The Impact of Closure and High Food Prices on Performance of Imported Staple Foods and Vegetable and Fruits Market in the oPt

December 2009

Data collected in August – September 2009

A Report for the United Nations World Food Programme

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Table of Contents

List of Tables and Figures

List of Tables

List of Figures

Acronyms and Abbreviations

CPI	Consumer Price Index
ECF	Economic Cooperation Foundation
FAO	Food and Agriculture Organization
FPI	Food Consumer Price Index
GDP	Gross Domestic Product
GS	Gaza Strip
HS	Harmonized Commodity Description and Coding System
IEA	International Energy Agency
IFRI	International Food Policy Research Institute
IMF	International Monetary Fund
JD	Jordanian Dinar
MoA	Ministry of Agriculture
MoTNE	Ministry of Trade and National Economy
NIS	New Israeli Sheqel
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organization for Economic Cooperation and Development
oPt	Occupied Palestinian Territories
PA	Palestinian Authority
PalTrade	Palestine Trade Center
PCBS	Palestinian Central Bureau of Statistics
PLC	Palestinian Legislative Council
PLO	Palestine Liberation Organization
PMA	Palestinian Monetary Authority
PT	Palestinian Territories
TPI	Transport Price Index
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
UNRWA	United Nations Relief and Works Agency
US$/USD	United States Dollars
WB	West Bank
WFP	World Food Program
WTO	World Trade Organization

Executive Summary

Purpose and Methodology of the Market Study

The Israeli closure of the occupied Palestinian territory (oPt) on the Palestinian population, compounded by the recent global food and fuel price increases, have led to increased unemployment rates in both the West Bank and the Gaza Strip and very high levels of food insecurity and vulnerability, particularly in the Gaza Strip where 77 percent of the population are either food insecure or vulnerable to food insecurity.

Palestinian market resilience is rapidly eroding due to the protracted closure regime which has caused greater market fragmentation and trade localization, resulted in thin profit margins and has increased transaction costs. The global increase in food prices has had several effects on trader's business operations: more than half of traders felt that the increase in food prices depressed the overall demand for food and forced them to reduce their stock levels while almost three-quarters reported increasing food prices resulting in reduced sales.

Given the significant role that markets may play in food access and availability, and hence in food security, WFP oPt monitors food commodity markets and their functioning in the West Bank and the Gaza Strip. The current study was undertaken to provide such information as well as to make recommendations on future food security programming. The study focuses on two markets, namely: vegetables and fruits; and imported staple food (wheat flour, sugar and rice). It took place during August and September 2009. Market performance is also analyzed by measuring the degree of integration in the market, based on price time-series data from the Palestinian Central Bureau of Statistics (PCBS).

A picture of the markets at the close of 2009:

West Bank markets continue to be localized and fragmented while trade between the West Bank and the Gaza Strip has been suffocated by the blockade. Supply relations between traders in the Gaza Strip have also changed quite considerably in the past 2.5 years and almost half of Gaza's traders have been forced to change their suppliers during the past two years due to the blockade. The number of traders' clients has also been shrinking. More then ever, Palestinian trade is heavily concentrated with one partner, namely Israel, accounting for nearly 81 percent of the total value of trade in 2008.

The blockade is affecting all business in the Gaza Strip and the procedures at the commercial crossings are disproportionately affecting Gaza traders compared to their West Bank counterparts. Supplies from Israel are unpredictable and Israeli incursions into the Gaza Strip often coincide with a closure of Gaza's commercial crossings. The cumulative negative impact of this on Palestinian businesses has been rising over the past two years as delivery times for imports have increased, transportation costs have increased and competition is rising.

In the Gaza Strip, economies of scale have been undermined by reduced demand, increased competition from "cart traders" and limited liquidity, all of which are a byproduct of the Israeli blockade. Trade between West Bank exporters and Israeli clients has been difficult due to delays in payment. Gaza importers have had no credit with Israeli suppliers since June 2007, and are now forced to make payments in advance. Importers have in turn tightened credit to wholesalers, especially in the Gaza Strip, in an attempt to reduce their business risk. West Bank importers on the other hand are finding that Israeli suppliers have considerably reduced their credit lines and are demanding payment be made within two weeks, shorter than ever before.

Traders in the Gaza Strip are experiencing high levels of risk and inflated transaction costs, larger reductions in effective demand and lowered access to credit facilities than their West Bank peers. The depressed state of the economy in the Gaza Strip has forced many people into the informal market, which has resulted in lost incomes for traders (especially retailers). Reduced credit from wholesalers is reducing retailer's ability to make larger purchases and Gaza retailers are in turn offering less credit to their customers. The reduction in credit availability/facilities, lack of cash in Gaza banks and uncertain business environment for Gaza traders are also reducing traders' financial capacity to make purchases. Some wholesalers are also reducing forward credit to their clients due to engagement in the tunnel trade (which requires traders to pay in advance for all merchandise bound for smuggling through the Rafah tunnels).

Also households are buying cheaper goods and sales volumes are much reduced; three quarters of traders (mostly in the Gaza Strip) witnessed a decrease in sales volume (30 – 48 percent reduction in sales) due to access restrictions. As a result retailers are selling lower quality, less variety and cheaper products which are more affordable amongst the most

vulnerable population; they are also operating with lower stocks (Gaza retailers and wholesalers who indicated a 50 percent decrease in average stock).

Hebron and Gaza traders are applying the lowest markups on goods. Closure related costs - additional expenses incurred by traders as a result of the extra costs associated with back-to-back transport, waiting times, and damages to products at commercial terminals - affect almost half of the traders in the Gaza Strip and these costs have a major effect on their price decisions/profit margins.

Transportation costs for foodstuffs (from the source to their stores) are affecting half of traders and have increased by around 30 percent in the past two years. Transport costs represent more than 70 percent of marketing costs for traders, implying the gravity of the increase in transport cost on consumer prices (in West Bank and Gaza Strip).

Coping strategies for traders include localizing trade activities and marketing to the same governorate, adopting cost reduction measures and reducing credit facilities, and switching to Israeli suppliers. Gaza traders have exhausted more of their coping mechanisms and are thus more vulnerable. Three times more Gaza traders resorted to increasing food prices and reducing of credit sales than in the West Bank. Most Gaza traders are unable to further reduce their business costs or credit facilities, and expressed concern that any further reduction in costs or profit margins would entail additional loss in sales volumes.

While both the Ministry of Trade and National Economy (MoTNE) in the West Bank and the Gaza Strip are regulating food markets, market visits and trader interviews suggest that the latter –possibly as a result of the unpredictable supply caused by the Blockade- is much more proactive in monitoring and stabilizing the availability of staple foods and market prices of these. The de facto government in the Gaza Strip has also been proactive in encouraging private investment in the agricultural areas of the evacuated Israeli settlements and imposing restrictions on the import of fruits and vegetables that have a local substitute. This has improved the market position of these farmers. Export farmers are in a more vulnerable position due to their inexperience with the current conditions and stiff competition as they seek to find an alternative niche. Importers of produce to the Gaza Strip are witnessing severe constraints to their work due to their inability to travel to Israel to negotiate business transactions and inspect their orders. Sales of fruits in the West Bank and Gaza Strip have substantially decreased in the last two years as a result of high prices. The main shortages reported by Gaza retailers were only limited to certain types of Israeli produced fruits.

Staple foods, consisting of wheat flour, rice, sugar, corn oil, pulses, wheat and other cereal preparations, are all almost entirely imported. Local agriculture has been severely and negatively affected by the political and economic decline in the oPt, and its contribution to food availability has declined. Significant yearly variations in food production are not fully offset by subsequent changes in food trade and aid.

Key changes in agricultural production over the last seven years are an increase in irrigated agriculture, especially in vegetables; and a decrease in fruit production. These increases are compromised by the destruction of trees and confiscation of land and water resources by the Israeli authorities and military, the construction of illegal settlements and the West Bank Barrier. Severe restrictions on trade between the West Bank and the Gaza Strip have caused further disruption to markets and food availability.

The oPt is especially vulnerable to external shocks affecting food availability and prices due to three factors: (i) its heavy reliance on imported staple foods, (ii) the Israeli control over the commercial and civilian transport routes to and from the West Bank and the Gaza Strip, and (iii) the lack of policy space for the Palestinian Authority to control and/or regulate markets. As well, the continued closure of the West Bank and the Gaza Strip has fragmented the economy, increased business risks and lead to the emergence of unregulated markets (tunnel trade). Compounding all these negative shocks/effects has been the global increases in prices.

There is an increase in informal trade and market concentration in the Gaza Strip, with the vast majority of the traders progressively relying on tunnel trade resulting in an increasingly unregulated supply chain. The implied risk is a breakdown in formal –and more reliable- supply chain channels and the likelihood of entry of food items that do not meet the minimum safety and health standards.

Despite the heavy Israeli bombardment of the border area between Rafah and Egypt during the 2008/2009 Cast Lead Operation and the many airstrikes against known tunnel areas after the offensive, interviews with tunnel traders suggest that the number of commercial tunnels exceeds 1,000. Essential supplies of diesel fuel are pumped through the tunnels in hoses and pipes. Livestock, flour, rice, milk, cheese, cigarettes, cooking oil, toothpaste, small generators, computers and kerosene heaters also come through the tunnels. Tunnel owners either act as transporters for Gaza traders or engage in

trade themselves. Interviews suggest that the majority of tunnel owners fall under the former category, while most of those who smuggle fuel fall under the latter category. Tunnel transport fees range between US$ 200-1,500 per tonne, depending on the type of goods being moved. For food products, tunnel owners charge anywhere between US$300-500, paid in advance by importers who also pay their Egyptian counterparts in advance.

Interviews with several tunnels traders confirmed several media reports suggesting that tunnels employ between 20,000-25,000 workers (supporting a potential of 140,000-175,000 individuals- almost 10 percent of Gaza's population), who could earn anywhere between NIS 100-200 for 10 hours of work. Tunnel workers interviewed reported that their wages were much higher (reaching NIS 400 per day) in 2007 and 2008, attributing the drop in wages to the significant increase in the number of tunnels and the increased number of workers seeking employment in the tunnels. The drop in wages may indicate, however, cost reduction strategies among tunnel owners, who reported increased levels of competition and reduced number of clients. All tunnel owners interviewed reported that their tunnels are currently operating near 50 percent capacity. Land lease for tunnel digging purposes ranges between US$ 1000-2000 per month.

The tunnel trade is contributing quite significantly to food availability and is believed to circumvent the effects of supply shortages in basic and non-basic foods resulting from the Blockade and the limited entry of food into the Gaza Strip through the Israeli controlled crossings. The sustainability of tunnels as a pipeline for food is highly uncertain, however, as the Israeli Air Force continues to launch strikes against tunnels. Restriction of the tunnel trade is likely to lead to immediate market shortages for essential items, thus having a direct impact on food security.

Impact on Households food security:

The review of the market indicates clearly that the people of the Gaza Strip have stretched to a maximum their coping mechanisms and are becoming more and more destitute as their means of surviving are disappearing. They are getting less credit from stores and are reluctant to use credit when it is available as their livelihoods are suffocated and they have fewer and fewer assets to fall back on to make the repayment. Most people in the Gaza Strip are relying on buying low quality cheap food items (including some unregulated goods from Egypt) to supplement the food aid they receive from the UN and other organizations and are cutting down on fruits and meat. The FAO/WFP Socio Economic and Food Security Survey Report (SEFSec) shows that 42 % of the population in West Bank reduced their expenditure on food. Among the households reporting a reduction in quantity of food purchased, 49 percent mentioned a reduction in quantity of meat, 43 percent talked about a reduction in quantity of fruits purchased.

Food aid in both regions is also playing a significant role, according to traders, in stabilizing prices of staple foods but at the same time, it is depressing demand for these foods (especially in the Gaza Strip). In both regions, availability and physical access to markets will remain subject to the Israeli restrictions on the ground, rendering monitoring of movement restrictions and entry of food imports through the crossings of paramount importance for market functionality food security analysis.

