Sustainable Production-Based Poverty Alleviation In The Medium-Run Occupied Palestinian Territory

by

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Abstract

It is unlikely that, without active intervention, the Palestinian economy will climb out of recession in the medium-run, particularly as certain Israeli-imposed closures remain in place and as the characteristics of a war-torn economy linger.

The discussion in premised on the assumption that Israel will continue to have the power to disrupt flows of goods and labor between Israel and the oPt. While it is unlikely that the exact current configuration of Israeli policies will continue indefinitely, and there may be some relaxation of closure policies, nevertheless, Palestinian economic policymaking would be best to consider that something like the current situation could continue indefinitely. A prudent development path would, therefore, minimize dependence on Israel and integrate more fully with the rest of the world.

This dissertation presents evidence of closure and its impact on productive activities based on first-hand research; it uses historical analysis of economic aggregates as well as sectoral analysis; it presents a picture of crisis and pre-crisis donor emphasis; and employs multi-sectoral macro modeling simulations.

It is concluded that in the medium-run, a domestic labor absorption problem will continue and that Palestinian consumption levels stand to be even

further reduced if they are not supported by either a return of employment in Israel, continued donor consumption funding, or a rise in investment and domestic output.

Given the social implications of continued economic decline, Palestinian economic policymaking is in dire need of using the whole range of economic tools Due to the relatively more severe impact of environmental constraints on other sectors, agriculture and certain manufacturing activities are found to hold strategic advantages in the 'medium-run'. And because of the impact of closure and its environmental and political risks, many types major infrastructure investments are unlikely to lead to dynamic growth potential. As the three-gap model herein illustrates, growth caused by major injections can fade away soon after injections cease. More effective policies would include subsidizing strategic private investment and raising capacity utilization.

Dedication

To Laila and Leyth

Preface

This dissertation comes after four years of heightened Israeli-imposed closure over the occupied Palestinian territory, and nearly two years after the blanket curfew policies that accompanied military assault over much of the West Bank in 2002.

In 2004, Israeli-imposed curfews are much fewer, but closure policies remain deeply entrenched, restricting Palestinian movement between Palestinian villages, towns and districts. Crossings for goods and people into and out of the major population centers of the West Bank continues to be subject to the discretion of Israeli Defense Forces and its series of military checkpoints.

As a result of the detrimental impact of curfew in 2002, the Palestinian economy 'bottomed out' and has since then 'recovered' to its traditional trend of closure-caused decline. Domestic employment has replaced many jobs lost in Israel, but the domestic economy continues to undergo structural change and productivity loss.

Because of this post-curfew rebound and the one-time governmental injection made possible by Israeli back-payment of withheld clearance revenues in 2003, certain economic institutions are sighting the beginning of economic 'recovery'.

Elsewhere, Palestinian economic policy-makers some of who are more aware of the continuing reality of closure, go about waiting for post-closure economic stabilization and in the meanwhile go through the paces in search for ways of linking donor relief efforts with rehabilitation.

As such, both camps of international donors and PA policymakers exhibit an unguarded optimism that hinders their ability to develop sound mechanisms in preparation for policy-induced stabilization in the medium-run environment—defined as one of continued conflict.

Scenarios are presented in this dissertation, illustrating more pro-active PA/donor roles based on an array of political/physical climates. At the writing of this dissertation, and despite continued conflict, there is hope among politicians of reaching some sort of temporary political settlement. There is a broad conviction that Israel will relax internal closure in the West Bank and perhaps even pull out of Gaza's settlements. However, if certain recent trends in the West Bank are at all indicative of the future, i.e. the continued growth of housing in Israel's West Bank settlements in 2003, then the confrontation over land in West Bank will continue.

Perhaps most significantly, the Separation Wall continues to be built by Israel, separating its dominant economy from the smaller, dependent Palestinian

economy. Although there are numerous efforts currently underway within the PA, United Nations and at the World Bank to gauge the impact of the Wall on Palestinian society and its economy, at the writing of this dissertation, there is not yet any comprehensive analysis available.

On the Wall, the Secretary-General of the United Nations, Kofi Annan, has stated, ". . . it is conventional wisdom that fences make good neighbours. But that is if you build a fence on your own land and you do not disrupt your neighbour's life."

Accordingly then, this Wall in the West Bank (like that built around Gaza) will certainly not create good neighbors. That is, the Palestinian economy is tremendously dependent on the Israeli economy, and a wall built anywhere—as long as the administration of that wall is one-sided and traffic of Palestinian goods or people across the wall is hindered—will disrupt Palestinians' life and hinder their ability to engage in employment and economic production.

Nevertheless, until now, the official Palestinian line is to protest the placement of the Wall around the West Bank, but not to protest the Wall itself. Elsewhere, the detrimental impact of the Wall around Gaza continues. However, the impact of the wall around Gaza is perhaps a good indicator of how a similar closure could impact the West Bank.

In 1999, Israel built a wall around Gaza. By 2003, the number of trucks exporting goods from Gaza had declined for the fifth consecutive year. Imported truckloads into Gaza, despite a 2003 uptick, amounted to less than 50 percent of the number of truckloads that entered in 1998. For the externally dependent Gazan economy, these numbers reflect welfare being reduced to unprecedented levels. Such data does not bode well for the future of the West Bank economy if the Wall there remains.

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Generally, I am indebted to colleagues at UNSCO, UNCTAD, MAS, the World Bank, the IMF, and in the Palestinian Authority for engaging in discussion of many of the topics that helped formulate the central themes of this dissertation.

I am especially indebted to UNSCO researchers Ismail Lubbad, Khaled Islaih and Rana Hannoun who participated in the field research, data compilation and preliminary analysis of chapter one. I am indebted to UNSCO where I first drafted much of the information in chapter one as part of my work at UNSCO. I am also indebted to the Center Private Sector Development, for which I drafted earlier drafts of the economic data in chapter two. This work is also along the lines of that which I prepared on a quarterly basis for UNSCO with the assistance of the researchers Lubbad, Islaih and Hannoun.

Academically, I owe my inspiration to Lance Taylor who opened my eyes to the historical relevance of central discussions of the profession and gave me the tools of analysis used herein. The passion for studying economics I owe to my professors Robert Heilbronner and Edward Nell; I am indebted to the former as one of the latest generations of his pupils and to the latter as one of the earliest

generations to formally study post-Keynesian theory. I am indebted to Duncan Foley, Chair of the Graduate Faculty's Economics Department, for encouraging me to complete this dissertation. Finally, I am indebted to my wife Lina and her gifts of family and love that were inexpressibly elemental to this effort.

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Introduction

Intensive Israeli imposed closure has been the predominant cause behind Palestinian economic decline. Between the years 2000 and 2003, according to World Bank estimates, the Palestinian economy has lost approximately one year's worth of GDP—$5.4 billion. (Word Bank 2003)

This dissertation evaluates the prospects of Palestinian economic stabilization. It presents evidence of closure and its impact on productive activities based on first-hand research; it uses historical analysis of economic aggregates as well as sectoral analysis; it presents a picture of crisis and pre-crisis donor activities; and employs multi-sectoral macro modeling simulations.

The discussion begins in chapter 1 with a historical overview, and a review of more than three years of heightened closure in the West Bank and Gaza as well as its impact on productive activities. Chapter 2 looks at current economic data and trends and employs effective demand decomposition techniques to examine economic aggregates over time in a more historical analysis. Sectoral

analysis and the prospects of sectoral initiatives are taken up in chapter 3 with the aid of multi-sectoral macro modeling techniques.

Chapter I

Closure and Productive Activities

In this chapter, closure and productive activities are regionally examined in Gaza and the West Bank. Information is based on field visits in the West Bank and Gaza and interviews with farmers, industrialists, transporters, PA officials and other community leaders, and NGOs as well as Palestinian Central Bureau of Statistics, United Nations and other cited data. The focus is on 2002 and 2003, which saw the beginning of increasingly restrictive, Israeli-imposed closures on movement of Palestinians and transit of goods to and from the occupied Palestinian territories.

The chapter begins with an historical overview in section 1.1. In 1.2, the characteristics of closure are examined along with their impact on movement of goods, people. This section describes curfew and other forms of closure, including how Israel restricts transit of basic goods into and out of most West Bank urban centers through the implementation of a "back-to-back" system, whereby goods are downloaded and uploaded at Israeli military checkpoints. The impact of

closure on certain productive activities is examined using anecdotal evidence based on interviews with producers in section 1.3. This section gives an idea of just how closure extinguishes many types of economic activity. A balance sheets analysis is included to detail just how incomes diminish in this environment. In section 1.4, a special focus is made on Nablus. Nablus has often been considered the economic center of the northern West Bank, serving as a hub for trade for neighboring urban centers and for surrounding rural communities. However, closure has come to completely regulate all movement of goods and people into and out of Nablus, causing unprecedented economic decline. In section 1.5, a description is presented of the newly constructed Wall that has been built to separate the West Bank from Israel.

1.1 Historical Snapshot and the Current Crisis

Palestine in located on the eastern Mediterranean Sea and, historically, has been a target for colonizers and occupiers. At the end of the First World War until 1948, Palestine was occupied by the British. In 1948, the State of Israel was established, and more than 700,000 Palestinians fled their homes. Refugee seekers fled to the West Bank, to the Gaza Strip, or to other regions. Gaza came to be administered by Egyptian rule and the West Bank by Jordanian rule.

In the Six Day War of 1967, Israel expelled another 400,000 Palestinians from their homes and occupied the West Bank and Gaza Strip until the signing of the Oslo Accord in 1993 with the establishment of the Palestinian Authority (PA).

As a result of more than 25 years of Israeli occupation, economic activity in the West Bank and Gaza was subject to Israeli security and political concerns, and the staggering Palestinian economy and its lack of productive infrastructure became dependent on income earned in Israel. As UNCTAD (2001) has stated, deep structural problems including poor job-creation, low savings rates and poor export performance were the result of chronic supply-side weaknesses, causing excessive reliance on the Israeli economy.

In 1993 Palestinians and Israelis singed the Oslo Accord which was essentially a document of mutual recognition. Israel recognized the PLO as the representative of the Palestinian people and the Palestinians recognized the right of Israel to exist. In 1995, both parties signed the Interim Agreement. This agreement stated that neither party will "change the status of the West Bank and the Gaza Strip pending the outcome of the permanent status negotiations" and that "the integrity and status" of the West Bank and Gaza Strip territory "will be preserved during the interim period."

After the signing of these agreements, however, an occupier-occupied relationship continued, and Israel continued to suppress Palestinian economic and social activities. Business opportunity was destroyed by Israeli imposition of movement restrictions of goods and people with the Palestinian Territories and between these Territories and Israel, Egypt and Jordan.

As Nofel explains, following a suicide bombing that killed twenty soldiers in 1995, Israeli Prime Minister Yitzak Rabin implemented new separation policies between the Palestinian Territories and Israel. As part of the separation, Rabin rallied for the dismantling of certain settlements and as a result, was assassinated by a right wing Israeli conservative. After Rabin, Prime Minister Perez faced more suicide bombings in Israel, and applied a comprehensive closure policy preventing Palestinian workers and traders from accessing Israel. In 1996, Prime Minister Netanyahu continued the security closures. In 1999, Prime Minister Barak renewed the idea of "separation" and unofficially pursued unilateral implementation, based on "porous borders" with limited constraint of economic activity. The Gaza border industrial zone was established, and an Israeli security fence was built around Gaza, with some border modification to Israel's benefit. New Checkpoints were established along the "green line" 1967 border in the West Bank, with preparatory steps taken to draw new borders and engulf new land in the Palestinian districts of Hebron, Latroun, Western Ramallah, Qalqilya, and Jenin. There was no curbing of settlement activity and fortification around settlements in the West Bank and Gaza were constructed as were bypass roads that separated movement of Israeli settlers and Palestinians.

With the outbreak of each confrontation, Israel confiscated new land, made border modifications in the West Bank and constructed new settler by-pass roads. The Camp David and Taba Accords completed under Barak were based on separation by agreement, with the June 5, 1967 borders as the basis for agreement, with deviation from this border enabled through land exchange.

In 2001, Israel agreed to leave 21 settlements in Gaza and all settlements in the Jordan Valley, as well as those between Ramallah and Nablus (except Ariel) and those in the Nablus-Jenin-Tulkarem triagle, as well as settlements in Hebron and Kiriat Arba.

Settlements that Israel was to keep included Gosh Atzion between Bethlehem and Hebron, areas of Latroun where Mod'in settlement is built, East Jerusalem settlements, and the Ma'ale Adumim settlement which separates the southern from the central West Bank, and Jabat Zeif, between Jerusalem and Ramallah. In exchange, Israel dropped the idea of taking land for security and accepted the idea of international forces along the 1967 border as well as along the Jordanian border.

In February 2001, Sharon launched an election campaign in which he attacked the notion of separation by agreement, the division of Jerusalem, and the evacuation of settlements. He accused Barak of failing to stop 'terrorism', abandoning his position during war, of neglecting national security, and of abandoning the right to build Israel.

Under Sharon, the Likud party froze the notion of "separation by agreement", expanded settlements, and embarked upon a campaign to end terrorism. (Nofel 2003) In 2002, nearly all West Bank cities were militarily re-occupied, and the building of the Separation Wall in the West Bank unilaterally

constructed without regard for the destruction of Palestinian property including land, homes and businesses. At this writing, the Wall continues to be constructed in a land grab that includes the destruction of Palestinian livelihoods, the usurpation of vital Palestinian water resources, and the severing of legal and illegal Palestinian employment in with Israel, and the limiting of movement of goods across the border with Israel (Palestinians largest trading partner).Internal movement of Palestinian and goods within the oPt is similarly restricted by Israeli checkpoints, road closures and military patrols. The Gaza Strip and West Bank are completely isolated from each other the 'safe passage' route that was to connects the two regions remains closed.

Land and Population

The first census of the West Bank and Gaza following the establishment of the PA took place in 1997. At that time, the total area of West Bank and Gaza strip was 6207 km^2, of which 5842 km^2 comprise the West Bank and 365 km^2 the Gaza Strip.

Based on the 1997 survey, the total population at the end of 2003 is estimated to be 2.7 million inhabitants in the West Bank and Gaza Strip, with approximately a third in Gaza and two-thirds in the West Bank. In 1999, gross domestic product was approximately USD 5.5 billion, and per capita income was estimated at $1500. The West Bank economy roughly comprises approximately two-thirds of Palestinian economic activity and the Gazan economy one-third.

Between 1999 and 2002, GDP would then decline some xx percent, predominantly due to closure (UNSCO 2002).

1.2 Closure

The closure policies that were initially imposed under Perez then Netanyahu and Barak, culminated under Sharon in 2000, and became most intensive in 2002. In this section, closure and its impact on certain productive activities are examined. Information is based on interviews with farmers, industrialists, transporters, PA officials and other community leaders, and NGOs as well as other cited sources that were conducted between July 2002 and March 2003 in the West Bank and Gaza.

Closure in the Gaza Strip

The heightening of new closure policies in Gaza began with the building of a wall between Gaza and Israel in 1999. The wall effectively surrounds Gaza, except along its borders with the Mediterranean Sea and Egypt, of which, entry to both are also completely regulated and subject to closure by Israel (UNSCO 2002).

In October 2000, Gazans became prohibited from entering Israel. Entry has remained prohibited for all but the permitted few. [1] Even the permitted,

---

[1] Israeli issues permits for Palestinian businessmen and for humanitarian cases.

however, were confronted with closure of the crossing as much as 69 percent of working days. (Table 1.1)

Table 1.1: Effective Closure Days in Erez Crossing for Palestinian Workers in Gaza Strip 2000-2003[2]

	2000		2001	2002	2003		
	Q3	Q4	Average	Average	Q1	Q2	Q3
Effective closure days (percentage)	0	69	57	20	18	69	27
Average daily workers in ISI-PCBS	29,865	3,321	2,503	3462	6,295	4.000	8,000

Source: UNSCO and PCBS

Traffic of goods into and out of Gaza is completely controlled by Israeli administration of inspection procedures and Israeli opening of inspection stations. Goods going in and out of Gaza must be downloaded off trucks, inspected and then uploaded onto different trucks for continued transport.

By September 2003, incoming truckloads (figure 1.1) were 44 percent of the high recorded in April 1998. The decline became precipitous in 1999 corresponding to the building of the separation fence around Gaza. By the fourth quarter of 2000, the shock of new closures imposed under Sharon resulted in unprecedented decline. A similar trend in outgoing truckloads reveals that in October 2003 there were a mere 41 percent of the record high in February 1998. (figure 1.2)

---

[2] Weekends and holidays include Saturdays, half the Fridays (since labour and commercial flows are about half their normal workday level on Fridays) and universally-celebrated Jewish and Muslim holidays.
Average daily workers numbers are different according to the sources because of the different of the methodology; PCBS data are based on the labour force survey, meanwhile UNSCO data are based on Palestinian National Security Force, Northern Command Gaza which based on daily registered records.

Figure 1.1: Average Daily Incoming Truckloads, May 1996-September 2003[3]

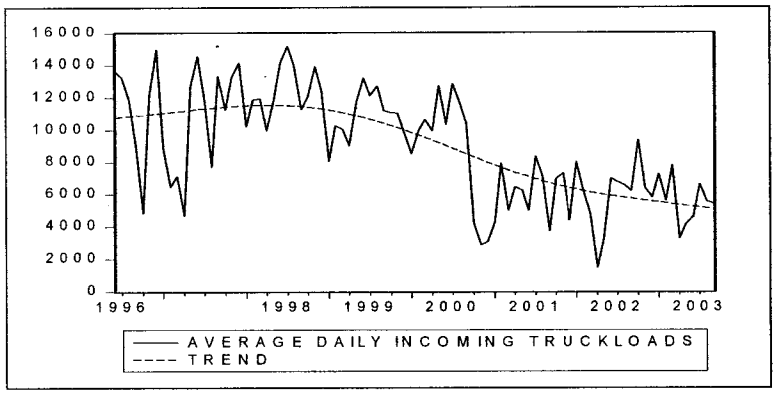
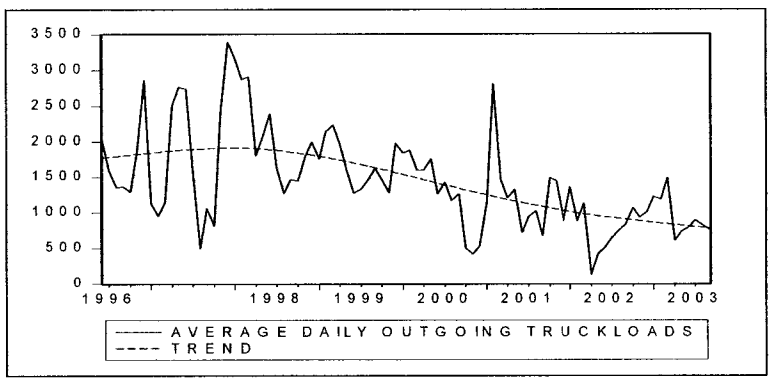


Figure1.2: Average Daily Outgoing Truckloads May 1996-September 2003.[4]



In addition to external closures, Israel frequently restricted internal movement in the Gaza Strip through checkpoints near Israeli settlements. According to UNSCO research, the Abu Holi checkpoint on the main north-south

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[3] Based on Erez, Karni Nahel Oz and Sofa Crossings

[4] Based on Erez and Karni Crossings

artery in Gaza, Salah A-Din Street, was closed between 8 and 17 hours a day from May to December 2002.

A particularly extreme example of movement restrictions is in Mawasi in south-central Gaza, where an entire community must exit and enter their village through a checkpoint. Citizens are issued magnetic cards to cross the checkpoints. And checkpoints can close for long periods of time. On March 29, 2002, the Mawasi checkpoint was closed for fifty days to all persons. Again on November 6, 2002, Mawasi was closed for nearly another month to men under the age of forty (and for two weeks to all persons). The commuting experience of a teacher who works in Mawasy tells of the daily difficulties:

Box 1: Confinement in Mawasi, as Viewed by a Teacher

Teachers waiting at checkpoints on their way to school have to sit on the ground or on the rubble of destroyed buildings. We wait until the soldiers call out on loudspeakers for people to cross. The Palestinian laborers are allowed in first, and after them, the teachers. They order us to move in groups of five and stop. Then they have us walk along a corridor until we reach a circular electric gate. We face the gate; the soldier looks at us from inside a closed room and then orders us to push the door so that it turns. After we pass through the gate, we get to another gate about two meters away from the first one.

We wait there until the soldier tells us by loudspeaker to push the door and come through. Then we go through a metal detector to a tall, concrete structure with small windows where we hand our ID cards to a soldier sitting inside. We put our personal items on a conveyor belt. Sometimes the soldiers order us to lift up our clothes and expose our stomach, or to take off our shoes and place them on the conveyor belt to be checked. After completing these checks, we go to an army post, and then to a parking lot where taxis are waiting to take us to the school. There are times when the soldiers do not allow the taxis into the parking lot. If that happens, we get to school on donkey-pulled carts. When we do take a taxi, often an army jeep stops us at the Gush Qatif junction, and soldiers make us get out to be searched yet again. Sometimes, the same soldiers search us twice on the same trip.[5]

Source: (Swisa 2003)

Closure in the West Bank

Throughout the West Bank, markets were severed in 2002 due to closure. Curfew, the most severe from of closure, impacted all economic activity and was extensively imposed across the West Bank in 2002. (figure 1.3)

Israel's Operation Defensive Shield, which started March 29, and the curfew policies that followed, brought productive activities in every sector into severe decline and caused a surge in unemployment. Military imposed curfew prevailed for an average 130 days (70 percent of total days) during the last six

[5] Source: B'tselem

months of 2002. An estimated 75 percent of domestic production in the West Bank was brought to a halt during much of this period. (UNSCO 2002)

Although curfew policies were imposed and lifted intermittently throughout 2002—other forms of closure isolated West Bank governorate blocks from each other. Travel between West Bank villages and urban centres was often disrupted by checkpoints, blockades and destroyed roads. Israel also restricted the movement of goods by setting up checkpoints along the parameter of every major urban center in the West Bank regardless of whether or not they bordered Israel.

Restrictive permit policies further prohibited entrance to Jerusalem or Israel. Movement of goods in and out of the West Bank was regulated through five major crossing points: Jelima near Jenin, Taybeh near Qalqilya, Betounya near Ramallah, Bethlehem at its border with Jerusalem, and Tarqoumia near Hebron.

Movement restrictions in the West Bank were often more severe than even back-to-back would imply. Israeli and foreign goods were often allowed to be transported, while Palestinian goods were denied access through checkpoints. Moreover, checkpoints were subject to erratic closure and opening for only very limited amounts and types of goods, thus affecting all internal and external trade.

For example, observe the standard route of goods from Gaza to Ramallah. In early 2000, goods would have been transported by an Israeli truck from Gaza's Karni crossing to the Tarqoumia checkpoint west of Hebron. Then the trip would

have been completed by a Palestinian truck going north through the West Bank to Ramallah. However, due to the severity of closure inside the West Bank in 2002, transportation from Hebron to Ramallah required a permit and was further constrained through a series of checkpoints. Delays could take anywhere from several hours to overnight, and in some cases days. Consequently, the cost of transporting goods through the West Bank became prohibitive, and an alternative was adopted by transporting directly through Israel with the use of Israeli trucks at a higher cost.

