in the baseline, there would be little significant change in the **sectoral composition of output**, other than a slight growth in the shares of services and construction at the expense of agriculture.

(f) With **net factor income** growing at the same constrained rates as in the baseline, growth in **gross national product** under the variant closely tracks that of GDP. However, one notable difference with the baseline is that the share of GDP in GNP would reach 88 per cent by 2010 as compared to 80 per cent under the baseline scenario. This too, reflects the greater responsiveness of domestic product (as compared to NFI) to the relaxation of constraints.

(g) Given the higher population growth rate, **per capita GNP** would only increase by an average of 1 per cent per annum during the period 1991-2010, with the higher rate of 3 per cent per annum registering only during 1991-1995. Accordingly, apart from the initial recovery period, the variant scenario suggests only a marginal improvement in indicators of individual prosperity.

(h) Growth in the **components of demand** would follow a similar path to that of domestic and national product. **Private consumption expenditure** would recover at just under 9 per cent per annum during 1991-1995, eventually settling down to 3.5 per cent after 2000. However, **per capita consumption expenditure** would exhibit very weak performance after 1995, growing at under 1 per cent per annum, reflecting the dim development prospects depicted under the variant scenario.

(i) The performance of **savings and investments** under the variant shows no improvement. Increasing aggregate consumption levels throughout the 1991-2010 period would result in a fall in the **national savings ratio**. With relatively higher levels of aggregate consumption under the variant scenario, national savings ratios would be incapable of attaining the levels reached under the baseline scenario. Except for generally higher absolute levels of investment and a slightly lower ratio to GDP depicted under the variant scenario, there would be no significant change in terms of the composition of investment (i.e. public/private, productive/social overhead) or in terms of its relative importance (i.e. per capita levels, ratio of GNP, etc.).

(j) Accordingly, not only would the size of the **savings/investment gap** be almost double that of the baseline scenario, but national savings would be 60 per cent less in absolute terms than those under the baseline. Here also, the role of external savings becomes paramount to fill the gap and sustain that level of investment. Increased dependency on external finance emerges as the mechanism whereby the economy would maintain positive (but low) growth rates of GDP and aggregate demand and inadequately oriented patterns of investment.

(k) The initial improvements in the performance of domestic output witnessed under the variant scenario would be only briefly reflected in growth of **external trade**. After recouping the 1988-1991 losses by 1995, **exports** would regain their slow historical progress, at just over 4 per cent per annum, while **imports** tend to trail national income and grow by under 4 per cent per annum after the year 2000. Such rates are relatively modest when compared to available medium-term projected estimates for the Middle East region.³² Nor would export growth in the variant be strong enough to bring the **ratio of exports to GDP** back to historical levels.

(1) Consequently, the variant produces markedly unfavourable external balances, with the **merchandise trade deficit** twice the level of the baseline. The occupied territory's external sources of income would increase after 1995 at rates of between 2 and 3.5 per cent per annum. Coupled even with growth in merchandise exports, this increase would be insufficient to redress the growing external deficits in merchandise and non-factor services. The **trade gap** would fluctuate over the 1991-2010 period between -34 and -35 per cent. Meanwhile, the **current account balance** would turn again into a deficit as of the first years of the projection period and grow thereafter. Exports remain unable to generate adequate foreign exchange in order to meet the higher levels of imports resulting from unrestrained expansion in aggregate private consumption.

Table 3/6. BASELINE VARIANT SCENARIO: MAIN AGGREGATES, 1990-2010

	1990	1995	2000	2005	2010
WEST BANK *					
			(thousands)		
Population	933	1116	1312	1525	1746
Labour force	201	246	304	377	460
Total domestic employed	116	146	173	198	229
Employed in Israel	65	45	45	45	45
			(millions of constant 1990 US\$)		
Total investment	295	389	486	570	686
Gross domestic product (GDP)	1002	1454	1794	2161	2619
Net factor income	354	220	237	257	278
Gross national product (GNP)	1356	1674	2031	2418	2897
Net transfers	55	67	79	92	105
Gross disposable income	1411	1741	2110	2510	3002
Merchandise trade balance	-242	-286	-342	-388	-441
Current account balance	166	1	-26	-39	-58
			(constant 1990 US\$)		
Private consumption per capita	1008	1176	1227	1258	1315
GDP p.c.	1073	1303	1375	1417	1500
GNP p.c.	1452	1500	1548	1586	1660
GAZA STRIP					
			(thousands)		
Population	613	740	885	1051	1228
Labour force	113	141	178	222	273
Total domestic employed	59	90	110	126	144
Employed in Israel	40	30	30	30	30
			(millions of constant 1990 US\$)		
Total investment	155	282	340	392	449
Gross domestic product (GDP)	300	721	894	1049	1217
Net factor income	194	215	239	259	279
Gross national product (GNP)	494	936	1133	1308	1496
Net transfers	94	112	134	159	185
Gross disposable income	588	1048	1267	1467	1681
Merchandise trade balance	-214	-314	-403	-478	-557
Current account balance	74	13	-30	-61	-92
			(constant 1990 US\$)		
Private consumption per capita	568	945	1007	1007	1007
GDP p.c.	489	974	1009	998	991
GNP p.c.	806	1265	1280	1244	1218

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem

Table 3/7. BASELINE VARIANT SCENARIO: SELECTED INDICATORS, 1995-2010
(ratios in per cent)

	1995	2000	2005	2010
<u>WEST BANK*</u>				
Unemployed / labour force	22	28	35	40
Employment shares (domestic)				
Agriculture	24	22	21	19
Industry	18	18	18	18
Construction	13	14	14	15
Services	45	46	47	48
Employed in Israel/ employed labour force	24	21	19	16
Savings / GNP	9	7	7	7
Investment / GDP	27	27	26	26
Investment / GNP	23	23	23	24
GDP / GNP	87	88	89	91
Trade balance / GNP	-28	-28	-27	-26
Imports / private consumption	57	57	58	58
<u>GAZA STRIP</u>				
Unemployed / labour force	15	21	30	36
Employment shares (domestic)				
Agriculture	14	13	13	12
Industry	19	19	20	20
Construction	10	11	11	12
Services	57	57	56	56
Employed in Israel / employed labour force	25	21	19	17
Savings / GNP	6	2	-1	-3
Investment / GDP	39	38	37	37
Investment / GNP	30	30	30	30
GDP / GNP	77	79	80	81
Trade balance / GNP	-47	-50	-51	-52
Imports / private consumption	88	86	85	85

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem

Table 3/8. BASELINE VARIANT SCENARIO: GROWTH RATES OF MAIN AGGREGATES, 1990-2010
(compound annual growth rates of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
<u>WEST BANK*</u>				
Population	3.6	3.3	3.1	2.7
Labour force	4.1	4.3	4.4	4.0
Total domestic employed	1.5	3.3	2.8	2.9
Labour productivity	5.4	1.0	1.0	1.0
Value added in				
Agriculture	0.2	2.5	2.4	2.6
Industry	10.5	4.9	4.3	4.4
Construction	14.9	5.4	4.4	4.3
Services	11.0	4.8	4.2	4.3
Gross domestic product (GDP)	7.7	4.3	3.8	3.9
Private consumption	6.9	4.2	3.6	3.7
Private investment	5.5	4.1	3.7	3.8
Government investment	9.1	4.3	3.8	3.9
Exports	16.8	5.0	5.0	5.0
Imports	8.5	4.3	3.8	3.9
Net factor income	-9.1	1.5	1.6	1.6
Gross national product (GNP)	4.3	3.9	3.6	3.7
Net transfers	4.2	3.3	3.1	2.7
Gross disposable income	4.3	3.9	3.1	3.7
Private consumption p.c.	3.1	0.9	0.5	0.9
GNP p.c.	0.7	0.6	0.5	0.9
<u>GAZA STRIP</u>				
Population	3.8	3.7	3.5	3.2
Labour force	4.5	4.7	4.6	4.2
Total domestic employed	8.9	4.0	2.9	2.6
Labour productivity	8.3	0.5	0.5	0.5
Value added in				
Agriculture	7.6	1.8	1.9	1.9
Industry	23.5	5.5	3.9	3.6
Construction	17.5	4.3	3.1	2.9
Services	23.6	4.8	3.4	3.1
Gross domestic product (GDP)	19.2	4.4	3.3	3.0
Private consumption	15.0	5.0	3.5	3.2
Private investment	11.6	3.7	2.9	2.7
Government investment	20.7	4.4	3.3	3.0
Exports	56.2	3.0	3.0	3.0
Imports	15.6	4.4	3.3	3.1
Net factor income	2.0	2.2	1.6	1.6
Gross national product (GNP)	13.6	3.9	2.9	2.7
Net transfers	3.5	3.7	3.5	3.2
Gross disposable income	12.2	3.9	3.0	2.8
Private consumption p.c.	10.7	1.3	0.0	0.0
GNP p.c.	9.4	0.2	-0.6	-0.4

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem

Table 3/9. BASELINE VARIANT SCENARIO, 1990-2010: WEST BANK* AND GAZA STRIP
(compound annual growth rates and ratios of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
	(compound annual growth rates)			
Population	3.7	3.4	3.2	2.9
Labour force	4.3	4.5	4.5	4.1
Total domestic employed	3.9	3.6	2.8	2.8
Value added in				
Agriculture	1.6	2.4	2.3	2.5
Industry	16.1	5.2	4.1	4.0
Construction	15.8	5.0	3.9	3.9
Services	7.2	3.8	3.0	2.9
Gross domestic product (GDP)	10.8	4.3	3.6	3.6
Private consumption	9.3	4.5	3.5	3.5
Private investment	7.7	3.9	3.3	3.4
Government investment	15.2	4.4	3.5	3.4
Exports	25.2	4.3	4.3	4.3
Imports	11.4	4.4	3.6	3.5
Net factor income	-4.5	1.9	1.6	1.6
Gross national product (GNP)	7.1	3.9	3.3	3.4
Net transfers	3.7	3.5	3.3	3.0
Gross disposable income	6.9	3.9	3.3	3.4
Private consumption p.c.	5.4	1.0	0.3	0.6
GNP p.c.	3.3	0.5	0.1	0.4
	1995	2000	2005	2010
	(ratios in per cent)			
Unemployed / labour force	20	26	33	39
Employment shares (domestic)				
Agriculture	20	19	17	16
Industry	18	19	19	19
Construction	12	13	13	14
Services	50	50	51	51
Employed in Israel / employed labour force	24	21	19	17
Investment / GDP	31	30	30	30
Savings / GNP	8	5	4	4
Investment / GNP	26	26	26	26
GDP / GNP	83	85	86	87
Trade balance / GNP	-35	-35	-35	-35
Imports / private consumption	68	67	68	68
	(millions of constant 1990 US\$)			
Merchandise trade balance	-600	-745	-866	-997
Current account balance	14	-56	-100	-150

Note: Figures may not add up due to rounding.

* Excluding east Jerusalem

Table 3/10. BASELINE VARIANT SCENARIO, 1990-2010: WEST BANK* AND GAZA STRIP
(compound annual growth rates and ratios of data in constant 1990 US\$)

	1991-1995	1996-2000	2001-2005	2006-2010
	(compound annual growth rates)			
Population	3.7	3.4	3.2	2.9
Labour force	4.3	4.4	4.5	4.1
Total domestic employed	3.5	3.5	2.8	2.8
Value added in				
Agriculture	1.5	2.4	2.3	2.5
Industry	15.5	5.1	4.1	4.0
Construction	15.0	5.0	3.9	3.8
Services	12.6	4.6	3.8	3.8
Gross domestic product (GDP)	10.1	4.3	3.6	3.6
Private consumption	8.7	4.4	3.5	3.5
Private investment	7.1	3.9	3.3	3.3
Government investment	14.5	4.3	3.5	3.4
Exports	23.7	4.3	4.3	4.4
Imports	10.8	4.3	3.6	3.5
Net factor income	-4.5	1.9	1.7	1.7
Gross national product (GNP)	6.8	3.9	3.3	3.4
Net transfers	3.8	3.5	3.3	3.0
Gross disposable income	6.6	3.9	3.3	3.3
Private consumption p.c.	4.8	0.9	0.3	0.6
GNP p.c.	3.0	0.5	0.1	0.5
	1995	2000	2005	2010
	(ratios in per cent)			
Unemployment / labour force	20	27	34	39
Employment shares (domestic)				
Agriculture	18	17	16	15
Industry	17	18	18	18
Construction	12	12	13	13
Services	52	53	53	53
Employed in Israel / employed labour force	23	20	18	16
Investment / GDP	30	30	30	29
Savings / GNP	7	5	4	4
Investment / GNP	26	26	26	26
GDP / GNP	84	86	87	88
Trade balance / GNP	-34	-35	-35	-34
Imports / private consumption	67	66	67	67
	(millions of constant 1990 US\$)			
Merchandise trade balance	-645	-797	-924	-1062
Current account balance	-7	-78	-122	-171

Note: Figures may not add up due to rounding.

* Including east Jerusalem

CHAPTER IV

SCENARIO ANALYSIS, 1990-2010: ALTERNATIVES I-III

Introduction

The two preceding scenarios illustrated the dim prospects of the fragile Palestinian economy if the harsh conditions that governed its performance until 1991 were to continue to prevail in the future. Even the more relaxed of these two scenarios (i.e. the variant) leads to highly unsatisfactory results. By contrast, the three alternative scenarios presented in this chapter are aimed at exploring the possibilities of improving the prospects for the economy, including feasible policy options to address the salient problems depicted under the baseline scenario and its variant. Figuring prominently among these were: depressed demand, weaknesses in production, a wide unemployment gap, and imbalances in the external sector.

The changes envisaged under the alternative scenarios are introduced in the framework as of 1996, i.e. after having allowed the economy to recover from the 1988-1991 slump. As noted previously, the recovery period could be shortened, thus allowing commencement of policy changes earlier on in the projection period. This would not affect the impact of these policy reforms, except as regards the timing of developments envisaged in the scenarios. Thus, if policy changes were introduced as of 1994, for example, the results quoted below for the year 2000 would instead be relevant to 1998, and so forth.

These changes have been selected following a careful process of sensitivity analysis, whereby the effects on the economy of variations in each key policy variable were examined separately before being combined.³³ The alternatives move steadily from an identification of some of the major policy actions required to reach a sustainable path of growth (in Alternative Scenario I), to an activation of these policy options (in their domestic and external financial dimensions - Alternative Scenarios II and III). A further accentuation of these measures as would be required by additional changes in the operating assumptions governing the demographic component of the framework is depicted under Alternative Scenarios IV and V (see chapter V).

The key policy variables involved in this process are: exports, imports, private investment, government consumption and investment and net transfer payments (a proxy for external finance or aid). The demographic component under each of the first three alternative scenarios reflects the de facto population of the territory with net migration rate set at zero. The choice of the particular values of the determining variables was guided by various considerations: studies on other similar economies in the region; the general goal of reducing the major gaps; and the requirement that the final set of projections show consistent and credible results. Although the projected values and/or growth rates of those policy variables included in this process do not necessarily reflect the most desirable levels, they are not entirely random.

The Alternative Scenarios presented in this chapter and the next are not the only ones that can be envisaged, but they represent rather the most revealing, indicative combinations with the optimum results that could be arrived at. In that sense, the scenarios should be seen as tentative illustrations of the state the economy could reach should the relevant policy options be resorted to. In particular, the various limitations of the structure of the framework (outlined in chapters I and II) have to be borne in mind when analysing the results, since the room for policy initiatives is limited to the macro-level and to the relationships that the framework incorporates.³⁴

ALTERNATIVE SCENARIO I CONSTRAINED UNEMPLOYMENT

A. Main assumptions and qualifications

This scenario considers possible improvements in prospects for sustained growth and development of the Palestinian economy. As a first step, it addresses itself to the question as to what sort of income and production levels should

be attained in order to narrow the discrepancy (in the quantitative framework) between the actual and potential capacities of the economy as reflected in the unemployment gap? As such, the framework was adjusted so as to calculate those values of aggregate demand and domestic production that correspond to an exogenously determined 'acceptable' or 'target' level of discrepancy. While under the previous scenarios, the discrepancy between actual and potential GDP (equivalent to the unemployment gap) was the result of the expected behaviour of actual demand and supply, here the desired gap is first fixed, with demand and supply calculated on an ex post basis, with no change assumed in the behaviour of the determining variables.

The exercise was conducted following two approaches: (a) boosting supply through increased sectoral output; and, (b) increasing demand by boosting income. Under the first approach, the framework simply calculated those production levels that result from specified levels of domestic employment without the increment in GDP being allocated to specific components of demand. Under the second approach, income is allowed to increase in such a manner that the components of demand generate the desired employment level. This is done by letting foreign transfers (NTR) increase sufficiently to produce that gross national disposable income (GNDI) that corresponds to the target unemployment gap, such that total expenditure on GDP is allowed to exceed gross domestic production.

Both approaches to the constrained unemployment gap scenario serve to give first impressions of a close-to-full employment situation, which is obtained by constraining the gap artificially. The first approach leaves demand and supply unmatched, and is thus less useful for presentation. The second approach is retained here because of its relative internal consistency and the more indicative nature of its results.

As stated, this scenario focuses on reducing the unemployment gap which emerged under the baseline and its variant. Under the constrained unemployment scenario, it is assumed that the economy would operate with the same structure, but at a more manageable exogenously determined level of unemployment expected to be arrived at as of 1996. Hence, no adjustment process is conceived of in this scenario, since the economy starts operating at a target unemployment level as soon as it has fully recovered from the slump of the 1988-1991 period (i.e. as of 1996 in this scenario). The increase in production and demand required to reduce unemployment to the designated level is assumed to be met by NTR. As such, NTR boosts GNDI, thus generating enough demand to match supply without changing the structure and composition of demand.

In order to place a ceiling on unemployment levels, the discrepancy between actual and potential GDP was fixed at an exogenously determined rate after 1996 and until the year 2010.

In the absence of information about what might constitute a target or an equilibrium level of domestic unemployment, a rate of 10 per cent was adopted for the exercise. This rate is higher than the rate historically reported by official Israeli sources, but represents a significant improvement over those depicted under the baseline and its variant.

The following points review the specific changes, if any, introduced to assumptions of the baseline scenario variant:

1. The demographic component

All the features of the demographic component remain unchanged; the net migration rate remains at zero, implying a higher growth rate for population.

