West Bank and Gaza

Economic Performance, Prospects, and Policies

Achieving Prosperity and Confronting Demographic Challenges

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Middle Eastern Department
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Contents

Tables

Preface

This study was prepared by Geoffrey Bannister, Hamid Davoodi, Ulric Erickson von Allmen, Felix Fischer, Eva Jenkner, Mona Said, and Rosa Valdivieso, all staff of the International Monetary Fund (IMF). It is the fourth IMF publication on the Palestinian economy.[1] This year's publication focuses on the medium-term challenges and policy issues facing the Palestinian economy, with particular attention given to the demographic dynamics and their economic implications. Most of the work on this publication was undertaken in the fall and winter of 2000.

The authors are grateful for the helpful comments and suggestions provided by Paul Chabrier, Pierre Dhonte, Nur Calika (on Chapter 4), Jeffrey Davis (Chapter 5), Anne-Marie Gulde-Wolf (Chapter 6), and Gabriela Terrazas. We are particularly indebted to David Burton, Salam Fayyad, and Oussama Kanaan for their detailed and insightful comments. The research assistance of Gabriela Terrazas and the secretarial assistance of Toni Dakanay are gratefully acknowledged. Sean M. Culhane of the IMF's EXR department edited the volume and coordinated its publication with exceptional efficiency. Natalie Baumer also provided helpful editorial assistance at an earlier stage.

The views expressed here are those of the authors and do not necessarily reflect those of other members of the IMF staff, its management or Executive Directors, or the Palestinian Authority.

[1]The other four studies produced by the IMF are: *Recent Economic Developments, Prospects, and Progress in Institution Building in the West Bank and Gaza*, by Zavadjil, Calika, Kanaan, and Chua (1997), *The Economy of the West Bank and Gaza Strip: Recent Experience, Prospects, and Challenges to Private Sector Development*, by Barnett, Calika, Chua, Kanaan, and Zavadjil (1998), and *West Bank and Gaza Strip: Economic Developments in the Five Years Since Oslo*, by Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999).

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List of Acronyms

AHLC	Ad Hoc Liaison Committe
ASEAN	Association of South East Asian Nations
CBJ	Central Bank of Jordan
EAP	East Asia and Pacific
EFTA	European Free Trade Area
EIB	European Investment Bank
EPF	Economic Policy Framework
EPZ	Export Processing Zone
EU	European Union
FPCCIA	Federation of Palestinian Chambers of Commerce, Industry and Agriculture
GDP	Gross domestic product
GIE	Gaza Industrial Estate
GNI	Gross national income
GOS	Gross operating surplus
GPC	General Personnel Council
ICBS	Israeli Central Bureau of Statistics
IFC	International Financial Corporation
IMF	International Monetary Fund
ITU	International Telecommunications Union
JD	Jordan dinar
MAS	Palestinian Economic Policy Research Center
MENA	Middle East and North Africa
MFN	Most-favored-nation
MOPIC	Ministry of Planning and International Cooperation
MPTC	Ministry of Post and Telecommunications
NAFTA	North American Free Trade Agreement
NGO	Non-government organization
NIS	New Israeli Shequel
OECD	Organization for Economic Cooperation and Development
PA	Palestinian Authority
PADICO	Palestine Development and Investment Company
PALTEL	Palestine Telecommunications Company
PCBS	Palestinian Central Bureau of Statistics
PCSC	Palestinian Commercial Services Company
PDF	Palestinian Development Fund
PEA	Palestine Energy Authority
PEC	Palestine Electricity Company
PECDAR	Palestinian Economic Council for Development and Reconstruction
PIF	Palestinian Investment Fund

PITA	Palestinian Information Technology Association
PLC	Palestinian Legislative Council
PLO	Palestine Liberation Organization
PMA	Palestine Monetary Authority
PMCA	Palestinian Ministry of Civil Affairs
PPP	Purchasing power parity
PSE	Palestinian Securities Exchange
PWA	Palestinian Water Authority
TIR	Transports Internationaux Routiers
TFP	Total factor productivity
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNRWA	United Nations Relief and Works Agency
UNSCO	United Nations Special Coordinator to the Occupied Territories
VAT	Value Added Tax
WEO	World Economic Outlook
WTO	World Trade Organization

Overview

This study reviews the economic performance and examines the medium-term prospects for the Palestinian economy. Since October 2000, the economy has been severely dislocated by the Palestinian-Israeli conflict, causing a severe decline in income and output in the West Bank and Gaza. While this paper discusses the economic consequences of the conflict and related closures, it also looks beyond these immediate and severe problems to the challenges and opportunities that will face the Palestinian economy over the medium term, especially those arising from important demographic changes now underway. Although how and when the present conflict is resolved will have major implications for economic performance in coming years, addressing the policy challenges raised in this paper will still be crucial for the success of the Palestinian economy over the longer run.

The West Bank and Gaza has the highest population growth in the world, and over the medium term, fertility rates are projected to fall, causing a slowdown in population growth and an increase in its average age. The share of the population at working age is projected to rise steadily. These demographic changes can provide an important boost to per capita income growth, but they can also lead to a period of high unemployment or declining real wages, or both, and the outcome will be largely determined by policy choices and reforms of the restrictions that hamper trade and investment today. These issues form one important theme of this paper.

Chapter 1 surveys recent economic and policy developments, focusing on 1999–2000. It also discusses how the economy, including the outlook for 2001, is affected by the turmoil and the closures. In the years before the recent crisis, the Palestinian economy was doing quite well with robust economic growth and with progress on the economic policy side. Economic growth was projected at 5 percent for 2000 and unemployment had fallen to below 9 percent by the middle of the year. Inflation was below 1 percent during 2000. The turmoil that began in late September 2000 and the closures that followed have caused a sharp drop in income and output in the West Bank and Gaza, and while there is uncertainty surrounding the magnitude of the fall in output, it is clearly very large with the combination of turmoil and comprehensive closures representing the most serious adverse economic shock experienced by the West Bank and Gaza over the past 30 years. Unemployment rose to 28 percent in December.

Chapter 2 analyzes the Palestinian economy in a medium-term perspective. The West Bank and Gaza has the highest natural population growth in the world, at about 3.8 percent, but population growth is expected to slow significantly over the medium term, leading to a rise in the share of the working-age population. Under plausible assumptions regarding demographics and labor force participation rates, the labor supply would increase by 4.4 percent a year in 2001–10. For these inflows to be absorbed into productive employment, at the same time as the high unemployment rate is reduced, domestic employment must expand by about 6.5 percent annually. To achieve this employment target, while allowing for a modest increase in real wages (1.5 percent a year),

will require annual rates of growth in real GDP of 8 percent and total factor productivity (TFP) of 1.2 percent. While this presents an extraordinary challenge for the Palestinian economy, such growth rates have been attained in the past. A detailed examination of the growth record shows that GDP growth averaged 6 percent and TFP growth 1.4 percent over the past 30 years, albeit with substantial annual variations. In order to gain insights into the ultimate factors behind the growth in GDP and TFP, the authors of the paper undertake a cross-country growth regression and include the West Bank and Gaza in the sample. For the future, they conclude that the initial conditions for medium-term economic growth are generally favorable: the population is young and relatively well-educated and the projected change to the age structure of the Palestinian population can be expected to provide an important (but temporary) impetus to long-term per capita income growth. If the political and security situation improve and if the main obstacles and distortions in the Palestinian economy are addressed, the economy should be able to enjoy an extended period of high growth, assuming supporting policies and continued improvements in infrastructure. The growth regressions show that the changing demographics can provide an important boost to growth in per capita GDP. But this boost is not automatic, and, as mentioned, there is a clear risk that the large inflows to the labor market lead to higher unemployment and lower real wages. The regressions also provide some insights as to what factors can help ensure a positive contribution from demographics on growth. While it is obviously essential to improve the political and security situation, sustained medium-term growth will also require better access to external markets, sound macroeconomic policies and governance, a competitive infrastructure, financial development, and a strengthening of the legal and regulatory framework.

In Chapter 3, the authors discuss transaction costs, which are usually considered to be very high in the West Bank and Gaza, to the point where they constitute a major impediment to trade, investment, and growth. This chapter explains the sources of the transaction costs that are unique to the West Bank and Gaza, particularly those relating to Israel's security arrangements. The chapter addresses in some detail the transactions costs that are created by the cumbersome transportation procedures and restrictions, security inspections and inspection fees, and permit requirements. It also discusses possible measures to reduce these transactions costs.

Chapter 4 focuses on trade performance and policy. Trade policy is one of the most important policy issues the Palestinian Authority (PA) will have to decide on in the future. To set the stage for a discussion of trade policy options, Chapter 4 estimates trade flows using a gravity model. The bulk of Palestinian trade today is with Israel, although the exact share is unknown because of data weaknesses. Israel's large share in Palestinian exports and imports is not in itself evidence of trade distortions, but a good case can be made that the security restrictions and complex and costly trade and transportation procedures have tended to lower overall trade and to skew its composition in favor of trade with Israel. The transactions costs that the impediments on the ground have caused can only lead to trade diversion not trade creation. However, the results from the gravity model find no significant evidence that trade, in 1995–98, between Israel and the West Bank and Gaza is higher than what might be expected given their proximity, GDP, population, and other variables. The results suggest that Israel will remain a key trading partner of the West Bank and Gaza under almost any type of trade arrangement between the two economies. The authors find evidence, however, that there is considerable scope for expansion of Palestinian trade with the rest of the world, in particular with the European Union and the United States. The authors take this to mean that a reduction in transaction costs and improved trade infrastructure and policy could be expected to lead to increased trade with the rest of the world without a (significant) reduction in Palestinian trade with Israel. With respect to the future trade policy, this chapter argues in favor of the PA adopting an open, nondiscriminatory and transparent trade regime characterized by the absence of quotas and trade monopolies. It also makes the case for the PA to adopt a low, uniform import tariff rate (5–10 percent) across the board.

Chapter 5 focuses on medium-term fiscal developments in the West Bank and Gaza. It first analyzes the fiscal challenges as well as opportunities arising from expected demographic dynamics. On the one hand, the chapter argues that a larger share of the population entering the workforce could create a window of opportunity for fiscal consolidation: the tax base would expand, and fewer school-aged children and retirees will require care in relation to the total population. The results from a simple accounting exercise and regression analysis support this point. On the other hand, the economy will have to grow

significantly to absorb the additional labor without a reduction in real wages, and the right fiscal polices will have to be in place to allow these gains to materialize at all. For example, expenditure growth would have to be reined in, and expenditure priorities within the budget would have to be reconsidered to allow for greater social expenditures and higher contributions to capital investment. The chapter also discusses potential changes to the tax and trade regime, which can foster economic development.

Furthermore, Chapter 5 discusses the various tax policy options the PA would have if a customs border is established with Israel. Specifically, should the PA finally become fully responsible for collecting all of its revenue—which has not been the case under the current customs union—important issues in tax administration would have to be addressed. Finally, a permanent status agreement would also imply a permanent settlement of the refugee question, and subsequent migration. The resulting boost to population growth would amplify the demographic dividend mentioned above, but the challenges in terms of providing job opportunities and implementing growth-enhancing polices would also become even more pressing. In short, fiscal policy can be key in shaping the West Bank and Gaza's medium-term economic prospects. While potentially aided by demographic changes, the PA will have to follow good policies in order to confront the challenges of the next 10 years.

In Chapter 6, the authors discuss the possible introduction of a Palestinian currency, an issue that has received some attention and will surely receive further attention in the future. It is noted, however, that the present system with three currencies (the new Israeli shequel, the Jordanian dinar, and the U.S. dollar) circulating freely works quite well, and has provided a good degree of stability. If it were decided to go ahead with the introduction of a Palestinian currency, the authors argue that the new currency would stand the greatest chance of success—in the sense of receiving highest degree of public acceptance—if it were introduced under a currency board arrangement and if the introduction followed reforms to strengthen fiscal management and bank supervision. The case for a currency board is based on the need to bestow the new currency with highest possible credibility. Palestinian economic policy institutions, including the Palestine Monetary Authority (PMA), are young and many of them are still in the process of establishing themselves. In such an environment, it would be unreasonable to expect the Palestinian public to have, from the onset, the same degree of confidence in a new, untested Palestinian currency as it has in the three currencies now circulating in the West Bank and Gaza unless there is a transparent and simple institutional framework that effectively constrains the scope for discretionary monetary policy. A currency board provides such a framework. Introducing a Palestinian currency under any other form of exchange rate regime is likely to lead to a slower transition to the new currency and to a higher degree of currency substitution. The case for a currency board rests more on the issue of credibility than on the usual trade-off between fixed and flexible exchange rates. Indeed, a fixed exchange rate under a currency board is not without risks. One key concern is the risk of overvaluation of the real exchange rate. This risk can be mitigated by the choice of anchor currency or currencies and by supportive macroeconomic and incomes policies. Strengthening the PA's fiscal policy management and the PMA's bank supervision capacity would help reduce the risk that domestic policies cause an overvaluation of the fixed exchange rate. Deciding on the appropriate anchor currency for the West Bank and Gaza is perhaps the single most important question, but also the most difficult one, and there is no obvious and easy solution. The problem of identifying an appropriate anchor currency in the wake of what might be a process of fundamental transformation of the Palestinian economy provides a further argument for waiting with the introduction of a currency, especially since the current system does not represent a restriction on the development of the Palestinian economy over the medium term.

Recent Developments in the Palestinian Economy

Ulric Erickson von Allmen

The turmoil that erupted in the fall of 2000, and the closures that followed, have caused a sharp decline in economic activity in the West Bank and Gaza, not only dashing the prospects of a fourth consecutive year of rising per capita income but also rolling back most of the gains made in the previous three years. The shock is the worst experienced by the Palestinian economy in 30 years. Up until the crisis, the Palestinian economy was enjoying fairly solid economic growth and some positive policy developments had taken place with the Palestinian Authority (PA) making progress in improving economic governance. The fragile fiscal situation before the crisis—mainly because of weak expenditure control—worsened considerably in the aftermath of closures and turmoil.

This chapter provides an overview of recent economic developments, with a focus on macroeconomic developments and policies in 1999–2000. The overview is brief and issues will inevitably be glossed over, but many of them are dealt with in greater detail in subsequent chapters.[1] The chapter is divided into two parts.

The first part discusses economic and policy developments up until the crisis, and the second part discusses the turmoil and closures and the outlook for 2001. For completeness, the first part will in some places provide data for 2000 as a whole, but the specific discussion of how the closures and turmoil have affected the Palestinian economy is reserved for the second part. The chapter also discusses policy issues in those areas, such as money and banking, that are not discussed at length in subsequent chapters.

Macroeconomic and Policy Developments Before Crisis

Economic Developments

Before the turmoil that began in late September 2000, the Palestinian economy was benefiting from relative political stability and reasonable optimism regarding the future.[2] It was set to enjoy its fourth consecutive year of positive per capita income growth, even though growth had decelerated from its peak in 1998 as the recovery effects from the recession in 1995–96 (also induced by closures) petered out. In 2000, the gross domestic product (GDP) was projected to grow at about 5 percent and gross national income (GNI) at 4.5 percent, both in real terms (Table 1.1).[3] While these growth rates

[1]For more extensive analyses of economic and policy developments in the West Bank and Gaza since 1994, see the IMF study in Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999), Fischer, Alonso-Gamo, and Erickson von Allmen (2001), and Philippe and Pissarides (1999).

[2]According to UNSCO (2000a), only seven work days were lost because of closures in 1999, and the number would probably have been roughly the same in 2000. In 1995, 1996, and 1997, 83.5, 89.5, and 57 work days were lost, respectively, because of closures.

[3]The projections are from *Economic Policy Framework: Status Report* (see Palestinian Authority, 2000), which was prepared by the PA with the assistance of IMF staff, and is available on the PA's website www.pna.net. The Palestinian Central Bureau of Statistics (PCBS) is working on establishing a consistent series of national accounts for 1994–99, including data in real terms (for the first time). This work had not been completed when this paper was finalized.

Table 1.1 Selected Macroeconomic Indicators, 1994–2001

	1994	1995	1996	1997	1998	1999	Proj. 2000a	Proj. 2000b	Proj. 2001
Real GDP growth[1]	8.5	–2.4	–3.2	4.8	7.0	6.0	5.0	–1.5	–4.0
Real GNI growth[1]	0.9	–4.3	–4.6	7.6	11.9	7.2	4.5	–4.9	–12.9
Real GNI per capita growth[1]	–4.9	–9.6	–9.0	3.4	7.7	3.3	0.8	–8.3	–16.0
Consumer price inflation (year-on-year)[1]	14.0	10.0	8.4	7.6	5.6	5.5	3.2	2.8	2.4
Unemployment rate[2]	14.8	18.2	23.8	20.6	13.2	11.8	10.0	14.1	29.1
Nominal GDP (NIS millions)	10,214.3	10,854.3	11,571.0	13,205.4	14,901.2	17,473.1	18,864.7	17,535.0	17,138.4

Sources: IMF staff estimates and projections based on data from the Palestinian Central Bureau of Statistics.

Note: 2000a refers to the IMF staff projection made before the onset of the crisis; 2000b are the revised projections. The difference between 2000a and b is not entirely due to the effects of the crisis, but also reflects updated information. This is particularly the case for inflation. The projection for 2001 assumes that closures and turmoil end in the second part of the year.

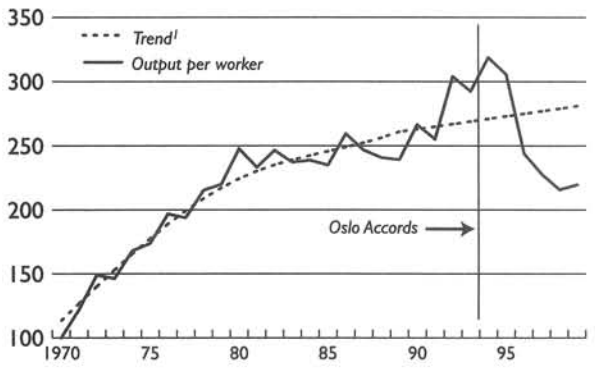
[1]Change in percent from previous year.

[2]In percent of labor force, annual average.

would have allowed per capita income to rise, they were nonetheless well below the historical average for the Palestinian economy and also below the growth rates required to ensure a reduction in unemployment at growing real wages over the medium term (see Chapter 2).[4] Also, despite the recovery, the Palestinian economy had not recuperated the loss in output in 1995–96, as most clearly seen in the output per worker ratio in Figure 1.1.

The economic expansion is most clearly evidenced in the labor market data from the Palestinian Central Bureau of Statistics (PCBS): the unemployment rate fell to 10 percent in September 2000, from 11.6 percent one year earlier and from over 28 percent in the first quarter of 1996 (Table 1.2 and Figure 1.2).[5] It is significant that this sharp decline in unemployment was accompanied by an increase in the average labor force participation rate, a fall in underemployment, and a rise in real wages (in the West Bank). The unemployment rate has been lower in the West Bank than in the Gaza Strip throughout the period (7.5 percent versus 15.5 percent in September 2000) and real wages have grown considerably faster (Figure 1.2). The decline in the unemployment rate from its peak in 1996 was mostly on account of a strong recovery in the number of Palestinians working in Israel, but there was also significant, albeit uneven, job growth in the Palestinian private sector (Table 1.3). Out of total employment creation in the period March 1996–September 2000, employment in Israel and the settlements accounted for 43 percent, the

Figure 1.1
Output Per Worker, 1970–99
(1970=100)



Sources: IMF, *World Economic Outlook* database; and IMF staff calculations.
[1]Trend computed with HP filter for 1970–93,and extrapolation through 1999.

[4]The average real GDP growth rate was about 6 percent in 1970–99. For the medium term, real GDP growth will have to average 8 percent a year for the economy to absorb the expected inflows to the labor market while at the same time reducing unemployment significantly and allowing 1.5 percent annual growth in real wages, as explained in Chapter 2. Such growth rates have been achieved in the past in the West Bank and Gaza but to achieve them on a sustained basis in the future will require a considerable reduction in transaction costs and uncertainty, improved access to world markets, sound macroeconomic policies, improvements in the physical infrastructure, and legal and regulatory reforms.

[5]The unemployment rate was 8.8 percent in June 2000.

Table 1.2 Palestinian Labor Market Developments, 1994–2000

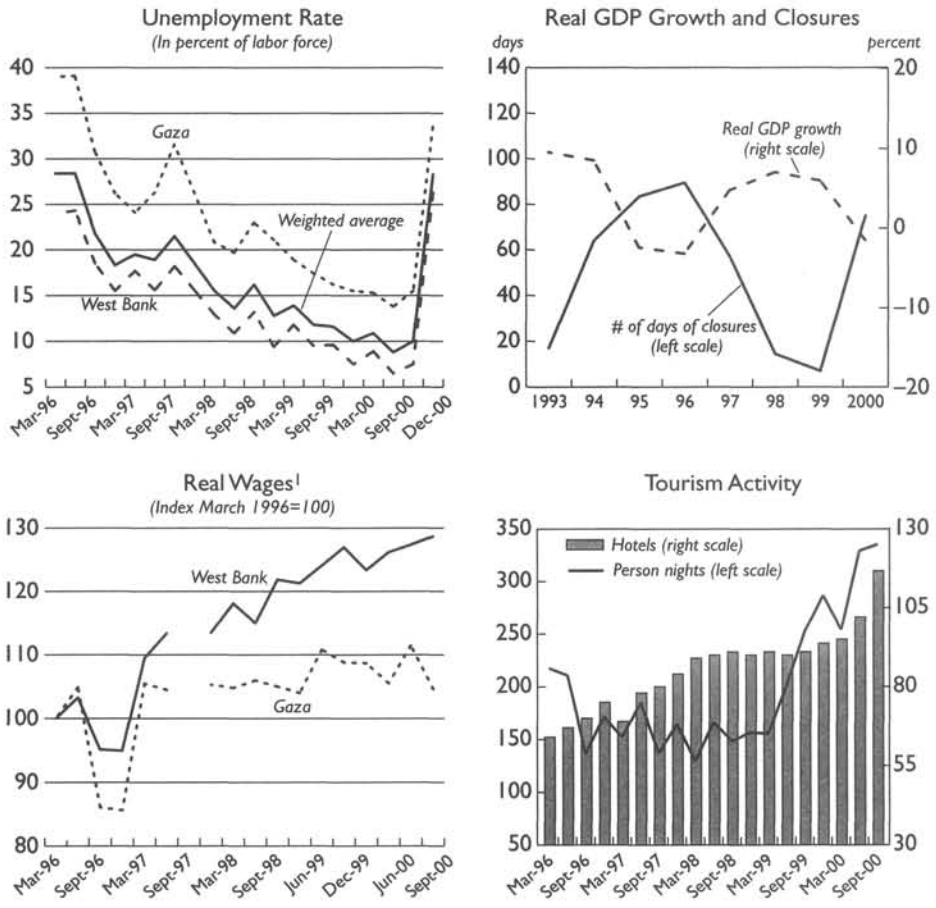
	1994	1995	1996	1997	1998	1999	2000[1] Q3	2000[1] Q4
				(In thousands)				
Labor force	464	485	522	554	576	599	637	615
Employment[2]	394	397	398	439	500	529	573	441
Unemployment[3]	70	88	124	114	76	71	64	174
In percent of the labor force	15	18	24	21	13	12	10	28
Palestinian employment by sector[2]	394	397	398	439	500	529	573	441
Agriculture	89	49	60	59	61	67	73	...
Construction	102	75	64	80	110	118	124	...
Manufacture	60	71	67	72	80	82	86	...
Commerce	69	98	92	106	115	114	98	...
Other services	75	105	115	122	134	148	192	...
Employment in Israel and the settlements	71	64	56	75	108	122	127	40
Agriculture	8	9	6	8	11	11	11	...
Construction	47	28	29	41	61	69	70	...
Manufacture	5	12	9	10	13	16	18	...
Commerce	7	10	8	11	15	16	17	...
Other services	4	6	4	4	8	10	10	
Employment in the West Bank and Gaza	323	333	342	364	392	406	447	401
Agriculture	81	40	53	51	50	56	61	...
Construction	55	47	35	39	49	49	54	...
Manufacture	55	58	59	61	67	66	68	...
Commerce	62	88	84	95	99	97	81	...
Other services	70	99	111	118	127	138	182	...
PA employment[4]	31	52	70	81	91	100	112	115
				(Annual change in percent)				
Unemployment	141.8	26.2	40.6	–8.0	–33.5	–7.0	–1.2	17.3
Employment	–1.9	0.8	0.1	10.5	13.8	5.7	7.4	–20.7
Palestinian employment in Israel and the settlements	–33.5	–9.4	–12.8	34.0	44.3	12.7	0.7	–13.6
Employment in the West Bank and Gaza	9.5	3.0	2.6	6.6	7.6	3.8	6.7	–7.2
PA employment[4]	n.a.	66.2	34.3	16.4	11.9	10.0	2.7	0.3
Memorandum item:								
Private sector employment in the West Bank and Gaza[5]	292.1	281.0	272.1	283.2	301.1	306.7	334.0	286.0
Change in percent	n.a.	–3.8	–3.2	4.1	6.3	1.9	3.9	–7.5

Sources: Palestinian Central Bureau of Statistics, and IMF staff estimates.
[1]The change in percent is from September and December 1999, respectively.
[2]Includes employment in Israel and the settlements as well as those considered underemployed.
[3]Excludes workers no longer seeking a job due to discouragement.
[4]Central government only.
[5]Includes employment in local authorities and public enterprises.

private sector in the West Bank and Gaza for 34 percent, and the PA for 23 percent.[6] Although PA employment did not constitute the most important source of employment creation, its growth has been very high from a fiscal perspective and has become a major burden on the budget (see below).

[6]What is referred to here as private sector is really domestic employment outside of the PA, and includes local governments and public enterprises. The data do not permit a more precise definition of the private sector. Data on PA employment come from PA Ministry of Finance and overall employment and unemployment data are taken from the PCBS.

Figure 1.2
Selected Economic Indicators



Sources: Palestinian Central Bureau of Statistics (PCBS), UNSCO, PCBS, and IMF staff estimates.
[1]No data available for September 1997.

Table 1.3 Composition of Labor Force Growth, 1994–2000
(In percent of previous year's labor force)

	1994	1995	1996	1997	1998	1999	2000 Sep.[1]	2000 Dec.[2]
Labor force	7.8	4.6	7.5	6.1	4.1	4.0	3.0	–0.2
Unemployment	9.5	4.0	7.4	–1.9	–6.9	–0.9	–1.3	18.2
Employment	–1.7	0.6	0.1	8.0	11.0	5.0	4.3	–18.5
Israel	–8.3	–1.4	–1.7	3.7	6.0	2.4	0.7	–13.9
West Bank and Gaza	6.5	2.1	1.8	4.3	5.0	2.6	3.6	–4.6
PA	...	4.4	3.7	2.2	1.7	1.6	2.4	1.8
Private	...	–2.4	–1.8	2.1	3.2	1.0	1.2	–6.4

Source: IMF staff estimates based on data from the Palestinian Central Bureau of Statistics.
[1]Change from September 1999.
[2]Change from December 1999.

Table 1.4 Fiscal Operations of the Palestinian Authority, 1996–2000

(In millions of NIS)

	1996	1997	1998	Jan.–Sep. 1999	1999	Voted Budget 2000	Prel. Jan.–Sep. 2000	Prel. 2000
Revenue[1]	2,185	2,848	3,280	2,903	4,093	4,068	3,071	3,806
Domestic	846	1,136	1,220	1,087	1,508	...	1,162	1,422
Tax	571	728	852	765	1,037	...	783	970
Nontax	274	408	368	322	472	...	379	452
Revenue clearance	1,339	1,712	2,060	1,816	2,584	...	1,909	2,384
Current expenditure (on a commitment basis)	2,647	2,994	3,188	2,642	3,902	3,968	3,601	4,891
Wage bill	1,286	1,622	1,774	1,560	2,147	2,371	1,858	2,537
Nonwage	1,204	1,352	1,412	1,065	1,732	1,597	1,743	2,354
Foreign financed	157	20	2	17	23	...	0	0
Recurrent balance (commitment basis)	–462	–146	92	261	191	100	–530	–1,085
PA financed capital expenditure	0	0	0	0	0	100	30	55
Recurrent balance plus PA financed capital expenditure (commitment basis)	–462	–146	92	261	191	0	–560	–1,140
Change in the stock of arrears	0	18	288	–96	42	0	254	268
Recurrent balance plus PA financed capital expenditure (cash basis)	–462	–128	380	165	233	0	–307	–872
Foreign financed capital expenditure	773	905	896	552	991	1,688	1,043	1043
Overall balance (cash basis)	–1,235	–1,033	–516	–387	–758	–1,688	–1,349	–1,915
Financing required	1,235	1,033	516	387	758	1,688	1,349	1,915
Financing available	1,452	861	791	602	660	...	2,535	2,263
Borrowing from the banking system, net[2]	255	–183	213	62	–29	0	1,472	1,107
Foreign financing	1,197	1,043	907	761	1,014	...	1,043	1,043
Net revenue diversion	...	...	–329	–221	–325	0	–138	–138
Excise revenues diverted	437	548	598	461	616	0	203	203
Excise revenue transferred back	...	...	269	240	290	0	65	65
Financing from purchase tax advances (net)	0	0	0	0	0	0	159	29
Exceptional financing from EU	0	0	0	0	0	0	0	98
Exceptional financing from Arab states	0	0	0	0	0	0	0	123
Residual	...	...	–274	...	98	0	–1,186	–348
Memorandum items:								
Stock of expenditure arrears (excluding arrears on VAT refunds)	0.0	18.0	305.9	210.3	348.0	0.0	601.8	616.0
PA employment (thousands, end-of-period)	75.0	83.1	92.4	97.6	103.6	103.0	112.7	114.9
Revenue, in percent of GDP	18.9	21.6	22.0	...	23.4	21.6	...	21.7
Recurrent expenditure, in percent of GDP[3]	22.9	22.7	21.4	...	22.3	21.0	...	27.9
Of which: Wage bill	11.1	12.3	11.9	...	12.3	12.6		14.5
Recurrent balance, in percent of GDP[3]	–4.0	–1.1	0.6	...	1.1	0.5	...	–6.2
Overall balance, in percent of GDP[4]	–10.7	–7.8	–3.5	...	–4.3	–8.9	...	–10.9

Sources: Palestinian Authority and IMF staff estimates.

[1]For the 2000 budget, net of VAT refunds estimated at NIS 150 million in the budget. Includes revenues transferred to accounts outside the control of the Ministry of Finance, prior to the consolidation of revenues.

[2]The institutional coverage of the monetary accounts is broader than that of the budget.

[3]Commitment basis. In percent of annual GDP.

[4]Cash basis.

Table 1.5 Fiscal Revenue Structure of the Palestinian Authority, 1996–2000

	1996	1997	1998	1999	2000
			(In millions of NIS)		
Total Revenue	2,185	2,848	3,280	4,093	3,806
Domestic tax revenue	571	728	852	1,037	970
Income tax	168	228	260	310	278
VAT	210	259	306	372	373
Customs duties	73	76	92	150	106
Property tax	3	2	2	6	6
Excises	117	164	192	199	207
Other taxes	0	0	0	0	0
Revenue clearances[1]	1,339	1,712	2,060	2,584	2,384
Taxes on imported goods[2]	277	495	782	1,090	1,048
VAT	691	747	768	966	824
Petroleum excises	320	384	406	417	380
Income tax	13	18	35	26	30
Health fees	20	28	35	36	29
Other clearances	19	40	33	49	72
Nontax revenue	274	408	368	472	452
Transportation fees	72	112	110	117	117
Health insurance	40	44	55	83	75
Health fees	30	35	39	38	40
Other	132	217	164	234	220
Memorandum items:			(In percent of revenue)		
Domestic tax revenue	26	26	26	25	25
Revenue clearances	61	60	63	63	63
Nontax revenue	13	14	11	12	12

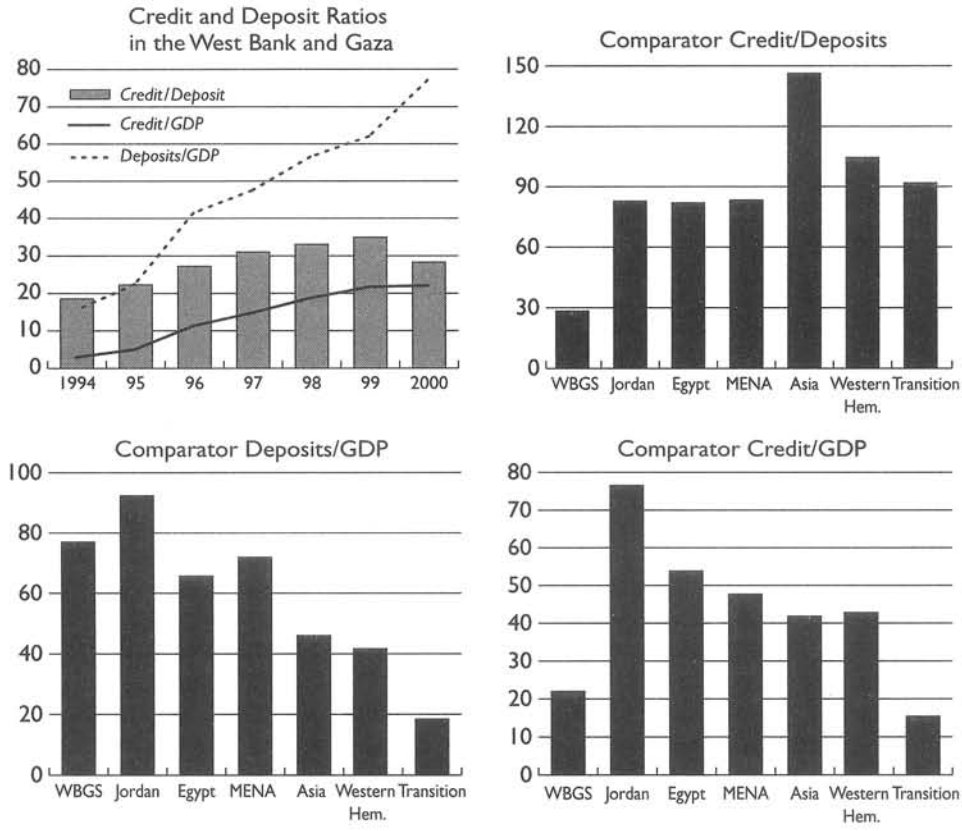
Sources: Palestinian Authority, Ministry of Finance in Israel, and IMF staff estimates.
[1]For 2000, the structure is based on the composition of clearance revenue in January–October.
[2]Including VAT and purchase tax on imported goods.

The economic expansion is also reflected in PA fiscal revenue, bank deposits and bank credit. In 1997–99, fiscal revenue increased by an average of 17 percent a year in nominal terms, rising from 19 percent of GDP in 1996 to 23 percent of GDP in 1999. In the first nine months of 2000, fiscal revenue growth decelerated to 12 percent due to a combination of factors (discussed below), one of which was the slowdown in economic growth (Tables 1.4 and 1.5).[7] Similarly, bank credit to the private sector (in dollar terms) increased by 22 percent a year on average in 1997–99 (from 11 percent of GDP at end–1996 to 22 percent of GDP at end-2000), while private sector deposits in the banking system (also in dollar terms) expanded by 15 percent on average in that same period (from 39 percent of GDP at end–1996 to 77 percent at end–2000) (Figure 1.3 and Table 1.6). In the twelve-month period that ended September 2000—that is, up until the crisis—bank credit rose by 29 percent and bank deposits by 37 percent, both in dollar terms. In all, these brisk growth rates over the past few years in fiscal revenue and monetary aggregates reflect improvements in tax administration (through 1999), the continued process of financial re-intermediation, as explained in Palestinian Authority (2000), and the dynamism in economic activity in that period.

Economic growth since 1997 appears to have been fairly broad, although labor market data suggest that the construction and commerce sectors (retail and wholesale trade, hotels, and restaurants) were the main sources of economic growth. Construction investment was not only driven by the need to improve the infrastructure but also from rising housing demand from the rapidly growing population. In 1996–99 there was also substantial investment in the tourism industry with the number of hotels in the West Bank and Gaza increasing by almost 50 percent between early 1996 and late 1999 and by another 25 percent in the first nine months of 2000 (see Figure

[7]The 12 percent growth in revenue corresponds to the underlying revenue growth, after correcting for an early transfer of VAT clearance revenue in December 1999 which usually would have taken place in January.

Figure 1.3
Credit and Deposit Ratios in the West Bank and Gaza and Comparator Countries
(End-1999; in percent)[1]



Source: Palestinian Monetary Authority (PMA); IMF, *World Economic Outlook* database; *International Financial Statistics*; and IMF staff estimates.
[1]2000 for the West Bank and Gaza.

1.2). The booming investments in the tourism industry in 1999 and 2000 is further testimony to the sense of optimism that prevailed in that period. Data on external sector developments are scant, but both exports and imports of goods and services appear to have grown quite strongly in 1999 and in early 2000.

Consumer price inflation has been low in the West Bank and Gaza over the past two years (Table 1.7). The consumer price index (CPI), which is measured in new Israeli shequel terms, rose by only 0.6 percent during 2000, compared with 2.5 percent in 1999, down from almost 10 percent in 1998. Inflation in the West Bank and Gaza follows that of Israel—as is clear from Figure 1.4—where inflation decelerated in 2000 on account of the slowdown in the economy, high interest rates, and the appreciation of the shequel (the upper left panel of Figure 1.4). The reduction in the purchase tax in Israel on certain consumer goods in the summer of 2000 has also had a (one-time) downward impact on the CPI both in Israel and the West Bank and Gaza.

Economic Policies

Progress in economic policy reforms over the past seven years has been episodic and uneven. While the PA has made considerable progress overall in establishing a functioning economic administration, basically from scratch, much of the progress was achieved in the first years after the PA's creation in 1994 when key policy institutions such as the Ministries of Finance, Planning, and Economy and Trade, and the Palestine Monetary Authority (PMA) were established and several important laws

Table 1.6 Consolidated Banking System Data, 1996–2000

	1996 Jan.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Mar	1999 Sep.	1999 Dec.	2000 Mar.	2000 Sep.	2000 Oct.	2000 Nov.	2000 Dec.	2001 Feb.
	(In millions of U.S. dollars; balances at end-of-period.)												
Net foreign assets	1,012	1,375	1,485	1,669	1,702	1,938	1,972	2,074	2,388	2,299	2,301	2,313	2,334
Central bank	0	87	109	182	193	178	184	199	285	286	268	275	282
Commercial banks	1,012	1,289	1,376	1,487	1,509	1,761	1,788	1,875	2,103	2,013	2,033	2,037	2,052
Net domestic assets	187	126	331	547	607	623	643	727	1,118	829	864	962	968
Net claims on the non-financial public sector	–27	–184	–167	–75	–49	–71	–103	24	266	79	116	235	278
Net claims on the PA	–35	–44	–97	–41	–20	–26	–49	7	313	55	101	223	311
Deposits	38	62	176	136	138	138	157	134	107	119	121	120	103
Loans	3	19	79	34	57	36	37	78	66	86	88	100	132
Overdraft	0	0	0	61	62	76	71	64	354	88	134	243	282
Net claims on local government	–12	–21	–24	–17	–14	–13	–13	–17	–16	–14	–13	–12	–16
Deposits	12	21	24	17	14	13	13	17	16	14	13	12	16
Loans	0	0	0	0	0	0	0	0	0	0	0	0	0
Overdraft	0	0	0	0	0	0	0	0	0	0	0	0	0
Net claims on nonfinancial public enterprises	20	–119	–46	–17	–16	–31	–42	34	–31	38	28	24	–16
Deposits	0	123	51	21	19	35	48	39	57	53	60	64	78
Loans	20	2	3	2	1	1	3	33	5	5	5	5	5
Overdraft	0	2	2	2	2	2	3	40	20	86	83	83	56
Credit to the private sector	251	409	563	733	780	831	913	895	1,074	984	970	927	926
Loans	20	128	191	299	326	372	402	374	474	447	442	416	394
Overdraft	196	252	324	381	398	400	453	447	519	454	446	429	446
Other	34	29	48	54	57	59	57	73	82	82	82	82	85
Other items (net)	–37	–99	–65	–112	–123	–137	–167	–192	–223	–234	–222	–200	–236
Liabilities to the private sector	1,199	1,501	1,815	2,216	2,309	2,561	2,615	2,801	3,506	3,128	3,166	3,274	3,302
Demand deposits	. . .	485	543	605	638	685	673	715	868	771	735	808	757
Time and savings deposits	. . .	1,017	1,273	1,611	1,671	1,876	1,942	2,086	2,637	2,357	2,431	2,466	2,545
Memorandum items:													
	(In percent)												
Currency composition of deposits[1]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. dollars	34.3	39.3	44.6	60.6	62.1	61.0	62.4	62.4	57.2	62.1	62.0	61.7	62.6
Jordan dinars	44.7	42.3	38.4	25.4	23.4	24.4	23.7	23.9	21.0	22.7	22.2	21.6	21.7
New Israeli shequels	19.7	17.6	15.8	13.3	13.7	13.9	13.0	12.7	20.6	13.9	13.8	14.9	14.7
Other	1.3	0.8	1.2	0.7	0.8	0.8	0.9	1.0	1.2	1.3	1.9	1.9	1.0
Currency composition of credit[1]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
U.S. dollars	35.2	22.6	32.9	42.5	42.9	50.6	52.6	52.5	57.3	56.9	57.9	58.2	42.3
Jordan dinars	53.7	45.5	32.0	28.5	29.2	26.8	23.4	23.4	21.5	21.9	21.2	21.7	30.0
New Israeli shequels	11.1	31.8	34.0	27.4	26.9	21.0	22.2	23.2	20.0	20.2	20.0	19.0	26.9
Other	0.0	0.1	1.1	1.6	1.0	1.5	1.7	0.8	1.2	1.1	1.0	1.1	0.7
Credit to the private sector as a share of total deposits	20.9	27.2	31.0	33.1	33.8	32.4	34.9	31.9	30.6	31.5	30.6	28.3	28.0

Source: Palestinian Monetary Authority.
[1]Private sector only.

Table 1.7 Consumer Price Developments, 1997–2000
(Twelve-month change in percent)

	1997 Dec.	1998 Dec.	1999 Mar.	1999 Jun.	1999 Sep.	1999 Dec.	2000 Mar.	2000 Jun.	2000 Sep.	2000 Dec.	2001 Mar.
CPI	8.9	9.7	8.3	6.8	3.6	2.5	3.3	3.8	3.4	0.6	0.7
Excluding food	7.5	6.5	7.4	7.1	5.5	4.1	4.9	4.4	3.5	2.7	1.4
Food	2.2	14.5	9.6	6.4	1.0	0.2	1.0	2.9	3.4	–2.7	–0.4
Beverages and tobacco	5.4	12.1	9.8	9.3	8.2	3.6	3.9	3.7	2.5	–0.1	0.2
Textiles, clothing and footwear	14.8	4.5	3.6	1.3	–1.6	0.5	2.6	3.6	3.9	0.3	–1.5
Housing	5.2	7.1	8.2	8.2	5.5	6.4	12.4	8.5	8.6	6.0	–0.1
Furniture and household goods and services	10.0	7.6	9.0	8.9	7.2	2.7	–0.3	–1.8	–2.2	–4.2	–3.9
Transport and communication	5.4	2.7	7.5	10.6	9.9	10.2	8.5	6.9	5.0	11.2	9.3
Education	2.7	4.3	4.4	3.9	1.8	3.5	4.1	5.2	4.6	0.1	2.0
Medical care	8.7	6.8	8.6	6.2	9.1	4.2	3.0	2.2	0.8	0.8	1.3
Recreational and cultural goods and services	7.6	4.6	–2.8	–6.0	–11.0	–12.8	–9.6	–7.1	–7.4	–7.5	–1.3
Miscellaneous goods and services	4.7	11.5	11.7	10.2	6.8	2.5	6.8	9.0	6.2	2.8	–0.5
Memorandum item:											
Israel CPI (12-month change) percent	6.8	8.6	7.0	5.9	5.4	1.3	0.7	1.8	–0.5	0.4	0.7

Sources: Palestinian Central Bureau of Statistics, Israel Central Bureau of Statistics, and IMF staff calculations.
[1]Average monthly change in the CPI in the year of 1997, and for the respective quarters thereafter. For October 1999 and 2000, it is the percentage change in CPI from the previous month.

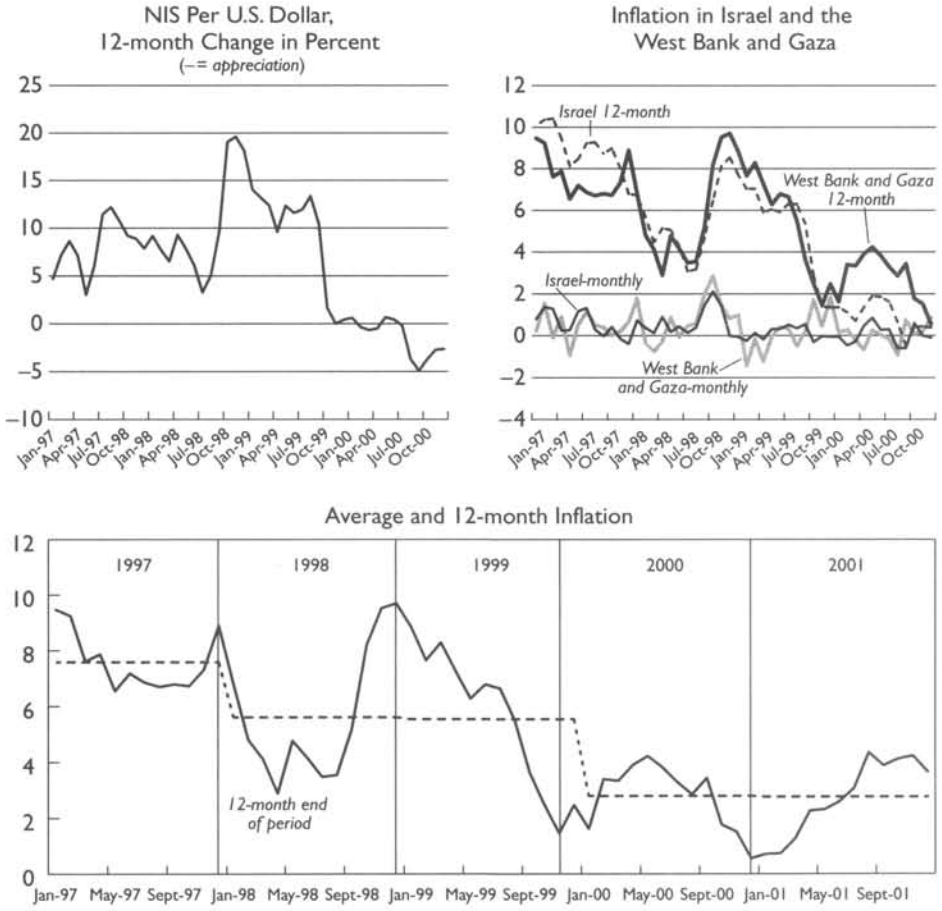
were approved, for example, the Organic Budget Law, the PMA Law, and the Company Law. More recently, the pace of reform has slowed down, despite considerable technical assistance provided by donor countries and international institutions. A case in point is the management of public finances. The PA has made good progress in tax administration, as evidenced by the growth in domestic tax collection, but it has proved difficult to achieve even modest improvements in expenditure management, as witnessed by regular expenditure overruns, arrears accumulation, and a deterioration in the composition of expenditure. Similarly, progress in reforming the legal and regulatory framework, including bank supervision, has generally been slower than warranted. The authorities' lack of resolve with respect to some reforms has contributed to this outcome, but equally important, if not more so, is the virtually unique setting of the West Bank and Gaza, including its physical separation, political turmoil, multiplicity of jurisdiction, and lack of government experience. The slow progress in reforms in recent years should not, however, overshadow the fact that the PA has come a long way in the span of only seven years and under quite exceptional circumstances.

In late 1999 and in the spring of 2000, there seemed to be an important change in the PA's policy orientation, with more priority given to economic policy issues, including governance. A Higher Council of Development was established in January to oversee and improve coordination of economic policy across PA institutions, and important measures were taken that improved economic governance. These improvements in economic policy management took place in the context of the PA's elaboration of an economic policy framework with the assistance of IMF staff.

The Economic Policy Framework

In October 1999, at the meeting of the Ad Hoc Liaison Committee (AHLC) in Tokyo, President Arafat requested IMF staff assistance in developing and monitoring a comprehensive medium-term economic policy framework (EPF). The overall objective of the EPF was to help ensure that the economic policies pursued by the PA over the coming years would make a positive and significant contribution to overcoming the challenges facing their economy (see Chapter 2). Because of the still limited administrative and technical capacity of the PA, the EPF would initially concentrate on the most pressing matters, namely, the urgent need to enhance fiscal management and governance in the PA's financial operations, improve banking supervision, and strengthen the legal and regulatory framework—all essential areas to create better conditions for private investment. In order to send a credible signal of a

Figure 1.4
Consumer Price and Exchange Rate Developments, 1997–2001
(Change in percent)



Source: PCBS; ICBS; Bank of Israel; IMF, *International Financial Statistics;* and IMF staff estimates and projections.

shift in policy orientation, the PA intended to take the following upfront actions before launching the EPF: (i) consolidation of all tax revenue under the control of the Ministry of Finance, and a commitment to transfer unretained profits from the PA's commercial operations to the budget; (ii) transfer of the effective control of the Gaza payroll from the Gaza Personnel Council (GPC) to the Ministry of Finance (as is the case for the West Bank payroll); (iii) parliamentary approval of the budget for 2000 as submitted by the Ministry of Finance together with an upfront reduction in budgetary arrears; and (iv) inclusion in the EPF document of adequate information on the PA's commercial operations.

These measures would address the factors that have most seriously impaired the management of public finances in the past: the uncontrolled expansion of PA employment and the diversion of excise revenue on tobacco, liquor, and petroleum to accounts outside the control of the Ministry of Finance. Revenue diversion is estimated to have totaled approximately US$160 million in 1998 and 1999, roughly 9 percent of total PA fiscal revenue in that period.[8] PA employ-

[8]The diverted revenue is included in the fiscal tables, appearing below-the-line as a (negative) financing item. The US$160 million is the diversion net of the amounts transferred back to the Ministry of Finance, something that usually happened when the liquidity situation became difficult. It is not clear exactly how the diverted revenue was used, but a large part seems to have been transferred to the Palestinian Commercial Services Company (PCSC) for commercial investments. To the extent that the diverted revenue was used for recurrent expenditure not reflected in the budget, the fiscal deficits reported in Table 1.4 are understated.

ment growth has been excessive in the sense that, since 1997, it has been significantly higher than can reasonably be justified by increases in the range or quality of the PA's services.[9] Excessive growth in civil service employment has been particularly problematic in Gaza where the payroll has been the responsibility of the GPC, in direct contrast to what the Organic Budget Law stipulates. GPC operates without any regard for the PA's budget constraint. In the early years, the negative effects on the budget from the PA's employment growth were masked by the strong increase in tax revenue. Revenue regularly overshot the budget forecast, but in the last two years, as revenue stabilized, it has prevented the PA from spending adequately on nonwage recurrent expenditure (including operations and maintenance) and from making a domestic contribution to the development budget. It has also contributed to the accumulation of budgetary arrears (mostly to suppliers) and more general concerns over governance. The rapid expansion in PA employment has also made it very difficult for the PA to afford adequate remuneration of its staff.

The PA has made important progress with respect to the remaining upfront actions. First, the budget for 2000 was submitted to and approved by the Palestinian Legislative Council (PLC) in a timely manner. It represented an important break from the past since it was prepared in a medium-term macroeconomic framework as well as being fully financed, albeit under the critical assumption that the stock of arrears would be eliminated using previously diverted excise revenue.[10] An effort was also made to better integrate the recurrent and development budgets, although more is needed in this area. The budget targeted a surplus on the recurrent balance equal to 0.5 percent of GDP, which would allow a domestic contribution to public investment for the first time. Second, in April 2000, the PA ended the long-standing practice of diverting the excise revenue mentioned above to accounts outside the budget, a measure that improved budget management and governance. Third, the Palestinian Commercial Services Company (PCSC)—the PA's main vehicle for investments and commercial operations—was audited and the results were made public. Furthermore, the PA began preparing new structures for managing its financial assets to ensure transparency and accountability, and began developing a comprehensive privatization strategy.

There was no reduction in the stock of budgetary arrears carried over from 1999, however, and the control of the Gaza payroll was not transferred to the Ministry of Finance (and has not been to date). Also, the expansion in PA employment, rather than slowing down, actually accelerated in late 1999 and 2000, contributing to a major deterioration in the fiscal situation. Under these circumstances, it was not possible to launch the EPF at the AHLC meeting in Lisbon in June 2000. Instead, a status report on the discussions of the EPF was presented (Palestinian Authority, 2000).

Fiscal Policy

Since its creation in 1994, the PA has been successful in increasing revenue collection, which reached 22 percent of GDP in 2000 from less than 8 percent of GDP in 1994 (see Table 1.4). In the first nine months of 2000, the growth in PA revenue slowed to 6 percent (12 percent if adjusted for a one-time early transfer of clearance revenue in December 1999 instead of January 2000), broadly in line with the projection in the 2000 budget and reflecting, among other things, the full effect of the tax reform in 1999 (see below), the slowdown in the economy, more adequate refunding of VAT (which is netted out of revenue), and increased use of tax incentives granted under the Law on the Encouragement of Investment (1998). For 2000 as a whole, though, revenue declined (by 6 percent) because of the negative effects on the tax base from closures and turmoil in the fourth quarter and on the PA's ability to collect taxes (discussed in more detail in the third section of this paper). The revenue from the clearance system—that is, revenue collected by the government of Israel on behalf of the PA—continued to account for more than 60 percent of revenue in 2000 (see Table 1.5).

Recurrent expenditure (on a commitment basis) hovered at 21–22 percent of GDP between 1996 and 1999, up from less than 9 percent of GDP in 1994, but it increased sharply in 2000. In the first nine

[9]The concern with the expansion of the PA payroll is as much related to the absolute numbers as it is to the way in which the hiring is undertaken. Most of the hiring in the past few years was not provided for in the budget and was not linked to the PA's genuine hiring needs in the education, health, and judiciary sectors. Indeed, despite massive hiring by the PA, the staffing demands of these sectors were often left unsatisfied.

[10]The PA budget has always been prepared and executed on the basis that all revenue would be available to the Ministry of Finance. Some of the diverted revenue was spent on current expenditure, but the bulk appears to have been saved or invested through the PCSC. Using past revenue diversion to settle arrears made sense since the diversion was a major factor behind the accumulation of arrears in the first place.

months of 2000, recurrent expenditure increased markedly (30 percent), because of the strong growth in the wage bill, but also because of very rapid expansion in nonwage expenditure in the second and third quarter of the year. The latter expansion coincided with an improvement in the liquidity situation of the Ministry of Finance following the consolidation of tax revenue in April and the transfer of an advance on purchase tax from Israel in June (the recurrent budget showed a surplus for that period, despite the growth in spending).[11] For the year as a whole, recurrent expenditure (on a commitment basis) increased by 25 percent in nominal terms, compared with the 2 percent growth envisaged in the budget. Recurrent expenditure on a commitment basis equaled 28 percent of GDP in 2000, compared with 22 percent in 1999. PA employment increased to 115 thousand persons at the end of 2000, from less than 104 thousand one year earlier (see Table 1.4).

A major fiscal policy achievement by the PA since 1996 is the turnaround in the recurrent budget balance (on a commitment basis) to a surplus of roughly 1 percent of GDP in 1999 from a deficit equal to 4 percent of GDP in 1996. This turnaround was prompted by the phasing-out of general budgetary support provided by donors—since 1998, no such support has been provided until the latest crisis—and it was made possible by the strong growth in revenue together with some constraint in overall recurrent expenditure. In 2000, because of the very strong growth in recurrent expenditure and the decline in revenue in the fourth quarter, the recurrent balance (on a commitment basis) is estimated to have shown a deficit equal to 6.2 percent of GDP. At the end of 2000, the stock of budgetary arrears stood at about US$155 million, or 3.6 percent of GDP, up from 2 percent of GDP at the end of 1999.

The evolution of the overall fiscal deficit balance has broadly mirrored that of the recurrent balance, and averaged about 6–7 percent of GDP in 1994–99, although the data on donor-financed investment are weak (see Box 1.1). In 2000, the overall fiscal deficit widened to an estimated 11 percent of GDP, which was financed by donors, including through a resumption of general budgetary support, and through heavy borrowing from the domestic banking system. The PA's loans and overdraft with the banking system rose to 8 percent of GDP at the end of 2000, compared with 2.5 percent one year earlier.[12]

Structural reforms in the fiscal area in the past few years have focused on tax administration, expenditure management, and treasury operations. As mentioned, important progress was made in the preparation of the 2000 budget, but more needs to be done to integrate development expenditures. Further progress is also needed in the area of budget implementation and treasury operations. For example, it is important that financial pay orders be based on cash flow projections and that the number of officials who exercise discretionary control over payments be reduced. Budget management would also improve with better reconciliation of revenue and expenditure data and budget financing, the establishment of a system for detecting and monitoring the accumulation of budgetary arrears, and with better collaboration between the Treasury and Budget departments. On the revenue side, income tax rates were reduced by a presidential decree on January 1, 1999, as envisaged in the draft income tax law dating back to 1997, which has yet to be approved by the PLC (see Table 1.8). The tax base was also broadened to some 70,000 taxpayers in 1999. Progress with reform in other areas of tax administration has been delayed, since the reform measure required a significant departure from the existing management of tax administration. In particular, the current tax administration with its separate field offices and different directors, tends to increase the cost of administering the tax system and to undermine the objectives of improving taxpayers' compliance and increasing revenue collection. Outstanding tax arrears are estimated to equal roughly 9 percent of GDP.