Because of these and similar transportation restrictions, the cost of Palestinian goods has increased relative to Israeli and foreign substitutes. This has harmed the economic viability of the Palestinian private sector. For a detailed example of such an impact, see the sections ahead in this chapter which include a short inquiry into productive activities as well as a special report on Nablus—a city that endured exceptionally severe closure in 2002. Below are the key points of moving goods in and out of Nablus.

Box 2: Moving Into and Out of Nablus

Only Israeli licensed trucks were allowed to pass into the city after being subject to security checks.
Generally, only food products were allowed to pass into Nablus. Prohibited items included wood, electrical equipment, cement, glass, and home appliances.
No loaded trucks were allowed to exit Nablus.
Truck drivers with Palestinian licenses would engage in very risky travel on tertiary roads to go in and out of Nablus. Some truck drivers reported shootings by Israeli soldiers on these roads.
Delivery of goods from Nablus to other cities was often done at great risk on farm tractors or more primitive transportation methods such as farm animals, which would traverse rugged and dangerous terrain.

Source: UNSCO, Data Gathered in November 2002.

As of 2002, trade between urban centers in the West Bank became completely subject to Israeli regulation, with checkpoints like those of Nablus. A similar checkpoint in Betunia, near Ramallah, also deters internal trade within the West Bank. According to UNSCO field research, traffic at Betunia checkpoint experience the following:

Box 3: Betunia Commercial Checkpoint

Opening and closure are subject to erratic Israeli management operations.
The checkpoint is opened and closed without notice.
Goods are restricted entry based on lists of acceptable goods, lists change frequently.
Israeli soldiers are in the area to supervise the off-loading and loading procedures. At any given time, only one vehicle is allowed to offload the shipment into the waiting vehicle in the second section of the platform.
The procedure is slow and lengthy delays are the norm.

Source: UNSCO, Data Gathered October 2002.

West Bank transport fees, as would be expected, increased as a result of the closure procedures. One driver indicated that the cost to transport a box of vegetables from Tulkarem to Nablus increased from 1 Shekel before October 2000 to 4.5 Shekels in February 2003. Another driver reported that the transport fee of a shipment from Ramallah to Nablus, because it came to require the use of an Israeli registered vehicle, had increased from 400 Shekels to 1200 Shekels over roughly the same period.

Bethlehem

Unlike Ramallah, back-to-back arrangements did not exist around Bethlehem, according to the Bethlehem Chamber of Commerce and Industry (BCCI). BCCI maintains direct contact with the Palestinian Civil Coordination

office to get updates on new developments and regulations related to commercial movement in the district.

BCCI reports that Israeli licensed trucks loaded with certain goods, mainly food supplies, were usually allowed into Bethlehem city through Gilo checkpoint on the Jerusalem road. However, Palestinian trucks loaded with food supplies were reportedly prohibited even when it was officially announced that food items were allowed to pass.

1.3 Impact of Closure on Productive Activities

In this section, interviews with members of the private sector in 'productive activities' (agriculture and manufacturing) has been documented in order to better understand just what closure means to various producers. The interviewees consist of Farmers in Gaza and both farmers and manufacturing producers in the West Bank.

Israeli closure restrictions have had a significant impact on Gazan farmers' market access. The availability of inputs has declined, but more noticeable is restriction on the farmers' ability to market produce in markets outside of Gaza. The testimony of the following farmer reveals such a severing of access:

Box 4: Gazan Agriculture: A Farmer and Market Access
Before the closure policies, we used to have agreements with traders to plant a certain crop. We used to receive payment before even planting it. The trucks were able to come to our land and we could export our produce to Jordan and Israel. Now we can't even send it to Al Nuserat (a nearby refugee camp).

Source: (Ministry of Planning et al 2002a

Distinguishing the impact of market loss on balance sheets from other factors is not always easy. Fear, confiscation and destruction all have an impact. Some farmers (see farmers balance sheets (1) to (4) in Table 1.2) clearly were able to continue to engage in market–based production despite declining and negative net income, until their land was destroyed by Israeli soldiers.[6]

Balance sheets of other farmers (Table 1.2) who did not have their land destroyed show that farmers had drastically lower profits in 2001/2002 than in any of the previous three years. The decline is explained through higher costs in fertilizer, fuel and sterilizing gas, and lower market prices for output, especially for tomatoes and oranges, which constitute, respectively, 15 percent and 6 percent of total agricultural production in Gaza.[7]

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[6] These studies are not intended and should not be used as feasibility studies. Rather, they clearly reflect how these farmers were viable economic agents prior to being detached from their land in the cases (1)-(4). In cases (5)-(6), farmers were viable economic agents whose incomes were diminished by a combination of decreasing prices of outputs and increasing prices of inputs. Within this analysis, therefore, no further generalizations are attempted.

[7] PCBS Agricultural Statistics (2001).

Gazan Farmers' Balance Sheets

Table 1.2: Financial Statements (1999-2002) for Farmers from Gaza (NIS)

(Interviews Completed in December 2002)

Farmer (1)
Name: Said Dahllez
Marital Status: married with 11 dependents
Total surface of land: 8 dunums
Date of land destruction: October 2002

Item	1998/1999	1999/2000	2000/2001	2001/2002
Revenues	320,000	348,500	134,400	84,600
Expenditure	190,000	194,750	199,500	227,950
Seedlings	28,000	28,700	29,400	32,900
Fertilizers	16,000	16,400	16,800	18,800
Equipment Maintenance	8,000	8,200	8,400	9,400
Fuel	4,000	4,100	4,200	4,700
Irrigation	8,000	8,200	8,400	14,100
Sterilizing Gas	14,000	14,350	14,700	16,450
Nylon (green houses cover)	12,000	12,300	12,600	14,100
Workers	100,000	102,500	105,000	117,500
Debt	0	0	21,000	117,500
Net Income	132,000	155,800	-63,000	-141,000

Source: UNSCO

Farmer (2)
Name: Zuhair Dheer
Marital Status: married with 10 dependents
Total surface of land: 15 dunums and 5 green houses
Date of land destruction: October 2002

Item	1998/1999	1999/2000	2000/2001	2001/2002
Revenues	**246,000**	**252,150**	**0**	**0**
Tomato	108,000	110,700	0	0
Other	138,000	141,450	0	0
Expenditure	**109,200**	**111,930**	**114,660**	**0**
Seedlings	8,000	8,200	8,400	0
Fertilizers	20,000	20,500	21,000	0
Equipment Maintenance	1,200	1,230	1,260	0
Fuel	10,000	10,250	10,500	0
Sterilizing Gas	14,000	14,350	14,700	0
Nylon (green houses cover)	8,000	8,200	8,400	0
Workers	48,000	49,200	50,400	0
Debt	0	0	63,000	70,500
Net Income	**136,000**	**139,400**	**-113,400**	**0**

Source: UNSCO

Farmer (3)
Name: Nasser Al Shaer
Marital Status: married with 9 dependents
Total surface of land: 8 dunums and 2 green houses
Date of land destruction: November 2000

Item	1998/1999	1999/2000	2000/2001	2001/2002
Revenues	**69,600**	**90,610**	**0**	**0**
Olive	24,000	28,700	0	0
Tomato	40,000	57,400	0	0
Fruits and Palm	5,600	4,510	0	0
Expenditure	**50,200**	**52,070**	**38,220**	**0**
Seedlings	2,400	2,460	2,520	0
Fertilizers	12,000	12,300	12,600	0
Equipment Maintenance	3,000	3,075	3,150	0
Fuel	8,000	8,200	8,400	0
Irrigation	3,600	3,690	3,780	0
Sterilizing Gas	3,600	3,690	3,780	0
Nylon (green houses cover)	3,200	3,895	3,990	0
Workers	14,400	14,760	0	0
Debt	36,000	16,400	16,800	0
Net Income	**19,400**	**38,540**	**-38,220**	**0**

Source: UNSCO

Farmer (4)
Name: Kamal Al Shaer
Marital Status: married with 9 dependents
Total surface of land: 39 dunums and 6 green houses
Date of land destruction: November 2000

Item	1998/99	1999/2000	2000/2001	2001/2002
Revenues	**436,000**	**446,900**	**0**	**0**
Olive	60,000	61,500	0	0
Tomato	36,000	36,900	0	0
Other	340,000	348,500	0	0
Expenditure	**209,200**	**173,430**	**177,660**	**0**
Seedlings	48,000	49,200	50,400	0
Fertilizers	24,000	24,600	25,200	0
Equipment Maintenance	3,600	3,690	3,780	0
Fuel	14,400	14,760	15,120	0
Irrigation	60,000	20,500	21,000	0
Sterilizing Gas	36,000	36,900	37,800	0
Nylon (green houses cover)	12,000	12,300	12,600	0
Workers	11,200	11,480	11,760	0
Debt	0	0	147,000	164,500
Net Income	**226,800**	**273,470**	**-177,660**	**0**

Source: UNSCO

Farmer (5)
Name: Zuhair Tanteesh
Martial Status: Married with 7 dependents
Total surface of land: 8.5 Dunum, out of which 2.5 are green houses

Item	1998/1999	1999/2000	2000/2001	2001/2002
Revenues	**116,000**	**109,999**	**103,001**	**94,996**
Tomato	45,000	43,001	35,998	23,998
Strawberries	54,000	50,000	50,001	53,998
Apples	17,000	16,999	17,002	17,000
Expenditure	**69,900**	**71,894**	**76,692**	**83,472**
Seedlings	6,000	5,998	6,002	6,002
Fertilizers	7,600	7,790	9,660	12,220
Equipment Maintenance	400	410	420	470
Transport	5,600	5,740	6,300	7,050
Fuel	3,600	4,100	5,040	6,110
Sterilizing Gas	4,000	5,002	6,002	7,501
Nylon (green houses cover)	6,200	6,355	6,720	7,520
Workers (3 workers)	36,000	35,998	35,998	36,002
Others	500	500	550	600
Net Income	**46,100**	**38,105**	**26,309**	**11,529**

Source: UNSCO

Farmer (6)
Name: Mahmoud A Zaaneen
Martial Status: Married with 9 dependents
Total surface of land: 32 Dunum

Item	1998/1999	1999/2000	2000/2001	2001/2002
Revenues	**18,000**	**18,450**	**14,700**	**15,040**
Orange	18,000	18,450	14,700	15,040
Expenditure	**12,720**	**13,038**	**14,280**	**17,390**
Fertilizers	5,120	5,248	5,460	6,580
Equipment Maintenance	1,000	1,025	1,050	1,175
Fuel	5,200	5,330	6,300	7,990
Irrigation	1,400	1,435	1,470	1,645
Net Income	**5,280**	**5,412**	**420**	**-2,350**

Source: UNSCO

The Ministry of Agriculture estimated losses of approximately $130 million in reduced prices of agriculture produce. (PA Ministry of Agriculture 2003) To some farmers, this means that production becomes a futile activity, for

which even financial support is useless. An agricultural official from Khan-Yuonis describes the situation:

Box 5: Gazan Agriculture: "Nothing to Do But Food Aid" in Khan Yuonis

Under the prevailing Israeli closure policies, it is not beneficial for the farmers to get any financial support and loans to develop their agricultural projects, they simply can't benefit from their produce; they can't market it in the local market or export it. And consequently they will be in more trouble paying the debt service. Governmental and non-governmental organizations should provide these farmers with food aid and/or job opportunities (other than agriculture) to be able survive with their families until this crisis comes to an end.

Source: Head of the board of directors of Khan-Yuonis Agricultural Cooperative, Participatory Poverty Assessment.

In Jenin, and Ramallah, the impact of closure on production can been observed through the testimony of an onion farmer and a family's participation in the 2002 olive harvest. (Boxes 6 and 7). As the losses of Table 1.3 would suggest, these case studies represent a broader section of the agricultural producers. Finally, the impact of closure on manufacturing in Nablus is captured through interviews with two factory owners. (Box 8 and 9).

Box 6: West Bank Agriculture: Abu Ammar, Onion Farmer from Jenin

Abu Ammar is one of the largest farmers in Jenin. Before the implementation of closure in October 2000, he cultivated an area of 500 - 700 dunums, 70 percent of which was used for onions. His annual onion harvest typically yielded an income of more than $150,000 from marketing locally and outside the country. Abu Ammar once delivered to Tel Aviv and Amman central markets; at certain points he even exported to Lebanon, Saudi Arabia and other Gulf countries.

However, since 2000 Abu Ammar experienced two major shocks, which led to total bankruptcy. In 2001 he cultivated around 600 dunums, anticipating high demand from Israeli markets. But that season was hit by a drought and the insufficient rain sharply reduced the productivity of the cultivated dunums; he accumulated losses of more than $134,000.

The second shock came in April 2002, as Abu Ammar readied himself to harvest his onions. On 3 April, Israeli imposed a curfew on Jenin that lasted more than one month and prevented Abu Ammar from reaching his land to harvest the crop on time. He finally managed to reach his land only in late April, after a significant amount of the onions had perished.

Abu Ammar estimates that he lost around 40 percent of his crop due to the delay, and another 30 percent while looking for marketing outlets. Transport was very difficult and risky in Jenin. The driver of an Israeli licensed truck who had been working with him for several years refused to transport one truckload of onions from Jenin to Gaza's Erez checkpoint, fearing the trip was too dangerous (despite Abu Ammar's offer of $850 – up from $360 in 2001 and $125 before the imposition of closure in October 2000).

Finally, in early June, Abu Ammar managed to market around 150 tons of onions in Qabatiya market on the outskirts of Jenin and 160 tons of onion to Tel Aviv. But his attempts to sell or even give away the rest of his onions was futile. They remained on the land to perish.

In two years, Abu Ammar's losses were more than $176,000 and he accumulated debt of more than $63,000. In order to cope with the losses he had to sell some of his assets, including land – for which he could not find an interested buyer.

In the 2002-2003 season, Abu Ammar cultivated less than 200 dunums – mainly wheat and barly because they require much less fertilizer and labor. He noted that after the Israeli military assault on Jenin in April 2002, the prohibition of chemicals entering Jenin severely restricted access to fertilizers and, consequently, the prices of limited supplies increased. He explained that the Iraqi government donated fertilizers for Palestinian farmers, but they remained stuck in Jordan since April 2002 because they were prohibited entry into the West Bank.

Source: UNSCO, Interview Completed in November 2002.

Box 7: West Bank Oliver Farmers: The Khawaja Family, Ramallah

The Khawaja family lives in Neleen, a village west of Ramallah, and own 20 dunums of land that is excellent for farming rain-fed vegetables. The family once planted several varieties of vegetables twice a year; the output was enough to raise a large family and generate some savings.

Starting in 1990, when the first of the 12 sons was able to work, the young men began leaving their land for higher salaries offered in Israel. Eventually, the father had no one to help farm such labor-intensive vegetables. He had little choice left, but to plant olive trees.

The Khawaja daughters and sons' wives picked the olives. The trees received minimum care, because the sons were mostly away. Still, the trees gave good output with medium quality, and until recently, the price of olives and olive oil was fairly high, and local and regional markets were accessible. The Khawaja family was, therefore, able to sell all its output quickly at the end of each season.

However, in 2001 seven of the sons lost their jobs in Israel and could not find any work locally. They started looking after the olive trees by plowing, fertilizing and pruning. As a result of extra care and good rain, the olive harvest 2002 was excellent in terms of quantity and quality. Altogether, 15 of the family members were available for the harvest. Markets, however, were not accessible to sell the output, and consequently, prices plunged for the high quality produce. By February 2003 (3 months after the harvest), approximately 1500 kg of olives still had not been sold.

Concerned about their ability to feed themselves, the unemployed sons began planting land owned by a neighbor who lives abroad. They plan on growing vegetables for their families' consumption.

Khawaja Family Olive Harvest (1998)

Output	Quantity	Price /kg	Total Value
Olive	2000 kg	1.00 JD	2,000 JD
Olive oil	1120 kg	3.75 JD	4,200 JD

Khawaja Family Olive Harvest (2002)

Output	Quantity	Price /kg	Total Value
Olive	2000 kg	1.00 JD	2,000 JD
Olive oil	1120 kg	1.25 JD	1,400 JD

Source: UNSCO, Interview Completed in February 2002.

Box 8: West Bank Manufacturing: Nasser Printing Factory, Nablus

The Nassr Printing factory, established in 1935, remains in business despite severe hardship. In 2002 it was producing cardboard packaging materials, printed books, schoolbooks and pamphlets for various private and public sector establishments. When the Author visited this factory in November 2002, is was still managing to operate—in large part because of one of its biggest clients, the Ministry of Education, which purchases about NIS 1.5 million in printing services from Nassr each year.

The factory imports 95 percent of its input materials from Europe. Prior to October 2000, one truck would bring a container of materials from the Ashdod port to Nablus for NIS 1,200. In 2002, these trucks were not permitted entry into Nablus, and, therefore, would offload their materials for smaller trucks that risked travel into the city over mountainous roads. This increased delays and costs, the latter from NIS 1200 to NIS 3000.

As a result of economic decline and reduced profitability, this factory which typically employed 147 workers before October 2000 only employed 95 workers in November 2002, 30 of whom were sleeping nightly at the factory in order to keep their job despite the curfew. All were working for reduced wages.

Source: UNSCO, Interview Completed in November 2002

Box 9: West Bank Manufacturing: The Closing of the White Rose Factory, Nablus

The Shabaro family, which at one time embodied the hope of a developing Palestinian economy, is just one of many who have been run out of business. In 1992, with the help of a loan from the Arab Bank and another from the Palestinian Development Fund, the Shabaros established the confections company White Rose, and started producing mainly wafers, chocolates, and candies.

Upon the implementation of Israeli closure policies in 2000, it grew increasingly difficult and sometimes impossible for White Rose to market its products in Gaza (where 51% of its output was sold). As closure became pervasive throughout West Bank, the central and southern governorates became increasing hard to reach, and all that remained from West Bank markets were Tulkarem, Jenin, and Nablus, which absorbed less than 15% of White Rose output.

In 2001, closure policies prevented distribution of White Rose products to everywhere but Nablus itself, which absorbed five percent of the company's output. Difficulties also increased in getting inputs from Israel. Despite facing increasing transaction costs and lower sales, the Shabaros tried to stay in business to pay their debt.

After the April 2002 Israeli military invasion, the Beit-Eba main road, where the factory was located, was closed. Roadblocks and a military checkpoint were placed at the entrance to the factory. The Shabaros were told to get permits from the Israeli authorities to be able to reach their company. They did, but soldiers still refused to let them pass. By the end of 2002, the factory had not opened for eight months and one of the Shabaro brothers had already decided to look for other business opportunities, one was visiting China to look for goods that he could import into the oPt.

The Shabaros have now lost their operating capital, and their relations with lenders. They said that even if the soldiers left the factory entrance and closure was lifted, they would not be able to start producing because they no longer have access to credit.

Source: UNSCO, Interview Completed December 2002.

1.4 Special Focus-Nablus

This section describes closure and its impact on the productive activities of Nablus, a city which endured exceptional circumstances of curfew and other closures on its population in 2002. Closure in Nablus affects the productive activities, not just of the city and governorate's own population, but the productive activities of much of the northern West Bank.

Background on Nablus' Economy

Nablus is the second largest governorate in the West Bank with a population of 261,340 Palestinians. In Nablus, 39.8 percent of Palestinian live in urban areas, 49.6 percent live in the surrounding 69 villages, and 10.5 percent live in one of the three refugee camps.[8]

Nablus is often considered the center of the northern West Bank. As in any advanced economy, the city is completely dependent on local and outside markets for production and trade: wholesale and retail trade comprised 54.6% of total governorate establishments in 1997. (PCBS 2002c) It has provided regional markets for goods as well as vital medical, education and legal services. Industrial production and manufacturing in Nablus once employed a large part of the surrounding rural village population. In turn, the city sold goods imported from abroad as well as Israel and other Palestinian cities to villagers in surrounding areas of the northern West Bank.

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[8] PCBS Population Statistics

The trading sector in Nablus became developed in part through local links with the Israeli Arabs who traveled to the city for shopping. The once-expansive commercial market in the city center consisted of hundreds of shops catering to Israeli Arabs. In addition, the eastern part of the city was home to dozens of garages that depended heavily on clients coming from both the northern and middle West Bank governorates and from Israel for vehicle repairs.

Nablus hosts two main industrial zones and about 22 percent of West Bank and Gaza manufacturing establishments which contribute an estimated one-fifth of West Bank industrial GDP. Types of industry include soap factories, vegetable oils, cosmetics, clothing and other textiles, furniture, stone and marble, and other building materials. (MOPIC and UNDP 2002a). Manufacturing centers on apparel, textiles and furniture. Nablus is also a hub for olive oil production and nearly 80 percent of manufacturing of vegetable oils, especially olive oil and soap usually takes place in Nablus.[9]

External Closure in Nablus

Some 55,000 Israeli settlers live in 27 settlements around Nablus. (Figure 1.4) In 2001-2002, six of these were expanded, eight new ones built and 22 settlers outposts established.[10] The roads that serve the settlers have become part

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[9] Traditionally, olive oil is consumed locally, however, due, in part to income loss, many consumers are switching to lower cost oils, leaving a surplus of oil, which producers painstakingly try to export. (Judah et al 2001).

[10] Applied Research Institute (ARIJ) —Jerusalem. www. arij.org

of a vast closure network obstructing the mobility of more than 300,000 Palestinians and the flow of Palestinian goods.

Nablus was surrounded by seven main checkpoints in 2002: Huwwarah and Awarta in the south-east of the city, Beit Furik to the east, Bathan to the north-east, Deir Sharaf to the north-west and Jeit (Sarrah) and Beit-Iba to the west. For most of 2002, these checkpoints were closed for people traveling in and out of Nablus either by foot or vehicle. Huwwarah was made the entrance for diplomatic cars, ambulances and few other vehicles with permits. In exceptional circumstances, individuals were allowed to pass on foot if they possessed medical reports or permits[11]

To reach Nablus Palestinians often had to travel on foot across hilltop passes. Those approaching Nablus from the west had to circumvent physical barriers by walking through olive groves, then descending some two kilometers along a difficult and hilly route. Only then could they reach the taxis inside Nablus, which wait beyond large earth mounds that block the road.

The Awarta checkpoint was the planned back-to-back checkpoint for all goods moving between Nablus and any other West Bank town. Israel permitted certain goods to enter Nablus, but very rarely did soldiers at checkpoints permit

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[11] This checkpoint is used for people traveling by buses allowed by Israelis to travel between West Bank cities, however, these travelers should have permits, medical reports, or students and employees cards to be allowed into the city.

goods to leave the city. Israeli authorities usually informed the Palestinian Civil Coordination Office in Nablus about the days that Israeli licensed trucks were allowed to enter the city (Palestinian licensed trucks were typically not allowed to pass checkpoints.) Once allowed to enter, truck drivers were often told that they had one hour to download goods and leave the city. Food and fuels were typically the only products allowed to enter the city. In November 2002, While food items were officially permitted entry into Nablus, interviews with representatives of farmers in Qalqilya region villages of Jayous, Seer, Azoun, Al-Naby Alias, and Hableh revealed that farmers greatest losses were due to loss of accessing the Nablus market. Small markets had sprung up in various regions, though, none offered the access to wholesalers from throughout the West Bank that Nablus formerly offered. Conversely, shipments were transformed from large truckloads to the Nablus central market to much smaller vehicles delivering to less significant markets. Special regulations prohibited the entrance of glass, wood, cement, electrical equipment, and home appliances.