2. The labour force component

All the features of the labour force component remain unchanged. It is assumed that both labour productivity and labour shares regain pre-1988 trends by 1996, with labour productivity expected to grow steadily thereafter. However, domestic unemployment is fixed at 10 per cent of the domestic labour force as of 1996.

3. The economic component

All the features of the economic component remain unchanged, except for the calculation of NTR which is now a function of the difference between the actual and the target level of unemployment (at 10 per cent after 1995).

B. Main results

The results of Alternative Scenario I are presented in tables 4/1 and 4/2. These results point to the need to surpass the growth rates registered under the baseline scenario and its variant in order to increase income levels and close at least one of the gaps, the one targeted under this scenario being the unemployment gap. Since the scenario is essentially one where a desired employment level is reached owing to the increased external financial inflows required without changing the current economic structure, the analysis of results is limited to identifying the broad implications of trends and levels reached by key variables.

Since the demographic component in Alternative I is unchanged from the baseline scenario variant, its projections for total population and labour force are unchanged. To prevent domestic unemployment from exceeding 10 per cent of the labour force, the scenario indicates that the minimal required growth rate for domestic employment is 6.2 per cent for the post-1995 period. This rate implies similarly impressive sectoral employment growth rates, especially in non-agricultural activities.

To be able to absorb the labour force, gross domestic product at factor cost (GDPF) would have to grow at just under 7 per cent, a rate which should allow domestic output to double its value every 10 years. Similarly, overall demand for labour, as encompassed in GDP at market price (GDP), will also have to grow at 7 per cent.

The artificially induced expansion of domestic aggregate demand inevitably reduces the dependence of the economy on net factor income from abroad (NFI). Hence, by the year 2010, the GDP/GNP ratio will have reached around 92 per cent, compared to 88 per cent under the baseline scenario variant. One relatively positive aspect of the scenario is that by 2010 per capita GDP and GNP levels will almost double the levels calculated for 1990. However, these per capita levels are also sustained by a rate of per capita foreign transfers that are anticipated to rise rapidly until the year 2010.

Under the economic structure in this scenario, the government sector will expand, but only at the same pace as GDP. This implies that both government consumption (CG) and investment (IG) will grow at around 7 per cent per annum after 1995 to reach \$1.2 billion and \$208 million, respectively, by the year 2010, compared to \$350 million and \$58 million under the baseline scenario. Consequently, an expansion of the economy's job creation capacity as envisaged in this alternative will require an acceleration of government activity up to the 7 per cent annual growth rate.

The strong expansion of private consumption (CP) and private investment (IP) reflects the availability of foreign finance in the form of increased NTR. Hence, both IP and CP increase at more than 7 per cent per annum. Indeed, after 1995, CP almost quadruples to reach \$8 billion by the year 2010, at which time it will be equal to 119 per cent of GDP. By the year 2010, the share of total investment out of GDP and GNP will rise to 39 and 36 per cent, respectively.

As regards the finance of the expenditure side, with CP alone exceeding GDP by one fifth, it is hardly surprising that the ratios of domestic and national savings (out of GDP and GNP) reach untenable negative rates of -37 per cent and -26 per cent, respectively. Consequently, the occupied territory will develop a savings-investment gap by the year 2010 of 62 per cent of GNP, equivalent to some \$4.5 billion. This compares to a savings-investment gap of 13 per cent of GNP under the baseline scenario.

Under Alternative I, exports (X) are not envisaged to surpass the performance seen during the historical period. By contrast, imports (M), which are defined as a function of GNDI, maintain an unabated growth, which will average some 10 per cent per annum. By the end of the projection period, M will account for 90 per cent of that year's GDP, and more than 47 per cent of aggregate demand (M/C+I+X). Consequently, the occupied territory's trade gap will widen substantially, reaching 70 per cent of the GNP of the year 2010. The

current account balance will depict a surplus owing to the massive and continuous increase required in NTR.

Notwithstanding the improved performance of the economy, the present scenario remains clearly inadequate since it depends entirely on the unlikely sustained availability of foreign unrequited transfers. The apparently favourable 10 per cent unemployment level and \$6.7 billion GDP in the year 2010 hide an external support that amounts to almost \$4 billion in that year alone. In other words, without domestic macroeconomic policies, the Palestinian economy in its current structure will require by the year 2010 foreign-financed per capita aid of \$1,187 annually to keep a lid on the unemployment problem. Such a scenario which focuses exclusively on a strong 'employment generation' goal, without the appropriate restructuring and economic policy action is prohibitive in terms of financial cost and inadequate as regards its capacity to sustain growth and development.

Thus, the main message of the scenario is that in the absence of serious policy efforts to address the structural problems and operational constraints affecting the Palestinian economy, a massive inflow of increasing amounts of unrequited external aid does not result in a sustainable scenario. A number of points can nevertheless be identified regarding the kind and the direction of changes in the economy needed in order to improve its performance under this scenario after 1995, and thus delay the emergence of 'baseline' type results. The points can be summarized as follows:

- (a) **Domestic employment** needs to grow well above the 4.3 per cent annual growth of the labour force if unemployment is to be reduced.
- (b) **Sectoral output** in agriculture would have to grow at least at around 5 per cent per annum, with other sectors growing at higher rates so that on average **GDP** grows at 7 per cent. In other words, domestic demand and production should be able to double in value every 10 years.
- (c) With **GDP** and **GNP** growing at rates only slightly higher than population, per capita levels grow at over 2 per cent after 1995, reflecting the impact of transfers on aggregate demand rather than an improvement of the economy's productive capacity.
- (d) The growth in aggregate demand will require an increase in the share of resources dedicated to **investment**, from 32 and 28 per cent of GDP and GNP, respectively, in 1996, to 39 and 36 per cent in 2010.
- (e) The unabated growth of aggregate consumption will cut deeply into domestic and national savings leading to a **savings/investment gap** of some 62 per cent of GNP by 2010, which is sustained only through massive external transfers.
- (f) In the absence of a change in the consumption behaviour of the population, be it induced or spontaneous, **private consumption** will increase faster than domestic production.
- (g) If the economy's propensity to import is not reduced, much of aggregate demand will still have to be satisfied by **imports**, whose total value by the year 2010 will be almost at par with GDP and GDPF.
- (h) If left to grow at their historical rate, **exports**' contribution to domestic resources will diminish.
- (i) Consequently, the territory will develop a huge deficit on the **trade balance**. By the year 2010, this deficit will be in the region of \$3.7 billion, which would have to be financed by transfers of \$3.8 billion.

Table 4/1. ALTERNATIVE SCENARIO I, 1990-2010: CONSTRAINED UNEMPLOYMENT

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS *	(thousands)				
Population	1695	2034	2407	2820	3253
Labour force	343	423	525	653	798
Total domestic employed	219	264	399	512	640
Employed in Israel	108	78	79	80	81
	(millions of constant 1990 US\$)				
Total investment	505	745	1349	1927	2612
Gross domestic product (GDP)	1487	2447	3860	5152	6704
Net factor income	565	449	499	546	598
Gross national product (GNP)	2052	2896	4359	5698	7301
Net transfers	158	189	1340	2502	3860
Gross disposable income	2210	3085	5699	8200	11161
Merchandise trade balance	-502	-667	-1649	-2592	-3694
Current account balance	221	-28	191	456	763
	(constant 1990 US\$)				
Private consumption p.c.	863	1114	1728	2099	2461
GDP p.c.	877	1203	1603	1827	2061
GNP p.c.	1211	1424	1811	2021	2245
SELECTED INDICATORS					
	(ratios in per cent)				
Unemployment / labour force	11	19	9	9	10
Employment shares (domestic)					
Agriculture	19	18	17	16	15
Industry	15	17	18	18	18
Construction	10	12	12	13	13
Services	47	52	52	53	53
Employed in Israel / employed labour force	33	23	17	14	11
Investment / GDP	34	30	35	37	39
Savings / GNP	18	6	-11	-20	-26
Investment / GNP	25	26	31	34	36
GDP / GNP	72	84	89	90	92
Trade balance / GNP	-35	-35	-54	-63	-70
Imports / private consumption	61	67	71	74	75

* Including east Jerusalem

Table 4/2. ALTERNATIVE SCENARIO I, 1990-2010: CONSTRAINED UNEMPLOYMENT

MAIN AGGREGATES AND SELECTED INDICATORS
(compound annual growth rates)

	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS *				
Population	3.7	3.4	3.2	2.9
Labour force	4.3	4.4	4.5	4.1
Total domestic employed	3.9	8.6	5.1	4.6
Value added in				
Agriculture	1.8	8.0	4.6	4.2
Industry	16.1	9.8	6.5	5.9
Construction	15.5	10.2	6.3	5.7
Services	13.0	9.9	6.2	5.6
Gross domestic product (GDP)	10.5	9.5	6.0	5.4
Private consumption	9.1	12.9	7.3	6.2
Private investment	7.4	13.1	7.5	6.4
Government investment	15.2	8.7	5.9	5.3
Exports	23.7	4.2	4.3	4.4
Imports	11.2	14.4	8.2	6.7
Net factor income	-4.5	2.1	1.8	1.8
Gross national product (GNP)	7.1	8.5	5.5	5.1
Net transfers	3.8	47.9	13.3	9.1
Gross disposable income	6.9	13.1	7.6	6.4
Private consumption p.c.	5.2	9.2	4.0	3.2
GNP p.c.	3.3	4.9	2.2	2.1

* Including east Jerusalem

ALTERNATIVE SCENARIO II INTENSIFYING INVESTMENT AND NARROWING THE TRADE GAP

A. Main assumptions and qualification

The constrained unemployment scenario demonstrated the unsustainability of a situation that avoids restructuring the Palestinian economy to increase domestic production and relies instead on foreign subsidies to fill the resulting gaps. Under Alternative Scenario II, explicit policy options and changes in the behaviour and growth of key variables are introduced, after the 1992-1995 recovery period, with the aim of simultaneously: reducing the trade gap, increasing production, and restructuring demand away from consumption and in favour of investment. The scenario is thus underpinned by a completely different operating assumption, namely that the conditions governing performance of the Palestinian economy will not remain unchallenged. As such, the scenario assumes that, during and after the recovery period of 1992-1995, the relevant Palestinian authorities will be able to initiate and encourage the kind of changes required in economic policy to set the Palestinian economy on the path of sustainable growth and development.

Certainly, one crucial element of the requisite transformations would be eventual control by the Palestinian people over the natural resources of their territory. Under Alternatives II and III, the potential impact of this particular development is not considered, given the nature of the scenario analysis exercise, and the specific objectives envisaged under these two scenarios. Nevertheless, without lifting the restrictions that have come to stifle the economy, and without an authority committed to development and to formulation and management of vigorous policy measures aimed at improving the situation, the results emerging from the baseline scenario or its variant might re-emerge.

In essence, the present scenario hinges on boosting the productive capacity of the economy and domestic demand while preventing private consumption and hence imports, from increasing in importance. This general aim is translated into the following policy measures: accelerating private investment, promoting exports, reducing imports by substitution rather than compression, and expanding government consumption and investment expenditures.

The first three policy measures are combined in the framework by linking the acceleration of investment to its composition. Thus, it is assumed that an additional portion of domestic resources will go to productive investment over and above that which is currently the case, and that this extra investment will be allocated between export promotion and import substitution. In terms of the functioning of the framework, the extra investment is expressed as a certain percentage of potential GDP (1 to 5 per cent), which is added to the function for private investment. This extra investment, using a presumed ICOR of 5 is translated into a gain in output, which is divided into two shares; one is added to the export function, while the other is subtracted from the import function. Thus, this extra investment accelerates the rates of growth of private investment and exports, but slows down that of imports. This rests on the important assumption that under the situation envisaged, Palestinian export growth is effectively supply-constrained rather than demand-constrained, implying that the traditional markets for Palestinian products can absorb an increasing proportion of Palestinian exports, and that there is considerable potential for entry into new markets.

Three sets of allocations of the extra output were examined, reflecting the different preferences that could be given to either of the following parameters:

- (a) 50 per cent of the extra output to be directed to export promotion and 50 per cent to import substitution;
- (b) 70 per cent of the extra output to be directed to export promotion and 30 per cent to import substitution;
- (c) 30 per cent of the extra output to be directed to export promotion and 70 per cent to import substitution.

In this scenario, the second combination is selected, because of its relatively more impressive results, particularly in terms of employment generation and favourable effect on reducing the trade gap. Furthermore, with

a weak and narrow domestic productive base, an emphasis on import substitution seems less realistic, particularly in the context of a projected acceleration in growth and the expected consequent rise in demand for the import of capital goods. However, should the aim of reducing significantly the import content of private consumption and hence of expenditure on GDP become more important, then the first or third option becomes more relevant.

As for accelerating growth in government expenditure, it is considered desirable and necessary for two main reasons. Firstly, it is impossible to envisage rapid growth and development of the Palestinian economy while health, education, communication, housing, transport, etc. remain in their current neglected and inadequate state. Significant increases in the level of social services and in public administration outlays, as well as investment in a growing range of vital infrastructures, will become increasingly important.

Secondly, under the baseline variant scenario, total projected government consumption expenditures for the occupied territory reached \$700 million in 2010, while investment in that year was depicted to just exceed \$120 million. In terms of per capita levels, this amounted to just over \$23 and \$4, respectively. Even a doubling of government expenditure is not an exaggerated target, particularly in the case of investment. In order to reach such increased levels, the two flows are assumed to grow by at least 7 per cent per annum. Hence the necessity of changing the functional form for CG and IG from being a function of GDP to an exogenously determined one, expressing a target growth rate. The rates that were attempted ranged between 7 and 14 per cent.

To sum up, this scenario proposes to set the Palestinian economy on a path of sustained growth and development by: intensifying investment in productive sectors, and in particular in export promotion and import substitution activities; and, increasing government expenditures on consumption and investment so as to match growing development needs. In so far as NTR projections in this scenario are assumed to remain along the path determined by the historical trend, external finance is limited to those constrained levels of NTR.

In the following section, the specific values and additional assumptions used in the scenario are detailed. It is worth noting, however, that these are not the only rates and levels tested, but are rather the most convincing and consistent ones among a range of combinations attempted. All changes are introduced as of 1996, i.e. after the economy recovers and regains the pre-1988 path.

1. The demographic component

All the features of the demographic component remain unchanged from the previous scenario.

2. The labour force component

All the features of the labour force component remain unchanged from the previous scenario.

3. The economic component

The following changes are assumed under this component:

(a) While consumption behaviour in the West Bank remains unchanged, in the Gaza Strip the technical stability of the framework necessitated the use of a slightly different function, that did not have a lagged dependent variable. Thus, in this scenario, the equation in which private consumption is only a function of GNDI was used.³⁵

(b) As of 1996, an additional 1.5 per cent of the GDP of the West Bank (including east Jerusalem) and of the Gaza Strip is allocated to investment in directly productive activities. In this particular exercise, this rate of extra investment is maintained until the year 2010 in the Gaza Strip, while in the West Bank, the proportion is reduced to 1 per cent after the year 2000.

(c) The ICOR level for that particular investment is assumed to be equal to 5, meaning that the gain in output is equal to one fifth of the extra investment divided by 5. This ICOR is higher than the ICOR assumed for the economy as a whole (assumed at 3 for the baseline and its variant) but lower than that accepted for machinery and equipment, which has historically been around 7 to 9.³⁶ Furthermore, given the long gestation period expected for

the realization of the human resources and infrastructural needs of the territory, a lower ICOR would seem unrealistic.

(d) 70 per cent of the extra investment is assumed to be allocated to export promotion, so that 70 per cent of the extra output generated is added to the export trend.

(e) 30 per cent of the extra investment is assumed to be allocated to import substitution so that 30 per cent of the extra output generated is added to the import function.

(f) Government consumption is assumed to grow at an exogenously determined rate, which is equal to 7 per cent in both the West Bank and the Gaza Strip.

(g) Government investment is assumed to grow at an exogenously determined rate, which is equal to 10 per cent in both the West Bank and the Gaza Strip.

B. MAIN RESULTS

The results of Alternative Scenario II are presented in tables 4/3 and 4/4. An examination of the results confirms two trends, namely the ability of the Palestinian economy to: respond to the assumed relaxation of intensified restrictions as of 1992 (also featured in the variant scenario and Alternative I) and to regain pre-1988 trends; and overcome with varying degrees of success the structural weaknesses that stifled its performance under occupation, through rigorous policy formulation and management.

Indeed, the growth rates indicated under Alternative Scenario II do not surpass, for example, those witnessed in the 1972-1975 period. However, by 2010 the economy reaches a fairly vigorous and certainly more sustainable path of growth, as a result of the package of policies described in section A, above. The success is particularly noted in terms of the most salient problem that characterizes the economy's current state and which overshadowed the baseline projection, namely, the problem of unemployment and of the Palestinian economy's weak labour-absorption capacity.

The following sections analyse the impact of the resultant structural transformation on various key variables, with special attention to the 1995-2010 period when the policy framework is activated. It should be stressed that the significance of the results lies more in the direction of changes they imply than in the particular values of the growth rates, since the latter are a function of the particular values selected for the operating parameters. In other words, similar results could have been obtained with other combinations of values of these parameters.

1. Population, labour force and employment

Since the demographic component used in this alternative is unchanged, projections for population and population growth are similarly unaltered from the previous scenario. Similarly, labour force growth is much higher, and reaches levels of 4.5 per cent per annum in 2001-2005, reflecting the young age structure of the population. Thus, by the year 2010, the labour force would have more than doubled, with an addition to its ranks of an annual average of 22,750 new entrants per year.

However, the unemployment situation witnesses a dramatic improvement, whereby unemployment falls from the levels of 22 and 15 per cent for the West Bank and Gaza Strip in 1995, respectively, to 2 and 5 per cent by 2010. This is due to the remarkable performance of domestic employment, which after 1995 grows at higher rates, averaging 6.6 per cent per annum. This is accompanied by (an assumed) low level of employment of Palestinians in Israel. Should the number of such workers be reduced to a lower level, either the domestic rate of unemployment will accordingly rise to higher levels in both the West Bank and the Gaza Strip, or the policy package in this scenario would have to be further intensified. Consequently, by 2010, 86 per cent of all economically active Palestinians are able to find jobs in the domestic market (compared to only 50 per cent in the baseline), reflecting the improvement in domestic employment generation capacity. Under the current scenario, the economy is able to cope with the higher rates of growth of population and labour and to reduce its relative dependence on job availability in the Israeli economy.