[11] In June 2000, the PA received NIS 200 million from the government of Israel in purchase tax clearance revenue, of which NIS 50 million corresponded to a preliminary estimate of the amount owed to the PA for the period November 1999–June 2000 (November being the agreed upon starting point of such tax revenue transfers), and NIS 150 million represented an advance on future purchase tax revenue. Once the correct amount for November 1999–June 2000 was established, the PA would either repay or receive the difference, and preliminary information suggests that the PA has repaid NIS 29.5 million of the NIS 50 million. With respect to the NIS 150 million, it was agreed that it would be repaid in four equal installments of NIS 37.5 million beginning in September 2000 and that it would be netted out of VAT clearance revenue. The transfer and repayments are presented as financing items in Table 1.4. After the reduction in the purchase tax rates in Israel in the summer of 2000, the income from such taxes on imports of Israeli produced goods to the PA is estimated at about NIS 6–7 million per month.

[12] The large increase in PA bank borrowing in March–September 2000 recorded in the banking system data (see Table 1.6) is apparently a statistical problem and does not reflect actual borrowing by the PA. PA borrowing rose sharply again in November and December 2000, and seems more correctly to reflect reality.

Box 1.1. Data on Aid Disbursements and Public Investment

The West Bank and Gaza receives considerable amounts of foreign aid assistance each year. In 1999, total disbursements of foreign aid was estimated at about US$612 million (14 percent of GDP), if UNRWA's operational budget of US$160 million is included, or roughly US$220 per capita. MOPIC collects data on disbursements from donors and compiles a quarterly report on commitments and disbursements broken down by various categories. In the absence of direct data on public investment, this donor database has been used to derive estimates of public investment. There are important weaknesses, though, since the categories used in the MOPIC reports do not match the definitions used in the national accounts, balance of payments, or in fiscal accounts. During 2000, staff from MOPIC, PCBS, PMA, PECDAR, the World Bank, and the IMF worked together to revise the donor questionnaire so that the database could be used by the PCBS, the Ministry of Finance, and the PMA in constructing national accounts, balance of payments, and fiscal data, including more accurate debt data. A better estimate of public investment is also crucial for the PA's budget preparation to ensure adequate provision for operations and maintenance. Specifically, the revised questionnaire would allow the data on disbursements reported by donors to be translated into disbursements to the West Bank and Gaza on a balance of payments basis (some disbursements go to trust funds of international institutions), and from there on to an estimate of actual disbursements on the ground (used for national accounts). Furthermore, the questionnaire would allow a breakdown between foreign financed current and capital expenditure. Finally, the questionnaire will allow better cross checking of data for consistency and accuracy.

Other Economic Governance Issues

The PA took important steps to improve governance during the spring of 2000 in the context of its discussions with IMF staff on the EPF. As mentioned, in April, the PA consolidated all tax revenue under the Ministry of Finance, and in a step toward further improving transparency and governance, the PA made public, in June, key information from an audit of the PCSC by an internationally known accounting firm. A complete list of the PCSC's assets, estimated at US$345 million (including equity holdings of some US$292 million at the end of 1999), was disclosed in the status report on the EPF discussion (Palestinian Authority, 2000). This action improved greatly the transparency in PA's financial operations. The PA has also created the Palestinian Investment Fund (PIF), which will replace the PCSC and will be in charge of managing all the PA's investments and other assets. With the help of an international consultancy firm, the structure and operational guidelines of the PIF are being prepared with a view to ensuring that they comply with the highest international standards for transparency and accountability. Furthermore, in consultation with the private sector, the PA has begun developing a comprehensive privatization strategy.[13] Together, the creation of the PIF and the development of a credible privatization strategy will be important elements in a strategy to develop a market economy with a level playing field and with a more clearly defined role for the PA.

Banking Sector Developments

An encouraging development in the past seven years is the emergence of the banking system. The number of banks operating in the West Bank and Gaza has increased to 23 (with a total of 114 branches by mid-2000) from only a few banks in 1993. In this period, there was also a surge in bank credit and deposits (see Table 1.6). The share of deposits lent to the private sector has increased steadily to 35 percent in 1999 from 18 percent in 1994. It declined to 31 percent at the end of September 2000, as the strong growth in deposits outpaced the substantial growth in credit in the first nine months of last year. The ratio also fell toward the end of 2000, when the economy was affected by the aforementioned closures and turmoil.

The PMA was created in 1994 and has made considerable progress in the areas of accounting, statistics, bank licensing and regulation, and in the clearing and payments system. There has also been some progress in bank supervision, which, in the absence of monetary policy, is the main task of the PMA today. Promoting and safeguarding the soundness of the Palestinian banking sector is the most important contribution the PMA can make to economic and financial development. Conducting effective supervision of a rapidly expanding

[13]The so-called National Trade Dialogue.

Table 1.8 Income Brackets and Tax Rates

Income Brackets and Tax Rates in 1995–98

	The Annual Taxable Income by NIS		
No.	From	To	Rate
1	1	4,200	5%
2	4,201	10,500	10%
3	10,501	16,800	15%
4	16,801	29,400	20%
5	29,401	50,400	30%
6	50,401	84,000	35%
7	84,001	147,000	40%
8	147,001	and above	48%

The corporate tax rate was 38.5 percent in the West Bank and 37.5 percent in Gaza.

Income Brackets and Tax Rates After the Reform in 1999

	The Annual Taxable Income by NIS		
No.	From	To	Rate
1	1	27,500	5%
2	27,501	66,000	10%
3	66,001	110,000	15%
4	110,001	and above	20%

The corporate tax rate is 20 percent in both the West Bank and Gaza.

Source: Ministry of Finance.

banking system is a challenging task for any supervisory authority, particularly for an inexperienced one like the PMA. The PMA now conducts both on- and off-site inspections and has conducted on-site examinations of most banks, including branches of foreign banks. The PMA has also issued regulations covering the most important prudential areas, although in several areas regulations still need to be brought in line with international best practices. All banks report monthly to the PMA on assets and liabilities, the liquidity situation, and the currency positions.[14] Banks also report quarterly on income, capital adequacy, large exposures and the sectoral composition of lending. However, progress in bank supervision has been undermined by the PMA's own hesitations in applying existing regulations and in allowing foreign bank supervisors to conduct on-site inspection (together with PMA officials) of foreign bank branches in the West Bank and Gaza, and also because the PMA has not always succeeded in insulating itself from political interference. Despite all of this, the PMA has achieved important progress, and its stature in the banking system has grown, especially after its resolute handling of some problem banks in 1999 and 2000.

Also, further improvements in bank supervision will require more training of PMA staff, in particular on-the-job training for on-site inspection and in analyzing banking data. The PMA also needs to step up efforts to fill managerial positions within the PMA and appointing a board in accordance with the PMA Law (promulgated in late 1997).

The rapid growth in credit to the private sector over the past seven years raises concerns over whether the nascent banking sector—especially the new, small local banks—can effectively intermediate such credit expansion without compromising the quality of its loan portfolios. The experience from other countries is that high credit growth over several years significantly increases the risk of bank problems, especially when economic growth weakens. This is a concern in the West Bank and Gaza where bank supervision is still underdeveloped and where banks usually do not have reliable financial

[14]It is impossible to reconcile developments in the PA's net position, vis-à-vis the banking system (as reported by banks), with the fiscal data from the PA, mainly because the institutional coverage of the monetary accounts reported to the PMA is broader than that of the budget.

statements from the prospective borrowers on which to base their lending decisions.

Despite the rapid credit growth, the ratio of credit to deposits is still low by international standards (see Figure 1.3). Most credit is also short term, including consumer loans, and there is little credit for long-term investment. Banks require substantial collateral for most loans, in some cases even for overdrafts. This situation has led to comments that the banking system is overly risk averse and that banks should be encouraged, if not urged, to increase their lending. These concerns are misplaced. To start with, given the generally unfavorable climate for private investment, with extraordinary uncertainty, political risk, uncertain titles to land ownership, closures, and changes to the legal and regulatory system, it is an open question whether there is actually investment demand for long-term credit that is not being satisfied at prevailing real interest rates.[15] For these same reasons, it is to be expected that banks would be reluctant to extend long-term credit, except on the basis of their client's well-established reputation or substantial collateral, or both. In addition, bank lending is negatively affected by the weak judiciary for enforcement of debt contracts and the lack of accounting and audit standards. The absence of such standards makes it impossible for banks to make sound and sensible credit risk assessments and forces them to rely on collateral and the client's track record. This naturally puts new enterprises at a disadvantage.

Thus, what the PMA—and the PA more generally—could do to encourage private sector long-term investment and bank lending for such investment is to concentrate on correcting these shortcomings rather than focus on ways to induce banks to increase lending further. The PMA should rescind its requirements on banks to lend at least 40 percent of their deposits and to limit their foreign assets to 65 percent of total assets. Even if the PMA does not strictly enforce them, the mere existence of these regulations raises questions about the PMA's priorities, how it sees its role in the economy, and its resolve to withstand populist pressures. The fact that these regulations can also be flouted openly without repercussion—indeed with the tacit consent of the PMA—undermines the status of bank regulations in general.

[15]Chapter 4 in Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999) discusses the factors affecting lending for long-term investments.

In terms of structural reforms over the coming years, it will be important for the PMA to institute policies and procedures that control related-party transactions to ensure the soundness of banks' lending operations, given that many Palestinian banks are controlled by one or more families who generally take an active role in the bank's management. A strategy for dealing with problem banks should also be developed, that should include a system for identifying problems at an early stage, prompt corrective actions, and create a complete set of tools such as conservatorship and receivership. Establishing a rule-based supervisory regime where corrective actions are enforced according to clearly established procedures, would help ensure the integrity of the PMA in enforcing regulations. With respect to the PMA's investment policy, currently the PMA invests part of its reserves in the domestic banking system—a practice generally considered unsound for a central bank. Regarding the payment system, the establishment of a Lombard facility would allow the PMA to stop assuming the settlement risk in inter-bank settlements.

Legal and Regulatory Reforms

Modernizing and harmonizing the legal system for the West Bank and Gaza and strengthening the judiciary are crucial reforms to improve the investment environment and long-term growth prospects of the Palestinian economy. The current legal and regulatory system is a mongrel, consisting of old Egyptian and Jordanian laws, newly drafted laws, as well as regulations and restrictions arising from the Interim Agreement, and it is not uniform in Gaza and the West Bank. The PA has undertaken a major effort to revise the legal and regulatory framework in the economic and financial area—a task that has strained the rather limited capacity of the PA and the PLC to draft and review laws. Even if extensive technical assistance from international experts can alleviate some of the domestic shortage of trained and experienced legal expertise, the PA still needs to ensure the internal consistency of the various draft legislation, and better coordination among donors in this area is probably warranted. Equally important as strengthening the capacity to draft and review laws is the need to accelerate the process with which laws are submitted to and approved by the PLC, and subsequently ratified by the president.

A large number of laws have been drafted and are now awaiting decisions in the PA Ministry of Justice, the PLC, or the presidency. As of early 2001, the company, competition, and the secured lending and leasing laws were with the Ministry of Justice for consideration. The securities/capital market authority law was recently submitted to the PLC, and the banking and income tax laws are still with the PLC. The first part of the intellectual property rights law (dealing with copyrights) and the arbitration law were approved by the PLC in 2000. The second part of the intellectual property rights law (dealing with industrial property rights) is expected to be submitted to the PLC in 2001. A modern bankruptcy law is being prepared in the Ministry of Economy and Trade. The approval of these laws and the adoption of necessary regulations will greatly improve the legal and regulatory environment in the West Bank and Gaza. In order to ensure the effective implementation of the laws and regulations, it is important that the capacity—including more trained judges and attorneys—and independence of the judiciary system be strengthened. An important step in this direction was taken with the approval of the law on the independence of the judiciary by the PLC in 2000. This law is awaiting ratification of the president, but it is apparently already being partially implemented.

The Impact of the Turmoil and Closures in 2000 and the Outlook for 2001

In addition to the heavy humanitarian toll, the turmoil and closures that began in late September 2000 have caused a very sharp decline in economic activity and income in the West Bank and Gaza. Under the closures, Palestinian workers are not allowed to enter Israel, and exports and imports, if not outright blocked, are highly restricted. The movement of goods and people between the West Bank and the Gaza Strip, as well as within the West Bank and the Gaza Strip, is also subject to restrictions. There has also been damage to Palestinian infrastructure and private property.

The turmoil and closures affect the Palestinian economy through a variety of channels. The loss of employment and income for most of the 130,000 Palestinians (20 percent of the labor force) that before the crisis commuted daily to work in Israel and the settlements obviously represents one of the major effects.[16] Other effects stem from the disruption of exports and tourism earnings, the decline in investment demand due to increased risk, the blockage of intermediate imports, and the general disruption of economic activity that arise from the turmoil and closures, especially in some key commercial centers like Hebron, Ramallah, and Nablus. The Gaza Strip has been effectively delinked from the West Bank, and villages and cities in the West Bank have been under extensive internal closures, during which Palestinians do not have access to the main road network. Even the Gaza Strip has been subject to these so-called internal closures, which have divided Gaza into three isolated parts, in addition to being cut-off from the West Bank and the rest of the world. According to UNSCO the internal closures are the most severe ever implemented.[17] There has also been considerable damage to physical infrastructure and private property, including leveling of agricultural land and destruction of buildings and roads.[18] The impact on the economy is likely to have become proportionally more severe during the period of closures and turmoil because of the fairly limited scope for consumption and output smoothing.

Supply-side effects are difficult to analyze because they are likely to cause a shift in the production function as well as a change in its slope, and for that reason, we must first identify the source of the disturbance. In the West Bank and Gaza, one key source of supply disturbance is the blockage of imports used as inputs for domestic production and investment, notably construction material (e.g., cement) and machinery and equipment.[19] The disruptions and,

[16]UNSCO (2001) estimates that Palestinian employment in Israel in October 2000–January 2001 was 75 percent lower than before the crisis.

[17]UNSCO (2001, p. 2.)

[18]During the intifada years (1988–92) there was turmoil and a loss of Palestinian employment in Israel, but there were no extensive closures on the movement of exports and imports. In those years, GDP growth was still positive, even if GNI growth slowed down (see Chapter 2). By contrast, in 1995–96 frequent closures (but less turmoil) threw the Palestinian economy into a deep recession, causing unemployment to exceed 28 percent in early 1996.

[19]In principle, the effect of the blockage of imports of machinery and equipment and intermediary goods could be assessed by adding such goods into a production function like $Y = AK^{\alpha}L^{\beta}M^{(1-\alpha-\beta)}$ where M stands for the imported intermediate goods, K for the capital stock, L for labor, and A is a measure of the state of technology (see Appendix I for a discussion of growth accounting). With K fixed in the short term, the reduction of M would reduce the equilibrium level of production for a given input of labor and capital, and in the new equilibrium, prices will have risen and output and employment fallen. The long-term outcome for employment is ambiguous ex ante since it would be negatively affected by the output decline but positively by substitution of labor for this intermediate import.

on occasion, complete blockage of imports since early October 2000 have caused considerable harm since the West Bank and Gaza relies heavily on imports for much of its manufacturing production and investment, including construction.

The demand-side effects are, in principle, somewhat easier to handle because once the disturbance is translated into an impact on expenditure, the effects can be analyzed independent of the source of the disturbance. At the same time, there are important differences among the various demand-side effects. For example, the loss of labor income from Israel is permanent, while at least part of the loss of export earnings might be recoverable once the situation returns to normal. Exports are affected in three different ways. For some goods, closures may cause a delay in the delivery until the closure is lifted. For these exports there is only a delay in earnings, so the loss is temporary and fully recoverable (although it might take some time). This could be the case for stone and marble exporters. For a second category of products, like perishable goods, export earnings are permanently lost, but once the closure is lifted exports could in principle go back to their normal level, although the destruction of land used for agriculture will make the recovery slower in this sector. Finally, for a third category of goods, exports might not recover to their normal level, at least for some time. In today's world economy of small stock holdings, an exporter of manufactured goods is likely to lose clients if it fails to assure timely deliveries. In general, the longer the conflict and closures last, and the more physical capital is damaged, the slower will be the economic recovery.

Many factors affect both supply and demand, and attempting to distinguish between the two channels is not only difficult but in some cases not very meaningful. For example, private investment might decline during closures either because key inputs to investment, such as imported machinery and equipment are blocked, or because investment demand falls with the reduced outlook for profitability. There is a clear danger of double counting when aggregating anecdotal evidence into estimates of the impact on GDP.

Nevertheless, while it is almost impossible, at this stage, to estimate the magnitude of the decline in GDP and GNI with reasonable confidence, there can be no doubt that the combination of turmoil and very extensive closures represents the most damaging shock that the Palestinian economy has experienced over the past 30 years. According to data from the PCBS, the unemployment rate jumped to 28 percent in the fourth quarter of 2000, from 10 percent in the previous quarter. Several reports describe the economic impact of the closures and turmoil in detail and suggest that the fall in GDP might be as high as 50 percent during the period of closures and that there has been a sharp rise in poverty. [20] (Before the crisis, one salary supported five people on average, so the 130,000 workers in Israel supported 650,000 people, more than 20 percent of the population.) The crisis also has caused a major deterioration in the PA's fiscal position, mainly because of the loss of revenue. Indeed, fiscal revenue is one of the few available indicators of economic activity in the fourth quarter of 2000.[21] Because of lags, the full effect on PA revenue was not felt until December 2000 when fiscal revenue was running at about US$49 million, or about 55 percent below normal (not taking into account the suspension of clearance transfer during the latter part of that month).

A decline in fiscal revenue of 55 percent cannot, however, be taken as prima facie evidence of a decline in GDP of a similar magnitude. First, the decline in tax revenue is not entirely due to a shrinking tax base. Some of the decline reflects difficulties in collecting taxes during closures.[22] Second, and more important, the loss of labor income from Israel has induced sharp reductions in GNI, private consumption, and imports that are far greater than the loss in GDP. (The fall in disposable income has led to a sharp drop in private consumption, but because of the very high import propensity, the multiplier effect on GDP is more limited.) The second point can be illustrated in a model that estimates the fiscal revenue effect of the loss of labor income from Israel.[23] The dynamics from the loss of labor income are more tractable than those from other shocks, like blockage of intermediate imports, so the estimate provides us with a benchmark with which we can feel reasonably confident. A simple short-run (Keynesian) macroeconomic model is used where this labor income adds directly to GNI and house-

[20]PCBS (2000), UNSCO (2000b, c; 2001), Shtayyeh (2000) and the World Bank (2000).

[21]Bank deposits and credit to the private sector also declined in the fourth quarter of 2000.

[22]Around 10 percentage points of the observed 50 percent drop in fiscal revenue might be the result of difficulties in collecting taxes, rather than the decline in the tax base.

[23]The loss of labor opportunities in Israel and settlements also has supply side effects: it represents a substantial outward shift of the labor supply curve for the West Bank and Gaza.

holds' disposable income, which is saved or spent on domestically produced or imported goods.[24] For simplicity, changes in GDP are entirely due to private consumption (less imports), thus assuming that investment, exports, and public consumption are unaffected by changes in labor income from Israel.[25] In this model, the loss of labor income from Israel in the fourth quarter of 2000 would by itself lead to a reduction in annual GNI of about 6 percent in 2000 from the baseline scenario.[26] The effect on GDP is more muted because of the high import propensity (0.6 with respect to GNI): annual GDP would decline by about 1 percent, but the contraction in private consumption and imports would be about 4–5 times sharper, bringing about a fall in PA fiscal revenue of 20 percent in the fourth quarter, compared to a 3 percent drop in quarterly GDP.[27]

This exercise shows that the loss of labor income alone can explain a substantial part of the decline in tax revenue, even if it (as expected) cannot explain all of the 40–50 percent reduction in the tax base. It also shows that because of the high propensity to consume and import, the fall in tax revenue is consistent with a considerable reduction in GNI, private consumption, and imports, and with a more subdued effect on GDP.[28] It also shows that an analysis based entirely on movements in GDP misses an important part of the effect closures have on households' welfare (private consumption and imports).

For the purpose of discussing the economic outlook for 2001 and beyond, we assume that real GDP contracted by about 1.5 percent and real GNI by about 5 percent in 2000, compared with the growth rates in the baseline projections of 5 percent and 4.5 percent, respectively (see Table 1.1). This does not seem implausible judging from labor market data and how the various sectors of the economy appear to have been affected by the shock and taking into account that, except in certain areas directly affected by the conflict, economic activity was still going on even if on a limited scale. Because of the uncertainty over the situation on the ground and because of the imponderables more generally—for example, regarding the magnitude of the initial output decline and how the situation will evolve—the following discussion is intended merely to suggest the broad orders of magnitude that may be involved and should not be viewed as a forecast.

Once the turmoil and closures end, there are several possible paths of recovery that the Palestinian economy might follow. Economic recovery is usefully discussed in terms of how quickly the GDP or GNI can return to the level that prevailed before the crisis, or specifically, the speed with which the output gap is closed. Once the turmoil and closures end, one (optimistic) recovery path could entail rapid economic growth so that the output gap is closed in the span of a few years. This would be broadly consistent with what happened in 1997–99, when the economy recovered from the sharp closure-induced downturn of 1995–96. For example, if the conflict were to end, and the closures lifted, in the second part of 2001, GDP could be back at its precrisis level in 2003/2004. During this transition, GDP growth would be very high until the economy converges to its long-term steady-state growth rate. Under a more pessimistic scenario the economy could operate significantly below its long-term capacity for a prolonged period of time. For example, it would take until 2006 to close the output gap.

Several factors will influence how quickly the lost output can be recovered. One important factor is the extent to which the long period of extensive closures and turmoil has resulted in lasting damage to the export sector, the tourism sector, and the capital stock. Under a long and deep economic downturn, more businesses might have had to close down, rather than just reduce the scale of their operations. Also, lost export markets can take time to recapture. And tourists will return only once they perceive that the situation on the ground has improved sufficiently. Furthermore, with the increase in security risk, it might take some time for investment demand, domestic and foreign, to return, which would slow the speed of recovery. The damage to infrastructure and productive capacity will also delay the

[24]The effect on GNI is computed as $\Delta GNI = (1 + \beta\tau_1)\delta\Delta Y^L$ and the effect on GDP as $\Delta GDP = (\beta - \alpha)\delta\Delta Y^L$, where Y^L is labor income from Israel and the settlements, α and β are the average propensity to import and consume, respectively, τ_1 is the effective tax rate for domestic revenue, and δ is the multiplier and is defined as $\delta = 1/[1 - \beta(1 - \tau_1) + \alpha]$. The fiscal revenue ($T$) effect is computed as $\Delta T = (\tau_1(\beta - \alpha)\delta + \tau_2\alpha(1+ \beta\tau_1)\delta + \tau_3)\Delta Y^L$, where τ_1, τ_2, and τ_3 are the effective tax rates for domestic revenue, clearance health and income taxes, and other clearance revenue, respectively. Consumers are liquidity constrained so consumption is solely a function of current income.

[25]In reality, the loss of labor income will also adversely affect private investment, especially residential construction.

[26]The baseline scenario is the projection made by IMF staff in August 2000, before the crisis (see Table 1.1).

[27]This is the fall in the quarterly revenue and GDP compared with the quarterly baseline values for these variables, respectively.

[28]It is possible, of course, that the propensities to consume and import change during a crisis.

recovery in many sectors, in particular in sectors such as agriculture. Another crucial factor is the extent to which Palestinian workers will be allowed back to Israel once the situation on the ground improves.

A return of GDP to its precrisis level over the span of a few years, moreover, would still leave *GDP per capita* and, even more important, *GNI per capita* well below their precrisis levels, because of the rapid population growth (3.8 percent a year). GNI per capita is the most relevant national income concept in the West Bank and Gaza given the size of labor income from Israel (equal to roughly 20 percent of GDP before the crisis). For example, if, once the turmoil and closures end, only 45,000 Palestinian workers are allowed into Israel, compared with roughly 130,000 before the crisis, a return of GDP to its precrisis level by 2003/2004 would still leave GDP per capita about 10 percent and GNI per capita about 20 percent below their levels before the onset of the precrisis levels (in dollar terms). Under the assumptions laid out above, GDP growth would have to average 25 percent a year in order to bring GNI per capita back to about US$1,900 by the end of 2003. It should be recalled that GNI per capita before the crises was still below its level in 1993 by about 8 percent.

Fiscal Effects

As mentioned earlier, the PA's fiscal situation was already very fragile before the crisis—mainly because of weak expenditure control—and it has worsened considerably in the aftermath of the closures and the economic downturn in the fourth quarter of 2000. Fiscal revenue is severely affected by the economic collapse, the difficulty in actually collecting taxes during closures, and the disruptions in the transfer of clearance revenue from Israel. Income tax revenue is affected by the loss of employment in the West Bank and Gaza and in Israel, while VAT, excises, and import taxes are affected by the fall in private consumption and imports. As mentioned, in December 2000, fiscal revenue was 55 percent below normal. In the first quarter of 2001, monthly revenue was reduced further to US$25 million on average, as Israel suspended the transfer of clearance revenue. At the same time, in response to rising unemployment, PA employment was increased to 117 thousand at the end of March 2001, from 115 thousand at the end of 2000. The monthly fiscal deficit averaged US$75 million per month in the first quarter of 2001 and was covered in part by donor support, but the PA also resorted to significant arrears accumulation and heavy borrowing from the domestic banking system.

Increased pressures for fiscal expenditure have also arisen, especially in the health sector and for social outlays (because of the rise in casualties of violence and the rise in unemployment), but the liquidity situation and the possibility to reallocate spending priorities will dictate how much additional expenditure demand can be accommodated. Under the current circumstances, it is impossible to avoid large cuts in cash budget expenditure. At the same time, however, since the budget plays an important role in providing some positive aggregate demand in the economy, and with most capital projects on hold during the crisis, it would be desirable to protect productive expenditure, such as operations and maintenance, to the extent possible. Donor aid in the form of general budget support is crucial in this regard (see below).

In April, the PA Ministry of Finance adopted a six-month emergency spending plan, worked out with IMF staff, and for which it has received firm donor support. Under this plan, to avoid an accumulation of arrears, the PA has taken measures to reduce sharply current non-wage expenditure, limiting such expenditures largely to emergency outlays to deal with the adverse consequences of the turmoil on the Palestinian population, notably for health and social assistance. The plan also envisages a freeze in PA employment supported by a cut in the nominal wage bill for by 4 percent, in effect since October last year. These measures would keep the monthly deficit to US$47 million on average under the six-month period April-September 2000, on the assumption that the government of Israel would resume transferring the clearance revenue it collects on behalf of the PA. Donors have made commitments to cover these deficits.

Foreign aid for general budgetary support, which until the crisis had not been provided since 1997, has become instrumental in preventing a collapse of the PA. As of end-March, 2001, Arab states had disbursed US$70 million to the PA, the European Union (EU) euro 57.5 million (US$52 million) in connection with the suspension of and delays in the transfer of clearance revenue, and Norway US$10 million. With the adoption of the PA's emergency spending plan, another euro 60 million is potentially available from the EU for general budgetary support, and about US$225 million in general bud-

getary support is expected to be provided for the period April–September by Arab states, in line with their commitment at the Arab Summit in late March 2001.

Other Effects—On the Banking system and Inflation

A prolonged closure can negatively affect the banking system in several ways. It might make money demand unstable, possibly causing a shift to currency from deposits, especially if there is a risk of liquidity shortages. Indeed, there were some initial reports of banks experiencing liquidity shortages as trucks carrying coins and notes could not enter the West Bank and Gaza, but this problem apparently has been resolved. Also, banks might experience some reduction in deposits as people draw down their savings to smooth consumption in response to a temporary loss of labor income, and there is some evidence of this in the first months of the crisis. At the same time, the problem for the banking system should not be exaggerated since the banking system in aggregate is very liquid and should be able to manage a reduction in the deposit base. Smaller local banks could face problems, though. A more serious concern relates to the asset side of banks' balance sheets, in particular to the quality of their loan portfolios. Bad loans might increase because of the economic downturn and the closure, and this would be more of a concern for local banks, which have relatively larger loan portfolios (as a percent of total assets). Aggregate bank data from the PMA show that the growth in both deposits and credit to the private sector have slowed considerably since the onset of the crisis. Credit to the private sector, which peaked in September 2000 at US$1,074 million, had fallen to US$926 million in February 2001. The fall in deposits has been more subdued, and they fell from a high US$3.5 billion in September 2000 to US$3.3 billion in February 2001.

The effect on inflation from the turmoil and closures is ambiguous, ex ante, since the demand side and cost-push aspects affect prices in opposite directions. For example, the loss of labor income depresses domestic demand, causing downward price pressures, while import blockages could be expected to exert upward pressure on the prices of imported goods. Data from the PCBS shows that inflation has fallen further in the period October 2000–March 2001: the twelve-month rate of change of the CPI reached 0.7 percent in March 2001 (the same as in Israel), compared with 3.4 percent in September 2000, and the month-on-month rate of change in the CPI was consistently lower in this six-month period than in the same period one year earlier (See Table 1.7). To some extent these developments reflect the trend fall in inflation observed before the crisis, but they almost certainly also reflect the effects on prices from the weakness in domestic demand and the blockage of exports, which has led some goods (particularly agricultural products) that are usually exported to be sold in the local market.

Demographics and Long-Term Growth in the Palestinian Economy

Hamid R. Davoodi and Ulric Erickson von Allmen

The West Bank and Gaza has the highest population growth in the world.[1] Years of high fertility rates have created a very young population structure, with roughly half of the population below the age of 15. Over the medium term, the demographics are projected to change in a way that will have profound economic implications. The fertility rate is projected to decline, causing a deceleration in the population growth rate and a rise in the average age of the population so that by 2025, the share of the population older than 15 will have increased to 64 percent from about 53 percent today. As a consequence, the labor force is projected to expand by 4.4 percent a year over the next ten years and at a modestly lower rate thereafter. The numbers would obviously be higher if the West Bank and Gaza were to experience immigration, a possibility after a final peace agreement with Israel.

The relationship between growth in the population and in the labor force on the one hand and per capita economic growth on the other is complex, and arguments have been made in favor of pessimistic, optimistic, and neutralist views.[2] Empirical studies have typically found population growth to be negatively associated with long-term growth in per capita income once the age structure of the population is controlled for, and that an expansion in the population at working age relative to the population at large can bolster per capita income growth, albeit temporarily.[3] This is also what the empirical part of this chapter finds. A good example is East Asia, which in 1965–90 experienced a rise in the share of the working-age population similar to the one the West Bank and Gaza is expected to go through over the coming 25 years, and the demographic (or age) transition in Asia is estimated to have contributed between 1.5 to 1.9 percentage points to annual per capita income growth over the 1965–90 period, explaining roughly half of the "miracle" in that region (Bloom and Williamson, 1998).

An increase in the share of working-age segment of the population can raise per capita income growth through several channels.[4] It can contribute to higher private savings as predicted by the life-cycle model of savings, which in turn can allow an increase in investment to the extent that the private sector lacks access to foreign capital. Investment can be expected to surge in order to equip the new workers with capital, while housing investment could be expected to increase. The infusion of young and newly trained workers (an update of the human capital stock) can also help increase productivity and technological change. Finally, an in-

[1]Unless otherwise mentioned, population growth refers to the natural population growth rate, or the difference between birth and death rates; the effects from migration are discussed separately.

[2]Galor and Weil (1999 and 2000) present a unified model that encompasses different views on economic development and population growth.

[3]See for example, Barro and Sala-ì-Martin (1995), Bloom and Freeman (1986), and Sarel (1994). There is also reverse causality, with the level of economic development affecting fertility and mortality rates, but with different time lags.

[4]See Williamson (1997) for an overview of the links between demographic change and economic growth.

crease in the labor force relative to the population can have important effects on public finances (additional taxpayers) and the composition of public expenditure.

There is nothing automatic about the demographic transition having a positive impact on growth, however, and it is not too difficult to envision a scenario under which the rapid expansion of the Palestinian labor force would lead to higher unemployment or a severe compression in real wages, or both. Standard economic theory would predict that an expansion in the labor supply due to population growth would negatively affect real wages or employment opportunities, or both, unless there are technological improvements that increase productivity.[5] This has also been the general experience in the industrial countries that experienced a baby boom after World War II. When the baby boom cohort reached working age in these countries, it was generally absorbed into the workforce in the United States, but its relative wages declined, whereas in Europe, this group generally experienced higher unemployment than other age groups (Bloom, Freeman, Korenman, 1987). The experience in developing countries has been different, however, and expansions of labor supply have typically been accompanied by a structural shift away from low productivity agriculture to higher productivity industry and services, at the same time as the productivity within these sectors has increased. Thus, according to Bloom, Freeman, and Korenman (1987) developing countries have in general been able to absorb swelling labor supplies into higher productivity employment, at higher wages, fueling an increase in income per capita. The policy challenge for the Palestinian Authority (PA) is to create conditions to help ensure that the demographic transition will provide a boost rather than a drag on the Palestinian economy. This point is the focus of this chapter.

The purpose of this chapter is to analyze the challenge that confronts the Palestinian labor market and the economy more generally stemming from the projected changes in age composition and labor force participation, and the need to reduce unemployment; to compute the growth rates in real GDP, investment, and productivity required in order to reduce unemployment, while at the same time allowing real wages to rise; and to identify the key factors that can help the Palestinian economy achieve these growth rates. Figure 2.1 shows a stylized schema over the growth process in which the proximate factors for economic growth—changes in labor and capital inputs and productivity—are determined by what can be called the ultimate factors. This chapter follows (loosely) this schema.

A final word of caution. Although a considerable effort has been made to put together a solid database on the Palestinian economy, data weaknesses are a problem, especially the national income accounts where data are derived from the Israeli Central Bureau of Statistics (ICBS) for the period 1970–92 and for 1993 onward from IMF staff estimates based on data from the Palestinian Central Bureau of Statistics (PCBS). The PCBS is in the process of establishing a consistent time series of national accounts data for the period 1994–99, including, for the first time, data in real terms which were not available at the time this chapter was written.

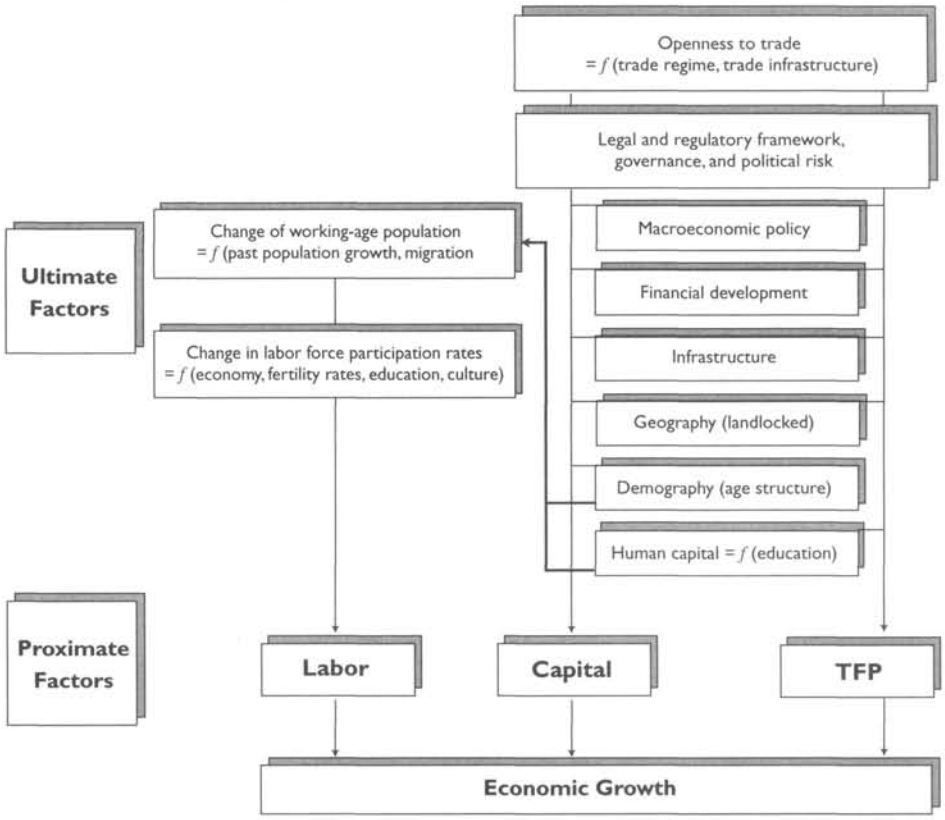
Accounting for Growth, 1970–99

In order to gain insights to the sources of growth in the Palestinian economy, this section analyzes the Palestinian record of growth in four economic indicators—output, investment, employment, and total factor productivity (TFP)—over the past 30 years using a growth accounting framework. Growth accounting, a simple analytical exercise that has been used for almost 40 years, abstracts from factors that influence annual changes in growth and focuses instead on medium- to long-run growth.[6] (Appendix I explains the methodology and data sources for this exercise.) Output can grow either by increasing inputs, increasing productivity of each input, or both. The growth accounting exercise decomposes output growth into contributions from changes in the factors of production (capital and labor) and a residual component, known as TFP growth. The central message of the growth accounting frame-

[5]The effect would be different if the expansion in the labor supply were due to an increase in labor force participation rates. Labor force participation is to some extent endogenous to economic growth, whereas this is not the case for population growth in the short run.

[6]See Solow (1957) for the first application of growth accounting, and Barro (2000) and Hulten (2000) for reviews of the methodology and a variety of approaches to measure productivity growth. Arnon, Luski, Spivak, and Weinblatt (1997) undertake a growth accounting exercise for Gaza and the West Bank (separately) for the period 1970–90. While not directly comparable (because we treat the West Bank and Gaza as one unit and the focus is on a longer time period) the results are nevertheless similar.

Figure 2.1
A Stylized Schema Over the Long-Term Growth Process



work is that a substantial and lasting increase in living standards requires a sustained growth in TFP.[7]

The Growth Record

Over the last thirty years, Palestinian real GDP growth averaged 6 percent per year but with considerable variability.[8] In the 1970s, real output grew at an annual rate of 8 percent. The growth rate declined to 3.1 percent in the 1980s and then accelerated again to 6.8 percent in the 1990s (Table 2.1 and Figure 2.2). Growth was particularly high in 1970–73, a period of almost complete openness between the Palestinian economy and its integration into the richer and more developed Israeli economy.[9] This integration included removal of trade barriers, employment of Palestinian workers in Israel, and the transfer of technology and expertise to the Palestinian agricultural sector, a dominant sector in the 1970s.[10] The decline in output growth in the 1980s has been attributed in part to the lagged impact of the oil price shock of 1979, which adversely affected both Israel and the West Bank and Gaza, the negative effects from the hyperinflation

[7]There are also TFP-induced changes in factor accumulation, and vice versa, which could result in different estimates of the importance of TFP in growth. This chapter abstracts from these considerations, as is standard practice in growth accounting (see Appendix 1).

[8]The volatility in output as measured by the coefficient of variation (the standard deviation of annual growth rates divided by the average growth rate for the period) increased after 1994. Part of the high volatility in output prior to 1994 has been attributed to the presence of cycles in olive production (see Arnon, Luski, Spivak, and Weinblatt, 1997). After 1994, the closure-induced drop in output dwarfed the effect of these cycles in 1995–96.

[9]According to data from Israel Central Bureau of Statistics (ICBS, 1996, Table 2, p. 64), the Palestinian economy's dependence on factor income from abroad (mainly labor income from Israel) grew from 1 percent of gross national income (GNI) in 1968 to 25 percent in 1973.

[10]See World Bank (1993), and Arnon, Luski, Spivak, and Weinblatt (1997).

Table 2.1 Sources of Output Growth: 1970–99 and Subperiods
(Annual percent)

Period	Growth of Output	Contribution of:[1] Capital Stock	Employment	Total Factor Productivity
		Capital share of income = 0.35		
1970–99	6.0	2.5	2.1	1.4
1973–94	5.8	2.7	1.5	1.6
Growth before, during, and after intifada[2]				
1970–87	6.1	2.8	0.6	2.8
1988–93	8.1	1.8	3.4	2.9
1994–99	3.3	2.5	5.2	–4.4
Growth by decade				
1970–79	8.0	3.0	–0.2	5.2
1980–89	3.1	2.3	1.5	–0.7
1990–99	6.8	2.3	5.0	0.4
Post–1973 growth slow down				
1970–73	8.8	2.0	–1.2	8.0
1973–99	5.2	2.6	2.4	0.1
		Capital share of income = 0.58		
1970–99	6.0	4.2	1.3	0.4
1973–94	5.8	4.5	1.0	0.3
Growth before, during, and after intifada[2]				
1970–87	6.1	4.6	0.4	1.2
1988–93	8.1	3.0	2.2	2.9
1994–99	3.3	4.1	3.4	–4.2
Growth by decade				
1970–79	8.0	4.9	–0.1	3.2
1980–89	3.1	3.9	1.0	–1.7
1990–99	6.8	3.8	3.2	–0.2
Post–1973 growth slowdown				
1970–73	8.8	3.3	–0.7	6.3
1973–99	5.2	4.3	1.6	–0.7

Sources: ICBS, PCBS, and IMF staff estimates.
[1]The assumptions are: depreciation rate of 4 percent and initial capital-output ratio of 2.5.
[2]The intifada period is 1988–93.

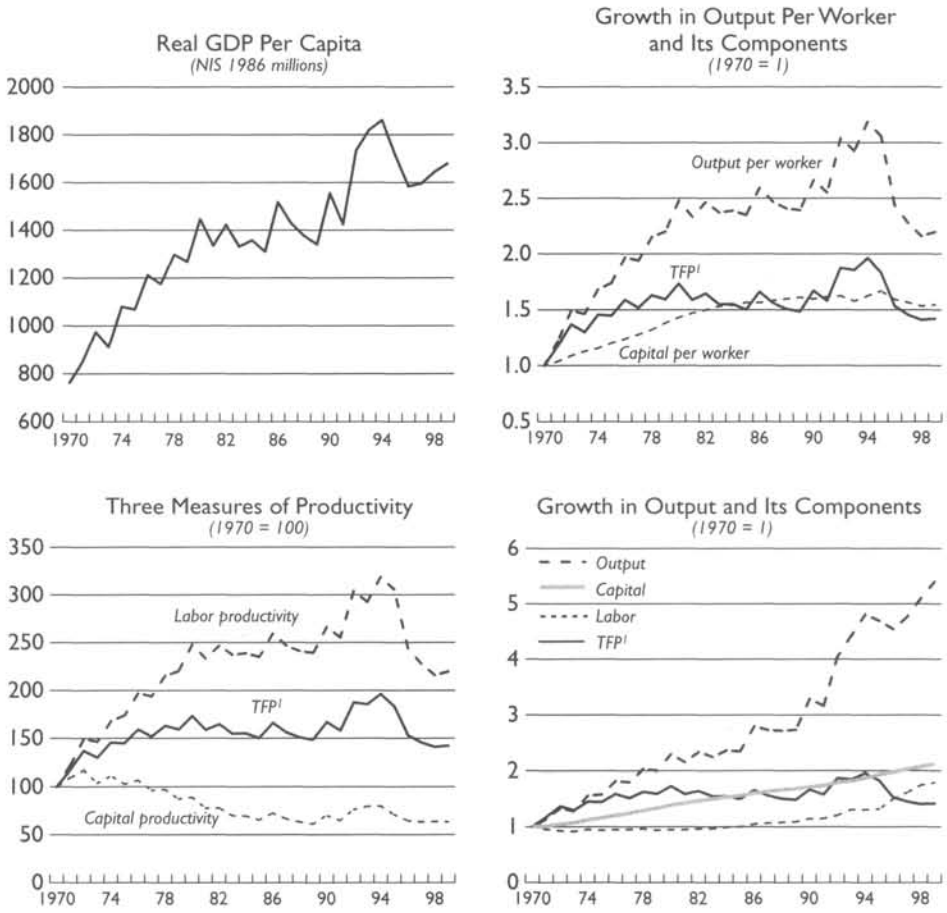
that lasted into the mid-1980s, a slowdown in the process of technological transfer, and falling prices of agricultural products.[11] In 1990–93, output growth was high, spurred by faster employment growth, particularly in the construction sector, but output fell in 1995–96 because of the disruptions in economic activity caused by a deterioration in the security situation and the extensive closures imposed by Israel. The Palestinian economy experienced a strong recovery in 1998–99 and was expected to record positive per capita income growth also in 2000 before the turmoil that began in September (see Chapter 1).

The growth pattern over the last thirty years reflects a complex set of factors, including the presence of external shocks, changes in the degree of economic integration of the Palestinian economy with that of Israel, and the presence of closures and political turmoil.

As indicated, political instability has contributed to the uneven growth performance. Rather surprisingly, however, real GDP growth accelerated during the intifada (1988–93) and decelerated afterwards. The higher output growth during the intifada was driven by rapid growth in domestic employment as the rising level of political tensions forced Palestinians working in Israel to seek employment in the

[11]Part of the slowdown has also been attributed to regulatory constraints imposed in response to Israeli farmers' fear of competition from Palestinian agricultural producers and to the lack of investment in infrastructure (Arnon, Luski, Spivak, and Weinblatt, 1997).

Figure 2.2
Growth and the Composition of Growth, 1970–99



Source: ICBS (1996), World Bank (1993), and IMF staff estimates.
[1]TFP=Total Factor Productivity.

West Bank and Gaza instead (see below). While GDP growth accelerated, growth in gross national income (GNI) decelerated on account of the loss of labor income from Israel.[12] The acceleration in GDP growth during the intifada stands in sharp contrast to the experience in 1995–96 and in late 2000 when GDP and domestic employment fell. One reason for this difference is that during the intifada, although Palestinian workers lost their employment in Israel, the Palestinian economy was not subject to border closures and disruptions to exports and imports as in 1995–96 and in late 2000.

The Investment Record

Capital accumulation has been a key factor in the Palestinian economic growth process. The capital stock expanded at an annual average rate of 7.2 percent over the last 30 years, contributing roughly 2.5 percentage points to the 6 percent real GDP growth rate (see Table 2.1).[13] Growth in the capital stock has been uneven, similar to output growth. Capital accumulation decelerated during the intifada but accelerated thereafter following the signing of the Oslo accords and the subsequent surge in donor-financed investment. Investment rose from 27 percent of

[12]Arnon, Luski, Spivak, and Weinblatt (1997, Table 2A1).

[13]See the section entitled "Total Factor Productivity" for a discussion of the elasticity of output with respect to capital, used in this calculation.

GDP during the intifada to about 33 percent of GDP (in real terms) in 1994–99. Growth in aggregate investment, however, masks changes in its composition. Investment prior to 1994 was predominantly in the construction sector, a reflection of housing demand stemming from the high population growth. Construction activity has continued to dominate investment activity also after 1994 (including with large-scale hotel construction), but in addition, donor-financed investment has included investment in infrastructure and large rehabilitation projects—investments that should help raise the long-run productive capacity of the Palestinian economy. There is no evidence, however, of significant growth in private investment outside of construction after 1994, and despite the surge in investment, output growth slowed (because of the closures in 1995–96) resulting in a decline in the productivity of capital.

The Employment Record

In 1970–99, employment expanded at the same rate as the population—about 3 percent a year—but slightly below the growth in the labor force.[14] Employment growth reflected primarily growth in the working-age population and, to a lesser extent, an increase in the labor force participation rate and a reduction in unemployment.[15] Political events probably influenced short-term fluctuations in employment more than output and investment, and employment was more volatile than investment in 1970–99 and its subperiods and also more volatile than real output after 1994. During the period of integration (1970–73), Palestinian employment in Israel increased sharply, while domestic employment contracted at a rate of 1.8 percent per year. During the intifada, employment of Palestinians in Israel contracted at a rate of 4.4 percent per year but recovered after that.[16] In contrast to earlier periods, changes in domestic employment since 1994 have mirrored changes in Palestinian employment in Israel and the settlements. Moreover, labor productivity has fallen since 1994 by almost 4.8 percent a year, as employment growth outpaced growth in output.[17]

Total Factor Productivity

Growth in TFP reflects technical progress, changes in the efficiency with which factors of production are used, and other factors, and TFP is derived as the residual from a decomposition of output growth into contributions from changes in the factors of production capital and labor. Using a Cobb-Douglas production function

$$Y_t = F(A_t, K_t, L_t) = A_t K_t^{\alpha} L_t^{1-\alpha}, \quad (1)$$

where real output (Y_t) is a function of the physical capital stock (K_t), labor (L_t), and technology (A_t), and α is the elasticity of output with respect to the capital stock. The following expression can be derived for TFP:

$$a_t = y_t - \alpha k_t - (1 - \alpha) l_t, \quad (2)$$

where y_t, a_t, k_t, and l_t represent growth in output, TFP, capital stock, and labor, respectively.

In growth accounting, the estimate of α is crucial, and it is usually obtained from national income accounts, other growth studies, or regression analysis. We compute TFP for the West Bank and Gaza using two estimates of α. One estimate (0.35) is obtained by simply relying on other studies of growth accounting.[18] The second estimate (0.58) is constructed using national income accounts data from the PCBS. Table 2.1 reports TFP growth rates based on both estimates of the capital share of national income. The analysis in the text focuses on the estimates based on the low (0.35) value for α because it seems more reliable (see Appendix I) than the high value and because it facilitates comparison of the West Bank and Gaza with other economies.[19] The results show that TFP growth was 1.4 percent per

[14]In this section, unless otherwise noted, the employment data refer to domestic employment only, that is, Palestinians who work in Israel and the settlements are excluded from these data and the underemployed are counted as unemployed. This is the definition of employment most relevant to the growth accounting exercise. In other parts of the chapter as well as in the other chapters, employment includes those working in Israel and the settlements as well as the underemployed, in line with the definition used by PCBS in its labor force surveys.

[15]Over the 30-year period, the labor force participation rate has increased, with a U-shaped pattern in 1975–85 and a much higher participation rate after the mid-1980s.

[16]The decline in employment of Palestinian workers in Israel was also due to employment of non-Palestinian foreign workers and further immigration into Israel.

[17]The decline in labor productivity (and TFP) since 1994 might also reflect an underestimation of real GDP growth.

[18]See, in particular, Collins and Bosworth (1996) and Crafts (1999) and Dhonte, Bhattacharya, and Yousef (2000). This estimate was also used in a study of growth accounting for the West Bank and Gaza by Arnon, Luski, Spivak, and Weinblatt (1997).

[19]As explained in Appendix I, the reliability of national income accounts-based estimates is weakened by the often poor quality of national account statistics in developing countries, including in the West Bank and Gaza.

year on average in 1970–99, so not all growth in real GDP over the last thirty years can be attributed to increases in employment and the capital stock. At 1.4 percent, however, TFP growth accounts for less than a quarter of the 6 percent annual growth in output. The main source of output growth over the last thirty years has been factor accumulation, in particular capital accumulation (see Table 2.1).[20]

The pattern of TFP growth has been uneven, reflecting the uneven growth patterns of factor inputs and output described earlier, and the averages are therefore quite sensitive to the time period chosen, as is clear from Table 2.1. TFP grew slightly less than 3 percent a year before and during the intifada but has fallen by 4.4 percent per annum since 1994. The fact that growth in TFP was sustained for 24 of the last 30 years is, however, an indication of the rather remarkable resiliency of the Palestinian economy, and it translated into a sustained increase in the standard of living as real per capita GDP grew at an annual average of 3 percent.

The importance of TFP in output growth has also varied over the years. It accounted for 46 percent of output growth during 1970–87, but its share fell to 36 percent in 1988–93 (the intifada) when factor accumulation (especially employment) became a more important source of growth. The importance of TFP in 1970–87 was also primarily due to the high TFP growth in 1970–73, a period marked by the integration of the Palestinian economy into that of Israel, the transfer of technology, and high labor mobility. During this period, TFP grew at an annual rate of 8 percent—the highest TFP growth registered over the last thirty years, accounting for almost 91 percent of output growth in that period. TFP growth slowed sharply after 1973 much like the recorded productivity slowdown in the OECD countries and Israel, and it was negative in the 1980s in the West Bank and Gaza. Furthermore, in contrast to the earlier periods, the negative TFP growth since 1994 has been accompanied by faster accumulation of capital and labor and lower output growth.[21] This was due to a combination of factors, including the infusion of donor-financed investment (which may help raise TFP growth in the future), heavy focus on residential construction in private investment, the return of some Palestinians to the labor market following the Oslo accords, and the adverse impact of closures on output in 1995 and 1996. The decline in TFP might also reflect an underestimation of output growth.

How Does This Performance Compare with the Rest of the World?

To answer this question, a growth accounting exercise is undertaken for 88 countries and the West Bank and Gaza, using an identical set of assumptions and a common time period. The international data are taken from Collins and Bosworth (2000).[22] The 88-country sample provides reasonably good and representative coverage of various geographic regions and income groups. It includes, for example, eight countries in the Middle East and North Africa region (MENA), 12 countries in the East Asia and Pacific region (EAP), 61 developing countries, and 22 OECD countries.[23] The common time period 1973–94, chosen because the start year has been used frequently in other studies of growth accounting (for example, Bosworth and Collins, 1999), facilitates comparison with these studies. It also excludes the West Bank and Gaza's unusually high TFP growth of 1970–73 and the unusually large negative TFP growth associated with the closures in 1995–96. Table 2.2 compares West Bank and Gaza's TFP growth with the MENA region and eight countries in that region in 1973–94, and Table 2.3 compares the West Bank and Gaza with other regions in the world.

In 1973–94, TFP growth in the West Bank and Gaza averaged 1.6 percent a year; more than twice as high as the MENA average and also twice that of Israel and higher than that of Jordan by 1.8 percentage points per year. Historically, the MENA region has not been among the world's better performers with respect to TFP or output growth, but the TFP

[20]Calculations based on a capital share of 0.58 yield a lower TFP growth (0.4 percent versus 1.4 percent for the period 1970–99), but qualitatively, the movements in TFP growth remain unchanged. These results are not surprising since the capital stock has expanded faster than employment. The largest divergence between the two estimates of TFP growth occurred in 1970–79, the period with the most rapid increase in the capital-labor ratio.

[21]There are significant annual variations in TFP growth after 1994: TFP fell by 7 and 18 percent in 1995 and 1996, respectively, but has since recorded a (modest) turnaround.

[22]The assumptions are: an initial capital-output ratio of 2.5, capital share of income of 0.35 and depreciation rate of 4 percent (the same in the top panel of Table 2.1). Appendix I explains the assumptions.

[23]The regional classification follows that of the World Bank. To be consistent with the rest of the literature, however, EAP excludes Australia, Japan, Myanmar, and New Zealand (see Crafts, 1999).

Table 2.2 Sources of Output Growth: West Bank and Gaza and Selected Countries in the Middle East and North Africa, 1973–94
(Annual percent)

Countries	Growth of Output	Contribution of:[1]		
		Capital Stock	Employment	Total Factor Productivity
West Bank and Gaza	5.8	2.7	1.5	1.6
MENA[2]	4.8	2.2	2.0	0.7
Algeria	3.2	2.0	2.7	–1.6
Egypt	6.2	3.0	2.1	1.1
Iran	1.7	2.1	2.1	–2.5
Israel	4.2	1.6	1.8	0.8
Jordan	5.6	3.0	2.8	–0.2
Malta	6.7	1.8	0.5	4.5
Morocco	4.4	2.1	2.3	–0.1
Tunisia	4.4	1.9	2.3	0.2

Sources: IMF staff estimates; and Collins and Bosworth (2000).
[1]The assumptions are: capital share of income 0.35; depreciation rate of 4 percent; and initial capital-output ratio of 2.5.
[2]Unweighted average of countries excluding West Bank and Gaza. Numbers may not add up to total due to rounding.

performance of the Palestinian economy compares well with the rest of the world. In fact, its TFP growth exceeds the averages for all the income and regional groupings in Table 2.3 as well as the world sample of 88 countries, except for the high performing EAP region. Given the circumstances, TFP growth in the West Bank and Gaza during 1973–94 was quite good.

At the same time, it should be recalled that the above discussion focused on real GDP growth, ignoring differences in population growth developments. Taking into account the high population growth, the growth performance of the Palestinian economy is less impressive. This will be examined later.

The Palestinian economy has, moreover, exhibited substantial output volatility. In the period 1973–94 (the period for which cross-country data are available) the coefficient of variation of real GDP growth was 1.6 for the West Bank and Gaza compared with a median of 0.8 for the eight MENA countries, 1.4 in the 61 developing countries, and 0.5 in the EAP region (Figure 2.3). Among the various country groupings, it was only Latin America (1.7) that scored higher on volatility. The coefficient of variation for per capita real GDP growth in the West Bank and Gaza was even higher at 3.1 in 1973–94 and 3.9 in 1994–99. The issue of output volatility will be exploited further later in this chapter.

Projected Changes in Demographics, the Labor Force, and Employment

Changing Palestinian Demographics

Population growth in the West Bank and Gaza averaged about 3.7 percent in 1990–97, compared with 1.5 percent for the world as a whole, 2.3 percent in the MENA region, and 2.7 percent in generally fast-growing sub-Saharan Africa (Figure 2.4 and Table 2.4).[24] The actual population growth, which includes migration, was even higher, at around 5.1 percent, as the West Bank and Gaza experienced strong immigration in the aftermath of the Gulf Crisis and in 1994–95, following the signing of the peace accords with Israel. Immigration has since declined to a point where it has been insignificant in the past few years, thereby eliminating the difference between actual and natural population growth rates. One consequence of the high fertility rates is that the population is now very young: almost 20 percent of the population is less than five years old,

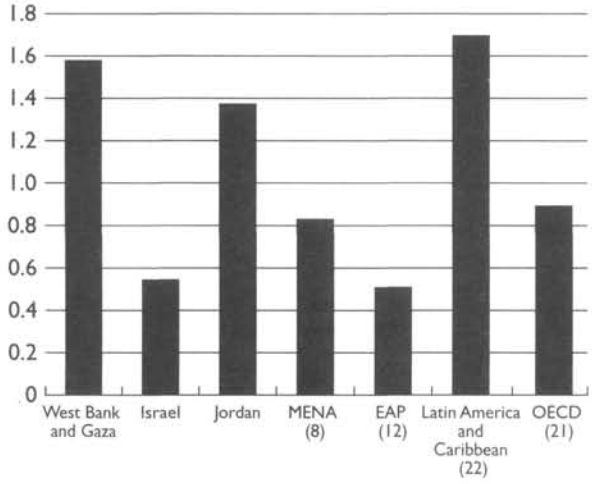
[24]The 3.7 percent is the difference between the birth and death rates, and calculated as the average of the available observations for the period 1990–97 from the World Bank Development Indicators Data Base. It is higher than that for any of the other 200 economies in that database. It is slightly lower, however, than the 3.8 percent reported by the PCBS for more recent years and the latter are used in this chapter.