Conclusions:

Key to restoring market functionality and improving market performance is free and unobstructed movement of people and goods within the West Bank, between the West Bank and the Gaza Strip, and between the two regions and the rest of the World. The World Bank recently noted that "without efficient and predictable movement of people and goods, there is very little prospect for a sustainable Palestinian economic recovery."[1] The analysis presented in this report confirmed this by showing various evidence of worsening market conditions over the past two years.

While the Government of Israel has relaxed some internal West Bank restrictions, such incremental steps are not likely, by themselves, to lead to any sustainable improvement. Moreover, sustainable economic recovery will remain elusive if large areas of the West Bank – currently almost 60 percent of the land – remain inaccessible for economic purposes and restricted movement remains the norm for the vast majority of Palestinians and expatriate Palestinian investors. Only through a fundamental reassessment of closure, and a restoration of the presumption of movement, will the Palestinian markets be able to restore their functionality.

[1] World Bank, A Palestinian State in Two Years: Institutions for Economic Revival, *Economic Monitoring Report to the Ad Hoc Liaison Committee, September 22, 2009*

In the Gaza Strip, the lifting of the Blockade, including the removal of all restrictions imposed on the banking sector and cash transfers between the West Bank and the Gaza Strip, and the facilitation of movement of imports and exports through the commercial crossings are essential for restoring market functioning.

Programming implications:

Food assistance remains a vital safety net to meet the staple food needs of the West Bank and the Gaza Strip populations and maintain food stock levels and prices of these commodities at safe reasonable levels.

There is also a need to support the legal market structures and their workers through voucher programmes and to address vulnerable groups with additional small scale interventions to ensure that resort to low quality foods does not result in nutritional problems amongst these people.

Hence, the appropriate response option, would generally call for food transfers (imports) and market support to vulnerable traders and/or shopkeepers to preclude exit from the sector. Such support could include provision of subsidies, extension of buffer loans and credit guarantee schemes, and advocacy. Support to farmers in the form of input subsidies and food-for-work would also be prudent.

Work with the MoTNE to improve its market regulation and monitoring capacity. Specifically, provide technical support to the Ministry to improve its price regulation capacity, establish thresholds for monthly import requirements of staple foods, and re-evaluate the effectiveness of establishing strategic stocks of staple cereals.

It is also essential to improve monitoring of markets and prices within the context of the Food Security Monitoring System as well as closely monitor tunnel trade performance. In the case of disruption of the Egypt corridor there will be a need to dramatically increase the inflow of goods through commercial crossings in the Gaza Strip above current levels of type and quantity. Humanitarian agencies should prepare to plan for such contingencies and policy makers need to be aware of this issue in their dialogue with Government stakeholders.

Part I: Objectives and Methodology

A. Background

International prices of food commodities have increased rapidly over the last three years due to several reasons including the decrease in the world cereal production, increase in fuel prices, and decrease in stock levels of staple foods, increase of demand related to economic growth and increase of the world population. The rise in food prices has exacerbated the poor livelihood conditions of the Palestinian population in the West Bank and the Gaza Strip, which are caused by a systemic closure and movement restrictions. The combined effects of the increase in food prices and protracted closure regime (especially in the Gaza Strip), as show in several studies, may very well lead to increasing food insecurity levels in the oPt by distorting the functioning of the highly vulnerable and unstable markets, further reducing the poor's and vulnerable access to food. According to the Palestinian Central Bureau of Statistics (PCBS), the consumer price index (CPI) in 2008 increased by 9.89 percent from its levels during the preceding year, with the increase of food and soft drinks prices amounting to 17.26%[2] of the overall increase.

According to the International Food Policy Research Institute (IFPRI) and by OECD/FAO, global food prices will remain above their previous trend level for the foreseeable future. In fact, prices of food commodities for the next 10 years, many studies predict, will continue their upward trend despite tapering off during the first half of 2009. These projections are explained by three factors. First, it is believed that the demand for biofuels will continue to rise rapidly, partly driven by high oil prices. According to the International Energy Agency (IEA), the share of the world's arable land devoted to the growing of biomass for liquid biofuels could triple over the next 20 years. Second, developing countries' economic growth –despite the global financial crisis- is expected to continue at about 6 percent a year, with significant implications for food demand. Third, climate-change risks are likely to have adverse impacts on food production, compounding the challenge of meeting global food demand.[3]

While agricultural production is considered a key to local food security and a source of export for income generation, structural shifts in the Palestinian agricultural sector have resulted in less quantity and variety of local output; and the ongoing and increasingly restrictive closure regime in the WBGS makes food distribution extremely challenging. Factors include: population growth and urbanization; depressed agricultural earnings and wages; limited access to water in addition to drought and desertification; the West Bank Barrier; movement restrictions; an unfavorable institutional environment; increasing cost of agricultural production inputs; and fragmentation of agricultural land holdings..[4]

The prolonged closure of Gaza Strip and the restrictions on imports coupled with the devastating damages sustained by the agricultural sector during the recent Israeli offensive on the Gaza Strip add more complexities to food security conditions and market functioning there. Ban of exports and unavailability and high cost of inputs and equipment have further depressed livelihood in the private and agricultural sectors. Food shortages and substantial price inflation have been witnessed and are likely to re-emerge with any escalation of the conflict.

B. Objectives

The main objective of this market study is to update knowledge on food commodity market functioning in the West Bank and the Gaza Strip in the aftermath of the high food price crisis and the Israeli closure policy. In particular, the study aims to unravel and answer the following:

- The evolution of food commodity prices (cereals and vegetables) in light of recent "shocks";

[2] Source: PCBS.

[3] Paper prepared by FAO, IFAD and WFP for the meeting of the Chief Executives Board for Coordination on 28-29 April 2008, Berne, Switzerland

4 FAO, *Strengthening Resilience: Food Insecurity and Local Responses to Fragmentation of the West Bank, Jerusalem, 2006.*

- The effect of the US dollar and Israeli Sheqel on food prices and market performance;
- The effect of global food prices on the supply chain of vegetables and cereals in the West Bank and the Gaza Strip;
- Whether spatial price integration exists across specific areas in the West Bank and the Gaza Strip;
- Whether recent shocks have affected market availability of staple foods;
- The functionality of retail and wholesale markets of staple foods, including projecting possible scenarios of evolution of markets;
- Whether stock levels of staple foods in retail and wholesale markets have been affected by recent shock and how;
- Whether supply chain actors resilience has been affected, including assessing traders credit extension capacity; and,
- What indictors and tools would be necessary to improve market monitoring processes.

C. Methodology

The study was carried out in accordance with the survey Terms of Reference, which called for the design of a methodology that produces statistically representative results and provide a description of the marketing system on the basis of qualitative analysis. Accordingly, the methodology relied on sources of information, namely: secondary data and literature review; key informant and traders interviews (which included market visits); and, a survey of traders.

1. Secondary Data Analysis and Literature Review

The survey used secondary data on food prices provided by WFP, and several datasets made available by the Palestinian Central Bureau of Statistics (including a ten-year price time series data), the Palestine Trade Center, and the Palestinian Shippers Council. The survey team also compiled and analyzed a long list of reports on the state of the economy, trade, and food security published by various organizations. These reports included, inter alia: the 2007 Comprehensive Food Security Assessment by WFP and FAO, World Bank publications on movement restrictions and economic conditions in the West Bank and the Gaza Strip, United Nation agencies reports and briefings, WFP market monitoring reports, and all food security assessments and verification reports published by WFP, FAO, and UNRWA.

2. Key Informant and Traders Interviews

Interviews were conducted with key informants from several organizations in both West Bank and Gaza Strip, including: Chambers of Commerce, Ministry of Agriculture, Ministry of Trade and National Economy, PalTrade, OCHA, Palestinian Federation of Industries, Palestinian Food Industries Association, Palestinian Shippers Council and wholesale vegetable market operators.

In-depth interviews were organized with 13 farmers and 63 vegetable and imported staple foods wholesalers and retailers in the West Bank and the Gaza Strip, representing northern, central and southern regions in each, with a focus on areas known to be food insecure. These interviews covered commodity traders, fruits and vegetable traders of various sizes.

3. Traders Survey

Given the complexity of the vegetable market, the survey was limited to traders in imported staple foods (namely wheat flour, cereals and pulses). Vegetable and fruit traders were surveyed using the qualitative survey techniques mentioned in the previous section.

The survey sample comprised 489 West Bank and Gaza imported staple food traders, of which 348 were retailers while 141 were wholesalers. The distribution of survey sample with respect to the trading business and areas is depicted in the following table.

Table 1: Distribution of the survey sample disaggregated by trading business and by area

Areas		Retailer	Wholesaler	Total
WB	Count	261	86	347
	%	75.2	24.8	100
GS	Count	87	55	142
	%	61.3	38.7	100
Total oPt	**Count**	**348.0**	**141.0**	**489**
	%	**71.2**	**28.8**	**100**

The sample was designed using a stratified two-stage cluster systematic random sample, using proportionate allocation to get a self-weighted sample. Three levels of stratification were used to maximize the efficiency of the sample through capturing most of the variation that exists in the study population. Stratification variables used were: Governorate (11 in West Bank and 5 in Gaza Strip), locality type (Urban, Rural), and size of the establishment (measured by the number of workers). For retailers, another dimension of stratification (within each locality) was used to capture variability between the center of the locality and the suburbs.

D. Limitations and Interpretation of Survey Findings

As we shall present later in this report, the market for staple foods in the oPt is largely reliant on imports. With the exception of a small number of importers who exclusively import one type of food product, the overwhelming majority of traders in the West Bank and the Gaza Strip do not derive their livelihoods from the sale of food imports. In fact, the total sales by wholesalers of cereals, wheat flour and sugar considered by this study do not account for more than 30 percent of their total sales. For retailers, the significance of staple foods sales is much smaller, and retailers do not seem to keep close records for sale of these items. Hence, the effect of global price increases or changes in the demand for the studied commodities is not likely to significantly impact the livelihoods of the traders surveyed, especially retailers. Survey findings related to sales and impact of closure on the availability and transport costs of these products (in particular the results related to West Bank traders) are in need of further scrutiny.

The survey included interviews with a representative sample of traders in both rural and urban areas to allow a distinction to be drawn between rural and urban markets. However, the sample design did not consider the differences within rural markets in terms of the different specific political-economic conditions they face; hence, it did not allow for analysis of the differences between markets within rural areas, as the sample was not sufficiently large. Hence, the survey could not provide answers to the differences between different rural markets (for example those in seam areas compared to those close to commercial urban centers). The survey could have benefited from additional interviews and market visits in rural areas in both the West Bank and the Gaza Strip however this would have necessitated a significantly longer timeframe and additional resources.

It was not possible to determine sales profit margins from the survey. Traders were extremely reluctant to answer questions that deal with profit and claimed that they do not know how much they make. In order to establish these margins, the survey team relied on estimates provided by key traders in each of the markets visited. Hence, figures on sales and profit the profit margins should be considered as indicative figures that require further scrutiny.

In analyzing market integration, the survey relied mainly on time-series price data collected by the Palestinian Central Bureau of Statistics (PCBS). This data is mainly collected in urban centers in the West Bank and the Gaza Strip, and thus does not facilitate the analysis of integration of rural and urban markets. Collection of market prices through the survey would not have addressed this constraint as it market integration analysis requires time-series data.

Part II: Overview of The Socio-Economic Situation in the oPt

A. Macro-Economic Conditions

1. Gross Domestic Product and Employment Statistics

The signing of the Oslo Accords between the Palestinian Liberation Organization (PLO) and Israel, and the establishment of the Palestinian Authority (PA) in 1994, raised high expectations for improved livelihoods. Between 1994 and 1999, the occupied Palestinian territory (oPt) witnessed a period of unprecedented economic growth, with real GDP growing at an annual average rate of 8.5 per cent as a result of a substantial increase in public and private investments. Unemployment dropped by 5 per cent and the Gross Domestic Product (GDP) per capita grew by an annual average of 4.3 per cent. With the outbreak of the second Palestinian Intifada in September 2000, and the subsequent intensification and expansion of the Israeli closure policy and other measures that restrict the movement of people and goods within the oPt and between the latter and the rest of the world, the growth trend stalled.