Alternative II indicates no surprising change in sectoral employment shares, which remain close to those of the baseline and along broad historical trends. Thus the share of the agricultural labour force weakens to 15 per cent, while industry and construction widen their relative importance to 18 and 13 per cent, respectively. However, the current scenario anticipates a rapid rise in the levels of sectoral employment and of sectoral output. Consequently, all sectors will have to meet the challenge of extensive and sustained job creation. Agriculture, for example, is expected to be able to provide jobs for more than 100,000 persons in 2010, compared to around 42,000 currently, while industry is expected to provide a total of 124,000 jobs as compared to the present level of 35,000. Thus, rapid growth in domestic employment is underpinned by reorganization of production processes and an expansion of the scope of activities undertaken. Indeed, it would be hard to imagine how this structural transformation could occur without including, for example, the setting up of a proper banking system, to mention but one of the many lacking intersectoral mechanisms.

2. Domestic and national product; consumption, savings and investment

GDPF in Alternative II exhibits a strong positive response to the relaxation of constraints in 1992-1995, and subsequently to the acceleration of investment and export promotion. While in the recovery period, GDPF grows at an average of 10.8 per cent per annum, in 1996-2010 it grows at 7.5 per cent per annum, underpinned by strong growth in sectoral production. The leading sectors in the current scenario are construction and industry, which will grow at annual rates of 7-8 per cent over the period. Agriculture is expected to grow more slowly, at an annual average of 6.1 per cent after 1995, as compared to a faster recovery in the Gaza Strip in 1991-1995.

NFI under the present scenario is set to grow at the same constrained rates as in the baseline of under 2 per cent per annum. Consequently, GNP growth in this scenario too tracks GDP closely, averaging 6.9 per cent per annum after 1995. A marked improvement is registered in the share of GDP/GNP which rises from 72 in 1990 to 92 per cent in 2010, reflecting the stronger domestic production levels.

Despite the higher population growth rates, both per capita GDP and per capita GNP grow steadily. Accordingly, Alternative II suggests a clear improvement in individual prosperity, with per capita GNP in the year 2010 reaching \$2,833 in the West Bank and \$1,809 in the Gaza Strip. Despite overall improvement, the per capita GDP of the West Bank will continue to exceed that of the Gaza Strip, by some 1.6 times in the year 2010. Although these per capita GDP and GNP levels are impressive compared to those prevailing in the 1990-1992 period, they are less so when compared to those already reached in 1987. By way of example, in 1987 per capita GNP stood at \$2,161 in the West Bank and \$1,493 in the Gaza Strip. Consequently, the projections obtained under Alternative II remain modest and an accentuation of the growth stimulating and economic restructuring efforts described under the current scenario is possible without the impact of such policy measures being exaggerated.

The growth of GDPF occurs in conjunction with the vigorous performance of the components of aggregate demand and hence of GDP at market price. After the first few years of rapid recovery, GDP shows steady growth at annual rates of between 6.8 and 8.3 per cent. These growth rates prove sufficient to bring the value of GDP very close to that of potential GDP (i.e. as would be produced with full employment). Another distinguishing feature of Alternative II is that the differentials in growth rates of the components, as a consequence of the assumed policy measures, results in a different composition of demand. At the end of the period under consideration, the importance of private consumption and of imports is reduced in favour of investment and exports.

Private consumption expenditure grows at a slower rate than GDP, with the differential between the two rates expanding to just under 1 percentage point in 2005-2010. Over the entire period, private consumption grows at 7.4 per cent per annum. Consequently, whereas private consumption accounted for around 98 per cent of expenditure on GDP in 1990, its share will shrink to around 83 per cent by 2010. None the less, per capita private consumption strengthens considerably

over the period, growing at just under 4 per cent per annum to reach \$1,844 in the year 2010 compared to \$863 in 1990. Under this scenario, the average growth of government consumption expenditure over the 1990-2010 period, outstrips marginally that of both private consumption and GDP. By 2010, government consumption will equal 16.7 per cent of GDP compared to 15.6 in 1990, which implies that its exogenously determined growth rate of 7 per cent is a modest assumption. It nevertheless has the relatively attractive feature of keeping overall government current expenditures at a fairly feasible and realistic level and proportion of GDP.

Investment advances at an impressive average annual rate of 7.6 per cent, and more importantly it changes in composition. Government investment, which is set exogenously to grow at 10 per cent per annum after 1996, increases its share of GDP from 3.3 per cent in 1990 to just over 4.5 per cent by 2010. Private investment will grow at 7 per cent per annum in the 1990-2010 period, a rate which incorporates the 'extra investment', or that percentage of GDP especially earmarked for investment in 'productive sectors' under Alternative II. This investment is over and above the share historically deduced from gross national disposable income. Thus, at the beginning of the investment intensification programme in 1996, 1.9 per cent of the territory's actual GDP is dedicated to extra investment, which will account for 6.6 per cent of total private investment expenditure. By the year 2010, the percentage of GDP devoted to this activity is reduced to 1.2 per cent, or 4.8 per cent of total private investment. As a result of this programme, the share of non-housing investment will be equivalent to 5.8 per cent of GNP in the year 2010, compared to 4.7 per cent in 1990.

Thus, owing to the extra-investment programme, the composition of investment changes in favour of productive sectors. Furthermore, the extra investment is dedicated to activities that increase exports and reduce imports. Under this scenario, 70 per cent of the extra output generated by the extra investment is assumed to be equal to export gains, while the rest represents import savings. In the year 2010, this programme will make available to the economy \$180 million of additional resources, equivalent to 2.5 per cent of that year's GDP.

Turning to the behaviour of savings, Alternative II projects an initial worsening of the national savings ratio, falling from 18 per cent of GNP in 1990 to 6 per cent in the year 2000, before improving to 8 per cent by the year 2010.³⁷ However in terms of GDP, Alternative II shows a net amelioration of the savings/GDP ratio. Indeed, the ratio is expected to narrow from -14 per cent in 1990 to +1 per cent by the year 2010, compared to -12 per cent under the baseline scenario. Thus, a significant improvement in the ability of the economy to mobilize domestic savings and to finance consumption and investment activities is foreseen in this scenario. The Gaza Strip's negative domestic savings ratio will continue to be of great concern, although it is projected to narrow substantially from -41 per cent of GDP in 1990 to -9 per cent in 2010.

The low national savings ratio means that by 2010 the Palestinian territory will have developed a savings-investment gap equivalent to 20 per cent of GNP. Although this is marginally better than the 22 per cent of GNP of the baseline variant, the \$628 million of national savings will be able to cover only 29 per cent of total annual investment requirements of \$2.2 billion. This leaves a savings-investment gap of around \$1.5 billion per annum, compared to \$300 million under the baseline scenario. However, it should be noted that total investment levels under the baseline scenario were expected to reach only \$592 million, and that under the latter, the dependency on external finance was the dominant mechanism for maintaining the meagre growth rates of GDP and of aggregate demand.

3. External trade and financial resources

Under Alternative II, the noticeable improvements in the performance of domestic output are reflected clearly in the growth of trade. As a result of the extra investment, the performance of exports brings marked gains over the historical period. After recouping the 1988-1991 losses by 1996, export growth surpasses the slower historical rate, with the average for the 1996-2010 period equal to 10.3 per cent in the West Bank and 8.3 per cent in the Gaza Strip. By the year 2010, exports from the Gaza Strip should account for around 29 per cent

of total exports compared to 11 per cent in 1990. More importantly, the contribution of exports to GDP will improve significantly from 12 and 20 per cent in 1990 and 1995, respectively, to at least 27 per cent by the year 2010.

The scenario forecasts less impressive improvement on the imports side. The extra-investment programme under this scenario favours export promotion over import substitution, and the resources devoted to the latter policy under that programme are not enough to overcome the income effect of the rapid rise in GDP. Indeed, in 1996, some 2 per cent of actual GDP is earmarked for 'extra investment', while imports account for 67 per cent of GDP. None the less, these efforts put a lid on import growth, which in the 1996-2010 period advances at 6.9 per cent per annum, while GDP is expected to grow at 7.5 per cent. More importantly, the import content of aggregate demand ($M/X+I+C$) is reduced from 43 per cent in 1987 to just over 36 per cent in 2010, while the M/GDP ratio improves slightly from 60 in 1990 to 57 per cent in 2010. The expected level for that ratio in 1995 is 62 per cent, meaning that without the import substitution policy which subsequently takes effect, imports' share of aggregate demand would have continued to grow. In the Gaza Strip, the M/GDP ratio improves from 99 per cent in 1990 to a still high ratio of 78 per cent in 2010, when the West Bank will score 49 per cent.

Consequently, Alternative II produces a marked improvement in external balances, although the merchandise trade deficit will reach an annual figure of over \$1.2 billion by the year 2010, twice the level in the baseline. The trade gap ($X-M/GNP$) narrows substantially to -27 per cent in 2010, compared to -33 per cent expected for 2010 under the baseline. The improvement in terms of GDP is even more marked, since this scenario projects that the gap will narrow to -29 per cent in 2010, compared to -42 per cent achieved under the baseline scenario. The Gaza Strip is able to narrow its trade gap by 2010 to -42 per cent as compared to -60 under the baseline scenario. Meanwhile, the current account turns back into deficit again as of 1996, reaching an annual figure of \$334 million at the end of the projection period, when it will equal 4.2 per cent of GNP. None the less, this compares favourably with the 8 percentage point reduction in the trade gap.

4. Concluding remarks

The elements that contribute to the relative success of the scenario are the following:

- (a) GDP has to at least double every 10 years, so that it grows twice as fast as the labour force;
- (b) Investment will have to track that growth very closely. Most importantly, investments of around \$1 billion would have to be effected between 1996 and 2010 on productive activities that help improve the external trade balance, i.e. an annual amount rising from \$51 million in 1996 to \$88 million in 2010;
- (c) Exports should grow faster than imports and faster than GDP if their share out of aggregate demand is to increase;
- (d) Imports should grow slower than GDP if they are to absorb a smaller part of the total resources available to the economy.

With the above policies, the economy is not only capable of reverting to the growth path of pre-1988, but of gradually reducing the long-standing structural problems, notwithstanding the rapid increases in population and labour force. This is possible as a result of a two-pronged policy of: lifting the operational restrictions that have been imposed since 1967 and since 1988 in particular; and boosting the economy's productive capacity by activating sectoral policies and implementing structural reforms. The policies formulated in this manner dramatically change the economy's ability to successfully employ its growing manpower. Furthermore, it induces a marked reduction in the economy's high degree of external exposure and import dependency, while bringing levels of consumption in line with domestic productive capacity and income. However, while the scenario exhibits substantially smaller trade gaps than the baseline scenario, its ability to mobilize domestic savings remains insufficient, particularly in the face of the accelerated investment required for structural transformation.

As for the increase in government activity featured in this scenario, it is difficult to identify the sources of its financing in any precise manner, since the framework cannot determine future government fiscal and taxation policies. Moreover, there is no basis in the alternative scenario analysis for assuming that the tax burden currently borne by the population will continue at present levels and proportions. Furthermore, its "visible part" as represented by net indirect taxes on production (NITP) and income taxes and transfer to the Government (ITT) remain unrepresentative of its actual totality. If these two flows continue along historical trends, ITT will progress at 7-8 per cent per annum to reach under \$500 million by the year 2010, while NITP (which is fixed at around 4.9 per cent of GDP at factor cost) will stand at around \$338 million in the same year compared to total government expenditures in that year of just over \$1.5 billion.

These figures for potential revenue exclude: the possibilities of raising funds through government bonds; charges for government services; and taxation on export and import activities, which currently accrue to the occupation authorities. All of these potential sources of taxation revenue will depend on the future fiscal policies and instruments adopted in the territory, including trade and tariff policies followed by the authorities. Other potential ways of raising public funds also exist such as the establishment of national insurance and pension schemes. Hence, the increase in government expenditure on consumption and investment depicted in this and subsequent scenarios may or may not lead to a budgetary deficit. Even if this were the case, there would still be at least two policy options: raising the necessary funds domestically or on foreign capital markets. None the less, the implicit total requirements do not seem unobtainable or unprecedented, especially if the options of foreign commercial or other lending are considered.

On the whole, though problems remain, Alternative II presents more satisfactory prospects for Palestinian economic performance as far as reaching a sustainable and coherent growth path is concerned. Perhaps the most important implication of the scenario is that rebuilding a vigorous Palestinian economy is shown to be possible with the modest policy action envisaged here, provided the conditions are created for the initiative to be taken as soon as possible, both during and beyond the 1992-1995 recovery period.

Table 4/3. ALTERNATIVE SCENARIO II, 1990-2010: INTENSIFYING INVESTMENT AND REDRESSING TRADE GAP

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS *	(thousands)				
Population	1695	2034	2407	2820	3253
Labour force	343	423	525	653	798
Total domestic employed	219	264	353	483	690
Employed in Israel	108	78	79	80	82
	(millions of constant 1990 US\$)				
Total investment	505	745	1082	1492	2171
Gross domestic product (GDP)	1487	2447	3404	4857	7244
Net factor income	565	449	497	544	601
Gross national product (GNP)	2052	2896	3901	5402	7844
Net transfers	158	189	225	265	307
Gross disposable income	2210	3085	4126	5667	8151
Merchandise trade balance	-502	-667	-887	-1049	-1242
Current account balance	221	-28	-165	-240	-334
	(constant 1990 US\$)				
Private consumption per capita	863	1114	1268	1482	1844
GDP per capita	877	1203	1414	1722	2227
GNP per capita	1211	1424	1621	1915	2412
SELECTED INDICATORS					
	(ratios in per cent)				
Unemployment / labour force	11	19	18	14	3
Employment shares (domestic)					
Agriculture	19	18	17	16	15
Industry	15	17	18	18	18
Construction	10	12	12	13	13
Services	47	52	53	53	53
Employed in Israel / employed labour force	33	23	18	14	11
Investment / GDP	34	30	32	31	30
Savings / GNP	18	6	6	7	8
Investment / GNP	25	26	28	28	28
GDP / GNP	72	84	87	90	92
Trade balance / GNP	-35	-35	-35	-31	-27
Imports / private consumption	61	67	67	68	69

* Including east Jerusalem

Table 4/4. ALTERNATIVE SCENARIO II, 1990-2010: INTENSIFYING INVESTMENT AND REDRESSING TRADE GAP

	MAIN AGGREGATES AND SELECTED INDICATORS (compound annual growth rates)			
	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	3.4	3.2	2.9
Labour force	4.3	4.4	4.5	4.1
Total domestic employed	3.9	5.9	6.5	7.4
Value added in				
Agriculture	1.8	5.1	5.1	7.2
Industry	16.1	7.3	7.7	8.6
Construction	15.5	7.5	7.7	8.6
Services	13.0	7.2	7.6	8.5
Gross domestic product (GDP)	10.5	6.8	7.4	8.3
Private consumption	9.1	6.1	6.5	7.5
Private investment	7.4	7.5	6.2	7.4
Government investment	15.2	9.9	9.9	9.9
Exports	23.7	6.7	10.7	11.3
Imports	11.2	6.3	6.8	7.7
Net factor income	-4.5	2.0	1.9	2.0
Gross national product (GNP)	7.1	6.1	6.7	7.8
Net transfers	3.8	3.5	3.3	3.0
Gross disposable income	6.9	6.0	6.6	7.5
Private consumption p.c.	5.2	2.6	3.2	4.5
GNP p.c.	3.3	2.6	3.4	4.7

* Including east Jerusalem

**ALTERNATIVE SCENARIO III
INTENSIFYING INVESTMENT AND REDRESSING THE TRADE GAP WITH
EXTERNAL TRANSFERS**

A. Main assumptions and qualifications

Alternative Scenario II identified ways in which some of the major problems confronting the Palestinian economy can be remedied. The scenario listed a number of domestic policies aimed at re-structuring the economy over the period under consideration. The necessary adjustments occur gradually and the major gaps reach acceptable and certainly more manageable levels by the year 2010. The process relies on the mobilization of domestic resources only, with external finance limited to the relatively constrained levels of NTR. In Alternative Scenario III, that constraint is lifted and it is assumed that more substantial external finance/aid will be available to the economy in support of its adjustment efforts. These foreign transfers are meant to help increase income levels and narrow the gaps much more rapidly than would otherwise be the case, since more resources can be invested in productive activities.

Thus the current scenario is built on the same combination of macroeconomic policies that constituted the basis for Alternative Scenario II. They are here supplemented by a reliance on NTR, which is defined in the same way as in Alternative Scenario I. In other words, it is set to match the difference between a desired employment level and that level which would otherwise result from the combination of domestic policies spelt out in Alternative Scenario II. Hence, as in Alternative Scenario I, a constrained unemployment rate is selected (i.e. 10 per cent in the present version). Accordingly, the gap between actual and potential aggregate demand resulting from the domestic policy package is obtained. If that gap exceeds the desired level, then NTR is increased so as to match the difference.

The main interest in, and strength of, this scenario is that it illustrates the sensitivity of the Palestinian economy to the availability of foreign financial support, during a period of intensive domestic policy efforts for structural transformation aimed at reaching a path of sustained growth and development. Given the size of the gaps obtained under the baseline scenario and its variant, it is not surprising that NTR plays a vital and invigorating role in supporting the Palestinian economy. The combination of more vigorous domestic macroeconomic policies that it embodies, and the calculation of additional external resources that their successful application would entail, render this scenario a more useful alternative than those preceding it. Nevertheless, if the total amount of external resources envisaged under this scenario is not met by unrequited transfers, the Palestinian economy will have to either reduce the scale of operations envisaged under the scenario or resort to external borrowing, if possible. In the latter case, provisions would also have to be made for the repayment of both principal and interest due. This would in turn put the burden on the export sector to generate even more foreign exchange to satisfy increased imports and provide for debt repayment. This important issue of debt can only make sense under a situation which will give the Palestinian economy the international standing required for obtaining loans.

The following points review the additional changes introduced in the framework as part of the current scenario. The assumptions are almost identical to those under Alternative Scenario II, except that some were fine-tuned to reflect the availability of NTR in the way described above.

As with the Alternative II, the combination of variables and values presented are not the only ones attempted, but are those that generated the most convincing and consistent results. All changes are introduced as of 1996, i.e. after having allowed the economy to regain the pre-1988 path. Here again, adopting an earlier date for introduction of these changes would only bring forward by the same number of years the results specified for this scenario.

1. The demographic component

All the features of the demographic component are assumed to remain unchanged from the previous scenario.

2. The labour force component

All the features of the labour force component are assumed to remain unchanged from the previous scenario.