Table 2.3 Sources of Output Growth: West Bank and Gaza and by Major Regional and Income Groups, 1973–94
(Annual percent)

Region and Income Group[2]	Growth of Output	Contribution of:[1] Capital Stock	Employment	Total Factor Productivity
West Bank and Gaza	5.8	2.7	1.5	1.6
East Asia and Pacific[3]	7.0	3.3	1.8	2.0
Middle East and North Africa	4.8	2.2	2.0	0.7
South Asia	4.8	1.7	2.0	1.1
Sub-Saharan Africa	1.9	1.2	1.6	–0.9
Latin America and the Caribbean	2.6	1.4	1.8	–0.6
Low-income countries	2.5	1.4	1.8	–0.7
Lower middle-income countries	3.5	1.8	2.0	–0.3
Upper middle-income countries	3.8	1.7	1.6	0.5
High-income OECD countries	2.5	1.2	0.4	0.9
High-income countries	3.2	1.4	0.6	1.1
Developing countries	3.1	1.6	1.8	–0.3
World[4]	3.1	1.6	1.4	0.1

Sources: IMF staff estimates; and Collins and Bosworth (2000).
[1]The assumptions are: capital share of income 0.35; depreciation rate of 4 percent; and initial capital-output ratio of 2.5.
[2]Unweighted average. The West Bank and Gaza would be in the lower middle-income group.
[3]Consists of Indonesia, Korea, Singapore, Thailand, Philippines, Taiwan, Malaysia, and China.
[4]Consists of 88 countries.

Figure 2.3
Comparison of Output Volatility, 1973–94



Sources: Collins and Bosworth (2000), PCBS, ICBS, and IMF staff calculations. Output volatility is defined as the coefficient of variation, which is the standard deviation of annual GDP growth divided by the mean of real GDP growth, for the period 1973–94. For country groupings it is the sample median of the country specific coefficients of variations. The number of countries included for each region is shown in parentheses. Table A1.1 shows a list of all countries.

over a third is less than 10, and almost half of the population is younger than 15 (Figure 2.4). The median age is approximately 16 years.

A stylized fact of economic development and demographics is that, as countries develop, they typically undergo a demographic transition during which both birth and death rates fall to much lower levels, and population growth accelerates temporarily because the fall in mortality tends to lead that in fertility (Figure 2.5). The West Bank and Gaza appears to be in the middle of such a demographic transition, with population growth now at or close to its peak.[25] Indeed, its crude birth rate (4.3) is higher and, quite surprisingly, its crude death rate (0.5) is lower than the averages of all the various country groupings presented in Table 2.4. Over the medium term, and in line with the stylized demographic transition just described, the decline in the fertility rate is projected to become sharper, the population growth rate slower, and the population older.

[25]The natural population growth rate in the West Bank rose to 3.5 percent in 1987, from 2.2 percent in 1968 and 3.1 percent in 1978. In Gaza, the corresponding rates were 4.3, 3.7, and 2.3 percent. The growth rates stabilized in the 1990s, even declined somewhat, at around 3.5 percent in the West Bank and 4 percent in Gaza. According to PCBS (1998b) the desired fertility rate among women is considerably lower than the prevailing rates.

Table 2.4 Population Growth in the West Bank and Gaza Relative to the Rest of the World

	Actual Population Growth Rate	Crude Birth Rate	Crude Death Rate	Natural Population Growth Rate[1]	Fertility Rate[2]
West Bank and Gaza	5.1	4.3	0.5	3.7	6.2
East Asia and Pacific	1.4	2.1	0.7	1.3	2.3
Europe and Central Asia	0.3	1.5	1.1	0.4	2.0
Latin America and Caribbean	1.7	2.5	0.7	1.8	2.9
Middle East and North Africa	2.4	3.0	0.7	2.3	4.2
South Asia	1.9	3.0	1.0	2.0	3.8
Sub-Saharan Africa	2.7	4.2	1.5	2.7	5.8
Low-income countries	2.1	3.4	1.1	2.2	4.3
Low- and middle-income countries	1.6	2.6	0.9	1.7	3.2
Middle-income countries	1.3	2.1	0.8	1.3	2.4
Upper middle-income countries	1.6	2.3	0.7	1.6	2.8
High-income countries	0.7	1.3	0.9	0.4	1.7
Least developed countries (UN classification)	2.4	4.0	1.5	2.5	5.4
World	1.5	2.4	0.9	1.5	2.9

Sources: World Bank, World Development Indicators database, and IMF staff calculations.

Note: All data are simple annual averages for the period 1990–97. For many countries, data observations are only available for some of the years.

[1]Difference between crude birth and death rates.

[2]Total births per woman.

PCBS (1999) projects the median age to increase by 30 percent over the next 25 years to 21.4 years.

The baseline population projections presented here are based on PCBS (1999) but modified by IMF staff, as explained in Box 2.1. Population growth is projected to decline gradually to around 2.4 percent by 2025 under the assumptions that the fertility and infant mortality rates will both decline by 50 percent between 1997 and 2025 (as projected in the medium scenario in PCBS, 1999), and that there is no net migration during this period. The assumption of zero net migration in the baseline scenario is made in order to isolate the dynamics stemming from the existing population. On the basis of these three assumptions, the West Bank and Gaza would move further to the right on the stylized demographic transition curve in Figure 2.5, the natural population growth rate would fall, and the working-age population would increase from 53 percent of the population in 1999 to 64 percent in 2025 (Table 2.5).[26] The lower left panel of Figure 2.4 shows how the age structure would change over time, compared with the population structure in 1997—while population will grow across all ages, the sharpened hump shows the faster growth in working-age population. Other countries in the Middle East region are expected to go through a similar demographic transition but nowhere will the changes be as dramatic as in the West Bank and Gaza.[27]

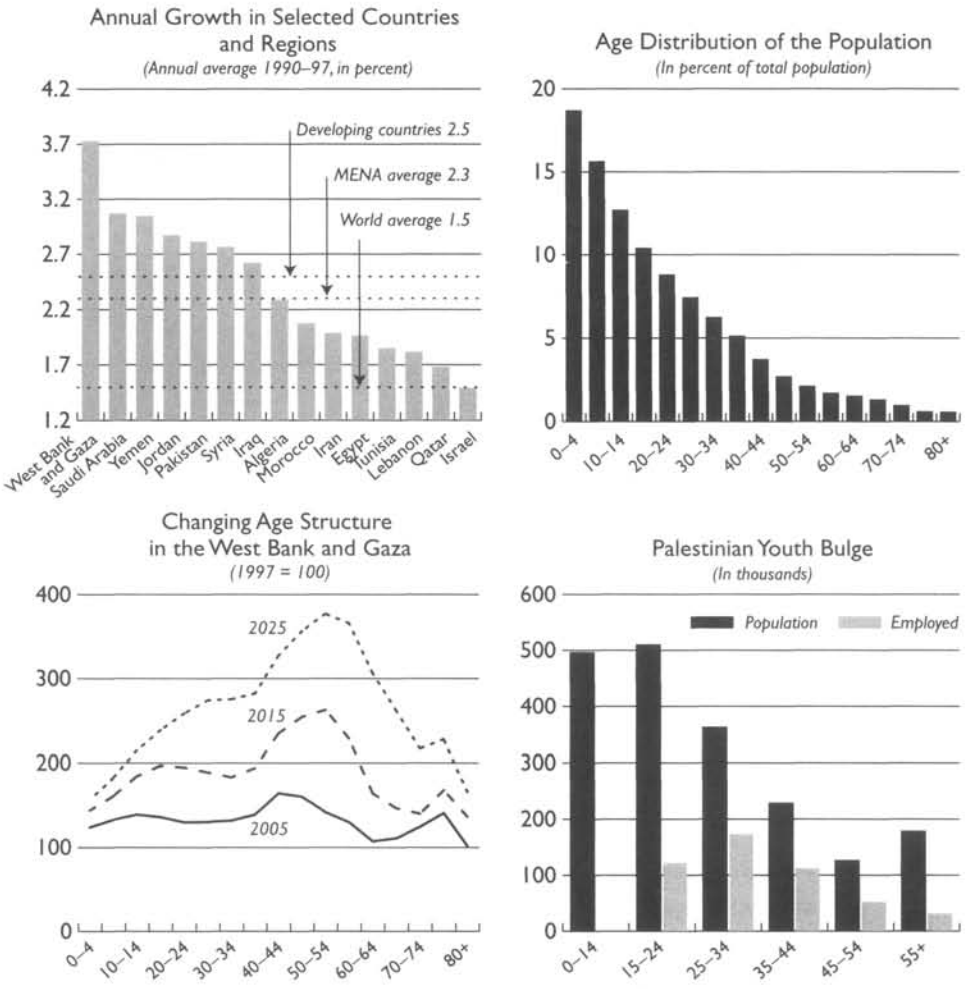
Projected Labor Supply Growth

Over the medium term, labor supply growth will be affected by three factors. First, labor supply will expand as the large youth cohort enters working age. The lower right panel of Figure 2.4 shows the youth cohort and how its size dwarfs that of the population currently employed. Second, the overall labor force participation rate is projected to rise because more people will enter age groups with relatively higher participation rates. The combined effect of these two factors is shown as Average 1 in Table 2.6. Lastly, the labor force participation rate for women is assumed to increase. Female labor force participation is low (at 11 percent in 1999) by international comparison, and it would be reasonable to expect the decline in the fertility rate to be

[26]This change in the age structure is the same as in PCBS (1999), implying that the age structure of immigrants is similar to that of the existing population living in the West Bank and Gaza.

[27]For the region as a whole, working-age population is expected to grow by 2.7 percent per year over the period 2000–15, compared with population growth of 2.2 percent (Dhonte, Bhattacharya, and Yousef, 2000). The corresponding rates for the West Bank and Gaza are 4 percent and 3.2 percent, if, for comparability, working age is defined as the ages 15 to 64 years old. This chapter uses the PCBS's definition of working age as those over 15 years old.

Figure 2.4
Palestinian Population Dynamics

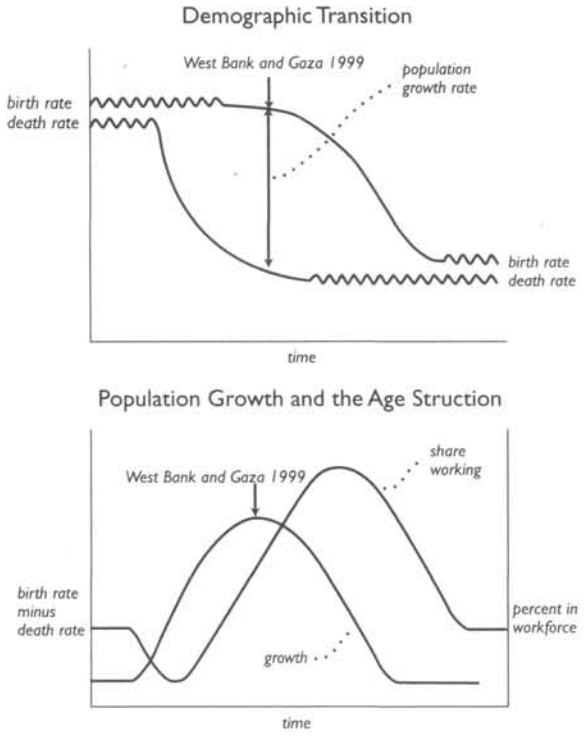


Sources: PCBS, World Bank Development Indicators, and IMF staff calculations and estimates.

accompanied by a rise in the female labor force participation rate, even though the link between fertility rates and labor force participation rates is admittedly difficult to predict since it is heavily influenced not only by economic but also by cultural and social factors.[28] For the purpose of this analysis, we assume that the average female labor force participation rate in the West Bank and Gaza increases gradually to 24 percent by year 2025 and that the increased labor force participation rate is concentrated among women aged 15–34. Under the combined effect of these three factors, the overall labor force participation rate—for men and women—would rise from 41.0 percent on average in 1999 to 43.3 percent in 2010 and further to 47.6 percent by 2025, and labor force growth would be 4.4 percent per year for the period 2000–10, after which it would slow down modestly (Average II in Table 2.6; and Table 2.7). In the end, the actual evolution of labor force participation rates will also be influenced by the prospects for employment, and, as will be discussed later, even under ambitious tar-

[28]Daoud (1999) analyzes female labor force participation and employment in the West Bank and Gaza. His results suggest that the probability of a woman participating in the labor force is negatively affected by the number of children under the age of six. He also finds that Palestinian women do have a preference for working and that female employment and wages rise with years of schooling. He discusses cultural and other factors that might affect female labor force participation.

Figure 2.5
Stylized Demographic Transition



Source: Based on Bloom and Williamson, (1998).

gets for growth in output and employment, the West Bank and Gaza is likely to experience a prolonged period of high unemployment and this in turn might reduce labor force participation rates. This analysis ignores this possible feedback effect since its purpose is to assess the requirements for growth and TFP for a given labor force growth.

Employment Growth

The challenge for the Palestinian economy is to absorb the expanding labor force into productive employment, at reasonable wages, while at the same time reduce unemployment. The previous section showed that, under plausible assumptions, labor supply could be expected to grow by about 4.4 percent a year through 2010 without taking into account any effects from possible migration.

Before the turmoil and closures that started in late September 2000, Palestinian unemployment was on a downward trend reaching 8.8 percent of the labor force in June 2000, the lowest level since 1993. The medium-term outlook then was dominated by the challenge to absorb the projected inflows to the labor market at growing real wages and to achieve some further reduction in the unemployment rate. With a target of reducing the unemployment rate by half (to 4.4 percent) by 2010, the Palestinian economy would have had to generate domestic employment growth of 6 percent a year, a significant challenge in view of the 3 percent a year expansion in domestic employment that the Palestinian economy achieved over the past 30 years (Scenario 1 in Table 2.8).

The situation now is vastly more difficult, because the crisis that began in late September 2000 has led to a sharp increase in the unemployment rate. Before the crisis, roughly 130,000 Palestinians (20 percent of the labor force) commuted daily to work in Israel and the settlements; employment that was severely reduced with the closures in the fourth quarter of 2000. In addition, the output loss that occurred in the fourth quarter of 2000 led to a reduction in domestic employment. At the time of this publication, the extent of the output decline and the rise in unemployment remains highly uncertain (see Chapter 1), and for the purpose of this analysis it is assumed that the unemployment rate peaked at 35 percent in the first quarter of 2001. This rate of unemployment does not seem unrealistic, given that almost 20 percent of the Palestinian labor force lost their employment in Israel and given the sharp contraction in output in the fourth quarter of 2000. For 2001 and the medium term, it is an open question how many Palestinian workers will be allowed to return to work in Israel once the conditions normalize, and the extent of recovery in Palestinian employment in Israel will greatly affect the outlook for Palestinian income, consumption, and unemployment over the coming years. The following scenarios are purely illustrative and should not be seen as projections.

Scenario 2 in Table 2.8 assumes that the number of Palestinians working in Israel recovers gradually to its pre-crisis level of 130,000, by the end of 2002. Palestinian domestic employment would then have to grow by 6.5 percent a year on average in 2001–10, in order to bring unemployment back to 8.8 percent by 2010, the level that prevailed before the crisis.[29] With growth in PA employment lim-

[29]The numbers for 2001 are influenced by the carryover effects from 2000. That is why the domestic employment in Scenario 2 in Table 2.8 declines by 2 percent even though it grows *during the course* of the year by 6.7 percent (December 2001 over December 2000).

Box 2.1. Population Projections

Over the past couple of years, the Palestinian Central Bureau of Statistics (PCBS) has made major progress in establishing a population database for the West Bank and Gaza.[1] In 1998, the PCBS published a survey of population, housing, and establishments that put the population in the West Bank and Gaza (excluding east Jerusalem) at around 2.7 million at the end of 1997 (PCBS, 1998c). In 1999, the PCBS published detailed population projections for 1997–2025 based on three different scenarios for fertility rates (PCBS, 1999). Common for the three scenarios were the assumptions of a fall in the infant mortality rate by 50 percent between 1997 and 2025 and the inflow of 500,000 immigrants to the West Bank and Gaza between 1997 and 2010 (and zero thereafter). The series differed only with respect to the assumption for the decline in the fertility rate from its level of around 6.1 in 1997. The low series assumed that it would drop to 2.1 by 2025, the medium series that it would fall to 3, and the high series that it would fall to 4.2. Thus, under the PCBS medium series, population growth would average 4.6 percent a year in 2000–10, and about 2.7 percent in 2011–2025.

The projections presented in this chapter are based on the PCBS's medium scenario, but we assume net migration to be zero in our baseline scenario. This assumption is made simply to enhance the tractability of the demographic dynamics from the existing population. Under this scenario, population growth in the West Bank and Gaza is projected to average 3.4 percent in the period 2000–10 and 2.7 percent thereafter (Table 2.7). A migration scenario has also been developed that takes into account the migration flows projected by the PCBS in 2001–10. Under this scenario, population growth averages 4.7 percent a year in 2001–10 and 2.7 percent thereafter. It is assumed that the immigration and the existing population in the West Bank and Gaza would have similar age structure and age-gender specific labor force participation rates.

[1]We are grateful for the assistance from Dr. Abu-Libdeh and his staff at the PCBS in preparing the population projections.

Table 2.5 Population Projections in the West Bank and Gaza by Age Group, 1999–2025

	1999	2000	2001	2002	2003	2004	2005	2010	2015	2020	2025
						(In thousands)					
Population	2,759	2,861	2,966	3,072	3,181	3,291	3,403	3,990	4,618	5,276	5,946
0–4	515	531	547	561	572	583	593	643	690	728	750
5–14	780	812	844	876	910	943	975	1,120	1,232	1,329	1,415
15–24	529	547	566	587	610	634	660	808	971	1,116	1,228
25–34	377	390	403	417	431	445	460	542	655	802	965
35–44	243	258	271	285	298	310	322	385	455	536	649
45–54	132	138	145	154	163	173	185	250	314	375	444
55+	182	186	189	193	198	203	208	243	302	389	495
						(Annual percentage change)[1]					
Population	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.2	3.0	2.7	2.4
0–4	3.5	3.2	2.9	2.6	2.0	1.9	1.8	1.6	1.4	1.1	0.6
5–14	4.1	4.1	3.9	3.8	3.9	3.6	3.4	2.8	1.9	1.5	1.3
15–24	3.3	3.4	3.5	3.7	3.9	4.0	4.1	4.1	3.7	2.8	1.9
25–34	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.3	3.8	4.1	3.8
35–44	6.1	5.8	5.4	5.0	4.5	4.2	3.9	3.6	3.4	3.4	3.9
45–54	4.3	4.6	5.1	5.6	6.1	6.4	6.5	6.2	4.6	3.7	3.4
55+	1.7	1.9	2.0	2.2	2.3	2.5	2.7	3.1	4.5	5.2	5.0
Memorandum items:											
Working-age population[2]	1,463.6	1,518.1	1,575.4	1,635.6	1,699.0	1,765.6	1,835.2	2,227.1	2,695.8	3,218.4	3,780.7
Growth in percent	3.7	3.7	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.6	3.3
In percent of total population	53.1	53.1	53.1	53.2	53.4	53.6	53.9	55.8	58.4	61.0	63.6

Sources: IMF staff estimates and projections based on data from the Palestinian Central Bureau of Statistics. See Box 2.1 for definitions and assumptions underlying the projections.

[1]Growth rates shown for 2010, 2015, 2020, and 2025 are the average annual growth rate in the five-year period ending that year.

[2]Population of 15 years of age and older, in thousands.

Table 2.6 Labor Force Participation Rates in the West Bank and Gaza by Age and Gender, 1999–2025

	1999	2000	2001	2002	2003	2004	2005	2010	2015	2020	2025
	(In percent of working-age population)										
Average I (constant age-gender specific rates)[1]	41.0	41.1	41.2	41.3	41.3	41.4	41.4	41.4	41.4	41.4	41.5
For men	70.5	70.7	70.8	70.9	71.0	71.0	71.1	71.0	70.8	70.7	70.9
For women	11.3	11.3	11.3	11.3	11.3	11.4	11.4	11.4	11.4	11.4	11.5
Average II (increasing female labor force participation)[2]	41.0	41.2	41.5	41.7	41.9	42.1	42.3	43.3	44.3	45.7	47.6
15–24	30.8	31.0	31.1	31.3	31.4	31.6	31.7	32.6	33.8	35.4	37.3
25–34	54.7	54.9	55.2	55.5	55.9	56.3	56.7	59.2	61.9	65.2	69.5
35–44	54.6	54.6	54.6	54.6	54.6	54.5	54.5	54.0	54.0	54.2	54.1
45–54	47.7	48.0	48.3	48.6	48.8	49.0	49.1	49.6	49.5	49.1	49.0
55+	19.0	18.9	18.9	18.9	18.9	18.9	19.0	19.4	19.9	20.3	20.5
Men	70.5	70.7	70.8	70.9	71.0	71.0	71.1	71.0	70.8	70.7	70.9
15–24	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3	53.3
25–34	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4	91.4
35–44	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
45–54	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5
55+	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4
Women[1]	11.3	11.6	11.9	12.2	12.5	12.8	13.2	15.0	17.3	20.3	23.7
15–24	7.2	7.5	7.8	8.1	8.5	8.8	9.2	11.3	13.8	16.9	20.7
25–34	16.3	17.0	17.7	18.4	19.2	20.0	20.8	25.5	31.2	38.3	46.9
35–44	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
45–54	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
55+	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3

Sources: IMF staff estimates and projections based on data from the Palestinian Central Bureau of Statistics.

[1]Constant age-gender cohort specific labor force participation rates.

[2]Assumes that the average labor force participation rate for women converges to the rate in Jordan (23.7 percent) by 2025, and that the increase is concentrated in the 15–34 age groups.

ited to 3,000 a year (basically to meet the needs in priority sectors like education), employment growth in the Palestinian private sector would have to amount to as much as 7.6 percent a year on average, a formidable challenge for any economy. Put differently, employment in the private sector in 2010 would have to be almost twice as high as it was in 1999. This is not to say that it will take 10 years to bring down unemployment to its precrisis level. If Palestinian employment in Israel were to go back to 130,000 by the end of 2002, this would most likely be associated with a strong recovery in the economy and with a sharper reduction in unemployment in those years than what is shown in this scenario. But even if the 8.8 percent unemployment rate was achieved earlier than what is shown in Scenario 2, domestic employment growth would nevertheless have to average about 6.5 percent a year over the 10-year period to keep unemployment at that level.

Scenario 3 in Table 2.8 is more pessimistic and assumes that Palestinian employment in Israel, after reaching 45,000 by the end of 2001 (roughly the number of Palestinian workers with permits to work in Israel before the crisis), would remain at this level over the medium term. The domestic employment growth rates from Scenario 2 have been maintained, and the difference between the two scenarios is reflected entirely in unemployment. The difference here is purely arithmetic; the important demand-side effects of Palestinian employment in Israel are not taken into account. The purpose of Scenario 3 is simply to show that with Palestinian employment in Israel recovering to 45,000 and remaining at that level over the medium term, unemployment in the West Bank and Gaza would be almost 18 percent of the labor force in 2010, twice the level prevailing before the crisis and twice as high as in Scenario 2. Put differently, this would be the outcome even if the Palestinian economy were to achieve domestic

Table 2.7 Labor Force Projections for the West Bank and Gaza by Age Group, 1999–2025
(Change in percent, unless otherwise indicated)[1]

	1999	2000	2001	2002	2003	2004	2005	2010	2015	2020	2025
Population	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.2	3.0	2.7	2.4
Working-age population[2]	3.7	3.7	3.8	3.8	3.9	3.9	3.9	3.9	3.9	3.6	3.3
15–24	3.3	3.4	3.5	3.7	3.9	4.0	4.1	4.1	3.7	2.8	1.9
25–34	3.5	3.5	3.4	3.4	3.4	3.3	3.3	3.3	3.8	4.1	3.8
35–44	6.1	5.8	5.4	5.0	4.5	4.2	3.9	3.6	3.4	3.4	3.9
45–54	4.3	4.6	5.1	5.6	6.1	6.4	6.5	6.2	4.6	3.7	3.4
55+	1.7	1.9	2.0	2.2	2.3	2.5	2.7	3.1	4.5	5.2	5.0
Labor force participation rates[3]	41.0	41.2	41.5	41.7	41.9	42.1	42.3	43.3	44.3	45.7	47.6
15–24	30.8	31.0	31.1	31.3	31.4	31.6	31.7	32.6	33.8	35.4	37.3
25–34	54.7	54.9	55.2	55.5	55.9	56.3	56.7	59.2	61.9	65.2	69.5
35–44	54.6	54.6	54.6	54.6	54.6	54.5	54.5	54.0	54.0	54.2	54.1
45–54	47.7	48.0	48.3	48.6	48.8	49.0	49.1	49.6	49.5	49.1	49.0
55+	19.0	18.9	18.9	18.9	18.9	18.9	19.0	19.4	19.9	20.3	20.5
Labor force (in thousands)[3]	599.3	625.7	653.2	681.9	712.0	743.5	776.3	963.3	1,194.8	1,472.0	1,798.2
Growth in percent	4.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.1
Men	4.1	4.1	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.6	3.3
Women	3.9	6.5	6.5	6.5	6.6	6.6	6.6	6.7	6.9	6.8	6.6
Labor force/population, in percent	21.7	21.9	22.0	22.2	22.4	22.6	22.8	24.1	25.9	27.9	30.2

Sources: IMF staff estimates and projections based on data from the Palestinian Central Bureau of Statistics. Assumes zero net migration. See text and Box 2.1 for definitions and assumptions.

[1]Growth rates shown for 2010, 2015, 2020, and 2025 are the average annual growth rate in the five-year period.

[2] Population of 15 years older.

[3]Assumes that the average labor force participation rate for women converges to the rate in Jordan (23.7 percent) by 2025, and that the increase is concentrated in the 15–34 age groups. See Table 2.3.

employment growth at 6.5 percent, which is over twice the historical growth rate of the West Bank and Gaza. Another way to look at it is that in order to reduce the unemployment rate to 8.8 percent by 2010, with Palestinian employment in Israel limited to 45,0000, domestic Palestinian employment growth would have to average 7.7 percent a year on average in 2001–10, and domestic private sector employment growth would have to average 9 percent a year.[30]

For the sake of illustration, Scenarios 1, 2, and 3 all assume that employment in the PA will increase by 3,000 a year, which would seem enough to accommodate staffing demands in key sectors like education, health and the judiciary. The PA has expanded rapidly since its creation in 1994, and in recent years (certainly since 1997) the expansion in public employment has become excessive, beyond what can reasonably be justified on the grounds that the PA has increased the range or quality of its services and responsibilities (see Chapter 1). In fact, the burgeoning wage bill is now a major fiscal concern since it is crowding out other important expenditure, notably in the areas of health, education, and infrastructure, making it exceedingly difficult for the PA to ensure adequate remuneration of its staff. Bringing PA hiring under control is therefore a key policy priority for the coming years.[31]

The challenge to create domestic employment over the coming years should not be misinterpreted as if further PA employment growth might be needed to absorb some of the labor inflows and to help reduce unemployment. As later discussion will show, while continued large-scale hiring by the PA might provide some very short-term, temporary relief, it will cause considerable damage to the long-term growth prospects of the Palestinian economy. A continued rapid expansion of the PA wage bill will make it impossible for the PA to allocate suffi-

[30]Of course, labor force participation rates, which are in part endogenous to employment prospects, might be lower than what the scenarios assume.

[31]See Palestinian Authority (2000), a document prepared with assistance from IMF staff.

Table 2.8 Employment and Unemployment Scenarios, 1999–2010

	1999	2000	2001	2002	2003	2004	2005	2010
Scenario 1 — Baseline Before Crisis								
Labor force (thousands)	599	626	653	682	712	743	776	963
Unemployment rate[1]	12	9	8	8	7	7	7	4
Employment (thousands)	529	571	599	628	659	691	725	921
Of which: In Israel	122	125	126	127	128	129	130	135
Of which: In the West Bank and Gaza	406	446	473	501	531	562	595	786
Domestic employment growth, percent	...	10	6	6	6	6	6	6
Domestic employment growth, private sector, in percent[2]	...	10	7	7	7	7	7	7
Scenario 2 — Baseline After Crisis								
Labor force (thousands)	599	626	653	682	712	743	776	963
Unemployment rate [1]	12	15	29	20	14	14	13	9
Employment (thousands)	529	532	463	549	611	643	677	879
Of which: In Israel	122	96	36	98	130	130	130	130
Of which: In the West Bank and Gaza	406	436	427	451	481	513	547	749
Domestic employment growth, percent	...	7	–2	6	7	7	7	6
Domestic employment growth, private sector, in percent[2]	...	6	–4	7	8	8	8	8
Scenario 3 — After Crisis, Lower Employment in Israel								
Unemployment rate[1]	12	15	29	27	26	25	24	18
Employment (thousands)	529	532	463	496	526	558	592	794
Of which: In Israel	122	96	36	45	45	45	45	45
Of which: In the West Bank and Gaza	406	436	427	451	481	513	547	749
Domestic employment growth, percent	...	7	–2	6	7	7	7	6
Domestic employment growth, private sector, in percent[2]	...	6	–4	7	8	8	8	8
Scenario 4 — Immigration								
Labor force (thousands)	599	626	673	715	758	804	852	1,123
Unemployment rate[1]	12	15	29	20	14	14	13	9
Employment (thousands)	529	532	477	575	651	696	743	1,024
Of which: In Israel	122	96	36	98	130	130	130	130
Of which: In the West Bank and Gaza	406	436	441	477	521	566	613	894
Domestic employment growth, percent	...	7	1	8	9	9	8	8
Domestic employment growth, private sector, in percent[2]	...	6	1	9	11	10	10	9

Source: IMF staff estimates based on data from the Palestinian Central Bureau of Statistics. Scenarios 1–3 assume zero net migration.

[1]Consists mostly of private sector but also local authorities and public enterprises (unless paid through the PA budget).

[2]In percent of labor force, annual average.

Scenario 1 illustrates the situation the way it looked before the crisis that began in late-September 2000. It assumes annual PA employment growth of 3,000 people, and growth in Palestinian employment in Israel and the settlements by 1,000 per year. It assumes zero migration, and that the unemployment rate is reduced by half of the mid-2000 level by 2010.

Scenario 2 assumes that Palestinian employment in Israel and the settlements is zero in the fourth quarter of 2000, and that it gradually increases to 45,000 by the end of 2001 and further to 130,000 by the end of 2002, at which level it remains over the medium term. Unemployment is set to return 8.8 percent by 2010. Domestic private sector employment declines in the fourth quarter of 2000 and early 2001, but recovers thereafter. The projection assumes no migration.

Scenario 3 is the same as Scenario 2 but with Palestinian employment in Israel leveling off at 45,000, with consequently a higher level of unemployment.

Scenario 4 is the same as Scenario 2 but with an inflow of refugees in 2001–10 in line with the assumptions made by PCBS. In Scenario 4, PA employment grows somewhat faster than in Scenarios 1 and 2.

Box 2.2. Immigration

The population of the West Bank and Gaza was around 2.7 million in 1999, or roughly 3 million if the Palestinians living in east Jerusalem are included. In addition, there are approximately 2.3 million Palestinian refugees (stemming from the 1948 war) living in Jordan, Lebanon, and Syria.[1] To this should be added the large number of Palestinians displaced following the 1967 war. Many Palestinians also live outside the West Bank and Gaza without being classified as refugees or displaced persons. It remains an open question how many would be able and want to migrate to the West Bank and Gaza following a final status agreement with Israel. PCBS (1999) assumes that total net immigration in the period 1997–2010 would amount to 500,000 people, with 45,000 people annually coming in 2001–10.

An exogenous increase in immigration obviously boosts population growth, but its demographic impact is different from, say, an acceleration in population growth caused by a rise in fertility or a drop in infant mortality. In the latter cases, the impact on labor supply would be lagged, whereas with immigration it is instantaneous. The PCBS assumes that the age structure of the immigrants is the same as, or very similar to, the age composition of the population already living in the West Bank and Gaza. The immigration assumed in the PCBS's projection would thus lead to higher population growth across all ages while leaving the age structure basically unchanged from our projection. Therefore, the macroeconomic analysis in this chapter of a changing age structure still holds, but in some respects, the projected effects would be more pronounced. For example, labor supply growth would be stronger as would the demand for health and education services. An increase in the labor supply due to an inflow of Palestinians from abroad would, as a first order effect, reduce the capital/labor ratio, thereby increasing the return on capital and lowering the return on labor. Further, and also in line with neoclassical theory, real interest rates would rise, and real wages would fall. Cohen and Hsieh (2000) find that this is also what happened in Israel in the early 1990s following the very large Russian immigration. Average effective wages of native Israelis declined by 20 percent and real interest rates rose sharply during the peak of Russian immigration in 1990–91. After this initial impact, the rise in real interest rates led to an investment boom largely financed by external borrowing. The capital/labor ratio recovered, and by 1997 real wages and interest rates had returned to their pre-immigration levels. Brezis and Krugman (1996) argue that with an endogenous investment response and increasing returns in the economy, the long run impact of immigration will often be higher rather than lower real wages.

[1]The number comes from UNRWA and includes refugees that do not live in refugee camps.

cient resources to nonwage expenditures in the areas of health, education, and infrastructure—areas where international evidence shows that public expenditure can help bolster long term economic growth and development.

Finally, over the medium term, the West Bank and Gaza could experience large inflows of Palestinians from abroad, including refugees, especially after a final status agreement with Israel. Immigration would lead to a step-increase in the population across all ages, without (necessarily) affecting the age structure, and would lead to an outward shift in the labor supply curve. For 2001–10, PCBS (1999) assumes that net immigration would amount to 45,000 people per year (Box 2.1). A full analysis of the effects from possible migration is beyond the purpose of this chapter, but Box 2.2 discusses the issues involved. Scenario 4 in Table 2.8 shows that with such immigration, and with a target of reducing the unemployment rate to 8.8 percent by 2010 and further assuming that Palestinian employment in Israel goes back to 130,000 by the end of 2002 (like Scenario 2), the required annual rate of domestic employment growth would be 8.2 percent.[32]

Required TFP Growth Over the Next Ten Years

What does it take to generate domestic employment growth of 6.5 percent a year (Scenario 2 in the previous section) without a reduction in real wages, or even at rising real wages? Indeed, real wage growth over the medium term is important in order to raise the standard of living. This section uses the growth accounting framework presented earlier to compute the required growth rates for TFP (and real GDP) over the coming 10 years to achieve such annual employment growth under various assumptions

[32]Scenario 4 allows for somewhat faster growth in PA employment to accommodate the higher demand for public services that higher population growth would give rise to.

Table 2.9 Scenarios for Growth in Total Factor Productivity and Real GDP, 2001–10
(Average annual percent)

Real Wage Growth Scenarios	Zero Migration		Migration[1]		Memorandum Items:
	TFP	Real GDP	TFP	Real GDP	Investment/GDP (%)
Low (0% real wage growth)	–0.1	6.5	0.3	8.2	34
Medium (1.5% real wage growth)	1.2	8.0	1.5	9.7	34
High (3% real wage growth)	2.5	9.5	2.8	11.2	34

Source: IMF staff estimates.

[1]Under the migration scenario, population growth in 2001–10 is 600,000 higher than in the scenario without migration.

Note: Assumes a capital share of income of 0.35, a depreciation rate of 4 percent and an initial capital-output ratio of 2.5. The capital stock is derived using the perpetual inventory method assuming that the investment-GDP ratio stays at the 1999 level of 34 percent. TFP growth is derived using expression (5) in Appendix I. Employment growth is taken from Table 2.8, Scenarios 2 and 4.

for the real wage. For this exercise, it is useful to rewrite equation (2) above as:

$$a_t = (y_t - l_t) - \alpha k_t + \alpha l_t, \quad (3)$$

or

$$a_t = w_t - \alpha k_t + \alpha l_t \quad (4)$$

where $y_t - l_t$ represents labor productivity growth, which is assumed to equal real wage growth, w_t; in other words, workers are paid the value of their marginal product.[33] Admittedly, this assumption does not necessarily hold in the short run and the exercise should be seen as an attempt to illustrate the magnitudes involved and to identify some of the tradeoffs that policymakers will face between employment expansion and increases in investment and TFP growth. One main attraction of this alternative formulation of the growth accounting equation is that it regards TFP growth, much like factor accumulation, as an endogenous variable and subject to policy influences and policy analysis.

The required TFP (and GDP) growth rates are computed for three scenarios for the real wage (keeping investment constant as a share of GDP at its 1999 level in all scenarios): zero real wage growth (the low growth scenario), 1.5 percent annual increase (the medium-growth scenario), and 3 percent annual increase (the high growth scenario). The results, which are summarized in Table 2.9, show that, in order to reduce unemployment to 8.8 percent by 2010 while allowing real wages to increase by 1.5 percent a year, the Palestinian economy would have to generate real GDP and TFP growth rates of 8 and 1.2 percent a year, respectively.

The required rates of growth in TFP and GDP have also been computed for the case in which the West Bank and Gaza experience large-scale immigration in 2001–10 (Scenario 4 in Table 2.8.) As discussed above, under this scenario, domestic Palestinian employment growth would need to exceed 8 percent a year in order to bring unemployment down to 8.8 percent in 2010 and the required annual real GDP and TFP growth rates would be 9.7 and 1.5 percent under the assumption of real wages increasing by 1.5 percent a year.

A couple of points deserve mentioning. It is clear that strong growth in GDP, TFP, and capital accumulation will be needed for the next ten years in order to generate employment growth at a rate that allows a significant reduction in the unemployment rate without causing compression in real wages. This finding holds for all the scenarios in Table 2.9 with positive real wage growth and for either of the two migration scenarios.[34] Naturally, the highest required TFP growth (2.8 percent annual increase) occurs under the scenario with 3 percent annual real wage growth and with migration; the required TFP growth rate is approximately twice as high as the TFP growth the West Bank and Gaza experienced on average over the past 30 years. At the same time, it is essentially the same as the average TFP growth recorded in the 1970s and the 1980s (Table 2.1), and should there be a sustainable improvement in the regional political climate, there is no reason why the West Bank and Gaza should not be able to generate such growth rates again. Furthermore, the re-

[33]This analysis follows that of Dhonte, Bhattacharya and Yousef (2000). See Appendix I for an explanation of the methodology, including the link between the marginal product of labor and the real wage.

[34]As explained in Appendix I, this does not mean that awarding higher wages would raise productivity.

quired growth rate in the capital stock ranges from 6.7 to 8.9 percent a year, which is high but not astronomic compared with the historical average of 7.2 percent. Finally, it is clear that high and sustained TFP growth would raise the standards of living as measured by real per capita GDP. Over the next 10 years, annual growth in real per capita GDP would range from 3.1 to 6.6 percent.

The key policy issue for the PA is to create conditions for the Palestinian economy to generate high TFP and GDP growth and capital accumulation on a sustained basis over the next ten years. The main factors that affect long-term real GDP growth are examined in the following section.

Factors for Long-Term Growth of the Palestinian Economy

This section undertakes a cross-country growth regression to gain insights into the long-term (ultimate) growth factors, as shown in figure 2.1.

A Model of Growth

A majority of the empirical work on cross-country growth builds on the extended neoclassical growth model as specified in Barro and Sala-ì-Martin (1995), which can be summarized by the following relationship:

$$Dy_t = F(y_{t-1}, y_t^*) \qquad (5)$$

where Dy_t, the growth rate of real per capita output in period t, is a function of y_{t-1}, the initial level of real per capita output, and y_t^*, the long-run or steady-state level of real per capita output. In the neoclassical model, the assumption of diminishing returns to factors of production implies that Dy_t is inversely related to the initial level of real per capita output. In the above framework, this property implies a negative relationship between growth of real per capita output and initial level of real per capita output, conditional on values of y_t^*. This inverse relationship is known as conditional convergence. Another property of the above model is that the growth rate, Dy_t, rises with y_t^*, for a given value of y_{t-1}. The value y_t^* is determined by, among other things, government policies, institutions, and demographic factors. Improvement in these factors can increase the growth rate of per capita output in the transition to the new steady-state level of income and permanently raise the level of real per capita output. During the transition, however, diminishing returns will eventually set in, and output growth will slow down to a rate that is consistent with the exogenous rate of technological progress.

The empirical literature on long-term economic growth has found that the transitional dynamics can be rather lengthy, and, consequently, the impact of government policies, the quality of institutions, and the demographic factors on growth can be persistent. This literature has also found evidence of conditional convergence whereby poorer countries tend to grow faster than richer countries for given values of government policies, institutions, and demographic factors as well as evidence of absolute divergence whereby growth differentials persist without controlling for differences in policies, institutions, and other factors.[35] One important implication of conditional convergence is that growth rate differentials between poor and rich countries can persist so long as richer countries are endowed with better policies, better institutions, and a more favorable demographic structure.[36]

In the empirical analysis of growth, the above model is used in a cross-country regression analysis. Growth is specified as a function of a set of initial conditions, various measures of geographic location, macroeconomic policies, financial depth, infrastructure, demographic variables, and quality of institutions and governance.

Economic growth is measured by growth in real per capita GDP and is cast in purchasing power parity (PPP) terms. Initial conditions consist of: the level of real per capita GDP (also in PPP terms); the level of schooling (both measured at the start of the sample period (1970)); and dummies for whether a country is landlocked, located in the tropical parts of the world, or endowed with natural resources. The indicators to capture the macroeconomic environment and polices consist of inflation, volatility of inflation, budget surplus, the ratio of broad money (M2) to GDP (a commonly used measure of financial development), and the degree of openness to foreign trade measured by the ratio of trade (exports plus imports) to GDP.[37]

[35]For example, see Pritchett (1997)

[36]Conditional convergence is also consistent with mean reversion (i.e., reversion of growth to its mean) which casts doubt on whether presence of convergence can be easily established (see Quah, 1993, 1997)

[37]These variables as well as those representing initial conditions have been used by many studies including Levine and Renelt (1992), Barro and Sala-ì-Martin (1995), Easterly and Levine (1997), Bloom and Williamson (1998), and Bloom, Canning, and Malaney (1999). Another commonly used measure of openness is a composite measure created by Sachs and Warner (1995b), but no data on this indicator is available for the West Bank and Gaza.

The measure of infrastructure used in the regression is the number of connected telephone lines per worker, with a higher value expected to be associated with higher growth.

Two demographic variables are included in the regression as well: growth in total population and growth in the working-age population. Earlier empirical studies of growth included only total population growth (see Levine and Renelt, 1992), and therefore assumed away any role for the age structure of the population and productivity differentials among individuals with different age and labor market experiences.[38] As discussed in the introduction, studies have generally found growth in the working-age population to have a positive impact on per capita GDP growth and population growth to have a negative impact once an allowance is made for growth in working-age population.[39]

Finally, the degree of regulatory burden is used as a measure of the quality of institutions and governance (see Box 2.3). Unlike the previous variables, this indicator is subjective and is based on public and private individuals' perception of the burden of regulations and delays involved in government bureaucracy in its dealings with the private sector red tape. A higher value of this indicator can be interpreted as a higher cost of doing business in a country. There are many other indicators of governance that measure various aspects of political, legal, and economic institutions. These indicators generally produce similar findings.[40]

The Regression Results

The objective of the regression analysis in this section is to ascertain to what degree policies, institutions, and demographic factors can account for the growth performance of the Palestinian economy over the last 30 years, so as to set the stage for the forward-looking policy discussion in the next section. A careful attempt has been made to put together time-series data for the West Bank and Gaza that are internally consistent and consistent with data from other countries. As is the case with all cross-country analyses, however, such consistency is far from perfect (see Appendix I for a description of the data). The regressions are estimated over the period 1970–99 and include 85 countries. Except for the data on the initial conditions, which are either time invariant (for example, the geography variables) or refer to the value of a variable at the beginning of the sample period, data are averages for 1970–99. Thus, each country is represented by one observation in the regression.

Table 2.10 reports the regression results for various specifications of the model. The results are consistent with the hypothesis that countries with high per capita GDP growth tend to have a low initial income level and a high level of schooling, be open to trade, have a low population growth rate and a high working-age population growth rate, have small fiscal deficits, low inflation, and low inflation volatility, a high number of telephones per worker, a low burden of regulations, and a high ratio of M2 to GDP. These countries also are typically not landlocked, nor are they located in areas with a tropical climate. Lastly, they are generally not endowed with rich natural resources. These findings are consistent with studies of growth that use different countries, sample periods, variables, and estimation techniques. Except for one or two variables, depending on the specification, all variables in the regressions are statistically significant at conventional statistical levels. The variables taken together account for about 68 percent of the variation in growth rates across countries, and this conforms favorably with other growth studies.[41]

[38]Productivity might also vary across age-groups (see, for example, Sarel, 1994). This effect is partly taken care of by including initial schooling in the regression analysis.

[39]These two variables have been used by Radelet, Sachs, and Lee (1997), Bloom and Williamson (1998) and Bloom, Canning, and Malaney (1999). Other studies include total fertility rate instead of these two variables (e.g., Barro and Sala-i-Martin, 1995; and Barro, 1997). The problem with this latter approach is that it focuses on the birth rate and ignores the dynamics arising from infant mortality, both of which affect the demographic transition.

[40]See Kaufmann, Kraay and Zoido-Labaton (1999). These indicators have also been used by Knack and Keefer (1995), Barro (1997), and Commander, Davoodi and Lee (1997).

[41]Subject to the caveat that comparison of variation (through R-squared) is only valid with identical dependent variables, the reported R-squared of 68 percent is higher than what is reported in Barro and Sala-i-Martin (1995) but lower than that found in Bloom and Williamson (1998). In general, variation in growth is better accounted for by the included variables when using Summers-Heston PPP data for growth and level of per capita GDP than when using the World Bank constant U.S. dollar or the version of PPP data used in this chapter (see Barro and Sala-i-Martin, 1995; and Commander, Davoodi, and Lee, 1997). The main reason is that Summers and Heston have better managed to account for international price differences in non-traded goods. The PPP data used in the regressions in this chapter are nominal PPP per capita GDP in U.S. dollars, taken from the IMF's *World Economic Outlook* database, and converted to 1995 U.S. dollars using U.S. implicit GDP price deflator with the base of 1995.

Box 2.3. The Quality of the Institutional Framework and Economic Growth

There is ample international evidence that the quality of the institutional framework—the legal and regulatory framework, judiciary system, policy institutions, economic governance, and other public policies and institutions that affect incentives in the economy—has profound implications for the country's long-term growth prospects. Hall and Jones (1999) note that while governments are usually the most efficient provider of an institutional framework that protects property rights, in practice they are often a primary agent of diversion through expropriation, confiscation, and corruption.[1] Government policy also might unintentionally contribute to corruption and rent-seeking activities if it provides for a high degree of bureaucratic discretion in the application of regulations. The scope for rent-seeking activities and corruption is larger the more prevalent are trade and business regulations and government subsidies (including protection of certain industries), and a bloated civil service with low wages tends to be more corrupt than a small cadre of relatively well paid civil servants (see, for example, Van Rijckeghem and Weder, 1997).

The mechanism through which the institutional framework affects economic development can be summarized as follows (drawing on Bates, 1996, and Caballero and Hammour, 2000). People save to form capital, and capital is central to the process of economic development. The prospects of future rewards motivate current sacrifices (saving), but such rewards are uncertain. One of the risks is nonperformance. Another risk is opportunistic actions by other people, including the government, which, because of its monopoly power, can attract talented individuals away from productive activities (Murphy, Shleifer, and Vishny, 1991). Faced with such risks, individuals may fail to save and make investments that would render them, and indeed all people, better off in the future. A strong, market-oriented institutional framework, with an independent judiciary that upholds laws and regulations, together with sound governance can significantly reduce such uncertainty and thereby support private investment. The quality of the institutional framework thus determines the degree to which the private sector will want to engage in productive activities and long-term investments as opposed to rent seeking and other directly unproductive activities. In contrast, a weak institutional framework lowers the return on capital and thereby also total factor productivity and the investment in productive capital. In an environment of weak governance and ineffective protection of property rights, people would rather engage in short-term commercial transactions, which are less risky since they are largely reversible, than in transactions relating to long-term investment projects that are largely irreversible.[2] The macroeconomic symptoms of a weak institutional framework include reduced cooperation (as described above), unemployment, market segmentation, and weak technological development.[3]

[1]See also Tanzi and Davoodi (1998).

[2]Data on the investment and the composition and level of bank credit—with little credit to long-term investment—suggest that this description might apply to the Palestinian economy.

[3]Concerns over the legal and regulatory framework and governance deter private investors but can also have adverse effects on public investment (Isham and Kaufmann, 1999).

Conditional convergence holds across all specifications. The magnitude of the coefficient on initial income suggests a convergence rate of about 1.4 percent per year, about half of what Barro and Sala-i-Martin (1995) find using Summers-Heston data on level and growth of real per capita GDP, but it coincides exactly with their estimated convergence rate when World Bank constant U.S. dollar data are used; the latter data are closer in their construction to the data used in the regressions in Table 2.10.[42] The coefficients on initial schooling show that additional two years of schooling (within one standard deviation of the sample average) on average is associated with an increase in the growth rate of between 0.1 and 0.2 percentage points a year.[43]

With respect to the demographic variables, the regression includes the difference in growth rate between the working-age population and total population as an explanatory variable, rather than the two variables separately (Table 2.10, columns 1 and 3).[44]

[42]Recent studies show that the rate of convergence can vary from zero to 30 percent a year (see Temple, 1999).

[43]Unless otherwise noted, the impact of each variable on growth is evaluated around the sample average of the variables for the 85 countries. For example, the impact of two years of schooling is obtained as 0.004 x [ln (4.2 + 2) – ln (4.2)] where 4.2 is average years of schooling, and 0.004 is the estimated coefficient on schooling.

[44]This is because statistical tests could not reject the hypothesis that the estimated coefficients on the two variables are equal but of opposite sign. For comparison, however, Table 2.10 (columns 2 and 4) shows the results when the two population variables are entered separately. Focusing on the difference in growth rates also makes the analysis of the demographic impact somewhat more intuitive.

Table 2.10 Determinants of Real Per Capita GDP Growth, 1970–99

Independent variables	(1)	(2)	(3)	(4)
Constant	0.110***	0.121***	0.111***	0.121***
	(7.093)	(7.82)	(7.207)	(7.806)
Log of real per capita GDP in 1970	–0.014***	–0.014***	–0.014***	–0.014***
	(–6.914)	(–7.477)	(–7.006)	(–7.374)
Log of years of schooling in 1970	0.003**	0.002	0.004*	0.002
	(1.832)	(1.312)	(1.864)	(1.375)
Openness	0.007**	0.008***	0.007***	0.008***
	(2.337)	(2.791)	(2.509)	(2.881)
Growth in total population		–2.624***		–2.550***
		(–6.352)		(–5.966)
Growth in working age population		2.293***		2.243***
		(5.910)		(5.688)
Differences in population growth[1]	2.201***		2.150***	
	(5.436)		(5.262)	
Budget surplus	0.064	0.058	0.063	0.058
	(1.536)	(1.407)	(1.565)	(1.430)
Inflation	–0.010**	–0.008		
	(–1.998)	(–1.487)		
Standard deviation of inflation			–0.011***	–0.008**
			(–2.951)	(–2.001)
Telephones per worker[2]	0.012***	0.011***	0.013***	0.012***
	(3.526)	(3.347)	(3.704)	(3.402)
Landlock dummy	–0.006*	–0.006	–0.006	–0.006
	(–1.630)	(–1.511)	(–1.583)	(–1.486)
Tropics dummy	–0.010***	–0.010***	–0.009***	–0.010***
	(–3.741)	(–3.814)	(–3.572)	(–3.642)
Natural resource abundance dummy	–0.016***	–0.012***	–0.015***	–0.012**
	(–3.098)	(–2.380)	(–3.099)	(–2.393)
Regulatory burden	–0.008***	–0.007***	–0.008**	–0.007***
	(–2.964)	(–2.544)	(–2.939)	(–2.541)
M2 to GDP ratio	0.005	0.004	0.006*	0.004
	(1.542)	(1.218)	(1.769)	(1.393)
Adjusted R-squared	0.680	0.690	0.684	0.691
Number of observations	85	85	85	85
Prob (F-statistic)[3]	0.08		0.11	

Source: IMF staff estimates.

[1]Growth in working age population minus growth in the total population in 1970–99.

[2]Multiplied by 100.

[3]Test of the null hypothesis that the coefficient on growth in total population equals the negative of the coefficient on growth in working age population.

Note: The dependent variable is the growth rate of real per capita GDP in 1970–99 in purchasing power parity terms. Estimates are from ordinary least squares. Numbers in parenthesis are t-statistics based on heteroscedastic-consistent standard errors. The asterisks ***, **, and * denote statistical significance at 1, 5, and 10 percent levels, respectively.

The results (Table 2.10, columns 1 and 3) show that 1 percentage point higher growth in the working-age population than in total population is associated with higher real per capita GDP growth by around 2.2 percentage points a year.[45] This result, which is

[45]The estimate lies between the two sets of estimates reported by Bloom and Williamson (1998) and is the same as that found in Bloom, Canning, and Malaney (1999, Table 5), which uses a smaller sample of countries (70 countries), a different time period (1965–90), and a different estimation technique. They use instrumental variable technique, which allows for possible endogeneity of the population variables whereas the regression analysis in this chapter uses ordinary least squares. The point estimate obtained by Bloom and Williamson (1998) on differences in population growth rate ranges from 1.7 to 3.3.

close to those found in other studies, implies that the demographic transition the West Bank and Gaza is projected to undergo over the medium term can be expected to contribute to a higher growth rate in per capita GDP of between 1.1 and 1.5 percentage points a year between 2005 and 2010 and almost 2 percentage points by 2025. Of course, other factors can reinforce or reduce the contribution from demographic dynamics.

The estimated impact of trade, defined as the ratio of trade to GDP, and referred to as openness in Table 2.10, shows that a 20 percentage point increase in the trade to GDP ratio (one-half the standard deviation increase in this variable) is associated with a higher real per capita GDP growth rate of about 0.1 percentage points per year. This is still low compared with findings in some other studies. For example, Sachs and Warner (1997) use a more complex measure of openness, which, among other things, takes into account the importance of trade monopolies, quotas, and tariff levels, and finds trade to be the single most important factor determining differences in economic growth across countries.

With respect to the macroeconomic variables, the regression results show that an improvement in the fiscal balance by 3 percentage points of GDP, which is within one standard deviation, is associated with an increase in annual real per capita GDP growth by 0.2 percentage points, while an increase of 10 percentage points in the inflation rate is associated with 0.1 percentage points lower annual per capita GDP growth.[46] Furthermore, an increase in inflation volatility of 16 percentage points, which is about the average for the sample of 85 countries and within one standard deviation of the volatility measure, is associated with a 0.2 percentage point reduction in annual per capita GDP growth.[47]

As regards the impact of the legal and regulatory framework, a higher regulatory burden equal to an increase of one unit on a scale of –2.5 to 2.5 is associated with a 0.8 percentage point reduction in average annual real per capita GDP growth.

Furthermore, the estimated coefficient on the dummy variable for landlocked countries—a proxy for the cost of conducting trade—implies that real GDP per capita growth in landlocked countries, on average, was lower by 0.6 percentage points. The West Bank and Gaza can be considered landlocked even though it is situated at the sea, because it does not have direct access to port facilities and has to rely on the Israeli ports in Ashdod and Haifa. The infrastructure variable is also very important and highly significant statistically. An increase of 10 connected telephone mainlines per worker per year (well within one standard deviation of the sample average) is associated with higher per capita real GDP growth of 0.1 percentage points a year. The estimated coefficient on the ratio of M2 to GDP shows that a 25 percent increase in the stock of M2 relative to GDP (well within one standard deviation of the sample average) is associated with a 0.1 percentage point increase in annual per capita GDP growth. Finally, the estimated coefficients on the dummies for tropical climate and the availability of natural resources show that countries located in the tropical climate zones have on average a growth rate that is lower by 1 percentage point a year, while those endowed with natural resources actually grow at a lower rate of 1.5 percent per year.[48]

How does the West Bank and Gaza's growth performance compare with that of other economies? Table 2.11 attempts to answer this question by looking at growth differentials between the West Bank and Gaza and some comparator economies but with a focus on 1995–99 rather than the past 30 years. More detailed data for the West Bank and Gaza are available for the recent period, for example, on macroeconomic variables and some structural variables.[49] Several results are noteworthy. First, per capita GDP growth in the West Bank and Gaza in

[46]Half of the countries in the sample had an inflation rate in excess of 10 percent per year.

[47]Including both average inflation and inflation volatility renders both variables insignificant since the two are highly correlated (the correlation coefficient is 0.94); see Fischer (1993). Inflation volatility is defined as the standard deviation of annual inflation in 1970–99.

[48]The coefficient on tropical climate is close to that of Bloom and Williamson (1998), but slightly higher than that of Sachs and Warner (1997). As for the natural resource variable, Sachs and Warner (1995a) also find robust evidence for a negative relation between natural resource intensity and subsequent growth and argue that the growth difference might reflect dynamic Dutch disease effects. Rodriguez and Sachs (1999) suggest that one reason why resource-abundant economies grow more slowly is that they are likely to be living beyond their means. They will converge to their steady-state growth rates from above, displaying negative growth rates in the transition.