During the period 1999-2008, punctuated by a very modest recovery during 2003-05, GDP per capita has declined by approximately 20 per cent.[5] Unemployment in the oPt over the same period increased from 11.8 to 26 per cent; down from 31.3 per cent in 2002.[6] Unemployment rates in the Gaza Strip remained higher than the national average by 4.6 (in 2000) to 14.6 (in 2008) percentage points during the same period.

Figure 1: Unemployment in the oPt, by region

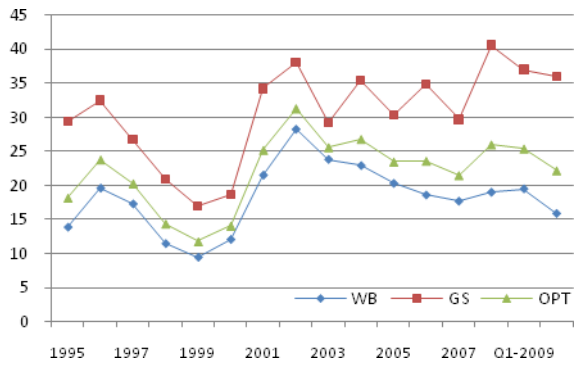
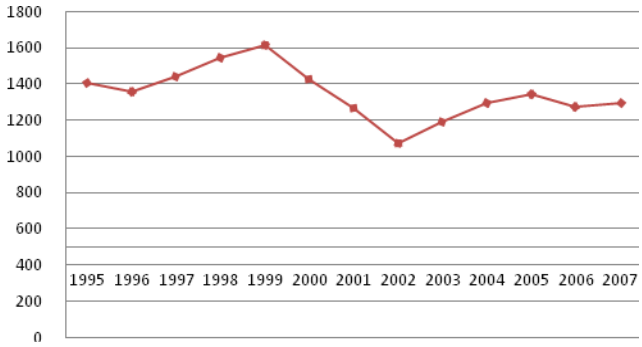


Figure 2: Evolution of GDP per capita in USD



Unemployment figures published by PCBS for the first half of 2009 show signs of improvement as they indicate the beginning of a declining trend. However, this trend has not been confirmed in the third quarter of 2009, unemployment remains very high, especially in the Gaza Strip. The unemployment rate for the first half of 2009 is estimated at about 18 percent in the West Bank and 36 percent in Gaza[7], only slightly lower than in the first half of 2008 and well above the pre-Intifada levels. Despite a real GDP growth of 6 per cent in the first quarter of 2009 (compared to the same quarter in 2008)[8], the precarious political atmosphere both between Israel and the PA and between the Palestinian factions on the one hand, the entrenchment of the Israeli closure of the West Bank and Gaza Strip (see below) and the fiscal challenges facing the PA, on the other hand, will continue to mount extreme difficulties for real economic revival in the oPt.

[5] PCBS, National Accounts (various years).
[6] PCBS, 2009, Labour Force Survey: (April-June 2009) Round, (Q2/2009), Press Conference on the Labour Force Survey Results. Ramallah - Palestine
[7] Ibid.
[8] IMF, *Macroeconomic and Fiscal Framework for the West Bank and Gaza: Fourth Review of Progress*, Staff Report for the Meeting of the Ad Hoc Liaison Committee, New York, 22 September 2009.

Compounding the effect of increasing levels of unemployment is the notable decrease in real wages since 2006. Real wages in the oPt decreased from NIS 55 in 2006 to NIS 52.5 in the first half of 2009, a 4.6 per cent decrease. This was largely driven by the 25.4 percent decrease in real wages in the Gaza Strip; owing to higher inflation rates than the West Bank (see evolution of the CPI, below).

Figure 3: Real median daily wage (NIS), by region

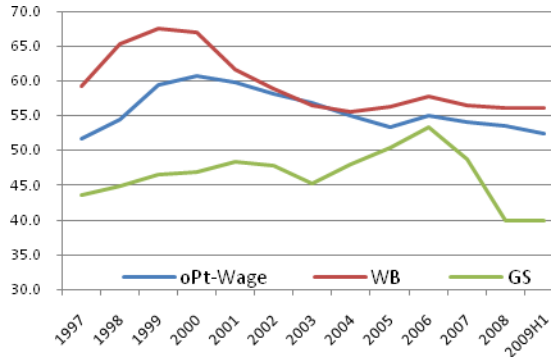
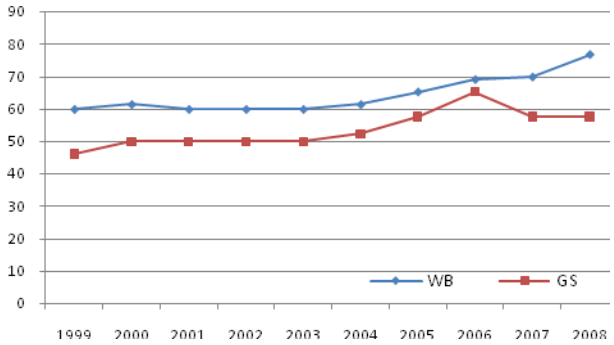


Figure 4: Nominal median daily wage (NIS) region



2. Closure, Checkpoints and the West Bank Barrier

Against a background of conflict, the last nine years have witnessed the destruction and erosion of Palestinian productive capacity and the transformation of the economy from one driven by private sector investment to one degraded by war-like conditions. The Palestinian economy has progressively grown dependent on public sector and foreign aid, which are presently geared towards satisfying essential consumption and providing relief rather than investment. Declining employment opportunities in the private sector and restrictions on the entry of Palestinian Labor into Israel following the outbreak of the second Intifada put pressure on the PA to expand public employment and subsidies as safety valves to ensure social stability despite the high fiscal cost. Public employment expanded by 59 per cent between 1999 and 2006, although it declined slightly in 2007. By the second quarter of 2009, public sector accounted for 25.2 per cent of the employment (16.2 per cent in the West Bank and 50.6 per cent in the Gaza Strip), compared to 17.5 per cent in 1999.[9]

Although Israel had exercised movement restrictions on Palestinians and goods they produce following the Oslo Agreement, closure during the outbreak of the second Intifada was intensified systemically. Restrictions were imposed on internal movements between villages, towns and cities through an elaborate system of checkpoints, physical obstacles, closures, fences, and walls that led to the fragmentation of the Palestinian economy.

In 2002, Israel began constructing a 709 kilometer long "Barrier" in an attempt to further separate the West Bank from Israel. The West Bank Barrier, whose construction remains underway, has been having a profound impact on the contiguity of Palestinian communities and traditional market channels in the West Bank. Movement and access for Palestinians is increasingly channeled through 'Fabric of Life' routes –secondary roads, tunnels and underpasses constructed or paved by the Israeli authorities for Palestinian use. By mid July 2009, 49 kilometers of such alternative roads had been constructed to restore transportation contiguity between Palestinian localities, disconnected by the West Bank Barrier, and other Israeli Infrastructure. By the same date, 58.3 percent of the planned West Bank Barrier route had been complete, while 10.2 per cent was under construction. When completed, approximately 15 per cent of the West Bank Barrier will be constructed on the 1949 Armistice Line (Green Line) between the West Bank and Israel, while the remaining 85 percent will be inside the West Bank, extending in some areas as far as 22 kilometers into the West Bank.[10] Almost 15 per cent of West Bank agricultural land will be lost once the construction of the Barrier is complete.

Combined, the closure, checkpoints and the West Bank Barrier impact the economy through multiple channels. They limit producers' access to the imported inputs required for production and maintenance of capital stock, increase transport costs, while also blocking their access to export and local markets. This combination along with the internal movement

[9] PCBS, 2009, Labour Force Survey: (April-June 2009) Round, (Q2/2009), Press Conference on the Labour Force Survey Results. Ramallah - Palestine

[10] OCHA, Five Years After the International Court of Justice Advisory Opinion: A Summary of the Humanitarian Impact of the Barrier, Jerusalem, July 2009.

restrictions have seriously damaged the economy, created massive unemployment, restricted access to goods and services, reduced incomes, and have been a major cause of tension, frustration and violence.

The situation in the Gaza Strip, where 40 percent of the Palestinian population lives, has been worsening since 2006 when the Israeli authorities tightened their closure of the Gaza Strip following the Islamic Resistance Movement (Hamas) victory in the Palestinian Legislative Council (PLC) elections and the formation of the government. This closure was tightened further in the aftermath of Hamas military takeover of the Gaza Strip in June 2007. Israel declared the Gaza Strip a "hostile territory" and enforced a near complete blockade on Gaza, including very tight restrictions on the entry of cash notes to Gaza Banks which have caused severe liquidity shortages and further destabilized the economy. Since 2007, the 1.5 million Palestinians living in the Gaza Strip have been cut off from the West Bank and the rest of the world, with only the bare minimum of essential and humanitarian imports allowed into the border crossings Israel controls. The economic realities in the Gaza Strip following the imposition of the closure have become substantially different from those in the West Bank, hence diverging further than ever before.

During the two years following the imposition of the blockade, the daily average of truckloads of goods entering the Gaza Strip (112) was less than one fifth the comparable figure for truckloads entering in the first five months of 2007 (583). Food products comprised approximately 70 percent of imports during this period, while imports of most industrial, agricultural, and construction materials were either prohibited or severely restricted. Prior to the blockade, 95 percent of the inputs used by Gaza manufacturers were imported through the crossings with Israel. The Israeli authorities have completely banned exports in the past two years with the exception of 138 truckloads of cut flowers and strawberries allowed out of the Gaza Strip, compared to a monthly average of 1,090 truckloads exported during the first five months of 2007 to the West Bank, Israel, and Europe.

The World Bank notes that the private sector in the Gaza Strip has collapsed and the Gazan economy is almost completely driven by PA salaries and humanitarian assistance and work programs provided by the UN and other donor agencies. The little activity that remains within the Gazan private sector largely depends upon smuggled inputs coming in through tunnels along the Egyptian border or the limited selection and volume of goods allowed in by the Israeli authorities. The cumulative effect of the closure on Gaza is said to have caused 95 percent of Gazan industrial establishment to suspend their operations, while the number of working establishments in the industrial sector fell from 3,500 at the beginning of 2005 to a mere 150 at the end of 2007. By June 2007, businesses were operating at 46 percent of production capacity, down from 76 percent in early 2006. In the second half of 2007 alone, 36 percent of Gazan businesses surveyed by the United Nations Development Programme (UNDP) reported cutting salaries by an average of 40 percent, while 78 per cent of these businesses laid off considerable numbers of employees. The emerging trend of divestment and the loss of physical and human capital pose additional risks to the long-term prospects of Gaza.

In an unprecedented escalation, the Gaza Strip endured a massive Israeli military campaign – Operation Cast Lead – from 27 December 2008 to 18 January 2009. The human toll was grave with 1,326 direct deaths, 5,450 injuries and over 100,000 internally displaced persons, and long-lasting adverse consequences on Gaza's human capital. The Gaza Strip has seen widespread destruction of infrastructure, productive capacity and livelihoods. Initial estimates put the economy's direct and indirect losses at around $4 billion, including the costs associated with cushioning the humanitarian impact of the military campaign of around $1 billion.[11] As a result of the complete halt in economic activity during the offensive, Gaza also suffered an estimated $88 million in GDP losses. The losses continue to mount as the blockade continues and as targeted incursions take place in prime agricultural areas.