3. The economic component

All the features of the economic component are assumed to remain unchanged from the previous scenario except that:

(a) While consumption behaviour in the West Bank is assumed to remain unchanged, in the Gaza Strip the equation in which private consumption is assumed to be only a function of GNDI was used in this scenario.³⁸

(b) In the Gaza Strip, it is assumed that extra investment in the order of 2.5 per cent of potential GDP will be mobilized between 1996 and 2005, with the percentage being relaxed to 1 per cent as of the year 2006. In the West Bank, the percentages used are assumed to stand at 1.5 per cent for the period 1996-2000, and 1 per cent thereafter.

(c) Government investment is assumed to grow at an exogenously determined rate of 10 per cent in the West Bank and 8 per cent in the Gaza Strip.

(d) The assumed level of NTR depends on what is happening to the discrepancy between actual and potential demand. If the actual discrepancy exceeds the desired discrepancy (fixed at 10 per cent as of 1996), then the level of NTR is assumed to be a function of that difference. Once the actual discrepancy falls below 10 per cent, then the level of NTR reverts to 1990 NTR per capita levels multiplied by that year's population.

B. Main results

The results of Alternative Scenario III are presented in tables 4/5 and 4/6. They are broadly similar to results obtained under Alternative Scenario II. However, calculations for the 1996-2005 period indicate an improvement over that scenario, meaning that growth rates and levels are higher in most cases. This is due to the expected availability of external finance (NTR), which is here translated into an accelerated growth path and a lower unemployment rate throughout the post-1996 period. In the following sections, the impact of structural transformation and of the availability of extra NTR are analysed.

1. Population, labour force and employment

As in previous scenarios, the Palestinian territory will by the year 2010 have an estimated total population of 3,253,000 and a labour force of 798,000. With the availability of extra finance, domestic employment is able to rise rapidly to 399,000 by the year 2000, compared to 353,000 under Alternative II. In other words unemployment was expected to stand at 18 per cent of the labour force in the year 2000 under Alternative II, but it is down to 9 per cent in this alternative, due to the assumed availability of an extra \$630 million in NTR. The impact of NTR on unemployment, acting through aggregate demand, represents a cost of about \$1,350 per new job. By the year 2010, domestic employment will reach 698,000 with no extra NTR subsequently required. Effectively, the NTR thus gives the economy a substantial and immediate boost to its employment generation capacity, which subsequently becomes self-supporting.

Regarding sectoral employment, it undergoes a rapid expansion in the period 1996-2000. However, the labour force component produces the same sectoral distribution for the year 2010. Thus the essential difference with Alternative II is that the rapid growth projected here for 1996-2000 implies even more substantial structural transformation and potent sectoral policies. Thus, while under Alternative II industrial employment was expected to rise to 63,066 by the year 2000, under Alternative III it is expected to reach 71,195.

2. Domestic and national product; consumption, savings and investment

GDPF takes off at an annual growth rate of 10.2 per cent in 1996, with the average for the 1996-2000 period being 7.6 per cent. This is close to the rates specified for the developing countries under the international development strategies for the second and third United Nations Development Decades.³⁹ Sectoral value added will have followed a similar trend, with a take-off growth rate of 8-10 per cent. GDP at market price is expected to grow at a similar pace reaching \$3,860 million in the year 2000 and \$7,301 in the year 2010, compared to \$3,404 and \$7,244 under Alternative II. With NFI reaching only \$601 million in the year 2010, as in Alternative II, the ratio of GDP to GNP is expected to

improve and stand at 92 per cent in the year 2010 as a result of rapid growth in domestic productive capacity.

Per capita indicators are expected to be similar to those achieved in the previous scenario. Per capita GDP in the year 2010 will reach \$1,657 in the Gaza Strip and \$2,655 in the West Bank, while per capita GNP will rise to \$1,885 and \$2,814, respectively. Thus, West Bank per capita GNP will be 1.5 times greater than that of the Gaza Strip, compared to 1.9 times under the baseline scenario. These and other differentials in indicators of economic performance and standards of living in the two areas (WB/GS) are exhibited in all scenarios - reflecting the enduring impact of almost 25 years of occupation (1967-1992). This points to a structural divide which can best be bridged through vigorous pursuit of regional development goals and programmes specific to the Gaza Strip and taking into consideration its special needs and potentials.

The differentials in growth rates of the components of demand will result in a composition favouring investment and exports as opposed to private consumption and imports. CP will be less squeezed under this scenario than under Alternative II, since NTR expands, allowing investments to grow without a slowdown in CP. Hence in the year 2000, CP will stand at \$3,838 million compared with \$3,052 in Alternative II. However, in this scenario too, the share of CP out of GDP will end at 83 per cent compared to 98 per cent in 1990. Per capita private consumption will rise at an average annual rate of 3.9 per cent to \$1,854 in the year 2010 compared to \$863 in 1990. Government consumption rises at 7 per cent per annum to \$1,209 in the year 2010, when it will be equal to 16.6 per cent of GDP, compared to 15.6 per cent in 1990.

Investment takes off with an average annual growth rate of over 12 per cent for the 1996-2000 period. Government investment grows at over 8 per cent per annum to reach \$265 million in the year 2010. In terms of its share of GDP, IG will then equal 3.6 per cent, compared to 3.3 per cent in 1990. However, in terms of its contribution to total investment, IG/I will rise from 7.8 to over 12 per cent over the same period.

Private investment is expected to grow at an annual average rate of 7.2 per cent for the period as a whole, and at 12.5 per cent during 1996-2000. The 'extra investment' dedicated to export promotion and import reduction will still start at under 2 per cent of GDP, but this will be equivalent to 6.3 per cent of the \$944 million of IP, compared to the 6.6 per cent of the \$774 million of IP seen under Alternative II. The share of non-housing investment will rise to 5.6 per cent of GNP by the year 2000 before falling back to 4.4 per cent in the year 2010. At the same time, the share of total investment from GNP will have also risen to 30 per cent in the year 2000 before falling back to 27 per cent in the year 2010, compared to a steady 28 per cent under Alternative II.

As in the previous scenario, an extra \$1 billion will have been spent between 1996 and 2010 on import reduction and export promotion. However here almost two thirds of this sum will have been spent in the first 10 years as opposed to a half under Alternative II, thus allowing a faster growth rate. In the year 2010, the extra output generated by this programme will reach \$190 million or the equivalent of 2.6 per cent of GDP.

Savings, in the meantime, worsen to -2 per cent of GNP in the year 2010 as a result of expanding CP, before recovering to 8 per cent at the end of the period. In the Gaza Strip, the ratios for the same years will recover from -8 per cent to +6 per cent, compared to +4 per cent under Alternative II. In terms of GDP, domestic savings in the territory as a whole will rise from -14 per cent in 1990 to +1 per cent in 2010, and from -41 per cent to -7 per cent in the Gaza Strip, a marginal improvement over the levels registered under Alternative II. Consequently, by the year 2010, the savings-investment gap will reach 19 per cent of GNP compared to 20 per cent under Alternative II and 22 per cent under the baseline variant scenario. Thus, the \$632 million of national savings will cover only 30 per cent of the \$2.1 billion of required investment expenditure.

3. External trade and financial resources

The acceleration of investment under this scenario results in more rapid and clear improvement in export performance and in import reduction efforts. Exports rise rapidly at 10 per cent per annum after 1995, reaching \$708 million by the year 2000 and \$2,105 million by the year 2010, compared with \$695 million and \$1,974 million, respectively, under Alternative II. By the year 2010, exports are expected to be equal to 29 per cent of GDP and 51 per cent of imports. In the Gaza Strip, these percentages will reach 35 per cent and 45 per cent, respectively, compared with 30 per cent and 38 per cent achieved under Alternative II. Gaza's exports will have raised their share out of total exports to 34 per cent, as compared to 29 per cent under the baseline variant. In view of the operative assumptions governing this scenario as regards traditional and new market potentials for Palestinian exports, and the actual historical performance of exports in certain years, such results do not appear unrealistic.

Imports will register an average annual growth rate of 8 per cent over the whole period, reaching \$4.15 billion by the year 2010. As in the previous scenario, imports' share of GDP will fall from 60 per cent in 1990 to 57 per cent in the year 2010, while its share of aggregate demand (M/C+I+X) will fall from 43 per cent in 1990 to 36 per cent in 2010. However, while imports still remain very important in the consumer basket, their significance to aggregate demand has been diminished.

Consequently, the trade gap (trade balance/GNP) will worsen to -44 per cent in the year 2000 before narrowing to -26 per cent. Indeed, as of 2005, this scenario will show an improvement of 6 to 8 percentage points as compared to the trade gap seen in the baseline variant. Total NTR reaching the economy is expected to rise from \$158 million in 1990 to \$855 million in 2000 before falling back to \$307 million in the year 2010. On a per capita basis, NTR inflow would have varied from \$93 to \$355 to \$94, respectively. NTR's share of GNDI will have followed suit, first expanding from 7 per cent to 16 per cent, then retreating to 4 per cent for the last year of the period. The current account balance will end the period with a deficit of \$245 million, which is 26 per cent lower than the \$334 million deficit under Alternative II.

4. Concluding remarks

Alternative Scenario III leaves the economy with a much stronger productive base, able to absorb the great majority of its labour force. To achieve this, the economy will have received \$5.4 billion in extra NTR between 1996 and 2007. During this period, annual extra NTR will range from as much as \$644 million (in 2001) to as little as \$42 million (in 2007). Total NTR, including the 'extra', will amount to some \$9 billion for the whole 1996-2010 period. This injection of external finance should be seen in light of some of its beneficial effects: the significant gains in employment; the narrowing of both the savings-investment and trade gaps; and, the improvement of the current account deficit. Meanwhile, the extra NTR sustains GDP at much higher levels compared to Alternative II. In other words, the additional NTR under Alternative III enables the economy to generate \$4.6 billion more of GDP during 1996-2010 than is the case under Alternative II, which relies on domestic resources alone.

Thus, the extra NTR allows a much more rapid take-off, whereby virtually all the domestic human and economic resources are mobilized and utilized. According to this scenario, such a boost will only be required in the first decade after recovery, with the economy ending the entire period with a vigorous structure that does not require extra external financial support. Not only does the economy function more efficiently than under previous alternatives, but this is achieved without increasing the costs of structural adjustment through reliance on domestic resources alone. On the whole, under the conditions featured in this scenario, the results indicate favourable prospects for the future of the Palestinian economy. However, they fall short of satisfying the broader objectives that can be envisaged, bearing in mind the total potential that the Palestinian people and economy can muster in the West Bank and the Gaza Strip. These crucial options are explored in chapter V.

Table 4/5. ALTERNATIVE SCENARIO III, 1990-2010: INTENSIFYING INVESTMENT AND NARROWING THE TRADE GAP WITH EXTERNAL TRANSFERS

MAIN AGGREGATES

	1990	1995	2000	2005	2010
WB & GS*					
			(thousands)		
Population	1695	2034	2407	2820	3253
Labour force	343	423	525	653	798
Total domestic employed	219	264	399	512	698
Employed in Israel	108	78	79	80	82
			(millions of constant 1990 US\$)		
Total investment	505	745	1318	1584	2109
Gross domestic product (GDP)	1487	2447	3860	5152	7301
Net factor income	565	449	499	546	601
Gross national product (GNP)	2052	2896	4359	5698	7901
Net transfers	158	189	855	562	307
Gross disposable income	2210	3085	5214	6260	8208
Merchandise trade balance	-502	-667	-1309	-1206	-1153
Current account balance	221	-28	46	-98	-245
			(constant 1990 US\$)		
Private consumption p.c.	863	1114	1594	1635	1854
GDP p.c.	877	1203	1603	1827	2244
GNP p.c.	1211	1424	1811	2020	2429

SELECTED INDICATORS

			(ratios in per cent)		
Unemployment / labour force	11	19	9	9	2
Employment shares (domestic)					
Agriculture	19	18	17	16	15
Industry	15	17	18	18	19
Construction	10	12	12	13	13
Services	47	52	52	53	53
Employed in Israel / employed labour force	33	23	17	14	11
Investment / GDP	34	30	34	31	29
Savings / GNP	18	6	-2	4	8
Investment / GNP	26	26	30	28	27
GDP / GNP	72	84	89	90	92
Trade balance / GNP	-35	-35	-44	-33	-26
Imports / private consumption	61	67	68	68	69

* Including east Jerusalem

Table 4/6. ALTERNATIVE SCENARIO III, 1990-2010: INTENSIFYING INVESTMENT AND REDRESSING TRADE GAP WITH EXTERNAL TRANSFERS

MAIN AGGREGATES AND SELECTED INDICATORS
(compound annual growth rates)

	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	3.4	3.2	2.9
Labour force	4.3	4.4	4.5	4.1
Total domestic employed	3.9	8.6	5.1	6.4
Value added in				
Agriculture	1.8	8.0	4.6	6.0
Industry	16.1	9.8	6.5	7.8
Construction	15.5	10.2	6.3	7.5
Services	13.0	9.9	6.2	7.4
Gross domestic product (GDP)	10.5	9.5	6.0	7.2
Private consumption	9.4	11.1	3.7	5.5
Private investment	7.4	12.5	3.2	5.6
Government investment	15.2	8.3	8.4	8.4
Exports	23.7	7.1	11.6	11.4
Imports	11.2	11.7	3.6	5.8
Net factor income	-4.5	2.1	1.8	1.9
Gross national product (GNP)	7.1	8.5	5.5	6.8
Net transfers	3.8	35.2	-8.1	-11.4
Gross disposable income	6.9	11.1	3.7	5.6
Private consumption p.c.	5.2	7.4	0.5	2.5
GNP p.c.	3.3	4.9	2.2	3.8

* Including east Jerusalem

CHAPTER V

SCENARIO ANALYSIS, 1990-2010: ALTERNATIVES IV-V

Introduction

In the previous three alternative scenarios, it was assumed that the Palestinian people in the West Bank and Gaza Strip would constitute the future population of these areas, i.e. on a de facto basis. As such, the framework has not, so far, integrated into the Palestinian population of the West Bank and Gaza Strip elements from the three categories of Palestinians who presently reside outside the territory as a result of: the 1948 war; the 1967 war; and developments since 1967. These categories constitute an important stock of the de jure and refugee population, some of whom may return to the territory should the future political and economic conjuncture permit.⁴⁰ Any change in the policy environment that would permit a significant Palestinian population movement into the territory is expected also to allow the return of land to Palestinian control and the equitable distribution of water resources, thus helping to ensure optimal conditions for infrastructural development, especially as related to agriculture, housing and urbanization.⁴¹

To accommodate such eventualities, new scenarios were examined using the same combination of policies described under Alternative Scenarios II and III. It should be noted, however, that the results of these scenarios cannot entirely or accurately reflect all the changes that are required or brought about by a population movement of the size under consideration, or by the new conjuncture it implicitly assumes. Moreover, the nature of the framework is such that it has not been possible to quantify the economic impact of full control over natural resources, or to estimate the costs and benefits of regional economic integration and cooperation arrangements that might ensue in the future. As with the previous scenarios, the assumptions and the results of the scenarios developed in this chapter are not prescriptive in nature. They are only indicative of the responses and of the scale of transformations the Palestinian economy will need to undergo in order to successfully absorb the above-mentioned categories of the Palestinian people.

In elaborating Alternative Scenarios IV and V, one main challenge was to define the size of that unknown stock of returnees. The main references were published data on the number of Palestinians living outside the occupied territory, estimated at least at 3.5 million in 1990, of whom some 1.5 million were refugees registered with UNRWA.⁴² According to one source, the number of Palestinians living outside the territory since 1967 but originating in the West Bank and the Gaza Strip stood at 761,000 in the mid-1980s.⁴³ Although it is beyond the scope of this study to estimate the number of Palestinians that might eventually return to the territory, a figure of at least 1 million as a potential returnee population seems appropriate in the light of the preceding data.

To overcome the problem of estimation, and since the exercise has mainly an illustrative function, it was decided to peg the issue around two possibilities: that of a lower (but not minimum) estimate of around 1 million returnees; and that of a higher (but not maximum) estimate of around 2 million returnees. Thus the exercise can be conducted in two versions, one with a low estimate of returning population, and the other with the high estimate. Under each of these versions the overall policy framework governing Scenarios II and III in chapter IV is fine-tuned to reflect the impact of the additional population. The process of accommodating the returnee population begins as of 1996, i.e. the year by which recovery is completed (as in Alternatives I-III) and vigorous policy intervention in the economy is assumed to commence. The scenarios are constructed so as to absorb either the lower or the higher estimate of returning population by the end of the projection period.

**ALTERNATIVE SCENARIO IV:
ABSORPTION OF RETURNING POPULATION WITHOUT EXTERNAL TRANSFERS**

A. Main assumptions and qualifications

In its essence, this scenario is designed and structured in the same manner as Scenario II in chapter IV. Consequently, it features an acceleration of investment, promotion of exports, reduction of imports, and expansion of government services and investment in the economy. The main difference is that these policies are accelerated and intensified so that projections with the additional population yield similar results as under Alternative Scenario II.

The return of population required important changes to the demographic component. In previous scenarios, the demographic component assumed positive migration from the territory under the baseline scenario and zero migration under all subsequent scenarios. Thus, to accommodate the return of Palestinians as is intended under the current scenario, reverse or 'negative' migration rates are assumed. The returning population is thus integrated following the same reasoning as in the baseline, namely that the flow of returnees is expressed as a percentage of the resident population. The percentage is changed throughout the period so that it yields fairly stable annual flows which add up to either of the two potential returning populations (i.e. 1 or 2 million people) between 1996 and 2010.

Thus the scenario was run twice, once with the low estimate and once with the high estimate. Given the structure of the framework, similar results were obtained by varying the values of the key parameters. For example, if under Scenario II of chapter IV, government investment was required to increase at 7 per cent per annum, under the current scenario, it would have to increase by 8 to 15 per cent, with the higher end of the range corresponding to the higher estimate of the returning population.

Consequently, although the two exercises produce successful results, it was considered that analysing the results of only one of the two versions would be sufficient. Though the version with the high returning population represents the more challenging possibility, the lower returning population figures are adopted for the purpose of discussion and analysis, so as to focus on the minimum requirements envisaged within this scenario. The results for both levels of returnee population are presented in tabular form. As a reminder, all changes are introduced as of 1996, i.e. after the economy attains the pre-1988 path.