[49]Governance data for the West Bank and Gaza exist for 1997 only and not for the entire 1970–99 period. Even though governance-type indicators do not change in the short run, they are quite likely to change over a 30-year period. The regressions shown in Table 2.10 use the sparse data for the West Bank and Gaza, including that of the governance variable. However, eliminating West Bank and Gaza from the sample of 85 countries and estimating the regressions over the period 1970–99 produces results identical to those shown in Table 2.10.

Table 2.11 Decomposition of Growth Differential Between the West Bank and Gaza and Various Benchmarks, 1995–99[1]
(Annual percent)

	Middle East and North Africa[2]	East Asia	Lower Middle-Income Countries	Upper Middle-Income Countries	High-Income OECD Countries	World
Actual growth differential[3]	–3.20	–2.79	–3.44	–4.84	–5.00	–4.25
Predicted growth differential[3] due to:	–0.01	0.05	–0.12	0.44	0.98	0.52
Log of real per capita GDP in 1995	2.19	2.14	1.38	2.45	3.70	1.77
Log of years of schooling in 1995	0.16	0.12	0.17	0.09	–0.01	0.18
Openness	0.13	–0.24	0.17	0.14	0.26	0.19
Differences in population growth	–2.45	–0.86	–1.78	–1.32	0.02	–1.08
Budget surplus	–0.43	–0.55	–0.33	–0.36	–0.39	–0.34
Inflation	–0.02	0.00	0.03	0.06	–0.06	0.01
Telephones per worker	0.31	–0.18	0.28	–0.30	–0.99	0.09
Landlock dummy	–0.64	–0.64	–0.52	–0.56	–0.58	–0.52
Tropics dummy	0.00	0.98	0.54	0.52	0.00	0.48
Natural resource abundance dummy	0.78	0.00	0.16	0.31	0.00	0.11
Regulatory burden	0.03	–0.53	–0.25	–0.58	–0.84	–0.36
M2 to GDP ratio	–0.07	–0.19	0.03	–0.01	–0.11	0.00
Residual[4]	–3.19	–2.84	–3.32	–5.29	–5.98	–4.77

Source: IMF staff estimates.
[1]Based on regression (1) in Table 2.10, and data for the period 1995–99.
[2]Excludes the West Bank and Gaza.
[3]Defined as the West Bank and Gaza's growth rate minus the growth rate of the relevant group.
[4]Defined as actual minus predicted growth rates.

1995–99 was significantly lower than in all of the comparators in Table 2.11 (top line). Second, on the basis of the variables included in the regression, the West Bank and Gaza could have been expected to grow considerably faster than these comparators. Recall from the previous section that the growth performance of the Palestinian economy over the past 30 years compared very well with the performance of other economies, except for the period since 1994. The regression results suggest that the poor growth performance in 1995–99 cannot be attributed to the fundamental economic factors included in the regression; rather, the difference is entirely accounted for by the residual. The poor growth performance in 1995–99 is primarily due to the output collapse in 1995 and 1996, a period when the Palestinian economy was subject to extensive closures.[50] Finally, the regression results show that the convergence effect was positive and large for the West Bank and Gaza (due to its lower initial income) and that the West Bank and Gaza also scored well with respect to schooling and openness. The landlocked variable and, more importantly, the demographic variable, were negative and large, however, meaning that in other economies, such as those of MENA and East Asia—that are further along their demographic transition than West Bank and Gaza—the working-age population relative to total population grew faster than in the West Bank and Gaza (where the ratio did not change much). The demographic variable accounted for about 75 percent of the growth differential between the West Bank and Gaza and MENA, about 50 percent vis-à-vis lower middle income countries and 30 percent vis-à-vis East Asia.

How does the regression fare in explaining the Palestinian economy's performance in 1995–99? Table 2.12 compares actual and predicted growth in the West Bank and Gaza, as well as in some comparator economies. The model—which can explain a large share of cross-country growth differences—predicted the real per capita GDP growth in the

[50]This finding also holds when using the data for 1970–99, with the difference that the residual is smaller because the output collapse in 1995–96 does not dominate the data.

Table 2.12 Actual Versus Predicted Growth in the West Bank and Gaza and Selected Regions, 1995–99[1]
(Annual percent)

	West Bank and Gaza	Middle East and North Africa[2]	East Asia	Lower Middle-Income Countries	Upper Middle-Income Countries	High-Income OECD Countries	World
Actual growth	–2.5	0.7	0.3	0.9	2.3	2.5	1.7
Predicted growth[3]	2.9	2.9	2.9	3.1	2.5	2.0	2.4
due to:							
Log of real per capita GDP in 1995[3]	1.1	–1.1	–1.0	–0.3	–1.4	–2.6	–0.7
Log of years of schooling in 1995	0.8	0.6	0.6	0.6	0.7	0.8	0.6
Openness	0.6	0.5	0.8	0.4	0.4	0.3	0.4
Differences in population growth	0.1	2.5	0.9	1.8	1.4	0.0	1.1
Budget surplus	–0.5	–0.1	0.1	–0.2	–0.1	–0.1	–0.2
Inflation	–0.1	–0.1	–0.1	–0.1	–0.1	0.0	–0.1
Telephones per worker	1.5	1.2	1.7	1.2	1.8	2.5	1.4
Landlock dummy	–0.6	0.0	0.0	–0.1	–0.1	–0.1	–0.1
Tropics dummy	0.0	0.0	–1.0	–0.5	–0.5	0.0	–0.5
Natural resource abundance dummy	0.0	–0.8	0.0	–0.2	–0.3	0.0	–0.1
Regulatory burden	–0.1	–0.2	0.4	0.1	0.5	0.7	0.2
M2 to GDP ratio	0.3	0.3	0.5	0.2	0.3	0.4	0.3
Residual[4]	–5.47	–2.3	–2.6	–2.2	–0.2	0.5	–0.7

Source: IMF staff estimates.
[1]Based on regression (1) in Table 2.10.
[2]Excludes the West Bank and Gaza.
[3]Includes constant of the regression.
[4]Defined as actual minus predicted growth rates.

West Bank and Gaza to average 2.9 percent a year in 1995–99, with the most important positive contribution coming from the convergence effect, the level of schooling, the expansion in the telephone network (or physical infrastructure more generally), the increase in trade to GDP, and the expansion in the banking system. The governance variable (regulatory burden) and the size of the fiscal deficit reduced the predicted growth rate; the demographic factor was not important in 1995–99 because the working-age population and total population grew at about the same rate.[51] Instead of growing as predicted by the model, however, real per capita GDP declined by 2.5 percent per year on average in 1995–99. The Palestinian economy underperformed by a margin of 5.5 percentage points. The difference between predicted and actual growth rates is likely to reflect many things, including problems in making inferences for one economy based on cross-country regressions and weaknesses in the data, but it also reflects the importance of the negative shock the Palestinian economy experienced in 1995–96—when it was subject to prolonged and extensive closures because of a deterioration in the security situation, and the overall impediments to growth caused by a high degree of uncertainty and high transactions costs in 1995–99.

Policy Implications

The previous sections have shown that over the next 10 years the Palestinian economy will have to generate and sustain very high growth rates in real GDP, investment, and TFP in order to absorb the projected inflows to the labor market at rising real wages while at the same time reducing unemployment. Although the required growth rates—summa-

[51]By contrast, for the period 1970–99, faster growth of total population than working-age population in the West Bank and Gaza reduced real per capita GDP growth by as much as 1 percentage point each year. It is interesting to note that the demographic factors account for much of the predicted growth in regions that are well into their demographic transition. For example, 85 percent and 32 percent of predicted real per capita GDP growth rate in the MENA region and East Asia, respectively, are due to demographic factors.

rized in Table 2.9—are well above the historical average of the West Bank and Gaza, they have been achieved during extended periods in the past.

The immediate priority must, of course, be to halt the fall in output and income caused by the turmoil and closures, and to restore growth and recover as quickly as possible the output loss that occurred in the fourth quarter of 2000 and the first half of 2001. Particularly important to this end is the restoration of open access to foreign markets. The extent to which Palestinian employment in Israel can attain its pre-crisis levels will also have an important bearing on the recovery of the Palestinian economy (see Chapter 1).

For the medium and long term—the focus of this chapter—the previous section showed that the initial conditions for economic growth are generally good: the population is young and relatively well educated; the projected change to the age structure of the Palestinian population can be expected to provide an important (but temporary) impetus to long-term per capita income growth, and the West Bank and Gaza has a long tradition of commercial entrepreneurship—the economy is dominated by the private sector, and policymakers do not have to deal with a troubled and bloated state-owned enterprise sector, in marked contrast to the countries that emerged from the break-up of the Soviet Union. Nor do policy makers have to undertake serious and problematic macroeconomic stabilization policies—inflation is relatively low and stable, and the government is not encumbered with debt. The exchange system is also quite open. Thus, once the political and security situation improves and once the main obstacles and distortions to the Palestinian economy are addressed—especially those that cause the high costs for foreign trade and the deficiencies in the judiciary and legal framework—it should be able to enjoy an extended period of high growth, with supporting policies and continued improvements in infrastructure.

A frequent question is: which sectors in the Palestinian economy can be expected to be the engines for future growth? Although a detailed consideration of this question is beyond the scope of this chapter, it is safe to assume that residential construction will continue to be a key sector, given the demographic dynamics, while the agricultural sector will probably diminish over the long run because of water constraints and shrinking land availability (due to house construction). Other possible sources for future growth include tourism, consumer electronics, cut flowers, olive oil processing, plastics, software, and stone and marble processing (see The Services Group, 1999). In trying to identify sectors of future growth, it is tempting to focus on the existing production structure and see how it can develop in response to certain changes in the economic environment. The Palestinian economy is operating under significant restrictions, and once they are eased (especially those that make the transportation procedures so cumbersome and costly, and with improvements in the supply of energy), the economy might undergo a significant transformation during which entirely new sectors could emerge. The world is full of examples of countries successfully producing goods that a few years earlier no one would have considered to be their comparative advantage, such as Finland and Nokia. Thus, there is no reason to be pessimistic regarding future growth simply because the current production structure is limited and the West Bank and Gaza possesses few natural resources that can form the basis for industrial development.[52]

This section focuses on the policies that are important for the long-term prosperity of the Palestinian economy, drawing on the cross-country regressions in the previous section.[53] Again, since investment in productive capital, such as machinery and equipment, is closely intertwined with growth in productivity, many of the policies that can spur investment also galvanize productivity, so in what follows, no distinction is made between policies that primarily affect investment from those that primarily affect TFP. This section focuses on: macroeconomic policy, access to foreign trade, governance and the legal and regulatory framework, competitive infrastructure, and access to capital. Several of the issues touched upon in the following sections are dealt with at greater length in subsequent chapters. When assessing the importance of policies for growth, it is also important to bear in mind that the positive effects on long-run growth that the West Bank and Gaza could expect to receive from the convergence effect and from the demographic transition are conditional on the macroeconomic and structural variables in the regression.

[52]As mentioned, a common finding is that countries with ample natural resources tend to grow more slowly than those without such resources, see Sachs and Warner (1995a), and Rodriguez and Sachs (1999).

[53]The policy discussion also builds on the IMF study Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999), and Fischer, Alonso-Gamo, and Erickson von Allmen (2001).

One issue that cuts across many of the topics discussed below is the crucial need to reduce output volatility and the overall level of uncertainty in the Palestinian economy. As shown previously, output volatility was extraordinarily high in 1970–99. In the past, part of the fluctuations could be explained by the so-called olive cycles, but since 1994 output volatility has mainly been induced by changes in the political and security environment. Significant output (and income) volatility reduces welfare directly when most households have little means to undertake consumption smoothing, but output volatility can also reduce economic growth prospects, as it might reduce investment in productive capital when investment decisions are difficult to reverse; investors prefer to wait and see. [54]

In addition to the negative effects on growth from output volatility, the cumulative effect stemming from the mere risk of closures, the lack of unimpeded access to world markets, and uncertainty over the direction of domestic policies has created an environment of exceptionally high uncertainty with negative repercussions on investment and growth more generally.[55] In particular, investors will avoid the Palestinian export sector because of the uncertain access to world markets. Furthermore, the PA's own policies inject a considerable degree of uncertainty. The PA's view of its role in the economy is not clear, progress in legal and institutional reforms has been uneven, and the judiciary remains weak. One concrete example of how economic policy adversely affects investment and growth is the partial and haphazard way in which the PA implements VAT refunds; a practice that is particularly harmful to new, small enterprises. While the damage that these domestic policies inflict on the Palestinian economy cannot be compared with the devastating effects of closures, they do have significant negative effects on investment and long-term economic growth prospects.

The Role of Macroeconomic Policy

Macroeconomic policy can significantly affect long-term economic growth by ensuring stable prices and external viability by raising public savings and investment and through the use of taxation and public expenditure.

Price Stability

The results from the cross-country regressions show a negative relationship between, on the one hand, long-run economic growth and, on the other hand, inflation and inflation volatility, confirming the results of other studies, particularly those for middle- and low-income countries.[56] The main policy tools for price stability are monetary and exchange rate policies, supported by fiscal and income policies. The absence of a Palestinian currency means, of course, that the PMA lacks the exchange rate policy instrument, and the scope for monetary policy is very limited.[57] Nevertheless, in recent years, the present currency arrangement—with no Palestinian currency and with the new Israeli shequel, the U.S. dollar, and the Jordanian dinar circulating freely—has delivered relatively low inflation rates in the West Bank and Gaza so that, at least over the past 10 years, economic growth cannot be said to have been harmed by excessive inflation. Exchange rate (and monetary) policy options are discussed in greater detail in Chapter 6.

Fiscal Policy

Fiscal policy is the only macroeconomic policy instrument currently available to the PA. Although its role is constrained by the limited capacity of the Ministry of Finance, the PA can support long-term growth of the Palestinian economy with fiscal policy through several channels. First, by building up a surplus on the recurrent budget over the medium term, as envisioned in the PA's budget for 2000, the PA can help raise national savings, which in turn can support growth by allowing for higher private (and

[54]In a study of growth in 92 countries, Ramey and Ramey (1995) found evidence that countries with high volatility have significantly lower output growth.

[55]See Kanaan (1998) for private investment and uncertainty in the West Bank and Gaza.

[56]See, for example, Fischer (1993), Ghosh and Phillips (1998), and Sarel (1996). While the results in our regression suggest a negative linear relationship between growth and inflation, in reality the relationship is likely to be nonlinear. Studies focusing specifically on the relationship between inflation and growth have found no evidence that inflation in the very low single digits (1–2 percent) hurts growth, but the studies do show that higher inflation rates are likely to harm growth. Ghosh and Phillips (1998) put the threshold inflation rate at about 3 percent, above which inflation is considered harmful to economic growth, while Sarel (1996) finds the threshold inflation to be somewhat higher at 8 percent.

[57]See Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999) and, in particular, Barnett (1998) for discussion of monetary policy under the current exchange rate regime.

public) investment. Evidence from other cross-country regressions (for example, Barro, 1991; Barro and Sala-ì-Martin, 1995; and Sachs and Warner, 1995b) shows that higher public saving (smaller deficit or higher surplus on the recurrent budget) is significantly associated with stronger growth in per capita GDP. Of course, it would not be realistic for the PA to aim for a surplus on the recurrent budget in 2001 because of the sharp decline in tax revenue in the aftermath of the turmoil and closures.

Second, fiscal policy can be a key source of macroeconomic instability and uncertainty, which in turn can deter investment and growth (see, for example, Lensink, Bo, and Sterken, 1999). Thus, the PA can support long-term economic growth by simply pursuing a predictable and sound fiscal policy, including by avoiding large, debt-financed fiscal deficits. To this end, the PA needs to strengthen the budget preparation, monitoring, and execution process, as weak fiscal control creates uncertainty about future taxes, expenditure, and deficits. The PA must also become more efficient in paying VAT refunds.

Third, fiscal policy of the PA can support long-term growth by improving the composition of expenditure. There is ample evidence that some expenditure—in particular infrastructure investment and maintenance, and outlays on education and health—can be conducive to growth, whereas other expenditure, for example rapid growth in the wage bill (except in education and health) can hurt growth prospects (Barro and Sala-ì-Martin, 1995). Thus, by allocating an increasing share of fiscal resources to education, health and investment (including maintenance of existing infrastructure), and by reining in the rapid growth in the wage bill in general, the PA can help support long-term economic growth prospects.

Finally, the level and composition of taxation can affect long-term growth prospects. In early 1999, the PA implemented a tax reform, which significantly reduced corporate and personal income tax rates. The corporate tax rate was unified and reduced to a flat 20 percent from 38.5 percent in the West Bank and 37.5 percent in Gaza. The number of personal income tax brackets was reduced from eight to four. The reduction of taxes has helped reduce the cost of conducting business in the West Bank and Gaza. Furthermore, tax exemptions are provided under the Investment Encouragement Law of 1998. While it is possible that such exemptions might induce some investment that otherwise would not have taken place, it will be important to monitor developments to ensure that the tax base is not undermined.

Foreign Trade

Open and secure access to foreign trade is crucial for the development of the Palestinian economy, as it is for any small economy. It is also a key factor for attracting foreign direct investment. The future performance of the Palestinian economy in general and the tradable sector in particular will be heavily influenced by the future trade policy of the PA and the extent to which the current high transactions costs (including transport costs) can be reduced. Transactions costs are covered in greater detail in Chapter 3, while the trade regime is discussed in more depth in Chapter 4.

Trade Regime

The West Bank and Gaza is currently in a customs union with Israel as set out in the Protocol on Economic Relations of 1994 (or the Paris Protocol). The external tariff and non-tariff barriers, quality and health requirements, and import licensing are decided by Israel, with a few exceptions.[58] An important issue for the future is the type of trade regime the PA will adopt, including the type of trade arrangement it will have with Israel.

As Chapter 4 argues, the Palestinian economy would benefit most from an open and transparent trade regime with a low uniform tariff rate together with the absence of quotas and trade monopolies. To keep the trade regime simple and transparent, it will also be important to avoid entering into a series of bilateral free trade arrangements and instead limit such arrangements to key markets for Palestinian exporters. Israel will remain an important trading partner for the Palestinian economy over the medium term regardless of the trade regime between the two entities, because it is the largest and most developed economy in the region and because of its proximity to the West Bank and Gaza. At the same time, there is considerable potential to increase trade with the rest of the world. The results from the gravity model in Chapter 4 show that while Israel's share in Palestinian trade is high, this observation

[58]Calika (1998) and Kessler (1999) provide detailed descriptions of the trade regime under the Paris Protocol. Palestinian Authority Ministry of Economy and Trade (1999) provides a comprehensive description of the export and import procedures as of May 1999.

should be interpreted as an indication that the West Bank and Gaza undertrades with the rest of the world rather than overtrades with Israel.

Transaction Costs

The performance of Palestinian trade and the economy in general is hampered by the recondite system of permits, security checks, transportation procedures and fees, and the considerable uncertainty surrounding their implementation. The various rules are complex, do not exist in written form, and are subject to frequent and unannounced changes, all of which contribute to uncertainty and transactions costs. While it is difficult to estimate the damage that this system has inflicted on the Palestinian economy, especially the tradable sector (particularly in Gaza), there can be no doubt that a reduction in the transactions costs is crucial for enhancing Palestinian economic growth performance. A recent study of the business environment in the West Bank and Gaza (Sewell, 2001), found the regulatory and administrative burden created by the Israeli security procedures to be the single most important obstacle to private sector development. A study by the Federation of Palestinian Chambers of Commerce, Industry, and Agriculture (1998) estimates that export and import costs, on average, are 30 percent higher for a Palestinian company than an Israeli company, and the clearance time required to process exports and imports is between 20 and 80 percent longer for Palestinian goods.[59] The cumbersome transport restrictions and security checks also cause delays in export shipments that, in today's global economy where businesses keep small inventory holdings, are likely to cause an exporter to lose a contract regardless of the price discount it can offer.

Transaction costs in the West Bank and Gaza can be reduced with improvements to the trade infrastructure to enhance the access to world markets. The Gaza Airport will become more important for exports and imports once cargo facilities have been established. The construction of the Gaza seaport, which has begun and was initially scheduled for completion in 2002, will also facilitate trade with the rest of the world. The regression results presented earlier—which showed that landlocked countries tend to grow significantly slower than those that are not landlocked—suggest that a seaport in Gaza can play an important role in promoting trade and long-term economic development. Three conditions would seem crucial, though, for the seaport (as well as the Gaza airport) to have a major positive impact on the Palestinian economy: (i) the West Bank must become better linked to the Gaza Strip so that it too can benefit form the seaport and the airport; (ii) the movement of goods and people through the two ports and between the Gaza Strip and the West Bank must not be subject to the current cumbersome system of security checks and permits; and (iii) the ports (and customs operations at the ports) must be operated efficiently.

Legal and Regulatory Framework and Governance

The PA has made significant progress since its creation in 1994 in establishing a functioning economic administration and in developing a basic Palestinian institutional framework. Key economic policy institutions have been set up, and there has been considerable progress in legal reform, although much more is needed to strengthen the capacity and independence of the judiciary system in order for it to be a positive factor in the development of the Palestinian economy and increase the effectiveness of the Palestinian Legislative Council (PLC) and its oversight functions. The quality of the institutional framework—the legal and regulatory framework and economic governance—is crucial for achieving economic success, and differences in it explain a large part of the differences in economic development across countries (see Box 2.3).[60] Good governance, including ensuring the rule of law, improving efficiency and accountability of the public sector, and tackling corruption are all real issues that need to be addressed in the West Bank and Gaza.

Polls conducted regularly by the Center for Palestinian Research and Studies in Nablus show that a large share (about 60 percent) of those asked believe that there is corruption in the PA, although these polls do not ask people how important they think corruption is. However, Sewell (2001) finds that while there is a concern over corruption, this concern is likely to reflect a more general unhappiness with how the PA operates, including the lack of

[59]Amjadi and Yeats (1995) find that high transport costs have caused competitiveness problems for exporters and a consequent erosion in exports in sub-Saharan Africa despite generally favorable tariff preferences awarded by OECD countries.

[60]See, for example, Barro and Sala-ì-Martin (1995), Knack and Keefer (1995), and Hall and Jones (1999).

transparency. By contrast, this study find very little concern among Palestinian businesses over petty bribery or corruption in the PA procurement accounts, so concerns over corruption should not be overstated. One important governance concern related to the operations of the Palestinian Commercial Services Company (PCSC) and its equity holdings in private companies. In a somewhat older international study of governance (Kaufman, Kraay, and Zoido-Lobaton, 1999), the West Bank and Gaza also scored better than the average for the MENA region on six measures of governance, of which outright corruption is one measure.[61]

One way for the PA to allay some of the concerns over governance is to be more transparent in its own fiscal and other financial operations. The PA took important steps in this direction in the spring of 2000, as described in Chapter 1, with the consolidation of tax revenue under the Ministry of Finance, and the audit and public disclosure of key financial data for the PCSC.[62] These reforms will have to be accompanied by a further strengthening of the legal framework and the judiciary in the West Bank and Gaza. In the survey reported in Sewell (2001), the courts and the judiciary were ranked the worst among the PA public institutions in terms of quality of services. While some important laws have been approved by the PLC and ratified by the president (for example, the Organic Budget Law), many, including the draft banking and competition laws, have been delayed excessively. It will be important to accelerate the process of approving and ratifying laws, but strengthening the legal and regulatory framework involves more than just passing laws. Once a law is approved, the necessary regulations need to be prepared and adopted as well, and the Palestinian judiciary system must be strengthened to ensure that the legal framework is implemented in an effective and independent manner.

Financial Development and Access to Financing

A healthy and efficient financial system is important for effective resource allocation and mobilization of savings. Investment also requires access to financing, domestic or foreign. While the West Bank and Gaza does not have any capital account restrictions that prevent private sector financing from abroad, the only realistic sources of foreign financing in the medium term are foreign direct investment, multilateral institutions, and the Palestinian diaspora. The two main sources of domestic financing are the Palestinian banking system and the Palestinian Securities Exchange (PSE).

The past seven years have witnessed a rapid development of the Palestinian banking system, with strong growth in deposits and credit to the private sector (see Chapter 1, Figure 1.3). Table 2.12 shows that these developments made a positive contribution to economic growth in 1995–99, and the banking system should play an increasingly important role in the economic growth process in the future. A sound and efficient banking sector performs many functions that support economic growth, including mobilizing and efficiently allocating savings, facilitating trade and risk management, and exerting discipline on corporations. To ensure the soundness and effectiveness of the Palestinian banking system, it is crucial that the PMA step up efforts to strengthen bank supervision, that the banking law be passed without further delay, and that the legal, accounting, and auditing system be improved.[63] The latter is particularly important for banks to be able to make sound credit assessments and reduce their requirement for collateral. Levine, Loayza, and Beck (2000) find that differences across countries in their systems of accounting, creditor rights, and contract enforcement explain a significant part of differences in financial development that in turn affects GDP growth.

The fledgling stock market, the PSE, can also be expected to become an increasingly important source of financing over the long run. The PSE, a private company that began operations in 1997, has 24 listed companies and a market capitalization of roughly US$1 billion (both as of June 2000). At 25 percent of GDP, the stock market capitalization is lower than in most developed economies but on par with many emerging markets, (for example, Argentina, Brazil, and Mexico), and the turnover ratio (at 50 percent of the market capitalization) is high even when compared with many developed economies; thus the PSE is already quite large and

[61]The study included only one survey for the West Bank and Gaza, whereas the results for other countries are based on six surveys and are therefore more reliable.

[62]See Palestinian Authority (2000). The report *Economic Policy Framework—Status Report*, May 31, 2000 was prepared by the PA with assistance of IMF staff and is available on the PA's website www.pna.net.

[63]Furthermore, the absence of clear land titles impedes financial development.

liquid. The approval of the Capital Market Law and the implementation of the PA's privatization strategy will be important steps for the further development of the stock exchange.

As regards financing of the private sector from bilateral and multilateral sources, for example, the European Investment Bank (EIB) provides such financing, directly and through local banks. In addition, the European Union financed the initial capital for the Palestinian Development Fund (PDF) and several smaller credit extension projects. The PDF, now a private firm, targets small- and medium-sized enterprises and has a lending portfolio of roughly US$30 million.

An important source of financing is foreign direct investment from foreign companies and Palestinian expatriates. Data from the PCBS show that foreign direct investment amounted to US$218 million in 1998 (5.6 percent of GDP) up from around US$143 million in 1995. A large part of foreign direct investment has gone into real estate, but there are also several examples of foreign companies buying equity positions in local companies. Such investments are important not only because of the financing they bring but also because of the transfer of technological and management expertise. The Investment Promotion Law of 1998 and the Industrial Estates Law of 1998, together with the establishment of industrial estates in the West Bank and Gaza can be expected to help attract more foreign direct investment.

Competitive Infrastructure

A modern and properly maintained infrastructure is essential for the development of the Palestinian economy, and in the past six years there have been major improvements in the physical infrastructure in the West Bank and Gaza, with important assistance from donors. According to the survey reported in Sewell (2001), Palestinian businesses view the quality of the physical infrastructure as much less of an important constraint for their activity than they did a few years ago. Most noticeable are probably the improvements in basic infrastructure like roads and sewage systems, while much remains to be done in particular in the areas of water and power. In the growth regressions performed earlier in this chapter, two variables were included that can signify the importance of infrastructure for the West Bank and Gaza: telephone lines and lack of direct access to a seaport. Both variables were highly significant and had large coefficients. With respect to telephone lines, the telecommunications company, PALTEL, has made considerable investments in the past few years that have led to a major expansion in the Palestinian telecommunications network. In the West Bank and Gaza, the number of installed telephones has increased to 314,221 at the end of 1999, from 89,958 three years earlier, reducing the waiting list by 80 percent. PALTEL's target is to have 400,000 lines by the end of 2003. There has also been rapid expansion in cellular services provided by Al-Jawwal (of which PALTEL owns 65 percent).

Major concerns for the future are power, electricity, roads, and, but to a lesser extent, telecommunications. The power infrastructure is insufficient to support industrial development and power outages are common. Similarly, water supply is problematic and is also insufficient for large-scale industrial development.[64] Per capita consumption of energy and water in the West Bank and Gaza is low compared with other countries in the region. Several factors explain the insufficient development of the power, telecommunications, and water infrastructure (even if telecommunications services are improving rapidly), and some of them (like water supply) can only be resolved as part of a final peace agreement with Israel and will probably need regional cooperation. The Interim Agreement restricts the development of water resources and the construction of power plants, as well as the extent of telecommunications operations. This has led to dependence on the Israeli supply of services in these three sectors. The development of power, telecommunications, and water infrastructure has also been hampered by the limited administrative and regulatory capacity of the PA and the dilapidated conditions of the infrastructure because of under investment and lack of maintenance before 1994. Lastly, the road networks have not kept pace with the rapid expansion in commercial centers like Ramallah, leading to serious congestion problems.

The PA is trying to address some of the enormous infrastructure needs by concentrating its efforts in a few places—the industrial estates. The industrial estates can offer modern infrastructure, simplified bureaucratic procedures, even simplified and less costly security restrictions, as well as lower taxes. At the same time, industrial estates can offer a good environment for investors in certain type of industries, but for the Palestinian economy to flourish, significant improvements must occur to the infrastructure throughout the West Bank and Gaza.

[64]See The Services Group (1999).

Concluding Remarks

This analysis of the Palestinian economy takes a long-term perspective, recognizing that the most immediate concern must obviously be to ensure a rapid recovery from the output collapse that occurred in the fourth quarter of 2000 and the first half of 2001. But it is important not to lose sight of the medium-term challenges and opportunities. The projected demographic changes over the medium term will come about irrespective of how the current conflict evolves, and risk causing a further deterioration in social conditions.

Over the medium term, population growth is expected to slow, leading to a rise in the share of the population at working age. Under plausible assumptions regarding demographics and labor force participation rates, the labor supply would increase by 4.4 percent a year in 2001–10. In order to absorb these inflows into productive employment, while at the same time reducing the high unemployment rate, domestic employment must expand by approximately 6–7 percent a year. This would translate into required rates of growth in real GDP of 8 percent a year and in TFP of 1.2 percent that is consistent with an annual increase in real wages of 1.5 percent a year. If the West Bank and Gaza were to experience large-scale immigration, higher growth in GDP and TFP would be needed for any given real wage scenario. It is no doubt a considerable challenge for the Palestinian economy to achieve such growth rates on a sustained basis, but such growth rates have been attained in the past. Real GDP growth is estimated to have averaged 6 percent and TFP growth 1.4 percent over the past 30 years albeit with substantial annual variations.

The initial conditions for medium-term economic growth are generally good. The population is young and relatively well educated and the projected change to the age structure of the Palestinian population can be expected to provide an important (but temporary) impetus to long-term per capita income growth. While it is of course essential to improve the political and security situation, sustained medium-term growth will also require that the main obstacles and distortions in the Palestinian economy are tackled and that the PA undertakes supporting policies and reforms. The growth regressions presented in this chapter show that the changing demographics in the West Bank and Gaza can provide an important boost to growth in per capita GDP. This boost is not automatic, however, and it is not too difficult to envision a scenario where the large inflows to the labor market lead to higher unemployment and lower real wages. The regressions also provide some insights as to what factors can help ensure that the demographic changes make a positive contribution to growth. It is critically important to reduce political risk, which has induced major output volatility in the past. Sustained medium-term growth will also require better access to foreign trade, sound macroeconomic policies and governance, a competitive infrastructure, financial development, and a strengthening of the legal and regulatory framework.

Appendix I: Growth Accounting and Cross-Country Growth Regression: Methodology and Data Sources

Growth Accounting and TFP

This appendix describes the methodology that lies behind the calculations reported in the chapter, shortcomings and strengths of the methodology, the concept of TFP growth, and the relevant data needed for the application of the methodology to the Palestinian economy.[65] The appendix also provides a description of the data and their sources used in the cross-country growth regressions.

The starting point of growth accounting is the aggregate production function for the economy where real output (Y_t) is specified as a function of the physical capital stock (K_t), labor (L_t), and technology (A_t). The most widely used specification of the production function is of a Cobb-Douglas form:[66]

$$Y_t = F(A_t, K_t, L_t) = A_t K_t^{\alpha} L_t^{1-\alpha}, \quad (1)$$

where α is the elasticity of output with respect to capital stock, and the production function incorpo-

[65] In addition to cross-country applications of growth accounting (for example, Senhadji, 1999; Bosworth and Collins, 1999; and Easterly and Levine, 2000), there are also applications to individual economies in the Middle East and North Africa region: 10 countries in the Middle East and North Africa region (Bisat, El-Erian, and Helbling, 1997); West Bank and Gaza economy over the 1970–90 period (Arnon, Luski, Spivak, and Weinblatt, 1997); Jordan (IMF,1998); Israel (Sarel, 1999); and Iran, Pakistan and four Arab countries (Dhonte, Bhattacharya, and Yousef, 2000).

[66] Alternative specifications are also possible (see Islam, 1999; Hulten, 2000), which would produce alternative measures of TFP growth rates and TFP levels. A majority of studies, however, rely on a Hicks-neutral specification of technical progress, that is, as in the Cobb-Douglas specification.

rates the assumptions mentioned earlier. Output growth and TFP growth are then given by the following expressions:

$$y_t = a_t + \alpha k_t + (1 - \alpha) l_t, \quad (2)$$

or

$$a_t = y_t - \alpha k_t - (1 - \alpha) l_t, \quad (3)$$

where y_t, k_t, l_t, and a_t represent growth in output, TFP, the capital stock, and labor, respectively. Growth can increase on account of faster accumulation of factors of production, TFP growth, or both.

The growth accounting methodology relies on several crucial assumptions: (1) the existence of a stable aggregate production function for the economy as a whole characterized by constant returns to scale; hence, output will double when all inputs are doubled; (2) that factor markets are characterized by perfect competition so that each factor is paid its value of marginal product; and (3) the absence of externalities in factor inputs. These assumptions allow payments to factors of production equal to the value of output produced. Thus, with two inputs (capital and labor), the share of total national income accrued to each input will add up to one. This result is used in calculating most measures of TFP growth, including those reported in the chapter. Under these assumptions, the elasticity of output with respect to the capital stock, α, is the share of capital income in national income.

If the production function is subject to diminishing returns to scale, as assumed above, growth cannot increase indefinitely and cannot be sustained purely on account of high accumulation of factors of production.[67] In fact, under the above assumptions growth will eventually slow down and can even turn negative without a sustained and positive TFP growth. Within a growth accounting exercise and given the above assumptions, it is TFP growth, not labor productivity or capital productivity, that is the economically more meaningful concept of productivity. TFP growth is derived as the weighted average of the growth in factor inputs (see equation (3)).

Growth accounting has several limitations, however, which need to be taken into account when conducting policy analysis. First, as described above, the accounting decomposition is based on a number of assumptions about the industrial structure of the economy, which may not apply to a particular economic setting. It should be pointed out, though, that perfect competition is *not* a strict requirement for growth accounting. Rather, what is needed at minimum is that factor earnings be proportional to factor productivities. Second, the decomposition identifies the residual growth component with a measure of productivity, while in reality, the residual is likely to also reflect other factors besides technical progress such as mismeasurement of the factors of production, political uncertainty, and public policies. Third, as its name suggests, the methodology is purely an accounting exercise. It cannot, for example, identify the fundamental determinants of accumulation of factors of production and TFP growth. Nor can it determine by itself if factor accumulation causes TFP growth or vice versa, or whether both are caused by some other factors. In defense of the methodology, it should be noted, however, that these are not the objectives of growth accounting.

Some studies use econometric techniques which take into account the endogeneity of factors of production in order to derive an estimate of TFP growth (for example, Senhadji, 1999; and IMF, 1998) while others use variance decomposition methods to derive TFP growth (e.g., Klenow and Rodriguez-Clare, 1997; and Easterly and Levine, 2000). Applying the methods from these latter two studies to the West Bank and Gaza over the 1970–99 period increases the share of output growth that is attributable to TFP growth to well in excess of 80 percent as compared with the 23 percent implied by Table 2.1.

Despite the foregoing limitations, which have been known for some 40 years, growth accounting continues to be widely used since it provides a useful benchmark and a simple and internally consistent framework for understanding key aspects of economic growth. A broad set of sensitivity analyses are routinely conducted, as the chapter illustrates, in order to verify the robustness of the implied policy implications to changes in the underlying assumptions. The sensitivity analysis usually consists of variations in: (i) the depreciation rate of the capital stock, (ii) the assumptions regarding the initial capital-output ratio, (iii) the sample period to check for the stability of the underlying production function, and (iv) the capital share of income. Among these factors, the capital share of income (α) has the greatest effect on the estimates of TFP growth.

[67]Under this formulation, any contributions arising from increasing returns to scale is included in the TFP growth. Similarly, the formulation abstracts from contribution of human capital to output, which will lead to an overestimation of TFP growth to the extent that human capital accumulation makes a positive contribution to growth.

Computing Required TFP Growth

Growth accounting is not just a methodology for accounting for past sources of growth; it can also be used for policy analysis, subject to the caveats mentioned above. One particular policy analysis involves calculating the TFP growth that is required in order to meet certain policy objectives, and ascertaining if the required TFP growth could be achieved in the light of the past TFP growth performance as well as past and future direction of policies.[68] In this sense, some policies may be regarded as exogenous and some endogenous to TFP growth and its sources. An alternative formulation of growth accounting has been used in order to address these issues. Under this formulation, equation (3) can be rewritten as

$$a_t = (y_t - l_t) - \alpha k_t + \alpha l_t, \qquad (4)$$

or

$$a_t = w_t - \alpha k_t + \alpha l_t, \qquad (5)$$

where $y_t - l_t$ represents labor productivity growth, which, under the assumptions indicated above, is w_t equal to real wage growth. In other words, workers are paid the value of their marginal product. In practice, real wage growth and labor productivity growth may not coincide since any one of the assumptions indicated above can be violated. Therefore, the analysis is simply illustrative, but it is nevertheless useful since it brings out the trade offs faced by policymakers between employment expansion, hence, reduction in unemployment, and increases in investment and TFP growth that are needed in order to have a sustained rise in real per capita income while maintaining a desired path for real wages at the same time. In this connection, it should be emphasized that the information content of the methodology has not changed—it is the same accounting relationship that is being manipulated—and the attraction of this alternative formulation is that it regards TFP growth, much like factor accumulation, as an endogenous variable that is subject to policy influences and policy analysis. In contrast, fertility rates, for example, which affect the population growth rate and ultimately the growth of the working-age population may be more influenced in the short run by cultural factors and the choices of parents and their immediate needs rather than economic policy at the national level.

The required TFP growth can be calculated from (4) or (5), given assumptions on value of α growth of real wages (labor productivity), capital stock, and employment. Expression (4) is used in the calculations reported in Table 2.11 in the chapter.

Data Requirements for TFP Growth

The calculation of TFP growth requires estimates of α and data on output, the capital stock, and employment. The value of α is crucial to estimates of TFP growth; the higher α is, the lower TFP growth is since the capital stock tends to grow faster than employment in most economies. This is also the case for the West Bank and Gaza where the capital stock grew faster than employment over the period 1970–99.

In general, estimates of α are obtained from national income accounts, studies of growth accounting for other economies, or regression analysis.[69] Each approach has its own weaknesses and strengths and would result in different estimates of α, and, hence, different TFP growth. For example, the estimates obtained from national income accounts may not be suitable for cross-country comparison of TFP growth since differences in α may account for much of the cross-country differences in TFP growth. The reliability of national income accounts-based estimates also depends on the quality of national account statistics. In many developing countries, including the West Bank and Gaza, estimates of the components of output from the income side of the national accounts statistics are not very reliable and often significantly exceed those for developed countries. The estimates for developed countries range from 0.3 to 0.4 compared with over 0.4 for developing countries.[70] The higher estimate for developing countries can reflect the role played by a sizable in-

[68]Dhonte, Bhattacharya, and Yousef (2000) do a similar analysis for the MENA region.

[69]In the case of regression analysis, α is estimated based on three types of data: time series data for a given country, data on a panel of countries, or a cross section of countries. Each type of data has its own weaknesses and strengths; see Islam (1999) for details.

[70]See Collins and Bosworth (1996). Estimates for seven Latin American countries range from 0.45 to 0.69 (Elias, 1990) and from 0.52 to 0.86 for 13 Arab countries (Bisat, El-Erian, and Helbling, 1997). Regression analysis has also produced estimates for developing countries well in excess of 0.4; see Kim and Lau (1994) for newly industrialized Asian countries; Bisat, El-Erian, and Helbling (1997) for 13 Arab countries, and Senhadji (1999) for a larger set of developing countries.

formal sector and the self-employed and unpaid family workers whose income is allocated to the residual gross operating surplus (GOS), hence, lumped with income of capital.[71]

In this study, two estimates of α are relied on to calculate TFP growth for the West Bank and Gaza. The first estimate (0.35) was taken from other studies of growth accounting.[72] This allows comparison of the West Bank and Gaza's TFP growth with that of other economies.

The second estimate (0.58) is constructed from the West Bank and Gaza's national income accounts from the PCBS. The closest proxy for income from capital in the PCBS data is the concept of GOS, which is the sum of the net operating surplus and consumption of fixed capital; or defined as a residual, GDP less compensation of employees, less taxes on production and subsidies. The capital share of income is thus obtained by dividing GOS by GDP for each year and averaging the result.[73] The use of a time average is preferable to the use of a single-year observation to ensure that the estimates of TFP are not overly influenced by short-run economic fluctuations. Available information from the PCBS allows computation of capital share of income only for 1995, 1996, and 1997, however.[74] Interestingly, despite the large fluctuations in output growth during this period (induced by the closures in 1995 and 1996) the capital share of income has been quite stable: it was 0.60 in 1995; 0.58 in 1996 and 0.55 in 1997. The average of these three estimates is 0.58.

In addition to the capital share of income, data on real output, employment, and the capital stock are also needed in order to calculate TFP growth. For the period 1968–92, data on real GDP (in 1986 NIS prices), employment, and real investment are taken from the ICBS (1996) and World Bank (1993), and for the period 1993–99, they are IMF staff estimates based on the PCBS data. The coverage of employment is an important issue in the calculation of TFP growth for the West Bank and Gaza. Because the focus is on real GDP growth as the measure of real output growth, the employment data exclude the Palestinians who work in Israel and the settlements and the underemployed as defined by the PCBS. For the period prior to 1993, Palestinians working in Israel, as defined by ICBS (1996), are netted out from total employment as reported in the same ICBS document, and the resulting series is spliced to post–1993 employment data that exclude Palestinians working in Israel and the underemployed.

Data on the capital stock are obtained using the perpetual inventory method that requires an estimate of the initial value of the physical capital stock, a rate of depreciation of the capital stock, and real investment in physical capital. In the West Bank and Gaza, as in many developing countries, data on the physical capital, the depreciation rate, and the initial capital stock are not available and have to be assumed. This study assumes that the initial capital stock is 2.5, which is the estimate used in many cross-country estimations of the capital stock.[75] This value together with data on real GDP in 1968, which is the initial year for which data on investment and GDP are available, give the estimated initial capital stock.[76] The depreciation rate is assumed to be 4 percent, which is also the value used in many cross-country studies of capital stock.[77] Alternative and reasonable assumptions of the depreciation rate (for example, 6–7 percent) resulted in the same estimates of capital stock in the outer years, as the impact of the depreciation rate declines geometrically because of the use of perpet-

[71]See Young (1995) for a study of growth accounting in East Asian countries in which adjustments for the self employed lower the estimates of the capital share of income.

[72]See Collins and Bosworth (1996); Crafts (1999); and Dhonte, Bhattacharya, and Yousef (2000). This estimate has also been used in a previous study of growth accounting for the West Bank and Gaza in Arnon, Luski, Spivak, and Weinblatt (1997).

[73]A similar calculation of the capital share of income was carried out for 13 Arab countries in Bisat, El-Erian, and Helbling (1997).

[74]The 1995 and 1996 data on GDP and GOS are taken from PCBS (1998a) and the 1997 data from the website of the PCBS.

[75]See Nehru and Dhareshwar (1993), and Collins and Bosworth (1996). The typical values for a sample of 15 OECD countries in recent years (1979–90) is about 4 with estimates ranging from 3 in France and Spain to 5.8 in Finland and Denmark (Mas, Perez, and Uriel, 2000). The rate of return on physical capital stock in developing countries is higher, given these ratios for developed countries, a given value of capital share of income for developed and developing countries, and the assumptions indicated earlier. This finding is consistent with the conventional wisdom about the comparison of the rate of return in developing and developed countries.

[76]The initial year can be set much further back in time, as some studies have done, for example, back to 1900 (for example, Sarel, 1995; and IMF, 1998). This would require generating investment data that are not otherwise available. No independent and reliable source of checking the accuracy of the auxiliary assumptions needed to generate such data is currently available. It is therefore often recommended (see Barro and Sala-i-Martin, 1995) to rely on an available "long" historical investment series to generate data on capital stock and use only the latter part of the series for growth accounting analysis. The use of different time periods in the chapter is motivated by this consideration.

[77]See Nehru and Dhareshwar (1993), Benhabib and Spiegel (1994), and Collins and Bosworth (1996).

ual inventory method. This is a common finding in studies of growth accounting. Finally, the investment data since 1994 include domestically financed as well as donor-financed investment.

Data Requirements for Cross-Country Growth Regressions

The data used in the regressions reported in Table 2.10 and the source of each variable are as follows:

Growth in Real PPP Per Capita GDP in U.S. Dollars

This is the dependent variable in the regression and is obtained as the compounded growth rate of real purchasing power parity (PPP) per capita GDP in U.S. dollars over the 1970–99 period. Data on real PPP per capita GDP in U.S. dollars are obtained in two steps. First, nominal PPP per capita GDP in U.S. dollars, taken from the IMF's *World Economic Outlook (WEO)*, is multiplied by total population from the WEO. The result is then divided by total population data taken from the World Bank's *World Development Indicators (WDI)* database. Population data from the WDI are used because of their consistency with the data on working-age population, which are also used in the regression; *WEO* does not report data on working-age population. Second, real PPP per capita GDP in U.S. dollars is obtained by deflating each country's nominal PPP per capita GDP in U.S. dollars by the U.S. implicit GDP price deflator with the base of 1995. Data on the West Bank and Gaza are obtained by using GDP in constant 1995 U.S. dollars from the WDI over the 1994–99 period; the data for the period 1970–93 are obtained by applying annual growth rate of real GDP in constant 1986 New Israeli Shequel (NIS) prices over the period 1970–94 to the 1994 data from the WDI.

Real PPP Per Capita GDP in U.S. Dollars

Described as above. The value of this variable in 1970 is used in the regression.

Years of Schooling

This variable represents average years of schooling in the population over 15 years of age and is taken from Barro and Lee (2000). The data for the West Bank and Gaza refer to the population over 14 years of age and is constructed using the same methodology as that of Barro and Lee (2000) with the raw data taken from the Israel Central Bureau of Statistics (1984; pp. 786–787, Table VII/42).

Openness

This variable is constructed as the ratio of real trade, which is the sum of real export and real imports, to real GDP. Data for all countries except for the West Bank and Gaza are taken from the WEO. The data on real export and real import (in 1986 NIS prices) for the West Bank and Gaza over the period 1970–91 are taken from World Bank (1993) and ICBS (1996); the data over the period 1992–99 are IMF staff estimates based on ICBS (1996) and PCBS.

Growth in Total Population

WDI is the source for all countries except for the West Bank and Gaza. For the West Bank and Gaza, data for 1993–99 refer to population data (excluding East Jerusalem) and are IMF staff estimates based on PCBS with zero migration assumption over 1997–99. The data prior to 1993 are obtained by applying the growth rate implicit in population data from ICBS (1996) over the period 1970–93 to the 1993 estimate.

Growth in Working-Age Population

WDI is the source for all countries which refer to population between 15 and 64 years of age. For the West Bank and Gaza, data refer to population during 14 years of age for the period 1970–93 and over 15 years of age for the period 1993–99. The two series are spliced by applying the growth rate implicit in the over 14 years of age population over the period 1970–93, taken from ICBS (1996), to the estimate of the population over 15 years of age in 1993. The data on population over 15 years of age over the period 1993–99 are IMF staff estimates based on the PCBS.

Budget Surplus

Data for all countries are taken from WEO. The budget surplus figure refers to the difference between revenue and grants and expenditures and net lending. For the West Bank and Gaza, data are IMF staff estimates for the period 1993–99. Data for the

period prior to 1993 are not considered reliable and are not therefore used in the regression.

Inflation

This is defined as growth in consumer price index (year over year) for all countries and taken from the WEO. West Bank and Gaza's data refer to inflation for the West Bank only over the period 1977–94, taken from Israel Central Bureau of Statistics (1996, p. 582, Table 27.11). The data over the period 1995–99 are taken from the PCBS and refer to the West Bank and Gaza.

Standard Deviation of Inflation

This is calculated as the standard deviation of inflation for every country that has non-missing annual data on inflation rate.

Telephones Per Worker

WDI is the source for all countries. For the West Bank and Gaza data are taken from PALTEL. For the West Bank and Gaza, data are available from 1996 only.

Landlock

This is a dummy variable that takes a value of 1 when a country is landlocked and zero otherwise. These data are taken from the World Bank's Economic Growth home page.

Tropics

This is a dummy variable that takes a value of 1 when a country is located in the tropics and zero otherwise. These data are taken from the World Bank's Economic Growth home page.

Natural Resource Abundance

This is a dummy variable takes a value of 1 when the country is a primary exporter of fuel and zero otherwise. The data source is *World Economic Outlook*, May 2000 (Table C, p. 194).

Regulatory Burden

This variable measures the extent of regulatory burden and delays in government beaureacracy in granting licenses, etc. It ranges from a low of –2.5 to a high of 2.5. A higher value indicates lower degree of regulatory burden. The data source is Kaufmann, Kraay, and Zoido-Lobaton (1999). For ease of interpretation, this variable has been multiplied by a negative sign in the regression reported in Table 2.10. Therefore, a higher value would represent higher regulatory burden.

Ratio of M2 to GDP

This is the ratio of nominal broad money to nominal GDP and is taken from the *World Economic Outlook*. For the West Bank and Gaza, the data refer to deposits of the Palestinian Authority and the private residents held in the domestic banking system.

Transaction Costs in the Palestinian Economy: A Microeconomic Perspective

Felix Fischer, Mona Said, and Rosa A. Valdivieso

A longstanding concern of Palestinian business people is the high level of transaction costs involved in conducting trade in the West Bank and Gaza, which for the most part are the product of a rather unique system of complex regulations and procedures mainly linked to Israeli security considerations. Reducing such costs is important to increase the overall competitiveness of the Palestinian economy and ensure its ability to develop, prosper, and integrate with the world economy.

The experience of economies that have succeeded in achieving rapid economic growth has been that reforms of the incentives and institutional frameworks aimed at reducing the costs and unpredictability of doing business play a crucial role in private investors' decisions. Economies where the emphasis has been on the provision of tax and other incentives to encourage investment in export-oriented manufacturing industries without the sustained pursuit of sound macroeconomic policies, trade liberalization efforts, and reform of the institutional framework have seen disappointing results.

This chapter focuses on transaction costs created by the regulations and procedures that governed trade into and out of the West Bank and Gaza prior to the recent turmoil and closures. The impact of the present turmoil and closures on the economy is covered in Chapter 1.

A brief discussion of the concept of transaction costs, their role in influencing the business environment in general, and the specific nature of such costs in the Palestinian economy is followed by a description of the day-to-day trade procedures faced by Palestinian exporters and importers, which provides a sense of their cost implications. The chapter later looks at possible steps that can be undertaken by different players to lower trade-related transaction costs, as part of the ongoing efforts by the Palestinian Authority (PA) to transform the Palestinian economy into an investment-friendly environment for the domestic private sector and international investors, and the chapter ends with some concluding remarks.

The Role of Transaction Costs in the Economy

Transaction costs are the costs of running an economic system and, as such, are unavoidable. It is widely recognized, however, that excessively high transaction costs impede the process of diversification, export growth, and private investment in developing economies. Broadly defined, transaction costs refer to all costs involved in creating and operating institutions underlying the processes of production and exchange in the economy, including search and bargaining costs, and costs of coordination between and within institutions and organizations.[1]

[1]The term *institutions* is used here in its broad sense to encompass all the "rules of the game" or the "humanly devised constraints that structure political, economic, and social interaction. They are made up of formal constraints (e.g., rules, laws, and constitutions), informal constraints (e.g., norms of behavior, conventions, self-imposed codes of conduct), and their enforcement characteristics." (North, 1994, p. 85). See Furubotn and Richter (2000) for a recent overview on theoretical developments in transaction cost economics (which is concerned with

Transaction costs arise mainly in connection with the exchange process. Modern industrialized economies depend on a complex structure of individual specialization and exchange over time and space, and use elaborate institutional structures (such as formal contracts, guarantees, brand names, monitoring systems, and effective enforcement mechanisms) to ensure that individuals and firms adhere to the "rules of the game." These institutional structures create considerable transaction costs, but the productivity associated with the gains from trade is even greater.[2] Not all transaction costs can be justified, however, on efficiency or equity grounds. While those incurred in reducing information failures and risk of default raise efficiency, those that result from excessive regulations and non-transparent legal systems are clearly inefficient and can perpetuate inequities and lack of competitiveness in the business environment. They can also prompt the private sector to resort to informal arrangements to contain risk, to avoid long-term contracts, and to hire facilitators to deal with the inefficiencies of existing institutions (see Box 3.1).[3]

The performance of the Palestinian economy is hampered by the trade-related cumbersome and complex system of permits, security checks, transportation procedures and fees, and the considerable uncertainty surrounding their implementation in practice. These restrictions, which are largely unique to the West Bank and Gaza, raise transaction costs significantly, including the cost of obtaining information about, and dealing with the various rules and regulations governing trade and transportation.[4] The Palestinian economy is further hampered by restricted access to external markets, inadequate infrastructure (including utilities), a complex legal and regulatory framework, a weak judicial system, red tape and governance issues, and limited access to financing, all important factors that raise transaction costs.[5]

Increased transparency of public procedures, deregulation, trade liberalization, and technical progress can significantly reduce many transaction related costs that are common in developing economies like the West Bank and Gaza.[6] The emphasis placed on regulatory and legal reforms is based on the recognition that while sound macroeconomic policies matter for investment and growth, it must be supported by institutions that ensure transaction costs are not inhibitive to investment and growth. Thus, the focus of the PA economic policy framework (EPF) described in Chapter 1 goes beyond an improvement in fiscal management to also include enhanced transparency and governance in the PA's financial operations, the opening to the private sector of economic activities currently carried out by the PA, improved banking supervision, and strengthened legal and regulatory frameworks. The intention of the PA is to subsequently incorporate in the EPF other reforms to strengthen the institutions that shape the business environment. Such reforms, however, do not directly address the additional trade-related transaction costs cited above that are unique to the Palestinian economy. The rest of this chapter will focus on describing, in some detail, the nature and scope of these costs and suggesting specific measures for reducing them.

Rules and Restrictions Governing Domestic and External Trade

For security reasons, trade to and from, and even within the West Bank and Gaza, as well as between the West Bank and the Gaza Strip is strictly regulated by the Israeli government. A complex system of permits, fees, security inspections, and transport

[2]It is also important to note that although in aggregate such costs are quite high (comprising some 50 to 60 percent of net national product in industrialized economies), they tend to be small per transaction (North, 1987). They usually include incomes of lawyers, financial institutions, policemen, middlemen, entrepreneurs, managers, clerks and civil servants. Even the notion of transportation costs, can arguably be understood as transaction costs, as it encompasses not just the physical transportation of goods but also "costs of communications and the idea that countries tend to have a better understanding of their neighbors and institutions." (Frankel, Stein, and Wei, 1995, p. 76). Most analyses, however, consider transaction costs as separate from transportation costs.

[3]As more individuals and companies leave the formal sector, tax revenues tend to fall, thus creating a vicious cycle of low provision of public services, poor quality of infrastucture, and less willingness on the part of the public to pay for them.

[4]Holden and Rajapatirana (1995).

[5]Business people have to deal with separate government offices in the West Bank and Gaza and often with both the Palestinian and Israeli bureaucracies.

[6]It can be argued that technical progress is by far the most important factor influencing transaction costs. Whereas all other factors normally yield once-and-for-all effects, technical progress continually reshapes the interplay between transaction costs and production costs by inducing firms to concentrate on a narrower range of products (Tavares de Araujo, 1998). Moreover, technical progress in the specific area of improving customs handling of traded goods or transport procedures has a direct influence on reducing the level of trade-related transaction costs.

Box 3.1. Transaction Costs in International Trade

There are many types of transaction costs that usually arise in the exchange of goods and services between countries. These include: (i) the costs of obtaining information about local and foreign markets; (ii) the costs of information about government regulations and policies (such as exchange rate policy, exchange restrictions, tariff and nontariff barriers, and health and environmental regulations); (iii) costs of identifying trading partners; (iv) costs of negotiating, writing, and enforcing contracts and resolving disputes between parties; and (v) the costs of financing transactions, including the risk of default throughout the long process of receiving an export order and being paid for it (Abdel-Latif and Nugent, 1996).

Although transaction costs are unavoidable in international trade, what matters is whether their presence and level are justifiable on efficiency grounds. Thus, on the one hand, the costs of setting up and running institutions and arrangements that improve the availability and processing of information or reduce risk of default, for example, are cases where transaction costs have to be incurred to enhance efficiency. On the other hand, excessive additional transaction costs sometimes have to be incurred due to dysfunctional regulatory and legal systems or can arise through channels of rent-seeking behavior in state-business relations. In the absence of transparent formal institutions, the tendency to resort to informal arrangements (including side payments and bribes) or hiring facilitators at points of contact with authorities can become a rational response by the private sector to circumvent tedious regulations. These activities in themselves raise transaction costs and constitute second best solutions when compared to conducting transactions under a streamlined and efficient institutional framework.

Inadequate public institutions, especially the legal system, can play a vital role in inhibiting the ability of the private sector to enter into trade contracts with confidence and may lead to inequities. Where political considerations have prevented private institutions from replacing public ones, transactions and contracts tend to occur only in closed circles of people who know each other or who are well connected and have insider knowledge and access to resources to circumvent stringent regulations. This can help create an insider-outsider business environment that perpetuates particular patterns of income distribution and makes it difficult to establish new businesses (Holden and Rajapatirana, 1995).