Barred from traveling through checkpoints, Palestinian trucks typically used two side roads to deliver goods from Nablus to other parts of the West Bank.[12] These roads were rough and dangerous and were unusable during rainy days. In November 2002, Israeli soldiers dug trenches across these two roads severing access almost completely from the outside world. The story of a truck driver named Mahmoud illustrates the system:

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[12] One of these roads called al Maslakh road to the east of the city and the other is Rameen that goes from Nablus al Jadedah area to Koseen and deir Sharaf villages and then to Sahel Rameen.

Box 10: Tulkarem-Nablus, Nablus-Tulkarem

Mahmoud is a truck driver who transported agricultural goods from Tulkarem to Nablus' central agricultural market (*Al Hesbeh*). Until 2002 his route, the Nablus-Tulkarem main road, took 30 minutes. In April 2002, entering Nablus was difficult but possible. While the journey became much longer after Israel's re-occupation of West Bank cities, Mahmoud was able to arrive at the central agricultural market and download his cargo. Between April and November 2002, getting into Nablus became increasingly difficult and dangerous. Truck drivers used to drive in groups of three to six, supplied with tools to help them open dirt barriers erected by Israeli soldiers.

In November 2002, Israeli bulldozers dug a long deep trench to the east of the city. Entering Nablus became almost impossible, even by foot. In order to bring vegetables from Tulkarem, Mahmoud went around Nablus from the northern side to circumvent the Israeli checkpoints and physical barriers. He went through five villages before arriving at Al Nassaria to the east of Nablus, where he downloaded his cargo. The goods would then be reloaded to an Israeli licensed truck that would go through the Jordan Vally to Awarta Checkpoint and into Nablus if there was no curfew. This journey sometimes took two to three days, enough to spoil certain perishable agricultural produce, such as spinach and parsley.

Mahmoud endured long roads, tough routes and above all, risks and danger. He and other drivers were sometimes shot at by Israeli soldiers, who used to take away truck keys and drivers' identification cards. At times he had been forced to wait at checkpoints for hours.

Source: UNSCO, Interview Completed in November 2002.

Internal closure in Nablus

In addition to external closure, Nablus also suffered from closed roads and checkpoints within the city that divide the city into east and west. Roads connecting the two areas were destroyed or closed after April 2002. Only one road was left open—and it was usually blocked with tanks. Between July and November 2002, Israeli soldiers would permit people to cross the checkpoint for a couple of hours every seven to ten days. During that time, soldiers would often close the checkpoint without notice, separating people from their homes until the next opening. In November 2002, a huge iron gate was installed to control the movement of cars between the two parts of the city.

The separation of the city into two parts made life difficult, and prevented many people from getting to their workplaces, as thousands of persons live in the east, but work in the western end of the city. The main industrial zone in Nablus is in the eastern part of the city. The closing of that area for most of the period between July and November 2002 meant that more than 4,000 employees could not reach their work, and manufacturers could not access raw materials or market output.

Before September 29th 2002, the Department of Transportation in Nablus recorded 14,000 licensed trucks and taxis in Nablus and Salfeet. Due to closure policies and movement restrictions, the number of operating trucks and taxis decreased substantially. Overall, the Ministry of Transportation reported that during 2002 only 40 percent of the 9,000 taxis in the West Bank were estimated to be in operation.

The Business Environment

Those no longer in business cite various reasons, but mostly they report lack of access to workplace, markets and credit, in addition to destruction of capital stock. Months of curfew have virtually eliminated local markets as an outlet for locally produced goods. In general, only those who still have clients, and who can afford the increased costs of getting goods to market under prohibitive conditions, are still in business.

The informal sector of the Nablus economy—machine knitting, bakery, hairdressing, aluminium works, carpentry, dress making, and ceramic works—is also probably seriously affected, although it is harder to measure. In a 1999 study, Nablus household-based production needs were emphasized in fields of raw material shortages, cost analysis, promotion and marketing, bookkeeping and technical needs Funding for 65 percent of these projects was less than 500 JD, with the sources of funds predominantly private. . (Makhool 1999) Problems of reaching customers and reaching markets can be expected to have increased substantially since the year 2000, rendering continued deterioration in the above-cited problems and a reduction of capital available for such projects, creating unemployment and poverty.

Nablus Statistical Data

Statistical data on new company registration and construction supports the anecdotal information presented above and reflect the broader economic decline in Nablus. Data on new company registrations in Nablus showed a sharp decrease over two years of closure. New registrations totaled 99 in 2000, but only 3 in 2001 and 17 in 2002. (Table 1.4)

Construction activity has dropped dramatically. Nablus is estimated to contribute to 18% of all construction activity in the West Bank and Gaza.(Shaka' 2001) However, in 2000 closure policies began to restrict entry of construction materials into Nablus and by 2002 construction materials were prohibited from

entering Nablus completely. Special exceptions were reportedly made on a limited number of occasions. The construction sector suffered heavily from the Israeli invasions in April and the curfews imposed in the later half of 2002.

Statistics on the number of construction licenses and the area licensed for construction in the city during the last two years point to an alarming recession. The area licensed for construction decreased by 19% in 2001 and 66% in 2002. (table 1.5) In 2002, industrial construction projects and commercial construction projects decreased by 96%. (see table 1.6)

Curfew and Closure

Nablus was under 24-hour curfew for the majority of the second half of 2002. Curfew was only lifted for only a few hours every five to seven days. Out of 193 days during this period, Nablus was open for only 36 full days and 65 partial days. Curfew was imposed for a total of 3,649 hours, and was lifted for a total of 1,007 hours during that time. [13] Uninterrupted curfew used to extend for as long as 18 days (from 21st July to 9th August, and from 19th of September to 7th October. Although curfew was imposed throughout the West Bank, the exceptionally adverse impact on Nablus is best captured in missed school days. Nablus records the highest number with more than 250,000 missed school days. The only city that even compares with such a high number Jenin. (Figure 1.6).

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[13] Palestinian Red Crescent, Curfew Watch, June 18 - December 31/2002.

As in other West Bank and Gaza governorates, the economic activities of households in Nablus were severely affected by military incursion, closure and curfew. Governorate level labor force data is not available, but tremendous job losses have clearly been observed in the local private sector. A study performed by the institute of Community and Public health at Bir-Zeit University after the April invasion of Nablus City reported that 27% of the surveyed people who used to work prior to the April invasion have lost their jobs. (Giacaman *et al* 2002)

Faced with less income, families dipped into their savings – if they had any. However, curfew significantly reduced the availability of cash in circulation and limited people's ability to purchase daily needs. The Birzeit study reported that, during the April invasion to Nablus 36% of the respondents reported spending less, 30% borrowed money from friends and relatives, 28% relied on food shops loaning them food on account, 8% delved into savings intended for use for other purposes other than eating and 7% resorted to living with what was at home. (Giacaman *et al* 2002) In November 2002, the Director of the Ministry of Social Affairs in Nablus reported that approximately 10,000 families had applied for assistance, but the Ministry was able to distribute assistance to only little more than 3,000.

Finally, as figures 1.7 illustrates, economic losses in Nablus have been primarly due to income losses as opposed to damages (on a ratio of approximately 4 to 1). As figure 1.8 illustrates, donor aid has not addressed incomes loss of the

private sector, rather aid has been mainly directed at infrastructure and food and cash aid, which make up 54 percent of all aid to the city's population.

1.5 The Separation Wall

Following a publication by a donor steering committee referred to as the Humanitarian Emergency Policy Group[14], in summer 2002, in the context of a unilaterally imposed separation, Israel undertook the construction of a Wall separating the West Bank from Israel. This Wall is supported by a series of trenches, electrified barbed wire, footprint paths, military roads and fortified guard towers placed at regular intervals. There is also a prohibited area extending as much as several hundred meters along side the Wall.

The Wall has a devastating impact has on Palestinian livelihoods and the viability of local economies, as well as on humanitarian assistance and donor development projects. Wall construction directly impacts local communities through the leveling of land, property, and infrastructure. Villages between the Green Line and the Wall are not the only communities that are affected. Many other communities east of the Wall, including the economies of major cities, are suffering the economic consequences of Wall enclosure. Border areas are the most severely impacted as they were formerly economic centers for Palestinian trade with Israel.

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[14] Of which the author of this dissertation, as an UNSCO economist, was one of the three field researchers and drafters of the economic and social findings of updates to the first report.

An estimated 11 percent of the Wall's alignment is expected to coincide with the Green Line. In some places the Wall is located as much as six kilometers inside the West Bank. As a result, approximately 12,000 Palestinians could find themselves west of the Wall, separated from the rest of the West Bank, and often cut off from their lands and workplaces, schools, health clinics and other social services.

The Barrier has been constructed making 15 Palestinian communities with an estimated population of approximately 13,500 caught between the Barrier and the Green Line. Inhabitants of thirty-seven other West Bank communities lost land to the construction of Stage A of the Separation Barrier. Other communities have been encircled by the Barrier and contain residents whose land holdings are now on the other side of the Barrier.

In total, 58 cities, towns, and villages in the northwestern West Bank, with a combined population of over 170,000, are either between the already completed. Separation Barrier and the Green Line, encircled by the completed Stage A construction, or have residents that have land holdings on the western side of the Barrier. (HEPG and LACC 2003b).

"According to the IDF, 41 agricultural gates exist or are planned along the Barrier's trajectory to enable Palestinian farmers access to their lands; nine crossing points for pedestrians and vehicles will be developed that would substitute for existing checkpoints; and four checkpoints for the transfer of goods

are to be created, similar to Karni in the Gaza Strip (with a fifth such checkpoint to be established "once the whole project is completed"). (HEPG and LACC 2003b).

Again, following the HEPG, Palestinians experienced erratic and arbitrary procedures at gates, many of which have remained closed for extended periods. Opening delays occur frequently; and that the brief opening times are too short to let large groups of persons pass. These delays have had significant impact on the daily routines of students, farmers, workers, and, more generally, on the livelihoods of all residents behind the Barrier.

Furthermore, basic services such as education and health faces are interrupted due to gate policies. Teachers and students are subject to regular delays on their way to school. Emergency medical cases are particularly problematic when they require transport through the Barrier during hours that gates are closed. Villages have been cut off from water supplies located across or even too close to the Barrier, and tankered water deliveries into areas between the Barrier and the Green Line have been restricted.

Agricultural operations have been particularly affected. Access has been problematic for farmers; obtaining permits for farming vehicles has been difficult. As a consequence, cultivated trees and crops have perished, and produce has gone unharvested. Grazing activities similarly require continual access; otherwise flocks can grow hungry and weak. "economic decline due to income loss cannot

be recovered merely through improved gate hours and enlightened permit policies" (HEPG and LACC 2003).

But the Wall has also directly impacted another 340,000 Palestinians in Jenin, Tulkarem, Qalqilya, Salfit, Ramallah-Al Bireh, Jerusalem and Bethlehem Governorates. Its negative Impact includes land and water confiscation, destruction of agricultural assets, businesses and private dwellings, blocked or impaired access to productive assets and social services, and internal closure restrictions such as that imposed on West Bank Palestinians who are prevented entry into East Jerusalem. (OCHA 2003)

In 2004, Separation Barrier construction continued at a rapid pace in the West Bank districts of Bethlehem, Jenin, Hebron and Ramallah with land seizure, and the destruction of agricultural assets.

The humanitarian and economic impact of the Barrier remained evident with continued destruction of business activities and livelihoods. The Barta'a – Baqa region, which consists of two adjacent enclaves lying between the Barrier and the Green Line, was completely cut off from the West Bank and neighboring Israeli towns with which it had strong trade and social ties.

In the village of Nazlat Issa, where there had previously been six sewing shops, only one remained operational by January 2004. Elsewhere 16 sewing

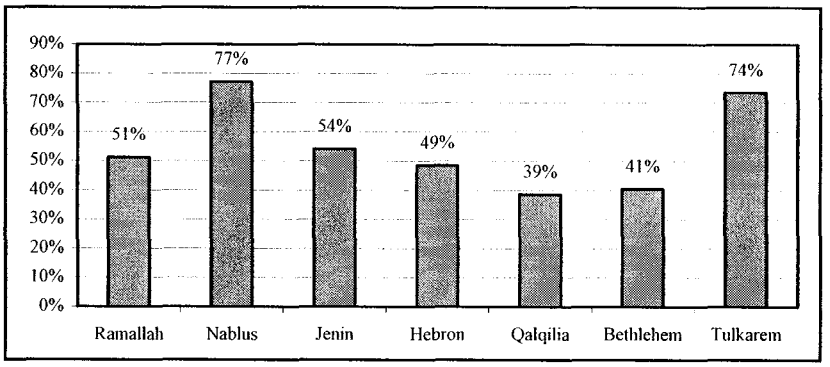
factories in the enclaves that previously employed more than 1,500 women were hard hit.[15]

Table 1.3: Number and Percentage of Closure Days of Passengers and Goods Crossings in Gaza Strip 2002

	Days Closed	Percent Closed
Passengers Crossings		
Erez-Biet Hanoun (workers in ISI)	55.5	20
Safe Passage	365	100
Karamah	365	100
Rafah Passengers	6	2
Gaza Airport Passengers	365	100
Goods Crossings		
Rafah	23	7
Erez-Biet Hanoun	365	100
Gaza Airport	365	100
Karni	23	7

Source: UNSCO

Figure 1.3: Percentage of Curfew Hours to Total Hours from June 18- December 31, 2002, in The West Bank.[16]



Source: Palestinian Red Crescent, Curfew Watch, website: www.palestinercs.org

[15] UNRWA Field Reporting 2003.

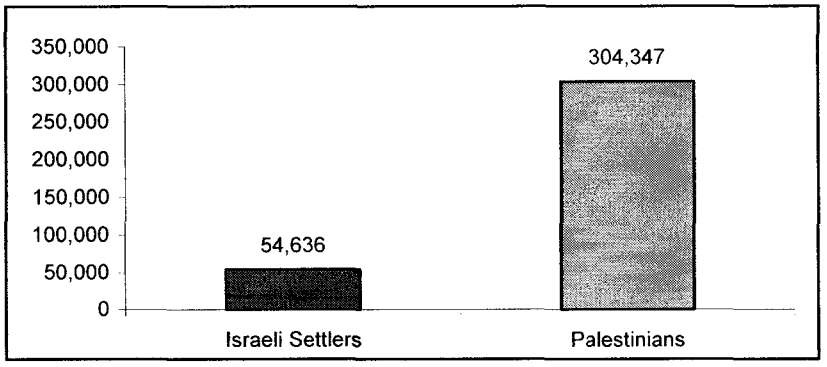
[16] Reliable curfew data is only available for the second half of 2002. Extensive curfew was applied in various regions of the West Bank in 2001-2002 as well, but is not reported here. Hebron data reflects H2 area only and excludes H1 (the old city), an area more severely affected by closure than most other areas.

Table 1.4: Jenin Agriculture Losses During April 2002 Incursion

Loss	Area (Dunum)	Number	Estimated Value (NIS)
Direct loss			
Razed planted vegetables	90		236,000
Razed greenhouses	20		100,000
Rain fed crops	431		336,000
Gardens		32	8,200
Spoiled olives		83	61,000
Damaged irrigation networks			52,000
Killed poultry		23,000	132,000
Killed livestock		506	339,000
Livestock clusters			31,000
Nurseries		50	63,000
Forest nursery		1	300,000
Total			1,658,200
Indirect loss			
Loss of livestock marketing			4,887,000
Loss of agriculture exports			1,379,917
Total			6,266,917
Grand total			**7,925,117**

Source: Palestinian Farmers Union, Ministry of Agriculture.

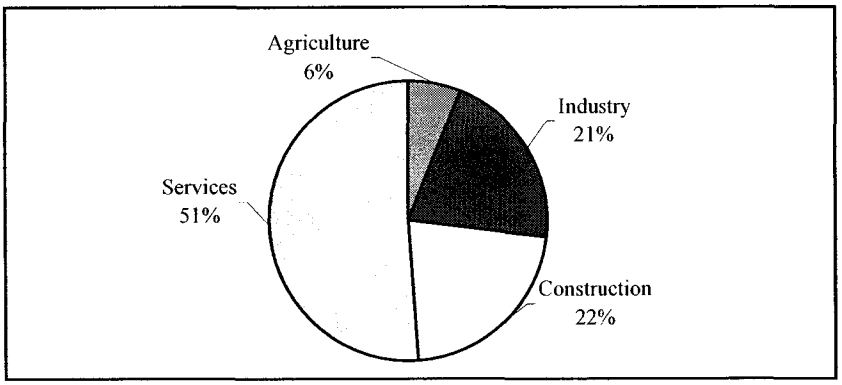
Figure 1.4: Population of Nablus Governorate, 2002



Sources: PCBS, Applied research Institute (ARIJ), Foundation of Middle East Peace[17]

[17] Growth rate applied to Palestinian population only, information about the settlements in Nablus Governorate was obtained from ARIJ and the population of each of these settlements was obtained from the Foundation of the Middle East Peace www.fmep.org.

Figure 1.5: Distribution of Workers in Nablus by Economic Activity, 1997



Source: PCBS

Table 1.5: Company Registrations in Nablus by Legal Status 2000-2002

	2000	2001	2002
Private	33	0	6
Private Limited	65	3	11
Public Limited	0	0	0
Foreign companies	0	0	0
Total	99	3	17

Source: Ministry of Economy Trade and Industry

Table 1.6: Number of Construction Licenses and Area Licensed for Construction in Nablus 1995-2002

	1995	1996	1997	1998	1999	2000	2001	2002
Number	1,104	1,150	1,281	1,363	1,602	1,405	1,001	481
Area (000' m^2)	449	458	410	506	468	393	320	108

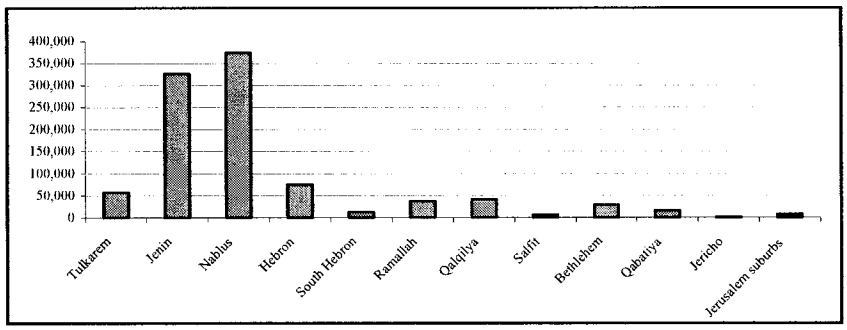
Source: The Building Sector in Nablus "Problems and Policy Options", Center of Private Sector Development, April 2001.

Table 1.7: Area licensed for Construction in Nablus by Type of Construction Project 2001/2002 in Square Meters

	Private Residential	Commercial Residential	Commercial	Industrial	Other
2001	181,066	18,776	58,847	18,953	42,546
2002	91,804	1,084	2,618	5,313	7,226
Change	-49.3%	-94.2%	-95.5%	-72.0%	-83.0%

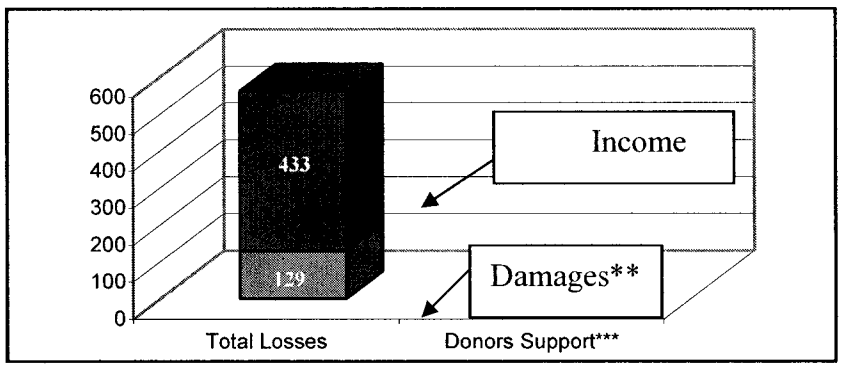
Source: Nablus Municipality

Figure 1.6: Number of Missed Child School Days Due to Curfew in West Bank Districts, September 2002 – December 2003



Source: PA Ministry of Education

Figure 1.7: Donor Support Programs Versus Damage in Nablus Sep 2000 – Dec 2002 (US $ million)



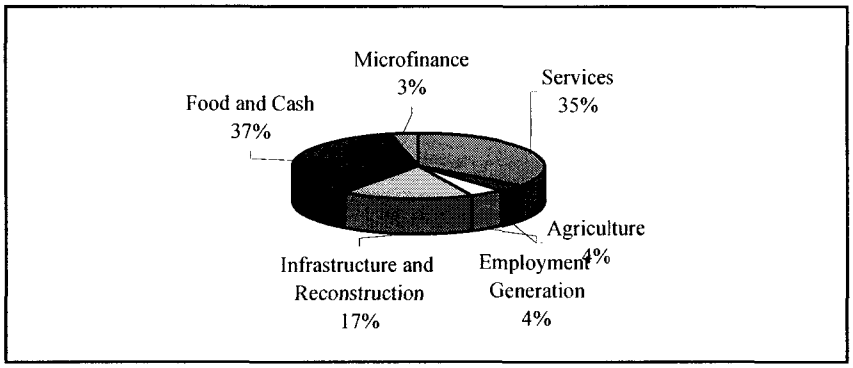
Sources:

* UNSCO estimates

** PA Ministry of Planning and International Cooperation, Emergency and Public Investment Plan 2003-2004.

*** UNDP, USAID, UNRWA, PECDAR, Save the Children, and NORAD estimates are for programs initiated in Nablus and do not include budgetary support.

Figure 1.8: Distribution of Donor Support in Nablus By Category, Sept 2000 – Dec 2002



Source: UNDP, USAID, UNRWA, PECDAR, Save the Children, and NORAD.

Chapter II

Economic Indicators

Economic indicators detail extraordinary decline beginning when closure was heightened in the 3rd quarter of 2000. The decline precipitated sharply in 2002 when military incursions and blanket curfews were imposed over much of the West Bank. In 2003, as military curfews were rescinded, limited economic recovery occurred with a certain degree of stabilization at lower levels of economic activity than had been observed prior to 2000.

This chapter documents both recent economic decline and more historical shifts in economic aggregates. Recent decline is documented by macroeconomic data in section 2.1, and financial in section 2.2. Labor market data in section 2.3 similarly shows the decline, but also indicates structural changes in the economy, which have implications for the growth generating potential in the current environment and for donor-funded recovery efforts—as will be more fully discussed in chapter 3. In section 2.4, effective demand decomposition techniques

are presented in a discussion of shifting economic aggregates over three time periods: pre-Oslo Israeli occupation (1972-1992), post-Oslo conflict (1993-1999), and heightened closure (2000-2002).

This historical trend analysis shows that for stabilization to take place, a major shift in economic aggregates will have to come about. Currently, the public sector deficit is covering private sector decline. The external stance, due to its historical leakage typical of small, open economies, can not expected to provide the needed stimulus. Stimulus will have to come from private sector investment. Sources for investment, however, which have typically come from income gained by Palestinians in Israel, and more recently by donor funds provided after the signing of the Oslo Accord, have both diminished. Ahead in chapter 3, the discussion addresses promoting investment in this particular environment.