1. The demographic component

All the features of the demographic component are assumed to be unchanged from previous scenarios except for the following:

(a) As of 1996, Palestinians from outside the territory will be added to the de facto resident population at a rate declining gradually from 3 per cent per annum of resident population to 1.5 per cent by the year 2010. These rates yield an average annual flow of net emigration of some 27,000 in the case of the Gaza Strip, and 40,000 in the case of the West Bank. Thus, by the year 2010, 406,000 Palestinians would have returned to the Gaza Strip and another 606,000 would come back to the West Bank (including east Jerusalem), constituting together a total returnee population of 1,012,000. In the version of this scenario with a higher returnee population, the total would be 751,000 for the Gaza Strip and 1,203,000 for the West Bank, amounting to a total of 1,954,000 returnees.

(b) The returning population is assumed to have the same age structure, fertility and mortality behaviour as the resident population. This implies that, although different groups of returnees might have different behaviour, on average their behaviour will not vary significantly from that of the resident population. Given the uncertainty and the lack of information surrounding this issue, this assumption probably represents the 'safest' expectations at this stage.

2. The labour force component

All the features of the labour force component are assumed to be unchanged from previous scenarios. In addition, it is assumed that the returning population will participate in the labour force following the same

pattern as the resident population. In so far as this assumption ignores the lag usually observed in migrants' entry into the labour market, the additions to the labour force might be slightly exaggerated. On the other hand, the overall participation rate assumed for the resident population itself is relatively low, so that if the returnees were more active economically, the current assumption might lead to an underestimation of the resulting labour force.

3. The economic component

The changes required for the current scenario are as follows:

(a) In order to reflect the impact of the increase in population on the demand side, it is assumed that in each year, the returning population of that year will cause a small increase in the total private consumption (CP). To reflect this increase, which is otherwise not accounted for in the consumption function, it is assumed that each migrant will consume in the first year after return the equivalent of one and a half times what was typically consumed on a per capita basis in the preceding year ($CP_{pc}(t-1)$). Thus, while private consumption is still a function of national disposable income in both the West Bank and Gaza Strip, the above-mentioned increment is added to the total CP of that year. The increment is obtained by multiplying the number of returnees in that year by $CP_{pc}(t-1)$, and dividing the result by 2.⁴⁴

(b) In the period 1996-2005, an extra 3 per cent of the West Bank's potential GDP will be dedicated to investment in directly productive activities, while in the last period 1 per cent will be sufficient. Similarly, in the Gaza Strip, the rate of extra investment will be maintained at the equivalent of 2.5 per cent of potential GDP until 2005, and is reduced to 2 per cent thereafter.

(c) Government consumption expenditure grows at an exogenously determined rate, which is equal to 8 per cent in both the West Bank and Gaza Strip. This rate gives similar per capita levels of government services for the increased population as those obtained under Alternative Scenario II.

(d) Government investment expenditure grows at an exogenously determined rate, which is equal to 13 per cent in both the West Bank and Gaza Strip. This rate gives similar per capita levels of government investment as those obtained under Alternative Scenario II, while also making the necessary extra provisions for infrastructural needs, including housing, to absorb the additional population.

(e) NTR is equal to 1990 NTR per capita levels multiplied by the resident population, including the emigrants that would have returned in that particular year. This assumption ignores the likelihood that the returnees might bring in some savings with them.

B. Main results

The main results of Alternative Scenario IV are presented in two sets of tables: tables 5/1 and 5/2 for the lower population return estimate and tables 5/3 and 5/4 for the higher. The following analysis is based on the lower population estimate: the present scenario has similar features as Alternative II of chapter IV, owing to the same package of policy measures adopted for each. The essential difference is in the growth rates of key economic variables, resulting from an accentuation of policy actions undertaken in Alternative IV. This acceleration is essential for strengthening the capacity of the economy to absorb successfully the extra population. While the economy is able to do so by the end of the period under consideration, it none the less undergoes even more substantial structural adjustment efforts and mobilizes more resources as compared to Alternative II. The following sections analyse the consequent transformations in the Palestinian economy. Unless otherwise specified, the references to and data for the Palestinian territory include east Jerusalem.

1. Population, labour force and employment

The incorporation of returnees boosts the average annual population growth rate for the period 1996-2010 from the 3.2 per cent in the preceding scenarios to 4.6 per cent under this scenario. Consequently, population will rise from 2,034,000 in 1995, to 2,793,000 in the year 2000 and to 4,636,000 in the year 2010, by which time some 1,012,000 Palestinians will have returned.

Assuming that the returning population has the same participation behaviour as the resident population, the labour force will also double its growth rate, increasing after 1995 at an average of 6.7 per cent per annum from 423,000 in 1995 to 1,127,000 in the year 2010. This represents an average addition to the labour force of 47,000 workers per annum. To cope with these flows, domestic employment will need to rise after 1995 at an average that is some 3 percentage points higher than that of the labour force. The rate reached here is 9.3 per cent, which allows domestic employment to rise to 1,006,000 by the year 2010. This means that by then, 89 per cent of the Palestinian labour force should be able to find work in the domestic economy. Thus, unemployment does end at a very low level of 3 per cent, although in the first period of 1996-2000 it remains in the range of 15-20 per cent of the labour force. These interim rates suggest an initial worsening of the unemployment situation as compared to Alternative II.

As for sectoral employment, the current scenario does not feature any change from previous scenarios in terms of the final sectoral distribution of domestic employment. However, the average growth rates of sectoral employment are higher at 8 to 10 per cent. Thus, while agriculture, for example, was expected to absorb 100,000 persons by the year 2010 under Alternative II, under the present scenario, it is projected to employ 155,000 persons by that year. In other words, considerably faster expansion of productive activities and deeper structural transformation are assumed. However, the expected expansion in demand and the expertise and manpower the returnees will bring with them are expected to facilitate such major transformations and expansion.

2. Domestic and national production; consumption, savings and investment

GDPF grows at an increasing rate as it expands its absorptive capacity. In the 1996-2010 period, it rises at 10 per cent per annum, thus reaching \$10 billion in 2010, up from \$1.4 billion in 1990. This growth is underpinned by similarly impressive sectoral growth rates, which will range between 8.3 and 11.1 per cent per annum. It should be noted that these rates remain modest compared to those registered for example during the 1972-1975 period.

GDP at market price will also expand at similar rates, reflecting the expansion of the components of demand. Investment and exports will rise faster than GDP, while private consumption and imports will progress at rates slightly below those seen for GDP. With NFI growing at just above 2 per cent in the post-1995 period, GNP tracks GDP growth slowly, registering a five-fold increase that brings levels up from \$2.9 billion in 1995 to \$11.1 billion by the year 2010. By that year, the dependence on factor income earned abroad, and especially in Israel, will have been reduced such that the GDP/GNP ratio will rise from 72 and 84 per cent in 1990 and 1995 to 94 per cent in 2010.

These impressive rates allow per capita GDP and GNP levels (including the returning population) to rise to levels reached under Alternatives II and III. By the year 2010, per capita GDP and GNP are projected to rise to \$2,273 and \$2,406, respectively, for the territory, though only to \$1,670 and \$1,830 for the Gaza Strip. Although West Bank per capita GNP will still be above the average for the territory, the differential with the Gaza Strip per capita GNP will narrow from being 1.8 times greater than the Gaza Strip in 1990 to 1.5 times greater in 2010. As in previous scenarios, any further narrowing of this and other differentials would necessitate intensifying policy measures particular to the Gaza Strip and raising the extra resources required to meet the Strip's pressing needs.

Private consumption will register a fourfold increase in the 1996-2010 period, progressing by at least 9 per cent per annum, from \$2.3 billion in 1995 to \$8.5 billion in the year 2010. By then, its share of GDP will have been reduced from 93 per cent to 81 per cent, respectively. Under Alternative II the ratio stood at 83 per cent, the difference reflecting the slightly faster growth of other components assumed in this scenario. Government consumption after 1995 grows at an exogenously determined rate of 8 per cent to stand at \$1.4 billion by the year 2010. With the greater population growth in the post-1995 period, this rate will be just sufficient for per capita levels to reach the sum of \$300, compared to \$372 expected under Alternative II. None the less, CG's share of GDP

will retreat from 18 per cent in 1995 to 13 per cent in 2010, implying that the envisaged expansion of CG remains a modest expectation, especially as compared to currently prevailing rates in most Western Asia countries, which surpass 15 per cent.⁴⁵ Certainly, adopting more ambitious rates of expansion of government consumption expenditure would produce better results in the framework as regards narrowing the unemployment and trade gaps.

Similarly, although government investment (IG) is set to grow at 13 per cent after 1995 and to reach \$492 million by the year 2010, this will give a per capita level of \$106 compared to \$101 expected under Alternative II. In terms of GDP, IG will have increased its share from 2.6 per cent in 1990 to 4.7 per cent in the year 2010. Obviously, these levels seem to fall short of fully responding to the myriad needs of the new situation that might emerge. However, in the absence of more precise information on the eventual cost of reconstruction, absorption and other government related programmes, it is difficult at this stage to determine the appropriate levels.

Private investment, which as in Alternative II receives a boost from 'extra investment', maintains an impressive annual average growth rate of 9.6 per cent, although in the 1996-2000 period it is expected to grow at 12.1 per cent per annum. This is why its share of GNP will rise to 26 per cent in the year 2000, before relapsing to 24 per cent in 2010. However, the main feature of the current scenario is the doubling of efforts to boost productive capacity in a manner that would reduce the trade gap. Whereas in Alternative II, an extra 2 per cent of actual GDP was earmarked to investment allocated to export promotion and import substitution activities, such investment programme activities under Alternative IV take off in 1996 with 3 per cent of GDP before falling to 1 per cent towards the end of the period. In the year 2000, the extra investment will stand at some \$159 million, the equivalent of 13.5 per cent of that year's total private investment. The favouring of 'productive' investment in the interim as against private sector's social overhead investment, remains a key to the successful impact of the programme. By the year 2010, following the above-mentioned rates, a total of almost \$2 billion will have been spent in boosting productive activities, compared to \$1 billion under Alternative II. By then, the annual output gains/savings in imports would have reached some \$382 million, i.e. 3.6 per cent of GDP.

The behaviour of savings reflects the relatively slower growth of consumption *vis-à-vis* investment, and the acceleration of the latter. Consequently, as a percentage of GNP national savings first decline to 6 per cent in 2000, but rise again to 11 per cent at the end of the period. Domestic savings follow the same pattern, except that by the year 2010, they stand at 6 per cent of GDP, which is a clear and significant improvement over the situation in 1990 and over the 1 per cent expected under Alternative II.

The savings-investment gap will widen from 7 per cent of GNP in 1990 to 23 per cent in the year 2000, before narrowing to 17 per cent in the year 2010. By then, national savings of over \$1.2 billion will cover 38 per cent of total investment needs. The widening of the gap between 1990 and 2000 is hardly surprising given the scope and scale of economic expansion envisaged for the period (i.e. the expansion of investment and consumption). None the less, the current scenario portrays an improvement of the economy's ability to mobilize savings, since the less intensive restructuring efforts assumed under Alternative II generate national savings of only under \$580 million by 2010. It seems that the intensification of policy measures and the presumed existence of financial institutions under this scenario are sufficient to respond to the needs of accommodating the returning population.

3. External trade and financial resources

Owing to the assumed acceleration of growth in GDP and investment, the current scenario does not envisage any worsening of the external balance, which in fact improves as compared with Alternatives II and III. Exports rise rapidly at an average rate of 13.6 per cent per annum after 1995, reaching an impressive level of \$3.4 billion in the year 2010, an almost seven fold increase over the 1995 level. By the year 2010, exports will account for 32 per cent of GDP, (up

from 18 per cent in 1990), as compared to 27 per cent under Alternative II for that year.

Imports will also rise at an average annual rate of 9.5 per cent after 1995. In the year 2010, the \$5.8 billion worth of imports will still meet 69 per cent of private consumption, but their share of GDP will have been reduced from 62 per cent in 1995 to 56 per cent in 2010. This also compares favourably with the 57 per cent reached under Alternative II. By the year 2010, exports will finance 57 per cent of imports, compared to 33 per cent in 1995.

Consequently, after an initial worsening of the trade gap to 37 per cent of GNP in the year 1997, it will narrow substantially to 22 per cent of GNP by the year 2010. Thus, here too, the intensification of investment efforts and of related measures is reflected in additional gains in the economy's ability to close the trade gap. As for the current account deficit, it is expected to worsen and stand at \$206 million by the year 2010. However, this will represent under 2 per cent of GNP compared to the 4.3 per cent under Alternative II. This implies, as in previous scenarios, that short of drastic or enforced cuts in imports, Palestinian dependence on external sources for the import of raw materials, as well as consumption and investment goods, will continue to outstrip export potential, however improved it becomes as a result of the policies envisaged here. The continuation of this situation obviously calls for further vigorous policies and measures aimed at diversifying and expanding exports and reducing the significance of imports.

4. Concluding remarks

The main message of the current scenario is that the returning population can be successfully integrated into the economy, at least as far as the implications for the macroeconomic aggregates are concerned, and, provided that the requisite policy measures and mechanisms are initiated, sustained and intensified. Thus if, under previous scenarios, GDP is expected to grow at over 7.5 per cent after the recovery period of 1991-1995, under the current scenario it is expected to rise at over 10 per cent. Similarly, more resources will have to be devoted to expanding the productive base and reducing the trade gap.

Results indicate clearly that, after a period of fairly painful structural adjustment (with unemployment reaching 20 per cent and the trade gap widening to 37 per cent), the economy is expected to attain a vigorous and viable structure. In fact, the additional efforts are more than sufficient to accommodate and allocate the new human resources, since many indicators end at even better levels than those envisaged under Alternative II, where the economy had only to cope with the de facto population. It is thus clear that rather than rapid population dynamics, it is the absence of relevant policy mechanisms and much-needed structural transformation, coupled with mounting operational constraints, that prevent the Palestinian economy from reaching a path of sustainable growth and development.

**Table 5/1. ALTERNATIVE SCENARIO IV, 1990-2010: ABSORPTION OF RETURNING POPULATION
WITHOUT EXTERNAL TRANSFERS
(lower population estimates)**

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS*	(thousands)				
Population	1695	2034	2793	3677	4636
Labour force	343	423	506	845	1127
Total domestic employed	219	264	408	636	1007
Employed in Israel	108	78	80	82	87
	(millions of constant 1990 US\$)				
Total investment	505	745	1325	1930	3129
Gross domestic product (GDP)	1487	2447	3940	6364	10537
Net factor income	565	449	499	552	618
Gross national product (GNP)	2052	2896	4440	6916	11154
Net transfers	158	189	261	345	437
Gross disposable income	2210	3085	4701	7262	11592
Merchandise trade balance	-502	-667	-1004	-1091	-1261
Current account balance	221	-28	-243	-194	-206
	(constant 1990 US\$)				
Private consumption p.c.	863	1114	1252	1459	1838
GDP p.c.	877	1203	1411	1731	2273
GNP p.c.	1211	1424	1590	1881	2406
SELECTED INDICATORS					
	(ratios in per cent)				
Unemployment / labour force	11	19	20	15	3
Employment shares (domestic)					
Agriculture	19	18	17	16	15
Industry	15	17	18	18	19
Construction	10	12	12	13	13
Services	47	52	52	53	53
Employed in Israel / employed labour force	35	23	16	11	8
Investment / GDP	34	30	34	30	30
Savings / GNP	18	6	7	9	11
Investment / GNP	25	26	30	28	28
GDP / GNP	72	84	89	92	94
Trade balance / GNP	-35	-35	-34	-30	-24
Imports / private consumption	61	67	67	68	69

* Including east Jerusalem

**Table 5/2. ALTERNATIVE SCENARIO IV, 1990-2010: ABSORPTION OF
RETURNING POPULATION WITHOUT EXTERNAL TRANSFERS
(lower population estimates)**

	MAIN AGGREGATES AND SELECTED INDICATORS (compound annual growth rates)			
	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	6.5	5.7	4.7
Labour force	4.3	7.5	6.9	6.0
Total domestic employed	6.1	9.1	9.2	9.7
Value added in				
Agriculture	1.8	8.3	8.8	9.4
Industry	16.3	10.5	10.5	11.1
Construction	15.7	10.7	10.4	10.9
Services	13.5	10.3	10.3	10.8
Gross domestic product (GDP)	10.8	10.0	10.0	10.6
Private consumption	9.4	9.1	8.9	9.7
Private investment	7.6	12.1	7.1	9.7
Government investment	15.4	12.9	12.9	13.0
Exports	24.1	9.9	17.0	14.0
Imports	11.5	9.1	9.3	10.1
Net factor income	-4.4	2.1	2.0	2.3
Gross national product (GNP)	7.3	8.9	9.3	10.0
Net transfers	3.8	6.6	5.8	4.8
Gross disposable income	7.1	8.8	9.1	9.8
Private consumption p.c.	5.5	2.4	3.1	4.7
GNP p.c.	3.5	2.2	3.4	5.1

* Including east Jerusalem

**Table 5/3. ALTERNATIVE SCENARIO IV, 1990-2010: ABSORPTION OF
RETURNING POPULATION WITHOUT EXTERNAL TRANSFERS
(higher population estimates)**

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS*					
			(thousands)		
Population	1695	2034	3030	4333	5846
Labour force	343	423	656	991	1415
Total domestic employed	219	264	441	747	1285
Employed in Israel	108	78	80	82	87
			(millions of constant 1990 US\$)		
Total investment	505	745	1442	2286	3914
Gross domestic product (GDP)	1487	2447	4265	7519	13475
Net factor income	565	449	501	558	634
Gross national product (GNP)	2052	2896	4767	8078	14110
Net transfers	158	189	283	404	547
Gross disposable income	2210	3085	5049	8482	14656
Merchandise trade balance	-502	-667	-1109	-1315	-1617
Current account balance	221	-28	-325	-352	-436
			(constant 1990 US\$)		
Private consumption p.c.	863	1114	1247	1451	1849
GDP p.c.	877	1203	1408	1735	2305
GNP p.c.	1211	1424	1573	1864	2414
SELECTED INDICATORS					
			(ratios in per cent)		
Unemployment / labour force	11	19	21	16	3
Employment shares (domestic)					
Agriculture	19	18	17	16	15
Industry	15	17	18	18	19
Construction	10	12	12	13	13
Services	47	52	52	53	53
Employed in Israel / employed labour force	35	23	15	10	6
Investment / GDP	34	30	34	30	29
Savings / GNP	18	6	6	8	10
Investment / GNP	25	26	30	28	28
GDP / GNP	72	84	89	93	96
Trade balance / GNP	-35	-35	-39	-28	-23
Imports / private consumption	61	67	66	67	69

* Including east Jerusalem

**Table 5/4. ALTERNATIVE SCENARIO IV, 1990-2010: ABSORPTION OF RETURNING POPULATION
WITHOUT EXTERNAL TRANSFERS
(higher population estimates)**

	MAIN AGGREGATES AND SELECTED INDICATORS (compound annual growth rates)			
	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	8.3	7.4	6.2
Labour force	4.3	9.2	8.6	7.4
Total domestic employed	6.1	10.8	11.1	11.5
Value added in				
Agriculture	1.8	10.1	10.7	11.2
Industry	16.3	12.2	12.6	12.8
Construction	15.7	12.4	12.4	12.6
Services	13.5	12.1	12.2	12.6
Gross domestic product (GDP)	10.8	11.8	12.0	12.4
Private consumption	9.4	10.8	10.8	11.4
Private investment	7.6	14.2	9.1	11.0
Government investment	15.4	13.9	14.0	14.0
Exports	24.1	10.5	19.4	16.2
Imports	11.5	10.7	11.1	11.9
Net factor income	-4.4	2.2	2.2	2.6
Gross national product (GNP)	7.3	10.5	11.1	11.8
Net transfers	3.8	8.3	7.4	6.2
Gross disposable income	7.1	10.4	10.9	11.6
Private consumption p.c.	5.5	2.3	3.1	5.0
GNP p.c.	3.5	2.0	3.5	5.3

* including east Jerusalem

**ALTERNATIVE SCENARIO V.
ABSORPTION OF RETURNING POPULATION WITH EXTERNAL TRANSFERS**

A. Main assumptions and qualifications

This scenario is related to Alternative Scenario IV in the same manner in which Alternative Scenario III was built on Alternative Scenario II, i.e. by estimating the amount of external transfers needed for the adjustment process. It also features the various domestic policies that aim to redress the internal and external imbalances. Accordingly, it assumes that the economy will be able to raise sufficient external funds to accommodate the returning population and to prevent unemployment from exceeding a specified target rate. Needless to say, with the absorption of returning population, the external resources required will be greater than under Alternative III, which only accounted for de facto resident population.