As a result of rising unemployment, the hollowing of the productive base and the closure policy, poverty in the oPt continued to deepen and spread, with a widening gap between the West Bank and the more isolated Gaza Strip. Since 2000, 62 percent of households have lost more than 50 percent of their income. Income-based poverty measures indicate that the percentage of the population of the occupied Palestinian territory living below the poverty line rose from 52 percent in 2005 to 57 percent in 2007, while the percentage of those living in absolute poverty rose from 40 percent to 46.3 percent. [12]

[11] UNCTAD, Report on UNCTAD assistance to the Palestinian people: Developments in the economy of the occupied Palestinian territory, Geneva, August 2009

[12] Poverty methodology reported is the official definition of poverty developed in 1997 by the Palestinian Central Bureau of Statistics (PCBS). The definition combines absolute and relative features and is based on a budget of basic needs for a family of 6 persons (2 adults and 4 children). Two poverty lines have been developed according to actual spending patterns of Palestinian families. The first, termed "deep (absolute) poverty line," was calculated to reflect a budget for food, clothing and housing (currently at 2,045 NIS/standard family/month). The second, termed "relative poverty line", adds other necessities including

Table 2: Evolution of key economic indicators

Macroeconomic Indicators	1999	2002	2005	2006	2007	2008	2009*
Real GDP (millions, US$)	4,511.70	3,264.10	4,559.50	4,322.30	4,535.70	4639.7	4858.8
GDP per capita in PT (US$)	1,523.08	1,012.06	1,299.70	1,196.65	1,219.54	1,212.83	1,234.80
Consumer Price Index (CPI)	119.93	131.92	146.79	152.31	156.41	171.88	174.0
Food Index	119.28	123.78	137.29	143.95	150.79	176.82	180.5
Transport Index	117.57	160.88	189.54	200.10	202.52	218.74	209.50
Inflation (PT)	5.54	5.71	3.48	3.76	2.69	9.89	1.23
in (WB) (%)	6.5	6.1	2.9	4.0	2.5	9.8	-1.2
in (GS) (%)	4.0	2.1	1.2	5.1	4.0	14.0	3.5
Real Daily Wages (PT)	59.4	58.2	53.3	55.0	54.1	53.5	52.5
in (WB) (%)	67.6	58.9	56.3	57.8	56.5	56.1	56.2
in (GS) (%)	47.1	47.9	50.5	53.5	48.8	39.8	39.9
Unemployment rate (PT) (%)	11.8	31.3	23.5	23.6	21.5	26.0	23.8
in (WB) (%)	9.6	28.2	20.3	18.6	17.7	19.0	17.7
in (GS) (%)	16.9	38.1	30.3	34.8	29.7	40.6	36.5
Poverty rate (PT)	21	60	51.5	57.2	57.3	N/A	N/A
in (WB) (%)	N/A	55	45.7	45.7	47.2	N/A	N/A
in (GS) (%)	N/A	70	63.1	79.4	76.9	N/A	N/A

B. Trade Regime and Key Trade Indicators[13]

Of particular relevance to Palestinian economic and trade policy is the Protocol on Economic Relations (PER) between the Government of Israel and the Palestinian Liberation Organization, representing the Palestinian people, also known as the Paris Protocol, signed on 29 April 1994. This "establishes the contractual agreement that will govern the economic relations between the two sides and which will cover the West Bank and Gaza Strip during the interim period", set at five years starting from 4 May 1994. In doing so, it defines the main features of the economic policy environment with regard to trade, envisaging a trade regime that most closely resembles a customs union.

Under the terms of the Protocol, the PA has the right to determine independently the rates of customs duties, purchase tax, levies, excise and other charges on imports of limited quantities of commodities from specified sources in Lists A1 and A2 (Article III-2, a and b)[14]; and imports with no restrictions on quantities of goods in List B (Article III-4). When first negotiated, List A1 contained some 24 goods whose origin, or at least 30 per cent of whose value added, derives from an Arab State. Of these, 11 items have to come exclusively from either Egypt or Jordan. List A2 contains mostly food-related items, which the PA has the right to import from anywhere in the world, bearing in mind that 11 items on List A2 also appear on List A1. As for List B, it includes a large number of items needed for investment and development (Article III-4). In mid-2000, the scope of the lists was expanded to include 1,400 additional tariff line items.

As regards petrol and non-listed products, the Protocol provides that the price of petrol derivatives must not exceed 15 per

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health care, education, transportation, personal care, and housekeeping supplies " (currently at 2,407 NIS /standard family /month). The two lines have been adjusted to reflect the different consumption needs of families based on their composition (household size and the number of children).

[13] This section (2.1) heavily borrows from the analysis of UNCTAD's Programme of Assistance to the Palestinian People of the trade regime in the oPt.

[14] List A1 relates to goods produced in Arab countries, List A2 to food items and cotton from Arab, Islamic or other countries, and List B to goods for the Palestinian economic development programme.

cent of the consumer price in Israel (Article III-12, b). Products not on Lists A1, A2 or B, or those on the first two lists but exceeding the quotas, are subject to a minimum of Israeli rates. To date, the PA has not made any change to the prevailing customs duties on non-listed goods and the Israeli tariff schedule is therefore being applied to most PA imports.

The Protocol also provides that Israeli import classification, valuation and other customs procedures, and licensing and standards policies shall apply to all Palestinian imports, except for the quantities agreed upon under Lists A1, and A2 (Article III-10). As for the clearance of customs revenues and fees levied on imports, these are based on the principle of final destination. This means that collected tax revenues should be allocated to the PA, even if the importation was carried out by Israeli importers, when the final destination explicitly stated in the import documentation is a corporation registered by the PA and conducting business activity in the West Bank and Gaza Strip (Article III-15).

The Palestinian Ministry of Economy and Trade defines and implements export policy and procedures. No subsidies are available for exporters, nor does the PA provide subsidies in any productive or service sector. There are no export restrictions, and licenses are not required for exporting. When applicable, exporters must submit a certificate of origin obtained from the local Chamber of Commerce.

The Protocol was intended to provide a basis for strengthening the Palestinian economy and diversifying its external trade and internal markets. A direct benefit that the PA can reap from this regime is the opportunity to exploit bilateral trade agreements between Israel and other countries since they apply to the PA. Moreover, adopting the Israeli import classification and standards means that the valuation of all PA imports is based on GATT 1994, while classification of goods for customs purposes is in line with the principles of the Harmonized Commodity Description and Coding System (HS). This implies an import regime wholly compatible with international standards. However, the Protocol entails the following limitations:

- The PA cannot grant preferential or duty-free treatment to imports from most countries with which Israel does not enjoy such an arrangement. While Jordan and Egypt are excluded from this generalization, benefits from this exclusion are largely constrained by the constrained Palestinian access to both countries due to the Israeli control of all borders.

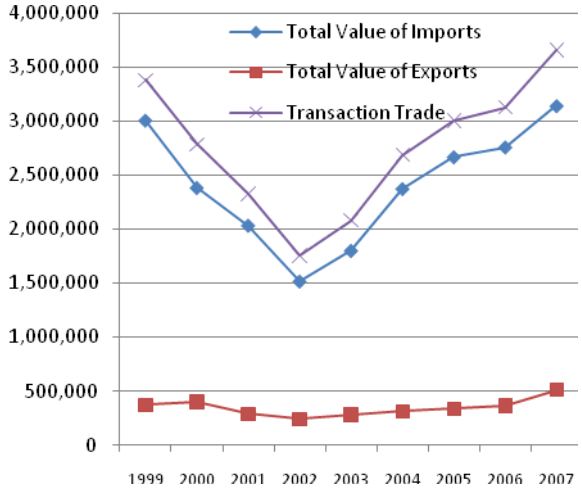
- The Protocol does not address the wide range of subsidies and other non-tariff barriers that benefit some Israeli sectors and products, effectively leaving Palestinian industry and agriculture at an extreme disadvantage. The relatively unregulated entry of subsidized Israeli products into the Palestinian markets undermines competition.

- Although the Protocol calls for free movement of goods between Israel and Palestinian self-rule areas, such movement was been above all subject to "security measures", thereby restricting the quantities of Palestinian goods exported through Israel, interrupting the smooth flow of imports and preventing Palestinian labor flows to Israel. This limitation proved to be particularly significant following the outbreak of the Second Intifada and the imposition by Israel of new trade flow routes within the framework of its West Bank closure system.

- The Protocol limits the PA's ability to generate revenues since the possibility of the PA's levying higher tariff (or indirect taxation) rates than Israel is effectively constrained by the absence of provisions preventing the entry of the same goods via Israel.

According to statistics available from PCBS the value of imports into the West Bank and the Gaza Strip are far in excess of the value of exports. The value of imports between 2000 and 2006 fluctuated between US$ 1.51 billion (2002) and US$ 2.76 billion (2006), after having jumped the US$ 3.07 billion in 1999. In 2007, imports value was estimated at US$ 3.17 billion. The value of exports, which exceeded US$400 million for the first time in 2000, fluctuated between US$ 240 million (2002) and US$ 366 million (2006) before reaching a peak US$ 512 million in 2007.

Figure 5: Value (US$) of imports and exports, transaction trade and net trade balance between 1999 and 2007



Transaction Trade	Net Balance Trade	Total Value of Exports	Total Value of Imports	Year
3,379,375	-2,635,079	372,148	3,007,227	1999
2,783,664	-1,981,950	400,857	2,382,807	2000
2,323,996	-1,743,298	290,349	2,033,647	2001
1,756,475	-1,274,741	240,867	1,515,608	2002
2,079,948	-1,520,588	279,680	1,800,268	2003
2,685,936	-2,060,560	312,688	2,373,248	2004
3,003,036	-2,332,149	335,443	2,667,592	2005
3,125,435	-2,392,017	366,709	2,758,726	2006
3,654,276	-2,628,318	512,979	3,141,297	2007

Moreover, the West Bank and the Gaza Strip is a net importer of essentially every category of goods. Manufactured items accounted for the largest shares of the export and import values from 1996 to 2007. During these years the value of exported manufactured items ranged from US$94.97 million to US$222 million, accounting for 38.2 to 43.3 percent of the total value of exports. But the value of imported manufactured items was much higher, from US$291 million to over US$715 million, so the net value of imports was large. Large quantities of fuels, lubricants and related materials (mainly petroleum, electric current and natural gas) were also imported, accounting for 13 to 39.4 percent of total imports. The export value of these products was small, accounting for 3.6 percent of the total exports US$4 to US$9 million. The other large import groups were machinery and transport equipment, and food and agricultural products.

Table 3: Percentage value breakdown of Palestinian Exports and Imports by SITC- Rev. 3 Sections in 1999- 2007

Section		1999	2000	2001	2002	2003	2004	2005	2006	2007
Food and live animals	% Exports	16.4%	21.1%	11.7%	11.2%	12.2%	11.5%	10.8%	10.6%	13.4%
	%Imports	17.4%	18.1%	20.1%	21.4%	17.0%	19.8%	16.8%	17.0%	14.4%
Beverages and tobacco	% Exports	3.9%	3.4%	4.6%	5.7%	4.6%	5.5%	4.3%	2.7%	3.1%
	%Imports	3.5%	4.3%	4.8%	5.0%	5.0%	4.6%	4.5%	3.8%	4.0%
Crude materials, inedible except fuels	% Exports	3.6%	3.9%	4.4%	6.0%	4.8%	3.6%	3.9%	5.0%	2.6%
	%Imports	2.4%	2.6%	2.1%	2.3%	3.5%	2.0%	1.9%	2.3%	0.4%
Mineral fuels, lubricants and related materials	% Exports	1.3%	0.9%	0.7%	1.0%	1.4%	3.4%	3.6%	0.9%	1.6%
	%Imports	13.0%	19.1%	18.6%	23.8%	23.6%	27.8%	34.2%	26.9%	39.5%
Animal and vegetable oils, fats and waxes	% Exports	1.1%	1.4%	2.0%	2.4%	2.6%	3.2%	3.7%	3.7%	3.5%
	%Imports	0.8%	0.8%	0.8%	1.0%	2.1%	0.9%	0.7%	0.8%	0.5%
Chemical and related products, n.e.s.	% Exports	8.1%	7.4%	9.5%	8.4%	9.3%	9.4%	8.6%	9.6%	13.0%
	%Imports	7.5%	9.7%	8.0%	9.2%	10.1%	8.5%	7.2%	8.4%	7.0%
Manufactured goods classified chiefly by material	% Exports	40.6%	38.2%	41.5%	39.4%	39.5%	39.2%	38.7%	42.4%	43.3%
	%Imports	23.8%	21.9%	24.5%	19.2%	19.6%	18.9%	15.0%	18.4%	11.4%
Machinery and transport equipments	% Exports	5.6%	6.0%	5.8%	5.0%	5.3%	4.7%	5.5%	6.0%	5.5%
	%Imports	20.5%	14.8%	12.2%	11.9%	11.8%	11.9%	11.9%	16.3%	13.7%

Section		1999	2000	2001	2002	2003	2004	2005	2006	2007
Miscellaneous manufactured articles	% Exports	19.2%	17.6%	19.5%	20.7%	18.2%	19.5%	19.3%	19.0%	14.0%
	%Imports	10.7%	8.4%	8.9%	6.0%	6.9%	5.6%	5.5%	5.5%	4.3%
Commodities and transactions, n.e.s. in the SITC	% Exports	0.1%	0.0%	0.2%	0.2%	2.0%	0.0%	1.6%	0.0%	0.2%
	%Imports	0.3%	0.4%	0.1%	0.0%	0.4%	0.0%	2.2%	0.7%	4.8%

Palestinian trade is heavily concentrated with one partner, namely Israel, accounting for nearly 81 per cent of the total value of trade in 2008.[15] Israel accounted for 62.6 percent of the total Palestinian trade in 1999 and 71 percent in the preceding year. The trade deficit with Israel (56 percent of the GDP in 2008), in absolute terms, has been steadily increasing over time and peaked in 2008 at US$2.68 billion.[16] The hike in the trade deficit with Israel, by one fifth between 1999 and 2007, was largely driven by the loss of productive capacity and the resulting inability of domestic producers to meet local demand, which heightened dependence on imported consumer goods, mostly from Israel. The trade deficit with Israel was equivalent to almost 90 per cent of total net current transfers (mainly donor support) in 2007. In 2008, this figure jumped to more than 97 percent.