2.1 Recent Decline: Macro Indicators

2.1.1 National Accounts

The PCBS and the World Bank estimate that real GDP declined some 33 percent between 1999 and 2002; real per capita consumption according to the Bank declined by 25 percent since 1998 and total investment (public plus private) fell from $1.45 billion in 1999 to $150 million in 2002. (World Bank 2003).

Table 2.1: Palestinian Income Estimates, 1999-2002

	1999	2000	2001	2002
Gross National Income GNI, $ million.	5453.9	5,274.5	4,404.0	3,419.7
Gross Domestic Product, GDP, $ million.	4,516.6	4,441.8	3,917.9	3,096.8
GNI per Capita	1,806.1	1,674.5	1,335.0	997.7
GDP per Capita	1,495.7	1,410.1	1,187.6	903.5
Private consumption, $ million	4,488.3	4,412.9	3,986.0	3,095.1
Public consumption, $ million	1,044.0	1,173.2	1,333.5	1,060.2
Imports of Goods and Services, $ million	3,804.7	3,404.4	2,779.1	2,298.3
Exports of Goods and Services, $ million	891.5	868.5	626.5	489.8
Source: Palestinian Monetary Authority.				
Private investment, $million	1,250			50*
Public investment, $ million	200			100*
Domestic private consumption, $ million	1129			774*

Estimates based on PCBS National Accounts data and estimates; (www.pcbs.org)
* based on World Bank estimates (World Bank 2003)

2.1.2 Trade

Imports from Israel decreased 44 percent in the first two years of closure and re-covered slightly, so that by 2003 imports remained 35 percent lower than in 2000. Palestinian exports to Israel declined by 50 percent in the first two years of closure, and in 2003, continued to stagnate at 40 percent below its pre-crisis level. (Table 2.2)

Table 2.2: Estimates of Palestinian Trade with Israel, 2001 – 2003[18] (US $ million)

Year	Exports	Imports
2000	469	1,975
2001	340	1,357
2002	236	1,106
2003	281	1,283

Source: Israeli Central Bureau of Statistics (ICBS), Estimates include trade in goods and services (www.icbs.org)

[18] Estimates for 2003 are based on the released data for the first three quarters of the year.

2.1.3 PA Accounts

By the first quarter of 2004, domestic tax revenues remained 25 percent less than pre-crisis levels, but total expenditures had increased by approximately 22 percent, mainly due to the enormous increase in wage expenditures (up 67 percent) over pre-crisis levels.[19] Consequently, the monthly budget deficit (of approximately USD 37 million), was nearly 50 percent higher than pre-crisis levels.

2.1.4 Prices (Consumer Price Index)

Inflation increased 4.5 percentage points in the first year of crisis, led mainly by higher transport costs. By Q3-2003, the inflation rate was 1.5 percentage points less than in 2002; transport prices were increasing less quickly, but continued to rise faster than any other item in the price basket. (Table 2.3) These trends are slightly higher than historical averages for price inflation. (Table 2.4)

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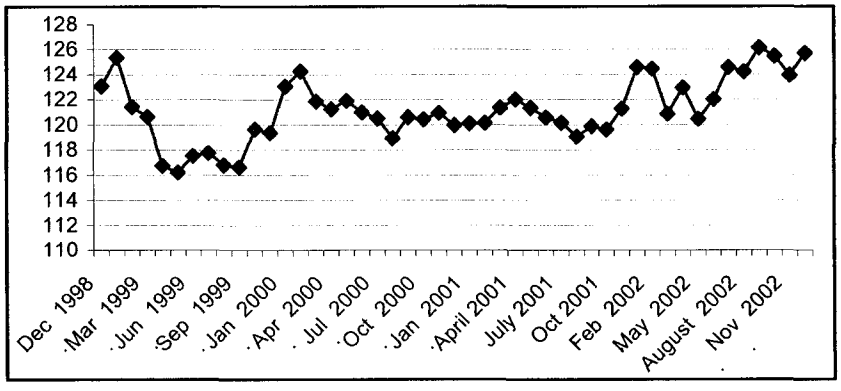
[19] This was due to increases in public employment as well as certain salary increases under recent partial implementation of the Civil Service Law of 1998, Law # 3/96/M.W. Comparison made with 1999 data reported by the IMF.

Table 2.3: Consumer Price Developments, 2000-2003

By Expenditure Group	Average 2000	Average 2001	Average 2002	Average 2003	Change 00-01	Change 01-02	Change 02-03
Food	121.22	120.65	123.78	129.14	-0.50%	2.60%	4.33%
Beverages and tobacco	130.22	131.94	144.67	151.74	1.30%	9.60%	4.89%
Textiles, clothing and footwear	125.89	123.35	128.33	128.78	-2.00%	4.00%	0.35%
Housing	126.46	133.16	143.96	147.02	5.30%	8.10%	2.13%
Furniture, household goods & services	123.68	118.76	120.82	122.44	-4.00%	1.70%	1.34%
Transport and communications	125.19	137.04	160.88	172.71	9.50%	17.40%	7.35%
Education	114.62	117.87	123.11	128.68	2.80%	4.40%	4.52%
Medical care	126.65	128.73	131.08	138.22	1.60%	1.80%	5.45%
Recreational, cultural goods & services	95.5	93.43	93.25	95.58	-2.20%	-0.20%	2.50%
Miscellaneous goods and services	127.56	128.71	133.58	139.98	0.90%	3.80%	4.79%
By region							
Palestinian Territories	123.28	124.79	131.92	137.35	1.20%	5.70%	4.12%
Jerusalem	123.63	123.32	129.22	135.57	-0.30%	4.80%	4.91%
Gaza Strip	123.33	122.08	124.61	127.34	-1.00%	2.10%	2.19%
West Bank excluding Jerusalem	124.08	127.34	135.07	140.6	2.60%	6.10%	4.09%

Source: PCBS. Data for 2003 is based on the first ten months of the year

Figure 2.1: Consumer Price Index for Food Items Group Dec 1998-Dec 2002 (November-1995=100)



Source: PCBS, Prices Statistics (www.pcbs.org)

2.2 Recent Decline: The Financial sector

2.2.1 Loans and Deposits

Total loans extended by commercial banks decreased 29 percent in the first two years of closure, only to rise by 3 percent in the first nine months of 2003. Bank deposits, which only declined 9 percent had increased 6 percent in the first 9 months of 2003. (Table 2.4) Consequently, the loans to deposits ratio remained at a low of 27 percent.

Table 2.4: Loans and Deposits, 1999 –2003

	Dec-99	Dec-00	Dec-01	Dec-02	Sep-03
Total Loans (million US$)	1,005	1,346	1,220	957	990
Total Deposits (million US$)	3,721	3,507	3,399	3,430	3,647
Loans to Deposits Ratio	40.50	38.38	35.89	27.9	27.15%

Source: Palestinian Monetary Authority, end of period stocks.

2.2.2 Bank Credit by Type of Borrowing Entity

Business loans which decreased 19 percent in the first two years of closure increased by about 4 percent in the first nine months of 2003. Consumer loans, which decreased by 53 percent in the first two years, recovered from their low by only 7 percent. (Table 2.5) Loans to public sector agencies remained stable throughout the crisis, declining slightly by 4 percent in the first nine months of 2003.

Table 2.5: Credit by Sector 1999-2003, (US $ million)

	Dec-99	Dec-00	Dec-01	Dec-02	Sep-03
Businesses	622	750	669	608	630
Consumers	322	475	431	222	237
Public Agencies	62	121	120	128	123
Total	**1,005**	**1,346**	**1,220**	**957**	**990**

Source: Palestinian Monetary Authority

2.2.3 Value of Cleared Checks

The annualized monthly average for cleared checks in 2003 increased by 38 percent in the first three quarters of 2003, but remained a mere 53 percent of the level observed in 2000. (Table 2.6) The share of cleared checks out of total checks presented increased from 87 percent to 92 percent in the first three quarters of 2003. That is, the value of bounced checks declined from US$ 23.6 million to less than US$ 18.5 million.

Table 2.6: Checks: Presented, Cleared and Bounced, 2000-2003 (US $)

	Monthly Average 2000	Monthly Average 2002	Monthly Average 2003
Checks presented for clearing	439,837,473	180,535,245	235,510,374
Bounced Checks	47,962,111	23,602,999	18,540,602
Cleared Checks	391,882,029	156,932,246	216,969,772

Source: Palestinian Monetary Authority. Estimates for 2003 are based on PMA data for the first three quarters of the year.

2.3 Recent Decline: The Labor Force

2.3.1 Employment

The standard unemployment rate in the Palestinian Territories increased from 10 to 36 percent in the first two years of crisis, then subsided in the first three quarters of 2003 to reach an average 26.7 percent. (Table 2.7) Accounting

for discouraged persons, the adjusted unemployment rate increased from 20 to 45 percent, then decreased to an average of 34.3 percent through the first three quarters of 2003 (Table 2.7). The number of unemployed in quarter three (193,000) remained about 2.6 times higher than the number of unemployed before the crisis (73,000). By quarter three 2003, West Bank unemployment reached 21.6 percent and Gaza unemployment reached 27.9 percent. Similarly, adjusted unemployment was 28.7 percent in West Bank and 33.7 percent in Gaza.

Unemployment in quarter three 2003 for young persons between the ages of 15 and 24 remained exceptionally higher (37 percent) than its pre-crises level (14 percent). And the dependency ratio increased from 4.8 to 7.7 in the first two years of crisis, and stabilized at a 5.9.

Table 2.7: Quarterly Employment Indicators Q3/00-Q3/03 in the Palestinian Territories ('000)

	2000		2001				2002				2003		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Population	3,175	3,200	3,247	3,295	3,320	3,361	3,402	3,444	3,485	3,528	3,571	3,613	3,670
Labor Force	734	668	669	674	679	702	705	680	703	742	745	792	817
Employed	661	479	489	515	506	518	501	451	452	540	519	599	624
Unemployed	73	189	180	160	172	184	204	229	251	202	225	192	193
Discouraged Workers	94	127	117	120	120	101	111	137	119	112	109	110	78
Adjusted Unemployed	170	316	297	280	292	285	315	366	370	314	334	302	271
Standard Unemployment %	10.0	28.3	26.9	23.7	25.3	26.2	28.9	33.6	35.6	27.3	30.3	24.3	23.6
Adjusted Unemployment %	20.2	39.8	37.8	35.2	36.5	35.5	38.6	44.7	44.9	36.8	39.2	33.5	30.3
Dependency Ratio	4.8	6.7	6.6	6.4	6.6	6.5	6.8	7.6	7.7	6.5	6.9	6.5	5.9

Source: PCBS, Labor Force Surveys rounds 18 to 30.

2.3.2 Employment in Israel, Israeli Settlements and Industrial Zones (ISI)

In the first two years of closure, 100,000 jobs in Israel were destroyed (15 percent of all Palestinians employed and 75 percent of those employed in Israel). Three-quarters of these jobs were for West Bank Palestinians. By Q3-2003, the number of West Bank Palestinians employed in ISI increased from its low of 31,000 persons to a total of 59,000 persons, but remained 45 percent below its pre-closure level. (Table 2.19) The non-Jerusalem West Bank has not participated proportionately in the recovery of lost jobs in Israel, having regained a mere 11,000 jobs by Q3-2003.[20] Estimates of earnings by Palestinians in Israel (see

[20] According to data from the National Security Force, Northern Command, Gaza, the average number of workers who passed daily from Gaza into Israel and the Israel Industrial Zones, increased from 6,100 workers in the Q2-2003 to 11,500 workers in Q3-2003.

historical trend analysis ahead in this chapter) are at their lowest recorded level since 1972.

2.3.3 Sectoral Employment

More than 200,000 jobs were destroyed in the first two years of closure. By the third year, approximately 171,000 jobs had been recovered. (Tables 2.11-2.16) However, significant shifts in the sectoral composition of employment suggest that this job recovery does not reflect economic recovery, but more closely resembles a population coping by finding work in less productive activities and re-distributing national income.

Manufacturing and construction were the weakest in recovering toward their pre-crisis levels of employment. Construction was particularly slow to recover domestically, despite a gain of nearly 27,000 workers domestically between Q3-2000 and Q3-2003. For the first time in seven years, the number of persons employed in agriculture exceeded the number of persons employed domestically in construction. (Figure 2.2) That is, the agricultural sector absorbed more employment as a percentage of total employed than in any of the previous six years, reaching 16 percent of total Palestinian employment and 16.7 percent of total domestic employment in the oPt. After agriculture, commerce has demonstrated the next strongest recovery relative to its pre-crises level. (Table 2.17) Indeed, this is indicative of income re-distribution—more people open up small shops in their home village to make up for work lost in Israel or lost in formerly vibrant urban economies (West Bank), or to make up for lost

manufacturing jobs (Gaza). Private services maintains a small section of the economy of approximately 70,000 persons. Public services, however, continue to dominate the lion's share of employment, at approximately 130,000 persons.

2.3.4 Implications of Sectoral Change for Output

The shift in relative weights of sectoral employment has strong implications for changes in output. As Tables 2.9 and 2.10 show, the loss of 11,000 jobs in manufacturing and the gain of 21,000 jobs in commerce would yield a net gain of 10,000 jobs. However, because output per person engaged is nearly 9 times higher in manufacturing than in retail trade, the upshot is a net reduction in output, despite the gain in employment.

2.3.5 Social Composition of the Labor Force

After three years of closure, the social composition of the labor force shows that the share of private sector wage workers in the economy has decreased by 10 percentage points. Other structural changes include a decline in the share of employers in the economy by two percentage points, an increase in unpaid family labor by about the same amount and an increase in the self employed by more than 5.5 percentage points. (Table 2.21)

2.3.6 Administrative Composition of the Labor Force

A comparison of the economy before new closures were imposed in October 2000 and after income redistributing job recovery spread throughout the

domestic economy by Q3:2003 reveals that an approximate net loss of 79,000 jobs in Israel was made up for by increases of approximately 17,000 persons in PA and municipality employment, 16,000 in the domestic economy's private sector and approximately 9,000 in UNRWA and NGOs.[21] (Table 2.20)

2.3.7 Wage Workers, Real Wages and Aggregate Wage Income

Estimates of wage income show drastic declines. By Q4-2003, aggregate real wage income dropped by an estimated 28 percent when compared to Q3-2000. (Table 2.8) This decline was due mainly to the decline in the number of wage jobs rather than significant changes in wage rates. Accounting for regional variations, the average real daily wage declined 11 percent in the West bank since October 2000, but increased in Gaza by 3.7 percent.

2.3.8 Poverty

During the last half of the 1990s, there was modest but continuous and important progress in reducing levels of poverty in the West Bank and Gaza, according to the World Bank (World Bank 2001a, pp 6-8); Poverty being closely associated with employment, the rate then increased from about 20 percent of the Palestinian population in 1999 to 30 percent in 2000, reaching 46 percent in 2001 and 61 percent in 2003. (Table 2.18)

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[21] Such data is not available from the official statistical bureau, so this is a best guess of the administrative composition of the labor force based on various sources as listed under table 25.

Table 2.8: Aggregate Wage Income[22]

	QIII-00	QIV-03	Change
Working in West Bank			QIII-00 to QIV-03
Average Daily Real Wage (NIS)	57.1	51.0	-10.6%
Average Real Monthly Wage (NIS)	1386.6	1245.2	-10.2%
Average Number of wage employees	193,786	188,694	-2.6%
Total Quarterly Wage Income (million NIS)	806,089,738	704,910,905	-12.6%
Working in Gaza			
Average Daily Real Wage (NIS)	41.4	42.9	3.7%
Average Real Monthly Wage (NIS)	980.6	982.4	0.2%
Average Number of wage employees (Thousands)	107,823	107,000	-0.8%
Total Quarterly Wage Income (million NIS)	317,188,789	315,348,136	-0.6%
Working in Israel			
Average Daily Real Wage (NIS)	90.4	94.6	4.7%
Average Real Monthly Wage (NIS)	1834.1	2091.1	14.0%
Average Number of wage employees (Thousands)	146,169	58,000	-60.3%
Total Quarterly Wage Income (million NIS)	804,272,557	363,853,537	-54.8%
Total wage income, Palestinian households	**1,927,551,085**	**1,384,112,577**	**-28.2%**
(NIS millions, in 1996 prices)			
Aggregate Wage Income by Place of Employment			
	QIII-00	**QIV-03**	
West Bank	806	705	
Gaza	317	315	
ISI	804	364	

Source: UNSCO Staff Estimates

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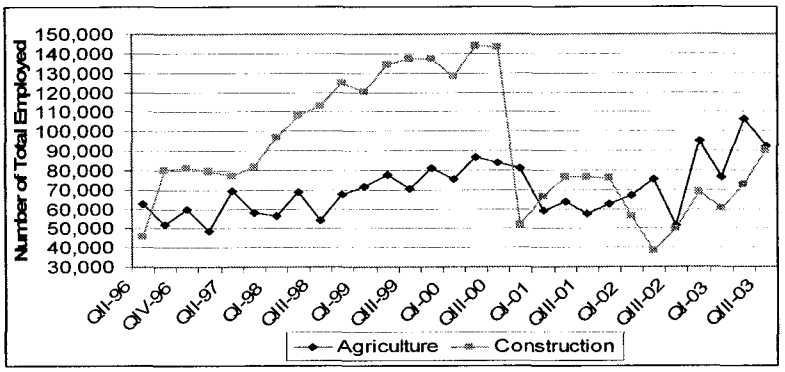
[22] In the absence of household income data, an approximate measure of the reduction in household income can be derived from changes in the number of *wage-workers* and *wage rates*. To calculate the reduction in real wage income by region;

i) nominal NIS daily and monthly wages were deflated using the average regional Consumer Price Index with a 1996 base period;

ii) per worker monthly wage income was calculated as the product of the average daily wage rate and the average number of days worked per month;

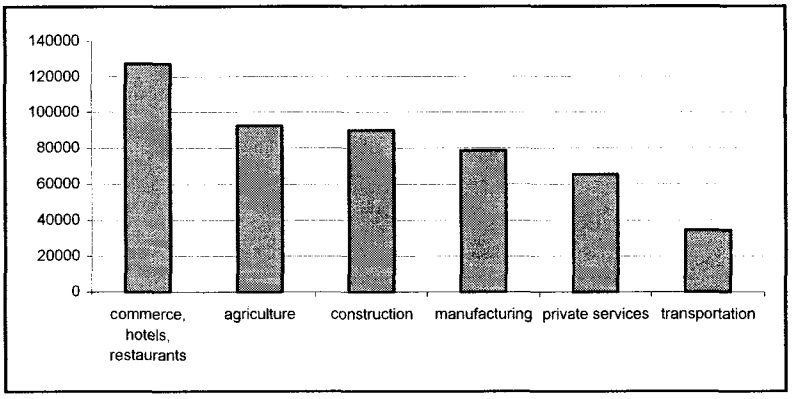
iii) total quarterly wage income by region is the product of quarterly wage rates and the number of wage employees per region. For simplification, it is assumed that all Palestinian workers in Israel are wage employees (according to the PCBS, about 96 percent are wage employees). Nominal wage rates and the number of wage employees per quarter are taken from the PCBS, Labour Force Surveys. The consumer price index is from PCBS Consumer Prices series.

Figure 2.2: Total Employed in Construction Versus Total Employed in Agriculture 1995-2003



Source: PCBS, Labor Force Statistics, rounds 1 to 30

Figure 2.3: Palestinian Private Sector Economy Employment by Sector, Q3:2003



Source: PCBS, Labor Force Statistics, round 30

Table 2.9: Domestic Employment Changes Q3-2000 to Q3-2003

Sector	Pre-crisis q3-2000	q3-2003	total change
Construction	62566	58733	-3833
Agriculture	71562	86126	14564
Manufacturing	77839	66922	-10917
Commerce	93321	114586	21265
Transportation	29863	33571	3708
Total	**335,151**	**359,938**	**24,787**

Source: PCBS Labor Force, Rounds 18, 30

Table 2.10: Sectoral Data Comparison Retail Trade v. Manufacturing

	Services retail trade	Industry manufacturing
Number of enterprises	30,901.00	13,484.00
Persons engaged	48,047.00	61,564.00
Paid employees	13,787.00	40,014.00
Employment per enterprise	1.55	4.57
Total compensation	24,442.00	156,788.00
Average compensation	1.77	3.92
Output	354,665.00	$1,224,376.00
Output per person engaged	**11.48**	**90.80**
Gross value added	246,467.00	561,450.00
Intermediate consumption	108,197.00	662,926.00

Based on PCBS Economic Survey Series for 1998

Table 2.11: Employment in Construction by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	49,720	68,650	60,208	72,532	89,804	40,084
West Bank	26,547	29,353	22,216	30,825	42,182	15,634
Gaza	5,084	13,027	14,523	17,524	16,551	11,467
Israel	18,188	26,141	23,274	24,328	31,252	13,064

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.12: Employment in Agriculture by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	51,076	95,137	76,298	106,101	92,299	41,223
West Bank	37,224	67,379	39,629	72,048	55,363	18,139
Gaza	10,720	22,611	33,098	29,966	30,763	20,043
Israel	3,093	4,891	3,698	4,268	5,860	2,766

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.13: Employment in Manufacturing by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	56,952	67,569	66,436	72,532	78,579	21,627
West Bank	36,070	44,363	42,931	50,508	52,350	16,281
Gaza	10,499	13,477	15,705	14,370	14,572	4,073
Israel	10,774	9,669	7,643	7,789	11,585	811

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.14: Employment in Commerce, Hotels and Restaurants by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	98,988	100,543	105,883	117,490	127,223	28,235
West Bank	66,657	66,044	65,748	78,362	84,363	17,706
Gaza	18,677	25,606	31,072	28,740	30,223	11,546
Israel	13,761	8,657	8,728	10,510	12,595	-1,166

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.15: Employment in Transportation by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	25,764	29,730	29,066	35,367	34,300	8,536
West Bank	18,756	20,681	21,616	23,768	22,597	3,841
Gaza	4,973	7,038	6,586	10,514	10,974	6,001
Israel	2,187	2,024	1,282	1,174	1,010	-1,176

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.16: Employment in Services by Region Q2 2002 – Q3 2003

	Q3-02	Q4-02	Q1-03	Q2-03	Q3-03	2002/2003 One year change
Total	169,500	178,923	181,143	195,417	201,436	31,936
West Bank	103,304	105,404	108,079	115,871	119,765	16,462
Gaza	60,562	67,982	67,885	74,127	76,818	16,256
Israel	5,334	4,835	4,684	5,282	5,051	-282

Source: PCBS, Labor Force Statistics, rounds 26 to 30

Table 2.17: Average Employed and Change in Average Employed, Pre Crises - Post Crises Comparison

	QIII 99-QII 2000 Average	QIV 02-QIII 03 Average	Change
Total			
Agriculture, Fishing	78,362	92,459	17.99%
Quarrying, Manufacturing	92,690	71,279	-23.10%
Construction	136,437	72,799	-46.64%
Commerce, Hotels, Restaurants	103,615	112,785	8.85%
Transport, Communication	30,882	32,116	4.00%
Services, including public administration	173,169	189,230	9.27%
Domestic			
Agriculture, Fishing	65,595	87,780	33.82%
Quarrying, Manufacturing	74,974	62,108	-17.16%
Construction	59,507	46,550	-21.77%
Commerce, Hotels, Restaurants	84,615	102,662	21.33%
Transport, Communication	28,515	30,743	7.81%
Services, including public administration	164,603	184,267	11.95%
West Bank Domestic			
Agriculture, Fishing	39,196	58,424	49.05%
Quarrying, Manufacturing	55,685	47,364	-14.94%
Construction	44,668	31,002	-30.59%
Commerce, Hotels, Restaurants	63,998	73,347	14.61%
Transport, Communication	19,919	22,090	10.90%
Services, including public administration	99,458	111,881	12.49%
Gaza Domestic			
Agriculture, Fishing	26,689	29,118	9.10%
Quarrying, Manufacturing	19,170	14,538	-24.16%
Construction	14,512	15,413	6.21%
Commerce, Hotels, Restaurants	20,481	28,923	41.22%
Transport, Communication	8,620	8,782	1.88%
Services, including public administration	65,199	71,743	10.04%

Source: PCBS, Labor Force Statistics, rounds 17 to 30

Table 2.18: Benchmark: Macroeconomic Performance and Forecast[23]

	1999	2000	2001	2002	2003
GDP per capita, US$	1,496	1,410	1,141	859	**897**
Poverty Rate	20.1%	30.7%	45.7%	58.6%	**61.4%**
Unemployment Rate	11.8%	14.1%	25.5%	31.3%	**26.0%**

Source: World Bank Monitoring Indicators, Release # 12

[23] World Bank Monitoring Indicators, Release # 12, February 29, 2004. For period 1999-2002, PCBS GDP data (2001-2002, PCBS GDP estimates); PCBS unemployment data; World Bank poverty estimates. For 2003-2005, preliminary World Bank baseline ("status quo") forecast (September 2003); PCBS population estimates. Includes East Jerusalem.