Thus the current scenario attempts to estimate the scale of external support that will be required to smooth the double task of reaching the path of sustainable growth and development and accommodating the returning population. To facilitate the comparison between Alternatives III and V, the current scenario assumes the same parameters for domestic policies. However, these policies are intensified to meet the additional requirements of a different situation. The only change that occurs in as far as parameters are concerned is in the operational level of NTR, which is intended to reduce domestic unemployment levels obtained under Alternative IV above (i.e. when relying mostly on domestic resources) to a more acceptable level. Here too, an optimum domestic unemployment rate of 10 per cent was selected for illustration.

Hence, this scenario is organized almost identically with Alternative IV. The scenario was run twice, once with the lower estimate and once with the higher estimate of returning population. Again, the version with the low returning population was selected for analysis, though the tabulated results of both are presented.

1. The demographic component

All the features of the demographic component are assumed to be the same as in Alternative IV. Thus it also assumes that by the year 2010 a total of 1 million (or 2 million) Palestinians would have returned to the territory at the rates specified under Alternative IV, and that this returning population will have the same demographic features as those displayed by the resident population.

2. The labour force component

All the features of the labour force component are assumed to be the same as in Alternative IV. Thus it is also assumed that the returning population will participate in the labour force following the same pattern as the resident population.

3. The economic component

The changes required in the elements of this component under the current scenario are the same as those effected for Alternative IV except for the operational level of NTR. As in Alternative III, the calculation of NTR here depends on the behaviour of the discrepancy between actual and potential demand. If the discrepancy exceeds a specified level (fixed at 10 per cent as of 1996), then NTR is defined in the framework as a function of that difference. If the discrepancy falls below 10 per cent, then the level of NTR is defined as being equal to 1990 NTR per capita levels multiplied by that year's population, including those who would have returned in that particular year. This assumption ignores the likelihood that the returnees might bring in some savings with them. Since the actual gap exceeds 10 per cent for most of the post-1996 period, it is the above first definition of NTR which is operational most of the time.

B. Main results

The main results of the current scenario are presented in tables 5/5 and 5/6, accompanied below by the corresponding analysis, which focuses on those

projections based on the lower population estimates. Tables 5/7 and 5/8 present results based on the higher population estimates and are not discussed in the text. As can be seen, the values that the main macroeconomic indicators reach by the end of the period under this scenario are not significantly different from those obtained under Scenario IV. However, in the period 1996-2005, the extra NTR envisaged will allow the economy to operate at 90 per cent of its potential capacity, thus enabling it to maintain unemployment at 10 per cent, and to generate higher interim values for GDP and its components. Thus, the analysis focuses essentially on the impact of NTR, especially during the 1996-2005 period, when its levels are highest.

1. Population, labour force, and employment

As in Alternative IV, the Palestinian territory is assumed to have by the year 2010 a population of 4,636,000 and a labour force of 1,127,000 (i.e. lower population estimate). The main difference is that, in the first period of policy action (1996-2000), domestic employment expands at a rapid pace of 12.2 per cent as against 9.1 per cent under Alternative IV, so that by the year 2005, total domestic employment reaches 681,500 instead of 632,700. Thus, NTR allows for halving of unemployment levels from around 19 per cent in 1995 to 9 per cent or less afterwards. Hence, in the year 2000, around which point the economy is expected to face most of the pressures of adjusting and absorbing the returnee population, some \$1.1 billion of extra NTR are expected to be spent, essentially to keep unemployment down around 10 per cent.

2. Domestic and national production; consumption, savings and investment

The availability of NTR under this scenario allows an even more rapid expansion of productive capacity and of the total use of resources, by expanding disposable income. As a result of increased NTR, the economy will be able to consume and invest more, maintaining a pace of growth that would not be possible through reliance on domestic resources alone.

Thus GDP, for example, takes off in the 1996-2000 period with an annual growth rate of over 13 per cent compared to 10 per cent under Alternative IV. Average growth of sectoral value added rises by between 12 and 14 per cent per annum, compared to 10 per cent previously. In that sense, NTR can be seen as providing additional financial resources to allow sectors to buy more inputs and accelerate production as required by the boosted demand. Thus, by the year 2000 the value of GDP will be some 16 per cent higher than in Alternative IV. Over the whole 1996-2010 period, extra NTR is expected to amount to \$9.6 billion, resulting in cumulative additional output gains of \$5.8 billion as compared to Alternative IV.

The expansion of NTR is reflected on the demand side mainly in increased private consumption and private investment. CP is allowed to initially grow faster than GDP, but its subsequent slow increase points to the overall trend of the weakening importance of CP in GDP. Meanwhile, IP manages to rise at a strong rate of 18 per cent per annum in the 1996-2000 period. Thus, by the year 2000, total IP is some 31 per cent higher than projected under Alternative IV, and the I/GNP ratio will rise to 33 per cent from 30 per cent in Alternative IV. Since the size and pace of the programme of 'extra investment' in productive activities remains unchanged, the growth in total IP is absorbed in other activities, particularly in the housing sector. While under Alternative IV the extra investment in the year 2000 (over and above what is assumed to be allocated to productive sectors) constituted 12 per cent of total IP, it represents 9 per cent under Alternative V. Consequently, in the year 2000 the housing sector's share will have expanded somewhat under the current scenario, as compared to Alternative IV.

With both CP and IP advancing as above, the ability of national savings to satisfy local needs weakens considerably, with its effective share of GNP falling to -6 per cent in the year 2000, before improving to 11 per cent at the end of the period. Thus the economy will feature a worsening of the savings-investment gap, which grows to 39 per cent of GNP in 2000 before narrowing to only 17 per cent by the year 2010. Here again, the gap is sustained through foreign finance, especially until 2005. However, this dependence on external savings is not

maintained indefinitely, since the economy gradually rebuilds its capacity to mobilize savings and bridge the gap.

3. External trade and financial resources

This scenario features a noticeable worsening of the trade gap during the 1996-2005 period owing to increased imports. The availability of NTR allows the economy to satisfy aggregate demand by financing rising imports. Thus, in the year 2000 for example, imports reach \$3.3 billion as against \$2.3 billion in Alternative IV, with their share of CP rising from 67 per cent in Alternative IV to 70 per cent here. None the less, by the end of the period the economy will show considerable improvement in its export capacity and a significant narrowing of the trade gap.

NTR effectively represents the cost of absorbing the returning population while maintaining unemployment at 'bearable' levels. In the period 1996-2007, additional transfers of \$9.6 billion will be needed in order to satisfy the dual aim of accommodating 1 million returnees, and of preventing unemployment from exceeding 10 per cent. The "cost" of fixing a ceiling for unemployment in the same period without the returning population was calculated under Alternative III at \$5.4 billion. Added to this within the context of the broad policy guidelines proposed, the integration of the returnees in the domestic economy under the current scenario will require at least \$4 billion in external transfers over the entire period, which represents some \$4,100 per returnee.

4. Concluding remarks

The availability of NTR under this scenario will allow the Palestinian economy to speed up the pace of structural transformation and growth so that it operates near to full capacity as of a relatively early date. In that sense, resort to extra NTR can be interpreted as a way of overcoming the limits of the small productive base and mobilizing greater financial resources, essentially by inducing buoyancy in aggregate demand. Thus, the economy reaches a more vigorous and viable state without undergoing painful adjustment, since in the 1996-2005 period it witnesses much higher levels of investment, consumption, and individual prosperity. This is notwithstanding the considerable task faced by the Palestinian economy of absorbing at least 1 million returnees over the 15 year period, with all that entails in terms of providing shelter, social services and employment, and successfully integrating them into a growing and diverse society which is still in the process of recovering from the impact of at least 25 years of military occupation. The detailed sectoral strategies and policy measures that are implied by such a scenario will require careful and well-balanced consideration. However, the results obtained here confirm the viability of the broad policy framework which has been adopted and the feasibility of successfully accommodating the demographic and other pressures implied by large-scale repatriation.

The external financial resources envisaged under this alternative remain modest on a per capita basis, especially when compared to historical trends of remittances by emigrants, which averaged some \$7,000 per annum per emigrant from the occupied territory (until 1987). Furthermore, it is unlikely that the repatriation of Palestinians would occur without generating considerable interest from a wide range of financial sources, both on commercial and development aid bases, including the resources of the international community currently channelled through United Nations and other agencies. As pointed out under Alternative III, possible resort to external debt and the necessary institutional framework for managing the emergence of such a source of finance would have to be carefully considered. The cost implied by this alternative should also be viewed in the context of the international response to the legitimate needs of the Palestinian people, in accordance with the relevant United Nations resolutions. The successful implementation of such a scale of external support would be a small price to pay in order to contribute to a comprehensive and lasting peace in the region, a necessary precondition for sustained growth and development of the Palestinian economy and its full integration into the region.

Table 5/5. ALTERNATIVE SCENARIO V, 1990-2010: ABSORPTION OF RETURNING POPULATION WITH EXTERNAL TRANSFERS
(lower population estimates)

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS*					
			(thousands)		
Population	1695	2034	2793	3677	4636
Labour force	343	423	606	845	1127
Total domestic employed	219	264	470	681	1007
Employed in Israel	108	78	80	83	87
			(millions of constant 1990 US\$)		
Total investment	505	745	1693	2241	3129
Gross domestic product (GDP)	1487	2447	4553	6857	10537
Net factor income	565	449	503	555	618
Gross national product (GNP)	2052	2896	5055	7112	11154
Net transfers	158	189	1357	1297	437
Gross disposable income	2210	3085	6412	8709	11592
Merchandise trade balance	-502	-667	-1799	-1722	-1261
Current account balance	221	-28	127	130	-206
			(constant 1990 US\$)		
Private consumption p.c.	863	1114	1685	1735	1838
GDP p.c.	877	1203	1630	1865	2273
GNP p.c.	1211	1424	1810	2016	2406
SELECTED INDICATORS					
			(ratios in per cent)		
Unemployment / labour force	11	19	9	10	3
Employment shares (domestic)					
Agriculture	21	18	17	16	15
Industry	16	17	18	18	19
Construction	11	12	12	13	13
Services	51	52	52	53	53
Employed in Israel / employed labour force	35	23	15	11	8
Investment / GDP	34	30	37	33	30
Savings / GNP	18	6	-6	1	11
Investment / GNP	25	26	33	30	28
GDP / GNP	72	84	90	93	94
Trade balance / GNP	-35	-35	-49	-40	-22
Imports / private consumption	61	67	70	70	69

* Including east Jerusalem

**Table 5/6. ALTERNATIVE SCENARIO V, 1990-2010: ABSORPTION OF RETURNING POPULATION
WITH EXTERNAL TRANSFERS
(lower population estimates)**

	MAIN AGGREGATES AND SELECTED INDICATORS (compound annual growth rates)			
	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	6.5	5.7	4.7
Labour force	4.3	7.5	6.9	6.0
Total domestic employed	6.1	12.2	7.7	8.1
Value added in				
Agriculture	1.8	11.7	7.2	7.8
Industry	16.3	13.5	9.2	9.5
Construction	15.7	13.9	8.9	9.2
Services	13.5	13.5	8.8	9.2
Gross domestic product (GDP)	10.8	13.2	8.5	9.0
Private consumption	9.4	15.7	6.3	6.0
Private investment	7.6	18.4	5.0	6.0
Government investment	15.4	12.9	13.0	13.0
Exports	24.1	9.7	17.1	14.0
Imports	11.5	16.9	6.3	5.7
Net factor income	-4.4	2.3	2.0	2.2
Gross national product (GNP)	7.3	11.8	8.0	8.5
Net transfers	3.8	48.3	-0.9	-19.6
Gross disposable income	7.1	15.8	6.3	5.9
Private consumption p.c.	5.5	8.6	0.6	6.0
GNP p.c.	3.5	4.9	2.2	3.6

* Including east Jerusalem

Table 5/7. ALTERNATIVE SCENARIO V, 1990-2010: ABSORPTION OF RETURNING POPULATION WITH EXTERNAL TRANSFERS
(higher population estimates)

MAIN AGGREGATES					
	1990	1995	2000	2005	2010
WB & GS*					
			(thousands)		
Population	1695	2034	3030	4333	5846
Labour force	343	423	656	991	1415
Total domestic employed	219	264	514	811	1285
Employed in Israel	108	78	80	83	87
			(millions of constant 1990 US\$)		
Total investment	505	745	1885	2679	3914
Gross domestic product (GDP)	1487	2447	4982	8174	13475
Net factor income	565	449	505	562	634
Gross national product (GNP)	2052	2896	5487	8736	14110
Net transfers	158	189	1623	1579	547
Gross disposable income	2210	3085	7109	10315	14656
Merchandise trade balance	-502	-667	-1999	-2096	-1617
Current account balance	221	-28	129	46	-436
			(constant 1990 US\$)		
Private consumption p.c.	863	1114	1724	1749	1849
GDP p.c.	877	1203	1644	1886	2305
GNP p.c.	1211	1424	1811	2016	2414
SELECTED INDICATORS					
			(ratios in per cent)		
Unemployment / labour force	11	19	9	10	3
Employment shares (domestic)					
Agriculture	21	18	17	16	15
Industry	16	17	18	18	19
Construction	11	12	12	13	13
Services	51	52	52	53	53
Employed in Israel / employed labour force	35	23	14	9	6
Investment / GDP	34	30	38	33	29
Savings / GNP	18	6	-8	0	10
Investment / GNP	25	26	34	31	28
GDP / GNP	72	84	91	94	96
Trade balance / GNP	-35	-35	-57	-37	-23
Imports / private consumption	61	67	70	70	69

* Including east Jerusalem

**Table 5/8. ALTERNATIVE SCENARIO V, 1990-2010: ABSORPTION OF RETURNING POPULATION
WITH EXTERNAL TRANSFERS
(higher population estimates)**

	MAIN AGGREGATES AND SELECTED INDICATORS (compound annual growth rates)			
	1991-1995	1996-2000	2001-2005	2006-2010
WB & GS*				
Population	3.7	8.3	7.4	6.2
Labour force	4.3	9.2	8.6	7.4
Total domestic employed	6.1	14.3	9.5	9.6
Value added in				
Agriculture	1.8	13.7	9.1	9.3
Industry	16.3	15.6	11.0	11.0
Construction	15.7	16.0	10.8	10.8
Services	13.5	15.6	10.7	10.7
Gross domestic product (GDP)	10.8	15.3	10.4	10.5
Private consumption	9.4	18.2	7.7	7.4
Private investment	7.6	21.1	6.6	7.0
Government investment	15.4	13.8	14.0	14.0
Exports	24.1	10.5	19.4	16.2
Imports	11.5	19.5	7.5	7.1
Net factor income	-4.4	2.4	2.2	2.5
Gross national product (GNP)	7.3	13.6	9.7	10.1
Net transfers	3.8	53.7	-0.5	-19.1
Gross disposable income	7.1	18.2	7.7	7.3
Private consumption p.c.	5.5	9.1	0.3	1.1
GNP p.c.	3.5	4.9	2.2	3.7

* Including east Jerusalem

CHAPTER VI

MACROECONOMIC PERSPECTIVE AND POLICY RECOMMENDATIONS⁴⁶

Introduction

The previous chapters have analysed the situation of the Palestinian economy under Israeli occupation, and presented alternative scenarios for development and sustained growth in the future.

This chapter presents a bird's eye view of the severity of the Palestinian economic problem, and a rough estimate of the cost in resources that are needed to put the Palestinian economy on the path of developing its productive sectors and generating employment opportunities for its labour force. While this view does not introduce any changes to the framework as presented in the previous chapters, and indeed is in conformity with the preceding results, it renders the parametric exercise as a whole self-contained and facilitates discussion of different policy recommendations.

Section A refers to a simple model of the Harrod-Domar type to identify the sources of growth in the Palestinian economy under occupation.⁴⁷ This model underscores the weakness of the Palestinian economy, and its dependence on income generated by its inhabitants outside the territories. Section B employs a variant of the model to give a rough estimate of how much extra resources are needed to develop the Palestinian production sectors so as to be able to increasingly offer domestic jobs for workers now unemployed or employed in Israel. What is the time horizon for such a transitional period? What domestic savings rate is necessary for such a task? Finally, section C is devoted to an analysis of the policies that need to be adopted, with special emphasis on the labour market.