The volume of trade between the West Bank and the Gaza Strip and their Arab neighbors was around US$ 491 million at the end of 2008 compared with US$ 370 million in 1999. This increase in the total value of trade is also characterized by a trade deficit in the favor of Arab countries. The trade deficit with Arab countries decreased from US$ 351 million in 1999 to US $201 million in 2002, before deficit began to grow again in 2003. Trade volumes and trade deficit between the West Bank and the Gaza Strip and Europe followed the same general pattern between 1999 and 2008, with exports growing at a much slower rate than imports.

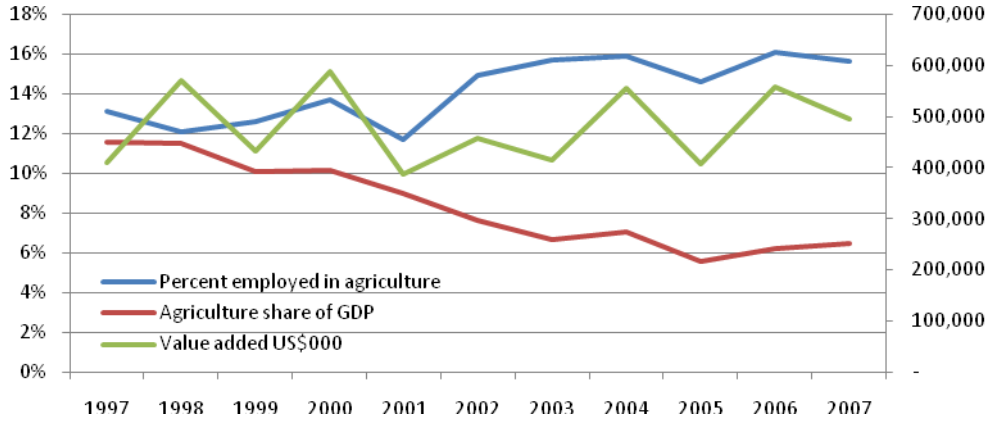
C. Agricultural Production

Agriculture has traditionally played a significant role in the Palestinian economy by contributing to the livelihood of a significant percentage of Palestinian households. After the outbreak of the second Intifada in 2000, and as a result of reduced access to Israeli labour markets, the agriculture sector became an increasingly important source of employment – as it always has been during times of crisis- for Palestinians who lost their jobs inside Israel. Between 1999 and the second quarter of 2009, agriculture accounted for 11.1 to 16.1 percent of all employment in the West Bank and the Gaza Strip[17]; with the percentage of the labor force engaged in agricultural work noticeably increasing during times of strict closures and crisis. Agriculture has also provided work for nearly 40% of Palestinians who are employed informally and supported the livelihoods of those farmers who cultivate for their own consumption.[18]

The agricultural sector's contribution to GDP has dropped from 11.6% in 1997 into 6.5% in 2007. Paradoxically, during years when employment in agriculture was high (2000 and 2003 for example), the value added of agriculture decreased. This is largely due to high levels of underemployment and reliance on unskilled labour. The value added of the agricultural sector exhibited a growth of 28 percent between 1994 (US $458.4 million) and 1999 (US $588.7 million). This was reversed, however, following the outbreak of the second Intifada in September 2000 when the added value for agriculture sector witnessed a very steep decline (see the figure below) reaching its lowest value of US $387.9 million in 2000. While the sector seems to be showing some signs of recuperation since then, the value added of agriculture remains at slightly less than its value in 1999/2000 agricultural year (year ending 2000).

[15] UNCTAD, Report on UNCTAD assistance to the Palestinian people: Developments in the economy of the occupied Palestinian territory, Geneva, August 2009.
[16] Ibid.
[17] PCBS, Labour Force Survey (several years).
[18] WFP, Market Assessment: Occupied Palestinian Territory, June 2006.

Figure 6: Change in the agriculture's value added, employment and share of GDP between 1994 - 2007



Agriculture's contribution to the Palestinian economy and its contribution to food security are constrained. Rapid population growth combined with political and economic deterioration over the past three decades have been reshaping agricultural systems in the oPt. Overall, there has been a detrimental effect on the degree to which local agricultural production can sustainably contribute to local food availability. These include, inter alia: a slow and gradual shift from open field farming to horticulture; increasing prices of agricultural inputs (especially animal feed); limited and deteriorating water resources as a result of low precipitation rates and creeping desertification; shrinking marketing opportunities due to the Israeli closure regime measures; leveling of significantly large agricultural areas in the Gaza Strip; an unfavorable institutional framework; and, the construction of the West Bank Barrier, which currently renders more than 10 percent of the agricultural land in the West Bank inaccessible to Palestinian farmers.[19] Overall in the West Bank, 38 percent of total land area in the West Bank is reserved by the Government of Israel for settlements, military use, checkpoints or road closures (28 percent), and the West Bank Barrier (10 percent) as already mentioned[20].

Agricultural production is essential to food security in two key ways: first as a source of production for local consumption and second as a source of export for income generation. There is considerable variation from year-to-year in the aggregate value of agricultural production, which is due mainly to the large year to-year swings in olive production (which comprises anywhere between 5-20 percent of the total annual agricultural production, and comprises anywhere between 60-80 percent of the total production of fruit trees), but also to the impact of good or bad weather on the production of the other main plant products and to changes in producer prices relative to the costs of production. The years 1997/98, 1999/00 and 2001/02 were "good weather years" and good production years for olives. As a result the value of production reached high levels these years. In contrast, the years 1998/99 and 2000/01, 2004/05 were among the worst with respect to the weather and bad production years for olives, so there were serious declines in production and value, especially but not only for the crops that mainly or entirely rely upon rainfall for growth. When rainfall is inadequate the supply of water for irrigation also declines.

This notwithstanding, the area used for plant production remained relatively constant between 1999 and 2008. It ranged from 1,836,789 dunums (1999/2000) to 1,834,851 dunums (2006/2007) over the nine-year period. Over 90 percent of this area is used to produce food crops.

Table 4: Changes in use of agriculture land during 1999/2000 to 2006/2007

Indicator	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007
Total Cultivated Area	1,836,789	1,815,547	1,851,070	1,815,019	1,823,670	1,833,350	1,826,096	1,834,851
Area of Fruit Trees	1,192,658	1,174,458	1,181,239	1,158,050	1,152,692	1,147,525	1,136,693	1,164,562
Area of Vegetables	173,862	173,417	174,016	173,595	179,468	179,139	192,961	187,344

[19] WFP. (June 2006). Market Assessment: Occupied Palestinian Territory.

[20] The World Bank, 2008 – The Economic Effects of Restricted Access to Land in the West Bank. Social and Economic Development Group, Finance and Private Sector Development, Middle East and North Africa Region.

Area of Field Crops	469,682	467,122	495,297	482,848	491,178	506,686	496,006	482,494
Area of Cut Flowers	587	550	518	526	332	334	436	451

Area in dunums.
Source: PCBS, Agricultural Statistics 2006/2009

A review of many of the indicators in agricultural production between 1999 and 2007 (1999/2000 – 2006/2007 agricultural marketing year) reveals that the significant variations in food production from one year to the next are not fully offset by the subsequent changes in food trade and aid, so there remains considerable instability in food supplies. The instability in agricultural production is a major problem for the producers, but is of minor consequence to the consumers as they depend primarily on commercial and food aid imports of flour, rice, sugar, corn oil, pulses, wheat and cereal preparations which make up the most essential component of the diet.

The key changes in nearly the last decade in the agricultural sector are an increase in irrigated agriculture, especially in vegetables; and a considerable decrease in fruit production. The increase in higher-productivity irrigated agriculture, however, are compromised by losses due to destruction of trees and confiscation of agricultural land and water resources due to Israeli military activities in the West Bank and the Gaza Strip, including the construction of the West Bank Barrier and expansion of settlements in the West Bank. The differences in food production between the West Bank and the Gaza Strip are significant, and these differences are not balanced out by trade, since trade between the two regions has severely decreased since the imposition of the movement restrictions and, most recent, closure policies.

D. oPt Consumer and Food Price Indices

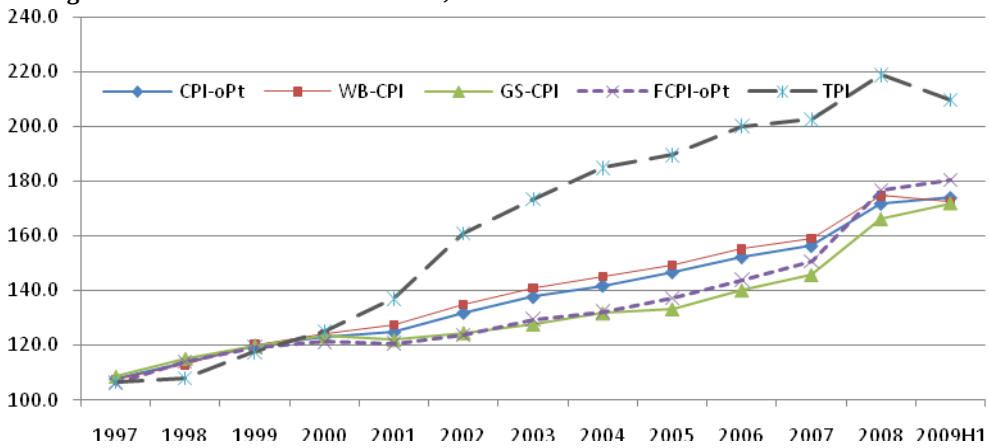
The oPt Consumer Price Index (CPI) has been compiled and disseminated since 1997. It is the official measure of inflation in the country that is measured by the changing cost of a basket of goods and services purchased by an average Palestinian household of 2 adults and 4 children in the West Bank and the Gaza Strip. This basket includes expenditure groups related to food and beverages, clothing and footwear, housing, furniture and household goods, medical and health care, transportation, communication, recreation, education, and other miscellaneous purchases. As the table below indicates, food makes up close to 41 percent of the CPI, hence making food one of the key determinants of inflation in the oPt, with substantial implications on Palestinian households' economic access to food.