Many factors can influence transaction costs involved in trade. Costs can be raised by: (i) use of nontariff barriers to trade, which are subject to more abrupt changes over time than other tariff barriers; (ii) asymmetry of information that characterizes many relationships leading to adverse selection and moral hazard problems; (iii) differences in language, culture, taste, laws, and dispute resolution procedures; (iv) difficulties of enforcing contracts across countries and, hence, higher risk of payment default; (v) quality differentiation and increasingly specialized products for which distinguishing between contract fulfillment and nonfulfillment is difficult (Abdel-Latif and Nugent, 1996). On the other hand, transaction costs can significantly be reduced by: (i) transparent rules and regulations related to trade transactions; (ii) technical progress; (iii) trade liberalization; (iv) transparent legal and judicial procedures; (v) efficient civil service and good governance structures; and (vi) a clear division between the role of the state and the private sector in the economy.

restrictions severely constrains the movement of goods and people, raises costs considerably, and causes substantial delays.[7] (see Box 3.2).

There is a widespread perception among Palestinian business people that the transaction costs of conducting trade are excessively high and that they are mainly due to the security-related regulations.[8] This perception came out clearly during discussions with PA officials and private sector representatives, and in a recent study on private sector performance and the obstacles it faces in international trade.[9] This study finds that most of the rather substantial differences in costs between Israeli and Palestinian businesses of conducting identical trade transactions arise from the unequal treatment of Palestinian goods, for example, as regards issuing vehicle permits, transportation restrictions, security checks, and the fact that Palestinian business people must deal with two layers of bureaucracy in seeking trade licenses and fulfilling

[7]The external trade process is handled by two layers of bureaucracy (the PA and Israel) and, with few exceptions, the Israeli trade system applies to Palestinian trade by virtue of the customs union with Israel. The prevailing trade system is explained in Chapter 4 (see also Calika, 1998; Kessler, 1999; and Box 3.2).

[8]See, for example, Brunetti and others (1997) and a recent World Bank business environment survey (see Sewell, 2001).

[9]This study of transaction costs facing Palestinian businesses —Federation of Palestinian Chambers of Commerce, Industry, and Agriculture (FPCCIA) (1998)—is based on interviews with key decision makers and trade experts from both the private and public sector, including about 30 Palestinian and Israeli company managers, 20 government officials from both the PA and Israel, and many port authority officials, clearing agents, and representatives of non-governmental organizations.

Box 3.2. Export and Import Regulations in the West Bank and Gaza

Exports do not normally require licenses, but certain categories of goods, which need to fulfill standards and other controls, must have an *authorization* that is given in the form of a license once the requirements have been fulfilled. The goods include foodstuffs and chemicals, which must be authorized by the Ministry of Health, and agricultural products, for which the authorization is provided by the Ministry of Agriculture and is valid for a single shipment or for a season, if a seasonal registration has been requested prior to applying for the export authorization. The same ministry grants the phytosanitary certificate following a one-day check, which is free of charge.

Certificates of origin are required to benefit from preferential tariff treatment under the trade agreements with the European Union (EU), the United States, Canada, Jordan, Egypt, and Saudi Arabia. These certificates provide the proof that the goods are entitled to duty-free entrance because they comply with the rules of origin. The administrative requirements under the various agreements to secure the preferential treatment diverge significantly. For goods destined to the EU or EFTA countries, the certificate of origin (EUR I), obtainable at the Customs Department of the PA Ministry of Finance and at the Chamber of Commerce, must be typed in English and include the exporter's signature and seal, and to be valid, it must be stamped by the Customs Department, which ascertains compliance with the rule of origin at no charge. It should also be accompanied by the commercial invoice and the packing list. Any mistake in this list can cause a delay in clearance at the port of destination until the importer satisfactorily completes it. For goods destined to the United States, the certificate of origin is called form A and must also be accompanied by the same documents as for the EU, plus a customs form (CF7501) and a special permission for direct delivery to the United States (form CF316). Finally, goods destined to the Arab countries, require that the certificate of origin be stamped by the Ministry of Economy and Trade and the Chamber of Commerce, which requires from the importer the commercial invoice, the corporate registration, and the foreign trade dealing registration.

Imports: Before goods can be imported an import license and, if applicable, a standards certificate and sanitary and phytosanitary certificates must be obtained. The former certifies that the goods to be imported are within the allowed quotas of lists A1, A2, and B, while the latter certifies that the product complies with the required quality and health standards. *The import license* can be obtained by the importing enterprise (or its designated clearing agent) from the relevant Israeli and Palestinian ministries or agencies. Import licenses mainly apply to: (i) goods subject to quotas (for example, agricultural goods and other goods from the lists A1, A2 and B as agreed in the Paris Protocol); (ii) goods subject to public health restrictions (that is, meat, foodstuffs and pharmaceuticals); (iii) petroleum and gas, telecommunications equipment, and motor vehicles; and (iv) goods classified as "L" in the Israeli Tariff Book (for example, fresh vegetables, processed agricultural products, and processed foodstuffs; live animals and animal products; arms and defense-related goods, certain industrial and agricultural machinery, and leather goods). Approval from specific Palestinian ministries or agencies is required for the following products prior to the issuance of the license: General Petroleum Corporation (petroleum products); Palestinian Tobacco Authority (cigarettes and tobacco); Environment Department (insecticide and paint products); Ministry of Transportation (motor vehicles and related spare parts); Ministry of Post and Telecommunications (telecommunication items); Ministry of Agriculture (agriculture products and food items); and Ministry of Health (pharmaceuticals and chemicals). The import licenses are free of charge, but their applications may require two or more weeks for processing and must be filled in four copies (two in Arabic-English and two in English-Hebrew). In general, the import license is issued for a single type of good and a specific quantity, and it has a time limit depending on the product.

To obtain a standard certificate, the importer has to submit a sample product (prototype) together with its specifications to the Palestinian (or Israeli) Standard Institute for testing, depending on the imported good and the ability of the laboratories accredited by the Palestinian Standards Institute to conduct the test. The certificates must be obtained for each product type. They cost NIS 5,000 and are valid for any further import of the same type of goods for four years. After arrival of the shipment, products are tested for compliance with the prototype approval, but to avoid possible damage and the expenses arising from keeping the shipment at the port or in bonded houses, the Customs Authority allows clearance subject to the provision by the importer of a bank guarantee and a signed pledge that the products will not be distributed until the receipt of the type approval. This approval may take between 3–4 days for simple electronic goods to 3–4 months for more complex products such as refrigerators.

Goods for which standard certificates are required include food, chemicals and electrical goods, construction material, mechanics, power and hydraulics devices, quality systems, paper and leather. Failure to obtain the required import licenses and standards certificates may significantly delay the import of the shipment.

other administrative requirements to conduct trade. The study also mentions that other contributing factors to the high level of transaction costs are: the lack of trade promotion by the PA, in the sense of facilitating information to local business people and assisting them in establishing contacts with foreign counterparts; insufficient development of export strategies by the Palestinian private sector; and inadequate supporting institutions, such as traders associations and chambers of commerce.

Gaining an understanding of the complex trade-related regulations is difficult because of the frequency and unpredictability with which changes are introduced.[10] As a result, there is always an absence of up-to-date and widely accessible written material. The regulations and procedures described below provide a picture of the situation as of August 2000, including aspects related to security and customs clearing. They may have changed by the time of this paper's publication, particularly because of the recent turmoil. Nevertheless, the purpose of this section is to illustrate the complexity of the rules that the Palestinian private sector is confronted with in conducting its day-to-day trade operations.

Routes for Domestic and Foreign Trade in the West Bank and Gaza

The regulations governing the movement of Palestinian trade need to be explained in relation to the geographical configuration of the West Bank and Gaza and means of access by the Palestinian economy to Israel and third countries for conducting trade. The West Bank and Gaza comprises two unconnected geographical territories: the Gaza Strip (360 square kilometers) and the West Bank, roughly 16 times larger. The West Bank is landlocked and bounded by Jordan on the east and Israel on the three remaining sides, and presently consists of various non-contiguous self-rule areas.[11] The Gaza Strip is bounded by the Mediterranean sea on the West, Egypt on the South, and Israel on the remaining sides. There is no direct access to third countries by air, land, or sea, however, and Palestinian trade is conducted either via the ports and airport in Israel or via the crossing points with Jordan and Egypt, which Israel controls under the Interim Agreement (Map 1 and Box 3.3). The goods must be transported by road from and to each of these exit and entry gateways through a road network over which the PA has limited control.[12] At all of the crossing points, goods are inspected by Israeli security and customs officials; Palestinian customs staff are only present at Erez, Karni, Rafah, and Allenby. There is no maritime transportation from Gaza because the construction of the deep-water seaport has been delayed. Air transport from Gaza, which started with the construction of the international airport in Rafah in 1998, is mainly used for passenger travel; passengers and goods using this airport are subject to Israeli immigration, customs, and security controls. Cargo operations have not yet started mainly on account of delays in the construction of adequate infrastructure facilities

There are five crossing points from Gaza. Erez and Karni are used for all Gaza trade with the West Bank and with or via Israel, except for the imports of petroleum products and construction materials from Israel.[13] These products transit through the Nahal Oz and Soufah crossings, respectively. The Rafah crossing point is intended in principle for all Palestinian trade with or via Egypt, but it is very rarely used for exports from the West Bank because it would involve first going through the Erez or Karni crossing which makes this alternative too costly. Most of the foreign trade of the West Bank (with countries other than Israel) is conducted through the airport and seaports in Israel, or through the Allenby and Damya

[10]The discussion in this section is based on a review of trade-related regulations and procedures conducted by an IMF team, as they prevailed at the time of its visit in August 2000. In conducting this task, the team was provided with extensive information by the Palestinian Ministry of Trade and Economy, by private sector representatives, and by UNCTAD (1999), The Services Group (1999), the FPCCIA (1998), and Kessler (1999).

[11]Under the Interim Agreement, the West Bank (excluding Jerusalem) is divided into three categories of civilian control (A, B, and C), with varying degrees of responsibility between the PA and the Israeli government. The PA is responsible for civilian affairs in the three areas to various degrees; the responsibility for maintaining security is in the hands of the PA in area A, of the Israeli government in area C, and jointly in area B.

[12]The total road network in the West Bank and Gaza is about 4,900 km long (approximately 3,000 miles), of which 2,500 km are roads connecting major cities and crossing points. According to the Interim Agreement, the PA is fully responsible for the roads in area A, which encompasses the major cities. Construction or rehabilitation of roads passing through areas B and C need prior approval from the Israeli authorities (UNCTAD, 1999).

[13]Since March 2000, however, a significant part of trade conducted through Erez has been diverted to Karni and the intention is to limit Erez to the crossing of people, and limit goods transport to cement imported from Israel. As of September 2000, however, the measure had not yet been fully implemented, and Gazan flowers and strawberries intended for exports were still being transported through Erez while industrial products, other agricultural products, and garments were routed through Karni.

Box 3.3. Moving Palestinian Domestic and Foreign Trade: Crossing Points, Ports, and Routes

1. Crossing points

Between Gaza with or through the West Bank, Israel, and Egypt

i. From or into Gaza for trade with the West Bank and with/through Israel

Gaza/Israel: Beit Hanoun/Erez; Al Muntar/Karni; Nahal Oz; and Qarara (Soufa)

Gaza/Egypt: Rafah (Rafi'ah Yam), also called Al-Awdeh

ii. From or into the West Bank for trade with/through Jordan

Allenby bridge, also called Al-Karameh or King Hussein bridge

Damya (Adam) bridge, also called Prince Mohammed bridge

Between Israel and Jordan and between Israel and Egypt

i. From or into Israel for trade with/through Jordan

Sheikh Hussein bridge, and

Harava (near the Jordanian port Aqaba at the Red Sea)

ii. From or into Israel for trade with/through Egypt

Nitsana (Taba)

2. Airport in Gaza

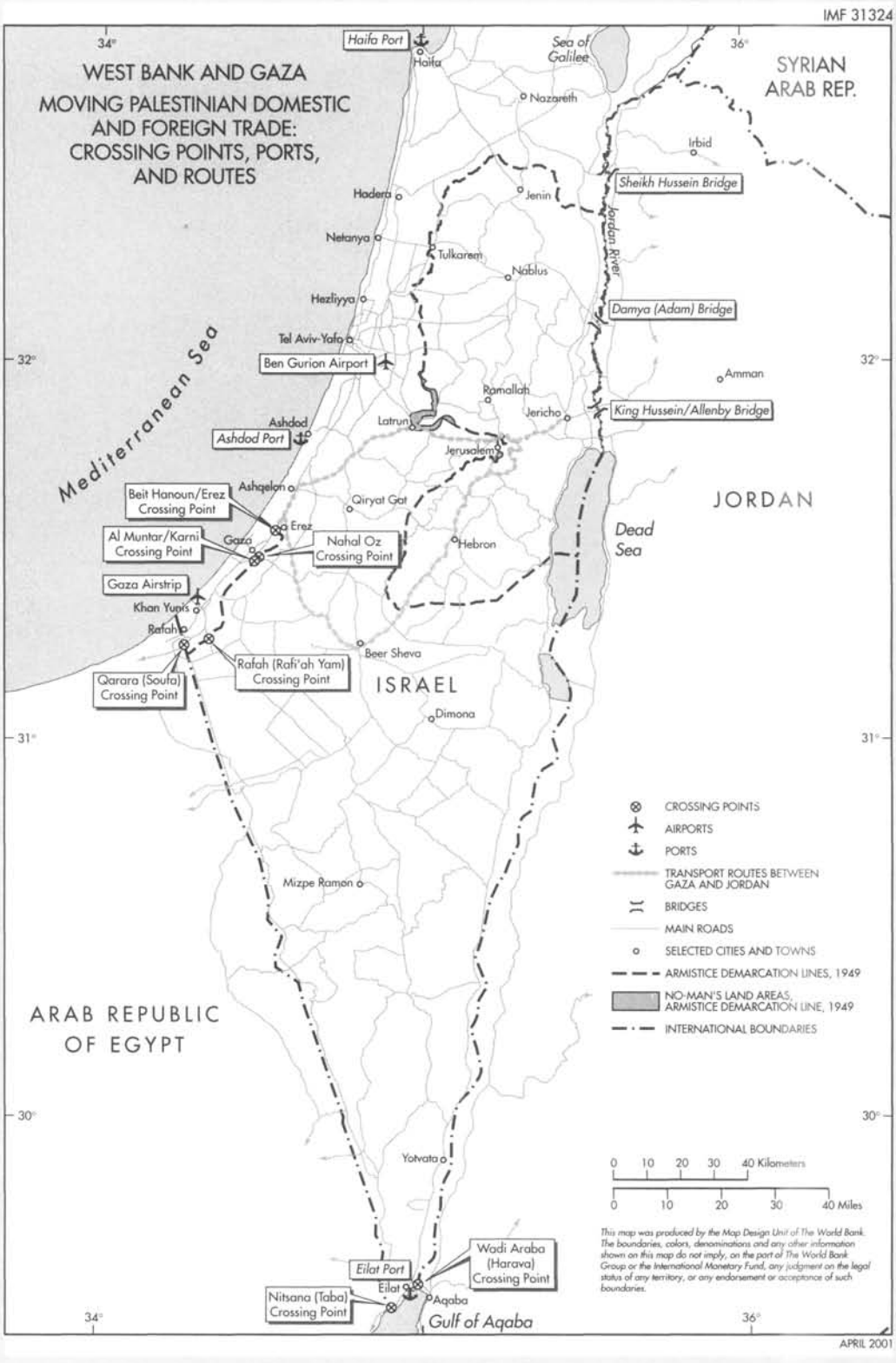
3. Ports and airport in Israel

Ashdod port, Haifa port, Eilat port (port at Red Sea); and Ben Gurion airport

4. Land transport routes designated for Gaza trade with/through Jordan

i. Erez-Beer Sheva road-Hebron-Bethlehem-Wadi Al-Nar-Jericho

ii. Erez-Ashqelon-Latrun-Jerusalem (Giv'at Ze'ev Junction)-Jericho



crossing points to Jordan. These crossings are also used for Gaza trade with or via Jordan.

A sense of the relative importance of the above crossing points is provided by examining the total trade conducted through them in 1999. Of this trade (US$712 million), which excludes trade of the West Bank with Israel and imports of water and electricity, the breakdown by crossing was as follows: Erez, 56.7 percent; Karni, 19.3 percent; Nahal Oz, 13.4 percent; Allenby, 4.9 percent; Rafah, 3.2 percent; and Damya, 1.8 percent. The trade composition between Erez and Karni is likely to have changed in the year 2000, reflecting the rerouting to Karni of an important amount of trade formerly passing through Erez.

In addition to the above international routes—and in order to avoid the delays associated with going through Allenby, Damya, and Rafah—some Palestinian trade is conducted through two crossing points intended for Israeli trade with Jordan (the Sheikh Hussein bridge and Harava) and Egypt (Nitsana). The use of these longer routes entails, however, reliance on Israeli intermediaries and transportation companies since Palestinians are not supposed to conduct trade through these crossings.

Transport Regulations and Procedures

Complex rules govern the transport of goods to and from the West Bank, Jerusalem, Israel, and Gaza. Palestinian (registered) vehicles and drivers need permits, which vary in duration.[14] The process of obtaining a permit may take several weeks.[15] According to the FPCCIA (1998) study, the insufficient number of vehicle permits makes it inconvenient and costly for business people to travel to the Israeli ports of entry, preventing them from becoming familiar with the complex clearing process (involving customs and security checks), which would help to speed it up. Also, the use of the Gaza airport is not convenient for business people residing in the West Bank because of difficulties in obtaining special permits to travel to Gaza, an obstacle that also limits trade between the West Bank and Gaza.

The regulations for vehicles used in trade include restrictions on the type of trucks that are allowed, the roads that can be used, and the goods that can be transported. Some rules differ depending on the nature of the goods, destination, or origin of the cargo. For example, imports of cement or petrol are subject to less restrictive rules than perishable goods, which in turn are treated differently from manufactured goods.[16] Certain trucks are only allowed to transport goods in one direction forcing them to travel one way empty. These limitations compel Palestinian companies to use Israeli trucking companies to transport the goods from and to their factories, at a rental cost that is significantly higher than using factory-owned trucks (FPCCIA, 1998).

Palestinian-registered transport vehicles are prohibited from entering Israel, except under certain conditions and with special permits, as explained below. This ban is at the origin of a complex and costly transit system known as *back-to-back*, whereby Palestinian trucks arriving at one side of the crossing point must unload the goods for inspection by Israeli security, for subsequent reloading onto an Israeli truck at the other side of the border. These unloading and reloading operations are exclusively undertaken by Israeli companies. A similar exclusivity applies to the customs clearing function as Palestinian clearing agents are not allowed to enter Israel's ports of entry.

The special permits granted to Palestinian trucks by the Israeli government to enter Israel or its ports of entry carry the obligation that the trucks move in a *convoy* under Israeli security, except for *sterilized* trucks (see below). After an inspection by Israeli security at the crossing point in Gaza, groups of empty trucks with their permits are escorted nonstop by Israeli security to the ports of Ashdod and Haifa, and Ben Gurion airport. [17] Under the convoy system, trucks must travel one way empty. The advantage of the convoy is that the trucks can enter Gaza without having to unload the goods at the crossing point. Before the trucks can exit Gaza again, however, a security check is conducted. Convoys may consist of *green* trucks (see below) and regular trucks.

Palestinian *sterilized* trucks are allowed to operate in Israel subject to certain conditions. According to

[14]The interdiction to travel through Jerusalem forces deviation through bypass roads and consequently a longer journey.

[15]Magnetic ID cards are a prerequisite for obtaining a vehicle permit.

[16]All petroleum products and the bulk of cement are imported from Israel.

[17]Trade flows between the West Bank and Israel's ports and airport mostly use Israeli licensed trucks, which are allowed to proceed all the way to their final destination. These goods are only selectively inspected by Israeli security, and the security checks are less of an obstacle than at Gaza. Sterilized trucks at Erez are used to transport Gazan goods to the West Bank.

the PA Ministry of Economy and Trade, after a security check, these trucks (about 200 trucks registered in Gaza and in the West Bank) are considered to have been "sterilized," that is, cleared for operation on Israeli roads. The authorization granted to these trucks is valid for two months during which they must remain in Israel. For this reason, these trucks never enter Gaza. They are allowed to pick up the goods that other Palestinian trucks deliver from the Gaza Strip at the crossing point, but transport of the goods is still subject to restrictions.[18] For example, the trucks stay overnight in a special fenced parking compound at the Israeli side of the crossing point under Israeli supervision; they are required to arrive at this area by 7:00 p.m., and failure to do so triggers another security reexamination under a procedure that can take several days. The drivers of these trucks can spend their nights in Gaza, from where they leave early in the morning after undergoing the routine security checks at the crossing point. Permits for sterilized trucks cost NIS 500 for trailers and NIS 400 for smaller trucks, regardless of the volume of transport. These fees accrue to the Israeli government.

The *green trucks,* often also referred to as "stripped," "open," or "skeleton" trucks, operate in both Gaza and the West Bank and are the only trucks allowed to cross the border with Jordan. The big advantage of the green trucks is that once their cargo has been checked and cleared at the crossing point in Gaza, they can go directly to Jordan by crossing at Damya. These trucks must also observe strict timetables for their return to designated points. According to the UNCTAD study (1999), to facilitate the security inspection, these trucks must, however, comply with the following strict Israeli specifications: (i) the load area and the engine must remain uncovered; (ii) the fuel tank cap must not have a lock; (iii) the dashboard must be limited to a speedometer and the fuel gauge; and (iv) the driver's seat must be made of metal bars and no second seat is allowed. Moreover, a lead seal by Israel on tires and external screws is required. Hence, the major disadvantages of the green trucks are that they are slow, uncomfortable, relatively unsafe, unable to protect the cargo from dust, and are particularly inappropriate for hot days due to the lack of air conditioning and the heat coming from the uncovered engine, rendering them unsuitable for the transport of perishable goods. According to the PA Ministry of Economy and Trade, as of August 2000, the initial fleet of 320 green trucks dating from 1967 had been reduced by about half and it is estimated that only about 90 trucks were in operation.[19] In the last two years, 40 of these trucks have been granted a special permit to operate at Allenby, allowing a more speedy cross-border transport of agricultural products (citrus, in particular) from Gaza to Jordan. The trucks go to Amman to unload their cargo and are kept sterile by parking outside Allenby, where they must arrive by 4:00 p.m. everyday to avoid losing their status.

[18]For trade destined to Gaza, the reverse procedure is followed.

Moving Goods Through Selected Crossing Points

This section describes the regulations and procedures for the transport of cargo through the Erez and Karni crossings, which are the obligatory passage for Gaza trade with the West Bank and Israel's ports and airport, as well as for trade that comes from or goes to the crossing points with Jordan. It also provides a detailed description of the steps involved in arranging for the passage of imports through the Allenby crossing with Jordan and touches briefly on the procedures applicable to other crossings.

Trade Through Erez and Karni Crossing Points

The regulations and procedures for the transport of goods through Erez and Karni crossing points described below refer to exports from Gaza; those applicable to trade in the opposite direction are also described only to the extent that there are differences. Within Gaza, all transport is usually done with Palestinian trucks. At the crossing point, the exporter has the option of using: (i) Israeli licensed trucks, to which goods from the Palestinian trucks must be moved back-to-back before entering Israel and vice versa for goods arriving at the crossing point in Israeli trucks; or (ii) Palestinian trucks, which are more affordable but are subject to more frequent security-related delays, including along the way to their final destination.[20] As noted above, except for the sterilized trucks, Palestinian trucks oper-

[19]A convoy of green trucks normally consists of 15 trucks.

[20]Besides the security inspections performed at the crossing points, there are five checkpoints where Palestinian goods going to the West Bank and Gaza may be subject to controls. These checkpoints are along the green line between the West Bank from Israel: Ramallah, Jenin, Tulkarem, Al-Fawwar, Jerusalem, and Hebron (Kessler, 1999).

ating in Israeli territory must move in a convoy escorted by Israeli security all the way to Israeli ports or to the designated point for goods intended for exports to or via Jordan.[21] The same system is used for trade in the opposite direction, requiring that the trucks leave Gaza empty when they go to pick up their cargo and deliver it to Gaza at the Israeli inspection area to be reloaded again after inspection.

Goods transported on green trucks, either from Gaza or the West Bank with final destination in Jordan, are delivered via Damya or Allenby to Al-Shouna in Jordan for a back-to-back transfer to Jordanian trucks. The crossing with Jordan is done without further security checks and the goods are merely inspected for customs (UNCTAD, 1999). According to the PA Ministry of Economy and Trade, green trucks that go to Al-Shouna have to be back to their designated locations in the West Bank and Gaza by 4:00 p.m. the same day. In order to meet the time requirement and ensure delivery of the cargo at the designated point on the same day, trucks usually leave Gaza very early in the morning (4:00–6:00 a.m.). Trucks that start their journey with insufficient time to go as far as Al-Shouna and be back on time, unload their goods immediately after crossing the bridge. Because of the time restrictions and bad physical conditions of the green trucks, many exporters chose to use non-green trucks, even though this involves an additional off-and-on load operation in Jericho.

According to the PA Ministry of Economy and Trade, when sterilized trucks are used, they start off empty from the Gaza checkpoints on the authorized date and time to the place from where they have to pick up their cargo. In principle, the trucks are also allowed to pick up goods at Allenby or Damya bridges.[22] When these trucks return to Gaza transporting goods, they must first go through Karni, unload the cargo for inspection and transfer it to a Palestinian truck for final delivery. The empty sterilized trucks go to the security zone at Erez, where they must arrive by 7:00 p.m. at the latest. The lengthy administrative and security procedures at Allenby may prevent the trucks from going through Karni and arriving at the security zone in time. In this case, the drivers leave the trucks with their cargo at Erez until the following day.

According to PA officials and private sector representatives, the inspection of vehicles and goods from Gaza usually takes several hours. Goods going through Erez or Karni are inspected at the crossing point except for goods in or out of the Gaza Industrial Estate (GIE), for which special arrangements are in place (see the next section below).[23] At Karni, the trucks are unloaded and the merchandise is put on pallets that go through x-ray machines (The Services Group, 2000 and Jackson, 2000). Goods that pass the security check are transferred to the trucks waiting at the other side of the crossing. The crossing point is usually open between 8:00 a.m. to 12:00 midnight and does not operate for cargo on Fridays and Saturdays. [24] Operational difficulties have produced delays during the peak periods of agricultural produce trade. A crossing charge of NIS 400 per vehicle (shared between Israel and the PA) has to be paid at Karni, no such fee is charged at Erez, while the use of the convoy system, not allowed at Karni, represents a less costly alternative.[25] The cost of arranging for a 15-truck convoy is NIS 1,500.[26] Palestinian exporters often complain about the damage to the merchandise inflicted by security checking procedures, as noted in Box 3.4 on the export of perishables.

Using Damya or Allenby Crossing Points with Jordan

As noted earlier, these two crossing points are used for Gaza and West Bank trade with or through Jordan.[27] This section illustrates the steps involved

[21] As convoys can only be organized for a specific date, late arrival of the shipment will result in the return of the truck to Gaza and duplication of the transport arrangement. For this reason, the *Palestinian Export/Import Guide* (PA Ministry of Economy and Trade, 1999) recommends that importers calculate carefully both the arrival date of the shipment and the duration of the clearing process. The number of trucks allowed to constitute a convoy varies from 10 to 40. According to UNCTAD (1999), convoys carrying Gaza products destined for export to or through Jordan usually travel one of two different routes (see Map 1).

[22] Damya is used mainly for refrigerated cargo, flowers, and vegetables due to limited facilities. Some Palestinian business people have access to permits for their cars, which are given the status as sterilized trucks. As such, the cars must be parked at the security zone at Erez; the cost of the permit is NIS 300.

[23] Goods from Israel are not inspected at Karni, they only undergo a back-to-back procedure.

[24] The same schedule applies at Allenby and Rafah crossings.

[25] The fee applies to big trucks; small trucks are charged NIS 270.

[26] This cost differential, in addition to the stricter security procedures in relation to Erez, has led to complaints by Palestinian traders and trucking companies over the planned rerouting of trade through Karni. The facilities at Karni are being expanded for automated trade, while those at Erez are not.

[27] West Bank exports through these points are either loaded on green or other Palestinian licensed trucks and follow the security procedures explained above.

Box 3.4. Exporting Perishable Goods from Gaza to Europe: Strawberries and Flowers[1]

Administrative procedures: the cooperatives present their export plans to the marketing directorate at the PA Ministry of Agriculture, which informs the Israeli authorities of the proposed volume and date of export. If the goods are authorized for export, the Israeli authorities indicate the day and time at which the vehicle carrying the merchandise must be at Erez in order to join other trucks that will be part of the convoy. Arranging a convoy usually takes between five to ten days and it is done through the Palestinian Ministry of Civil Affairs. The loaded trucks go to Erez for vehicle inspection under a process that may take several hours. Following this inspection, the trucks wait for other trucks required to constitute a convoy. The cost of a 15-truck convoy is NIS 1,500. The goods are taken to a distance of about 30–35 kilometers away from Erez to two different Israeli inspection points (Yanai-Asata or Cokhav-Akdarot, one is for flowers and one for strawberries) where they are unloaded onto Israeli trucks for security checking and sorting before proceeding to Ben Gurion airport. A large portion of Gazan agricultural exports is conducted through the Israeli agricultural marketing board AGREXCO, which charges two sets of fees to the farmers, including 3.5 percent of the f.o.b. (free on board) value of the merchandise. Similar exports to Egypt through Rafah have not met with success owing to the lack of adequate transportation facilities from Rafah to Cairo.

Flowers: The security inspection is done package by package. From the day in which the flower is cut it can last up to two weeks, but to avoid the potential delays in the security procedures, farmers only cultivate flowers with longer lives for exports. The flowers are exported as Palestinian goods; the volume of production is estimated at about 2,000 tons per year. Security and transport (especially by land to Tel Aviv) can add considerably to the total cost of exporting these flowers as illustrated by the following example: the farmgate price of Gazan flowers exported to Europe is $3,300 per ton. Transport and security checks raise the farmgate price by an additional US$980 per ton, which for each ton consist of $30 for land transport to Tel Aviv (about 75 km),US$150 for inspection cost and $800 for air transport from Tel Aviv to Europe (about 3,311 km). This amounts to a cost of US$0.40/km for land transport (rising to US$2/km if we add security checks), compared to only US$0.24/km for air transport. Given that air cargo is generally much more expensive than truck freight, this example helps illustrate how land transport to the airport plus inspection costs constitute an inordinately high segment of total costs of exporting flowers in Gaza.

Strawberries: The strawberries are transported, on the day they are picked, from the farm to the security checking point where the cartons are inspected individually with a security glove. If the vehicle does not pass the inspection check, the entire convoy may be returned to Erez for another inspection. Unlike flowers, the merchandise is also examined for quality and is repackaged for exports. At this point, the merchandise may be thrown away or sold in the Israeli markets when found unsuitable for exports (traces of insecticide for example). Proof of this unsuitability takes the form of pictures provided by AGREXCO to the farmers since they are not authorized to be present during the sorting procedure. The farmers are paid an amount net of commission but are not always aware of the negotiated export price; they have qualified their export operation as profitable because the current marketing arrangement facilitates access to the otherwise difficult and costly air transportation, and prevents the frequent delays and damage to products during inspection and cargo handling. At the same time, this system deprives them of the opportunity to establish an export reputation in foreign markets.

[1]Information based on discussions with representatives from the Ministry of Agriculture in Gaza.

in arranging for the passage of *imports* through Allenby. While import procedures are broadly the same when other crossing points are used, imports through Allenby involve payments of higher fees, such as for coordination and crossing, and different packaging requirements. According to PA officials and UNCTAD (1999), the import procedures may be summarized as follows:

(i) The importer makes a reservation at the Palestinian Ministry of Civil Affairs (PMCA) a week in advance of the arrival of the goods. Typically, about 15–20 trucks are allowed daily for imports under a coordination system that exists between the PMCA and Israeli security.[28] The coordination fee is about US$30 (NIS 120). The importer provides the clearing agent with all the relevant documentation to prepare the customs formalities. In addition, to a copy

[28]In principle, 51 trucks from Jordan are allowed in per day at Allenby. Since trucks are allowed in one at a time, however, the limit is never reached in practice on any given day. However, the composition of trucks allowed daily for exports may change in favor of a larger share of trucks carrying agricultural goods at the height of the agricultural season.

of the invoice and the documents specified in Box 3.3, the documentation must provide information on the truck and driver. As noted earlier, only Israeli agents are permitted to conduct clearing and they must be present throughout the security process, which may last several hours. Palestinian agents are authorized to conduct the forwarding process but because the two tasks are usually done jointly, the Palestinian business people end up paying higher prices for the combined operation (FPCCIA, 1998).

(ii) Once the goods arrive at the Jordanian border and have passed all the Jordanian customs procedures, the Israeli customs will allow the Jordanian driver to cross the bridge. The cargo is then off-loaded by an Israeli company for inspection. After the inspection, the cargo will be reloaded onto a Palestinian or Israeli truck, which will cross the checkpoint for Palestinian customs and tax clearance prior to proceeding to the final destination (UNCTAD, 1999).

Trade Through Other Crossing Points

The procedures followed for customs and security inspection at the Rafah crossing with Egypt are roughly similar to those at Allenby, explained above. They involve the use of an Israeli clearing agent and an Israeli company to prepare the goods for customs and security inspection and load the cargo onto Egyptian trucks. This is followed by Egyptian customs clearance and a security inspection. Imports destined for Gaza are transported directly to the importer while those destined for the West Bank need to go through the transportation and security procedures at the crossing points in Gaza and entry into Israel, which were explained above (UNCTAD, 1999). Rafah is rarely used for exports from the West Bank, mostly due to cost considerations and because of limited trade with Egypt.[29] Trade between the West Bank and Egypt is conducted through the Taba (Nitzana) border crossing point. The use of this crossing avoids the long cargo procedures through Karni and Rafah, which would entail two back-to-back procedures and increase the risk of merchandise damage.

[29]In particular, exports of fresh or perishable products are impractical owing to the risk of damage during the inspection procedures. As in Allenby, the number of trucks allowed to cross Rafah daily is relatively small (13–15) in relation to the number of authorized in principle (about 50).

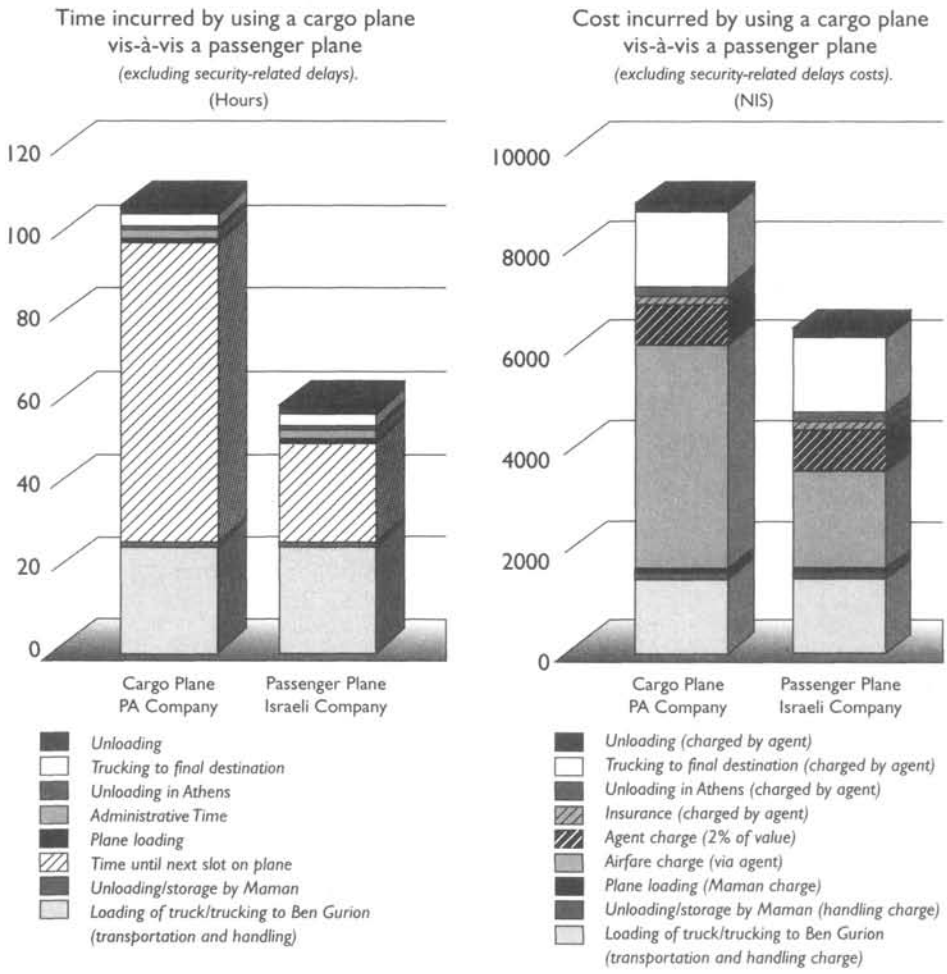
Trading Through Israeli Ports and Airport

The procedures governing trade through Israeli ports and airport explained in this section, which apply to all Palestinian trade, relies on information by the PA Ministry of Economy and Trade and on the FPCCIA study (1998), based on a numerical example comparing the time and cost involved in sending an export shipment from Ramallah to Athens in a passenger plane versus a cargo plane. At the Ben Gurion airport, Palestinian companies unlike Israeli companies are not allowed to transport their goods on passenger planes and must therefore rely on cargo planes. In contrast to passenger planes, cargo planes have less frequent flights and fewer direct destinations and are, consequently, more costly (more than double). In addition, the waiting period to get a slot in the plane is longer for cargo than for passenger planes. For these reasons, the above-mentioned study finds that the overall cost and time differentials, are respectively, 39 percent and over 75 percent higher for a passenger plane than for a cargo plane (Figure 3.1). Given these differentials and the damage that occurs during inspection and cargo handling, producers of Gaza exports of perishable goods, which must be transported by air, find it more effective to use Israeli traders pending an expansion in the administrative and logistic infrastructure of the Gaza airport to facilitate trade (see Box 3.4).

The *Palestinian Export/Import Guide* of the PA Ministry of Economy and Trade (1999) describes the security controls for Palestinian imports at Ben Gurion international airport as follows: security controls take place twice, once when the airplane arrives and again upon conclusion of the clearing process. The goods must, however, remain at the airport for at least 24 hours before the second inspection can be conducted. Electronic detectors are used during the first procedure, but during the second, cases are opened. A payment of about US$30 per hour of labor must be paid by the importer for the second security control, on account of the loading/unloading services provided by a specialized company. According to private sector representatives, security controls take longer for Palestinian trade than for Israeli trade, thus resulting in higher costs.

At the Ashdod and Haifa ports, goods are also subject to the double inspection undertaken at the airport and the importer must also pay the same hourly rate for the second inspection. The study by

Figure 3.1
An Export Shipment to Greece from Ben Gurion Airport



Source: Federation of Palestinian Chambers of Commerce, Industry, and Agriculture, 1998.

the FPCCIA (1998) notes that the level of efficiency in conducting the inspections is, however, superior at Ashdod reflecting better infrastructure (inspection equipment, sheltered parking lots, trained examiners, and other personnel in a sufficient number) that ensures a prompt start of the inspection, a moderate checking policy covering 10–25 percent of the cargo, and the presence of a mediator between the port and PA companies who assists with advice and coordination of truck flows. The study also indicates that at Haifa, nearly all of Palestinian import cargo is checked. In contrast, the modern international customs administration practice of checking between 3 to 5 percent of imports is followed for Israeli trade.

Quantifying Some of the Trade-Related Transaction Costs

The restrictive trade environment described above has imposed costs of varying nature on Palestinian trade, not all of them quantifiable. For example, in an effort to ensure a less interrupted transport of goods, many Palestinian business people have entered into various forms of equity participation in Israeli trucking companies, although the cost of labor in Israel is more expensive than in the West Bank and Gaza. The choice has been based on the net gain arising from both predictability of the time required to process the imported goods and the ability to render exports competitive in a just-in-time de-

livery environment. Not all Palestinian business people, however, have the means or contacts to avail themselves of such arrangements and must either hire Israeli registered vehicles or cope with delays in the trade process.[30] One side effect of using Israeli-registered trucks is that the development of the Palestinian trucking industry is constrained.

The Palestinian private sector also uses Israeli intermediaries and marketing agencies for exports of Gazan perishables to facilitate trade, through lower air transport and distribution costs, and to reduce the risk of merchandise damage. A consequence of this is that Palestinian business people do not acquire familiarity with marketing techniques and forego the possibility of establishing direct export links.

The following sections provide examples of the costs incurred in conducting trade through Allenby and Haifa. The first example is based on discussions with PA officials and private sector representatives and the last two on the study by the FPCCIA (1998). This study concluded on the basis of information gathered on actual transactions, that, on average, the transaction costs (including inland transport) and delays incurred by Palestinian business people when doing business with the rest of the world are, respectively, 30 percent and 45 percent higher than for their Israeli counterparts.

The Costs Arising from Border Procedures for Imports from Jordan via Allenby

It is costly and time consuming to move merchandise through the Allenby bridge mainly because of the security procedures and other restrictions, and fees payable to both the PA and Israel. The complexity of the process is compounded by other factors including, the lack of adequate customs clearing and laboratory facilities, the limited hours of operations, and the absence of bonded customs areas. The costs that arise from the above procedure for an import shipment are shown in Table 3.1 and Figure 3.2.

The fees for crossing the bridge alone are about US$130, to which should be added the costs of delays incurred in the inspection process, the charges for loading/unloading and clearing services, and the frequent damage to the merchandise during the security inspections and handling. For stones, for example, the charges for handling and clearing services (US$150 for a given shipment) are estimated to be three times as high as at Ashdod.[31] As a result, the cost of a shipment of stones from Bethlehem to Tokyo, for example, is virtually the same as the cost of a similar shipment to Amman, while the air distance is more than 100 times longer for Tokyo. In all, the costs, delays, and the risk of damage to the merchandise during the security inspection process render the transport of stone exports through Israel or Sheikh Hussein bridge cheaper, despite the higher fees charged by Israeli trucks.

Table 3.1 Costs Incurred in Transporting and Clearing an Import Shipment from Jordan
(In NIS)

Nature of Costs	
Up to King Hussein Bridge	447
Transport to the King Hussein Bridge (KHB)	380
Clearance formalities at KHB	67
Crossing Allenby Bridge	919
Fees	509
Coordinating fees (PA)	120
Allenby Bridge	
Entry fees (Israel)	141
Entry fees (PA)	128
Usage fees (PA)	120
Off loading/loading charges (pallets) (US$5 each)	380
Bank charges	30
From Allenby to destination	1,300
Clearance formalities after inspection[1]	600
Inland transport	700
Costs from Allenby to destination in the West Bank and Gaza	2,219

Source: Ministry of Economy and Trade.
[1]Depends on the value of the goods.

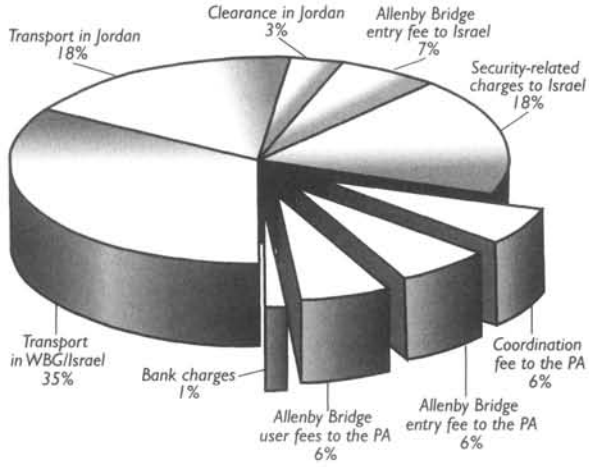
Cost and Delay Differences Between Palestinian and Israeli Businesses Importing Via Haifa

FPCCIA (1998) compares the sources of cost differences and delays that may be incurred by Palestinian and Israeli companies in clearing and deliver-

[30]These delays have often induced importers to stockpile goods at the factory, and on the export side, they have compromised the credibility of the exporter and resulted in contract cancellations. For stones, for example, waiting time by trucks at Allenby of 4–5 hours is not unusual.

[31]Information provided by private sector representatives. According to them, cost effectiveness is also affected by the requirement that trucks carrying Palestinian goods return empty from the bridges.

Figure 3.2
Costs Incurred in Transporting and Clearing an Import Shipment from Jordan



Source: Ministry of Economy and Trade.

ing to its final destination, an identical shipment of raw material from Italy through the Haifa port (see Table 3.2). Four scenarios of increasing costs and delays are considered. At one extreme, the first scenario assumes no surcharge by the clearing agent, no damage to the merchandise and no border closures, and at the other, the fourth scenario assumes the combined presence of all of these factors, including a 10-day closure.

Under the three non-closure scenarios, the time required by Palestinian companies to complete the clearing and delivery process is 50 percent higher than for Israeli companies. This differential is almost entirely due to the time required for the additional security checks, which also lead to payments that Israeli companies do not have to incur; Palestinian companies must hire a clearing agent representative to be present throughout the security checks. Taking into account the fees payable to the agent, the cost differential under the first scenario is 5 percent. The FPCCIA study (1998) mentions that it is not unusual for such agents to demand a surcharge in addition to their fees. Assuming that a surcharge is paid to the agent, as in the second scenario, the cost differential calculated by FPCCIA rises to 9 percent, and further to 15 percent under the third scenario, when merchandise damage equivalent to 1 percent of the sale price is incorporated into the exercise. Finally, under the closure scenario, storage fees alone could result in prohibitive costs driving the price differential up to nearly 600 percent.[32]

Reducing Transaction Costs and Promoting Trade

The preceding sections have illustrated the adverse impact on the Palestinian trade environment and costs of the system of permits, fees, security check procedures, and transport restrictions and regulations. The effects of the closures in late 2000 and early 2001 have been covered in Chapter 1. A key question for the future is how to minimize these costs in general, and those related to security in particular, in a situation where security will remain a concern. And what is the role of the different players involved in the trade process to achieve this objective and improve, in a meaningful and lasting manner, the conditions under which trade takes place?

The first imperative is to allow free movement of goods and people by raising the level of efficiency and effectiveness of security checks. At the same time, the Palestinian economy needs to count on other means of access to third countries and a permanent passage linking the West Bank and Gaza. Also, the administrative infrastructure for trade needs to be improved to render the trade process simpler, more transparent, and predictable. Finally, the Palestinian private sector has recently stressed the need for larger involvement by the PA and private sector associations in promoting trade, and for private firms to pursue strategies geared towards increased competitiveness. These points are developed below.

Reducing Security and Trade-Related Transaction Costs

The question about transaction costs related to security is to increase the efficiency and effectiveness of the inspection methods and techniques so that trade can be conducted uninterrupted. Advanced technology should be adopted to the maximum ex-

[32]The charges vary depending on whether the goods occupy all or part of a container. If an entire container is used, the importer has six days free of storage and demurrage (payments for delays in returning the containers). If there are delays, however, storage is paid starting from the day of arrival of the goods while demurrage is paid starting on the seventh day. If shipments are smaller than a container, one-month free of demurrage and storage charges are allowed. On average, the charges are US$25 per day for a 20-foot container.

Table 3.2 An Import Shipment of Raw Material from Italy Via Haifa: Costs and Delays Incurred by a Palestinian Company Vis-á-Vis an Israeli Company

Value (NIS) = 35,000
Route: Italy-Haifa-Ramallah/Tel Aviv
Weight (tons) = 5
CIF value = 37,140

		Palestinian Company		Israeli Company	
Steps	Costs	Amount (NIS)	Delay (hr.)	Amount (NIS)	Delay (hr.)
Transport/loading Italy	Transportation and handling charge	1,000	48	1,000	48
Shipping Italy/Israel	Sea freight Italy/Israel	2,000	72	2,000	72
	Insurance (0.4% of value)	140		140	
Arrival and unloading in Haifa	Port Fee (1.3% of value)	455	24	455	24
	Stevedoring fee	720		720	
	Tariff	0		0	
	VAT (17% based on CIF value)	6,314		6,314	
Security check	Agent hours for security check	600	72	0	0
Agent fee	1% for PA company 0.6% for Israeli company	360		360	
Loading truck	Workers' services	70	3	70	2
Trucking to final destination	Driver and truck rental	1,500	5	1,500	3
Total: Scenario 1 (impact of security check)		13,159	224	12,559	149
Agent surcharge[1]		540		0	
Total: Scenario 2 (impact of security check and agent surcharge)		13,699	224	12,559	149
Damage	Lost revenue from 1% damage[2]	700		0	
Total: Scenario 3 (impact of security check, agent surcharge and 1% damage)		14,399	224	12,559	149
Storage fee	Total charge for ten days over limit ($25+$0.4/kilo/day)[3]	72,900	504		
Total 4: Scenario 4 (impact of security check, agent surcharge, 1% damage, and 10-day closure)		87,299	728	12,559	149
Percentage difference (basis = Israeli side)					
Scenario 1		5	50		
Scenario 2		9	50		
Scenario 3		15	50		
Scenario 4		595	389		

Source: Federation of Chambers of Commerce (1998), Example 1 (including information provided in the footnotes below).

[1]Some agents openly say they need to charge PA companies more for extra effort; in general anybody poorly informed about the system, tends to get overcharged by agents; the assumed differential is very conservative.

[2]The sales price is assumed to be double the sourcing price

[3]The closure is assumed to result in 10 days of storage costs above free storage limit.

Box 3.5. The Gaza Industrial Estate and Comparative Benchmarking with Competing Export Processing Zones in the Region[1]

The Gaza Industrial Estate (GIE) was established in 1999, under the provisions of the Industrial Estates and industrial Free Zones Law (Law No. 1011998 of 1998), to enhance industrial development and attract local and foreign investment in Gaza. It is managed and operated by a private company: the Palestinian Industrial Estate Development and Management Company (PIEDCO). The GIE external infrastructure was financed through foreign aid, whereas the internal infrastructure (buildings, back-up energy, and water sources) was financed by PIEDCO. Although the GIE is not limited to exporting industries only, it is mainly targeting foreign investors with export potential. Only environmental considerations determine whether an investment is accepted or rejected. As of September 2000, 50 companies had license to operate in the GIE, out of which 38 were actually operating and 12 were still under construction. Of the operating companies, 15 were Israeli. Total employment was about 1,800, mostly Palestinians. PIEDCO plans to construct eight additional industrial estates in the West Bank and Gaza.

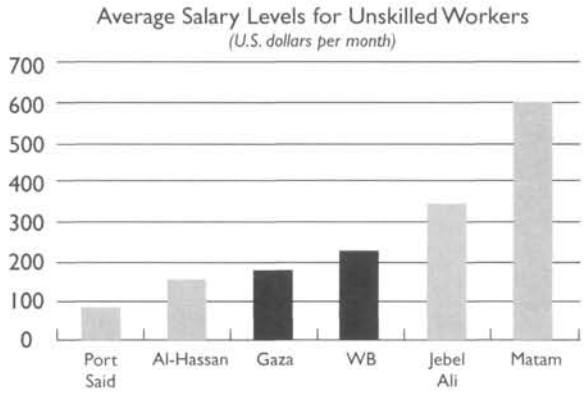
The Services Group, an American based consultancy firm, conducted a study comparing GIE and other possible industrial estates in the West Bank and Gaza with industrial estates in five countries of the region: Jordan (Al-Hassan Industrial Estate, Irbid), Israel (Matam Technology Park, Haifa), United Arab Emirates (Jebel Ali Free Zone, Dubai), Turkey (Aegean Free Zone, near Izmir) and Egypt (Port Said Free Zone). The study concluded that the West Bank and Gaza could be a prominent choice for foreign investors for some niche productions because it offered a number of important comparative advantages.

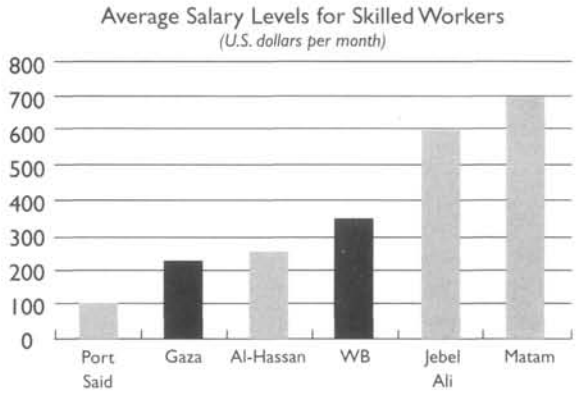
1. Access to foreign export markets. The West Bank and Gaza benefits from a preferential market access to the United States, Europe, and the Middle East region, although it shares this advantage with some of the other competitors. Considering the strong support that the West Bank and Gaza has from the donors community, it is likely that it will continue to benefit from preferential market access regardless of the trade regime that the PA finally adopts..

2. Investment incentives. The investment promotion law grants a general tax exemption of five years, and an additional 3–15 years in industrial estates depending on the importance of the project. Investments in industrial estates also benefit from duty-free privileges for both the fixed investment and spare parts (up to 15 percent of the capital investment). These incentives compare favorably with Jordan, Egypt, and Israel.

3. Skilled labor force. Although Jordan and Egypt have lower labor costs, the Palestinian high-skilled labor force is considered more productive. This is particularly true for engineers where the West Bank and Gaza were found to have the most competitive unit labor costs. For lower-skilled labor, productivity was found to be lower than in Jordan and Egypt.

4. Transportation facilities. From the logistics point of view, the Israeli ports (Haifa and Ashdod) and airports (Ben Gurion), offer the best infrastructure and facilities—currently used for trade in and out of the West Bank and Gaza—in the region. With the exception of Egypt for shipments to New York, sea transport costs from Israel are also the cheapest in the region. In contrast, Israeli air transport is relatively expensive, with prices for air freight





Sources: The Services Group (1999).

Box 3.5 (*Concluded*)

to New York up to 85 percent higher than from Jordan (or 45 percent higher than from Turkey). However, the use of the Israeli seaports is more costly for Palestinians than for Israelis due to security-related delays (see below) and inspection fees; the study finds that the latter add some 5–18 percent to the transport and handling costs. While this infrastructure will remain, additional facilities will be added with the construction of the Gaza seaport and the use of the Gaza airport for freight.

The most important comparative disadvantages of the West Bank and Gaza as an investment place, according to the study, are:

1. Political risk and the cumbersome import and export procedures. Palestinian investment in just-in-time production is rather unattractive due to longer shipment delays caused by security inspections together with higher transport costs. The political risk has become evident during the 1995–96 closures and again with the recent turmoil that erupted in the fall of 2000. In an effort to limit political risk, the Law on Encouragement of Investment Law (Law No. 1 of 1998) guarantees investors against expropriation and nationalization, and guarantees the right to repatriate profits and to transfer ownership.

2. High utility costs. Water is scarce and largely under the control of Israel. Its price is only higher in Jordan. The power infrastructure is of high quality (using Israeli grid), its cost is higher than elsewhere in the region. With respect to telecommunications, the quality is on par with Egypt and Jordan but lower than in Israel, while costs of communication (especially for advanced services and for international calls to the Arab neighbors) is higher than among the competing locations. There is a potential and indeed a need for the West Bank and Gaza to substantially improve both the costs and quality of utilities in order to attract investment.

3. High infrastructure costs. Land and building lease rates as well as those for standard factory shells and office spaces throughout the West Bank and Gaza are relatively high when compared with the region.

In conclusion, and given its comparative advantages, the West Bank and Gaza is most likely to attract investors that produce high quality products for exports using a high proportion of skilled labor and do not rely on rapid transportation by either sea or air (pending substantial improvements in access and clearing procedures). Furthermore, investors would use the West Bank and Gaza' s unique advantage in terms of proximity to the lower cost production centers in Egypt and Jordan, and to Israel with its dynamic and modern industrial base. The study concludes that under these circumstances, the industries that are most promising for the West Bank and Gaza are threefold: light manufacturing industries that could exploit the ties with Israel, such as higher-end apparel manufacturing, finished consumer electronics, and electrical appliances; professional services in the information technology sector; and location-based services related to future cargo operations at Rafah airport.

[1]This box is almost exclusively based on The Services Group (1999 and 2000) studies financed by the USAID.

tent possible. Proposals to this effect are discussed below. As regards other costs incurred in trade, an example of a low cost and quick-to-implement saving measure would be the elimination of passage fees at Allenby, which are not consistent with the quality of the services provided. Currently, a large portion of those fees accrue to the PA, which could eliminate them unilaterally (see Figure 3.2). A proposal by USAID to introduce truck scanner machines (see below) would be grant financed, and if fees are to be charged for maintenance purposes, they are unlikely to be as high as current charges at Allenby.

Cost-Saving Security and Customs Procedures at the Gaza Industrial Estate

The PA and the Israeli government have jointly developed cost-saving customs and security procedures exclusively applicable for the Gaza Industrial Estate (GIE). These procedures have been accompanied by measures by the PA to ease other constraints to private sector investment in the Palestinian economy. Many of the security procedures applied at the GIE could be duplicated in the rest of the West Bank and Gaza.

The GIE was created to provide a better investment environment and competitive incentive framework for promotion of exports (see Box 3.5 for the general characteristics of the GIE and comparative benchmarking with some competing export processing zones). Indeed, in relation to the rest of the economy, the GIE offers more efficient security and customs checks, advanced physical infrastructure, lower key utility prices, streamlined bureaucratic procedures through one-stop shopping for investors, and longer periods of tax reductions than those granted under the Investment Encouragement Law.