Table 2.19: Palestinian Workers in Israel and Israeli Settlements by Region 1996-2003, (000)

	1996	1997	1998	1999	2000	2001	2001				2002				2003		
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
West Bank	49	60	85	108	94	67	69	62	60	66	57	31	51	49	43	49	59
Of which:non-Jerusalem West Bank	na	na	na	na	na	39	36	40	41	37	30	16	15	24	21	23	27
Gaza	10	14	22	27	22	2	2	2	3	2	2	2	3	7	6	4	8
Total	59	74	109	135	116	69	71	64	63	68	59	33	54	56	49	53	67

Source: PCBS Labour Force Surveys, rounds 1 to 30

Table 2.20: Administrative Composition of Employment in the Palestinian Territories Q3-2000 to Q3-2003, (000)

Employed in	Q3 2000	Q1 2003	Q2 2003	Q3 2003	Change Q3/2000 Q3/2003
PA & municipalities	130	140	145	147	17
UNRWA	10	13	13	13	3
NGOs	14	20	20	20	6
ISI	146	49	53	67	-79
Private Sector	361	297	368	377	16
Total	661	519	599	624	-37

Source: UNSCO staff calculations based on data from PCBS, UNRWA Ministry of finance, IMF and municipalities

Table 2.21: Social Composition of Employed Persons in the Palestinian Territories Q3-2000 to Q3-2003, (%)

	Av. 95-99	2000		2001				2002				2003		
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Employers	5.7	4.4	4.6	4.8	5.3	4.3	4.3	3.5	3.3	4.2	3.7	3.2	3	3.8
Unpaid Family	9.1	9.9	13	9.5	9.3	9	9.2	9.5	11.4	8.9	11.4	10	12.7	11.3
Self-employed	21.2	18.1	23.1	21.6	23.6	24.4	26	27.6	27.3	25	27	28.8	28.7	26.7
Wage-workers	64	67.6	59.3	64.1	61.8	62.3	60.5	59.4	58	61.9	57.9	58	55.6	58.2
Public sector	*17.3*	*17*	*24*	*23.9*	*22.7*	*23.5*	*23.5*	*24.6*	*27.5*	*27.7*	*23.3*	*24.1*	*21.7*	*21.2*
*Private sector**	*47*	*50.6*	*35.3*	*40.2*	*39.1*	*38.8*	*37*	*34.8*	*30.5*	*34.2*	*34.6*	*33.9*	*33.9*	*37.0*
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: PCBS Labour Force Surveys rounds 1 to 30.

* Includes UNRWA, NGO's, and municipalities' employees.

Table 2.22: Economic Branch Distribution of Total Employed in the Palestinian Territories, Q3-2000 and Q2-2003 (%)

	2000		2001				2002				2003		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Agriculture, Fishing	13	17	12	12	11	12	13	17	11	18	15	18	15
Quarrying, Manufacturing	15	13	15	14	13	14	14	12	13	13	13	12	13
Construction	22	11	14	15	15	15	11	9	11	13	12	12	14
Commerce, Hotels, Restaurants	17	19	19	20	19	20	21	19	22	19	20	20	20
Transport, Communication	5	5	5	6	6	6	5	6	6	6	6	6	6
Services	29	35	35	34	35	35	35	38	38	33	35	33	32
*Public Sector**	*17*	*24*	*24*	*23*	*24*	*24*	*25*	*27*	*28*	*23*	*24*	*22*	*21*
Excluding Public Sector	*12*	*11*	*11*	*11*	*12*	*11*	*11*	*10*	*10*	*10*	*11*	*11*	*11*

Source: PCBS Labour Force Surveys rounds 1 to 30.

Table 2.23: Economic Branch Distribution of Domestically Employed in the Palestinian Territories, Q3-2000 and Q2-2003, (%)

	2000		2001				2002				2003		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Agriculture, Fishing	14	18	13	13	12	13	14	17	12	19	15	19	16
Quarrying, Manufacturing	15	12	14	13	13	14	14	12	12	12	13	12	12
Construction	12	7	8	10	10	8	7	9	8	9	8	9	11
Commerce, Hotels, Restaurants	18	19	19	20	20	21	21	19	21	19	21	20	21
Transport, Communication	6	5	5	6	6	6	5	6	6	6	6	6	6
Services	35	38	40	38	39	39	38	38	41	36	38	35	35
Public Sector*	22	26	28	27	27	27	28	30	31	26	27	24	24
Excluding Public Sector	13	11	12	11	13	12	10	8	10	10	11	11	12

Source: PCBS Labour Force Surveys rounds 17 to 30.

2.5 Historical Analysis: Effective Demand Decomposition Techniques

Following Berg and Taylor, we examine how major economic aggregates shift over time using simple time series decomposition techniques. During the post-Oslo period and the closure crisis, substantial changes occurred in demand side parameters. We examine import coefficients, tax rates and savings rates, as well as flows such as exports, investment and government consumption. How output responds to these shifts is observed using a decomposition of demand "injections" (investment, government spending, exports) versus "leakages" (saving, taxes, imports). In macro-economic equilibrium, total of injections and leakages must be equal.

At the one-sector level, aggregate supply (X) can be defined as the sum of private incomes (Y_p), net taxes (T) and imports (M):

(2.1) $(Y_p)+T+M$

The aggregate supply and demand balance can be written as:

(2.2) $X=Cp+I_p+G+E$

i.e., the sum of private consumption, private investment, government spending and exports. Leakage parameters can be defined relative to aggregate output, yielding the private savings rate as $s_p=(Y_p-C)/X$; the import propensity as $m=M/X$ and the tax rate $t=T/X$. From this one gets a typical Keynesian income multiplier function:

$$(2.3)\ X = \frac{1}{s_p + t + m}(I_p + G + E)$$

which can also be written as

$$(2.4)\ X = \frac{s_p}{(s_p + t + m)} \cdot \frac{Ip}{s_p} + \frac{t}{s_p + t + m} \cdot \frac{G}{t} + \frac{m}{s_p + t + m} \cdot \frac{E}{m}$$

In this version of the Keynesian multiplier illustrated by Taylor (2000), the direct "own" multiplier effects (or "stances") I_p/s_p, G/t and E/m are scaled by their respective "leakages". Each stance can be observed relative to X in order to see which components of aggregate demand are contractionary and which provide stimulus to the economy.

Another representation involves the levels of (I-sX), (G-tX) and (E-mX) which from 2.4 must sum to zero. Both such diagrams are helpful in identifying expansionary and contractionary factors in effective demand.

From the above equation system one can also derive the econmy's real financial balance as

$$(2.5)\ \Delta P + \Delta Z + \Delta A = (I - sX) + (G - tX) + (E - mX) = 0$$

Where ΔP, ΔZ, and ΔA stand respectively for the net chane in financial claims against the private sector, in government debt, and in forein assets. In continuous time, we have dP/dt= I-sX, dZ/dt= G-tX, and dA/dt=E-mX.

A couple of points can be made here. First, claims against an institutional entity (the private sector, government, or the rest of the world) are growing when its stance with respect to X exceeds X itself. So when E<mX, net foreign assets of the home economy are declining, while I>sX means that the private sector is running up debt or spending down assets. A contractionary stance of the rest of the world requires some other sector to be increasing liabilities or lowering assets. Because dP/dt-dZ/dt-dA/dt=0, such offsetting effects are unavoidable. (Berg and Taylor)

We examine shifts in aggregates over the three time periods: pre-Oslo (1972-1992), post-Oslo (1993-1999) and the Closure Crisis (2000-2002). GDP growth during these three periods begins with a 3.8 percent GDP growth rate, followed by a higher, post-Oslo growth rate of 5.7 percent which was interrupted by the Closure decline of negative 13 percent annually.

Table 2.24: Real GDP Growth Rates by Era

	1972-1992	1993-1999	2000-2002
Avg	.038	.057	-13

Source: Author's calculations based on PCBS data.

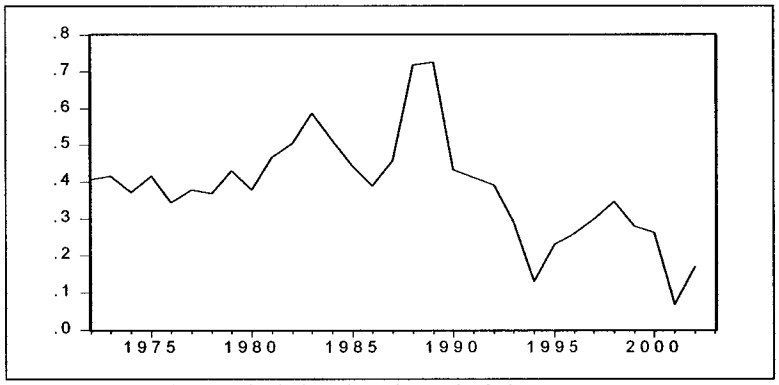
Table 2.25: Income Earned Abroad (Mainly Israel) as percent of GDP

	1972-1992	1993-1999	2000-2002
Avg	.45	.26	.16

Calculation based on: (GNI-GDP)/GDP

The growth rate of domestic production initially increased despite economic separation that followed Oslo and the consequent reduction of Palestinian incomes earned in Israel, but then finally decreased under the Closure crisis of 2000. As Table 2.25 and Figure 2.4 show, Palestinian incomes earned abroad (mainly Israel) reached a high 45 percent of GDP in the period 1972-1992, then declined to the lower, post-Oslo 26 percent of GDP, and further dissipated under the Closure Crisis when income from Israel reached a mere 16 percent of GDP.

Figure 2.4: Income Earned in Abroad[24] 1972-2003 (as percentage of GDP)



Source: Author's calculations based on PCBS data.

Disaggregating along the lines shown above with slight modification[25] shows that until 1991 the external deficit was being covered by private sector incomes earned in Israel.

Beginning in 1993, supported by donor funds—donor funding ultimately peaked to approximately $900 million in 'development' aid in 1998-1999 (World Bank 2003)—a brusque switch in demand generation ensued whereby government came to inject unprecedented stimulus in the economy.

In 2000, another sudden shift in demand generation occurred as the crash in private sector saving was accompanied by an import collapse. Private

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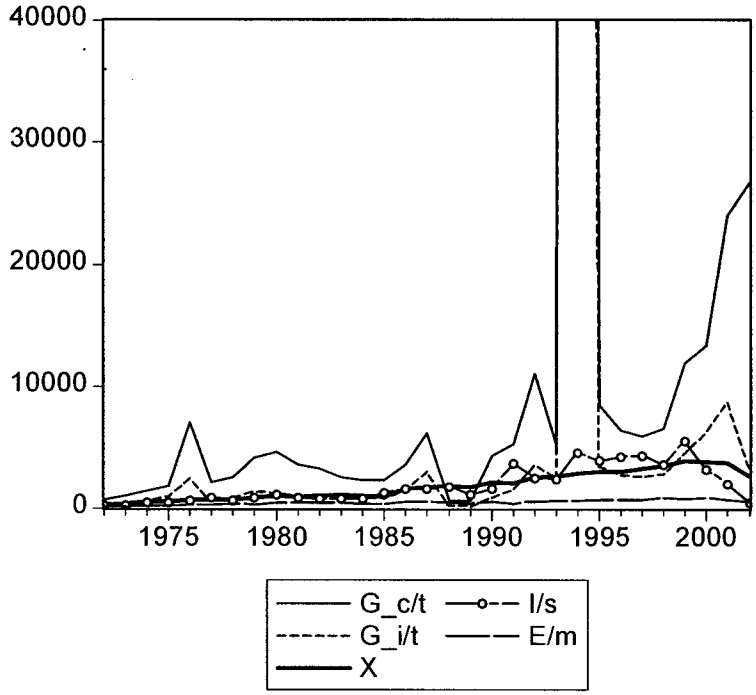
[24] Income earned abroad is mainly income from Israel. This residual was used in place of original data in order to make up for absence of data available after 1994. Between 1972 and 1993, however, our residual and the original data track each other well, with the exception of the two years 1988-9 where our residual estimate is higher by 30 percentage points.

[25] The first change of specification allows us to differentiate between saving relative to GNP (s_gni) and to GDP (s_gdp). This allows us to better adapt Taylor's original model to the Palestinian economy which relies heavily upon income earned outside the domestic economy (in Israel). The second change of specification permits us to distinguish between government consumption (G_c) and government investment (G_i) outlays. I/s(gdp) is not shown in Figure 2.5 because s(gdp)=saving=gdp-consumption is negative; therefore, we use s(gni)=saving=gni-consumption instead.

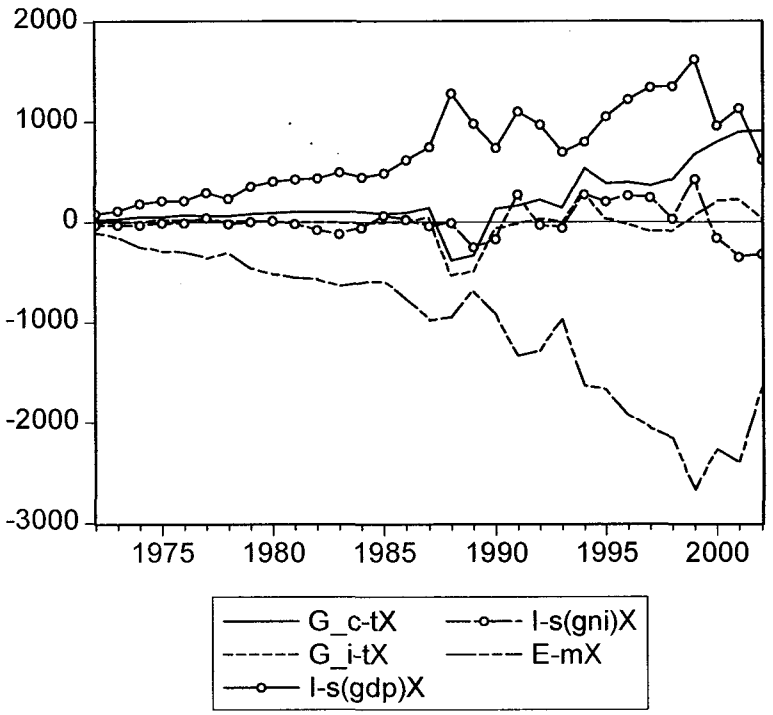
investment which had become expansionary between 1993 and 1999 (Figure 2.5) subsequently plummeted. As Figure 2.6 shows, investment relative to its saving leakage I-s(gni)X dropped below zero for the first time in ten years. Total investment declined sharply due to both private sector investment reductions and a shift in donor funding preference away from development projects to budgetary support and humanitarian aid expenditures. The upshot of these changes is that in 2002 for the first time since 1972, the government expenditure and private investment stances have traded places as the leading stimulus to the economy. (Figure 2.6)

Figure 2.5: 'Own' Stances
1972-2003



Source: Author's calculations based on PCBS data.
* (S is based on GNI less private consumption, I is based on both private and public investment.)

Figure 2.6: Demand Injections Relative to Respective Leakages, 1972-2003



Source: Author's calculations based on PCBS data.

Foreign Sector

As mentioned above, E<mX means that net foreign assets are declining, or rather that Palestinians are spending money earned from Israel to purchase imports. As Figure 2.6 shows, E-mX has become increasingly contractionary, particularly after the arrival of the PA. This is reflected in a higher import leakage in the period 1993-1998. (Table 2.26) The increased import leakage can be ascribed to a combination of many factors, which not necessarily in order of importance, include: increasing imports for investment, higher Palestinian 'returnee' import propensities of non-local consumption goods, government policies that focused on trade activities with little attention to domestic production, and lack of sovereign control of borders.

At the onset of the closure crisis, as figure 2.6 shows, the external sector grew less contractionary as the significant income shock reduced imports more than exports (exports declined by about 4 percentage points relative to GDP, but imports declined by 10 percentage points relative to GDP). Imports would have declined even more dramatically had it not been for the boost in emergency donor funding to help maintain consumption.

Table 2.26: Import Leakage (m)

title=m	1972-1992	1993-1999	2000-2002
Avg	.55	.69	.67

Source: Author's calculations based on PCBS data.

Conclusion

After ten years of donor-led investment and aid, the Palestinian economic environment is unique with unprecedented challenges. The import propensity is higher than its historic trend. Incomes in Israel, which formerly funded both investment and imported consumption goods, have diminished substantially. Donor aid, which channeled mainly through the PA is supporting the economy, had formerly sought to raise investment in the period 1993-1999, but by 2002 became predominantly restricted to consumption expenditure.

Historically, private sector incomes earned in Israel have offset the external sector deficit. While this relationship continues, greater import propensities and the crash in private sector saving and investment have created a much greater burden for the public sector to carry.

Finally, this historical look at aggregates illustrates how the external sector is an unlikely candidate to generate stimulus, not merely due to diminished productive capacity in export activities like agricultural and industry, but due to massive external leakages.

These changes underscore the importance of the private sector in driving stabilization. However, private sector investment has been historically enabled by income earned in Israel. Without a return of incomes earned from Israel, from where will private investment be funded? Indeed the domain of possibilities is severely constrained, but one possibility examined in the next chapter is that raising capacity utilization could begin to generate sorely needed investment.

Table 2.27: GDP and Injections: Exports, Government Expenditure, Investment

year	GDP	GNI	EXPORTS	GOVERNME	INVESTME	PRIV INV
1972	277.5253	390.2098	98.80856	39.23633	60.76846	47.84918
1973	345.1983	488.7134	116.3376	51.49368	74.61815	57.930384
1974	549.6984	754.1227	178.141	75.92895	167.8075	139.95187
1975	543.5474	769.5522	210.8534	72.59929	136.3604	100.06076
1976	651.6881	875.5204	249.9503	76.08286	177.7789	150.77767
1977	668.4216	921.0664	289.3112	79.17285	175.4823	154.89923
1978	696.3418	952.602	285.6831	79.7228	226.3784	200.11005
1979	815.8574	1166.281	296.5395	100.0141	275.9935	244.42660
1980	1043.989	1439.146	376.1302	119.6849	349.0825	319.65405
1981	945.0423	1386.113	432.1821	131.8391	285.6281	250.68676
1982	1002.064	1507.373	419.0794	139.3786	352.7589	307.31036
1983	1047.128	1662.091	405.7192	164.3453	330.4895	273.63028
1984	988.7692	1495.665	338.8595	176.6652	309.4506	246.24671
1985	948.9756	1367.689	299.7837	130.3813	286.3808	242.18516
1986	1536.859	2133.092	416.7787	153.5111	511.1436	449.04019
1987	1694.552	2471.655	431.5081	195.5927	529.4612	434.3927
1988	1799.328	3092.693	283.3145	202.0101	560.3748	502.21087
1989	1689.105	2915.362	195.6794	206.6374	482.154	437.27822
1990	2113.382	3025.493	279.2382	253.4471	611.0505	560.46025
1991	2013.075	2842.35	296.1695	260.1904	666.0524	591.90032
1992	2540.36	3532.593	360.2944	287.0969	762.8807	672.19715
1993	2618.282	3379.739	286.5623	280.2021	655.4539	528.95656
1994	2826.422	3191.133	413.5804	531.6682	1036.318	731.84449
1995	3008.725	3698.852	499.0781	596.5365	1139.33	896.79860
1996	3016.685	3799.419	560.9531	742.636	1230.147	915.92742
1997	3250.634	4218.672	586.3304	814.6855	1310.639	962.39758
1998	3464.348	4662.991	697.4001	903.1967	1421.369	1037.4494
1999	3858.402	4932.404	683.5825	993.1843	1806.693	1431.3071
2000	3799.47	4793.228	657.1498	1111.119	1342.965	822.72423
2001	3730.8	3984.177	516.3588	1059.857	764.932	379.9124
2002	2645.508	3092.712	375.5678	1008.596	186.8992	62.89924

Source: Author's calculations based on PCBS data.

Table 2.28: Leakages and their Propensities vis-à-vis Output (X)

year	IMPORTS	TAXES	SAVING	savgni	M	T	Sgni	Sgdp
1972	213.8858	15.07225	-30.1447	82.53984	0.77069	0.054309	0.297414	-0.10862
1973	281.3078	17.64159	-56.5	87.01501	0.814916	0.051106	0.252073	-0.16367
1974	428.6164	29.87759	-36.6166	167.8077	0.77973	0.054353	0.305272	-0.06661
1975	508.0372	21.93777	-110.162	115.8429	0.93467	0.04036	0.213124	-0.20267
1976	557.6886	7.065485	-60.942	162.8902	0.85576	0.010842	0.249951	-0.09351
1977	653.5829	24.60409	-134.221	118.4241	0.9778	0.036809	0.17717	-0.2008
1978	602.6819	21.68003	-32.5775	223.6827	0.865497	0.031134	0.321225	-0.04678
1979	758.549	19.83756	-105.84	244.584	0.929757	0.024315	0.299788	-0.12973
1980	900.515	27.18424	-82.8017	312.3555	0.862572	0.026039	0.299194	-0.07931
1981	987.7251	34.64385	-172.72	268.3508	1.045165	0.036659	0.283956	-0.18276
1982	989.9655	42.45766	-121.206	384.1023	0.987926	0.04237	0.383311	-0.12096
1983	1054.763	67.02523	-221.235	393.7274	1.007291	0.064009	0.376007	-0.21128
1984	949.497	76.45715	-200.979	305.9173	0.960282	0.077326	0.309392	-0.20326
1985	899.351	53.52674	-236.332	182.3811	0.947707	0.056405	0.192187	-0.24904
1986	1181.646	66.00172	-166.214	430.0193	0.768871	0.042946	0.279804	-0.10815
1987	1409.033	53.80525	-306.276	470.8273	0.831508	0.031752	0.277848	-0.18074
1988	1233.95	591.0203	-779.271	514.0938	0.685784	0.328467	0.285714	-0.43309
1989	884.9927	536.4225	-536.944	689.3133	0.523942	0.317578	0.408094	-0.31789
1990	1193.334	124.9876	-174.586	737.526	0.564656	0.059141	0.348979	-0.08261
1991	1627.397	99.16195	-504.146	325.1283	0.808413	0.049259	0.161508	-0.25044
1992	1636.778	65.87776	-292.383	699.8495	0.644309	0.025932	0.275492	-0.1151
1993	1251.193	140.9844	-169.959	591.4985	0.477868	0.053846	0.225911	-0.06491
1994	2044.772	2.009699	91.57301	456.2838	0.723449	0.000711	0.161435	-0.02307
1995	2176.279	211.3747	2.211566	692.3392	0.723323	0.070254	0.230111	-0.05076
1996	2483.634	348.8169	-128.321	654.4125	0.823299	0.115629	0.216931	-0.09902
1997	2640.417	450.9977	-242.662	725.3762	0.812278	0.138741	0.223149	-0.11683
1998	2853.092	479.9214	-192.852	1005.791	0.823558	0.138532	0.290326	-0.08979
1999	3353.338	320.0762	-64.2205	1009.781	0.8691	0.082956	0.26171	-0.04923
2000	2925.565	316.189	-6.13987	987.6181	0.769993	0.083219	0.259936	-0.03435
2001	2925.565	165	-3	728.866	0.784166	0.044226	0.195365	-0.20087
2002	2025.647	100	-1	387.6992	0.765693	0.0378	0.14655	-0.20963

Source: Author's calculations based on PCBS data.