Table 5: Major expenditure groups making up the CPI basket and their relative weight

Major Groups of Expenditure	oPt	WB	GS
Food	40.547%	40.163%	42.883%
Beverages and tobacco	6.714%	6.957%	6.348%
Textiles, clothing and footwear	9.511%	9.662%	9.395%
Housing	6.942%	6.415%	7.838%
Furniture, household goods	7.418%	7.388%	7.811%
Medical care	4.793%	4.915%	4.497%
Transportation & communication	12.680%	12.786%	11.239%
Recreational, cultural goods & services	1.577%	1.526%	1.585%
Education	3.959%	3.907%	3.397%
Miscellaneous goods and services	5.859%	6.281%	5.007%
All items of consumer price index	**100.0%**	**100.0%**	**100.0%**

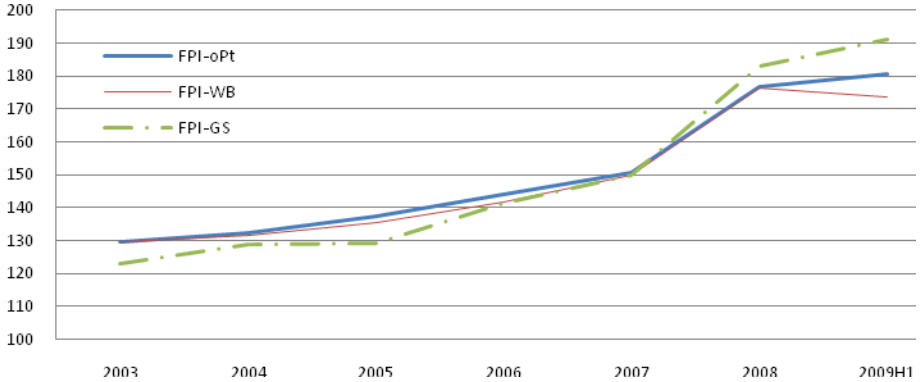
As indicated by figure 7 below, the CPI has been rising rapidly since 1997, with the highest rates of increase exhibited between 2005 and 2008. The movement of the Food CPI (FPI) mirrored the trend exhibited by the CPI between 1997 and 2007. During this period the FPI exhibited significantly higher rates of increase than the preceding years, exerting upward pressure on the overall CPI. The increase in the Transport Price Index (TPI) over the same period exerted additional upward pressure on the overall CPI and seemed to be the main driver of the CPI movement until 2007, when the inflation of the FPI became more significant.

Figure 7: Evolution of CPI in the oPt, WB and GS between 1997 and first half 2009



Analyzing the FPI data more closely reveals a clear trend towards convergence between the West Bank and the Gaza Strip FPIs since 2005, indicating greater inflationary factors in the Gaza Strip. In April 2006, two months after Palestinian legislative elections and the intensification of the Gaza closure by Israel, the Gaza Strip FPI surpassed that for the West Bank. Since then, a trend towards divergence began emerging between the two FPIs. During the following year, both FPIs increased by six percent, before exhibiting the highest single year increase ever during 2008. During this year, the Gaza Strip FPI registered an increase of 22 percent while the West Bank FPI registered an increase of 18 percent. By the end of the first half of 2009, the Gaza Strip FPI had registered an additional increase of 4 percent while the West Bank FPI dropped by 4 percent.

Figure 8: Evolution of the FPI in the oPt, WB and GS between 2003 and first half 2009



Despite the diverging trend noted above, the yearly FPIs for West Bank and Gaza Strip continued to be highly and positively correlated in the period 1997 to 2009 (Pearson correlation coefficient = 0.987, p-value < 0.01)[21], suggesting that the two regions tend to follow the same pattern of rising and falling. The change in the price trends between the Gaza Strip and the West bank after 2007 changed this level of correlation but insignificantly, with Pearson correlation coefficient r = 0.974 and p-value < 0.01.

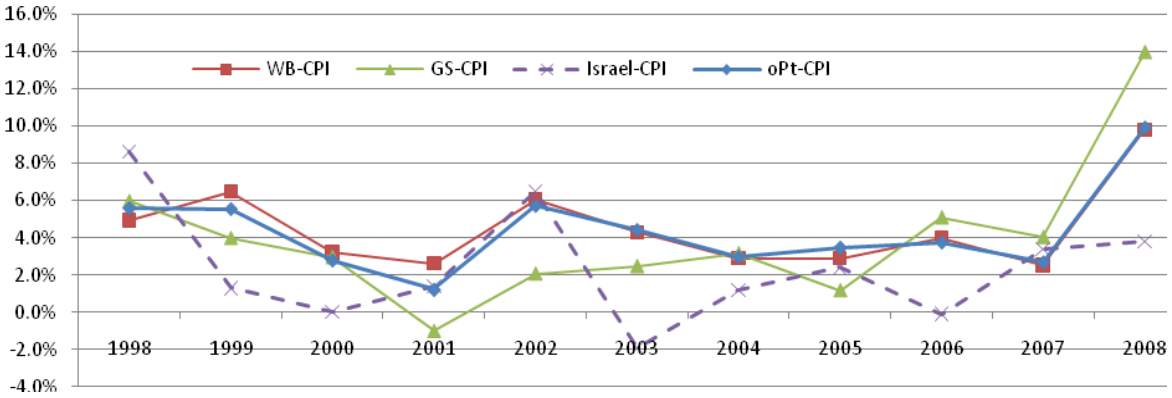
The year 2007 witnessed five events that seem to have significantly affected food prices, namely: 1) a substantial increase in international commodity prices; 2) the tightening of the closure on the Gaza Strip; 5) the completion of the construction of the Barrier in the northern parts of the West Bank and in most southern areas thereof; 4) the beginning of Israeli enforcement of the new commercial transport re-routing policies in the West Bank, which were first introduced in 2005 with the Israeli government's decision to have channel all Israeli/Palestinian trade in goods through the Commercial Crossings along the route of the West Bank Barrier , and, 5) the substantial increase in transportation costs as a result of the increase in fuel prices. Each of these events affected food prices both individually and collectively. While factoring

[21] Data was tested for the existence of unit roots and test was rejected, indicating the lack of a unit roots problem.

out the effect of each event on local prices of food is extremely difficult, statistical evidence suggests that the effect of Israeli closure, trade restrictions and associated increase in transport costs have had a comparatively larger effect on food prices in the oPt; and more specifically in the Gaza Strip.

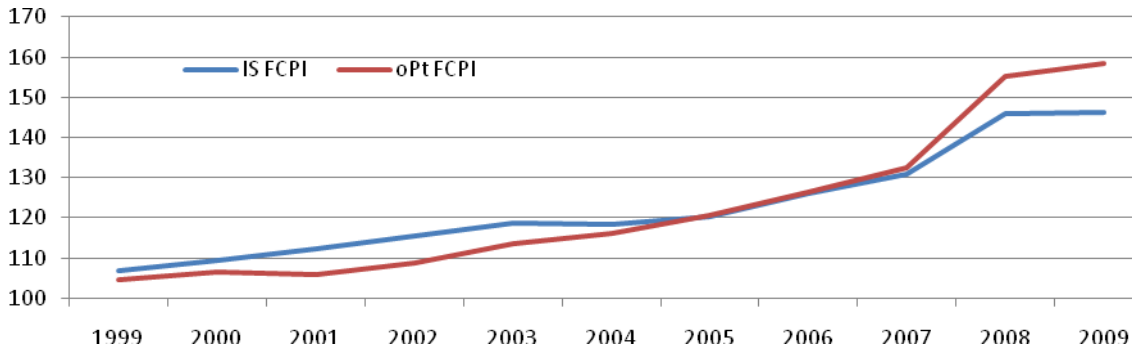
A comparative analysis between the movement of Israel's CPI and the oPt CPI reveals that the latter exhibited higher annual fluctuations than the former between 1997 and 2008. However, the cumulative change in the oPt CPI over the same period was much higher (in the realm of 50 percent) than in Israel's CPI (around 33.6 percent). Considering the integration of the two economies, this difference clearly suggests that the effect of the Israeli closures and restrictions on movement on the oPt CPI are quite substantial.

Figure 9: Average annual change in the CPI in Israel and the oPt, between 1997-2008



The change in food indices for the oPt and Israel since 1999 confirms the above conclusions, and furthermore illustrates that food prices in the oPt experience greater fluctuations than food prices in Israel as a result of the unstable political conditions and Israeli closure policies. As the figure below shows, the FPI in the oPt remained lower, albeit more volatile, than the Israel FPI between 1999 and 2005, when the two indices converged. Since then, the oPt index has remained higher. Noteworthy are: the rapid trend towards divergence between the two indices that started in 2007, coinciding with the imposition of the Gaza Blockade, the entrenchment of the West Bank closure through the establishment of commercial corridors and the highest single year increases in global food prices; and, the opposite trends that the two indices followed since 2008 when global food prices were generally decreasing. The fact that FPI moved in the same direction as the Food and Agriculture Organization's (FAO) Index between 2008 and 2009 while the oPt FPI moved in opposite direction indicates that closure is highly influential on food prices in the oPt. The high level of correlation between the oPt FPI and the FAO Index confirms this to a large extent.

Figure 10: Evolution of Israel and oPt CPI since 1999 (base years=1997)



The oPt FPI is strongly positively correlated with the food price index compiled by FAO to monitor changes in global food prices. The Pearson correlation coefficient for the two indices over the period between January 1999 and June 2009 equals 0.86. This high degree of correlation is logical given that most of the staple food items in the oPt FPI food basket are imported either from Israel or abroad through Israel.

Table 6: **Correlations of food indices in the oPt, West Bank, Gaza Strip, and FAO Food Index**

	oPt Food Index	WB Food Index	GS Food Index	FAO Food Index
oPt Food Index	1.0	0.998	0.991	0.836
WB Food Index	0.998	1.0	0.987	0.850
GS Food Index	0.991	0.987	1.0	0.846
FAO Food Index	0.836	0.850	0.846	1.0

However, when restricting the correlation to the time period of 2006 to 2009 (the period when food prices in the oPt witnessed the sharpest increases), the correlation with international prices weakens, indicating that other factors are gaining more significance in determining prices of food in the oPt than global prices. This is particularly true in the Gaza Strip, where the correlation between the FAO FPI and the GS FPI decreased from 0.846 (1999-2009) to 0.59 (2006-2007), compared to a decrease from 0.85 to 0.70 in between the FAO FPI and the WB FPI.

Part III: Market Performance: The effect of The Israeli Closure Policy and Global Price Increases on Vegetable, Fruit and Imported Staple Food Markets

A. Introduction: Factors Affecting the Performance of Palestinian Markets

The heavy reliance of the oPt on imports of staple foods, combined with the Israeli control over the commercial and civilian transport routes to and from the West Bank and the Gaza Strip and the lack of sufficient economic policy space for the PA to exercise control or effectively regulate markets make the oPt especially vulnerable to external shocks that affect food availability and prices. Adding to this vulnerability is the continued closure of the West Bank and the Gaza Strip, which has, *inter alia*, fragmented the economy, increased businesses risks and caused the emergence of unregulated markets. In effect, the collusion of these and other factors have been constraining the operations of Palestinian markets and creating a high level of uncertainty for traders. Compounding the effect of the internal shocks are the external shocks caused by global price increases.

Building on the previous chapter (particularly Part II section A.2), and as a contextual background to the following sections which discuss the performance of staple food markets, this section briefly presents the key issues and external factors that have been having a direct bearing on the performance of the food markets studied.

1. Restricted Movement within the West Bank

Between 2007 and March 2009, the movement restrictions enforced in the West Bank remained largely unchanged, with the exception of some isolated cases where permanently staffed checkpoints were changed into ad-hoc checkpoints. Starting March 2009, however, the Israeli authorities declared its intent to gradually ease these restrictions, and began removing earth mounds on secondary routes and some checkpoints in various parts of the West Bank.[22] In June of the same year, the Israeli authorities introduced additional steps that eased the flow of Palestinian traffic from four West Bank Cities: Nablus, Qalqilya, Ramallah and Jericho.

Impact of the measures:

- Travel distances between main urban centers remain anywhere between 10-44 percent longer than the routes used prior to the enforcement of the closure.[23]
- Waiting times for commercial traffic entering and exiting these cities have improved.
- Uncertainty remains among traders due to continuation of the general closure policy and the relatively regular setup of flying checkpoints by the Israeli military on main commercial routes.