The simplification of the customs and security procedures for goods destined for exports (introduced in the summer of 2000), consists of allowing the inspection of outgoing goods to take place directly at the factory in the GIE by customs and security before loading them into containers in the presence of Israeli security. These containers are then sealed and transported without further inspection on an Israeli truck for direct delivery to the ports for export or to the final destination in Israel. Security costs are cut not only because of quicker transport but also because the damage caused to the cargo by the loading/off-loading operations is avoided. In addition, the security fee at Karni for the GIE is being phased out. The shortcoming of this procedure is, however, that it may not always be economical to use an entire container per shipment, in which case the traditional back-to-back system still has to be applied.

The USAID has recently financed a feasibility study for the establishment of a general logistics facility (GLF) serving initially the GIE and subsequently the rest of the Palestinian economy. [33] This facility would include a common warehouse and a container storage yard, and the provision of a range of other services aimed at reducing the inefficiencies and costs of cargo inspection procedures, transport costs, and logistics currently faced particularly by trade in and out of Gaza. Together with the GIE, the future services envisaged by this facility address many of the most salient obstacles for doing business in the West Bank and Gaza. There are plans to establish other industrial estates in the West Bank and Gaza with a view to attracting foreign direct investment in light manufacturing and the services sector. While GIEs can succeed in achieving this objective, their contribution to growth and employment in the West Bank and Gaza is expected to be small. The PA should, therefore, be wary of relying on these estates to attract the investment of the scale required to meet its key objective of absorbing a growing labor force into productive employment while gradually reducing unemployment. Despite the increasing popularity of this type of export processing zone (EPZ), the lessons from experience show mixed results (see Box 3.6) and suggest that they can play a positive role if they are complemented by sound macroeconomic policies and liberalization efforts.

Other Proposals to Reduce Security-Related Costs

Investment in state-of-the-art security equipment would be essential to reduce costs and time. Proposals to use this type of equipment at the GIE as well as in other locations in the West Bank and Gaza are included in USAID-financed feasibility studies for projects under consideration by the PA. Container scanners are being proposed for inspection at the GIE as well as at Allenby Bridge, Rafah, and Tulkarem. The scanning time would be from 2 to 3 minutes per vehicle to which 15 minutes would need to be added for analyzing the results. As noted above, security checks normally take no less than 3–4 hours with varying differences at the various crossing points. The cost of the scanners is approximately US$7 million each and would take three months to construct. Comparable efficiency gains would be obtained through the use of similar equipment capable of a speedy inspection of an entire truck.

Containers and truck scanner techniques would significantly reduce or eliminate the risk of merchandise damage during inspection, because it would not be necessary to unload and reload the goods and also because they would allow the use of better packing material to protect the goods from exposure to sun and heat. Furthermore, many of the security-based regulations could be abolished and there would no longer be a need for trucks to be pooled in convoys, transport goods only in one direction, or observe rigid timetables. In essence, any truck with whatever shipment would be x-rayed each time it entered Israeli territory, regardless of its size and content. The above-cited USAID projects specify that no additional fees would be charged to Palestinian transporters once

[33] See The Services Group (2000). If established, the GLF would allow the payment deferral of import duties on high value import containers and truckloads until clearance, and storage for low value cargoes. Another service would consist of the provision of locations for the storage and consolidation of export cargo and deconsolidation of import cargo, and of office space for shipping companies and forwarders serving the factories in the GIE. The project envisages that once cargo inspection procedures become more efficient, and transport, cargo clearance, and other logistics services are open to competition, the GLF would evolve into a dry port, where shipping lines could issue bills of lading and receive or deliver cargo. With the construction of the Gaza seaport, the role of the installations would change into a more general container freight station supplementing the limited storage capacity at the seaport. The targeted market would initially be cargo transfer in bond between Gaza and either Ashdod or Ben Gurion. Future plans would include extending these services to cargo transferred through the Gaza seaport for the Palestinian economy, and to transit cargo via Gaza through Jordan or Egypt to the Gulf countries.

Box 3.6. Experiences Under Export Processing Zones

Most emerging markets and developing countries have established some form of export platform institutions, including export processing zones (EPZs) or other special economic zones (that is, industrial estates). An EPZ is usually a fenced area for companies specializing in manufacturing exports. These companies benefit from generous and long-term tax incentives, a liberal regulatory environment with less bureaucracy, and better infrastructure than the rest of the country. It is estimated that there exist some 500 EPZs spread across 73 countries (Madani, 1999). The importance of EPZs in promoting export growth and economic development is very much an open question: EPZs exist in fast-growing as well as in slow-growing economies, and it is not clear how significant their contribution has been to export growth in fast-growing economies, for example in Southeast Asia. EPZs, or other forms of economic zones, can attract foreign direct investment (FDI) by providing an environment that is more conducive to investment and economic development than what the economy as a whole can offer, and the economy as a whole can benefit from spillovers of the transfer of technology and know-how. For such spillovers to have a significant impact on economic growth and development more generally, however, it is necessary that they be accompanied by sound macroeconomic policies, open trade policy, improved infrastructure in the economy as a whole, and an adequate legal and regulatory framework. If not, the country is unlikely to experience rapid growth no matter what incentives the EPZ can offer. Based on several new studies (for example, Radelet, 1999; and Madani, 1999), the following lessons can be drawn from international experience:

1. The performance of EPZs depends on the degree of competition companies are exposed to and the general macroeconomic and trade environment. Encouraging experiences with EPZs have been limited to countries where the industrial base already existed and where quality standards of the local economy satisfied the international investors, and even then, the EPZs have only been one part of the overall industrialization policy. Consequently, in parallel with the establishment of an EPZ, governments need to improve investment conditions and initiate economic reforms in the country as a whole (especially, sound and stable monetary and fiscal policies, and clear investment and private property laws), in order to fully benefit from backward linkages with the local industry.

2. Although EPZs often lead to an increase in export earnings, their net effect on foreign earnings is less evident, as a substantial part of profits are typically repatriated to parent companies. Investment in supporting infrastructure financed by governments also usually has a high import component. Due to their often generous tax incentives, moreover, EPZs may simply have the effect of relocating existing companies eager to evade taxes from elsewhere in the country, thus reducing tax revenue and increasing foreign borrowing by the government. Thus, when establishing an EPZ it is recommended that governments adopt moderate income tax rates, avoid expensive investments and subsidies, and opt for private sector finance and management.

3. Technology transfer, learning on the job, and training in new managerial methods occurs only in cases of extensive hiring of local labor and management at all levels. In some cases, however, where production was limited to simple assembling tasks, requiring little or no technical skills, the only benefit in terms of capacity building is work discipline. In countries where property (including intellectual property) rights are not sufficiently protected, multinational companies tend to only produce products with technologies that are in the later stage of their lifespan. Governments can actively promote technology transfer by rigorously protecting property rights.

4. When EPZs are run by the public sector, bureaucracy and red tape tend to remain high. Experience shows that EPZs are more likely to succeed (and attract FDI) if they are privately owned and managed and when government services, such as customs, are streamlined and performed within the zones rather than at the port.

5. Although EPZs have succeeded in creating jobs, in most countries their overall contribution to the total labor market has remained limited. Wages in EPZs, especially for non-primary manufactured exports, are generally higher than in the rest of the economy, as experience has shown that countries with high export growth rates also have consistent increases in manufacturing wages. EPZs are often criticized for their lax labor, work safety, and health and environmental regulations, however, bearing a negative impact on the workers' welfare and on the environment. This appears to be particularly the case in comparison with high standards in the multinational companies' home countries, but compared with the local economy, most large multinational companies often perform better in terms of both salaries and working conditions. Notwithstanding a marked improvement in such standards, partially due to scrutiny by non-governmental pressure groups, governments still need to issue and enforce appropriate labor and environmental regulations.

these machines are in use, probably leading to a significant reduction of the current fees charged at Karni, which mostly reflect the services of the private enterprise involved in handling the goods for inspection and subsequent transfer to the authorized trucks.

A proposal, being considered by the PA, that attempts to shift most of the customs transactions away from the crossing and entry points entails the establishment of Customs Clearing Houses (Jackson, 2000). This proposal was made from the perspective of a possible Israeli-Palestinian free trade agreement under permanent status and in the expectation that the convoy system would be replaced by a modern transit system, such as the one described below. The Customs Clearing Houses would use as a prototype the logistic center concept at the GIE in that they would be situated at relatively short distances from the border inspection points and provided with superior facilities and equipment to conduct the clearance and physical examination of the goods, including the security inspection. Under this system, the functions to be discharged at the border points would be to scrutinize the documentation and cargo seals, as needed, to ensure that the cargo does not enter the market before clearance at the Customs Clearing Houses. Introduction of this system would require a reciprocal agreement of the PA with Israel, Jordan, and Egypt.

Another proposal to reduce damage, delays, and costs incurred by Palestinian cargo at crossings would be the adoption of a transit regime, which would conform with international practice and allow an undisturbed movement of goods across national and international borders. One possibility would be the adoption of the TIR (Transports Internationaux Routiers) regime, which would require a declaration in the form of a carnet to allow TIR-certified Palestinian (sealed) vehicles to transport the goods inspected between the West Bank and Gaza and neighboring countries (Jackson, 2000).[34] Its implementation would require cooperation in the areas of customs among the PA, Israel, Jordan, and Egypt and of security between the PA and Israel.

Consideration could also be given to partially shifting the burden of security to Palestinian business people engaged in trade; they could seek to ensure that their merchandise is security proof and Israeli security could be conducted only randomly. The incentive for the Palestinian enterprise would be set in a way that it would be in its own interest to play by the rules of the game. For example, any slippage could be sanctioned by denying the company any future access to the Israeli territory, which would threaten the company's very existence. Especially entrepreneurs with large fixed investment, a solid reputation and a lucrative business would have much to lose if they misused this trust or let others take advantage of it.

Finally, travel of Palestinians to Israel, be they business people, workers, or tourists, could be facilitated through investment in hand-image reading machines, for example, like those currently used by the United States Immigration Service to facilitate the admission of returning frequent travelers. This equipment has also been recommended in the above-cited feasibility studies.

Improving the Links of the Palestinian Economy with the Rest of the World

The establishment of the Gaza seaport and cargo operations at Gaza airport will greatly improve access to world markets from the West Bank and Gaza. In order for the Palestinian economy to fully benefit from the Gaza seaport and airport, it is necessary that a permanent and cost-effective passage for trade and travel be established between Gaza and the West Bank. It will also be important to invest in road rehabilitation.[35] Sizable investments will be required to ensure that transportation through these ports is logistically reliable and efficient, including of passengers. To this end, it is crucial that a different security system be adopted, entailing more efficiency and significantly lower costs. These systems need to be supported by the development of an up-to-date customs declaration process.

Developing a Customs Administration and Improving Trade and Overland Transport

To further increase efficiency in trade procedures, it will be important for the PA Customs Department to strengthen its technical and administrative capacity to monitor trade compliance with the provisions of the trade system. Under the current trade arrangement, this is mostly done by Israel and the development of the PA's capacity in the area of im-

[34]The TIR Convention of 1975, drawn under the auspices of the United Nations, is also known as the International Transit System.

[35]Most of the main roads that access crossing points are considered to be in fair condition. Overall, however, 50 percent of the roads have been classified by the Ministry of Public Works as being in poor condition. The PA's current budget allocations for road maintenance amount to US$3 million per year, which is less than one-third of the amount required for annual routine and periodic maintenance (UNCTAD, 1999).

port/export processing is limited. The technology adopted by customs for import/export processing should allow it to target high-risk consignments for intensive check, while allowing most of the goods to flow uninterrupted. This could contribute to limiting the transaction costs expected to arise from the introduction of customs borders under a new Israeli-Palestinian free trade agreement (see Chapters 4 and 5). Adoption of this technology should be supported by a high level of integrity at Customs and other branches of the administration involved in the trade process to enforce tax compliance in conformity with the provisions of the trade arrangement. To minimize the risk of corrupt practices, the trade process and system should be transparent, predictable, and simple, entailing reduced red tape for obtaining the documentation required (export authorizations and standard certificates, for example) to conduct trade. The PA Customs could also adopt pre-shipment inspections, pending a strengthening in its administrative capacity to monitor the declared value of imports. Although the fees charged by specialized companies for these services are high, many governments use them to improve tax compliance, usually as a temporary measure pending an improvement in their customs administration capacity. In some countries, importers have opted for assisting the government to pay for the pre-inspection fees, in view of the net efficiency gains derived.

From the perspective of trade with neighboring countries, private sector representatives and UNCTAD (1999) see a role for the PA in seeking a coordinated approach in the area of customs, with a view to facilitating and enhancing trade through reduced inefficiencies and costs. This would include harmonization of customs formalities, streamlined regulations and procedures concerning trade documentation (issuance of certificates of origin, validity of import permits), establishment of customs clearing centers at the crossings, agreements on methods of processing the declaration files, and close coordination and cooperation among the customs offices. It will be critical to establish an information department in the customs office of each of the countries concerned to respond to inquiries about the trade regulations with neighboring countries. Finally, it will be necessary to make the crossing points more efficient by investing in infrastructure and logistic facilities at or near the crossings (laboratories, warehouses, restaurants, banks, post offices, insurance companies, parking, and resting places).

Closely linked to the need to improve customs formalities at the crossing points, is the question of increasing efficiency in overland transportation for trade with neighboring countries. The harmonization of legal and regulatory frameworks consistent with regional and international principles and practices of transportation could ease unnecessary barriers to the movement of goods. An example of cooperation in this regard is the above-cited agreement reached between the PA, Jordan, and Israel over the special trucks for the transport of citrus. Agreements on transportation (and customs inspection) procedures could allow door-to-door delivery of goods and replace the back-to-back transport system. In the case of imports by the PA from Jordan, for example, door-to-door delivery could translate into cheaper imports because of less costly truck services in Jordan and could lower the risk of merchandise damage. The limit on the cargo that trucks are allowed to transport is another area where harmonization would be important. In the case of stones, for example, the cargo limit prevailing in Jordan meets only part of some stone exporters' cargo requirements, with adverse impact on their costs. Finally, governments could sign protocols permitting private transporters to take a more active role in enhancing trade logistics between countries and establishing joint businesses, and coordinating transport activities.

Information-Related Costs and the Role of the Private Sector in Trade Promotion

The Palestinian industrial sector is characterized by small, often family owned or operated businesses, for which obtaining information about export and import markets is very difficult. It also makes it very difficult and costly to keep track of continuously changing regulations that govern trade in the West Bank and Gaza.

The PA is expected to contribute to reducing these costs by, for example, assigning a team of trade experts to facilitate information to the business community in the West Bank and Gaza and contribute to their education about foreign market customers and procedures. Embassies and trade offices overseas could also contribute to trade promotion efforts. These efforts will need, however, to be supplemented by the provision of substantially expanded services by the private organizations, such as the Chambers of Commerce and Trade Associa-

tions, in line with the more active and efficient role played by their counterparts in other countries.

Concluding Remarks

The Palestinian economy presents a uniquely difficult trade environment, characterized by a very high level of transaction costs that inhibit investment and trade expansion. An important factor explaining these high costs, over and above those that are characteristic in developing countries, is the security-related regulations that adversely affect trade with the rest of the world and even within the West Bank and Gaza. Chapter 2 highlighted the need for high and sustained growth over the medium term in order to cope with demographic developments. Given the small size of the economy, trade will have to be a driving force behind such economic growth, and to this end, it is crucial that the high transaction costs be reduced.

There are immediate measures that the PA and Israel can take to reduce transaction costs, irrespective of the future trade arrangement between the two entities. These include the elimination or reduction of various fees and charges related to trade and security checks. It also includes, later on, the adoption of state-of-the-art technology that has been proposed with donor assistance to expedite inspection at the crossing points. Such measures would, however, not be sufficient to encourage a strong and sustained growth in exports. Over the longer term, transaction costs have to be reduced in four areas. First, for better allocation of resources and more efficient production, the Palestinian economy needs direct access to the rest of the world by air and sea. Second, the Gaza Strip and the West Bank must be connected through a passage that will enable the free movement of goods and people. This reform needs to be supported by investment in physical infrastructure (for example, better roads). Third, the efficiency of the trade infrastructure needs to be raised through the adoption of streamlined customs procedures and modern logistical handling of goods, to ensure that the Gaza seaport (once finished) and airport actually reduce transaction costs. Fourth, security checks will need to become more efficient and effective, by adopting the most up-to-date technology and internationally accepted in-transit procedures to ensure speedier processing and minimum damage to goods.

From a regional perspective, there are also several routes to facilitate and expand trade. This will require a collaborative approach, like the one between the PA and Israel as regards security and customs procedures in the Gaza Industrial Estate. Similarly, an agreement between the PA, Israel, and Jordan as regards inland transport has facilitated Palestinian citrus exports to Jordan.

Undoubtedly, achievement of the above goals presents important challenges. As discussed in this chapter, however, there are realistic ways as to how these objectives can be met. A substantial reduction in transaction costs would be a pillar—together with other efforts that the PA is currently undertaking in liberalizing and developing its economy—in promoting strong export growth to improve the living standards in the West Bank and Gaza.

Palestinian Trade: Performance, Prospects, and Policy

Geoffrey J. Bannister and Ulric Erickson von Allmen

Openness to foreign trade is probably the single most important factor in supporting the growth and development of a small economy like the West Bank and Gaza. One implication of this proposition, which is supported by a large amount of empirical research, is that the future trade regime of the Palestinian Authority (PA) is one of the policy decisions that will have the most far-reaching implications for the Palestinian economy's prospects to grow and prosper.[1]

To set the stage for a discussion of the trade policy options for the PA, trade flows between the Palestinian economy and the rest of the world are examined. They are then compared with those predicted by a gravity model to gauge the potential for trade expansion under a new trade regime. When predicted trade flows are analyzed, results similar to other gravity models that analyze Palestinian trade are found. The Palestinian economy trades more with Israel and less with the rest of the world than would be expected. When these results are checked carefully, however, by introducing dummy variables for trade between Israel and the West Bank and Gaza and for trade between the West Bank and Gaza and the rest of the world, we find a more nuanced result: the Palestinian economy does not overtrade with Israel, but does significantly undertrade with the rest of the world. This is taken to mean that there is great potential to increase Palestinian trade with the rest of the world without substantially reducing its trade with Israel.[2] Thus, there is potential for an overall increase of trade in the Palestinian economy that could significantly increase welfare and economic growth.

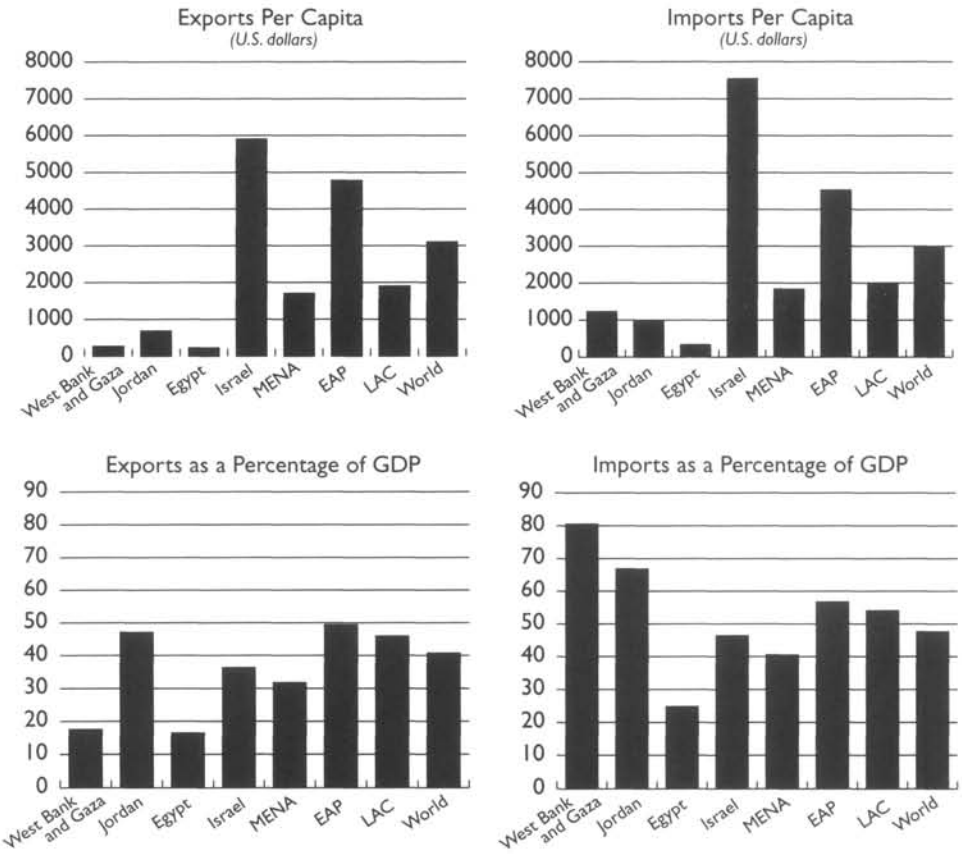
The realization of this potential, however, depends crucially on the type of trade policy implemented by an independent West Bank and Gaza, and the extent to which the current restrictions on trade are eased. Later in the chapter, the current state of Palestinian trade policy is reviewed and then options for the future are examined. We make a case for the PA to adopt a trade regime with a low, uniform tariff across all products, with no quotas or trade monopolies.[3] It is further argued that free trade agreements should be limited to major markets and that a plethora of bilateral free trade agreements should be avoided. With respect to the future trade arrangement with Israel, which is likely to remain a key economic partner for the Palestinian economy in the foreseeable future, the chapter underscores the need to minimize transaction costs that the establishment of a customs border between the two entities inevitably would entail.

[1]See, for example, Barro and Sala-i-Martin (1995), Frankel and Romer (1999), and Sachs and Warner (1995b and 1997). Rodriguez and Rodrik (1999) offer some skeptical observations on the causal link between trade and growth.

[2]Given that some trade enters the Palestinian economy from the rest of the world through Israel it might appear as if some trade diversion were taking place, but even in this case, direct trade with the rest of the world, as opposed to trade through Israel, might be a more efficient outcome for the Palestinian economy.

[3]Astrup and Dessus (2000), in a study of trade options for the West Bank and Gaza, argue against a continuation of the customs union with Israel in favor of a most-favored-nation (MFN) trade relationship between the two economies.

Figure 4.1
Comparison of Exports and Imports, 1999[1]



Source: IMF, *World Economic Outlook*; Palestinian Central Bureau of Statistics; and IMF staff estimates.
[1]Goods and services.

Trade Performance and Prospects

Some Data on Trade Performance

It is difficult to establish with certainty past Palestinian trade performance because of weak trade statistics. Existing data from the Palestinian Central Bureau of Statistics (PCBS) and IMF staff estimates suggest that exports of goods and services in 1999 (about US$740 million, 18 percent of GDP) were more than 60 percent higher than in 1994, and imports (at US$3.4 billion) were almost 140 percent higher.[4] The implicit growth rates are high by any standard. By contrast, if trade performance is examined over a longer period of time—piecing together data from various sources—exports in 1999 were about the same as in 1980 in dollar terms but only a third of the 1980 level when expressed as a percentage of GDP.[5] The decline in exports in the early 1990s, and the low level since then, are in large part due to the establishment of the recondite system of permits, inspections, and transportation procedures, as well as border closures, imposed by Israel for its security (see Chapter 3). Palestinian exports are currently low compared with other countries and regions. For example, the value of exports per capita is about half of that in Jordan (Figure 4.1).

[4]Data from the PCBS show that more than 75 percent of Palestinian goods imports come from Israel while almost all (96 percent) of Palestinian goods exports go to Israel. The dependency is exaggerated, however, since the data include goods from other countries that are imported (exported) via Israel to (from) the West Bank and Gaza. At the same time, to the extent that there is unrecorded trade, it is safe to assume that it is mostly with Israel.

[5]The data before 1994 come from the World Bank (1993), volume 2, Tables 1 and 10 (based on Israeli Central Bureau of Statistics), and for 1994 and onward they are IMF staff estimates based on data from the PCBS.

Table 4.1 Palestinian Exports and Imports, 1980–99

	1980	1985	1987	1991	1994	1995	1996	1997	1998	1999
Exports of goods and services										
in millions of U.S. dollars	757	682	1,163	1,042	456	611	653	661	730	740
as a percentage of GDP	58	67	53	49	13	17	18	17	19	18
Imports of goods and services										
in millions of U.S. dollars	894	894	1,371	1,500	1,433	2,089	2,509	2,735	3,169	3,398
as a percentage of GDP	69	88	63	70	42	58	69	71	81	81
Memorandum items:										
Net factor income from abroad										
in millions of U.S. dollars	148	359	314	715	575	535	469	606	828	903
as a percentage of GDP	11	35	14	33	17	15	13	16	21	21
The sum of exports and net factor income										
in millions of U.S. dollars	905	1,040	1,477	1,757	1,031	1,146	1,122	1,266	1,558	1,643
as a percentage of GDP	70	103	67	82	30	32	31	33	40	39

Sources: For 1980–91, World Bank (1993), Volume 2, Tables 1 and 10. For other years, IMF staff estimates based on data from the Palestinian Central Bureau of Statistics.

Imports of goods and services currently equal approximately 80 percent of GDP—a high level by international standards but similar to the level recorded for the West Bank and Gaza in 1985 (Table 4.1). Figure 4.1 shows that the average for most regions in the world, as well as for transition and developing country groupings, lies at about 35–50 percent of GDP. The high level of imports and low level of exports is a reflection of the particular circumstances of the West Bank and Gaza, which relies on labor income from Israel and the settlements and, more recently, on substantial inflows of foreign aid disbursements. To some extent, labor income from Israel (20 percent of GDP) substitutes for exports (factor trade versus goods trade) and, together with foreign aid disbursements (13 percent of GDP), supports domestic expenditure significantly in excess of domestic production.

Results from the Gravity Model

A gravity model is estimated to examine the potential trade flows for the West Bank and Gaza and to shed some light on the effects of existing tariff and nontariff barriers. The gravity model has been found to be a particularly good predictor of trade flows (Frankel, 1997) and is consistent with theoretical models that explain the pattern of trade based on factor proportions, patterns of demand, and product differentiation.[6] In its simplest form, the gravity model predicts bilateral trade flows on the basis of the economic size (GDP) of two countries and the distance between them. Trade is assumed to depend positively on the size of the two economies and negatively on the distance. In addition to GDP in the reporting and partner countries and the distance between them (LGDPPART, LGDPREP, LDISTANCE, respectively in our model), variables for the size of the population, language, trade restrictions, transportation costs, the existence of a border between the trading partners, and membership in regional trade arrangements are also included. Box 4.1 provides sources of data and a list of the variables used in the model, as well as an explanation of the model. Population is included on the premise that poorer countries (in terms of GDP per capita) trade less than richer countries. Given that the model already controls for the level of GDP as a separate variable, population would be expected to be negatively related to trade flows. The language variable is included to cover cultural proximity, assuming countries that speak the same language trade more with each other than countries that do not. Trade restrictions (tariffs, nontariff barriers) and transportation costs lower trade, all else being equal, and the border variable is included to capture the fact that a country tends to trade more with its neighbors than with other countries. One reason is that the infra-

[6]For theoretical discussions of the gravity model, see, for example, Anderson (1979), Helpman and Krugman (1989), Helpman (1987), and Feenstra, Markusen, and Rose (2000). Recent applications of the gravity model to the middle east region include Al-Atrash and Yousef (2000) and Blavy (2000).

Box 4.1. The Gravity Model

The standard gravity equation is given by:

$$T_{ij} = \alpha_o Y_i^{\alpha_1} Y_j^{\alpha_2} N_i^{\alpha_3} N_j^{\alpha_4} D_{ij}^{\alpha_5} A_{ij}^{\alpha_6} e_{ij}, \quad (1)$$

where T_{ij} is the flow of trade between country i and j, Y_i and Y_j are the GDP of countries i and j, N_i and N_j are the populations of countries i and j, D_{ij} is the linear distance between countries i and j, A_{ij} includes other factors that influence trade, and e_{ij} is a log normally distributed error term. The equation is estimated by taking the logs and expressing it in linear form:

$$t_{ij} = \alpha_o + \alpha_1 y_i + \alpha_2 y_j + \alpha_3 n_i + \alpha_4 n_i + \alpha_5 d_{ij} + \sum_i^n \beta_i \, Region_{ij} + \sum_i^n \chi_i \, Language_{ij} + \delta_1 \, Border_{ij} + \delta_2 \, Tariff_i + \delta_3 \, CIFi + \delta_4 \, REPLL_i + e_{ij} \quad (2)$$

$Region_{ij}$ is a series of dummy variables that take the value of 1 if countries *i* and *j* belong to preferential trading arrangements, including AMU, ASEAN, EU, and the GCC. $Language_{ij}$ is a series of dummy variables that take the value of 1 if countries *i* and *j* share the same language (English, French, or Arabic), and can be considered a proxy for cultural similarity. $Tariff_i$ is the simple average MFN tariff of the reporting country; CIF_i is the ratio of the value of imports CIF to FOB of the reporting country, which is a measure of transportation and transaction costs exclusive of tariffs; and $REPLL_i$ is a dummy variable that takes the value of 1 if the reporting country is landlocked.

A common problem with the estimation of gravity models is the loss of data points when the data is transformed into logs for those pairs of countries where recorded trade is zero. The assumption is adopted in this case that the underlying value of the log of trade will be a large negative number, but the observed value is zero. This effectively results in censored data on the value of trade.[1] Estimation using ordinary least squares (OLS) will result in biased estimators. Accordingly, the gravity equation is estimated using a censored regression model (TOBIT).

The data used include economic variables for, and bilateral trade between, 64 countries, taken from Al-Atrash and Yousef (2000) and augmented to include Israel and the West Bank and Gaza. In addition to Israel and the West Bank and Gaza, the data set consists of 18 Arab countries and 43 other countries that represent over 90 percent of trade with the Middle East. For most of the sample, the data represent the average of values for 1995–97 to smooth out any yearly anomalies. Distance is measured as the direct distance between capitals.

[1]See Frankel (1997).

Explanation of Variables

LGDPPART	Log of GDP partner country
LGDPREP	Log of GDP reporter country
LPOPPART	Log of population in partner country
LPOPREP	Log of population reporter country
LDISTANCE	Log of distance
AMU	Arab Monetary Union
ASEAN	ASEAN
EU	European Union
GCC	Gulf Cooperation Council
ARABIC	Language-Arabic
ENGLISH	Language-English
FRENCH	Language-French
BORDER	Border
TARPART	Trade restrictiveness of partner country
TARREP	Trade restrictiveness of reporter country
CIFPART	CIF partner country
CIFREP	CIF reporter country
REPLL	Landlocked
WBGSISR	WBGS-Israel dummy
WBGSROW	WBGS-rest of the world dummy

Sources of data: IMF, International Financial Statistics, IMF, World Economic Outlook database, the IMF's database on trade policy restrictiveness, and IMF staff estimates.

Table 4.2 Results from the Gravity Model Regressions—Base Run

	Dependent Variable			
	Imports		Exports	
Variable	Coefficient	Standard Errors	Coefficient	Standard Errors
Constant	1.99	0.35*	2.39	0.36*
LGDPPART	1.01	0.02*	0.84	0.03*
LGDPREP	0.83	0.03*	0.99	0.03*
LPOPPART	0.07	0.03*	0.02	0.03
LPOPREP	0.02	0.03	0.06	0.03*
LDISTANCE	–0.80	0.04*	–0.84	0.04*
AMU	0.14	0.43	0.18	0.44
ASEAN	1.68	0.36*	1.68	0.36*
EU	0.23	0.15	0.30	0.15*
GCC	–0.21	0.35	–0.17	0.35
ARABIC	0.54	0.12*	0.52	0.12*
ENGLISH	1.13	0.12*	1.20	0.12*
FRENCH	0.90	0.21*	1.03	0.21*
BORDER	0.98	0.17*	0.80	0.17*
TARPART	–0.03	0.00*	–0.01	0.00*
TARREP	–0.02	0.00*	–0.04	0.00*
CIFPART	0.01	0.00*	–0.01	0.00*
CIFREP	0.00	0.00	0.01	0.00*
REPLL	–0.43	0.09*	–0.22	0.09*
Adjusted R^2	0.70		0.69	
Standard Error	1.76		1.79	
Observations	4,032		4,032	

Sources: IMF staff estimates based on data from IMF, *International Financial Statistics*, IMF, *World Economic Outlook* database, the IMF's database on trade policy restrictiveness, and IMF *Direction of Trade Statistics*.

* = indicates that the coefficient is significantly different from zero at the 5 percent confidence level.

** = indicates that the coefficient is significantly different from zero at the 10 percent confidence level.

structure and transportation networks typically are better integrated between countries that share a border.[7] A dummy variable (REPLL) is also included to capture whether the country is landlocked. Direct access to a seaport has been found to be significant in explaining differences in economic growth across countries; landlocked countries tend to grow slower (for example, Gallup, Sachs, and Mellinger, 1999). This variable is relevant to the case of the West Bank and Gaza, since Palestinian exporters and importers today have to use ports in Israel. Finally, dummy variables are included to capture the effects on bilateral trade from belonging to a regional trading arrangement.

Table 4.2 shows the results using exports and imports respectively as dependent variables.[8] Most of the coefficients have the "right" signs and conform well to what would be expected from gravity equations. The adjusted R^2 is 0.7, which is respectable. The coefficients on the log GDP of both reporters and partners in trade are positive and significant. The variable for distance is negative and significant, also as expected. Contrary to what would be expected, however, the coefficient on the population size is positive and significant for the reporter when exports are the dependent variable and for the partner when imports are the dependent variable. The dummy variables for regional trading arrangements are not significant, except for the ASEAN region. At first this seems surprising, although it is in line

[7]Another is that, irrespective of distance between economic centers, countries that share borders will interact more with each other than those that do not. For example, while the economic centers of the United States and Mexico are quite far apart geographically, and while they have different languages and cultures, the border between them is one of the most economically active areas in the world and includes a significant amount of cross-border regional and local trade.

[8]We chose to focus on imports and exports separately, rather than the sum of the two, since we expect the effect to be different in each case. Also, when we ran the regression with the sum of exports and imports, it added little value. We focus only on goods trade; no data are available on the direction of trade in services.

with the findings in other studies (for example, Al-Atrash and Yousef, 2000; and Hamilton and Winters, 1992). One possible interpretation is that the intensity of trade between members of geographic arrangements other than the ASEAN is already well explained by their size, their populations, proximity to each other, cultural similarities, lack of trade barriers, and transport costs.[9] The language variables are significant and positive in all runs. The existence of a border is positive and significant, and the existence of high tariff barriers for the reporter and partner country are significant and negative. The transportation costs for reporter and partner are significant in explaining exports, though only partner's costs are significant for imports. Finally, the dummy variable for landlocked status of the reporting country is significant and negative for both dependent variables.

Predicted Versus Actual Flows

The gravity model has been used in a number of studies to predict trade flows between Israel and the West Bank and Gaza (World Bank, 1993; Arnon, Spivak, and Weinblatt, 1996; and Arnon, Luski, Spivak, and Weinblatt, 1997). These studies compare actual trade flows with those predicted by the model. They view actual trade patterns as influenced by the many distortions found in the Palestinian and Israeli economies and predict trade patterns as those that would exist if these distortions are removed. By comparing actual and predicted trade patterns they attempt to measure the effects of the distortions on trade.

This approach seems intuitive, but there are some significant problems with using predicted trade flows from the gravity model. First, the predictions do not represent trade patterns that would exist under a free trade equilibrium. They are predictions of what the Palestinian economy's trade would look like if it behaved, on average, like other economies in the sample, given the level of GDP, distance to trading partners, population, trade restrictions, and other factors that affect trade between the Palestinian economy and its trading partners. Thus, the predictions include the trade restrictions and distortions that can be captured in the model.

Second, since the predictions do not refer to a less distorted trade equilibrium, they do not provide information about possible trade creation and trade diversion effects. Trade creation and trade diversion occur when, as a result of the removal of trade barriers to a subset of a country's trading partners, that country expands its trade with the rest of the world (trade creation) or diverts existing trade from one supplier to another (trade diversion).[10] Since predictions of trade flows from the gravity model do not compare two trade equilibria where trade distortions are removed, and since they do not result from calculations that include parameters for the price elasticity of demand for imports or the substitutability of imports from different sources, they cannot be used to make statements about trade creation and trade diversion.[11]

Finally, and perhaps most important, looking at the predicted levels of trade from the gravity model does not allow assessment of the statistical significance of the results. It is not possible to attach any level of confidence or probability to the result that the Palestinian economy over- or undertrades with any of its partners from looking at predicted trade flows, since these are point estimates. To look at the statistical significance of bilateral trade flows it is necessary to introduce dummy variables that allow an assessment of the statistical importance of these trade flows in the context of all bilateral trade flows in the sample. This exercise is performed in the next section.

With these caveats in mind, the comparison of actual and predicted trade flows from the model, presented in Table 4.3, can be used to discuss some interesting features of trade of the Palestinian economy. The first result of the model is that the Palestinian economy should trade considerably less than it actually does. Specifically, the model predicts imports to be significantly lower and exports to be slightly higher than is currently the case, a finding that is consistent with results of other studies mentioned above. Three characteristics of the Palestinian economy can explain most of this result. First, the model only considers goods trade; trade in services and factor income are ignored. As mentioned above, Palestinian labor income from Israel and the settlements (factor trade) can be considered a substitute for exports (goods trade), a feature that becomes increasingly important in the presence of impediments to world markets for goods exports. Labor in-

[9]This is consistent with the Krugman-Summers claim that most of trade can be explained by geographic proximity, see Frankel (1997).

[10]The concept of trade creation and trade diversion was originally developed in the context of the establishment of a customs union (see Viner, 1950). For a good explanation of the concept see Panagariya, 2000.

[11]On this point see Hamilton and Winters (1992), p. 89.

Table 4.3 Actual Versus Predicted Palestinian Trade Flows
(In millions of U.S. dollars)

	Actual		Predicted		Difference	
	Exports	Imports	Exports	Imports	Exports	Imports
Partner country						
The world	358.8	2,061.2	423.5	1,165.6	64.8	–895.6
Israel	338.8	1,773.3	135.6	220.9	–203.2	–1,552.4
Rest of the world	20.0	288.0	288.0	944.7	268.0	656.7
Of which						
United States	0.3	23.6	32.7	204.3	32.4	180.8
European Union	0.5	156.3	119.0	440.8	118.5	284.5
Of which						
France	0.0	17.8	17.7	72.2	17.7	54.4
Germany	0.0	13.6	26.0	129.5	25.9	115.8
Italy	0.1	51.8	22.1	72.0	22.0	20.1
United Kingdom	0.2	18.1	13.9	63.4	13.7	45.3
Japan	0.0	4.9	19.5	80.7	19.5	75.9
Egypt	0.0	24.7	20.2	28.2	20.2	3.4
Jordan	16.2	15.0	15.6	14.1	–0.6	–0.9
Saudi Arabia	1.4	0.0	7.4	14.2	6.0	14.2
Other	1.4	63.5	73.4	162.4	72.0	98.9

Sources: Palestinian Central Bureau of Statistics (PCBS), and IMF staff estimates based on data from PCBS, IMF, *International Financial Statistics*, IMF, *World Economic Outlook* database, and the IMF's database on trade policy restrictiveness. Actual trade data refer to 1998. Goods trade only.

come from Israel, which amounted to US$725 million in 1998, also helps sustain a higher level of Palestinian imports, after controlling for the level of GDP and the other variables in the model.[12] A second, and complementary, explanation is the importance of foreign aid. The West Bank and Gaza is one of the largest recipients of foreign aid, both as a percentage of gross national income (GNI) and on a per capita basis.[13] In 1998, the total inflow of foreign aid was estimated at US$590 million. After taking into account all the variables in the model, it is clear that foreign aid can help raise the level of imports in an economy that otherwise lacks access to foreign capital.[14] Finally, a third, and complimentary, explanation for the level of imports relates to the importance of private transfers for the Palestinian economy. There is no hard data available on the size of transfers from the Palestinian diaspora to the West Bank and Gaza, but they are generally considered to be very substantial. Such transfers allow a higher level of imports than would otherwise be possible.

The second result of the comparison of actual and predicted trade flows is the prediction for bilateral trade flows. The model indicates that the trade relationship of the West Bank and Gaza with Israel is much more intense than would be expected, with actual exports and especially imports considerably higher than predicted values. Indeed, the higher than predicted imports from Israel more than account for the higher than predicted overall imports. The level of imports is almost certainly overstated, though, since a large part of Palestinian imports from other countries are shipped through Israel but are treated as having Israeli origin. (The same applies, but to a more limited extent, to exports.) The level of transshipments through Israel is difficult to measure, however, so it is impossible to tell by how much this trade is overstated in the data, and the reader should keep this caveat in mind when interpreting the results. It is well known, though, that the bulk of Palestinian imports do have Israeli origin.

[12]At the same time, the role of factor income should not be overstated since the sum of exports and factor income has declined considerably over the past 15 years as a share of GDP (Table 4.1).

[13]Chapter 5 of the IMF study in Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999) showed that, in 1994–96, foreign aid disbursements to the West Bank and Gaza amounted to about US$200 per capita, compared with around US$25 in sub-Saharan Africa. Only Israel received more foreign aid during this period on a per capita basis.

[14]If foreign aid causes an increase in the price of nontraded goods and services it might also adversely affect exports (the Dutch disease effect), unless the foreign aid also helps raise productivity in the traded sector that offsets the negative effect in competitiveness.

One interpretation of the model's result is that the Palestinian and Israeli economies are integrated to a much higher degree than would be expected from countries that have effective borders between them and are independent. In the regressions, a dummy variable is included for the border to capture the many synergies and increased interactions that take place between countries that share a border. Nevertheless, compared with doing business domestically (or in a well functioning customs union) the presence of a border is a barrier to trade. For example, estimates based on gravity models show that Canadian provinces along the U.S. border trade more among themselves than with the neighboring states in the United States, and the same is true for the states within the United States (see for example, McCallum, 1995). The absence of a physical (or customs) border between the West Bank and Gaza and Israel (although the two are adjacent) can help explain some of the apparent overtrade between the two economies.[15] In addition, the West Bank and Gaza and Israel share the same currency and the same trade regime. The transportation infrastructure (roads) is also closely integrated, all factors that could explain the higher than predicted bilateral trade.[16]

The current high level of trade between the two economies may also be due to trade diversion caused by the complex system of permits, security checks, and transportation procedures, which are more cumbersome for Palestinian exports and imports with trading partners other than Israel, and by the lack of direct access to world markets. The transaction costs that these restrictions create, discussed at length in Chapter 3, make trade with the rest of the world very expensive and can be expected to divert some trade toward Israel.[17] In addition, despite being on the coast, the West Bank and Gaza is considered landlocked, since it has to rely on Israel's seaports and airport for exports and imports. Under normal security conditions this should not be much of a problem. Indeed, it would probably make more sense for the West Bank and Gaza to use existing—and very close—port facilities in Israel (in Ashdod and Haifa) rather than build its own. Because of the various restrictions and permit requirements that have been put in place, however, Palestinian traders do not have unimpeded and predictable access to world markets and the Palestinian economy is essentially landlocked. The regression results show that being landlocked significantly reduces overall trade, and the growth regressions in Chapter 2 showed that landlocked economies tend to experience slower growth in per capita GDP.

In sum, the results from the model suggest that there is considerable potential for trade expansion with the rest of the world, both on the import and on the export side, especially with industrial countries such as the United States and the European Union (EU), which is not surprising given their size (Table 4.3). But, there is also scope for more trade with Arab neighbors, especially Egypt. It is interesting to note that the predicted levels of trade with Jordan are very close to the actual levels, suggesting that there is not much scope for trade expansion there, under prevailing trade regimes. The latter is an important qualification—if trade restrictions in Jordan and the West Bank and Gaza were put to zero, the model suggests that exports and imports between the two economies could be about 60 percent higher than they are today. As indicated above, it is difficult to know how much confidence we can have in these results, so the next section attempts to examine the statistical validity of these results by introducing dummy variables into the gravity model equation that control for trade between the Palestinian economy and Israel, and the Palestinian economy and the rest of the world.

Does the West Bank and Gaza Overtrade with Israel?

To examine the issue of whether the West Bank and Gaza overtrades with Israel or undertrades with the rest of the world, the approach used in a number of recent studies is followed and dummy variables are inserted for trade between two or more partners. A positive and significant coefficient on the dummy variable would indicate that the partners in the group trade more with each other than would be expected from the model given their level of GDP, distance, and other explanatory variables. A negative and significant coefficient would indicate the opposite. If the coefficient is not significant (that is, not

[15]Nevertheless, trade from the West Bank and Gaza is subject to considerable transactions costs and in that (economic) sense, there is a border with Israel, but it is clear that this border is considerably less restrictive, for Palestinian traders, than the border to the rest of the world, which includes a customs border.

[16]Rose (2000) finds that countries that share a common currency tend to trade three times more than they would otherwise.

[17]Furthermore, the absence of banking services in the West Bank and Gaza until 1994 meant that Palestinian merchants had to rely on their Israeli counterparts for formal and informal trade credit facilities, thus creating close ties with the Israeli economy.

Table 4.4 Results from the Gravity Model Regressions with Dummies for Palestinian Trade with Israel and the Rest of the World

	Dependent Variable			
	Imports		Exports	
Variable	Coefficient	Standard Errors	Coefficient	Standard Errors
Constant	2.23	0.35*	2.63	0.35*
LGDPPART	0.98	0.02*	0.81	0.03*
LGDPREP	0.81	0.03*	0.98	0.03*
LPOPPART	0.08	0.03*	0.04	0.03
LPOPREP	0.03	0.03	0.07	0.03*
LDISTANCE	–0.80	0.04*	–0.85	0.04*
AMU	0.08	0.42	0.12	0.43
ASEAN	1.66	0.36*	1.66	0.36*
EU	0.22	0.15	0.30	0.15**
GCC	–0.38	0.35	–0.35	0.35
ARABIC	0.69	0.12*	0.67	0.12*
ENGLISH	1.12	0.12*	1.20	0.12*
FRENCH	0.80	0.21*	0.93	0.21*
BORDER	0.92	0.17*	0.74	0.17*
TARPART	–0.03	0.00*	–0.02	0.00*
TARREP	–0.02	0.00*	–0.04	0.00*
CIFPART	0.01	0.00*	–0.01	0.00*
CIFREP	–0.01	0.00*	0.01	0.00*
REPLL	–0.27	0.09*	–0.06	0.09
WBGISR	1.45	1.25	1.36	1.27
WBGROW	–1.51	0.17*	–1.59	0.17*
Adjusted R^2	0.71		0.70	
Standard Error	1.75		1.77	
Observations	4,032		4,032	

Sources: IMF staff estimates based on data from the PCBS, IMF, *International Financial Statistics*, IMF, *World Economic Outlook* database, the IMF's database on trade policy restrictiveness and IMF *Direction of Trade Statistics*. Goods trade only.

* = indicates that the coefficient is significantly different from zero at the 5 percent confidence level.

** = indicates that the coefficient is significantly different from zero at the 10 percent confidence level.

statistically different from zero), it indicates that the trading partners do not trade with each other more or less than would be expected in the model. [18]

The results of the exercise are presented in Table 4.4. A dummy variable was introduced with the value of 1 for trade between the West Bank and Gaza and Israel and zero elsewhere (WBGISR). Another dummy variable was introduced with the value of 1 for trade between the West Bank and Gaza and all other partners except Israel (WBGROW). While the coefficients on WBGISR are positive (suggesting overtrade) they are not statistically significant. Thus, when bilateral trade between the West Bank and Gaza and Israel is examined in the context of bilateral trade of all other countries in the sample, no support can be found for the hypothesis that they overtrade with each other. Put differently, no significant evidence is found that trade between Israel and the West Bank and Gaza is higher than what we might expect on average given their proximity, GDP, population, and other variables. In fact, to the extent that the actual bilateral trade flows are overrecorded, the two economies may actually undertrade with each other. This result contradicts the earlier conclusion from the difference between predicted trade and actual trade.

On the other hand, the coefficients on the dummy variable for trade between the West Bank and Gaza and the rest of the world (WBGROW) are negative and statistically significant (as indicated by the asterisk) in all the equations. Thus, there is evidence that the West Bank and Gaza undertrades with the rest of the world, both on imports and ex-

[18]Frankel (1997), Coe and Hoffmaister (1998), Al-Atrash and Yousef (2000), and Subramanian and Tamirisa (2001). As mentioned above, the power of using this approach is that it allows for a statistical evaluation of the results.

ports. According to the magnitudes of the coefficients, Palestinian exports to the rest of the world are almost 80 percent below what would be expected from a country with the characteristics of the Palestinian economy.[19] This suggests that there is significant scope for higher trade between the West Bank and Gaza and the rest of the world.

Trade Prospects

The previous sections indicated that there is considerable scope for higher Palestinian exports, especially to the EU and the United States. But what products could the West Bank and Gaza export? And what are the policies needed to support growth in the tradable sector? It is beyond the purpose of this chapter to assess the comparative advantage of the Palestinian economy, and Chapter 2 discusses the factors that are important for long-term economic growth—many of which relate directly to trade (for example, reduced uncertainty and output volatility, a simple, open trade regime, return of infrastructure, legal and regulatory framework, and appropriate macroeconomic policies). We would note, though, that the potential for trade is easily underestimated when making export projections, since the current production structure and export base are usually assumed to remain unchanged, and elasticities are applied to the existing set of goods that a country exports (Romer, 1994). Policy reforms and other significant changes to the Palestinian business environment can release forces that accelerate inventions and the adoption of innovations of new goods and services. Reforms and investments in technology that make trade flows more predictable and less costly (see Chapter 3) might very well set in motion a complete transformation of the goods and services produced and exported by the Palestinian economy, changing its comparative advantage.

The West Bank and Gaza's small natural resource endowment is not necessarily an important constraint for long-term growth and development, although it can be important in the short run.[20] A somewhat surprising, but common, finding in empirical studies is that countries rich in resources tend to grow more slowly than other countries, all else being equal.[21]

The gravity model focused on merchandise trade, but the West Bank and Gaza might also see important growth in the export of services. For example, tourism has expanded rapidly in recent years, and although the turmoil since late 2000 dealt a severe blow to the tourism industry, once the political situation improves, it should be a sector with considerable potential for growth. Furthermore, recent background studies (see below) for industrial estates argue that the West Bank and Gaza might have a comparative advantage in the provision of some services in the region, for example call centers for technical support and software conversion and customization.

The background studies for the establishment of industrial estates in the West Bank and Gaza suggested activities that could be successful in attracting foreign direct investment (see Chapter 3 for a more detailed discussion of industrial estates).[22] The study compared access to world markets, political risk, investment environment (including taxation and investment incentives), human resources, transportation facilities, utilities, telecommunications, and access to capital in the planned industrial estates in the West Bank and Gaza with industrial estates elsewhere in the region. The study found that factor costs are relatively high in the West Bank and Gaza, but productivity was also higher than in Egypt, Jordan, and Turkey. The study concluded that the West Bank and Gaza is not competitive in the region in production using low skilled labor, whereas it is competitive in production using high skilled labor, like engineers. Another conclusion was that, compared with industrial estates in Jordan, Egypt, Turkey, and Dubai, there was great scope for the Palestinian economy to better exploit its closeness and integration with Israeli industry, the most developed in the region. The study also found that the quality of telecom-

[19]The marginal effect of a dummy variable on the dependent variable in the gravity model equation can be calculated as (in percentage terms): $100*[exp(\beta)-1]$, where β is the coefficient on the dummy variable. See Coe and Hoffmaister (1998), footnote 9.

[20]Currently, the most important natural resource for industrial development in the West Bank and Gaza is probably stones and marbles. Natural gas might become an important resource with the recent findings off the coast of Gaza.

[21]See, for example, Sachs and Warner (1995a), and Rodriguez and Sachs (1999), for a discussion of why this is the case.

[22]The study, which is summarized in The Services Group (1999), focused on the export potential from industrial estates in the West Bank and Gaza (which would not include sectors like tourism), and although the projected export potential from these estates was quite small, they are nonetheless suggestive of sectors where the Palestinian economy might see an expansion in exports.

munications is generally good, albeit more costly than elsewhere in the region. The key negative factors for foreign direct investment identified in the study related to political risk, cumbersome export and import procedures that often lead to long delays, land and building costs, and high costs of electricity, water, and telecommunications. Based on these findings, the study recommended that the industrial estates in the West Bank and Gaza target light manufacturing industries that can exploit the ties with Israel (for example, higher-end apparel manufacturing, finished consumer electronics, and electrical appliances), professional services in the information technology sector (for example, software conversion and customization, and technical help desks), and location-based services related to the future cargo operations at Gaza airport (for example, logistics handling and other services related to air transportation).

Trade Policy for an Independent West Bank and Gaza

The future trade policy of the West Bank and Gaza will have profound implications for the Palestinian economy's potential to generate growth and prosperity. Trade openness can bring benefits through a variety of channels, including: (i) improved resource allocation in line with social marginal costs and benefits; (ii) access to better technologies, inputs, and intermediate goods; (iii) improving the economy so as to better exploit economies of scale; (iv) greater domestic competition; and (v) exposure to favorable externalities, like the transfer of technical knowledge (see Dornbusch (1992) for an overview).

The Current Setting

The West Bank and Gaza is currently in a customs union with Israel, as set out in the Protocol on Economic Relations of 1994 (or the Paris protocol). A customs union was the only trade regime that could satisfy Israel's insistence on the absence of borders and the Palestinian demands for continued access to Israel's markets (Kleiman, 1994, p. 355). The external tariff rates and some excise tax rates, such as the purchase tax, as well as quality and safety requirements are all decided by Israel, with a few exceptions. Israel's (unweighted) average MFN tariff rate is 8.8 percent, and the dispersion of rates is very high (0–250 percent). Most of Israel's trade goes through its free trade agreements with the United States and the EU, so its effective tariff is very low (around 2.5 percent in 1999).[23] The Paris Protocol grants the PA some limited trade policy autonomy, however, on the goods specified on its lists: A1, A2, and B. Since Israel does not have trade (or diplomatic) relations with several countries in the region, Palestinian trade with these countries is also restricted, or severely limited to the above-mentioned lists. The trade provisions and performance under the Paris Protocol will not be reviewed here, as they have been reviewed in detail by others, including Calika (1998), and Kessler (1999). Kessler (1999) argues convincingly that the disappointing trade performance over the past six years is not so much due to the design of the trade provisions of the Paris Protocol itself as to the lack of implementation of these provisions and to the difficult situation on the ground.

Before the turmoil that started in late September 2000, the Palestinians and Israelis appeared ready to agree, as part of the final status negotiations, to replace the customs union with a free trade arrangement. This would require the establishment of a customs border between the two economies. At the time this chapter was written, the future trade regime between the two parties was very much an open question, but it seems probable that it will involve a customs border, and this will be taken as given. It will be argued that the PA should consider applying a low uniform import tariff across all products with exceptions strictly limited to the goods that qualify for duty-free treatment under free trade agreements, but these types of agreements should be few and limited to key markets. The Palestinian economy would also benefit most from a trade regime characterized by the absence of trade quotas and trade monopolies. We would note, though, that a simplified customs union between the West Bank and Gaza and Israel with a more liberal external trade regime and with improved access to world markets for Palestinian traders, would also be an attractive option.

[23] It is not known with precision what the effective tariff rate is because of the weaknesses in trade data, and because large amounts of imports are exempted. For example, donor-financed imports are exempted from duties as are those imports that qualify for the tax exemptions under the investment promotion law.

The Case for a Low Uniform Tariff

A nondistortionary trade regime with a low uniform tariff rate is considered more welfare enhancing than regionalism in the form of a customs union or free trade arrangement.[24] Indeed, for the West Bank and Gaza, a case can be made that the uniform rate should be zero because since it is a small economy—in the sense that it has to take world prices as given for the goods it imports and produces—the imposition of trade tariffs unambiguously diminishes its welfare (Corden, 1974). Nontariff barriers, such as quotas, are even worse since they have much the same effect as tariffs but without the benefit of tariff revenue.

While only a few countries have adopted a tariff structure with zero tariffs across the board and with hardly any nontariff barriers, some of those that have—Hong Kong and Singapore, for example—are among the most successful economies in the world. The use of tariffs in other countries has been justified on several grounds, but most of them do not hold under closer scrutiny. For example, governments have imposed tariffs to achieve objectives relating to the balance of payments, fixed revenue, income distribution, health, social values, security, or some other objective. But tariffs are not the best policy instruments to achieve any of these objectives, and in practice, high and dispersed tariffs distort the allocation of resources, inhibit the use of foreign technology, and reduce the comparative advantage that a labor-intensive developing country could exploit (Subramanian, Ibrahim, and Torres-Castro (1993); and Subramanian (1994)). In reality, one reason why most countries have tariffs is that once tariffs are in place—for whatever reason—they are very difficult to remove even long after their initial validity (if there was one) has expired. In the following sections, we will discuss the possible role of tariffs for protectionist and revenue purposes in the West Bank and Gaza.

Tariffs for Protectionist Purposes

Tariffs are often used to protect certain industries. The argument might be that some industries are not considered viable yet at world market prices (as in the classic, but discredited, infant industry argument) or are considered to have strong positive externalities (as in the New Trade Theory—see Helpman and Krugman, 1989).[25] In practice, however, the application of tariffs is more likely to reflect the influence of vested interest groups. The case for protection of so called infant industries is flawed theoretically and, even if it could be justified, tariffs would not be the most appropriate instrument for such protection—the government should rather use either a temporary production subsidy or intervene at the source of the market failure (Krueger, 1984; and Subramanian, Ibrahim, and Torres-Castro, 1993). Moreover, based on the international experience, there is good reason to be skeptical about any government's ability to identify the industries that would qualify for protection because of their externalities (to pick the winners). As soon as the government shows that it is inclined to grant special treatment to certain industries, a general pressure for protectionism is certain to arise.