Table 2.29: "Own Stances"

year	E-mX	G-tX	I-sX
1972	-115.077	24.16408	90.91321
1973	-164.97	33.85209	131.1182
1974	-250.475	46.05136	204.4241
1975	-297.184	50.66152	246.5223
1976	-307.738	69.01737	238.7209
1977	-364.272	54.56876	309.7029
1978	-316.999	58.04277	258.956
1979	-462.01	80.17657	381.833
1980	-524.385	92.50064	431.8842
1981	-555.543	97.19525	458.3478
1982	-570.886	96.92093	473.9651
1983	-649.044	97.32009	551.7242
1984	-610.637	100.208	510.4294
1985	-599.567	76.85456	522.7128
1986	-764.867	87.5094	677.3577
1987	-977.525	141.7875	835.7372
1988	-950.636	-389.01	1339.646
1989	-689.313	-329.785	1019.098
1990	-914.096	128.4595	785.6363
1991	-1331.23	161.0285	1170.199
1992	-1276.48	221.2191	1055.264
1993	-964.63	139.2177	825.4125
1994	-1631.19	529.6585	1101.533
1995	-1677.2	385.1618	1292.039
1996	-1922.68	393.8191	1528.861
1997	-2054.09	363.6878	1690.399
1998	-2155.69	423.2753	1732.417
1999	-2669.76	673.1081	1996.648
2000	-2268.42	794.9296	1473.485
2001	-2409.21	894.8572	1514.349
2002	-1650.08	908.5958	741.4829

Source: Author's calculations based on PCBS data.

Chapter III

Economic Strategy

This chapter presents economic policies that can be considered by policymakers to limit economic decline and improve the prospects of production in the medium-run, defined by one of various forms of Israeli-imposed closure on Palestinian movement of goods and people. That is, the discussion in premised on the assumption that Israel will continue to have the power to disrupt flows of goods and labor between Israel and the oPt. It is unlikely that the exact current configuration of Israeli policies will continue indefinitely, and there may be some relaxation of closure policies, nevertheless, Palestinian economic policymaking would be best to consider that something like the current situation could continue indefinitely. A prudent development path would, therefore, minimize dependence on Israel and integrate more fully with the rest of the world.

The aim is to improve the discussion of current aid instruments by grounding the analysis in a range of realistic assumptions about economic activity

in the 'medium-run', characterized by certain forms of closure or the lingering elements of a war-torn economy. Strategic sectoral initiatives and investments are, therefore, identified as follows. Due to the relatively more severe impact of environmental constraints on other sectors, agriculture and certain manufacturing activities are found to hold strategic advantages in the 'medium-run'. And because of the impact of closure and its environmental and political risks, many types major infrastructure investments are unlikely to lead to dynamic growth potential. As the three-gap model herein illustrates, growth caused by major injections can fade away soon after injections cease. More sustainable growth, therefore, could be achieved by subsidizing strategic private investment on one hand and raising capacity utilization on the other.

It should be noted that a major risk for a weak and disorganized state in adopting an activist economic policy is corruption. Therefore, Palestinians should take strong measures to ensure that subsidization is not based on political favors and precludes the establishment of new rents. Given the social implications of continued economic decline, Palestinian economic policymaking is in dire need of using the whole range of economic tools at its disposal, including subsidies, credit allocation and state investment—to the extent that these policies can be deployed effectively. Rigid adherence to liberal economic policies ("not picking winners", "getting prices right", "respecting the sovereignty of the market") is unrealistic and self-defeating.

The chapter is structured as follows. Section 3.1 reviews the current aid dilemmas facing donors and policymakers. Basic sectoral constraints of relevance to aid targeting in the medium-run are discussed in section 3.2. A model is used in section 3.3 to analyze agricultural production and the cost of water—a very scarce resource in the oPt. Section 3.4 discusses agricultural strategy, making specific recommendation for donor and PA support initiatives. Section 3.5 illustrates the chapter's central strategy within a 3-gap model of constraints on growth and capacity utilization. Import and border policies essential to the full success of the strategy are presented in section 3.6. And the implications that various forms of closure would have for the strategy are set out in section 3.7. Finally, in section 3.8, certain policy alternatives are analyzed in an 'extended' closed Leontief macroeconomic model.

3.1 The current crisis and support of productive activities

By 2002, the Palestinian Authority and the international donor community had reshaped their aid and development strategies due to the urgency of the closure-caused crisis. Budgetary support to the PA for payment of salaries ($676 million annually) became the favored apparatus for disbursing aid.[26] Indeed, curfews that inflicted an estimated 75 percent of Palestinian production activities in the West Bank in 2002, and the confinement of as much as a third of West Bank Palestinians to their homes for approximately 60 percent of the last six months of 2002, rendered alternative aid instruments, with the exception of direct

[26] Unpublished World Bank discussion notes on aid instruments.

food and cash aid, ineffective. As a result, long-term aid efforts diminished to negligible levels.

In 2004, in the aftermath of the escalated Israeli military assaults, a lower intensity, military closure regime continued to be imposed, causing further economic depression. And policymakers are, once again, forced to reconsider their aid packages as aid disbursement exclusively for emergency relief cannot bring about economic stabilization. Therefore, a number of efforts are currently underway in the PA and donor communities to assess the prospects of linking relief efforts to development.

Within the PA, there is a series of fragmented efforts being undertaken. In 2003, the Ministry of Planning published the "Quick Impact Intervention Program, July-December 2003", and later that year, the Socio-economic Stabilization Plan for 2004-2005. The Ministry of National Economy has released a "Framework for National Economic Development". The Ministry of Labor has released a paper entitled, the "Palestinian Fund for Employment and Social Protection". And a joint effort is currently underway between the Ministry of Local Government and the Ministry of Planning that is focused on "Planning with the Poor for Sustainable Development."

Academic fare that have aimed to link relief to development include UNCTAD's "The Palestinian War Torn Economy: From Relief to Development"

(2003), as well as the Palestinian Economic Policy Institute's (MAS) series of papers subsequently published for the 2003 conference on Supporting an Independent Palestinian Economy, and, finally, Khalil Nakhleh's (2002) "Developing Palestine Political Aid in a Non-sovereign Context".

Elsewhere, long term economic analysis has recently been produced, examining the prospects for the Palestinian economy beyond the current conflict environment. The *Economic Road Map* was produced by a group of Israeli and Palestinian academics, experts and members of official institutions including the Ministries of Finances and Economics (Aix Group 2004). The World Bank published a paper on "Long-Term Policy Options." Finally, there is a forthcoming publication that will follow from papers submitted to the "Conference on Economic Policy and Institutional Reform for a Viable Palestinian State."

Something commonly absent in most of the short-term and long-term efforts, studies and agendas is a realistic vision based on sectoral potential in an economy under sustained closure. Exception is made for Nakhleh's paper which highlights donor strategies and their lack of support for productive activities, and for papers from UNCTAD and MAS which investigate the benefits of a sectoral led strategy based on the role of agriculture and manufacturing.

This dissertation attempts to carry forward these sectoral-based analyses in order to investigate the potential for supporting an economy in continued crisis.

The aim is to present policymakers with an analytical framework that can be used more effectively to target aid in an environment of various forms of closure.

As such, a deficiency in the current aid dialogue is identified. A dichotomy, though helpful in a simplifying way, has naively shaped the behaviors of the PA and donors. It has commonly been presupposed that under closure, there should be an emphasis on humanitarian assistance because markets are shut down, and that once closure is removed, aid emphasis can return to long-term assistance. This dichotomy, however, rejects the possibility that under a long-term, institutionalized closure that there are instruments that can limit private sector deterioration and perhaps even reduce poverty by supporting productive activities.

Furthermore, this simplistic dichotomy reduces the maximizing capacities of donor aid for two central reasons. First, not all markets are closed under closure, and secondly, even once closures are removed, the private sector will not necessarily respond so as to overcome the distortions left behind by closure.

As such, both camps of international donors and PA policymakers have exhibited an inability to develop sound mechanisms for policy-induced stabilization in the medium-run environment—defined as one of continued closure on one hand, or, on the other, a war-torn environment in the absence of closure. Therefore, in the medium-run, it is not likely that, without active

intervention, the Palestinian economy will likely become stabilized by sufficient levels of investment, consumption and output. And donor funding, in order to more successfully induce equitable economic performance should be expanded well beyond its current emphasis of relief.

Furthermore, in expanding beyond the current efforts, policymakers and donors will also have to reconsider their neglect of productive sectors. Neglect of productive activities is partially due to the free-market liberalism of the Bank and the Fund for whom picking which sectors hold strategic importance, even in times of a crisis, is equated to picking winners at a horse race—'why should we decide such a random outcome when its better to let the market decide'. That free market economics doesn't yield to more sober consideration in light of the alarming economic decline though is rather Delphic. Perhaps donor mandates are only designed to go as far as supporting the peace process and build infrastructure for a Palestinian state, yet preclude support for Palestinians under occupation.

In any case, and in all fairness, the dilemma between emergency and development assistance remains one of the most complex issues for policymakers and donors. Neither group can claim a unified view on which formula of assistance should take precedence under varying environments. One thing they have agreed on, however, is that working toward the removal of closures has to take top priority—and justly so, because the Palestinian economy can not 'recover' under closure.

Nevertheless, effective economic policymaking comes not just out of attempting to remove adverse circumstance, but out of parameterizing an array of possible exogenous environments. Some preparedness, therefore, on the part of PA and donors in applying aid through mechanisms that support the private sector under closure and occupation is needed.

Current Aid Emphasis

Current aid emphasis can crudely be characterized as follows: The main priority has been to keep the peace process alive, therefore cash has been the main source of support to the PA in order to pay for the 130,000-strong government wage-bill. The problem with this approach is that money goes in, money goes out, with a minimal multiplier/accelerator effect in the domestic economy. UNCTAD has estimated that 70 cents of every budget support dollar end up in Israel. (UNCTAD 2003) It might be cheaper in the short-run, but it could be significantly more expensive over long-run if the crisis drags out.

On the other hand, the long-run priority, which has temporarily taken a backseat due to the acute impact of closures imposed since 2000, has been to lay infrastructure, and establish a sound regulatory and institutional framework upon which a market economy can flourish. The problem with this approach is that, although fundamental to enhancing the private sector's working environment, such a program does not automatically translate into private sector growth in a war-torn economy. Despite diverted donor attention to the short-run, this

approach continues to guide aid strategies, but it has unnoticeably lost potency and is likely to continue to have a dampened effect even once closures are removed—that is, as long as the elements of a war-torn economy remain.

In order to cater economic policy to the varying circumstances between the more immediate needs associated with a high closure environment and the longer-term development needs, there will need to be biases installed in a bi-modal aid approach, with a flexible swing mechanism that adjusts for greater or lesser emphasis on varying combinations of private sector support, infrastructure and public services expenditures, as well as both humanitarian-type nutritional needs and targeted poverty reduction expenditure. This has been recognized by the PA.[27] And while no one component is entirely absent or singly significant under any one scenario, the obvious points almost speak for themselves. First, the humanitarian component will be more significant under closure. Second, both private sector and infrastructure expenditure become marginalized as humanitarian needs increase under closure. And third, infrastructure and public services will be less vulnerable to the ravages of war in the post-closure environment.

Aside from the basic observations, however, prioritization is not a trivial matter. Inasmuch as closure and post-closure environments are similar, it becomes helpful to focus on them together. They are likely to be similar for the following reasons:

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[27] See, for example, the Ministry of Planning's 2004-2005 Economic Stabilization and Recovery Strategy (pp.2, 8-10).

- Political risk has a similar effect in both environments on the tourism sector, in particular, and on investment more generally;
- Labor flows to Israel may remain limited;
- Lack of sovereign control over borders and trade may persist;
- Internal finance may remain highly constrained;
- Fragmented micro-economies could render growth dissimilar across regions;
- The manufacturing sector may remain handicapped due to historical distortions associated with Occupation. And, finally, the informal sector's most profitable activities, which are produced for the Israeli market,[28] may remain handicapped by lack of uniform access, regulation and protection.

3.2 Targeting Aid and Sectoral Constraints

Reforming aid does not mean merely recognizing constraints and possibilities and switching back to the pre-crisis mode of aid programs. Even before the crisis, aid programs made scant allocation to 'productive' or 'private' sectors, most conspicuously ignoring agriculture.[29] Furthermore, the PA has not developed a domestic production strategy. And while it has provided incentives for large investment projects over $100,000, it has offered no incentive programs for the majority of investment, which is small scale.[30] Effectively, therefore, preference has mainly been given to foreign or large local investors (and the

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[28] Hassan Ladadweh, unpublished Dissertation.

[29] Khalil Nakhleh , mimeo. p19.

[30] Law No. (1) of 1998, Law on the Encouragement of Investment in Palestine.

granting of import licenses) with little consideration or economic planning for the great majority of domestic investment.(Table 3.1)

Table 3.1: Donor Disbursements Compared to the Palestinian Development Plan (PDP) for the Period 1999-2001 (US$ thousands)

Sector	Palestinian Development	Total Disbursed by D
Infrastructure	1,351,810	449,752
Productive Sector	415,666	152,389
Social Sector	2,576,000	303,063
Institution Building	405,001	218,423
Total	**4,748,477**	**1,123,627**

Source: Developing Palestine, Khalil Nakhleh.

In the medium-run, aid should be designed to create cumulative feedback effects with a focus on domestic investors (see discussion ahead in this chapter), not merely to increase incomes, but to increase incomes that lead to increased consumer and investment demand locally. Indeed, in the "medium run", the possibilities in this regard appear strictly limited. However, even under the severest circumstances, one top priority should be to sustain private sector incomes. Cumulative feedback effects will not be possible unless production capacity is preserved. Furthermore, (beyond humanitarian needs) the priority should be to improve balance sheets, not only of households, but of the private sector.

Where possible, priority should be given to promote investment. Investment risk is likely to remain high, however, and require an active PA/Donor role in supplying and channeling credit in a way that gives precedence to sectors

that are identified as having certain potential under a "medium-run" environment. More broadly, channeling means identifying, within each sector, methods in addition to supplying credit that increase the viability of the sector's activities.

Once a sector's employment generating potential and future viability is identified, it becomes essential to create a policy environment that supports it, building the relevant institutions, sectoral specific investment incentives, policy framework, and infrastructure.[31] Such strategies have been successfully adopted in a range of developed and developing countries, and interventions are likely to have better success when embedded within a cohesive framework that would lead to the development of an efficient market oriented economy. (Amsden, 2003)

A sectoral strategy can be most effective where it considers the potential of individual sectors in the 'medium-run' environment—a preliminary assessment might include the following observations.

The Palestinian service sector is a flexible sector that is capable of absorbing unemployed in times of crisis, but it may be fairly limited in the medium-term for two reasons. Increases in the supply of many types of services are not in response to demand, nor do they inject demand. Rather, they redistribute current national income (*i.e.* an increase in the number of retail markets with no increase in aggregate sales). In the medium-run, for services to

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[31] Mahmud El Khafif, solicited commentary.

offer income stabilizing potential, there will have to appear either local or external "motors" (Reardon, Berdeque and Escobar, p397). External motors depend highly on political circumstances, which, even under an optimistic scenario of reduced closure, may not automatically appear. Tourism, for example, is a motor with unparalleled potential for the Palestinian economy, but it can hardly be relied upon to provide jobs in the "medium run" due to political instability. On the other hand, if external motors are non existent, services that cater to domestic productive sectors, like agriculture and industry may offer an important source of employment.

Construction is a sector with substantial multiplier effects. Re-construction efforts, therefore, may well present unequaled stimulus for the Palestinian economy. However, depending on the political situation, many reconstruction efforts could be postponed for fear of further destruction by Israel. Therefore, it may be that such activities will be undertaken merely in piecemeal fashion until the crisis has subsided. And while certain elements of the economic decline will be reversed once a reconstruction program is underway, (*i.e.* rebuilding infrastructure and capital stock), beyond reconstruction, construction activity (like commerce, transportation and many services) is endogenous, and responds to growth coming from other sectors.

Outgoing trade has been met with unprecedented physical barriers due to the imposition of a wall around Gaza, the Separation Wall in the West Bank, and other internal and external closures (see chapter one). Incoming foreign goods,

however, have received favorable treatment, partly due to checkpoint policies (see chapter one), but also due to both Israeli opening of markets under WTO concessions in the Paris Protocol agreement, and the lack of Palestinian control of their own borders. Consequently, the unregulated influx of textiles and agricultural goods can be expected to present a unique set of impediments to economic stabilization (that will not just disappear with the reduction of closure). This one-way highway-like trend will make it difficult for stabilization to include a role for small manufactures, which often play an important role in generating low-productivity employment in early stages of developing country growth. (Reardon, Berdeque and Escobar, p 398)

Manufacturing activities, however, that cater to domestic needs in potentially dynamic sectors like agriculture and construction may find increasing demand outlets if output of these basic sectors can be supported. The current deteriorated state of Palestinian manufacturing means that directly supporting producers in this sector would be necessary to overcome market distortions that have led to the majority of activities in this sector to remain in low-productivity, sub-contracting activities.

Although agriculture is a low value-added industry and the benefits of growth may be limited compared with other sectors in the long-run, agriculture's short-run benefits lay in employment, especially for low skilled sectors of the population. But inasmuch as the main priorities of PA are 'sustained economic

growth and job creation', an agricultural strategy that improves the profitability of this sector can be seen as complementary to strategic needs.

But perhaps most importantly, agriculture is one way in which the PA can link rehabilitation to development in the medium-run. As an adeptly researched and summarized series of studies on rural Latin American economic growth has shown, an economic policy that either ignores agriculture or is limited to agriculture, can be of limited success. Agriculture in rural areas is firstly, an important source of income, but secondly, alone, can rarely generate enough income to raise rural populations out of poverty. But (perhaps most significantly for the case of Palestine), as long as external motors for non-farm income remain limited, agriculture should be considered an important generator for income and indirectly as a motor for non-farm jobs in manufactures, services and commerce. (Reardon, Berdeque and Escobar)

As this sectoral sketch illustrates, the Palestinian economy may face difficulties absorbing the unemployed even in the post-closure environment. Therefore, stabilization and sustainable growth will require not just reconstruction, but economic re-structuring, and demand and far more ambitious aid development program than has been thus far envisioned in order to reap potential benefit of neglected productive sectors.

3.3 An Agricultural Model

Underlying the neglect of agriculture, in addition to the liberal economic policies mentioned earlier, is the widely understood productivity constraints associated with water scarcity in the Middle East. Water experts view water as a scarce resource which is costly and relatively unproductive in the West Bank and Gaza in comparison to other more fertile regions of the globe. (Allan) The argument is made that it is cheaper and more efficient to rely on more cost-efficient, imported agricultural goods than to use water in agricultural production.

In a model, this can be seen as follows. On the left-hand side of equation 3.1, the product of the price of water PW and the quantity of water used W yields total cost of water to Palestinian society. On the right-hand side of the equation, this consists of the sum of the products of the local price of water $P_L W$ and the volume of production of agricultural output Xa,, non-agricultural output PXna and the volume of water consumed by households WC from domestic water sources (each scaled by the water input-output coefficients—aa, an, ac), plus the product of the price of imported water P_F, or 'virtual water' (Allan) and the volume of water consumed in water rich imports V (such as agricultural products like fruits and vegetables), again, scaled by the foreign water input-output coefficient.

The popular argument mentioned above amounts to reducing agricultural output Xa and increasing water rich agricultural imports WV. This effects a reduction in the overall cost of water to Palestinian society, as the local price of

water P_L is greater than foreign price of water P_F, and because the foreign input-output coefficient is smaller than the local input-output coefficient.

3.1 PW*W = PLW*(aa*Xa + an*Xn + ac*C) + PFW*av*V

This line of analysis is highly relevant for examining long-run resource allocation efficiency. However, short run dynamics could just as well cause welfare reducing outcomes. This can be illustrated if we observe national income Y in relation to overall water costs PW. (equation 3.2)

3.2 Y/PW*W

The goal of society should not be merely to reduce cost of water PW*W, but rather to increase the ratio of income Y to PW*W. (This, for example, would be an important poverty alleviating element in rural development schemes.)

Dynamic feedback effects come into play when an increase in agricultural activities Xa, solely or in conjunction with a concomitant increase in agricultural-based manufactures Xna, increase income Y in excess of the increased costs of water PW, driving up the ratio of income to water costs.

Conversely, in the crisis-torn Palestinian economy, cutting costs of water by switching out of production and into imports is likely to only deepen unemployment and poverty by reducing income more than the reduction of the overall cost of water.

Moreover, industrial activities, which generate greater surplus than agricultural activities and which are less water intensive, but which nevertheless rely on domestic agricultural production for their inputs should be maintained and encouraged, not diminished by switching out of agricultural production and into imports.

Finally, it is also worth noting here that developing agricultural production does not have to result in greater waste of scarce water resources. On the contrary, development can lead to more efficient agricultural production processes vis-à-vis water.

3.4 Agricultural Strategy

Agriculture has many advantages, not least because it has played an historically important role and serves to absorb the unemployed in times of crisis. Like other sectors, though, agriculture is facing a downturn. (See Figure 3.2 and Tables 3.9 to 3.14) Agricultural losses in the form of reduced labor income, bulldozed land and demolished property and reduced prices for produce accounted for 70 percent of total agricultural losses by the end of 2002. (Tables 3.10-3.12) Output growth clearly stagnated between 1999 and 2001, with 2001 registering the lowest per capita agricultural production in seven years with the most significant declines in field crop production (West Bank), and cut flowers and fish (Gaza) (Tables 3.13-3.14). Furthermore, a general downward trend in

productivity can be expected due to less than average investment in farm assets, [32] and the rising number of Palestinians resorting to agriculture as a coping mechanism (Table 3.9).