A. Sources of growth during the occupation

The analysis of the main economic developments during 1970-1990 and the functioning of the quantitative framework have pointed out two important features of the Palestinian economy in the West Bank and Gaza Strip under Israeli occupation. First, the economy, during the seventies and the eighties, and before the upheaval of 1987, experienced a high rate of growth in income. The GDP, GNP, and GNDI were growing annually at rates between 5 and 9 per cent. Second, those impressive rates of growth were due to income generated by Palestinians working outside the territory, mainly in Israel and various Arab countries.⁴⁸

Considering the values of the framework's parameters for 1987,⁴⁹ it was found that the rate of growth is 6 per cent. The striking feature of this rate of growth is that it was generated while there was domestic dis-saving of a little bit more than 25 per cent of GDP. As a consequence of this situation, the growth in income during the seventies and the eighties did not reflect a development process in the Palestinian economy. Quite the contrary, it is found that the structural changes of the Palestinian economy have moved in the opposite direction of those that usually accompany modern economic development. Considering the changes in the composition of national production, experience has shown that modern development has been usually associated with an increase in the share of the manufacturing sector and a decline in the share of agriculture. In the Palestinian economy both of these shares declined during the period of occupation. Moreover, these shares have been in fact less than they were during the pre-1948 British Mandate in Palestine.⁵⁰

The direction of change in the composition of aggregate demand has also been the opposite to that which usually typifies the development process. The share of private consumption in total expenditure has been increasing and that of investment in capital equipment declining.⁵¹

These trends underscore the fact that under occupation there has been no link between the growth in income and the production capacity of the economy. This missing link explains the behaviour of the economy after 1987. The reduction of NFI and NT have led to severe problems of unemployment and have caused the economy to switch from a situation of growth to one of stagnation.⁵² A drop

in NFI and NT that is not matched by a proportionate decline in dissaving can lead to negative growth. This is what actually happened in 1990 and 1991.

B. The requirements of self-sustaining growth

Scenarios developed above (especially Alternative Scenarios III and V) have demonstrated that the Palestinian economy will respond favourably to policies directed at strengthening its productive capacity. Furthermore, Scenario V showed that the Palestinian economy is capable, in a relatively short period of time, of absorbing its labour force, and accommodating an increase in its population through the return of Palestinians from outside the territory. Of course the key assumption in that scenario is the removal of constraints on the size and use of Palestinian natural and human resources, and the creation of an indigenous Palestinian authority committed to the pursuit of rational economic policy. In this section a simple quantitative framework is applied to answer the following questions:

1. What annual rate of growth is required and for how long to enable the Palestinian economy to absorb the Palestinian workers in Israel and move away from its dependence on outside aid?
2. What rate of domestic saving is required to accomplish the task?
3. What extra resources are needed in the transitional period and how long is the period?

Needless to say, the answers to these questions are useful only to the extent that they point to some trade-offs and shed some light on the usefulness of different policies. No importance whatsoever is attached to their numerical values. The framework assumes that national saving in the Palestinian economy in the transitional period will be the sum of domestic saving and saving from NFI, and NT.⁵³

1. Domestic saving (DS)

It may be recalled that domestic saving was negative all through the eighties. No domestic saving is expected as long as GDP is stagnant at its current level (Y_0). Saving at the rate s is expected to occur with growth.⁵⁴

2. Net factor income from abroad (NFI)

Palestinian workers are expected to seek work in Israel as long as the wage rate in Israel is higher than that of the Palestinian territory. However, a situation of growth in the Palestinian economy implies a gradual narrowing of the wage differential.⁵⁵

3. Net transfers (NT)

It is expected that in the transitional period, there will be a net transfer of resources to the territory. Part of these transfers are resources taken now by Israel in the form of taxes not spent back in the territory, and Palestinian resources used by Israel and Israeli settlers free of charge (i.e. land and water). Another part of these transfers will be from Palestinians abroad, and from Arab and international aid.⁵⁶ It is expected that the propensity to save from NT would be less than one, as the Government will be the receiver of most of the transfers and it may be tempted to use a large part of it for public consumption.⁵⁷

Table 6/1 lists three different simulations of the framework. The first assumes a very low value (0.1) for the ratio of NFI to GDP, the second a moderate value (0.2), and the third a very high value (0.4). In the second simulation, a marginal saving rate of 0.28 will guarantee a steady rate of growth in the economy of 5.5 per cent.⁵⁸ The economy will reach the state of self-reliance after 20 years. The total cost of this growth in terms of transfer resources is three times the amount of GDP at the start. Note that a high ratio of NFI to GDP, while reducing the transitional period, increases the extra resources required during that period. Note also the relationship between the saving rate and the length of the period. In all three simulations doubling the saving rate cuts the period in half.

C. Dualistic labour markets and policies of self-sustaining growth

The purpose of this section is two-fold. First, it is to bring out another aspect of the overall disarticulation problem lying behind the current crisis in the Palestinian economy. Second, it is to spell out some of the policy issues which the economic decision-makers will need to confront and which were at least implicit in the various scenarios outlined above.

As emphasized in the previous two sections and the preceding chapters, a major problem inherent in the economy of the occupied territory is the lack of articulation between the sources of income and the uses of that income, on the one hand, and between the supply of and demand for goods and services on the other. Among the consequences of such articulation failures are: (1) the persistently negative domestic savings rate, (2) the virtual severance of the link between saving and productive investment in the domestic economy, (3) a noticeable mismatch between the supply of and demand for human capital and (4) the ever-increasing dependence of the Palestinian people in the territory on external sources of income. To deal with these problems, a major theme in the more positive growth scenarios outlined in the preceding chapters is the need to bring about a better articulation of these forces by encouraging investment and employment within the Palestinian territory itself and by gradually reasserting the control by the Palestinian people over their natural resources and policies.

While the loss of control over other resources such as land and water has also had very serious consequences on the economy of the occupied Palestinian territory, far more serious has been the economy's loss of use of its human capital. By 1990, at least 35 per cent of the Palestinian labour force was working outside the occupied territory. Little of the precious earnings outside the territory has been reinvested in productive capacity within the territory. Naturally, this has had the effect of further undermining the economy's future ability to productively employ the labour force within the territory and to export. The outcome can thus be seen as a vicious circle of external dependence, underinvestment in domestic productive activities, and loss of international competitiveness.

As mentioned in a preceding chapter, one important source of the problem is the very high rate of population growth which continues to characterize the Palestinian economy.⁵⁹ As noted above, between 1972 and 1988 Palestinian population in the occupied territory increased by more than 50 per cent, while that in the West Bank grew at a rate of 2.3 per cent per annum and that in the Gaza Strip by 3.0 per cent per annum. The inevitable result of such a high rate of population growth sustained over a period as long as two or three decades is an age distribution strongly skewed in the direction of youth. Indeed, in 1987 two thirds of the Palestinian population was no more than 24 years old.

What have been the consequences? Not only did this imply a large number of dependents for every earner in the economy (what is referred to as a high dependence rate),⁶⁰ but also, especially in recent years, it led to rates of growth of the labour force even exceeding those of population, giving rise to a substantial labour surplus. This is because, in the face of such high growth rates in the labour force and low investment in productive sectors, it has proved difficult to provide the new entrants to the labour force with productive employment opportunities within the occupied territory.

Has the labour surplus been a help or a hindrance? While one might be tempted to jump to the conclusion that it has been a hindrance, Arthur Lewis⁶¹ demonstrated (and his demonstration was both refined and qualified by a whole generation of development economists), that in some contexts and under certain conditions,⁶² rather than being a problem, labour surplus can actually serve as an engine of growth. The determination of whether or not the conditions for this to be the case were actually fulfilled in occupied territory during the recent past is clearly beyond the scope of this study. But, even if the conditions were fulfilled, it can easily be seen that the primary beneficiaries would have been the economies to which the surplus labourers went in search of employment (primarily Israel and the Arab countries of the Gulf) not the occupied territory itself.

To see this, the rationale for the argument must first be understood. In particular, the gist of the argument for surplus labour serving as the basis for a successful development strategy is that the existence of surplus labour in one sector (the traditional sector) of the economy allows another sector (the modern sector) to expand its output without lowering the output of the traditional sector and without raising wage rates. Indeed, because the wage rates it has to pay are lower with surplus labour in the traditional sector, the modern sector is more profitable than it would be in the absence of such surplus labour. The higher profitability of the modern sector induces the reinvestment of profits in the sector itself, thereby subsequently allowing that sector to employ even more surplus labour and to earn more profits. In principle, this process of positive, reinforcing feedbacks from labour surplus in the traditional sector to expansionary investments in the modern sector could go on indefinitely, or at least until the labour surplus is eliminated.

The reason why the Palestinian economy has not received the benefits of its labour surplus is that, in applying the surplus labour model and concepts to the occupied Palestinian territory, the entire economy of the territory itself would constitute the traditional sector and that of Israel and the other economies in which the (formally surplus) Palestinian labourers were employed would constitute the modern sector. As a result, it is clearly these other economies whose sectors would have been made more profitable and would have received the reinvestment funds, not the West Bank and the Gaza Strip, which should have been the primary beneficiaries of their surplus labour. While Palestinian workers have obtained the benefits of somewhat higher wage rates, especially in the case of employment in Israel, they have generally been employed at skill levels below those of their training. This has resulted in depreciation of their skills over time and severely undermined the incentives for educational attainment.⁶³

Whether or not the conditions for surplus labour were actually fulfilled, the fact is that both (1) the demographic conditions that gave rise to the surplus labour, and (2) the relative openness of other countries (including Israel) to Palestinian workers, persist. This underscores the relevance and importance of an analysis of the various relevant labour markets to a proper understanding of both the past and future evolution of the Palestinian economy.

Turning again to the past, it can be seen that, in view of the rapid economic growth in both the Arab countries of the Persian Gulf and Israel during the 1970s and early 1980s, employment opportunities for Palestinian workers expanded rapidly prior to 1985, thereby diminishing the degree of labour surplus in the occupied territory. Because the wage rates in these countries were generally considered considerably above those prevailing in the West Bank and Gaza Strip, as the labour surplus declined, wage rates in the occupied territory started to rise, quite rapidly. Indeed, by 1985 the labour surplus had been considerably reduced and the wage differential between these other economies (especially Israel) and the occupied territory had narrowed substantially. The data presented in tables 1/1, 1/2 and 1/3, which form the basis of the data presented here in table 6/2, provide additional evidence in support of this proposition. As can be seen from the latter table, at least according to the crude proxies available for wage rates in Israel and the occupied territory, the wage differential fell by some 50% between 1972 and 1985.⁶⁴

It is also quite clear that 1985 represented an important turning point in this respect. Since 1985, a number of changes with effects pushing in the opposite direction have taken place. Among these are: (1) economic depression in the Persian Gulf countries attributable to the growing oil glut, (2) insecurity and political instability in the Middle East region which severely depressed investment and growth there (most recently resulting in the forced repatriation of Palestinian workers), (3) Israel's economic stabilization programme which, as is typically the case, reduced investment and the rate of growth in that country, (4) the uprising and related reprisals, which have included the imposition of limitations on the flows of Palestinian workers into Israel and of exports, and (5) continued erosion of Palestinian control over their natural and other resources and the ever-increasing failure to invest in infrastructure and directly productive activities in the territory, further limiting the ability of Palestinian employers to productively employ the rapidly growing labour force.⁶⁵

The result has been the re-emergence of both a labour surplus and a growing gap between wage rates in the territory and those in Israel and elsewhere. According to the data presented in table 6/2, the wage gap between Israel and the occupied territory had by 1990 recouped much of what was eroded away in the years before 1985. At the same time, the failure to reinvest in domestic productive capacity has undermined productivity growth and the competitiveness of Palestinian products abroad.⁶⁶

Two deleterious consequences of the growing labour surplus deserve mention. One is the discouragement of women from participating in the labour force, thereby lowering even further the opportunity cost of having and raising children, raising fertility rates and, in the long run, further exacerbating the labour surplus (and all the costs associated with it) and also increasing the cost of education. The other is that the growing wage differential gives rise not only to greater involuntary unemployment but also to greater voluntary unemployment and rental activities. This is because the higher the wage rates in the limited number of available jobs in Israel (and elsewhere) relative to those in the occupied territory, the greater will be the incentives for Palestinian workers to search for these jobs and to undertake the not-directly-productive expenditures for improving their access to such jobs, such as time-consuming bureaucratic procedures and even bribery, costly entertainment, and unnecessary travel. While various complaints have arisen within the occupied territory itself which attempt to place the blame for wage rate reductions on unscrupulous employers and declining social norms, such phenomena may be better understood as a natural, and perhaps necessary, adjustment to the re-emergence of a labour surplus.

The scenarios presented in the previous chapters as well as the more simple exercises performed in the preceding sections of this chapter underscore the magnitude and complexity of the challenges confronting the Palestinian economy now and in the years ahead.⁶⁷ A necessary but not sufficient condition for success in meeting the challenges, of course, is an optimally designed and implemented set of policies for satisfying development objectives within the existing economic, political and institutional constraints. Clearly, both the formulation and implementation of such a set of policies will require considerable additional research and the reassertion of Palestinian control over economic policies. Since the timing and details of an appropriate policy package will also depend on the weights to be attached to different objectives, their identification must clearly await the satisfaction of the above requirements.

In the meantime, however, the simulations performed both in this chapter and above provide broad guidance on the character of the required policy changes. In the following paragraphs an attempt is made to identify several of these different kinds of problems and policy needs revealed by the analysis.

First, there is clearly a need for infrastructural investments of various kinds, in some cases on a massive scale.⁶⁸ Since many of these infrastructural investments are of the public goods type, they cannot all be accomplished by private sector activities. Such public investments, of course, have to be financed. As noted in the discussion of the various scenarios, substantial proportions of such finance may be expected to come from external sources. Nevertheless, very considerable efforts to raise (through taxation) the necessary revenues from within the resident Palestinian community will also have to be made.

Second, there is clearly a need to discourage domestic consumption in general and luxury consumption in particular and thereby to encourage domestic saving. This needs to occur in both the private and public sectors. The encouragement of certain forms and channels of domestic savings may require subsidies and tax cuts (for example, on savings deposits or equity investments), since the resulting decreased public savings may well offset the increased private savings rather than increasing savings as a whole. However, taxation may provide a more financially feasible approach to increasing domestic saving in both the private and public sectors.

Third, there is a serious need to encourage modernization and start-up investments by the private sector in productive activities located within the

occupied territory.⁶⁹ In order to do this without distortionary taxes and non-tariff barriers to trade, the exchange rate regime will have to be relatively free and outward-oriented.⁷⁰ Such an exchange rate regime or policy will encourage both exports and the right kinds of import substitution.

The encouragement of private investment in productive activities within the occupied territory will also require encouragement of the demand for the goods and services resulting from such activities, and the avoidance of unnecessary and uneconomic costs on the supply side. These considerations, in turn, may imply the need for vigorous efforts (1) to maintain the competitiveness of labour markets, (2) to improve the match between supply and demand with respect to the type and degree of labour skills required in domestic activity, (3) to overcome externalities that may arise in the promotion of such activities, especially in entrepreneurial training, international marketing, small-scale credit provision, technology acquisition and research and development, and (4) to avoid unwanted inequities in income and wealth, and to foster retraining so as to mitigate the need and the demand for sometimes popular, but efficiency-reducing forms of protecting specific jobs and producers.

Fourth, in view of (1) the fact that the import requirements for infrastructural and other investments have been indicated to increase dramatically in future years, and (2) the difficulties and uncertainties with respect to obtaining external financing in the present world economic environment (including the foreseen reductions in net factor income from abroad), substantial efforts will have to be made to limit the size of the current account deficit to manageable proportions. Indeed, the difficulty of fulfilling this objective provides still another important reason for adopting a relatively free and outward-oriented exchange rate regime.

Fifth, since inflation can (1) compound the difficulty of maintaining a stable and yet open and flexible exchange rate regime, (2) undermine the incentives for both private saving and the financial intermediation needed for efficiently converting savings into investment, (3) make it difficult to maintain the real value of revenues collected and thereby also the level of public sector savings, vigilance against, and quick action to deter, inflationary pressures must be maintained.

Sixth is the need for measures to encourage Palestinian workers to seek employment opportunities within their territory, at least when suitable opportunities are available there. While the choice of taxation instruments will in large part have to be a political one, one type of tax that would be particularly consistent with the goal of encouraging employment within the territory is a tax on the earnings of Palestinian workers in Israel and elsewhere. While the taxation of imports is a common and often politically acceptable form of taxation, experience around the world has demonstrated that, unless used very carefully and temporarily, taxes on imports can distort resource allocation and thereby lower both efficiency and growth.⁷¹

Table 6/1. NET FOREIGN INCOME, SAVINGS AND GDP GROWTH RATES

s = f = n, $\sigma = 0.3$, $f_1 = 0.1$					s = f = n, $\sigma = 0.3$, $f_1 = 0.2$					s = f = n, $\sigma = 0.3$, $f_1 = 0.4$			
s	g	\hat{t}	$\frac{\overline{NT}}{Y_0}$		s	g	\hat{t}	$\frac{\overline{NT}}{Y_0}$		s	g	\hat{t}	$\frac{\overline{NT}}{Y_0}$
0.20	0.048	33.53	3.38		0.20	0.040	27.46	4.31		0.20	0.042	16.50	5.68
0.22	0.053	30.48	3.52		0.22	0.044	24.97	3.93		0.22	0.046	15.07	5.12
0.24	0.058	27.94	2.92		0.24	0.048	22.89	3.60		0.24	0.051	13.59	4.84
0.26	0.062	25.79	3.62		0.26	0.052	21.13	3.28		0.26	0.055	12.60	4.43
0.28	0.067	23.95	3.26		0.28	0.056	19.62	3.09		0.28	0.059	11.75	4.09
0.30	0.072	22.35	3.38		0.300	0.060	18.31	2.88		0.30	0.063	11.00	3.79
0.35	0.084	19.16	3.38		0.35	0.070	15.69	2.47		0.35	0.074	9.37	3.29
0.40	0.096	16.76	3.38		0.400	0.080	13.73	2.16		0.40	0.084	8.25	2.84
0.45	0.10	16.09	1.48		0.45	0.090	12.21	1.92		0.45	0.095	7.29	2.55

Table 6/2
WAGE COMPARISONS FOR PALESTINIAN WORKERS EMPLOYED IN ISRAEL AND IN THE OCCUPIED
TERRITORY, 1972-1990

	1972	1987	1990
<hr/>			
<u>Palestinian workers in Israel</u>			
1. Total earnings (millions of 1990 US\$)*	200.8	732.5	546.0
2. Number (thousands)	52.4	108.9	105.0
3. Average annual earnings (1990\$/worker)	3,832.0	6,726.0	5,200.0
 <u>Palestinian workers in the occupied territory</u>			
4. Total earnings (millions of 1990 US\$)**	373.0	1254.9	868.4
5. Number (thousands)	136.4	168.9	175.0
6. Average annual earnings (1990\$/worker)	2,460.0	6,612.0	4,416.0
 <u>Wage ratio/differential</u>			
(#3/#6)	1.558	1.017	1.177
<hr/>			

Source: Tables 1/1 - 1/3

* i.e. net factor income from abroad.