The Palestinian economy operates in a very difficult environment, one that includes the risk of border closures, cumbersome transportation procedures, and costly security-related inspections and restrictions (see Chapter 3). As discussed above, the easing of these obstacles may well set in motion a process of complete transformation of the Palestinian tradable sector, and it is impossible to say now what the Palestinian comparative advantage will be in an environment of significantly fewer restrictions. Targeting industries for trade protection would definitely slow this transformation process. Rather, complementary domestic reforms that facilitate the adjustment of the Palestinian economic structure towards its comparative advantage would be important—for example—improved infrastructure, a strengthened legal and regulatory framework, economic policies that ensure macroeconomic stability, good governance, and further development of the financial sector.

Tariffs for Revenue Purposes

Tariffs are often used in developing countries because they bring important fiscal revenues to the government when the domestic tax institutions are not efficient at raising revenue with less distortionary means, such as VAT or income tax. The PA's

[24]This result is usually for global welfare, but might not necessarily apply for a particular country.

[25]The only way to justify infant industry protection is in the presence of market failures, but even then, the government should not use trade intervention. Erecting trade barriers usually introduces additional distortions that counteract other benefits of the government policy. For a good discussion, see Corden (1974), Chapter 9.

fiscal revenue (excluding foreign grants) was close to 22 percent of GDP in 2000—a respectable level for an economy at this level of development. Revenue came mainly from VAT and, to a lesser extent, income tax, with import duties accounting for only 2.8 percent.[26] About 60 percent of all tax revenue is collected by the government of Israel on behalf of the PA, a consequence of the customs union and the sizeable Palestinian imports (80 percent of GDP), most of which come from or through Israel. Abandoning the customs union means that the PA would be responsible for the collection of all its taxes, and it would be realistic to expect tax revenue to decline initially, until the capacity of the PA's own tax administration was strengthened. Given the uncertainty over future tax revenue, it would be imprudent to lower sharply the customs tariffs (or any other tax) until the revenue base has stabilized. It would be important to preserve the average tariff rate, however, and the PA would be well advised to take the opportunity to replace the current, highly dispersed tariff structure with a low, uniform tariff that applies to all goods.[27] In 1999, PA customs revenue amounted to NIS 112 million, equal to less than 1 percent of total imports to the West Bank and Gaza (most imports come from Israel and are not subject to any tariffs). Because of a lack of detailed trade data, it is impossible to determine with certainty the effective tariff rate on goods coming from the rest of the world, but using the data in Table 4.3, the effective tariff rate would be 9 percent. The uniform rate should be set so as to avoid too much of a loss in tariff revenue, but it is more important that it be low, preferably around 5 percent, and not more than 10 percent. If these rates still would entail some revenue loss, it would be preferable that revenue be raised by other measures.[28] As explained in the following chapter, the demographic dynamics in the West Bank and Gaza can be expected to have a positive effect on fiscal revenue over the medium term, creating room for adopting a low, uniform tariff.

[26]Foreign grants equaled roughly 12 percent of GDP in 1999, including for the operations of the United Nations Relief and Works Agency (UNRWA).

[27]A credible political commitment to a uniform structure also reduces the incentive for vested interest groups to lobby for high tariffs for their own products (Panagariya and Rodrik, 1993). Ideally, it is the effective tariff rate that should be uniform rather than the nominal one.

[28]To start with, profits from the Palestinian Commercial Services Company (a public investment company) or its replacement, the Palestinian Investment Fund, should go to the PA budget. There is also a case for more judicious use of exemptions.

Avoid a Plethora of Bilateral Free Trade Arrangements

Having an independent trade policy would allow the PA to enter into free trade arrangements with other countries, for example, Jordan, and enter into regional trade arrangements like the Arab Free Trade Area. The benefit to an individual country from joining a preferential trade arrangement in terms of trade, investment, and growth is generally difficult to assess. It depends on whether the agreement would lead to trade creation or diversion for the particular country, and whether it would lead to investment creation or diversion. Often, regional trading arrangements are based more on political aspirations than economic considerations, and the results from the gravity model showed that in most cases, belonging to a regional trade arrangement was not a significant explanation for bilateral trade patterns (except for the ASEAN). The theoretical case against regionalism more generally, as expounded in Bhagwati and Panagariya (1996a and b) for example, is compelling, and empirical evidence presented in Vamvakidis (1999) suggests that investment and growth performance has been distinctly better in countries that have undertaken broad trade liberalization compared with those that have undertaken discriminatory trade liberalization by joining regional trade arrangements. Thus, it would not be desirable to enter into bilateral free trade agreements with a long list of countries, but it would make better sense to have such agreements with key markets. A low uniform tariff on imports from the rest of the world would help minimize the trade diversion effects caused by such preferential trade agreements. One reason why it would be important for the PA to avoid entering into several preferential trade agreements is because overlapping agreements tend to differ from each other, making the trade regime complex and nontransparent. This is particularly the case when it comes to rules of origin requirements, the focus of the next two sections.

Rules of Origin Requirements

Rules of origin define those goods that will qualify for duty-free treatment under a free trade arrangement and usually require that the good be fully grown, produced, or manufactured in the exporting country, or meet one or more of the following three commonly used criteria: (i) a certain percentage of the good's value added must be produced in the ex-

porting country; (ii) the processing undertaken in the exporting country must change the classification of the good according to a pre-defined list (product tariff shift); or (iii) a specific operation must be undertaken in the exporting country.

Rules of origin are inherently costly instruments and can only cause trade diversion, never trade creation (Krueger, 1995). With many different definitions and procedures for rules of origin, it becomes a cumbersome process for exporters (and importers). Costs from rules of origin requirements arise in at least three different areas. First, the administrative costs of complying with rules of origin are not insignificant. These entail at a minimum the issuance and verification of certificates of origin for every shipment that is presented for clearance at customs. Simply obtaining the necessary documents to verify origin entails costs, which have been estimated at 3–5 percent of the import value in the European Free Trade Area (EFTA).[29] If the rules are more complicated these costs can be higher. One way to hold down these costs is to grant approved exporter status to regular exporters who would then not need to provide documentation for each shipment. Second, the rules of origin requirement can be very costly in terms of trade and investment diversion and can undermine efforts for trade diversification. To the extent that the rules favor products from a less efficient producer within the free trade area compared with a more efficient producer outside the area, they will lead to intra-free trade area trade in products that could be sourced more cheaply and efficiently outside the area. In the case of Israel and the West Bank and Gaza, rules of origin would most probably lead to imports from Israel into the West Bank and Gaza that could otherwise be sourced more cheaply from the rest of the world. Such trade diversion is common in other free trade areas, (for example, NAFTA and Mercosur). Finally, perhaps the most convincing argument against rules of origin is that they are inherently discriminatory trade instruments (that is, they tend to be designed explicitly to favor some suppliers over others) and as such they are not only inefficient, but also subject to tremendous pressures in terms of the political economy of protection. [30] Thus, there is a real danger that rules of origin will be used to favor certain producers or products over others, even within the free trade area. In a sense, they can become instruments of tailored protection.[31]

Rules of Origin Requirements in PA's Existing Trade Agreements

That rules-of-origin requirements can add complexity to the trade regime is evident from the PA's own experience with its trade agreements with Canada, the EFTA states, Egypt, the EU, Jordan, Saudi Arabia, and the United States. For example, to qualify for duty-free treatment under the trade agreement with the United States, a product must either be wholly obtained in the West Bank and Gaza or its production cost in the West Bank and Gaza plus Israel must be at least 35 percent of its final value. A different definition is used for textile products. The agreement with the EU establishes rules-of-origin requirements to qualify for duty exemption as a change in tariff classification according to an agreed list. Otherwise, the product must undergo a specific operation in the West Bank and Gaza or in the EU. There is also a limit on the use of materials not originating in the West Bank and Gaza or in the EU. The trade agreement with Egypt defines rules of origin in yet a different way—local (West Bank and Gaza) costs must account for at least 40 percent of production costs for industrial products. The trade agreement with Jordan requires that the product should have at least 35 percent of value added produced locally. In addition to these different definitions, there are procedural differences between the agreements. A Palestinian exporter to the EU must get its certificate of origin stamped by the PA Ministry of Finance, while for exports to the Arab countries, the certificate of origin should be stamped both by the Ministry of Economy and Trade and the Chamber and Commerce. There are also great variations in documentation required to get the origin certified.

[29]Krueger (1995, p.15).

[30]See Krueger and Krishna (1995), for a discussion of the experience under NAFTA and Yeats (1997), for a discussion of Mercosur.

[31]The clearest example of this is the negotiation of rules of origin under NAFTA, which are tailored to provide protection for certain industries. For television sets, for example, the rules were designed to protect the only remaining U.S. producer. In textiles, the rule is "fiber forward" meaning that all stages of production from the spinning of the fiber forward must take place in a NAFTA country. The automobile sector also benefited from tight rules of origin, specified in terms of the percentage of value (65 percent) in the final product that had to originate within the free trade area. One observer has qualified the rules of origin for automobiles in the NAFTA as "complex and convoluted... that can only be read to have an intent to restrain import competition for automotive parts and automotive goods from third countries." Jackson (1997, p. 169).

The Future Trade Arrangement with Israel

It is an open question what trade regime will eventually be adopted between Israel and the West Bank and Gaza, but it is useful to review some of the implications of moving away from the present customs union arrangement. Some of these apply irrespective of whether Israel and the West Bank and Gaza enter into a free trade agreement or whether trade between them will take place on an MFN basis. The key economic implications are these: trade policy independence for the PA, transaction costs, and fiscal aspects.[32] Fiscal aspects are dealt with at greater length in Chapter 5.

Independent Trade Policy

Abandoning the customs union in favor of a free trade arrangement or a MFN-based trade regime means that the PA would have trade policy independence vis-à-vis the rest of the world. The value of such trade policy independence for the PA would seem to depend on: (i) the current and future trade policy in Israel; and (ii) the future trade policy chosen by the PA vis-à-vis third parties.

On the first point, Israel has undertaken extensive trade liberalization in recent years, and overall, the trade regime is quite liberal compared with other countries in the region. Nonetheless, its trade system is still not very transparent and contains important protectionist elements. As mentioned, Israel's unweighted average MFN tariff is 8.8 percent, and the dispersion is very large with the highest tariff rate at 250 percent. In addition, according to the World Trade Organization (WTO), Israel's nontariff measures remain an impediment to trade.[33] The system of import and export licensing, prohibitions, and quotas remain complex. The purchase tax and mark-up system (TAMA) and protection taxes also raise prices of certain goods considerably. Furthermore, a frequent comment from Palestinians is that the standards and health requirements that Israel places on imports are not compatible with the needs of the Palestinian economy and constitute nontariff barriers. The possibility of adopting a more transparent and liberal trade regime for the West Bank and Gaza is an attractive feature of moving away from the customs union.[34] At the same time, if the trend of the past ten years toward a more liberal trade regime in Israel—with a phased reduction in tariffs—were to continue (which seems likely), this would reduce the attractiveness of leaving the customs union. The purchase tax also, was reduced significantly in the summer of 2000, and the plan seems to be to phase it out more or less completely.

On the second point, while with an independent trade policy the PA would be able to adopt a very liberal and transparent trade regime vis-à-vis the rest of the world, it cannot be ruled out that it could come under intense pressure to adopt a more protectionist trade regime. Indeed, in view of the PA's past inclinations when it comes to direct interference in the economy, it is not a foregone conclusion that a liberal and transparent trade regime would be adopted. The sheer act of lobbying for protectionism is also a typical example of unproductive use of resources in an economy. A way to handle the concerns over the PA's future trade policy would be to announce at the outset a liberal, MFN-based trade regime and make this commitment credible by joining the WTO as soon as possible.

Transaction Costs

As mentioned, transaction costs (including for transportation) are very high in the West Bank and Gaza. Reducing these transactions costs and making the conduct of foreign trade simpler and more predictable will probably have implications for the performance of the tradable sector that are as profound as the choice of trade regime.

Abandoning the current customs union arrangement in favor of a free trade arrangement or MFN trade relationship requires the establishment of a customs border between the two economies. The customs border is required to check for origin, classification, standards, valuation, and taxes and more generally in order to prevent trade deflection that could arise since the two entities can have different trade policies vis-à-vis third parties. All import taxes (including those on imports from Israel) would have to be collected at these entry/customs stations. In itself, the establishment of a customs border will inevitably add to transaction costs, which in turn will

[32]This discussion draws on Erickson von Allmen and Nashashibi (1999).

[33]See World Trade Organization (2000).

[34]It should be pointed out, though, that as regards tariffs, protection is highest for footwear, textile products, and agricultural products, goods that also are produced in the West Bank and Gaza.

reduce trade volumes. At the same time, the choice of trade regime with Israel might affect the possibility to improve the situation on the ground. A customs border might allow simpler security procedures for Palestinian exports and imports with the rest of the world.

It will be important to make investments in technologies that minimize the additional transactions costs arising from the establishment of borders (see Chapter 3). It should be emphasized that these transaction costs would arise even if all Palestinian exports to Israel were to qualify for duty-free treatment under a free trade arrangement with Israel. In addition, not all trade currently taking place between Israel and West Bank and Gaza (all without import duties) would qualify for duty-free treatment under a free trade arrangement because of high import content, and it would thus be subject to import taxes.

Fiscal Implications

There are important fiscal implications associated with moving away from the customs union with Israel. Chapter 5 discusses them in some detail, but a brief summary will be given here. There would be additional expenditures related to an expanded customs bureaucracy, including standards institutes, which would need to be established. The cost of creating a customs authority with customs posts between the two economies could be quite high. Fewer customs posts would reduce the administrative costs somewhat but at the expense of higher transportation costs.

On the revenue side, about 60 percent of the PA's revenue is currently collected by Israel and transferred under the clearance system. If the PA were to collect all taxes on its own, there most likely would be an initial period of loss in tax revenue, since the Israeli system is relatively more efficient. At the same time, the PA would be able to collect import taxes and purchases tax that are not currently transferred to the PA. Dumas (1999) estimates the amount of tax leakage to be as much as 5 percent of GDP. With the reduction in purchase taxes in Israel in the summer of 2000, the amount of tax leakage could now be somewhat lower. Also on the positive side, abandoning the customs union would give the PA some fiscal policy independence to set tax rates and would reduce the risk of the tax revenue clearance being disrupted.[35] Tax revenue (and expenditure) in the West Bank and Gaza has risen rapidly in the last five years, and on current trends, the West Bank and Gaza might soon have the characteristics of a premature welfare state, with tax rates at a level (in percent of GDP) that is not conducive to economic development. The overall tax level in Israel is quite high (33 percent of GDP, compared with 23 percent of GDP in the West Bank and Gaza). In particular, the Israeli indirect tax regime might not be optimal for the West Bank and Gaza, especially the system of purchase tax in combination with TAMA.

[35]The Paris Protocol allows the PA to have a VAT two percentage points lower than Israel and to adopt a lower purchase tax on goods on the Protocol's lists: A1, A2, and B.

Concluding Remarks

The bulk of Palestinian trade today is with Israel, although the exact share is unknown because of data weaknesses. Israel's large share in Palestinian exports and imports is not in itself evidence of trade distortions, but a good case can be made that the security restrictions and very complex and costly trade and transportation procedures for trade with other countries have tended to favor trade with Israel. The transaction costs that the impediments on the ground have caused can only lead to trade diversion not trade creation. Using a gravity model, however, we find no significant evidence that trade between Israel and the West Bank and Gaza is higher than what might be expected given their proximity, GDP, population, and other variables. The results suggest that Israel will remain a key trading partner to the West Bank and Gaza under almost any type of trade arrangement between the two economies. We find evidence, though, that there is considerable scope for expansion of Palestinian trade with the rest of the world, in particular with the EU and the United States. We take this to mean that a reduction in the very high transaction costs caused by the complex system of permits, security controls, and transportation restrictions could be expected to lead to increased trade with the rest of the world without (a significant) reduction in Palestinian trade with Israel.

Some trade diversification will surely take place as the trade infrastructure improves, including with free access to a seaport and a better functioning airport. Such diversification would take place even under the existing customs union. While there is scope for more trade with countries in the region, the results from the gravity model suggest that the region is unlikely to present a serious alternative to the Israeli market for Palestinian exporters. With re-

spect to the future trade policy of the West Bank and Gaza, this chapter has argued that the PA should adopt an open, nondiscriminatory, and transparent trade regime characterized by the absence of quotas and trade monopolies. The chapter also makes the case for the PA to adopt a low, uniform import tariff rate (5–10 percent) across the board with no exceptions. Further, it does not make much sense for the PA to enter into a long list of bilateral free trade agreements, but rather, it should limit free trade arrangements to countries and regions that represent important markets for Palestinian exporters. Given the volatility and uncertainty of the economic situation in the West Bank and Gaza and its negative effect on growth and investment in the past (see Chapter 2), implementing measures to ensure stability and simplicity of the policy regime should probably be a priority. In this context, the simplicity of the trade regime we propose is a virtue. It should be announced ahead of time and explained with the rationale behind it. It should be bound at the WTO (or at least it should be announced that such binding is being sought, even though this may take a while).

Fiscal Policy: The Challenges from Demographic Dynamics and Other Medium-Term Developments

Eva Jenkner

The West Bank and Gaza faces considerable challenges over the medium term, and the fiscal policy of the Palestinian Authority (PA) can play an important role in overcoming them. For example, Chapter 2 discussed how difficult it will be to achieve and sustain economic growth rates high enough to reduce unemployment in a period of rapid labor force growth. By avoiding large debt-financed deficits and improving the composition of expenditure, fiscal policy can make a great contribution to this endeavor. Just as fiscal policy can play an active role in shaping the West Bank and Gaza's economic prospects, however, it will in turn be affected by several medium-term developments, such as the very same demographic dynamics mentioned above. Apart from the expected effects of population growth, this chapter discusses briefly two further factors that can have particularly significant consequences for public finances: the future choices of tax and trade policy regimes; and a permanent solution to the refugee question.

With respect to the demographic dynamics, the West Bank and Gaza is projected to undergo important changes over the next 10 years. The annual rate of population growth is projected to slow to 3.2 percent by 2010 from about 3.8 percent in 1999, while the working-age population is expected to continue to grow annually at about 3.8 percent on average, and the labor force at 4.4 percent a year. Most importantly, these changes would result in a significant rise in the share of the population in the labor force with far-reaching macroeconomic implications (see Chapter 2). Should the economy be able to absorb the additional labor, the next section argues that the impact of these developments could be unambiguously positive for fiscal revenue, while it is less clear for expenditure; bearing this caveat in mind, therefore, the demographic dynamics in the West Bank and Gaza may influence public finances positively, suggesting a window of opportunity for fiscal consolidation. Moreover, if the PA were to maintain current spending levels, but opted for using the additional room for changing its relative spending priorities, the potential demographic dividend could put the PA in a position to make a greater contribution to economic development. On the revenue side, it could rely less on import duties for revenue purposes and adopt an open trade regime with a low uniform tariff across the board. On the expenditure side, higher social spending on a per capita basis and a greater contribution to infrastructure investment may become possible without increasing total outlays as a share of GDP.

There is nothing inevitable about such an outcome, however, and it hinges on high growth in the Palestinian economy so that the expected inflow to the labor market can be absorbed at reasonable real wages. Should the economy falter, the blessing may well turn into a curse. Our analysis constitutes, moreover, a comparative static exercise isolating the impact of demographics alone, while assuming all other factors to be constant. In the end, even if it were to materialize, the positive influence of a larger workforce may be more than offset by policy decisions, which have a much stronger and more direct

Table 5.1 The Underlying Demographic Projections

	1999	2010	2010[1]
Total population (in millions)	2.8	4.0	4.6
Share of population under 15 (in percent)	47.0	44.0	43.0
Share of population over 65 (in percent)	3.4	2.9	1.4
Share of working age population (in percent)	49.7	52.9	53.8
Age dependency ratio[2]	1.0	0.9	0.9

Sources: IMF staff estimates and projections (see Chapter 2) based on data from the Palestinian Central Bureau of Statistics.

[1]Migration scenario.

[2]Ratio of nonworking-age population (under 15 and over 65) to working-age population (between 15 and 65)

impact on fiscal revenue and expenditure in the medium term. This highlights how important it is for the PA to form a view already now on the trade and tax regimes it would want to implement in the future, once a permanent status agreement has been reached with Israel.

Fiscal Policy and Projected Demographic Dynamics

The Impact of Demographics on Fiscal Revenue

Public finances are highly sensitive to demographic changes, as shown by the experience in both developed and developing countries. Table 5.1 summarizes the demographic projections on which the analysis in this chapter is based. The projected demographic transition in the West Bank and Gaza can influence fiscal revenue both directly and indirectly. First, a larger workforce, if employed, creates a larger tax base, boosting both direct and indirect tax receipts. Second, an increase in the workforce relative to the nontax-paying population (or a decline in the dependency ratio) could bolster per capita GDP growth, which in turn may stimulate taxable income and tax revenue (see Chapter 2).[1] Finally, tax receipts could be further enhanced should demographic pressures lead to increasing urbanization and a shift away from hard-to-tax sectors such as agriculture. In particular, direct taxes may become relatively more important vis-à-vis indirect taxes (see, for example, Tanzi, 1987).

[1]It should be borne in mind that positive growth depends on the assumptions about participation rates (working-age population actually joining the workforce), employment creation (workers finding jobs–not that simple given the current situation), and labor productivity. Other indirect mechanisms through which demographic change can affect growth rates are through its impact on savings behavior and capital accumulation.

Some Simple Accounting

A simple and intuitive way to see how demographic changes can affect revenue is to look at fiscal revenue in per capita terms. Typically, fiscal revenue is expressed as a percentage of GDP, and this provides a useful indication of the fiscal burden and the size of the government. But looking at fiscal variables in per capita terms is more relevant if the starting point is the desire to be able to spend certain amounts of fiscal resources on a per capita basis (for example, education expenditure per pupil and health expenditure per capita). The revenue to population ratio can be decomposed as follows:

$$\textit{Revenue/population} = \textit{Revenue/GDP} * \textit{GDP/workforce} * \textit{workforce/population} \quad (1)$$

The first item on the right-hand side is the revenue-GDP ratio, which can be viewed as the effective tax rate. The second item can be seen as average labor productivity, and the last item is the workforce-population ratio. This is an accounting expression that does not explain interlinkages among the various items. Nevertheless, it is immediately obvious that an increase in the workforce relative to the population at large would lead to an increase in fiscal revenue per capita for a given rate of labor productivity and a given average tax. In reality, of course, the other items are not given. As discussed in Chapter 2, an increase in the workforce-population ratio (as expected in the West Bank and Gaza) can be expected to raise per capita real GDP

Table 5.2 Demographic Dynamics and Fiscal Revenue, 2000–10[1]

	Revenue / Population	=	Revenue / GDP	×	GDP / Workforce	×	Workforce / Population
2000	1,340		0.217		32,972		0.19
2010a	1,581		0.217		32,972		0.22
2010b	2,067		0.217		43,089		0.22
2010c	1,581		0.167		43,089		0.22
2010d	2,673		0.282		43,089		0.22

Source: IMF staff estimates. See text for explanation of the scenarios.

[1]In real terms.

growth, reinforcing the effect on revenue, and as discussed below, tax revenue has typically been found to grow faster than GDP, further reinforcing the positive revenue effect.

Preliminary data put PA fiscal revenue in 2000 at NIS 3.8 billion (22 percent of GDP), which comes to about NIS 1,340 per capita and about NIS 7,207 per worker.[2] Table 5.2 shows the estimates for the West Bank and Gaza using equation (1). Taking into account only the projected increase in the workforce-population ratio, PA fiscal revenue would rise from NIS 1,340 to NIS 1,581 on a real per capita basis by 2010—an 18 percent increase (2010a in Table 5.2). As was seen in Chapter 2, however, a rising workforce-population ratio can be expected to have positive effects on investment and growth, and if we assume that real wages grow by a 1.5 percent per year (the medium scenario in Table 2.9 in Chapter 2), PA fiscal revenue would rise to NIS 2,067 per capita—a 54 percent increase in real terms (2010b). This means that, under these growth scenarios, even if PA fiscal revenue were to remain constant at around 22 percent of GDP between 2000 and 2010, PA fiscal spending on a per capita basis could increase sharply. Alternatively, if the PA wanted to limit the increase in revenue (and expenditure), to say, NIS 1,581 per capita (in real terms), the revenue-GDP ratio could be reduced from 22 percent of GDP in 2000 to 17 percent of GDP in 2010 (2010c).

It has been assumed thus far that the revenue-GDP ratio would remain constant at 22 percent (except for 2010c), but there is international evidence that the elasticity of fiscal revenue with respect to real GDP growth is greater than one.[3] This is often referred to as tax buoyancy. It is inherently difficult to estimate a future rate of tax buoyancy for any country, and in the case of the West Bank and Gaza, this exercise is complicated further by the short and multifaceted history of the PA tax administration.[4] Nevertheless, with due qualifications, and purely for illustrative purposes, the computed buoyancy for 1998–99 is 1.2.[5] Thus allowing for revenues to increase at a higher rate than GDP would render a projected revenue-GDP ratio of 28 percent in 2010 equivalent to NIS 2,673 per capita (2010d in Table 5.2). Such an increase is far from automatic, however, and may hardly be desirable, as the tax burden in the West Bank and Gaza is already relatively high, given its level of development. The scenarios provided just serve to illustrate the dynamic potential of demographic change and the room it creates for reshuffling expenditure priorities and redesigning the tax system. A much more clean-cut approach to isolate the effect that demographic changes may have on fiscal revenue as a percentage of GDP is to use regression analysis.

Regression Analysis

Two simple cross-country regressions are estimated to obtain the elasticity of tax revenue with respect to the age dependency ratio and the size of the working age population, while controlling for other factors.[6]

[2]See Chapter 1 for a discussion of recent developments in public finances.

[3]This phenomenon may be due to a combination of factors, including improvements in tax administration with economic development, workers moving up in the income tax brackets, and expansion of the tax base as a percentage of GDP during the transition from an agricultural and informal economy to a more industrialized and formal economy.

[4]Since 1994, PA fiscal revenue has grown considerably faster than GDP, but this is mostly on account of improvements in tax administration, and it would be (grossly) misleading to interpret this as tax buoyancy. It is difficult to separate the tax administration effects from buoyancy, and instead we estimate buoyancy for a shorter and more recent period (1998–99) which does not include the period with the strongest improvements in tax administration. The drawback is that the estimate is based on only two years, and two years when the Palestinian economy experienced strong recovery in growth. Ideally, the buoyancy should be estimated over a time period that is sufficiently long to include both economic upswings and downturns.

[5]The buoyancy ratio is defined as the percentage change in tax revenue over the percentage change in nominal GDP, or the elasticity of tax revenue with respect to nominal GDP. In this context, however, buoyancy refers to total revenue, not just tax revenue.

[6]We regress tax revenue as a percentage of GDP on the age dependency ratio and the share of the working population respectively, controlling for per capita GDP and the share of agriculture. The data set included information on 60 developing and developed countries for the year 1997.

Table 5.3 Estimated Impact of Demographic Variables on Revenue, 1999–2010[1]

	Regressor	Sign	Base Value (1999)	Estimated Value (2010)
IMF staff estimate[2]	Age dependency[3]	–	20.7	22.0
	Working-age population	+	20.7	21.9

Sources: IMF staff estimates and quoted publications.
[1]As a percentage of GDP.
[2]Dependent variable is tax revenue/GDP.
[3]Ratio of nonworking-age population (under 15 and over 65) to working-age population (15–65)

There are obviously several caveats to this analysis, some of which will be analyzed in greater detail below. Importantly, the overall structure and efficiency of the tax system and other key dynamic factors, which may be driving revenue in the medium term, are assumed to remain unchanged. As discussed later, this will require a major effort on the part of the PA, if and when it assumes responsibility for collecting revenue now collected by Israel on its behalf under the customs union. Furthermore, future tax revenue will depend on policy decisions about the tax regime, with respect to tax levels and exemptions. For example, the 1998 Law on the Encouragement of Investment provides rather generous tax incentives, and their possible fiscal implications are not clear. Nevertheless, bearing these caveats in mind, the results indicate that a lower dependency ratio and larger workforce could, all else being equal, have a positive effect on revenue. The exact magnitude of these effects can be computed for the West Bank and Gaza by combining the estimated elasticities from these two regressions with the population growth projections from Chapter 2. As Table 5.3 shows, the projected decline in the age dependency ratio[7] and the increased working-age population could add 1.3 and 1.2 percentage points of GDP to the revenue-GDP ratio, respectively, by 2010.

From these exercises it becomes clear that, provided the Palestinian economy will be able to maintain the high growth rates necessary, demographic developments could have the potential to boost PA tax revenue over the medium term—certainly in per capita terms, but also as a percentage of GDP—both through its direct and indirect effects.

[7]The age dependency ratio is defined as the ratio of the population over 65 and under 15 to the population between 15 and 65.

The Impact of Demographics on Fiscal Expenditure

As in the case of fiscal revenue, there are direct and indirect ways in which demographic dynamics may affect fiscal expenditure. A larger population will demand more public services and perhaps public sector employment. The latter might become a particular problem should private sector job creation turn out to be inadequate. On the other hand, should the proportion of retirees decrease over the medium term, as has been projected in the West Bank and Gaza, this could reduce demand for health and pension expenditure. Similarly, the expected decline in the school-age population could alleviate the pressure on education spending. Thus, in contrast to the revenue side, where demographic change appears to have a rather unambiguously positive impact, the direct effect on expenditure is less clear.

Regarding indirect influences, government consumption as a share of GDP is generally observed to increase with per capita income, a phenomenon termed Wagner's Law. The channels here are higher costs of regulation, more generous provision of welfare services, and the need for improved infrastructure in a more advanced economy (see, for example, Payne and Ewing, 1996).[8] Therefore, should a larger workforce have positive growth effects in the West Bank and Gaza, as projected in Chapter 2, it may lead to higher expenditure of the PA.[9] Urbanization, pop-

[8]It should be noted, however, that empirical evidence investigating this relationship has been less than conclusive (Ram, 1987; Payne and Ewing, 1996).

[9] There is also a more cynical political economy argument why expenditure as a share of GDP is higher in richer economies—as seen above, revenue tends to grow faster than GDP over time (for given tax structure and rates), and the argument would be that policymakers prefer to spend these resources rather than take the opportunity to lower tax rates.

Table 5.4 Estimated Impact of Demographic Variables on Expenditure, 1999–2010[1]

	Regressor	Sign	Base Value (1999)[2]	Estimated Value (2010)
IMF staff estimate[3]	Age dependency[3]	+	22.3	21.3
	Working-age population	–	22.3	22.2
Rodrik (1996)[5]	Age dependency[4]	+	22.3	20.5
Commander, Davoodi, and Lee (1997)[5]	Age dependency[4]	+	22.3	21.0
Heller and Diamond (1990)[5]	Population share > 65 years old	+	22.3	22.0

Sources: IMF staff estimates and quoted publications
[1]As a percentage of GDP.
[2]Recurrent expenditure/GDP.
[3]Dependent variable is total expenditure/GDP.
[4]Ratio of nonworking-age population (under 15 and over 65) to working-age population (15–65)
[5]Dependent variable is total current expenditure/GDP (for 1999 total expenditure equals current expenditure of the PA).

ulation density, and infant mortality—all phenomena to some extent driven by demographic changes—have been shown to influence expenditure as well (Heller and Diamond, 1990; Rodrik, 1996). The empirical investigation of the impact of demographics on aggregate expenditure, however, focuses on a few key variables, and given the sensitivity of education, health, and pension outlays to changes in the age-structure of the population, expenditure in these sectors is analyzed in greater detail.

Again, the most direct way of quantifying the relationship between demographic changes and public expenditure is to run a regression across a large sample of developed and developing countries. Regressing total expenditure as a percentage of GDP on per capita GDP, and either the age dependency ratio or the share of the working-age population has less explanatory power than the equivalent regression for tax revenue. Nonetheless, the results, which are summarized in Table 5.4, confirm the general trends just noted. The projected decline in the age dependency ratio between 2000 and 2010 could reduce total expenditure by 1 percentage point of GDP by 2010, whereas the growing working-age population would produce a reduction of 0.1 percentage points of GDP by 2010. These results are smaller than those found in other studies. For example, using the estimates from Rodrik (1996) and Commander, Davoodi, and Lee (1997), the expected decline in the age dependency ratio in the West Bank and Gaza could knock off 1.8 to 1.3 percentage points, respectively, of the expenditure-GDP ratio by 2010. Another explanatory variable used by Heller and Diamond (1990) is the share of the population over 65. Applying their coefficient to the West Bank and Gaza reduces the projected expenditure by 0.3 percentage points of GDP by 2010. As changes in the age structure of the population, such as the share of the working-age population and the population over 65 years, are closely related to the age dependency ratio, these estimates cannot simply be added up. Therefore, we take the average of our results with respect to the age dependency ratio; it can be expected to capture most of the underlying demographic dynamics. This suggests that demographic factors could allow total expenditure to decline by about 1.4 percentage points of GDP by 2010.[10]

In the end, fiscal expenditure is determined by discretionary policy decisions, and the most the reader should take away from this analysis is that the projected demographics would—if economic conditions turn out to be favorable—at least not add further expenditure pressure on the budget. Indeed, one interpretation can be that, for a given level of aggregate fiscal expenditure, there would be room for the PA to improve the composition of fiscal expenditure. As will be elaborated later, issues that have to be addressed in the medium term include the need for the PA to contribute to public invest-

[10]The age dependency ratio was also chosen, as a broad range of estimates was available, lending more power to the analysis.

Table 5.5 Projections for the Health Sector

	2000	2010
Total population (millions)[1]	2.9	4.0
Per capita health expenditure (NIS)[2]	142.0	142.0
Total health expenditure (NIS millions)[2]	407.0	567.0
In percent of GDP	2.3	1.7

Sources: IMF staff estimates based on data from the Ministry of Finance and the Palestinian Central Bureau of Statistics

[1]Based on population projections, Chapter 2.

[2]In 1999 prices.

ment with its own resources, and the requirement to rebalance recurrent expenditure. Should demographic changes allow for a reduction in expenditure, at least some of this room should be used to increase spending on certain priority areas within the budget, such as social outlays and the development budget. A closer look at the education and health sectors confirms these insights. It should be emphasized, however, that medium-term expenditures may well take a different path if unemployment increases and fiscal timebombs, such as the financially unsustainable pension system, fail to be addressed.

Effects on Expenditure in the Health Sector

Two short scenarios serve to illustrate the impact of demographic changes on health expenditure in the medium term. First, a rough estimate of overall health expenditure is derived on the basis of expected population growth and current health spending per capita. Second, health outlays are estimated as a percentage of GDP for 2010 using Heller and Diamond's (1990) coefficient estimates together with the projected developments in the age structure and infant mortality for the West Bank and Gaza.

Health spending per capita by the PA in 2000 is estimated at NIS 142 (Table 5.5). If this level of spending were to be maintained in real terms through 2010, given the projected population growth and using the medium economic growth scenario in Chapter 2 (Table 2.9), the PA health budget would decline from around 2.3 percent of GDP in 2000 to 1.7 percent of GDP in 2010.[11] In reality, though, the demand for health expenditure is unlikely to be invariant to changes in, for example, the age structure, labor force participation, or GDP per capita. Specifically, per capita health spending can be expected to increase with per capita GDP and the old age dependency ratio, and decrease with a rise in female labor force participation rates (see, for example, Kornai and McHale, 2000).[12]

In a study of the composition of government expenditure in developed and developing countries, Heller and Diamond (1990) regress health expenditure on various demographic variables. They find that a lower percentage of the population over 65 years could lead to a decrease in aggregate and per capita health expenditure.[13] On the other hand, reductions in the share of the population under 15 years of age and the infant mortality rate are associated with higher health expenditure.[14] In the West Bank and Gaza, the relative shares of each of these age groups are expected to diminish over the medium term, and the Ministry of Health projects a lower infant mortality rate by 2010. Hence, these developments may end up largely offsetting each other's impact on health expenditure. On balance, therefore, using the coefficients in Heller and Diamond (1990), health expenditure would result in only a modest increase in from 2.2 percent of GDP in 2000 to 2.3 percent of GDP in 2010.

Effects on Expenditure in the Education Sector

For the education sector, a similar exercise can help to illustrate future spending paths. Total education expenditure in 2010 is projected on the basis of the expected number of pupils and the 2000 level of expenditure per pupil. Taking into consideration the projected population between six and seventeen years of age, planned enrollment rates, and holding the percentage of pupils attending government schools constant at 70 percent, the total number of pupils in government schools would rise from 618 thousand in 2000 to 886 thousand in 2010.[15] Keep-

[11]This discussion ignores health services provided by UNRWA and other agencies, some of which the PA might have to assume responsibility for over the medium term.

[12]More developed countries generally have higher per capita spending on health care, and the population over 65 tends to demand relatively more health services per capita.

[13]Heller and Diamond (1990).

[14]The direction of causality regarding infant mortality rate is unclear. It has been suggested that the negative correlation reflects the success of higher health expenditure (Heller and Diamond, 1990).

[15]Planned enrollment rates are taken from PA's five-year education development plan; see Palestinian Authority Ministry of Education (2000)

Table 5.6 Projections for the Education Sector

	2000	2010
Total number of pupils in government schools (1000s)[1]	618.0	886.0
Enrollment rates (ages 6–14)[2]	0.9	0.9
Pupil-teacher ratio[3]	24.0	24.0
Student-classroom ratio[3]	41.0	41.0
Salary costs (NIS millions)	718.0	1522.0
Expenditure per pupil (NIS)[3]	1,555.0	1,555.0
Total education expenditure (NIS millions)[4]	4,754.0	1,097.0
In percent of GDP	5.5	4.2
Of which: recurrent expenditure	4.3	3.3

Sources: IMF staff estimates; Ministry of Education; Ministry of Finance; and the Palestinian Central Bureau of Statistics.

[1]Projected on the basis of population projections, planned enrollment rates and slight increase over current share of government schools (70 percent).

[2]Ministry of Education five-year education plan.

[3]Held constant at 1999 level.

[4]At 1999 prices.

ing per pupil expenditure at its 2000 level in real terms leaves a projected total education expenditure in 2010 of 4.2 percent of GDP, compared with 5.5 percent of GDP in 2000 (Table 5.6). Within these aggregates, recurrent expenditure in the education sector would decline to 3.3 percent of GDP in 2010, compared with 4.3 percent of GDP in 2000.

This is a somewhat stronger effect than what would be expected on the basis of the analysis in the Heller and Diamond (1990) study, which estimates that education expenditure as a percentage of GDP increases with the percentage of population under 15 years of age. Using that study's coefficient estimates renders a decrease in recurrent education spending to 3.7 percent of GDP in 2010.[16]

The Effects on the Pension System

Finally, as mentioned above, demographic dynamics might also put pressure on the budget through their impact on the pension system.[17] Currently, most of the workforce relies on informal, family-based transfers for old-age provision. Only public sector employees, about 19 percent of total employment currently, are covered by three centrally organized pension schemes, two for civil servants in the West Bank and Gaza and one for the PA police force.

Changes in the population's age structure will have obvious implications for these arrangements. Among the public sector pension schemes, only the Gaza Pension Fund is financially sustainable, under existing contribution and benefit levels, while the system for civil servants in the West Bank is running an operational deficit, and the police scheme is projected to be running deficits by 2005. While there will be a certain demographic dividend resulting from a larger working population paying a higher total sum of contributions into the pay-as-you-go system, other demographic factors such as improved life expectancy may exacerbate the underlying problems produced by a disproportionate combination of low contribution rates and generous benefits.

In the absence of pension reform, the financial gap in the public system will have to be filled by increased taxes or decreased expenditure in other areas, or a mixture of both. The preferred action would, of course, be to make the pension systems viable to avoid a financial and social crisis. Ideally, the West Bank and Gaza schemes should be unified with contributions and benefits aligned at a sustainable level and ultimately include all private sector workers. The police force could be covered by a supplementary scheme, drawing on a merged administration and a reserve fund.

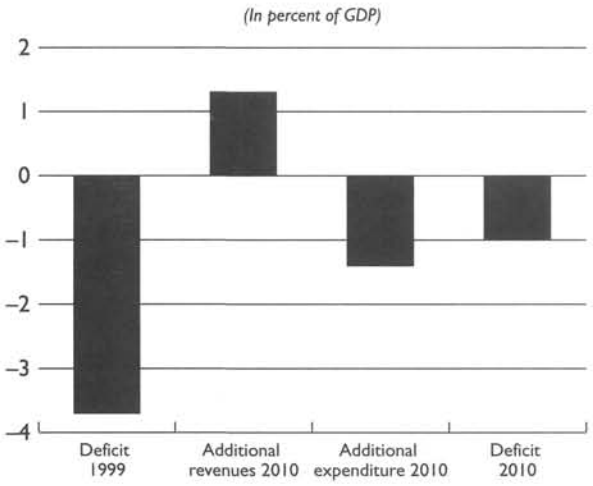
The Overall Impact of Demographics on Public Finances

Combining the regression results with respect to aggregate revenue and expenditure, while bearing the caveats in mind, suggests that demographic change in the West Bank and Gaza may promote fiscal consolidation, which in turn could support economic growth in an important way, as shown in Chapter 2 and Figure 5.1. Since economic growth will be needed to help the demographic dividend materialize there seem to be two possible equilibria—a *bad* and a *good* scenario. Just considering the average impact of changes in the age dependency ratio gives us a rough sense of the orders of magnitude involved. Under the *good* scenario, the labor market could absorb all the additional labor without a cut in real wages, and revenue could increase by 1.3 percent of GDP and expenditure decline by 1.4 percent of GDP, allowing for

[16]To be exact, total education spending should have been used in this context, as this is the basis for Heller and Diamond's study. The PA, however, only covers current expenditure, and hence, using current expenditure was more informative.

[17]See Annex I in the IMF study in Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999) for a detailed description of the Palestinian pension system.

Figure 5.1
Summary of the Impact of Demographic Change on Fiscal Revenue, Expenditure, and Deficit of the Palestinian Authority



Source: IMF staff calculations and estimates.

a reduction in the overall fiscal deficit from 3.7 percent in 1999 to 1 percent of GDP in 2010.

Nevertheless, a word of caution is warranted at this point. First, it needs to be emphasized again that this constitutes the isolated effect of demographics alone, holding all other factors constant. Clearly this does not depict reality. Policies are likely to change over the next 10 years, and pressing issues, such as the medium-term financial sustainability of the pension system, the potential cost of a pension reform, and the efficiency of the tax administration, will have to be addressed. The PA also will, at some point, have to take over the services provided by UNRWA. The actual size of the deficit in 2010 will finally be a reflection of these and other factors. Second, as mentioned above, there is nothing automatic about these positive effects on public finances and economic growth. They have to be accompanied by good economic policy, including improvements in the PA's expenditure composition, which is currently heavily biased towards wage expenditure, and a reasonable level of aggregate fiscal expenditure. Rather than using all of the room created by the demographic dynamics to reduce the overall fiscal deficit, it might be more appropriate to use some of it to increase real social expenditure and infrastructure investment or reduce taxes. Indeed, as the separate analyses for the health and education sectors have illustrated, it could be possible to increase such real outlays significantly on a per capita and per pupil basis, while holding total spending constant as a fraction of GDP. Fiscal policy over the medium term will also have to take into account the fiscal implications of reforms to the tax and trade regimes, and of possible large-scale immigration.

Further Fiscal Policy Challenges Over the Medium Term

Apart from the demographic changes underway, a permanent status agreement with Israel would pose two additional fiscal policy challenges. This section discusses the future of the tax and trade regime and the potential fiscal implications of large-scale immigration, including refugees.

The Tax and Trade Policy Regime

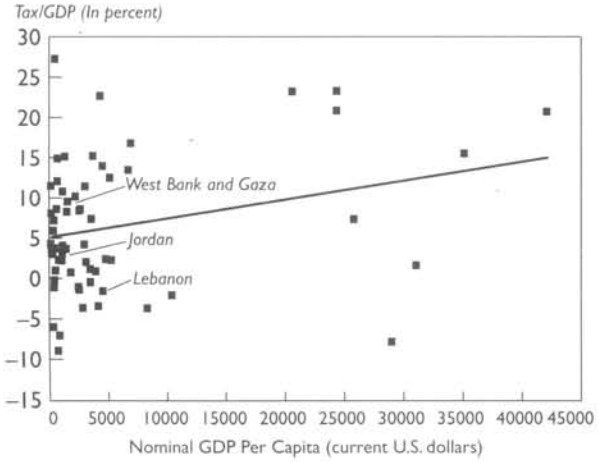
The West Bank and Gaza is in a customs union with Israel—as set out in the Protocol on Economic Relations of the Interim Agreement—which offers only very limited scope for an autonomous indirect tax policy. Tariff rates can deviate from those of Israel only for a limited number of goods and quantities, and the VAT cannot be more than 2 percentage points lower than in Israel.[18] Rates and coverage of direct taxes may differ, however, and do so to a great extent.[19] Under the revenue clearance system established within the customs union Israel transfers 75 percent of all income tax withheld from Palestinian workers in Israel to the PA, and indirect tax revenue (from VAT, customs duties, and the purchase tax) is allocated according to the destination principle. Only duties and VAT (and recently purchase taxes) on direct imports into the West Bank and Gaza are transferred to the PA; Revenue from duties and purchase taxes on indirect imports via Israel and on purchase taxes on Israeli goods exported to the West Bank and Gaza are not. [20] On the whole, the system

[18]See Chapter 4 for a fuller discussion of the trade regime and trade policy options for the future.

[19]The new income tax law in West Bank and Gaza reduced tax rates and the number of personal income tax brackets to four (5, 10, 15, and 20 percent). In contrast, Israel maintains five inflation-adjustable brackets of 10, 20, 30, 45, and 50 percent on active personal income.

[20]Under the revenue clearance system, each party recovers from the other party's tax authority some taxes paid by persons and firms in their respective jurisdictions. For further details, see Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen (1999).

Figure 5.2
The West Bank and Gaza's Tax Burden in a Cross-Country Comparison



Sources: World Bank Development Indicators database, and IMF staff estimates.

works rather smoothly, but it exposes the PA to the risk of revenue transfers being suspended when the political and security situation deteriorates, as happened in 1996, late 2000, and early 2001.

While it remains to be decided what trade regime will be adopted between the West Bank and Gaza and Israel in the future, the customs union seems likely to be replaced with an arrangement that involves the establishment of a customs border between the two entities. This would provide greater scope for tax policy autonomy in the West Bank and Gaza.

To start, the revenue-GDP ratio of the PA has risen from 8 percent of GDP in 1994 to 22 percent of GDP in 2000. Israel's tax burden is even higher at 30 percent of GDP, but if one takes into account per capita GDP and the age dependency ratio, the West Bank and Gaza lies well above the trend for 62 developed and developing countries (Figure 5.2). This raises the question to what extent PA tax policy should be and could be better tailored to meet the needs of the Palestinian economy. Moreover, currently more than 80 percent of all revenues originate from indirect taxes (60 percent from the revenue clearance system with Israel), and only 8 percent are generated by personal income taxes. A better balance between direct and indirect tax revenues would be desirable on equity grounds.[21] Over the medium term, however, with an increase in the ratio of the labor force to the population at large, direct taxes will inevitably become relatively more important.

Finally, if the revenue-GDP ratio were indeed to increase in line with the higher estimates in the previous section, it might be appropriate to consider reducing certain tax rates, rather than allowing the government sector to grow too large. A much higher revenue-GDP ratio than today could undermine the growth prospects of the Palestinian economy. The tariff changes mentioned above offer this potential. Similarly, total PA fiscal expenditure (including through the donor-financed development budget) equals roughly 27 percent of GDP. This is very high by international standards, especially considering that, for a large part of the population, public services are mainly, if not entirely, provided by UNRWA and NGOs. For the future, it will be important for the PA to plan how it can gradually assume these services. Foreign assistance is also unlikely to remain at current levels and on current favorable terms indefinitely, and the PA should seek to begin contributing to the development budget with its own resources. To these ends, and given that it would not be desirable for the revenue-GDP ratio to rise significantly higher than its current level (22 percent), the PA will have to rein in recurrent expenditure growth.[22] Adopting a low uniform tariff rate across the board with a minimum of exceptions, as Chapter 4 argues, would also have the beneficial side effect of working towards this end. Such a tariff regime would be simple and transparent, and would help to minimize economic distortions, administrative problems, and potential rent seeking. Moreover, the problem of tax leakages resulting from indirect imports via Israel could finally be addressed by well enforced rules of origin.

Tax Administration

If a customs border between Israel and the West Bank and Gaza were to be established, this would not only open the door for a more autonomous and growth-oriented trade and tax policy, but the burden on the PA tax administration would also increase. An important priority for the coming years must, therefore, be to strengthen the efficiency of the tax administration to ensure that there will not be too

[21]A progressive direct tax system can achieve limited income redistribution.

[22]These points are further elaborated in Alonso-Gamo, Alier, Baunsgaard, and Erickson von Allmen. (1999).

Table 5.7 Estimated Impact of Demographic Variables on Revenue with Migration, 1999–2010[1]

	Regressor	Sign	Base Value (1999)	Estimated Value with Migration (2010)
IMF staff estimate[2]	Age dependency[3]	–	20.7	22.3
	Working-age population	+	20.7	22.2

Sources: IMF staff estimates and quoted publications.

Note: Under the migration scenario, population growth in 2001–10 is 600,000 higher than in the scenario without migration.

[1]As a percentage of GDP.

[2]Dependent variable is tax revenue/GDP.

[3]Ratio of nonworking-age population (under 15 and over 65) to working-age population (15–65)

much of a loss in revenue collection if and when the PA becomes responsible for collecting all of its revenue.[23] Specifically, it will be important to improve the institutional structures and systems by unifying the separate VAT and income tax organizations in the West Bank and the Gaza Strip. This would improve efficiency and allow for better cross checking. To further boost revenue collection and fight tax evasion, it will be important to create a large taxpayer unit, alongside an enhanced enforcement system and selective audit programs. In addition, the administrative burden on the central tax authority could be relieved by introducing a self-assessment concept for income tax—a basic principle of any modern tax system—and devolving more revenue autonomy to local governments. Local property taxes are underutilized in the West Bank and Gaza relative to other countries in the region, and apart from delegating responsibility, such a move could alleviate the constraint on local governments' revenue capacity and diversify the revenue base in general.

Fiscal Consequences of Migration

A permanent status agreement between Israelis and Palestinians may be followed by large-scale immigration to the West Bank and Gaza, including of refugees. While the numbers are surrounded by considerable uncertainty, UNRWA estimates that about 1.4 million Palestinian refugees currently live in the West Bank and Gaza, and a further 2.3 million in Jordan, Lebanon, and Syria.[24] Chapter 2 highlights the potential macroeconomic consequences of an inflow of only a fraction of the Palestinians living outside the West Bank and Gaza over the next 10 years. Obviously, there are also important fiscal implications. For a start, the revenue-enhancing and expenditure-reducing effects estimated earlier in this chapter could be amplified by the higher growth in population and slight changes in age composition (see Table 5.1).[25] There will also be considerable direct costs that might be incurred by the PA.

Tables 5.7 and 5.8 report the effects of demographic change using the same methods as in the previous section, but amplified by 600 thousand additional immigrants living in the West Bank and Gaza by 2010. Revenue would receive a further boost and could increase by 1.6 percentage points of GDP, in contrast to the 1.3 percentage points in the no migration scenario. At the same time, expenditure could be reduced a bit more through a slight reduction in the age-dependency ratio, leading to a reduction by 1.7 percentage points, compared with the 1.4 calculated in the earlier case. Figure 5.3, as a complement to Figure 5.1, sums up the overall results: immigration may further facilitate fiscal consolidation, as the deficit could shrink to 0.4 percent of GDP. Of course, the caveats mentioned earlier still apply. Above all, employment creation for such a large number of returnees will be even more difficult than the already formidable challenge of accommodating the natural growth rate of the workforce—especially given the current state of the

[23]Even today, there are large amounts of reported tax arrears outstanding (estimated at NIS 1.6 billion in June 2000), and a significant number of taxpayers appear to not have paid any income tax for the last five years.

[24]UNRWA.

[25]The age dependency ratio in 2010 is slightly lower in the scenario with migration than in the one without migration.

Table 5.8 Estimated Impact of Demographic Variables on Expenditure with Migration, 1999–2010[1]

	Regressor	Sign	Base Value (1999)	Estimated Value with Migration (2010)
IMF staff estimate [2]	Age dependency[3]	+	22.2	20.9
	Working-age population	–	22.2	22.0
Rodrik (1996)[4]	Age dependency[3]	+	22.2	20.0
Commander, Davoodi, and Lee (1997)[4]	Age dependency[3]	+	22.2	20.6
Heller and Diamond (1990)[4]	Population share > 65 years old	+	22.2	21.8

Sources: IMF staff estimates and quoted publications.

Note: Under the migration scenario, population growth in 2001–10 is 600,000 higher than in the scenario without migration.

[1]As a percentage of GDP.

[2]Dependent variable is total expenditure/GDP.

[3]Ratio of nonworking-age population (under 15 and over 65) to working-age population (15–65)

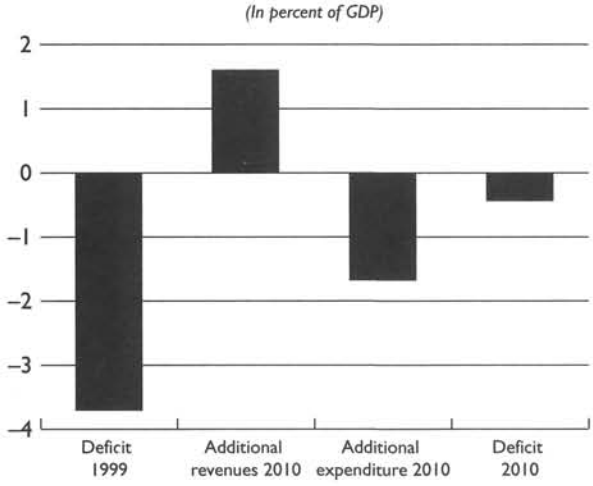
[4]Dependent variable is total current expenditure/GDP (for 1999 total expenditure equals current expenditure of the PA).

economy. Hence, rather than leading to domestic employment growth at rising real wages, there might well be an increase in unemployment, a reduction in real wages, or both.

In addition to the fiscal implications stemming from returnees, a permanent settlement of the refugee question would also require the PA to (eventually) take responsibility for the services provided by UNRWA—with a budget of US$353 million in 1999—to the refugees living inside the West Bank and Gaza. Highly tentative calculations suggest that current expenditure could come to about US$200 per refugee per year, abstracting from any compensation payments. Therefore, should the total population be boosted by 600 thousand immigrants and their descendants, as in the migration scenario in Chapter 2, and supposing that they are all returning refugees, this could mean additional expenditure of US$120 million for the PA. Should the PA also assume the cost of public services to the 1.4 million refugees currently provided for by UNRWA in the West Bank and Gaza, this would add up to a total of US$394 million per year (roughly 9 percent of GDP in 2000).[26] In comparison, total recurrent expenditure of the PA stood at US$943 million in 1999. Additionally, one-time costs, for example in infrastructure, of absorbing such a large number of people, would have to be taken into account. Obviously, such an expense could not be covered by an improved revenue effort alone but highlights that sustained donor support will be required together with stringent expenditure controls in the PA.

Figure 5.3

Summary of the Impact of Demographic Change on Fiscal Revenue, Expenditure, and Deficit of the Palestinian Authority, with Migration



Source: IMF staff calculations and estimates.

[26]This does not necessarily contradict the finding that overall expenditures as a percentage of GDP could decline as per capita GDP growth may be stimulated by the larger workforce.

Immigration may have beneficial macroeconomic and fiscal effects over the medium term—but only if the economy is able to generate and sustain employment without undue compression in real wages. Given current unemployment rates, this raises a big question mark. In the short term, however, donor support would surely be essential to meet the needs of the greatly expanded population.

Conclusion

It is difficult to predict medium-term fiscal developments for any economy, and even more so for the West Bank and Gaza, given the many uncertainties. Thus, projections up until 2010 should not be taken too literally. They constitute little more than suggestions of the directions and the broad order of magnitude that may be involved. Nevertheless, it is clear that while the projected demographic changes have the potential of developing into a fiscal blessing for the PA, they may also turn out to be a curse. Tax revenue seems likely to increase with a larger workforce, but only a larger workforce that finds jobs. Expenditure may be reduced with a smaller number of school children and fewer people older than 65 in relation to the total population, but only if public sector employment is contained and the fiscal dangers of an unsustainable pension system are addressed.

To produce and at the same time reap any benefits of this potential demographic dividend the PA will have to make a few important policy choices. Above all, the PA should reconsider its spending priorities. On the basis of current allocations, changes in the age structure may allow social budgets to decrease as a percentage of GDP, but it may in fact be preferable to maintain the current expenditure-GDP ratio by increasing per capita expenditure in the education, health, and social sectors, and by contributing more to the capital budget.

The Choice of Future Exchange Rate Regime in the West Bank and Gaza

Ulric Erickson von Allmen and Felix Fischer

An issue that has received considerable attention over the past few years is whether the Palestinian Authority (PA) should introduce its own currency and if so under what type of exchange rate regime.[1] This issue will surely receive more attention in the coming years and will be discussed against the background of widespread consensus among economists and central bankers that monetary policy should be concerned primarily with price stability. There is also a renewed international discussion on the appropriate exchange rate regime for developing countries, following the capital account driven currency crises in emerging market economies in the late 1990s.[2] Over the past 10 years, countries with open capital accounts have tended to shift away from soft pegs in favor of either very hard pegs (including currency boards) or more freely floating regimes; even abandoning the local currency altogether in favor of complete dollarization is an option that has attracted some attention recently (see, for example, Fischer, 2001). It is too early to say, though, that a consensus has formed on the soundness of this bipolar view of exchange rate regimes.

A local currency can have significance that transcends its traditional roles as a unit of account, medium of exchange, and store of value; it can also be a national symbol, carrying cultural, political, and historical significance. At the same time, a currency has important economic implications, and the decision to introduce a currency, like any other major economic policy decision, should take into account its welfare implications. Currency introduction can be compared with a fixed investment; it can bring benefits to the Palestinian economy but with risks, and like fixed investment, currency reform is difficult to reverse.