If agriculture is to continue to have an absorptive role, it will need to be given basic support and more sophisticated development in the medium-term. The success of agriculture will in part depend on five key factors. First, whether output levels can be maintained; whether it can absorb the unemployed; how improved quality and cost can enhance competitiveness in internal and external markets; how savings and consumption habits of those employed in agriculture can induce other domestically produced goods, and how intermediate demand from other (industrial) sectors can be developed.

In the short-run, relief in the form of production-based subsidies would be needed to prevent many producers from going out of business. As the balance sheets of farmers in Chapter One attest, any type of financial assistance that does not increase revenues or decrease costs, could result in farmers ultimately reducing their output.

In the medium-term, once freedom of movement and market access is restored, continued investment in the development of the agriculture sector could provide economy-wide benefits. Following Taylor, public investment could attract private investment, giving the sector more capital for growth. Such

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[32] I owe thanks for this insight to Sharon Bylenga.

investment may improve supply, income and real spending power for farmers, especially if investment is directed toward the production of relatively income-elastic goods and demand is stimulated via employment-generation programs.

This sort of growth pattern is desirable for income distribution across the economy and also would provide insurance against food scarcity.[33] If incomes earned in the agricultural sector create demand for simple industrial products (e.g. food processing and cotton textiles), this can in turn create urban capital formation and technical advance. (Taylor 1990).

However, one major problem with a farm-based strategy is that it is extremely difficult for Palestinian farmers to compete with subsidized high tech farmers. This is especially so vis-à-vis Israel, their main trading partner and main competitor in regional and international markets. According to the WTO, 20 percent of the value of production in Israel is subsidized.[34] This creates major price distortions in West Bank and Gaza markets and, therefore, much work would be necessary to build institutions that could permit Palestinian farmers to improve their prospects under these circumstances. Currently, however, the PA's Ministry of Agriculture does not offer Palestinian farmers any domestic support programs widely used in many other countries, such as price guarantees or crop insurance, nor does it run any production subsidy programs.

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[33] At a time when only 30 percent of Palestinians are estimated to be 'food secure'. (FAO 2004)

[34] WTO, Trade Policy Review, Israel, 1999. (See Appendix 4).

In recent literature there is no dearth of other recommendations on how to improve the quality and cost of Palestinian agriculture production. Studies done in conjunction with the Ministry of Agriculture and elsewhere have contributed amply in this regard.

The importance of price stabilization has been identified in enhancing production (Massar p. 20). And a regularly highlighted need is that of developing transportation and marketing facilities that can improve the quality of output. (FAO 1999 and Massar).

These policies would be particularly important of goods where Palestine has comparative advantage and which could naturally acquire market shares under conditions of free-trade, such as vegetables, and much fruit tree production, eggs and olive products (FAO 1999 p.60 and Massar p. 19) In the medium-run environment, an inward-looking strategy would be quite feasible and could improve sales in domestic markets. (Massar p. 21) Furthermore, import substitution has been identified, particularly in dairy production, where approximately 22 percent of total agricultural imports come from Israel (El-Jafari 1995).

In other crops where Palestine does not enjoy comparative advantage, like in field crops such as wheat, barley, lentils and chickpeas in semi-coastal and mountain zones, and perhaps even many rain-fed vegetables and fruits which are marketed locally and in Israel, the PA could pursue policies that improve

productivity through improving technology, land improvements and seeking changes in relative input costs or output prices. Irrigation and land reclamation projects could be effective in this regards. (FAO 1999)

Opening external markets in the Arab world and Europe have particular advantages, the latter especially due the lack of production of crops in winter. Access to these markets, however, would require quality controls and appropriate packaging infrastructure and technology with national sea or air ports to enable access, especially for "non-conventional, high quality crops [such as] flowers, medicinal herbs, asparagus, celery, onion seed, cantaloupe, avocado and dates." (Massar p. 20)

An agricultural strategy, to be explicit, does not merely imply supporting primary agricultural production, but includes services as mentioned above and manufactures. In manufactures, there are sorely needed development needs that are linked with agriculture. Currently, the Palestinian manufacturing sector, however, is in a calamitous state as a result of both lack of development and decades of Israeli occupation. Before the Second Intifada, manufacturing was highly dependent on sub-contracting to Israeli markets. Many of those jobs, however, have disappeared and may not be likely to return. For businesses that continue to exist, capacity utilization is at an unprecedented low. But perhaps most importantly, existing industrial infrastructure is comprised of mainly labor-intensive, light industry that is not likely to respond to such markets connected with agriculture. In existing industries, there is much excess capacity (tables 3.2-

3.4 below), indicating that these activities are not finding markets for their outputs. This, and the small average size of many establishments, indicate a need and capacity for restructuring in order to take advantage of economies of scale.[35]

Strategic industries should, therefore, be developed to take advantage of, and improve, existing industrial know-how. However, that would require serious planning and financing, along with public and private sector risk sharing strategies to successfully underwrite development projects. One industry that has been identified as holding strategic importance is processing of olives (and other agricultural goods), so as to absorb production surpluses and enhance marketability. (Awartani 2003) Establishing quality controls and ISO 9000 standards could significantly improve access to foreign markets.

Table 3.2 a: Capacity Utilization in Industrial Establishments (August 2001 Compared with Pre-Closure) by Employment Size

Employm	Capacity Ut Closure	Capacity Utili	Change
West Bank			
0-4	81.6	37.33	-54.25%
5-9	80.79	23.16	-71.33%
10-25	80.1	30.1	-62.42%
26-50	79.55	36.45	-54.18%
50+	77.08	36.75	-52.32%

Source: Federation pf Palestine Chambers of Commerce, Industry and Agriculture

Table 3.2 b: Number of Industrial Establishments and Employees in Establishments by Employment Size

Employment s	Number of estab	Number of e	Percent of tota
0-4	11,581.00	3,162.00	34.11%
5-9	2,329.00	16,303.00	24.01%
10-19	892.00	2,488.00	18.39%
20-49	306.00	10,404.00	15.32%
50+	67.00	5,550.00	8.17%

PCBS, Source: PCBS, Establishment Census 1997.

[35] For more on economies of scale, see Makhool 2004.

Table 3.3: Industrial Establishments' Operational Status in July 2002 Compared to September 2000

Operational Status	PT	WB	G
Normal Operations	6.86	12.09	3.4
Partial Operations	76.25	69.77	80.56
Closed	16.88	18.14	16.05

Source: Paltrade: Industrial Survey, September 2002

Table 3.4: Decrease of Industrial Output in the First Month of Closure

	Sep-00	Oct-00	Change
Industrial Production $	126,741,200	59,513,200	-53.0%

Source: PCBS, Loss Estimates Report, October 2001.

3.5 A Three-Gap Model

The strategies discussed in this chapter, which boil down to various types of infrastructure projects, employment generation programs, and production-based subsidies, can be illustrated visually with the use of the 3-gap model popularized by Taylor. The model is based on flows of funds of the private sector (investment and internal savings) and the rest of the world, analyzing trade-offs in increased capital inflows and domestic structural reform in supporting faster potential output growth.

The lines labeled "I", "S" and "E" (figure 2.7) crossing through the observed utilization and growth rate points represent investment, saving and external trade offs between utilization u and growth g of capacity in the short to medium run. Details can be found in Taylor (Taylor 1991b) and are based on

earlier two-gap models of Chenery and Strout (1966) and original formulations from Rosenstein-Rodan (1961).[36]

The figures can be used to illustrate how the Palestinian economy can most effectively benefit from donor funded support and sustained capacity growth rates. Donor supported transfers can simultaneously raise all schedules by providing the transfers and stipulating where they go.

The first point that can be made is that typical donor supported investment, discussed earlier in this chapter, which predominantly aims to put in place infrastructure, is not likely to lead to dynamic and cumulative growth in a war-torn economy, because private actors are not as responsive to infrastructure in such a high risk environment. Rather, the effect of this kind of public investment would be quite static, the benefits of which quickly fade away once injections have ceased. Furthermore, the capital to domestic labor ratio would be quite high for these investment activities causing limited impact on utilization u. In our diagram, these changes would amount to a temporary shift from A to B, then a subsequent return to A once the injections cease.

Employment generation activities, however, would have quite different effects, causing the external E and saving S schedules to shift up and result in a significant increase in utilization u. If we assume no change in the investment schedule, greater growth would still be achieved due to its positive slope, as more

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[36] For more on gap analysis, see Taylor (1988, 1990, 1991, 1993), Bacha (1984).

investment is associated with higher levels of utilization. In our diagram, this would amount to a shift from A to C.

To make the trip from A to C successfully, employment generation programs are needed that engender productive activities and enable dynamic growth by linking their outputs to markets that can expand. Such activities recommended are conspicuously different in scope than short-term recommendations made by the World Bank (World Bank 2002:d) in that the priority is not to achieve the highest internal labor component, but to achieve sustainable productive activities that are linked to dynamic markets.

The role of employment generation programs should be to raise demand for goods and services in the medium term and improve output in designated sectors. Productivity advances, which are also important, can come about along the lines laid out by Veerndorn (1949) and Okun (1962): as higher employment levels are achieved.

Well-placed subsidies, unlike government investment, can directly raise private investment. And private investment may very well contain a greater labor component than public infrastructure investment (amounting to a greater share of nationally produced goods in total investment and a steeper foreign exchange schedule). Well-targeted private investment also has a better chance of activating those activities that are linked to dynamic markets—those that have a chance of experiencing increasing demand, despite risk in the current 'medium-run'

environment. On one hand, if within a given domain, we want to know where investment would most likely realize short-run profit, the private sector is generally more equipped to determine such investment. On the other hand, upon studied analysis of which domains are likely to have sustainable demand in a particular environment, the government can specify and attract private investment to the selected domains with subsidies.

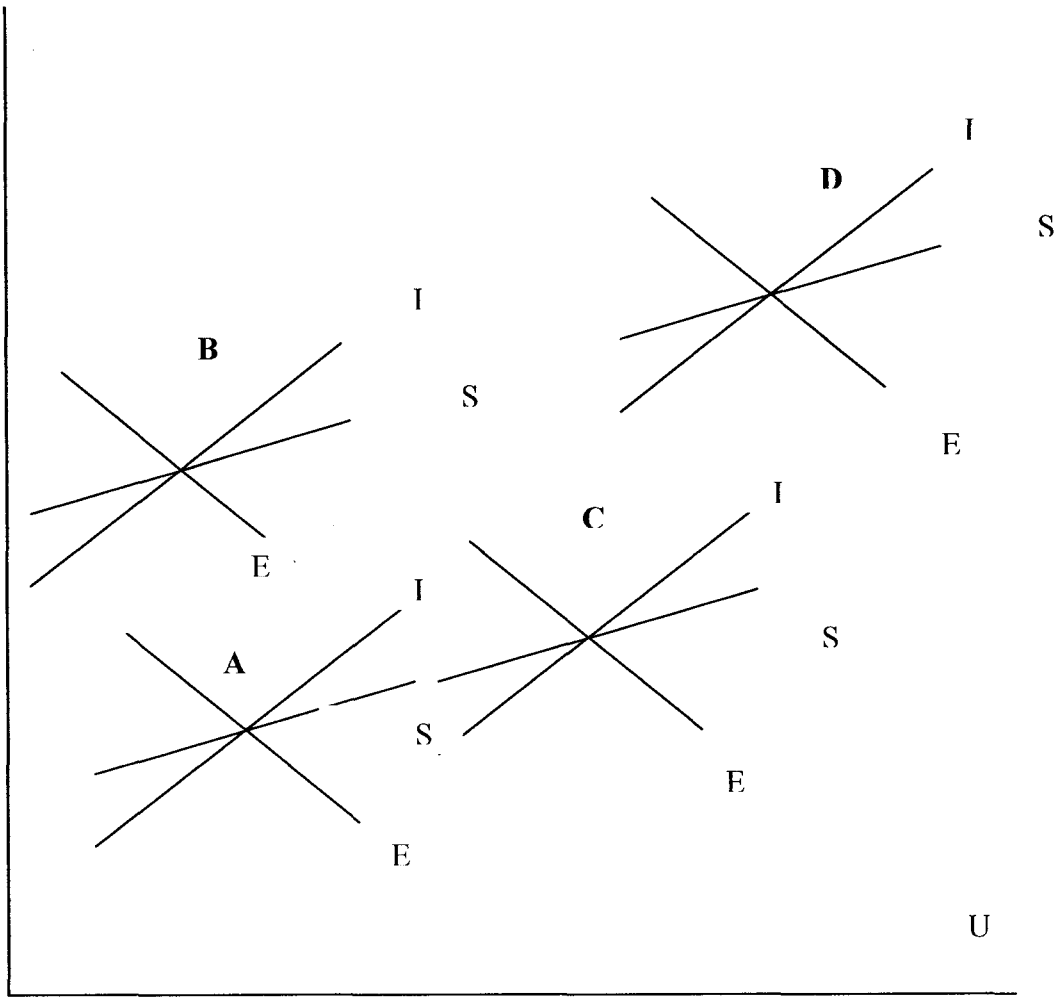
The main point of this discussion is that in a high risk environment, private investment, if channeled, can have a better chance of leading to sustained levels of investment and output than public infrastructure investment. In our diagram, this would amount to an increase from A to D, or similarly from C to E. While the effect of private investment D might not be as high in growth as the effect of public investment B, it could, nevertheless be more sustainable for reasons listed above.

To further emphasize this point, when infrastructure investment, which is aimed at raising overall levels of confidence by building basic liberalistic institutions, is thwarted by the escalated risk of war, policies that otherwise aim to raise investment—by more directly activating private sector investment—can be more successful. Therefore, raising capacity utilization (where investment is a function of capacity utilization in typical Keynesian, Kaleckian and Rowthorn fashion) through employment generation schemes and raising investment through subsidization would be effective in this regard. Moreover, employment generation

and targeted subsidies can lead to growth, because they are the least risky types of investment that can be engaged in under closure—profits accrue not to major entities, but are rapidly distributed throughout the economy by accelerator and multiplier effects.

Investment subsidization is especially needed for existing economic activities where there is a lack of investment funds under the current levels of income—perhaps most significantly for the agricultural bourgeoisie who have suffered land and water resource confiscation at the hands of the Israeli Defense Forces and who, consequently, have fewer means with which to generate income and invest.

Figure 2.7: 3-Gap Schedules



But subsidization is also needed in designated strategic economic activities that have never been engaged in, but which hold strategic importance in the current crisis, i.e. certain relatively capital-intensive agricultural, manufacturing and construction activities.

It is also worth noting that subsidies can have a role even beyond the agricultural bourgeoisie and middle class manufacturers. At the upper reaches of

the producing class, subsidies can be used in the manufacturing sector to re-divert the recent shift from production to trade activities (see chapter one). The manufacturing class, with its historical adaptability under occupation is perhaps the strongest asset of the Palestinian private sector. In order for Palestinian society to benefit from this class's resilience, however, it will need to remain engaged in productive activities, employing domestic labor and/or purchasing locally produced inputs where possible. For those who, despite the crisis, remain engaged in productive activities, improving economies of scale of their operations might improve overall profitability and generate sorely needed surpluses that could be further injected into the economy.[37]

A final note here can be made on targeting subsidies to domestic versus foreign investors. Funds for investment have to come from either local or international sources who either invest out of income or borrow to invest. International investors (with minor simplification) can be expected to invest depending on their confidence in the future performance of the Palestinian economy. However, local investors are likely to invest out of current income. The difference can be ascribed to the survival tendencies of local investors and the culture of resisting occupation. Furthermore, in the absence of a willingness or ability to relocate to other markets, local investors are bound by the ability to derive profit out of the Palestinian economy. They will, therefore, be more constrained by lower income levels associated with a Palestinian economy in

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[37] For more on the need to improve economies of scale, see Makhoul and Aytani.

severe recession. However, they will be more willing to invest for low levels of confidence than would international investors. For this reason, in the medium-run environment, subsidies may have more success where they target domestic investors.

3.6 Essential Border and Import Policy

In order to improve the effectiveness of these strategies, Palestinian border and trade policies will become essential. As the analysis of 'stances' in Chapter Two illustrates, there is a massive drain on economic activity from the external sector. This is to be expected for a small open economy. However, it highlights the need for regulating imports and achieving a free flow of exports. For economic policy to better succeed, border controls will be needed to reduce dumping[38] of Israeli and other foreign products into Palestinian Markets.

International efforts will need to seek to even the playing field by removing Israel's arbitrary trade regulation. For example, it has been noted that "While the Israelis have the right to inspect the flow of imports to the West Bank and Gaza Strip, the Palestinians do not have the corresponding rights" (PA p. 14) This results in significant trade distortions. Ultimately, both Palestinian production and imports from other countries, like animal feedstuffs and fertilizers, are highly regulated by Israel. As a result, their import from Israel has increased drastically, at much higher costs than alternative import from Jordan (PA p. 16).

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[38] "It has become common for shipments of chicken meats of very low quality to be smuggled into the [oPt]. These violations of the agreements from the Israeli side has hurt Palestinian farmers, as well as consumers" (PA, p.14)

As for exports, chapter one illustrates how the presence of the Separation Wall has undermined Palestinian export potential. If the wall around Gaza is any indication of potential impact, then, inasmuch as it has been arbitrarily administered, negatively affecting trade, it is unlikely that a liberal access system will be established in the West Bank in the absence of international intervention. The same could be said for the administration of bridges, ports and airports that separate Palestine from the rest of the world.

3.7 Policies Under Various External and Internal Closure

Under the most difficult forms of closure (omitting consideration of escalated military activity), if the Separation Wall in the West Bank remains with highly restrictive crossing policies, and internal closure remains in place, then the currently favored instrument, budget support, will remain an effective tool for supporting economic activity—despite massive leakages in the form of consumption imports and minimal accelerator effects. Other tools that should be considered in this stage, however, include employment generation and subsidies. Both can improve balance sheets of the private sector and encourage domestic investors in an effort to improve the investment 'stance' presented in chapter two.

At the writing of this dissertation, there are signs that certain internal closures are being removed, thus improving the prospects for production and production-based support programs put forth herein. Under reduced internal

closure, (as the analysis of economic aggregates of chapter two illustrates), donor support for imports of consumption goods would remain imperative, as the large trade gap would no longer remain financed by Palestinian income earned from employment in Israel. Further, under reduced internal closure, small-scale import substitution could have a targeted, if rather limited effect compared to larger-scale import substitution due to the lack of access to external markets.

Even were access to the "official" markets for inputs and outputs resumed, through an otherwise restricted access across the Separation Wall, income is not likely to recover to previous levels due to the permanent loss of many "illegal" export activities with Israel (see chapter one).

If, however, the Separation Wall were liberally operated for trade, but continued to prohibit employment in Israel, then support for private investment and defensive border policies for trade would become essential. Donor support, however, would continue to be required, as domestic labor absorption is unlikely to make up for lost employment in Israel.

Finally, if the Separation Barrier were liberally operated, allowing Palestinian workers to return to Israel (and Israeli Arabs to enter the West Bank), incomes earned in Israel would reduce the need for donor supported consumption imports. It could also become effective to tax these workers' incomes and re-invest the revenues to improve capacity of domestic production. This would have

the effect of guarding against the risk of future unilaterally imposed closure. That is, if incomes in Israel were to be once again cut off by IDF closure policies, then expanded domestic capacity could improve the prospects of absorbing those rendered unemployed, thus reducing the scale of any economic downturn and a repeat performance along the lines of that observed between 2000 and 2004. Also under this stage of reduced internal and external closure, improving the uniquely important investment stance with subsidies (see chapter two) and defensive border policies would remain essential.

It can be noted here that while there is a risk in building up domestic capacity under closure, only to lose Palestinian laborers to Israeli labor markets when and if access conditions improve, building up domestic capacity also increases the chances of keeping laborers in domestic production thereby reducing inflationary wage pressures and improving competitiveness of local outputs. (Naqib 2003) Moreover, even were there a reduction of closure and a complete return of employment in Israel to previous levels (as opposed to previous percentages of the labor force), as the Palestinian population grows, such employment becomes relatively less significant, while domestic production capacity becomes relatively more significant.

Under a liberally operated Separation Barrier, economic activity can be expected to remain constrained due to diminished export capacity, low internal finance, market loss for certain activities and destroyed capital stock. Therefore, a

need for production based investment incentives would remain particularly as the characteristics of a war-torn economy linger in the wake of closure.

At this point, the findings of the previous chapter can be re-emphasized here. For the economy to effectively stabilize, and become viable in the absence of donor aid, either the external sector or private investment stance will have to generate growth. In the absence of defensive Palestinian border control policies and a restrictive import regime, the external sector's leakage (m) in equation (2.4) of chapter two is likely to remain high. Even under the best circumstances, however, the external stance will remain contractionary (as in many small, open economies). This means that private investment will have to be the driving force behind growth.

3.8 Macro Model Simulations

In this section, the results of single and multi-sector macro model simulations are presented. First the model is described, then the policy alternatives and their effects are presented. Finally, the discussion draws parallels between the model and the real world, highlighting important implications that can be drawn from the model.

The Model

Following Kurz, in a "classical" type of approach to the theory of value and distribution, it is assumed that the sectoral rates of profit and the technical

conditions of production are given, so that the wage rate and the system of relative prices can also be taken as given (that is, a fixprice economy). The assumption of constant rates of profit and prices is justified by the supposition that there are no capacity or labour limitations to the multiplier process. Only "unemployment equilibria" are considered.

The multiplier effects depend on the technical conditions of production, income distribution, consumption patterns and the physical composition of investment as well as on savings ratios and the aggregate volume of investment. (Kurz 1985).

As in Keynes's *General Theory*, the level of income adjusts to equate savings and investment, and the principle of the multiplier is used in static terms within the framework of an eleven sector linear model.[agriculture, manufacturing, construction, commerce, transport, services, wage earners, capitalists, Israel, and the rest-of-world.]

Consumption and investment are treated as endogenous, responding to wage and profit incomes respectively. Public consumption expenditure and exports are treated as exogenous. Income and final demand is determined by coefficients of the input-output table, which are calibrated by a 1998 Social Accounting Matrix (SAM), constructed by both the PCBS and the World Bank.

This is essentially the extension of a closed Leontief model where primary incomes (as part of gross output) are the result of exogenously determined final demand.

(3.3) X=(I-A)-1*C

(3.4) V, W, P = f (X),

where: X is the vector of gross output by industry;

C is the vector of total final demand by product of the various industries;

A is the matrix of input-output coefficients;

I is the identity matrix;

V is the vector of value added by industry and disaggregated by primary incomes W (labour income), P (profit).

This Leontief system is solved iteratively whereby each component of final demand is initially introduced exogenously, then consumption, investment and thereby total final demand become determined endogenously. The closed system is, therefore, extended to include the following propensities in the base year:

(3.5) c = f (607+W+.82*PI);

(3.6) inv = f (.72* PI),

Consumption is a function of autonomous (donor financed) consumption, as well as the wage share and 82% of capital income. Investment is dependent on

sectoral capital income flows, and at the aggregate is a function of 72 percent of profit income. The justification for the uses of capital in excess of one in the base year is the existence of external transfers and the "crowding-in" of international investment by domestic investor confidence. The idea is that Palestinian "returnees" or those who returned in 1994 with the government have sources to invest that are external to profit income derived in internal production processes. Therefore, if they and other local investors are confident, then investment demand could be forthcoming at a rate greater than internal capital flows permit. These relationships render base-year aggregates similar to those of 1998, as published by the Palestinian Central Bureau of Statistics' National Income Accounts.