** Computed as 60% of GDP.

ENDNOTES

1. The UNCTAD secretariat has undertaken regular monitoring and investigation of the policies and practices of the Israeli occupation authorities, affecting the Palestinian economy (Gaza Strip and West Bank, including East Jerusalem). Detailed information may be found in: "Recent economic developments in the occupied Palestinian territory" TD/B/1065(1985), TD/B/1102(1986), TD/B/1142(1987), TD/B/1183(1988), TD/B/1221(1989), TD/B/1266(1990), TD/B/1305(1991), and TD/B/39(1)/4(1992).
2. For a list of the specific field studies commissioned by the UNCTAD secretariat within the context of the intersectoral project, see annex 1 of "Report of a meeting of experts on prospects for sustained development of the Palestinian economy in the West Bank and Gaza Strip" (UNCTAD/DSD/SEU/2).
3. Ibid., paras. 15-199.
4. Ibid., paras. 200-220.
5. For a brief discussion of alternate estimates of economic performance in 1991 and 1992, see "Developments in the economy of the occupied Palestinian territory" (TD/B/40(1)/8).
6. A set of tables covering the economic, demographic, and labour force variables used in this study, and as stored in the UNCTAD secretariat Economic Time Series Data Bank has been published provides further details about the sources, definitions and procedures used. See "Selected national accounts series of the occupied Palestinian territory, 1967-1987" (UNCTAD/RDP/SEU/6) and "Selected series on the balance of payments, foreign trade, population, labour force and employment of the occupied Palestinian territory, 1968-1987" (UNCTAD/DSD/SEU/1).
7. The scope of the substantive areas and the length of the period covered did not permit generating meaningful and compatible time series for east Jerusalem. Should the series for the historical period eventually be made available on east Jerusalem, the computations and analyses covering both the historical period and the scenario projections for the West Bank as a whole could be accordingly adjusted.
8. The treatment of data for this period is discussed separately in part one, chapter III of the technical supplement.
9. Israel, Central Bureau of Statistics, 20 September 1993 (unpublished comments).
10. See M. Benvenisti and S. Khayat The West Bank and Gaza Atlas, (Jerusalem, West Bank Data Base Project, 1988), pp.29-30; G. Kosseifi, "Forced Migration of the Palestinians from the West Bank and Gaza Strip, 1967-

1983", Population Bulletin of ESCWA, No. 27, December 1985, pp. 73-108. A more recent study has estimated the missing population to be as much as one third more than the de facto population accounted for in CBS data - see Centre for Engineering and Planning, Masterplanning the State of Palestine: suggested guidelines for comprehensive development, preliminary presentation, (Ramallah, CEP, March 1992), pp. 18-19.

11. For more details, see part one, chapter I of the technical supplement.
12. The precise derivation of this data is explored in part one, chapter I of the technical supplement. The Brass technique may be consulted in detail in: United Nations, Manual X: Indirect Techniques for Demographic Estimation, Population Studies, No. 81 (United Nations publication, Sales No. E.83.XIII.2), 1983.
13. These rates and their methods of estimation are presented in part one, chapter I of the technical supplement.
14. The method followed to estimate emigration is described in part two, chapter I of the technical supplement.
15. See part one, chapter II of the technical supplement for further details.
16. For data on unemployment in the period 1988-1991, and a discussion of aspects of official Israeli data series on the subject, see, e.g.: the annual report published by the International Labour Organisation, "Report of the Director-General, Appendices, (Vol.2)" Geneva; and "Recent economic developments..." TD/B/1305, paras. 55-56.
17. Given their importance, these problems are detailed in part one, chapter III of the technical supplement.
18. The consolidated National accounts of Judea, Samaria and the Gaza area, 1968-1986, Special Series No. 818 (Jerusalem, CBS, 1988) recently published by CBS could not be obtained at the time of preparing this study.
19. A full and detailed presentation of the methods followed and of the resulting CPI and DEF series are available in part one, chapter III of the technical supplement.
20. See footnote 1 above.
21. A detailed analytical presentation of the framework itself and of its technical aspects is contained in part two of the technical supplement.

22. Given the continued weakness of family planning programmes and that the levels for the West Bank and Gaza Strip have historically remained above the regional average, there was no real basis for assuming a faster rate of decline.
23. Part two, chapter I of the technical supplement details the structure and functioning of the demographic component of the quantitative framework.
24. Part two, chapter II of the technical supplement details the equations and the techniques used for the functioning of the labour force component of the quantitative framework.
25. Given data limitations, it was not possible to relate or express investment behaviour to other factors and sectors in the economy. Also, the relatively volatile nature of GNDI and the insufficient correspondence between the direction of change in GNDI and IP means that change in GNDI is a less useful indicator to regress against IP than the level of GNDI.
26. Available data do not allow the categorization of imports according to consumption and capital goods. This prevents any useful disaggregation of the import function.
27. Full details about the logic of this block and of the selection process that resulted in the choice of the specific equations appear in part two, chapter III of the technical supplement.
28. Full documentation on the historical data, the calculations, and the methodology followed in the exercise are retained in part two, chapter IV, of the technical supplement.
29. World Population Prospects 1990, United Nations, New York, 1991, pp.176-181, Table 41.
30. This is the historical average obtained by dividing total investment by change in GDP, excluding negative and inordinately high values. It is slightly lower than the values of ICOR as quoted by the Jordan Ministry of Planning in: Five year programme for economic and social development in the occupied territory (Amman, The Ministry, 1986). According to this document, the historical value of ICOR equalled 5, but an ICOR of 4 was chosen for programming purposes. On the other hand, Dr. A. Kubursi utilized an ICOR of 3 in his study entitled "The economic viability of an independent Palestinian state" (prepared for the International Conference on the Question of Palestine, Geneva, August-September 1983, p.12).

31. Unless otherwise specified, the following references to and data for the West Bank exclude east Jerusalem, while references to the occupied territory as a whole include east Jerusalem.
32. In the IMF's World Economic Outlook October 1991 (table A.53, p. 161), growth in export volume for the Middle East between 1993 and 1996 is projected at 15 per cent per annum, while import volume is projected at 8 per cent per annum.
33. For further details of the techniques employed in building the Alternative Scenarios, see chapter V of the technical supplement.
34. For example, the framework sheds little light on the composition of the components of demand under examination. Nor does it reflect budgetary or fiscal considerations, the effects of specific sectoral policies or the impact of major changes in their operating conditions.
35. The equation used and which appears in table TS2/5 of the technical supplement is the following:

$$CP(t) = 32.33 + 0.641 NDY(t) + 89.03 INT.$$
36. Trial runs were conducted using ICORs of 3, 5, 7 and 9. The value of 3 exaggerated the impact of the special investment programme, while the higher values gave too weak results.
37. It should be stressed that the higher savings levels achieved under the baseline scenario and its variant were only possible owing to the relatively poor performance of income and consumption.
38. The equation used and which appears in table TS2/5 of the technical supplement is the following:

$$CP(t) = 32.33 + 0.641 NDY(t) + 89.03 INT.$$
39. See United Nations, "International Development Strategy for the Fourth United Nations Development Decade", (1990).
40. Relevant United Nations resolutions pertaining to this issue are General Assembly resolution 194 (III) of 1948 and Security Council resolutions 237 and 242 of 1967 and 338 of 1973.
41. One relevant United Nations General Assembly resolution is GA 38/144 of 19 December 1983 which, inter alia, emphasized "the right of the Palestinian people whose territories are under the Israeli occupation to full and effective permanent sovereignty and control over their natural and all other resources, wealth and economic activities".

42. One investigation of Palestinian population worldwide may be found in United States Bureau of Census, "Palestinian projections for 16 countries/areas of the world, 1990-2010" (1991). Figures for UNRWA registered refugees are from "Map of UNRWA's Area of Operations", 30 June 1990 (UNRWA, Vienna, 1990). It should be observed, for example, that at least 300,000 Palestinians who had previously resided in Kuwait left there by late 1991, mostly for Jordan. They included elements from each of the population categories above. In different circumstances, it is likely that many of these people would return to the Palestinian territory. See UNESCWA, "The return of Jordanian/Palestinian nationals from Kuwait: economic and social implications for Jordan" (Amman, UNESCWA, 1991).
43. See UNCTAD, "The Palestinian financial sector under Israeli occupation" (UNCTAD/ST/SEU/3/Rev.1), p. 2.
44. The equations used for the Gaza Strip and the West Bank are respectively the following:
- $$CP(t) = (32.33 + 0.641 NDY(t)) + 0.5 \times CPpc(t-1) \times PEMIG(t)$$
- $$CP(t) = (9.402 + 0.769 NDY(t)) + 0.5 \times CPpc(t-1) \times PEMIG(t).$$
45. UNCTAD, Handbook of International Trade and Development Statistics, (New York, 1990).
46. In the preparation of this part, the secretariat was assisted by Professor Fadle Naqib, University of Waterloo, Ontario, Canada, and Professor Jeffrey Nugent, University of Southern California, Los Angeles, California, United States of America.
47. The framework presented here is a modified version of the two-gap Harrod-Domar model types. See R.I. McKinnon "Foreign exchange constraints in economic development and efficient aid allocation", Economic Journal, Vol. 74, pp. 388-409 and E.L. Bacha, "Growth with limited supplies of foreign exchange: A reappraisal of the two-gap model", chapter 13 in Economic Structure and Performance, Academic Press Inc., 1984.
48. These two features could be captured by the following equations:
- $$(1) \quad S = DS + f(NFI) + n(NT)$$
- $$(2) \quad I = S$$
- where
- S - Private saving
- DS - Domestic saving
- NFI - Net factor income from abroad
- NT - Net transfers (remittances and aid)
- I - Investment
- f, n - Saving propensities, which are treated as constants
- Equation (1) indicates that private saving is composed of three sources, domestic saving (GDP - C), saving from the

income of Palestinians working in Israel, and saving from transfer payments.

Assuming

- (3) $Y^+ = \sigma K$
- (4) $Y/Y^+ = u$
- (5) $DS/Y = s$
- (6) $NFI/Y = a$
- (7) $NT/Y = b$

where

Y - Gross domestic product (GDP)
 Y⁺ - Potential GDP (determined by existing capital capacity)
 K - Capital stock
 σ - Output-capital ratio
 u - Rate of utilization
 s - Average propensity to save
 a - Ratio of NFI to GDP
 b - ratio of fNT to GDP

Substituting (1) into (2) and dividing by K we can write:

$$\frac{I}{K} = \frac{DS}{Y} \frac{Y}{Y^+} \frac{Y^+}{K} + f \frac{NFI}{Y} \frac{Y}{Y^+} \frac{Y^+}{K} + \eta \frac{NT}{Y} \frac{Y}{Y^+} \frac{Y^+}{K}$$

(8)

Substituting the relations (3) - (7) into (8) and denoting the growth rate of the economy by g, we can write:

$$(9) \quad g = \sigma u (s + af + bn)$$

Note that if the economy grows at the rate g then capital stock should grow at the same rate, hence

$$\frac{dK/dt}{K} = \frac{I}{K} = g.$$

During the eighties, the ratio of domestic saving to GDP was always negative while the ratio of NFI to GDP was very high.

- 49. The following parameters are calculated from the accounts of 1987: $s = -0.256$, $f = n = 0.9$, $a = 0.39$, and $b = 0.07$. Assuming that $\sigma = 0.4$ and $u = 1$, g is calculated to be 6 per cent.
- 50. The share of industry was 6 per cent in 1980 while it was 7 per cent in 1970 and 9 per cent in 1935. The share of agriculture was 29 per cent in 1970, 24 per cent in 1980 and 28 per cent in 1935. See Jacob Metzger, "The Arab economies in mandatory Palestine and in the administered territories", Economic Development and Cultural Change, 1992, pp. 844-865.
- 51. Note that the ratio C/Y is not just increasing it is also greater than 1.

52. According to equation (11) if NFI and NT are cut by half, and dissaving is also cut by half then with $u = 0.85$ the growth rate drops to 2.5 per cent.

53. According to the equation:

$$(1) \quad S_t = DS + f(NFI) + \eta(NT).$$

54. Hence domestic saving will be:

$$(2) \quad DS = s(Y_t - Y_0)$$

The rationale for defining saving as a function of the change in income and not the level of income is to be found by invoking the permanent income hypothesis of consumption and saving. Treating Y_0 as permanent income, then saving is a function of transitory income $(Y_t - Y_0)$.

55. Accordingly, NFI is structured as:

$$(3) \quad NFI = f_0 Y_0 - f_1 (Y_t - Y_0)$$

While f_0 is determined by the historical record (around 0.4), f_1 is expected to be low (between 0.1 and 0.5) since it is a function of the wage differential which is expected to persist for a long time, and to be narrowed very slowly. Note that equation (3) implies that the time (τ) required for NFI to reach zero is

(4)

$$\tau = \frac{1}{g} \ln \frac{(f_0 + f_1)}{f_1} ,$$

assuming that the economy grows at the rate g (i.e. $Y_t = Y_0 e^{gt}$).

56. Saving from this source is ηNT .

57. Substituting equations (3) and (2) into (1) and rearranging terms yields:

$$(5) \quad S_t = (s - ff_1) (Y_t - Y_0) + ff_0 Y_0 + \eta NT$$

Using the Harrod-Domar production function $Y_t = \sigma K_t$, and assuming that the economy grows at the rate g , we can write

(6)

$$I_t = \frac{g}{\sigma} Y_t.$$

Since $S_t = I_t$, equation (5) becomes

$$(7) \quad NT = \frac{1}{\eta} \left[\left(\frac{g}{\sigma} - s + ff_1 \right) Y_t - (ff_1 + ff_0 - s) Y_0 \right]$$

Note that since $Y_t = Y_0 e^{gt}$, then NT will decline with the passing of time if

$$\left(\frac{g}{\sigma} - s + ff_1 \right) < 0.$$

The meaning of this condition becomes very intuitive if we assume that $s = f$, then the condition is

which means that the net marginal propensity

to $\frac{g}{\sigma} < s(1 - f_1),$

save should be greater than the average propensity to save. Note that g/σ is the average propensity to save

$$\frac{S_t}{Y_t} = \frac{I_t}{Y_t} = \frac{\frac{g}{\sigma} Y_t}{Y_t} = \frac{g}{\sigma}$$

The time required for NT to reach zero is

(8)

$$\tau = \frac{1}{g} \ln \frac{ff_1 + ff_0 - s}{\frac{g}{\sigma} - s + ff_1}$$

Solving (4) and (8) simultaneously gives us the rate of growth g as

$$(9) \quad g = \sigma [\lambda - \mu]$$

where

$$\lambda = \frac{f_1 (ff_1 + ff_0 - s)}{f_0 + f_1}$$

$$\mu = ff_1 - s$$

and the total amount of net transfers required is

$$(10) \quad \bar{NT} = \frac{1}{n} \int_0^{\tau} \left[\left(\frac{g}{\sigma} - s + ff_1 \right) Y_t - (ff_1 + ff_0 - s) Y_0 \right] dt$$

58. In all simulations it is assumed that $s = f = \mu$.
59. What makes the continuing high rate of population growth especially remarkable is that it has occurred despite rapidly rising income and relatively high educational attainment levels, both factors which are normally associated with falling fertility and population growth rates.
60. Since high dependence rates have a deleterious effect on savings rates [Nathaniel H. Leff, 1969, "Dependency rates and savings rates," American Economic Review 59 (December), 886-896], the very high dependence rate for the Palestinian economy contributes substantially to its low (indeed negative) rate of domestic saving.
61. Lewis, W. Arthur, 1954, "Economic development with unlimited supplies of labour," Manchester School of Economic and Social Studies, 22 (May), pp. 139-191.
62. For a critical review of these contributions, see Mark R. Rosenzweig, "Labour markets in low-income countries," H.B. Chenery and T.N. Srinivasan, eds. Handbook of Development Economics, (Amsterdam: North-Holland, 1988) pp. 712-762.
63. For evidence see, George T. Abed, (ed.), The Palestinian economy: studies in development under prolonged occupation, (London, Routledge, 1988), pp. 1-13, and the studies therein.

64. The assumptions behind these calculations are identified in the table itself.
65. The policy of Jordan to keep agricultural wage rates low with heavy reliance on surplus labour from Egypt at wage rates well below those prevailing in either Israel or the occupied territory has meant that Jordan has not become an important alternative source of employment for Palestinian workers.
66. As shown in table 1/2, exports from the West Bank fell by no less than 21 per cent per annum and those from the Gaza Strip by 54 per cent per annum between 1988 and 1990.
67. For a broad review of the nature and complexity of such challenges, see Abed, (ed.) "The Palestinian economy...", op. cit.
68. Besides those infrastructural needs identified above, and in the consultation studies lying behind this, George T. Abed provides an independent calculation of needs and attempts an overall cost estimate in The economic viability of a Palestinian state, (Washington, D.C, Institute for Palestine Studies, 1990). Prominent among the areas of need are housing, communications, education, electricity, irrigation and water, and health. As Israeli observers also have pointed out, much of the infrastructure which does exist is better suited to the needs of the occupying power than to those of the Palestinian people. See, e.g., M. Benvenisti and S. Khayat, "The West Bank..." op. cit., pp. 34-36.
69. One of the bases on which to found such attempts would be to take advantage of the many Palestinian professionals and engineers who have returned from the Gulf and who are currently either unemployed or underemployed, by encouraging them to start new industrial and service enterprises in the occupied territories.
70. Abed, "The economic viability..." op. cit.
71. Taxes on imports, however, may be justified in certain situations, e.g. when they are useful for offsetting other distortions or are especially low in transaction costs or can serve the interest of distributional equity.