The West Bank and Gaza is in a different position from other countries that have introduced their own currencies in recent years. The national currencies introduced in the countries of the former Soviet Union, for example, replaced an inconvertible currency that had lost its value and attraction after a bout of high inflation. It is not particularly difficult to convince people to shift to a new currency in such an environment. In the West Bank and Gaza, on the other hand, the currencies that are currently used—the Jordan dinar, the new Israeli shequel, and the U.S. dollar—are all stable and convertible so it will probably be more difficult to convince people to shift to a new, untested currency. What is crucial is the public's confidence in the Palestinian policy institutions'—the PMA as well as the PA more generally—commitment and capacity to maintain the stability and convertibility of the new currency.

The purpose of this chapter is to discuss the key issues involved in the introduction of a Palestinian currency. It will argue that because the current setting works quite well, there is no need to rush ahead with the introduction of a Palestinian currency—indeed, on purely economic grounds, it is not obvious that it makes sense to introduce a Palestinian cur-

[1]The topic has been discussed at two conferences organized by the Palestine Monetary Authority (PMA), in Gaza in December 1998 and in Cairo in November 1999.

[2]See Mussa and others (2000) for a recent review of exchange rate regimes issues.

Table 6.1 Economic Indicators for the West Bank and Gaza and Selected Economies[1]
(In billions of U.S. dollars, unless otherwise indicated)

	Population (millions)	GDP	GDP Per Capita	Imports	Exports	Imports/ GDP (%)	Exports/ GDP (%)	(Exports + Imports)/ GDP (%)	Exports Per Capita (US$)	Currency/ GDP (%)
West Bank and Gaza	2.8	4.2	1,529.8	3.4	0.7	80.5	17.5	98.0	268	...
Jordan	5.1	7.5	1,451.6	5.0	3.5	66.8	47.1	114.0	684	20.9
Israel	6.1	98.9	16,253.6	40.9	35.8	41.4	36.2	77.6	5,883	3.0
Estonia	1.5	5.1	3,448.3	5.0	4.6	96.9	89.1	186.0	3,073	7.6
Hong Kong	6.7	158.6	23,639.6	202.4	209.6	127.6	132.1	259.7	31,238	8.1
Panama	2.9	9.6	3,353.7	4.0	3.1	41.3	32.8	74.1	1,100	...
World average[2]	33.4	173.6	6,087.9	39.1	39.1	44.7	39.7	84.4	2,705	7.5
World median[2]	6.8	9.0	1,618.3	3.7	3.0	42.7	35.7	78.7	578	5.8

Sources: IMF, *World Economic Outlook* database; Palestinian Central Bureau of Statistics; and IMF staff estimates.
[1]Data refer to 1999.
[2]180 countries were used for these calculations.

rency—and that the PA and the PMA should focus on preparing the ground so that a currency introduction would be successful. The scope for the PMA to conduct an independent monetary-cum-exchange rate policy under any form of exchange rate regime is extremely limited, and with considerable downside risks in the form of macroeconomic uncertainty and possible instability. For these reasons, this chapter argues that if a Palestinian currency were to be introduced, it would stand the greatest chance of success if it were under a currency board arrangement; indeed, it might be difficult to successfully introduce a Palestinian currency under any other type of regime. Thus, the important issue is credibility of the exchange rate/monetary regime rather than the usual fixed versus flexible exchange rate aspect.

A Brief and Selective Overview of the Palestinian Economy

A Small Open Economy

The West Bank and Gaza is a small open economy in the sense that it cannot affect world prices of its exports and imports. It is small. Its population is just under 3 million and the gross domestic product (GDP) was estimated at about US$4.2 billion in 1999—roughly one twenty-fifth of Israel's GDP and less than one-half of the world median.[3] The West Bank and Gaza can be considered an open economy on the basis of two common measures of openness: (i) the magnitude of its balance of payments flows compared with the size of the economy, and (ii) the degree of restrictiveness of the trade and exchange regime. With respect to the former, the sum of exports and imports of goods and services equals almost 100 percent of GDP, a high level by international standards (Table 6.1).[4] Other balance of payments flows are also important. Before the recent crisis, labor income from Israel and the settlements equaled almost 20 percent of GDP; foreign aid disbursements amounted to roughly 13 percent of GDP; and foreign direct investment equaled around 6 percent of GDP. There is no reliable information on the transfers from Palestinians living abroad, but these flows are generally considered to be substantial. In all, the balance of payments flows are very large relative to the size of the economy.

The exchange regime (that is, the legal and regulatory system that governs trade and foreign exchange transactions) is also very open, as it does not restrict payments and transfers for current or capital transactions. As regards the trade regime, the West Bank and Gaza is in a customs union with Israel, and the common external tariff, with a few excep-

[3]Gross national income (GNI) was higher at approximately US$5.1 billion mainly because of labor income earned in Israel and its settlements. Gross disposable income, which also takes into account current transfers from abroad, is even higher at about US$5.5 billion.

[4]Imports equal roughly 80 percent of GDP, which is high by international comparison, whereas exports amount to around 18 percent of GDP, which is low (see Chapter 4).

Table 6.2 Consolidated Banking System
(In millions of U.S. dollars; balances at the end of the period.)

	1996 Jan.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Dec.	2000 Sep.
Net foreign assets	1,012	1,375	1,485	1,669	1,972	2,388
Net domestic assets	187	126	331	547	643	1,118
Net claims on the nonfinancial public sector	–27	–184	–167	–75	–103	266
Credit to the private sector	251	409	563	733	913	1,074
Other items (net)	–37	–99	–65	–112	–167	–223
Liabilities to the private sector	1,199	1,501	1,815	2,216	2,615	3,506
Demand deposits	...	485	543	605	673	868
Time and savings deposits	...	1,017	1,273	1,611	1,942	2,637

Source: Palestinian Monetary Authority

tions, is set by Israel (see Chapter 4). The trade regime is quite complex, and although Israel's average most-favored-nation (MFN) tariff is reasonably low, at 8.8 percent, the tariff dispersion is very high. Palestinian exporters and importers are constrained, furthermore, by cumbersome trade and transportation restrictions imposed by Israel for its security concerns (see Chapter 3).

Rapidly Expanding Banking System

The Palestinian banking system has expanded rapidly in the last six years, and today, 23 banks operate in the West Bank and Gaza compared with only a handful back in 1993. (Chapter 1 provides a fuller description of developments in the banking system.) Bank deposits of the private sector have increased sixfold since 1994 to over US$3.3 billion (78 percent of GDP) by December 2000. Meanwhile, credit to the private sector increased tenfold to US$926 million (22 percent of GDP) (Table 6.2). Foreign banks have a heavy presence and 14 out of the 23 banks are branches of foreign banks (nine Jordanian, two British, two Egyptian, and one Israeli). Together they account for over 80 percent of total deposits and almost 75 percent of total bank credit, but only a few foreign banks actually dominate the banking system. The largest three—Arab Bank, Cairo-Amman Bank, and Bank of Jordan—account for over two-thirds of deposits and well over one-half of the credit extended.

Three Currencies

A particular feature of the Palestinian economy is the absence of a local currency and the free circulation of three convertible currencies—the Jordan dinar, the new Israeli shequel, and the U.S. dollar (see Box 6.1). The situation can be described as one of complete currency, asset and liability substitution, and for convenience, it will be referred to as dollarization although currencies other than the dollar are also involved. The present arrangement seems to work quite well and there is no evidence that it has adversely affected economic growth. The three currencies are convertible and reasonably stable and there are no restrictions on moving from one to the other.

From the theory of currency competition (e.g., Girton and Roper, 1980), we would expect that, over time, one currency would gradually come to dominate and even out-compete the other currencies because of economies of scale. Indications are that such forces are already in motion in the West Bank and Gaza, where over the past six years the U.S. dollar has gained ground in bank credit and deposits at the expense of the dinar and to a lesser extent the shequel. Nearly 60 percent of private sector deposits are now denominated in dollars compared with only 34 percent in early 1996, and for private sector credit the corresponding percentages are 54 and 11, respectively (Table 6.3). The share of the shequel in deposits and credit has not declined by as much as that of the dinar because of the close economic ties between Israel and the West Bank and Gaza. Information on currency in circulation is not available, but judging from check clearance data from the PMA, and from anecdotal evidence, the shequel is by far the most important currency in current transactions, and it will continue to be important so long as trade with and labor income from Israel remain significant. The

Box 6.1. The Use of the Jordan Dinar, the New Israeli Shequel, and the U.S. Dollar in the West Bank and Gaza

The Protocol on Economic Relations of 1994 states that: "... the new Israeli shequel (NIS) will be one of the circulating currencies in the [West Bank and Gaza] and legally serve there as means of payment for all purposes including official transactions. Any circulating currency, including the NIS, shall be accepted by the Palestinian Authority and by all its institutions, local authorities and banks, when offered as a means of payment for any transaction." Thus, the language in the Protocol serves to ensure that the shequel cannot be discriminated against, but does not require it to be used.

The new Israeli shequel is the most widely used currency as a means of payments for current transactions, both in cash and checks. Retail prices are almost exclusively quoted in shequels. The high use of the shequel reflects that Palestinian trade is overwhelmingly with Israel, the PA budget is executed (predominantly) in shequels, and about 20 percent of the labor force works in Israel and its settlements (at least until the recent crisis) earning their wages in shequels.

The Jordan dinar remains important for historic and institutional reasons; transactions between Jordan and the West Bank and Gaza are very limited. Before 1967, the dinar was the main currency used in the West Bank both for transaction purposes and as a store value. Today, municipalities in the West Bank still issue invoices and charge fees in dinars, although they accept shequels as a means of payment. Jordanian banks, moreover, which dominate the banking system, pay wages in dinars and the same applies to many of the largest companies, like PALTEL.[1] Since 1988, after the devaluation of the dinar, there has been a gradual substitution away from the dinar into the shequel and the U.S. dollar. Nevertheless, around 23 percent of all bank deposits and credit are denominated in dinar and 15 out of 24 companies on the Palestinian Security Exchange are listed in dinars. The dinar denominated bank credit is mostly consumer loans to customers with income in dinars.

Transactions of larger amounts and rents are usually, and increasingly, made in U.S. dollars. The dollar has traditionally been an important store of value but has also, over the last six years, become increasingly used for domestic credit and for payments for durable goods, rents and investments.[2] Some features of the expansion of financial services are also contributing to an increased use of the dollar. For example, credit cards can only be held in dollars or dinars, but not shequels. Stores are increasingly charging in dollars for credit card payments. Consequently, in order to avoid excessive currency conversion costs there is also a trend to have credit cards against dollar rather than dinar accounts.

[1]Employees of other banks are mainly paid in U.S. dollars.

[2]Bankers reported that many customers have standing orders whereby the bulk of savings are held in dollars, while the shequel account only contains a small amount to meet day-to-day transaction demands. When the balance in the shequel account falls to a certain level, an automatic transfer is made from the dollar account to the shequel account.

persistence of the dinar in bank deposits and credit is at first a bit more surprising given the low level of economic interaction between the West Bank and Gaza and Jordan. However, several structural factors contribute to the continued demand and use of the dinar in the West Bank and Gaza: Jordanian banks and many large enterprises, like PALTEL, pay their wages and salaries in dinar, and some fees are also paid in dinar. These factors ensure a minimum demand for dinar deposits and (consumer) loans. One cannot rule out the possibility that the present mix of currencies in use optimally reflects the public's preferences, although there is no way, of course, for the public to reveal any preference it may have for a local currency.

The absence of a local Palestinian currency obviously means that there is not much room for monetary policy. There is also no risk for a local currency crisis, which can be damaging to the domestic economy, and there is no reason for investors to charge a currency risk premium on their investments. While capital outflows can occur regardless of whether a country has a currency or not, in the present situation capital outflows will at least not be triggered by changes in market sentiment over the stability of the currency. At the same time, the West Bank and Gaza does not get seigniorage from currency issue.[5] These issues will be revisited later in this chapter.

Choosing an Exchange Rate Regime

In the past 10 years, there has been a trend among countries with open capital accounts to move away from soft pegs and managed floating exchange rate

[5]The PMA already earns seigniorage on unremunerated required reserves.

Table 6.3 Currency Composition of Deposits and Loans

	1996 Jan.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Dec.	2000 Sep.	1996 Jan.	1996 Dec.	1997 Dec.	1998 Dec.	1999 Dec.	2000 Sep.
	(In millions of U.S. dollars)						(In percent of total)					
Total deposits[1]	1,249	1,707	2,067	2,390	2,832	3,686	100	100	100	100	100	100
New Israeli shequel	252	339	332	342	385	762	20	20	16	14	14	21
Jordan dinar	555	645	713	578	629	746	44	38	35	24	22	20
U.S. dollars	427	708	997	1,452	1,787	2,129	34	41	48	61	63	58
Other	16	15	24	19	30	49	1	1	1	1	1	1
Total loans and overdraft[2]	271	402	599	791	983	1,436	100	100	100	100	100	100
New Israeli shequel	94	122	177	192	201	436	35	30	29	24	20	30
Jordan dinar	144	174	166	200	206	224	53	43	28	25	21	16
U.S. dollars	33	105	250	388	561	763	12	26	42	49	57	53
Other	0	1	6	11	15	13	0	0	1	1	2	1

Source: PMA

[1]Residents only.

[2]Loans and overdrafts from resident banks to resident public and private nonfinancial sector and to nonresident nonfinancial sector.

regimes toward the ends of the spectrum of possible regimes—more or less freely floating rates or hard fixed rate regimes like currency board arrangements (as in Argentina, Bulgaria, and Estonia).[6] Even the extreme—abandoning a local currency altogether (as in Panama) in favor of complete dollarization—has attracted interest after Argentina gave dollarization serious consideration in 1999, and Ecuador actually began to implement dollarization in 1999.[7] That dollarization is now a respectable choice for an exchange rate regime is a recognition that the value of having a national currency does not always outweigh the costs. Having a currency means that the country can earn seigniorage and (in some cases) pursue exchange rate and monetary policy, but at the cost of exposing itself to currency crises and currency risk premia.[8]

[6]Mussa and others (2000) provides a recent overview of exchange rate regime issues. Fischer (2001) argues that soft peg systems have not proved viable over any lengthy period of time, especially for countries integrated or integrating into international capital markets. Frankel, Schmukler, and Servén (2000) emphasize verifiability as one reason why simpler monetary-exchange rate policy frameworks are becoming favored—the ease with which adherence to the framework can be verified by the public is crucial for credibility.

[7] Information on Ecuador is available from IMF (2000). Calvo has written extensively on dollarization and particularly useful are Calvo (1999a and b, 2000a and b). Furthermore, Berg and Borensztein (2000) analyze the pros and cons of dollarization as compared with a currency board arrangement, with particular reference to Argentina.

[8]Whether introducing a Palestinian currency will increase or reduce transaction costs would depend on the extent to which it would replace the other currencies.

Exchange Rate and Monetary Policy

For a small open economy like the West Bank and Gaza, exchange rate policy and monetary policy are intrinsically linked and are therefore usefully discussed together. In the standard Mundell-Flemming framework, a small open economy can benefit from monetary policy independence only under a floating exchange rate regime. In practice, however, for a small open economy like the West Bank and Gaza with weak policy credibility, the degree of monetary policy independence is likely to be extremely limited even under a freely floating regime. Attempts to pursue an independent monetary policy would likely lead to swings in the nominal exchange rate, with negative effects on domestic price stability and the soundness of the banking system. The extent of monetary policy independence will be influenced by the credibility of the policy institutions. This credibility will affect how the public will perceive attempts to pursue discretionary monetary policy. With weak credibility, an attempt to relax monetary policy unilaterally might simply lead to a higher risk premium and a sharp depreciation of the currency, or both. Thus, for small open economies, prudent monetary policy under a floating exchange rate regime usually involves following international monetary policy developments. Borensztein, Zettelmeyer, and Philippon (2001) find that interest rates in a group of small open economies followed quite closely changes in U.S. monetary policy, irrespective of whether their currencies were pegged or

floated.[9] Thus, while in principle a small economy can adopt a floating regime and pursue an independent monetary policy, it is significant that even countries that would seem to be in a position to do so find that it is in their best interest to let monetary policy follow international monetary developments to avoid large swings in the exchange rate even if they do not have a specific target for the exchange rate. For the West Bank and Gaza, which is significantly smaller than the above-mentioned economies and lacks strong policy credibility and sophisticated financial markets, it would be unreasonable to expect that there would be much, if any, room to conduct independent monetary and exchange rate policy even under a floating exchange rate regime. In fact, the mere possibility of the PMA conducting discretionary monetary and exchange rate policies might lead to a high risk premium on investments in the new currency and might induce considérable macroeconomic instability.

A reasonable question might be that, if it is the combination of openness, smallness, and weak credibility that would prevent the West Bank and Gaza from having an independent monetary policy even under a floating exchange rate regime, is there a case for reducing openness, especially in the capital account? There is a real danger that a reduction in convertibility at the time a Palestinian currency is introduced would sèriously undermine the public's confidence in and demand for the new currency. The public is now very familiar with operating in U.S. dollars, shequels, and dinars, and introducing a Palestinian currency with restricted convertibility would almost surely mean that a high degree of currency substitution would remain. The issue of convertibility is discussed in more detail in a later section.

The Exchange Rate as a Nominal Anchor

A nominal anchor helps tie down inflation expectations and is necessary (technically) in order for the price level to be uniquely determined. A common strategy is to use a fixed exchange rate as the nominal anchor for monetary policy. Mussa and others (2000, p. 23) point out that throughout history the values of national monies were fundamentally defined by linking their values to some external asset, such as gold, silver, or (under the Bretton Woods system) to the U.S. dollar, which in turn was pegged to gold. It is only since the 1970s that the major international currencies have floated in response to market pressures. The authors also make the point that for many developing countries it may simply be unreasonable to think that there can be a credible anchor for expectations about monetary policy and for the exchange rate if the authorities do not establish some guide for the value of the money they create in terms of some readily available alternative asset of stable value. Pegging the exchange rate is a simple, transparent, and time-honored way of providing such an anchor. These arguments all apply very much to the case of the West Bank and Gaza as well.

A fixed exchange rate is a suitable nominal anchor for monetary policy for several reasons (see, for example, Mishkin, 1998). First, under a fixed exchange rate the inflation rate of internationally traded goods is also fixed. Given the high share of imports in the Palestinian economy, this would have an important direct effect on overall inflation. Second, if the peg is credible, inflation expectations will be anchored to inflation in the country to whose currency the exchange rate is pegged. Third, an exchange rate target is simple and can be more easily understood and monitored by the public than other monetary policy targets. Fourth, a fixed exchange rate target can help mitigate the credibility problem since it forces a tightening of monetary conditions when there is a tendency for the domestic currency to depreciate and vice versa when there is a tendency for the currency to appreciate.

A fixed exchange rate furthermore helps avoid large swings in monetary conditions during periods of money demand uncertainty and instability.[10] Currency demand for the new Palestinian currency would be difficult to predict during the period when it is introduced, and it might take several years until the public has arrived at some kind of equilibrium level of holdings of new currency. But even afterward, there is bound to be a great deal of uncertainty

[9]The eight economies are: Argentina, Australia, Canada, Hong Kong S.A.R., Mexico, New Zealand, Singapore, and South Africa. The magnitude of the response tended to be larger for countries with currency boards (the response was one for one in Hong Kong, for example) than in countries with floating regimes, but even in these latter countries there was a considerable effect on domestic interest rates (about one-half) from U.S. monetary policy.

[10]In fact, fixed exchange rates might strengthen money demand in so far as they reduce uncertainty about monetary policy (Ghosh, Gulde, Ostry, and Wolf, 1997).

about currency demand because of the continued rapid developments in the banking sector and the expansion of banking services.[11] An increase in banking services (for example, more ATMs and greater use of credit and debit cards) can be expected to be accompanied by a trend decline in currency demand.

There are circumstances when the policy of a fixed exchange rate conflicts with a target for low inflation. With rapid productivity growth in the tradable goods sector the equilibrium real exchange rate would appreciate (because of Balassa-Samuelson style effects) putting pressure on the actual real exchange rate to appreciate, and with a fixed nominal exchange rate such an appreciation will have to take place through inflation (as the price of nontradable goods rise).[12] This type of effect is one reason why inflation rates in Estonia and Latvia, for example, have been much higher than in the countries to which their respective currencies are pegged. Should this be a concern for Palestinian policymakers when choosing an exchange rate regime? There is a clear possibility that the West Bank and Gaza too could see strong productivity growth in the future (as discussed in Chapter 2), but while inflation can undermine economic growth, inflation caused by high productivity growth in the tradable sector could be described as benign.

The Exchange Rate Regime and Macroeconomic Performance

Does the exchange rate regime matter for macroeconomic performance? This would seem to be an essential question for a discussion of exchange rate regimes. Empirical studies of economic growth (like, Barro, 1991), however, typically do not pay much attention to the exchange rate regime as a determinant of a country's long-term economic growth performance, in part because it is difficult to distinguish the exchange rate from other macroeconomic policy variables (endogeneity problem). And, it is not clear ex ante how one should expect the exchange rate regime to affect economic growth. For instance, pegged exchange rates might foster trade and investment by reducing exchange rate uncertainty, but they might also reduce trade and investment by impeding needed relative price adjustments (Ghosh, Gulde, Ostry, and Wolf, 1997). A common finding is that output volatility tends to be higher under fixed than floating exchange rate regimes. In addition, Ghosh, Gulde, Ostry, and Wolf (1997) also find evidence of lower (and less variable) inflation under fixed than under floating rates but insignificant results for long-term per capita income. Aizenman (1991), and Ghosh and Pesenti (1994), find evidence that the adoption of pegs can foster investment and growth, while Levy-Yeyati and Sturzenegger (2000) find that fixed exchange rate regimes are negatively associated with long-term economic growth. In a study of currency boards, Ghosh, Gulde, and Wolf (1998) find evidence that on average, countries with currency boards had better inflation performance and higher growth than countries with either pegged or floating exchange rates, thus refuting the proposition that currency boards lead to sluggish growth.

One argument against fixed exchange rate regimes is that they may increase the exposure to speculative attacks and financial crises. But it will take some time before the Palestinian economy becomes so integrated with international financial markets that this becomes a real danger.

Another concern with fixed exchange rates—and more important to the case of the West Bank and Gaza—is the risk of overvaluation of the real exchange rate, caused by domestic policies that are not consistent with a pegged regime, by an appreciation of the anchor currency vis-à-vis the currencies of the main trading partners or by adverse economic shocks. The first two could in principle be remedied by pursuing sound fiscal policy and pegging to the exchange rate(s) of the main trading partner(s). It is more difficult to assess how important it would be for the West Bank and Gaza to be able to use the nominal exchange rate for relative price adjustments in response to economic shocks. First, adjusting the exchange rate might be useful, or absolutely necessary, in response to certain types of shocks but not to all. For example, if the shock is real in nature, like a terms-of-trade shock, allowing the exchange rate to adjust can help smooth output, whereas if the shock is nominal in nature, like a change in domes-

[11]Chapter 2 also showed that the Palestinian economy exhibited unusually high output volatility over the past 30 years, and if this tendency were to continue, there might also be fluctuations in currency demand.

[12]The real appreciation comes about because the price of tradable goods is fixed (determined in the world market), while the price of nontradable goods rise. Higher productivity in the tradable goods sector allow real wages in that sector to rise and, in order to restore internal balance, the wages in the nontradable sector will also rise. In the absence of corresponding productivity growth, there will be an increase in the price of nontradable goods.

tic money demand, adjusting the exchange rate would not help.[13] In the latter case, a fixed exchange rate would help smooth output, in line with the classic Poole (1970) analysis. Second, Calvo (1999b) argues that an exchange rate adjustment in response to a shock in the form of capital outflows is not an appropriate policy response since it might simply add to the problems by being contractionary and causing problems in the banking system, especially when there is a higher degree of asset and liability substitution. Third, being able to devalue in response to real shocks is important only in so far as the shocks do not affect the trading partners in the same way.[14] Fourth, being able to devalue can be important if nominal wages exhibit downward rigidity. While it is an empirical matter how rigid wages are in the West Bank and Gaza in response to real shocks, the Palestinian labor market lacks the attributes that are usually thought to contribute to rigid wages, such as tight labor market regulations, strong labor unions, minimum wages, and generous unemployment benefits. There is little reason therefore to believe a priori that wages should be overly sticky. Finally, since the Palestinian economy is very open, the passthrough of a devaluation into high domestic prices is likely to be quick and large, implying that there might be little scope for achieving a lasting real exchange rate depreciation through a devaluation. Thus, an assessment of the merit of a fixed versus floating exchange rate regime requires a view on the likelihood that the Palestinian economy will experience real shocks of a magnitude that cannot be adjusted through prices and wages, and that are likely to affect the West Bank and Gaza differently from its main trading partners. In addition, large variations in the real exchange rate can inflict lasting damage on the real economy, and the real rate tends to be more stable under a fixed exchange rate.

[13]A decline in the grant terms of foreign aid can have a similar effect as a terms-of-trade deterioration. Currently, aid to the PA is predominantly in the form of grants and highly concessional loans, but if aid were to increasingly take the form of loans and with less concessionality (higher interest rates), the non-interest current account balance would (eventually) have to improve to finance interest and loan repayments. Such a current account improvement requires a real exchange rate depreciation. A case in point is Jordan in the 1980s, where the composition of external financing changed from being mostly grants to one with a larger share of commercial loans, and the dinar was devalued in the late 1980s.

[14]Assuming, of course, that the trading partners would undertake a similar policy response.

The Credibility Problem

The previous sections have argued that a fixed exchange rate would be a suitable nominal anchor in the West Bank and Gaza, while showing some of the tradeoffs involved between fixed and flexible exchange rate regimes. For the West Bank and Gaza, a more important aspect than the traditional fixed versus flexible exchange rate question is the issue of policy credibility, especially during the period when the Palestinian currency is launched and until it has gained widespread public acceptance. The credibility problem is very real because the Palestinian policy institutions are young and lack a track record on inflation (by default) and the PA's macroeconomic policy priorities have not been clearly articulated. It is not that the PMA has a poor reputation, it simply does not have *any* reputation when it comes to monetary policy.[15] The credibility problem arises when policymakers cannot convince the public that they will stick to a policy that ensures the stability and convertibility of the Palestinian currency, if the public thinks that the policymakers might want to deviate from this rule because of short run benefits.[16] The outcome would be higher inflation expectations and higher interest rates, even without the PMA or the PA actually trying (or having the slightest intention) to use monetary policy for short-term output and employment purposes.[17] It would come about because they cannot credibly convince the public about their intention to adhere to the long-term optimal policy. Over time, the PMA and the PA, through consistent implementation of prudent economic policies, could build up a reputation for giving high priority to the stability of the new currency, but building up a reputation takes time and would likely involve a tighter (on average) monetary policy than what would be considered optimal. In an environment of young and inexperienced policy institutions, it would be unrealistic to expect the Palestinian public to have, from the onset, the same degree of confidence in a new, untested Pales-

[15]The introduction of a minimum credit to deposit ratio and a maximum foreign asset to total asset ratio for banks (as discussed in Chapter 1), however, might have raised some questions over the PMA's priorities.

[16] This is the so-called time inconsistency problem. See Kydland and Prescott (1977), and Barro and Gordon (1983).

[17]Low confidence in the new Palestinian currency would also manifest itself in a very gradual increase in its usage, and the Palestinian economy would be characterized by a high degree of currency substitution.

tinian currency as it has in the three currencies now circulating in the West Bank and Gaza, unless there is a simple and transparent monetary policy framework that effectively rules out the discretionary use of monetary and exchange rate policies. A currency board provides such a framework. Indeed, it might be impossible to successfully introduce a Palestinian currency under any other type of exchange rate regime.

Measures to Boost the Credibility of a Palestinian Currency

While a currency board would endow a new Palestinian currency with much needed credibility, it would still be crucial for the PMA and the PA to address, before introducing a currency, some issues that might otherwise undermine the viability of the new currency, regardless of exchange rate regime. This section will not discuss all conditions and aspects of a successful currency introduction, for which there is an entire body of literature; rather it focuses on two areas of reforms: fiscal discipline and bank supervision. There are of course other measures that are important, including reducing political risk and output volatility, strengthening governance, and improving access to world markets. In addition, technical and legal preparations have to be undertaken to pave the way for currency introduction.

Fiscal Discipline

Weak fiscal discipline is a classic buster of fixed exchange rate regimes, and the PA's fiscal position was fragile already before the onset of the crisis that broke out in September 2000, and it has deteriorated significantly during the crisis (see Chapter 1). Improving PA fiscal management is certainly necessary independent of whether a currency is introduced, but with a currency, weak fiscal discipline might lead the public to fear that the PA would want to resort to central bank financing of its budget deficits once there is a Palestinian currency. The PMA Law already allows some PMA financing of the PA's fiscal operations, and at the end of December 2000, PA borrowing from the PMA stood at US$23 million. In order to convince the public that the new currency will not be used to finance budget deficits, the PA would have to show that it can control fiscal expenditure, in particular the wage bill. It would also be good policy—and under a currency board an absolute condition—for the PA to amend the PMA Law to prohibit the PMA from lending to the PA.

A policy that rules out the PMA providing financing to the PA is particularly important given the uncertain fiscal outlook. First, the PA has not yet shown that it is willing to rein in the rapid expansion in PA employment, the central concern on the expenditure side. Second, the recent closures and turmoil have severely dimmed the revenue forecasts for 2001 and possibly 2002. Third, the rather generous tax incentives granted under the Investment Promotion Law of 1998 can significantly reduce revenue growth over the coming years. Furthermore, if the West Bank and Gaza and Israel would abandon the customs union arrangement in favor of, for example, a free trade arrangement, under which the PA would be responsible for collecting all of its tax revenues, there is bound to be an initial decline in tax collection. Finally, the outlook for aid disbursements is uncertain, and even if the amounts disbursed were to remain at current levels over the medium term, it is likely that a greater proportion will be in the form of loans.

Bank Supervision and PMA Operations

Sound central banking, like fiscal discipline, has its own virtue and should be an objective regardless of whether a currency is introduced or not. With a Palestinian currency, the negative consequences of any weaknesses in the PMA's operations or the effectiveness of its banking supervision would be magnified, since a currency crisis can easily cause a banking crisis, and vice versa.

Although the PMA has made considerable progress since its creation in 1994 (see Chapter 1), and its stature in the banking system has grown in the past two years, much remains to be done to strengthen the PMA's operations, in particular banking supervision. To start with, a key priority should be to strengthen the management of the PMA by appointing directors of departments and to appoint a board in line with the provisions in the PMA Law. With respect to bank supervision, it is crucial—given the dominant role played by foreign banks—that the PMA allow, even encourage, cross-border supervision by home country supervisors. Efforts are also needed to improve the on-site and off-site inspection capacity of the PMA. Finally, several legal, organizational, and logistical preparations would need to be made prior to the introduction of a domestic currency. For example, the exchange rate

regime and the related policies should be clearly spelled out in an amended PMA Law. A foreign exchange law would have to be introduced ensuring a competitive market. Prudential requirements also must be reviewed in order to contain foreign exchange risk. Some additional organizational changes may become necessary as well, including a possible division of the PMA into a proper currency board and a department handling the lender-of-last-resort facility (if any), banking supervision, payment settlement, and other issues.

Going for a Currency Board

Basic Principles

A currency board represents the simplest and most credible form of monetary policy rule. If one should be adopted, the PMA would supply (and redeem) currency only in exchange for foreign exchange at a predetermined exchange rate so changes in money demand would be fully accommodated by endogenous changes in the PMA's international reserves and the balance of payments.[18] The main difference from a conventional fixed exchange rate is that under a strict currency board any supply of Palestinian currency would be matched fully by an increase in the PMA's international reserves, and the PMA would not extend any domestic credit, including to the PA. The backing rules and the fixed exchange rate would also be defined in law, making them more difficult to change and requiring broader political support than a conventional peg. Indeed, currency boards derive an important part of their credibility from the high political cost of abandoning them. Currency boards also derive their credibility from the fact that monetary policy is essentially on autopilot, with no room for discretionary policies. In practice, small countries typically cover a substantial part of their domestic liabilities with international reserves irrespective of exchange rate regime. For example, the Central Bank of Latvia operates a fixed exchange rate regime, but although it is not a currency board (as in Estonia and Lithuania), it nevertheless holds foreign exchange to back essentially all reserve money well in excess of the currency in circulation. Thus, to be successful, the PMA would have to back almost all its domestic liabilities with foreign assets regardless of the choice of exchange rate regime, at least initially, but with the difference that a currency board would instill more confidence in a Palestinian currency, which in turn would induce greater use and holdings of the new currency.[19] The Palestinian pound was quite successfully introduced and managed under a currency board in 1927–52 (see Box 6.2).

Several operational decisions would have to be made by the PA and the PMA related to the introduction of a currency under a currency board arrangement. Four of them will be discussed here: the choice of anchor currency, the choice of monetary aggregate to back with foreign exchange, the extent of foreign exchange backing, and the degree of convertibility and choice of legal tender.

Choosing the Peg

Deciding on the peg for a new Palestinian currency is not a trivial exercise and will involve a great deal of judgment. There is no easy and obvious choice, and at the same time, deciding on the anchor currency is probably the single most important decision for the success of a Palestinian currency board since the choice of peg can help alleviate some of the concerns with fixed exchange rates noted earlier. The West Bank and Gaza trades overwhelmingly with Israel and about 20 percent of the Palestinian labor force was employed in Israel before the turmoil that began in late September 2000. Thus, a case can be made for pegging a Palestinian currency to the new Israeli shequel in order to minimize transaction costs and exchange rate uncertainties in the economy. Pegging to the shequel would also significantly reduce the risk of competitiveness problems that the Palestinian economy might otherwise experience if the shequel, for some reason, were to depreciate markedly, as it did in late 1998. Avoiding the type of competitiveness problems experienced by Argentina should be a priority. Argentina has a currency board with a peg to the U.S. dollar, but only approximately 15 percent of its trade is with the United States. The strengthening of the dollar vis-à-vis all major currencies in recent years and the sharp depreciation of the currencies of more important trading partners like Brazil (in 1999)

[18]In some countries, redemption is limited to a number of designated banks through which other financial institutions must go. Such a restriction can help develop the interbank market.

[19]The credibility of currency board arrangements is evidenced by the international experience. Countries that have introduced currency boards have on average seen a narrowing of the interest rate differentials vis-à-vis the anchor currencies throughout the yield curve (Mussa and others, 2000, p. 26).

Box 6.2. The Palestine Currency Board, 1927–52

Before World War I, under the Ottoman regime, the Turkish currency was used in what was then Palestine, but it became progressively replaced by the Egyptian pound, and in 1921, Egyptian gold, silver, and nickel coins became legal tender in Palestine together with the British gold sovereign, which constituted an important part of the coinage.[1] This arrangement was considered unsatisfactory given the weak economic links between Palestine and Egypt and because the government of Palestine lost out on seigniorage.

On November 1, 1927, the Palestinian government introduced the Palestine pound under a currency board arrangement, pegging it one for one to the British pound sterling. All currency issue was backed by reserves held in London. The Transjordan government also decided to adopt the Palestinian pound as its currency. Five months after the introduction of the Palestine pound, the Egyptian pound ceased to be legal tender in Palestine. The initial currency issued amounted to (P£ 2.9 million, and in the period up to 1940 there was a gradual increase—albeit with temporary sharp fluctuations—in the amount of currency in circulation. Currency demand rose significantly after 1941 and through the end of the British Mandate, and the stock of Palestine pound peaked in May 1948 at roughly (P 60 million. The war of 1947–48 led to capital flight from Palestine on a large scale, and since the government of Palestine ceased operations with the end of the British Mandate on May 15, 1948, redemption centers for the Palestine pound were set up in Amman and London. By mid-1952 most Palestine pounds had been redeemed, and it was no longer legal tender anywhere.[2]

The Palestine Currency Board contributed to the revenues of the Palestine government in almost every year of its operations. It is interesting to note that the Palestine government, while under no obligation to do so, shared its seigniorage with the Transjordan government. When the government of Palestine ceased to exist, the seigniorage—and later also the surplus assets of the currency board when it was being wound down—was distributed to Crown Agents to repay any obligations the government had outstanding, and to the Hashemite Kingdom of Jordan. The Palestine Currency Board was closed on June 11, 1952.

[1]This box draws extensively on Smith (1998).

[2]The Palestine Currency Board remained as the monetary authority in Jordan after Jordan's independence in 1946, and the Palestine pound continued to be legal tender in Jordan until September 1950 (notes) and June 1951 (coins) when the Jordan Currency Board was set up.

have eroded Argentina's competitiveness. Pegging a Palestinian currency to the new Israeli shequel would help avoid a similar situation in the West Bank and Gaza. At the same time, the decision on anchor currency should be forwardlooking, and as discussed in Chapters 2 and 4, the Palestinian economy can be expected to undergo a significant transformation in the coming years, bringing with it a great deal of trade diversification. Israel will surely continue to be a key trading partner, but it is unlikely to remain as dominant as it is today.[20]

If the shequel is not considered a suitable anchor currency, for whatever reason, the two most natural alternative candidates would be the U.S. dollar and the euro. These currencies would not only provide good anchors for price stability, but over the long term, Palestinian trade can be expected to increase considerably with the United States and the European Union, so they would also be increasingly suitable currencies from a transaction costs perspective. Trade diversification is also to some extent endogenous to the choice of exchange rate peg, so pegging the euro or the dollar might reinforce the trade diversification trend with either market. The results from the gravity model in Chapter 4 showed that trade with the EU could be expected to become more important than trade with the United States. Specifically, the gravity model predicted exports to the EU to be almost four times as large as exports to the United States and imports to be more than twice as high. From this perspective, the euro might be preferable. On the other hand, a substantial part of the Palestinian banking system is dollarized (60 percent of all bank deposits and over 50 percent of all bank credit), and this situation is unlikely to change quickly.[21] Trade diversification also will take a long time, and the Palestinian economy will re-

[20]Under a currency board it is also sensible to back the currency with reserves held in the anchor currency (to avoid currency risk), and for a peg to the shequel this would mean holding the reserves in Israeli banks or with the Bank of Israel (in the absence of off-shore markets for the shequel). Today, the PMA avoids placing the counterpart to banks' required reserves in shequel deposits in Israel and instead redeposits them with local banks, in part since the availability of these reserves might change with changes in the security situation.

[21]The high degree of dollarization is one reason why Argentina chose to peg to the U.S. dollar (Baliño, Enoch, and others, 1997)

main closely integrated with the Israeli economy for many years. During this time, a peg to the dollar or the euro will expose the Palestinian economy to serious risks of competitiveness problems.

What about pegging to a basket of currencies, for example the three discussed above? Pegging to a basket of currencies can help mitigate competitiveness concerns without giving up all of the benefits from a fixed exchange rate.[22] It is not common, however, for a currency board to peg a currency basket. In fact, all existing currency board arrangements peg to a single currency. Aside from possible practical problems of reserve management and exchange rate risk to the currency board, pegging to more than one currency would reduce the simplicity and verifiability of the regime—crucial for the currency board's credibility. With a peg to the U.S. dollar, for example, the general public would know that they would always get the predetermined fixed exchange rate. This would not be the case, however, with a currency peg to a basket of currencies because the public would have difficulty verifying on a daily basis the PMA's compliance with the announced policy.

Reserve Cover: What Aggregate and How Much?

A crucial issue in setting up a currency board arrangement is the extent to which the issue of the national currency should be backed with foreign exchange reserves. The question can be broken down into two parts. First, a currency board has to define which monetary aggregate (for example, currency in circulation or reserve money) to use as a reference point and, second, to what degree this aggregate is backed by foreign exchange reserves. Excess cover would allow the monetary authority some capacity to act as a lender of last resort. Backing rules differ substantially across currency board arrangements.[23] In Djibouti and Hong Kong, the reference aggregate is currency in circulation. The currency board arrangements in Argentina and Estonia also include deposits of commercial banks at the monetary authorities in the reserve cover aggregate. This additional backing can help boost the credibility of the currency board, especially when the monetary authorities allow commercial banks to use their legal reserves for short term liquidity needs or for payments and settlement services. An even broader monetary aggregate is used in Lithuania, where the reference monetary aggregate includes currency in circulation and all other central bank liquid liabilities, which include reserves and other deposits of commercial banks, government deposits, domestic currency denominated securities, and promissory notes issued by banks.

Currency boards typically have 100 percent of the chosen liability backed by foreign exchange reserves. In some cases, though, like Argentina, the backing is less than 100 percent to allow some limited room for independent monetary policy. In other cases, like Hong Kong, the backing is in excess of 100 percent (the law requires at least 100 percent) to allow a buffer for lender-of-last-resort activity.

In the West Bank and Gaza, it would seem sensible to back reserve money, that is, to cover not only currency in circulation but also banks' required reserves with the PMA to ensure their convertibility. Government deposits with the PMA should probably also be backed by foreign exchange (as in Bulgaria). How much of the liabilities should be covered? In order for a Palestinian currency board to begin with maximum credibility, it would be judicious to start off with at least 100 percent cover.

With the initial launching of the currency, currency in circulation will automatically be backed 100 percent by foreign exchange. The commercial banks' deposits with the PMA also are already fully backed with foreign exchange. What the PMA currently holds as reserves plus future profits of the PMA could be used as additional coverage going beyond the 100 percent

Lender of Last Resort

A currency board cannot inject domestic liquidity on a discretionary basis, so its capacity to act as a lender of last resort for banks with liquidity problems is very limited, much like the current situation for the PMA. For the time being, with the banking system dominated by foreign banks, the need for the PMA to be able to act as a lender of last resort is also limited. In fact, with still underdeveloped banking supervision and weak policy institutions more generally, establishing a lender-of-last-resort facility might create moral hazard problems and weaken bank discipline (Gale and Vives, 2000). On the other hand,

[22]A paper on economic permanent status issues suggested that the West Bank and Gaza adopt a currency board with a fixed rate to a basket consisting equally of new Israeli shequels and Jordan dinars (ECF-DATA, 1998).

[23]See Baliño, Enoch, and others (1997).

a limited lender-of-last-resort facility can add to the sustainability and credibility of the currency board arrangement by reducing the risk of banking crisis.

Under a currency board, the PMA could in principle establish credit lines with foreign banks (as Argentina has done) that it could use for lender-of-last-resort purposes. Alternatively, and perhaps more realistically, the PMA could set aside reserves in excess of the reserve cover as a lender-of-last-resort facility. These reserves could be generated over time from the PMA's profits or through budgetary (or donor) resources. It would be important to avoid creating any perception that the principles of the currency board were being violated, so the rules on how and when the facility can be used must be clear, and actual use should be accounted for in a transparent way. For transparency and to protect the currency board's integrity, the resources of a lender-of-last-resort facility (using excess reserve cover, fiscal resources or donor support) also should be kept separate from those of the currency board.

Moreover, the PMA should give priority to the development of a stronger and more efficient domestic money market that would allow illiquid but solvent banks to have access to liquidity from the domestic interbank market.

Legal Tender and Convertibility

Introducing a currency raises the issue of whether the new currency should be sole legal tender.[24] The question is really to what extent there is a need to introduce a distortion in the system in favor of the demand for the new currency to ensure its success. A weak form of distortion would be for the PA to offer (for a limited period) discounts if taxes are paid in the new currency. A somewhat stronger form of distortion would be for the PA to *require* all taxes to be paid in the new currency and to make all its domestic payments in the new currency as well. An even stronger form of distortion is to make the new currency sole legal tender (currently, all three circulating currencies are legal tender in the West Bank and Gaza, as stipulated by the Protocol on Economic Relations of 1994), while allowing the other three currencies to circulate freely. As a legal tender, a currency cannot be rejected as a means of payment for any transaction by the rest of the economy. A freely circulating currency can be used in non-government transactions, such as private contracts, mutually agreed upon by the relevant parties. Finally, the strictest form would be to make the new currency sole legal tender and prohibit the circulation of other currencies.

There are clear risks with these types of distortions, especially the more restrictive ones. Prohibiting the use of the three currencies now circulating is unlikely to help instill confidence in the new currency; in fact, it is likely to have the opposite effect. Such a decision would also be difficult, if not impossible, to enforce given the large amounts of U.S. dollars, dinars, and shequels already circulating in the West Bank and Gaza. The experience in countries where foreign currency deposits are allowed has been that measures to reverse that authorization through forced conversion, as occurred in Bolivia and Mexico in 1992, and in Peru in 1985, had severe adverse effects, and actions to force people to hold the local currency were followed by capital flight and a serious loss in government credibility (Baliño and others, 1999).

At the same time, there is probably a need to introduce some weak form of distortion to ensure a minimum demand for the Palestinian currency. It would be sensible if the PA were to conduct all its domestic operations and demand taxes to be paid in the new currency, while allowing other currencies to be also legal tender in the rest of the economy, at least until the new currency had received widespread acceptance in the West Bank and Gaza. It is very important that the other currencies be allowed to circulate freely, including by allowing banks to continue to accept deposits and extend credits in these currencies. The authorities would need to issue an unequivocal commitment to convertibility and against any future introduction of restrictions on the use of the three circulating currencies beyond the requirement that taxes be paid only in the new currency. The problem is also a practical one and relates to estimating the demand for the new currency and the various denominations of it to ensure that sufficient balances are held by the PMA to accommodate this demand. In 1950, when the Palestinian currency was being redeemed for dinars, the Jordan Currency Board had underestimated the demand for dinar coins, and when it could not satisfy this demand, it was obliged to overturn a previous decision in order to retain the legal tender status

[24]A currency does not have to be defined as legal tender for it to be legally used, just as credit cards and checks can be used for payments although they are not legal tender. Merriam Webster's *Collegiate Dictionary* defines legal tender as: *money that is legally valid for the payment of debts and that must be accepted for that purpose when offered.*

of Palestinian coins while more dinars were produced (Smith, 1998). To avoid such a situation, it would be more appropriate to allow all four currencies to serve as legal tender, and revisit this issue once the new currency is widely in use.

With respect to convertibility, one of the advantages of a currency board is that its robustness permits a very liberal exchange arrangement (Bennett, 1994). Indeed, because the monetary base can expand only on the basis of purchases of foreign exchange, the currency board would work most effectively and smoothly under complete current account convertibility and a high degree of capital account convertibility. The restrictions on foreign exchange payments are very few today in the West Bank and Gaza, an arrangement that would be appropriate to maintain after a new currency is introduced.

Two More Issues: Seigniorage and the Exit Option

From an analytical view point, the existing currency arrangement is similar to a currency board arrangement, but with two differences. First, with a Palestinian currency the PMA would earn seigniorage on the currency issue, revenue that now goes to the central banks of Israel, Jordan, and the United States. Second, the authorities can abandon the currency board arrangement and devalue the currency if the situation becomes untenable. For this exit option, however, a currency (devaluation) risk exists for which investors will require compensation through a devaluation risk premium, and the premium will be higher the more investors think it is likely that the option to devalue will be exercised.

Seigniorage

A tangible benefit of introducing a Palestinian currency is that the PMA, rather than the central banks of Israel, Jordan, and the United States, would receive the seigniorage from currency issue.[25] How much seigniorage does the PMA forego by not having a currency? We estimate this to be roughly US$12 million a year (0.3 percent of GDP). Before showing how this estimate was derived, the concept of seigniorage used here should be clarified. Seigniorage is usually defined as the change in the volume of domestic currency, but this is not the most meaningful measure of seigniorage in an analysis like this. Under a currency board, the PMA will have to back all of its currency issue with foreign exchange reserves so the change in the volume of currency does not translate into seigniorage that can be spent by the PMA or the PA. Therefore, a more meaningful definition of seigniorage is the PMA's gross profit, which is the interest earnings on its reserves. This is also the definition of seigniorage central bankers often have in mind. The two measures lead to different flows of seigniorage but are the same in present value terms when the initial stock of currency is zero.[26]

Under a currency board, the amount of seigniorage the PMA would earn is determined by the stock of Palestinian currency the public would demand and the interest rate the PMA earns on its foreign exchange reserves. The currency demand can be broken down into overall currency demand and the share that will fall on the local currency.

The main factors that determine overall currency demand are the economy's state of financial development, the opportunity cost of holding currency (inflation and deposit interest rates), and the annual growth in income or expenditures. Currency in circulation tends to become less important with technological developments in the payments systems that allow less holdings of currency for a given amount of transactions (for example, credit and

[25]In principle, Israel, Jordan, and the United States could share seigniorage with the PA. Although seigniorage sharing is more common in monetary unions, it is not unheard of in cases when a country unilaterally adopts the currency of another country. In fact the government of Palestine shared seigniorage with the government of Transjordan, which had unilaterally adopted the Palestine pound as its currency (see Box 6.2).

[26]For example, if a country introduces a currency and in year 1 issues 100 units of local currency (M) and no more after that, then, using the conventional definition, seigniorage (S_1) would be 100 in the first year and zero in the subsequent years. Using the gross profit definition, seigniorage (S_2) would be the interest (i) earned each year on the stock of currency (to be precise, on the reserves backing the currency). Berg and Borensztein (2000) show that the two definitions are the same in present value terms, except for the initial stock of currency, M_{t-1}, which is zero when a new currency is introduced:

$$S_1 = M_t - M_{t-1} + \frac{M_{t+1} - M_t}{(1+i)} + \frac{M_{t+2} - M_{t+1}}{(1+i)^2} + \ldots$$

$$S_2 = \frac{iM_t}{(1+i)} + \frac{iM_{t+1}}{(1+i)^2} + \ldots$$

and rearranging the right-hand side of the first equation we get:

$$S_1 = -M_{t-1} + \frac{iM_t}{(1+i)} + \frac{iM_{t+1}}{(1+i)^2} + \ldots = S_2 - M_{t-1}.$$

debit cards, checks, and ATM machines). That is why more developed countries (as measured by GDP per capita) tend to have lower currency-to-GDP ratios.

The more important question for the PMA is how this overall currency demand would translate into demand for a Palestinian currency. The key factor (again) is credibility—the credibility of the authorities' (not only the PMA, but the PA more generally) commitment and capacity to ensure the stability and convertibility of the Palestinian currency. If people are confident that the new currency will hold its value and remain convertible, the transition period (when the new currency replaces the others) will be shorter and the steady state currency substitution will be smaller.[27] It is safe to assume, though, that even after a transition period, when people gradually shift toward the new currency, there will still remain a considerable degree of currency substitution in the West Bank and Gaza, at least for some time.

In order to get a sense of the amount of Palestinian currency that could be demanded, and hence the scope for seigniorage, it is necessary to know how much currency is now circulating in the West Bank and Gaza. This is not a simple exercise. Looking at the currency-to-GDP ratios in other countries can give some indication. Thus, we have calculated this ratio for the 100 members of the IMF whose income per capita is closest to that of the West Bank and Gaza. The median ratio is 5.5 percent, with the ratio for 90 of the 100 economies lying between 4 and 7 percent.[28] Applying the 5.5 percent ratio to the West Bank and Gaza gives a stock of currency in circulation of roughly US$230 million. Assuming that all of this currency demand is met by holdings of the new Palestinian currency (or more correctly, that there is no currency substitution beyond the average of the above 100 countries) and assuming that the PMA earns 5 percent interest on its foreign exchange reserves that back the currency issue, the PMA's gross profit (from interest on the currency issue, and before salaries and other costs) would be US$12 million (0.3 percent of GDP).[29]

Even if seigniorage were to be twice this amount (if either the currency-to-GDP ratio or the interest rate earned on reserves, or both, is higher than in this example) it would still represent less than 2 percent of PA annual fiscal revenue. In reality, though, over the medium term after a currency introduction, seigniorage might well be substantially smaller than in this example if, as is likely, currency substitution would remain important. Also, the seigniorage from currency issue that would actually be transferred to the PA budget as profits from the PMA would be less since the amounts we have given here are on a gross basis, before deducting salaries and other administrative costs (including for printing money) to the PMA.

The Exit Option and Currency (Devaluation) Risk

As mentioned earlier, a main advantage of having a currency, as opposed to full dollarization, is the possibility to devalue if the real exchange rate becomes seriously overvalued. The country pays for this exit option through the currency (devaluation) risk premia that investors will charge on investments in the Palestinian currency. In a sense, the currency can be viewed as insurance paid through the risk premium.

The Possibility to Devalue

Naturally, a currency should not be introduced with the expectation or intention that it would be devalued, because it would deprive the currency of all credibility. In the long run, however, if severe real exchange rate misalignments occur that are not offset by adjustments in the real economy, a switch to a different exchange rate or exchange rate arrangement may become necessary.[30] Thus, having its own currency would allow the Palestinian authorities to devalue if the situation were to become untenable, for example, after a prolonged deterioration in the terms of trade. The latter is tantamount

[27]Arnon and Spivak (1996) use a model where the new currency gradually gains acceptance over a long period of time, as people are gradually convinced about the stability and convertibility of the new currency's value.

[28]While some countries have considerably higher currency-to-GDP ratios—for example, Jordan, where it is close to 18 percent of GDP, in part because the dinar is also used in the West Bank and Gaza—the variation across countries is very small. The median for the Middle East and North Africa Region is 5.5 percent, and, if instead of 100 countries, the 20 countries closest to the West Bank and Gaza in terms of GDP per capita are chosen, the median currency to GDP ratio is 4.6 percent; for 50 countries it is 5.3 percent.

[29]If the currency to GDP ratio were 4 percent, seigniorage would be US$8 million (0.2 percent of GDP); at 7 percent it would be US$15 million (0.4 percent of GDP).

[30]Such a misalignment could occur following higher rates of inflation compared to the anchor currency or following real shocks that affect the Palestinian economy more severely than the anchor currency's economy.

to a depreciation of the equilibrium real exchange rate, which would warrant a real exchange rate depreciation. In turn, this is usually easier to achieve through an adjustment of the nominal exchange rate than through downward adjustment of wages and prices because the latter is typically associated with a loss in output. This option is (obviously) not available to the West Bank and Gaza under its present arrangement.[31]

Devaluation Risk

Because a country with a fixed exchange rate—even under the strictest form of currency board—can always exit the arrangement and devalue the currency, investors will require a currency (devaluation) risk premium on their investments. The currency risk premium will manifest itself in higher interest rates. The experience from other countries is that markets can charge substantial premia for currency risk and the possibility of eliminating such premia is a main reason why a country might decide not to have its own currency. Reducing the risk premium can bring important gains to an economy through lower interest rates and lower transactions costs, which in turn can promote investment and growth. For industrial countries, with deeper financial markets, most of such risks can be hedged away, so the effect of exchange rate variability on investment, trade, and growth is relatively low. This is not the case for less developed economies like the West Bank and Gaza.[32]

[31]The devaluation of the CFA franc in early 1994 is an example of how the option to devalue was used when the real exchange rate adjustment, required in response to a prolonged terms-of-trade deterioration, proved too difficult to overcome through internal adjustment.

[32]There is also country risk: the risk that debts will not be honored or that assets will be confiscated. Country risk usually accounts for the largest part of interest rate differentials. Country risk exists whether a country has a currency or not, but it might be positively linked to currency risk since, in the absence of a local currency, there is no risk that the authorities will have to defend the exchange rate through excessive debt accumulation, sharp increases in interest rates, or through capital controls, all of which might increase the risk of default or confiscation. And, there is no risk of devaluation-induced banking distress. On the other hand, the possibility to devalue might reduce country risk by improving the prospects for the domestic economy in the face of real shocks. The country risk premia charged on the Brady bonds of Panama (dollarized) have been consistently lower than the premia charged on the Brady bonds of Argentina (currency board), although, the premia have moved in tandem, suggesting that the absence of a currency has isolated Panama from swings in market sentiment toward emerging markets (Berg and Borensztein, 2000).

Moving to a More Sophisticated Monetary Framework

No currency arrangement is optimal forever, and as the Palestinian economy and economic policy institutions develop, a more sophisticated monetary framework might become desirable. It is clearly easier to move to such a framework (for example, managed float) from a currency board arrangement than from complete dollarization. Under a currency board, the PMA (and the PA more generally) could build up its policy credibility with the public by strictly adhering to the currency board principles and implementing sound fiscal policy, so that eventually a more flexible exchange rate regime, if deemed desirable, could be adopted. As shown in the IMF study (Eichengreen, and others, 1999), it is also easiest to leave a currency board (or a fixed exchange rate more generally) from a position of strength, or when there is pressure on the exchange rate to appreciate.

Concluding Remarks

An issue that will receive considerable attention in the future is whether to introduce a Palestinian currency, and if so under what type of exchange rate regime. This chapter argues that an introduction of a Palestinian currency would stand the greatest chance of success—in the sense of receiving a higher degree of public acceptance—if it were introduced under a currency board arrangement and if the introduction followed reforms to significantly strengthen fiscal management and bank supervision. The case for the currency board is based on the need to bestow the new currency with the highest possible credibility. Palestinian institutions, including the PMA, are young, and many of them are still in the process of establishing themselves. In such an environment, it would be unreasonable to expect the Palestinian public to have, from the onset, the same confidence in a new Palestinian currency as it has in the three currencies now circulating in the West Bank and Gaza, the new Israeli shequel, the Jordan dinar, and the U.S. dollar, unless there is a transparent and simple institutional framework that effectively constraints the scope for discretionary monetary policy. A currency board provides such a framework. Introducing a Palestinian currency under any other form of exchange rate regime is very likely to lead to a slower transition to the new

currency and to lead to a higher degree of currency substitution.

A fixed exchange rate under a currency board is not without risks, however. One key concern is the risk of overvaluation of the real exchange rate. This risk can be mitigated by the choice of exchange rate regime and by supportive macroeconomic and incomes policies. Strengthening the PA's fiscal policy management and the PMA's bank supervision capacity would help reduce the risk that domestic policies cause an overvaluation of the fixed exchange rate. Deciding on the appropriate anchor currency for the West Bank and Gaza is perhaps the single most important question but also the most difficult one. There is no obvious and easy solution. The problem of identifying an appropriate anchor currency in the wake of what might be a process of fundamental transformation of the Palestinian economy can be one argument for waiting with the introduction of a Palestinian currency.

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