The matrix of costs per unit of output, income by sector and demand data are as follows:

Table 3.5: Matrix of Costs Per Unit of Output

	Agric	Manuf	Constr	Commerce	Transport	Services
Agric	0.048725	0.014966	0	0.05868	0	0.00017
Manuf	0.07674	0.103536	0.495842	0.036421	0.078558	0.046078
Constr	0	0.001349	0.067826	0.002382	5.47E-05	0.012313
Commerce	0.056203	0.117561	0.001934	0.081547	0.009385	0.007426
Transport	0.002225	0.005901	0.002293	0.013964	0.007988	0.007996
Services	0.025179	0.006903	0.012105	0.037118	0.020658	0.131603
Capital	0.329239	0.20317	0.252	0.294645	0.331925	0.304712
Labour	0.35	0.176	0.168	0.45	0.37	0.325
VAROW	0.003629	0.019554	0	0	0	0
VAIsr	0.017132	0.041276	0	0.005355	0.038075	0.020288
ROW	0.013977	0.096253	0	0	0	0
Isr	0.076951	0.21353	0	0.019888	0.143356	0.144414

Table 3.6: Income by Sector

	Agric	Manuf	Constr	Commerce	Transport	Services	Isr
Capital	277.3828	327.6936	303.7854	196.9398	121.1534	418.5537	34.58696944
Labor	294.8742	283.8708	202.5236	300.7788	135.0509	446.4209	606.7889375
VAROW	3.0578	31.5386	0	0	0	0	
VAIsr	14.43358	66.57401	0	3.579394	13.8975	27.86712	

Table 3.7: Demand Data

	Intermediate	Household C	Investment	ROW	Israel	sectoral outp
Agric	104.6442	476.8519	67.90887	16.50238	176.5892	842.7898
Manuf	945.6929	510.3163	125.9081	7.769217	23.21568	1613.277
Constr	102.465	656.719	81.51194		364.7955	1205.861
Commerce	307.4274	266.5016	77.09691		17.36988	668.687
Transport	37.38937	256.6119	69.89687		1.103272	365.3818
Services	260.061	624.2357	487.8623		1.442918	1374.408

Simulation 1: Simulating Crisis, Closure Caused Decline

The first simulation made to the 1998 base-year SAM is that of closure-caused economic decline. A fifty percent reduction is made to each of the following: net factor payments from Israel, sectoral investment propensities, and exports. On the other hand, autonomous consumption is increased by 50 percent (due to the increment in donor-based consumption support). The changes cause a GDP decline of 41 percent, overall investment declines 73 percent, consumption declines by 29 percent and imports decline by 38 percent. These declines are roughly of magnitudes reported in the National Income Accounts reported by the PCBS (see chapter two).

Post-Decline Simulations: The New Base-Year

Based on this depressed environment, simulations are next made to measure the effects, first of certain policy responses and then of certain simulations in the closure environment. Bringing together both types of changes into the analysis is also intended to emphasize the role of policies that are available and compare them with environmental changes that would be necessary in order to secure a similar impact. As such, the remaining five simulations are carried out to investigate the following three types of changes.

- Investment incentives in the form of subsidies to the productive sectors.
- Increased employment in Israel.
- Exogenous trade recovery.

Simulations 2-4: Policy Responses

Targeted subsidy which raises propensity to invest in agriculture by 10%

In this simulation, income to capitalists in the agricultural sector is exogenously increased by 1 percent of GDP (22.7725). This increased income is converted into investment demand at the rate of the sectoral propensity to invest in the base-year (post-decline) augmented by 10 percent. Once the multiplier and accelerator effects work themselves through the SAM, capital income in agriculture increases by the amount of the subsidy plus another 21 percent to come to 27.6066. Overall capital income across all sectors increases by 4.9 percent from 969.29 to 1015.85, and overall investment increases by more than 10

percent. As a result, GDP increases by 2.5 percent, consumption increases by more than 2 percent and imports increase by more than 2 ¾ percent.

Targeted subsidy which raises propensity to invest in manufacturing by 10%

In this simulation, again, the new base-year depressed economy is adjusted by exogenously increasing capitalists' income in the manufacturing sector and their propensity to invest is augmented by 10 percent. The results are similar to that of the above simulation, but are slightly more impressive. Economy-wide investment increases by nearly 11 percent, GDP increases by 2.6 percent, consumption increases by 2.1 percent and imports increase by approximately 3 percent.

Linking sectors plus manufacturing subsidies

It might be reasonable to assume that manufacturing subsidies could be structured in a way that increases demand for domestic agricultural output. We, therefore, simulated an increase in manufacturing's demand for agricultural output by 25 percent, the effect of which, slightly improve the overall results of manufacturing subsidies.

Table 3.8: Simulation Results of Policy Responses

		gdp	consumption	investment	imports
1	Linking sectors plus manufacturing subsidies	2.93%	2.31%	12.24%	3.29%
2	targeted subsidy which raises propensity to invest in manufacturing by 10%	2.59%	2.11%	11.97%	3.06%
3	targeted subsidy which raises propensity to invest in agriculture by 10%	2.50%	2.07%	10.37%	2.78%

Simulations 5-7: Environmental Variables

Exogenous increase in manufacturing exports

In order for an exogenous increase in exports to have the same impact on GDP as the manufacturing subsidies simulated above, a 7.4 percent increase in exports would have to take place (an injection of approximately 1.2 percent of GDP).

Employment in Israel

In order for an exogenous increase in employment in Israel to have an impact on GDP similar to that of the manufacturing incentives simulated above, employment would have to increase by approximately 8.5 percent (an injection of approximately 1 ¼ percent of GDP).

Summary of Findings

These findings demonstrate two main points. First, it becomes clear that exogenous improvements in the environment can be highly effective in raising GDP. But the point that we most want to emphasize is that, in the absence of changes in the environment, there may be policies that could effectively achieve similar improvements. Such strategies should target raising investment and improving sectoral linkages.

The chief concern with an exogenous return of manufacturing exports is that unlike other policy prescriptions, this may not be in the hands of

policymakers, but, rather, dependent on a combination of both closure policies and altered structures of foreign markets. For example, if certain locally produced goods like garments cannot easily re-enter a market once they've been displaced from it, then waiting for such exogenous events to occur would be in vain.

The structure of the model also illustrates the significance of income constraints on growth. That is, there scant sources of investment funds under the current situation of diminished levels of capital income—perhaps least of all for the agricultural bourgeoisie and similar groups who have suffered capital stock destruction at the hands of the Israeli Defense Forces.

Yet the most important point the model illustrates is that—given environmental constraints—output may be predominantly a function of investment, and investment a function of income accrued to owners of capital (an institution which can be impacted by subsidies). [39] Of course it must be kept in mind that the success of subsidies would depend on how they could be targeted in order to assure they get converted into investment. For similar results to bear out in reality, there would have to be both investment incentives that secure an initial increment in investment, and a risk-sharing environment that minimizes risk of investors so that the resulting increment in income from the initial investment is matched by further investment. And, as a concluding note, this is where strategies of earlier sections of this chapter become important, in the effort to stabilize the

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[39] This is a realistic assumption inasmuch as we're concerned with the domestic private sector, as mentioned earlier in this chapter.

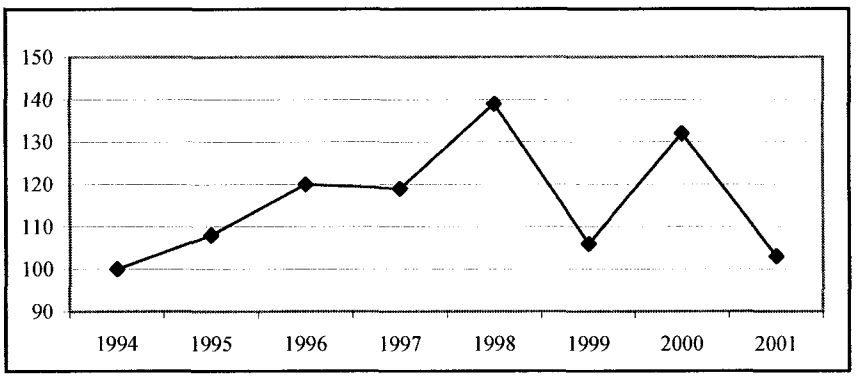
economic environment in which the private sector operates, by increasing capacity utilization and targeting domestic investors and thereby stabilizing demand and by giving special preference to specific sectors that have greater potential for expansion in the medium-run, like agriculture and manufacturing, especially where 'linkages' can be fostered.

Table 3.9: Percent of Families Resorted to Agriculture in Order to Cope with Current Economic Situation in DSP Opinion Polls

	February 2001	February 2002	November 2002
West Bank	21.5	34.5	38.4
Gaza	8.9	15.0	22.9
Total	16.8	26.8	32.6

Source: Birzeit Development Studies Program, opinion polls nos. 3, 6, and 9.

Figure 2.8 : Index of Per Capita Agriculture Production, 1995-2000, 1994=100



Source: PCBS

Table 3.10: Agricultural Losses in West Bank and Gaza for the Period September 2000-December 2002

Type of Damage	Unit	Number
Demolition of agricultural greenhouses	Number	234
Demolition of poultry farms	Number	114
Demolition of livestock farms	Number	47
Killed sheep and goats	Number	3,617
Killed cattle	Number	593
Damaged beehives	Number	6,211
Destroyed wells	Number	209
Destroyed farmer houses	Number	209
Killed poultry	Number	1,401,889
Destroyed irrigation network	Dunum	11,395
Destroyed irrigation ponds	Pool	766
Demolished fences and farm walls	Meter	147,149
Demolished main water pipelines	Meter	316,187
Razed crop planted land	Dunum	8,327
Razed tree planted land	Dunum	23,901
Demolished green houses	Dunum	824
Razed vegetable planted land	Dunum	20,306
Demolished packaging station	Number	1
Razed experiment station	Number	2
Razed nurseries	Number	3

Source: PA Ministry of Agriculture, Ramallah, 2003

Table 3.11: Estimated value of Agricultural Losses in West Bank and Gaza for the Period September 2000-December 2002 (US $)

Type of Loss	Value
Bulldozed agricultural land and demolished property	185,345,51
Lost income opportunities due to the destruction of farming land	55,948,277
Olive harvest	15,504,237
Reduced prices for agriculture produce	130,640,000
Livestock	32,315,000
Fishing	6,063,660
Increased fodder prices	16,100,000
Agricultural exports	28,892,500
Agriculture transportation	50,740,000
Agriculture labor	280,840,000
Damaged soil and rehabilitation cost	42,686,400
Total loss during the reporting period	845,075,725

Source: PA Ministry of Agriculture, Ramallah, 2003

Table 3.12: Number of Uprooted Trees in the West Bank and Gaza during the Reporting Period

Type	Olive	Citrus	Stone fruit	Forests	Dates	Banana	Vine	Others	Total
Number	206,329	206,474	59,893	112,914	16,188	18,400	47,919	68,580	736,697
Percent of Total	11.4%	0.6%	1.2%	1.7%	na	10.7%	22.6%	na	na

Source: Ministry of Agriculture, Ramallah.

Table 3.13: Value and Annual Change in Agricultural Output by Type of Product 1994-2001

	1994	1995	1996	1997	1998	1999	2000	2001
Area (Dunum)	1,827,003	1,904,925	1,829,880	1,834,658	1,861,380	1,612,013	1,836,789	1,815,547
Percentage change	--	4.3	-3.9	0.3	1.5	-13.4	13.9	-1.2
Total cultivated area	202	423	711	952	715	715	587	550
Percentage change	--	109.4	68.1	33.9	-24.9	0.0	-17.9	-6.3
Amount of field crops	108,542	138,478	118,323	155,930	167,373	99,124	189,513	146,045
Percentage change	--	27.6	-14.6	31.8	7.3	-40.8	91.2	-22.9
Amount of Fish	1,763	1,056	2,488	3,788	3,572	3,650	2,623	2,144
Percentage change	--	-40.1	135.6	52.3	-5.7	2.2	-28.1	-18.3
Amount of honey	318	421	476	619	601	329	153	348
Percentage change	--	32.4	13.1	30.0	-2.9	-45.3	-53.5	127.5
Amount of meat	62,675	58,290	65,995	81,625	87,127	104,556	98,176	107,330
Percentage change	--	-7.0	13.2	23.7	6.7	20.0	-6.1	9.3
Amount of vegetables	450,336	491,961	460,650	487,833	481,455	486,264	549,455	542,720
Percentage change	--	9.2	-6.4	5.9	-1.3	1.0	13.0	-1.2
Amount of egg	427	288	334	473	494	496	605	605
Percentage change	--	-32.6	16.0	41.6	4.4	0.4	22.0	0.0
Amount of fruit	389,730	330,585	429,151	343,170	380,799	292,259	393,897	281,563
Percentage change	--	-15.2	29.8	-20.0	11.0	-23.3	34.8	-28.5

	1994	1995	1996	1997	1998	1999	2000	2001
Amount of milk	87,707	102,196	121,090	115,089	115,395	123,098	133,687	150,183
Percentage change	--	16.5	18.5	-5.0	0.3	6.7	8.6	12.3
Area of field crops	478,434	563,152	520,110	510,568	530,276	328,882	469,682	467,122
Percentage change	--	17.7	-7.6	-1.8	3.9	-38.0	42.8	-0.5
Area of vegetables	191,660	197,752	190,984	185,812	181,984	159,116	173,862	173,417
Percentage change	--	3.2	-3.4	-2.7	-2.1	-12.6	9.3	-0.3
Number of fruit trees	1,156,707	1,143,598	1,118,075	1,137,326	1,148,405	1,124,015	1,192,658	1,174,458
Percentage change	--	-1.1	-2.2	1.7	1.0	-2.1	6.1	-1.5
Number of beehives	45,100	43,088	56,050	47,625	57,850	46,195	46,020	46,585
Percentage change	--	-4.5	30.1	-15.0	21.5	-20.1	-0.4	1.2
Number of broilers	28,421	28,564	25,558	35,505	38,550	48,418	43,457	47,890
Percentage change	--	0.5	-10.5	38.9	8.6	25.6	-10.2	10.2
Number of cattle	16,470	18,024	19,312	20,976	22,050	23,858	23,688	26,601
Percentage change	--	9.4	7.1	8.6	5.1	8.2	-0.7	12.3
Number of goats	259,202	252,235	272,636	267,101	252,258	295,033	308,845	313,583
Percentage change	--	-2.7	8.1	-2.0	-5.6	17.0	4.7	1.5
Number of Layer Hens	1,778	1,413	1,638	1,976	2,061	2,059	2,518	2,518
Percentage change	--	-20.5	15.9	20.6	4.3	-0.1	22.3	0.0
Number of sheep	521,685	445,151	634,489	504,903	537,998	504,078	566,409	615,838
Percentage change	--	-14.7	42.5	-20.4	6.6	-6.3	12.4	8.7
Value of animal	235,581	244,721	275,729	310,556	342,369	352,473	350,483	370,529
Percentage change	--	3.9	12.7	12.6	10.2	3.0	-0.6	5.7
Value of cut flower	1,253	4,325	7,804	7,853	7,476	5,959	4,318	3,921
Percentage change	--	245.2	80.4	0.6	-4.8	-20.3	-27.5	-9.2
Value of egg	28,535	22,045	26,937	36,223	35,323	34,347	41,501	41,644
Percentage change	--	-22.7	22.2	34.5	-2.5	-2.8	20.8	0.3
Value of	26,160	51,839	44,466	60,660	56,140	32,729	69,385	48,903

	1994	1995	1996	1997	1998	1999	2000	2001
field crops								
Percentage change	--	98.2	-14.2	36.4	-7.5	-41.7	112.0	-29.5
Value of fish	2,892	3,054	9,425	10,082	11,823	11,585	10,394	8,615
Percentage change	--	5.6	208.6	7.0	17.3	-2.0	-10.3	-17.1
Value of fruit trees	178,997	167,914	273,896	191,264	335,570	155,077	319,884	160,770
Percentage change	--	-6.2	63.1	-30.2	75.4	-53.8	106.3	-49.7
Value of honey	2,535	4,008	5,189	5,185	4,606	2,219	1,280	2,925
Percentage change	--	58.1	29.5	-0.1	-11.2	-51.8	-42.3	128.5
Value of meat	136,556	143,886	153,609	184,229	209,112	217,221	215,417	205,817
Percentage change	--	5.4	6.8	19.9	13.5	3.9	-0.8	-4.5
Value of milk	64,714	69,013	77,663	66,533	73,437	78,157	72,885	102,207
Percentage change	--	6.6	12.5	-14.3	10.4	6.4	-6.7	40.2
Value of vegetables	134,181	180,592	152,396	216,177	212,062	214,401	235,747	219,012
Percentage change	--	34.6	-15.6	41.9	-1.9	1.1	10.0	-7.1
Total Value of Agriculture	576,172	649,391	754,291	786,510	953,617	760,639	979,817	801,601
Percentage change	--	12.7	16.2	4.3	21.2	-20.2	28.8	-18.2
Cost of inputs	194,263	258,994	295,896	377,992	382,777	329,313	391,137	413,724
Percentage change	--	33.3	14.2	27.7	1.3	-14.0	18.8	5.8
Total Value Added	381,909	390,397	458,395	408,518	570,840	431,326	588,680	387,887
Percentage change	--	2.2	17.4	-10.9	39.7	-24.4	36.5	-34.1

Source: PCBS (Area in dunums, value in $ 000, quantities in metric tons)

Table 3.14: Per Capita Rates of Change in Agricultural Output by Type of Product 1995-2001

	1995	1996	1997	1998	1999	2000	2001	Average	%change 9
Amount of fled cops production	19.0	-19.3	24.6	3.7	-43.5	83.3	-26.4	5.9	4.3
Amount of fish production	-44.1	122.4	43.9	-8.9	-2.6	-31.1	-22.0	8.2	-16.1
Amount of honey production	23.5	6.7	22.9	-6.2	-47.8	-55.4	117.2	8.7	2.0
Amount of meat production	-13.2	6.9	16.9	3.2	14.4	-10.0	4.4	3.2	3.0
Amount of vegetables production	1.9	-11.6	0.1	-4.6	-3.7	8.3	-5.7	-2.2	-1.4
Amount of egg production	-37.1	9.5	33.9	0.9	-4.3	16.9	-4.5	2.2	2.3
Amount of fruit production	-20.9	22.5	-24.4	7.3	-26.8	29.2	-31.7	-6.4	-5.5
Amount o milk production	8.7	11.8	-10.2	-3.1	1.7	4.1	7.3	2.9	2.5
Number of fruit trees	9.8	-12.8	-7.2	0.4	-40.9	36.9	-5.0	-2.7	-2.2
Number of beehives	-3.7	-8.8	-8.0	-5.3	-16.6	4.7	-4.8	-6.1	-5.5
Number of broilers	-7.8	-7.7	-3.8	-2.4	-6.7	1.7	-6.0	-4.7	-3.3
Number of Cattle	-10.9	22.8	-19.7	17.4	-23.9	-4.5	-3.3	-3.2	-3.6
Number of Goats	-6.2	-15.5	31.3	4.9	19.8	-14.0	5.2	3.6	4.0
Number of Layers	2.1	1.1	2.7	1.6	3.2	-4.8	7.2	1.9	1.8
Number of Sheep	-9.2	2.0	-7.4	-8.7	11.5	0.3	-3.0	-2.1	0.0
Value of agriculture	-25.9	9.4	14.0	0.8	-4.7	17.2	-4.5	0.9	2.2
Value of cut flower	-20.4	34.5	-24.8	3.0	-10.7	7.7	3.8	-1.0	1.0
Value of egg	-3.1	6.4	6.5	6.6	-1.8	-4.7	0.9	1.5	0.2
Value of field crops	222.0	70.3	-4.9	-8.0	-24.0	-30.5	-13.3	30.2	-19.0
Value of fish	-27.9	15.3	27.1	-5.7	-7.3	15.8	-4.2	1.9	-0.3
Value of fruit trees	84.9	-19.0	29.0	-10.5	-44.4	103.2	-32.7	15.8	3.9
Value of honey	-1.5	191.3	1.1	13.3	-6.6	-14.0	-20.9	23.3	-7.0
Value of meat	-12.5	54.0	-34.0	69.6	-55.9	97.7	-52.0	9.6	14.8
Value of milk	47.5	22.2	-5.5	-14.1	-54.1	-44.7	118.2	9.9	1.3
Value of vegetables	-1.7	0.8	13.4	9.7	-0.9	-4.9	-8.8	1.1	-1.2
Value of Animal Production	-0.5	6.2	-19.0	6.7	1.5	-10.6	33.9	2.6	7.9
Cost of agricultural inputs	25.6	-20.3	34.1	-5.2	-3.6	5.4	-11.3	3.5	-3.7
Value Added for Agricultural Sector	5.2	9.6	-1.4	17.2	-23.9	23.5	-21.9	1.2	-1.3

Source: PCBS

Appendix: Israeli Agricultural Subsidization

According to the WTO, Israel maintains a relatively large array of trade and trade-related measures intended to support the domestic economy. Domestic support to agriculture reached US $524 million in 1997, amounting to approximately one-fifth of the value of agricultural output. Although support increased between 1995 and 1997, but declined in 1998, it has remained below the ceiling set by Israel's WTO commitments. Under these commitments, domestic support for the agricultural sector will be reduced over a ten-year period beginning in 1995 by around 12%, from around US $646 million in 1995 to close to US $569 in 2004. The WTO reports that for calendar year 1997/98 (the most recent data available), almost one half of the product-specific support was for milk production, followed by poultry meat (28.3% of the total) and eggs (17.1%). Specifically, ***support to milk, egg and poultry meat production involves production quotas and target prices***. In addition to price support, deficiency payments and investment programs are operated by the Ministry of Agriculture in support of horticulture, eggs, poultry, and bovine meat production. Total direct payments under this program amounted to US $51 million in 1997, down from US $63 million in 1996 and US $97 million in 1995. ***Other measures, those which fall outside of WTO's requirements for reduction commitments, amounted to US $338 million in calendar year 1997 compared with US $414***

million in 1996 and US $295 million in 1995. The largest expenditure consists of specific assistance programs for cooperative villages under a Rural Department debt-relief scheme, expenses of the Agricultural Research Center, new settlement infrastructure and other services to farmers. (In 1994, other domestic support measures were operating, including support price schemes for non-irrigated crops such as wheat and sunflowers for which prices were fixed according to different regions, and an insurance fund for natural disasters. In addition, fresh fruit and vegetables were exempt from VAT). Regarding export subsidies, Israel provides subsidies to cut flowers, vegetables, citrus (all of which the WBGS exports), as well as goose liver and cotton. In calendar year 1996-97, US $4.3 million was spent on subsidies for 415 million units of cut flowers (out of a total 1,529 million units exported), and US $1 million in 1997/98 for the export of 116 million units (out of a total of 1,634 million units). Regarding commitments to reduce export subsidies, Israel has agreed not to spend more than US $43 million in 2004, a 24% reduction from its US $56 million base year commitment. Other measures benefiting Israeli agricultural exports include those available to all sectors, such as export promotion and marketing assistance. In effect, although government interventions in support of Israeli agriculture have been declining during the period for which data is available, both general and targeted support has caused distortions in prices on products of importance for Palestinian farmers, including dairy, poultry, meat, cut flowers, vegetables, and citrus fruit.

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