OCHA reports that a total of 578 closure obstacles remain within the oPt.[24] These obstacles, as noted earlier, are part of a system of several layers of access restrictions applicable to Palestinian, which include, inter alia, restrictions on the use of main roads, the West Bank Barrier and its permit regime, closed military zones and nature reserves, and Israeli settlements and adjacent buffer zones. In a 2008 report on the West Bank routes, the World Bank called for lifting these restrictions, noting that they: increase transport costs directly by raising the cost of inputs and equipment, and indirectly by increasing transaction costs including the time wasted taking less efficient alternative routes and the time for complying with procedures at checkpoints; induce low levels of utilization of the current truck fleet which imply higher fixed cost per kilometer; and, introduce high levels of uncertainty that prevent accurate planning, efficient allocation of resources and in some cases stop transactions from happening at all.[25]

2. Commercial Crossings in the West Bank

In an attempt to have better control over the flow of civilian and commercial traffic from and into Israel, the Israeli authorities began to construct commercial crossing points (terminals) along the route of the West Bank Barrier. The construction of these new terminals is linked with the construction of the West Bank Barrier; whereby new commercial

[22] OCHA, Protection of Civilians: 17-23 June 2009.
[23] World Bank, Palestinian Trade: West Bank Routes, December 2008
[24] OCHA, West Bank Movement and Access Update, Jerusalem, November 2009.
[25] World Bank, *previous source*.

terminals are set up along the Barrier's route as its different sections are completed. According to the statement issued by the Israeli government in relation to this decision, "*[the introduction of the terminals along the Barrier route will result in reducing] the number of roadblocks and barriers within the Gaza Strip and the West Bank, alongside the construction of new terminals and crossing points between Palestinian-controlled areas and Israel.*"[26]

At the time of this report, this process is nearing completion, with the following Commercial Crossings, from north to west, currently operational:

- Bisan Terminal: This crossing was established in 2007, and is designated exclusively for the export of agricultural produce grown in the Jordan Valley. The terminal relies on a back-to-back system. It is also used as a crossing point for workers with permits. The terminal is located near Bardala village in the northern Jordan Valley of the West Bank.

- Al-Jalameh Terminal: This is a crossing for workers to enter Israel and a back-to-back terminal for Palestinian goods. It is located on the lands of Al-Jalameh village, northeast of Jenin City.

- Al-Taybeh Terminal (aka. Ephraim Crossing): This is a major back-to-back terminal for goods destined to and from the northern West Bank. It is located on the Green Line near Al-Taybeh village, and within about 8 kilometers from the city of Tulkarem.

- Betunya Terminal: This is another major back-to-back terminal for goods bound for, or coming from, Israel and East Jerusalem. It is located on lands of Betunia village, about 10 kilometers from the center of Ramallah city.

- Tarqumiya Terminal: This is a crossing for workers with permits to enter Israel and a back-to back terminal for goods exported from or imported to the West Bank. This is the closest terminal to the port of Ashdod and is thus a major access point for imports into the West Bank.

- Mazmouria Terminal: This is the last of six terminals planned for construction, and remains under construction as of this writing. It is located on the lands of An'Numan village, within 10 kilometers from the cities of Bethlehem and Jerusalem.

The following points summarize the key issues pertaining to the operation of the above terminals, which are deemed to have an impact on food market performance and food prices:

- High transport costs, inefficient logistics, and long processing times: The Commercial Crossing points require back-to-back transfers, where goods are inspected by Israeli security and then transferred from trucks originating on one side to trucks on the other side to continue their journey. While the Israeli Crossing Points Administration (CPA) in charge of terminal management and administration has officially committed to ensuring that there are no long queues at the terminals and that any vehicle undergoing a standard check (i.e. inspection by scanner only and no manual checks) will have a processing time of 30-60 minutes once they enter the terminal, these commitments and thresholds are yet to be met.[27] A recent study of the Tarqumiya Terminal conducted by the Economic Cooperation Foundation (ECF) found that the average waiting time for Palestinian trucks at Tarqumia was 1.5 hours, which according to ECF adds at least 15 percent to the cost of shipping goods. To the extent that there is a similar wait on the other side the cost is even higher.[28] This estimate came during a time when handling only a fraction of the actual traffic, which implies that costs would be much higher once the terminal works at full capacity.

- Limited working hours and uncertainty regarding operations: The official operating hours for most crossings are 8 AM to 5 PM, Sunday through Thursday and 8 AM until 2 PM on Fridays. Because trucks must complete the back-to-back process before closing, few enter after 3 PM, effectively limiting available daily crossing hours to seven. In addition, shipments cleared from Israeli ports in the afternoon that do not reach the Terminals by 3 PM

[26] Israeli Ministry of Foreign Affairs, Press Statement: Israeli Assistance Steps and Humanitarian Measures towards the Palestinians, May 2005.
[27] PalTrade, *Crossings Monitoring Report*, various issues 2008-2009.
[28] ECF, "A Survey of Freight Traffic Between Israel and the Southern West Bank and the Tarqumia Crossing in Particular", March 2008.

must be stored overnight in Israel at a high cost to the shipper. Crossings are closed on Saturdays and Israeli holidays. The Bisan Terminal is closed on both Fridays and Saturdays. Moreover, crossings have been to known to close when scanners malfunction or when certain security issues arise.

- Damages to produce: The crossing process not only creates delays and uncertainties, but also leads to substantial damages to goods when they are cross-loaded or manually inspected. All outgoing shipments are subject to full inspection by scanners and in some crossings as much as 60 percent are subject to additional manual inspections depending on the cargoes. Incoming shipments of sugar, flour, and certain liquids are also inspected both through scanners and manually. Beitunia Terminal is a unique case. This crossing is well inside the Green line and is operated by Israeli soldiers. There are no scanners and all cargo is subject to physical inspection leading to substantial delays and significant damage. Consequently, it has been reported that shippers go to great lengths to avoid this crossing and use the alternative routes in and out of Ramallah that are still available.

- Unfavorable transport requirements and inadequate infrastructure: All incoming and outgoing cargo through the crossings must be pelletized. In addition to the fact that not all food commodities can be pelletized, pelletization of certain foods (such as fruits and vegetables) causes inefficiencies due to loss of space. The Crossings also lack the necessary facilities for cold storage for perishables and there are no plans to establish any since the CPA believes that crossing times will average only about 45 minutes.

The full effect of the commercial crossings on local markets is difficult to estimate given that much of the commercial traffic between Israel and the West Bank is still being done through trucks with Israeli plates that do not use the Commercial Crossings. Evidence gathered through field interviews with traders, suggest that some routes between East Jerusalem and the West Bank that bypass commercial crossings remain accessible and heavily used by Palestinian traders. These routes, however, should be unavailable to Palestinian trade once the West Bank Barrier is complete.

Box 1: Export procedures at West Bank Commercial Crossings

1) Upon arrival at the terminal, the truck driver is requested to register his name at the entrance, and is requested to wait until the Israeli driver is available on the other side of the terminal.

2) The driver is subject to physical security check which lasts for at least 15 minutes. Then the driver is requested to open the four doors of the truck and the truck cover (if it has one), and switch off the engine.

3) The truck is requested to cross through the truck scanning machine, where three to five trucks (depending on the truck size) are allowed to enter and exit the scanner collectively. Beitunia is run by the IDF and does not have scanners. All cargo is subject to manual inspection by soldiers and in some cases dogs are used.

4) In addition to the scanning process, the cargo may have to undergo a second phase of manual inspection. Depending on the Crossing and type of cargo, 15%-60% of cargo is manually inspected. When shipments consist of different materials (example: the clothes and its plastic hanger), the goods are required to be off-loaded at the manual inspection rooms.

5) The shipment is up-loaded on the Israeli truck, and resumes its journey on the other side of the crossing.

Source: Paltrade Monitoring Reports.

3. Gaza Blockade

As noted earlier, the Gaza Blockade has been having a devastating effect on the Gazan economy. Before the Blockade, Gaza producers and manufacturers imported nearly 95 percent of their inputs from or through Israel, while Gazan farmers and food processing industry exported more than 20 percent of their products to Israel and the West Bank. Commemorating two years of the Blocakde, PalTrade gave a snapshot of the effect of the Blockade through highlighting the following[29], *inter alia*:

[29] PalTrade, Special Report: Gaza Strip:Two Years Through Seige, August 2009.

- No exports have been allowed from Gaza, except for 138 truckloads carrying agricultural produce destined for sale in Europe through Israeli marketing companies. On average, 70 truckloads carrying exports from Gaza used to be processed daily between January 2005 and May 2007.

- Current imports are around 25 percent of their pre-closure levels. The average number of daily imports before the closure was 630 truckloads; of which more than half were aggregates and construction materials and close to 5 percent were imports for humanitarian purposes.

- The percentage of imports from the West Bank to Gaza (internal trade) dropped significantly. Prior to the imposition of the Blockade, imports from the West Bank made up 13 percent of all imports, compared to an average of 3 percent during the two years of closure.

- Imports are restricted to 35 types of goods, most of which are staple food imports. 4,000 types of goods used to be imported by Gaza traders before the siege.

- The operational performance of the Gaza crossings has been and continues to be unpredictable, causing a great deal of uncertainty to traders. Reticent to import given the high level of uncertainty, many traders of staple foods have suspended or significantly reduced the scale of their operations.

- Imports of industrial and commercial fuel, and cooking gas have been unreliable. Diesel and petrol have not been allowed into Gaza since November 2008. Monthly industrial oil and cooking gas imports have been well below need.

4. Restrictions on Shipment of Cash to Gaza

Israeli restrictions on the shipment of cash from West Bank financial institutions to the Gaza Strip have been in effect since late 2007, a few months after the imposition of the Blockade. Cash shortages have been reported by most of Gaza's 43 banks throughout 2008. Banks resorted to put limits on client withdrawals and offered exchange rates at well-below market levels to discourage withdrawals. In recent months, the Israeli authorities have been allowing regular shipments of NIS 50 million along with replacement bills for worn notes, a step that have been reported to boost commercial bank operations in the Gaza Strip.

Shortages remain, however, in US dollar and Jordanian Dinar notes, whose shipments have not been allowed into the Gaza Strip for several months, except for regular monthly shipments of US$ 13.5 million for the salaries of the staff of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). The Palestinian Monetary Authority (PMA) and the Office of the Quartet Representative believe that the banking system needs regular shipments of up to US$15 million and JD 10 million a month and this issue is still being negotiated. Both the US dollar and the NIS are the main currencies used for business transactions in the West Bank and the Gaza Strip. The former is particularly important for importers of staple foods, while the latter is the dominant currency for local trade, as well as business transactions with Israel.

5. Gaza Tunnel Trade

Underground tunnels between the Gaza-Egypt borders have been known to exist since the early 1980s, when they were used for smuggling weapons by PLO factions. Despite several crackdowns by the PA on tunnel trade in the late 1990s, tunnels continued to exist, albeit in small numbers. Tunnels mushroomed after the imposition of the Blockade, and became the main pipeline of trade in the Gaza Strip, with close scrutiny of the de facto authorities which has imposed regulations and restrictions on the tunnel trade. Commercial tunnels are used for food, fuel, medicines and basic necessities.

Despite the heavy Israeli bombardment of the border area between Rafah and Egypt during the 2008/2009 Cast Lead Operation and the many airstrikes against known tunnel areas after the offensive, interviews with tunnel traders suggest that the number of commercial tunnels exceeds 1,000. According to tunnel traders, a normal tunnel runs anywhere between 15-30 meters deep and 800 to 1,400 meters long.

On the Palestinian side tunnels are usually dug from ruined buildings or equipment sheds. From there, working parties of six men start digging their way towards the Egypt using a compass to guide them. A contact on the Egyptian side signals where the exit can be dug. It takes around six months to dig a tunnel, at a cost of US$ 100,000-150,000 depending on the intended utility and safety standards followed. Tunnels used to transport heavy items such as mechanical machines, tend to

be big and more costly than ones used to smuggle fuel. Interviews with several tunnels traders confirmed several media reports suggesting that tunnels employ between 20,000-25,000 workers, who could earn anywhere between NIS 100-200 for 10 hours of work. Tunnel workers interviewed reported that their wages were much higher (reaching NIS 400 per day) in 2007 and 2008, attributing the drop in wages to the significant increase in the number of tunnels and the increased number of workers seeking employment in the tunnels. The drop in wages may indicate, however, to cost reduction strategies among tunnel owners, who reported increased levels of competition and reduced number of clients. All tunnel owners interviewed reported that their tunnels are currently operating near 50 percent capacity.

The infrastructure and transport logistics within tunnels are basic, however. Electricity and fans provide light and ventilation, intercommunication devices (found mostly in large tunnels) facilitate communication between workers inside the tunnel. Essential supplies of diesel fuel are pumped through the tunnels in hoses and pipes. Food is towed through on plastic sleighs. Livestock are herded by tunnel workers through larger tunnels, which are also used to transport heavy non-food loads such as wood and cement. Flour, rice, milk, cheese, cigarettes, cooking oil, toothpaste, small generators, computers and kerosene heaters also come through the tunnels.

Interviews with tunnel traders could not ascertain with a high degree of certainty the profile of tunnel traders, the structure of the tunnel trade market or the volume of trade being brought in through these tunnels. However, the general impression is that tunnels are owned and operated by individuals whose families have been in the tunnel business before the Blockade and/or who have gained experience in digging tunnels through working for other tunnel owners. These usually have land ownership near the Rafah-Egypt border or have financial capital to lease land to dig tunnels. Land lease for tunnel digging purposes ranges between US$ 1000-2000 per month.

Tunnel owners either act as transporters for Gaza traders or engage in trade themselves. Interviews suggest that the majority of tunnel owners fall under the former category, while most of those who smuggle fuel fall under the latter category. Tunnel transport fees range between US$ 200-1,500 per tonne, depending on the type of goods being moved. For food products, tunnel owners charge anywhere between US$300-500, paid in advance by importers who also pay their Egyptian counterparts in advance.

B. Market Integration

While time series price data for various food commodities in various governorates are collected by PCBS and WFP, these data are not sufficient for calculating FPI at the governorate level. Considering that the degree to which markets are integrated is key to understanding how markets operate and provide a gauge to household economic access to food, market integration analysis using PCBS time-series price data was conducted. Markets are instrumental to ensuring food availability and food access in the oPt. The extent to which markets make food available and keep prices stable depends on whether markets are integrated with each other. According to WFP, integrated markets are "markets in which prices for comparable good do not behave independently."[30] Hence, markets are said to be integrated when market forces work properly allowing normal trade of goods and causing price changes in one location to manifest in similar changes in another location (due to trade and the interaction between market agents). If markets are integrated, food will flow from surplus to deficit areas and imports will flow from ports to the hinterlands. The consequences are food availability and accessibility as market acts to ensure that supply meets demand.

The market integration analysis was undertaken using correlation analysis of the prices of twenty-five basic food commodities. These items were chosen on the basis of the results of the Household Expenditure and Consumption Survey conducted by PCBS in 2004, where the results of this survey were used to identify the food items that were most frequently consumed by the Palestinians on the one hand, and that represented the largest share of the household food expenditures. The price of Diesel was added to the list to analyze its effect on and correlation with the prices of some food items. The Twenty-five food items are shown in the table below.

Table 7: Food Items Selected for Detailed Price Analysis

Food Group	Item	Brand/Type	Amount	Origin
Grains	Short-Grained Rice	Star White	25 kg. bag	Australia
	White Flour	Haifa Zero	60 kg. bag	Israel
	White Pita Bread		1 kg.	Local

[30] WFP, "PDPE Market Analysis Tool: Market Integration", Rome, 2008.

Food Group	Item	Brand/Type	Amount	Origin
Meat	Fresh Sheep with Bones		1 kg.	Local
	Fresh Beef		1 kg.	Local
	Fresh Plucked Chicken		1 kg.	Local
	Fish (mullet)		1 kg.	Local
	Frozen Fish		1 kg.	
Dairy Products	3% Pasteurized Milk	Tnova	1 kg.	Israel
	Powdered Milk	Nido	2.5 kg.	France
	Normal Leban	Al-Juendi	500 gm.	Local
	Boiled White Sheep Cheese		1 kg.	Local
Eggs	Chicken Eggs		2 kg.	Local
Oils	Olive Oil		1 kg.	Local
	Corn Oil	Shaqha	3 liters	Israel
Fruits	Banana		1 kg.	Local
	Oranges		1 kg.	Local
	Red Apples		1 kg.	Israel
Vegetables	Potatoes		1 kg.	Local
	Greenhouse Tomatoes		1 kg.	Local
	Large Seeded Eggplants		1 kg.	Local
	Greenhouse Cucumbers		1 kg.	Local
	"Baladiyya" Onions		1 kg.	Local
Pulses	Chickpeas		1 kg.	Turkey
Sugar	White Sugar	Crystal	1 kg.	Holland

Correlation coefficients for twenty-two of the commodities for which prices were available in the time period between January 1997 and June 2009 -shown in the contingency tables in Annex 2- reveal that for imported goods there are very strong correlations, $r > 0.90$ between prices of West Bank markets and also between prices of Gaza Markets. However, correlations were found to be weaker when correlating West Bank markets' prices with Gaza Strip markets' prices. Fairly weak correlations were found for locally produced commodities, nevertheless. These, however, are believed to be largely a function of availability through local production in each of the two regions rather than a function of trade between them.

This aside, the results show that Gaza markets are more integrated than West Bank markets, which maybe due to the fragmentation of markets in the latter. The results also reveal higher simple correlations for Gaza markets and smaller differences between prices in the different sub-regional markets, especially since 2007. This could be explained by lower internal transport costs (due to lower fuel prices) and the price controls exercised by the de facto government in Gaza as we shall examine below. The following points summarize the findings emerging from the correlation analysis of prices.

- Wheat flour prices in all market pairings were positively correlated, with $r = 0.96 – 0.99$. The exception was South Gaza market, which has $r = 0.91 – 0.93$.

- Corn oil: When pairing West Bank markets and Gaza markets separately, $r = 0.92 – 0.99$ for each. However, when pairing West Bank markets with Gaza Strip markets a weaker, albeit still strong, positive relationship is found, with *r* as small as 0.86 (Ramallah and North Gaza) .

- Sugar and rice prices in all market pairings were very strongly correlated, with $r = 0.95 – 0.99$.

- Beef prices between West Bank pairings exhibited different levels of positive correlations, with $r = .89 – 0.96$. Within Gaza Strip pairings, prices where more strongly correlated, with $r = 0.97 – 0.98$. However, when pairing West Bank markets with Gaza markets statistically significant price differences emerge, with r as small as 0.84 (Bethlehem and North Gaza).

- Chicken prices between West Bank pairings exhibited mixed correlation results, with $r = 0.67 – 0.96$ (for North West Bank, $r = 0.88 – 0.96$). The correlation between Gaza markets was stronger, with $r = 0.88 – 0.96$. When pairing West Bank and Gaza Strip markets, we get *r* as small as 0.71 (Ramallah and North Gaza), indicating positive but comparatively weak relationship.

- Green house tomato prices within the West Bank pairings exhibited an r = .69 – 0.92, whereas r = 0.86 – 0.97 within the Gaza Strip pairings. However, when pairing West Bank markets with markets of Gaza Strip markets smaller correlations appear, with r as small as 0.50 (Jericho and North Gaza).

- Cucumber prices within the West Bank pairings exhibited r = 0.64 – 0.87. Pairings of Gaza Strip markets exhibited r = 0.85 – 0.90. However, when pairing West Bank markets with markets of Gaza Strip markets smaller correlations appear, with r as small as 0.35 (Bethlehem and North Gaza).

- The weakest correlation was found for olive oil prices. Among the West Bank pairings r ranged between 0.29 – 0.90; the minimum correlation of r = 0.29 was found between Bethlehem and Nablus markets (for North West Bank r = 0.70 – 0.83). The correlation between Gaza Strip market prices for olive oil, however, was much stronger, with pairings of r = 0.82 – 0.87. It is thus logical, that market prices for olive oil between the West Bank and Gaza exhibit weak correlation, with the weakest correlation between Nablus and South Gaza prices (r = 0.47). It must be noted here that weak correlations within the West Bank markets is believed to be mostly a function of regional taste preferences and perceived quality.

- Apple prices within West Bank pairings showed relatively weak correlations, with $\boldsymbol{r}$ = 0.54 – 0.85. These correlations within Gaza Strip pairings was significantly stronger, with $\boldsymbol{r}$ = 0.74 – 0.93. When pairing markets of West Bank with markets of Gaza, we get $\boldsymbol{r}$ as small as 0.30 (Ramallah and Middle of Gaza).

- Powder Milk prices within West Bank pairings exhibited $\boldsymbol{r}$ = .80 – 0.94; and $\boldsymbol{r}$ = 0.89 – 0.94 within Gaza market pairings. However, when pairing markets of west Bank with markets of Gaza, we get $\boldsymbol{r}$ as small as 0.69 (Ramallah and Middle of Gaza).

- Bread prices within the West Bank pairings exhibited r = 0.90 – 0.96. Pairings of Gaza Strip markets exhibited similar coefficients, with r = 0.90 – 0.93. However, when pairing West Bank markets with markets of Gaza Strip markets smaller correlations appear, with r as small as 0.65 (Qalqelya and North Gaza).

- Cheese prices within the West Bank pairings exhibited r = 0.75 – 0.45. Pairings of Gaza Strip markets exhibited r = 0.84 – 0.97.

- Chickpeas prices within the West Bank pairings exhibited r = 0.48 – 0.86. Pairings of Gaza Strip markets exhibited r = 0.60 – 0.73.

- Eggplant prices within the West Bank pairings exhibited r = 0.20 – 0.81. Pairings of Gaza Strip markets exhibited r = 0.81 – 0.96.

- Eggs prices within the West Bank pairings exhibited r = 0.80 – 0.93. Pairings of Gaza Strip markets exhibited similar coefficients, with r = 0.85 – 0.93. However, when pairing West Bank markets with markets of Gaza Strip markets smaller correlations appear, with r as small as 0.72 (Bethlehem and North Gaza).

- Fresh fish prices within the West Bank pairings exhibited r = 0.17 – 0.83. Pairings of Gaza Strip markets exhibited r = 0.10 – 0.59.

- Frozen fish prices within the West Bank pairings exhibited r = 0.38 – 0.89. Pairings of Gaza Strip markets exhibited r = 0.51 – 0.67.

- Fresh milk prices within the West Bank pairings exhibited r = 0.81 – 0.93. Pairings of Gaza Strip markets exhibited similar coefficients, with r = 0.91 – 0.96. However, when pairing West Bank markets with markets of Gaza Strip markets smaller correlations appear, with r as small as 0.78 (Bethlehem and North Gaza).

- Local onions prices within the West Bank pairings exhibited r = 0.34 – 0.87. Pairings of Gaza Strip markets exhibited stronger correlations with r = 0.77 – 0.88.

- Sheep meat prices within the West Bank pairings exhibited r = 0.86 – 0.97. Pairings of Gaza Strip markets exhibited r = 0.91 – 0.96. When pairing West Bank markets with markets of Gaza Strip markets slightly smaller correlations appear, with r as small as 0.84 (Qalqelya and North Gaza).

- Potato prices within the West Bank pairings exhibited $r = 0.72 – 0.80$. Pairings of Gaza Strip markets exhibited similar correlations with $r = 0.75 – 0.91$.
- Banana prices within the West Bank pairings exhibited $r = 0.73 – 0.88$. Pairings of Gaza Strip markets exhibited $r = 0.89 – 0.94$. When pairing West Bank markets with markets of Gaza Strip markets much smaller correlations appear, with r as small as 0.41 (Jenin and Middle Gaza).

Given that high simple correlations alone do not imply market integration, price differences between markets were studied to ascertain the level of market integration. A non-zero mean price difference was found for the majority of the commodities studied which implies that markets may be relatively integrated. However, and for the majority of the studied food items, this mean price difference was found to be less than the transaction cost between markets which means that traders may have no incentives to move food between these markets, implying a relative disintegration between regional markets.

The below figures and table show the evolution of and differences in prices of wheat flour within West Bank and Gaza markets as a proxy for other imported foods. These figures show that there is a price difference between West Bank-average and individual markets in West Bank over the period studied. The tables adjacent to these figures also show that Ramallah, Jericho, and Bethlehem governorates have the highest prices, while Jenin, Tulkarm, and Hebron have the lowest one.

Figure 11: Prices of flour in West Bank Markets: Jan 1997 to June 2009

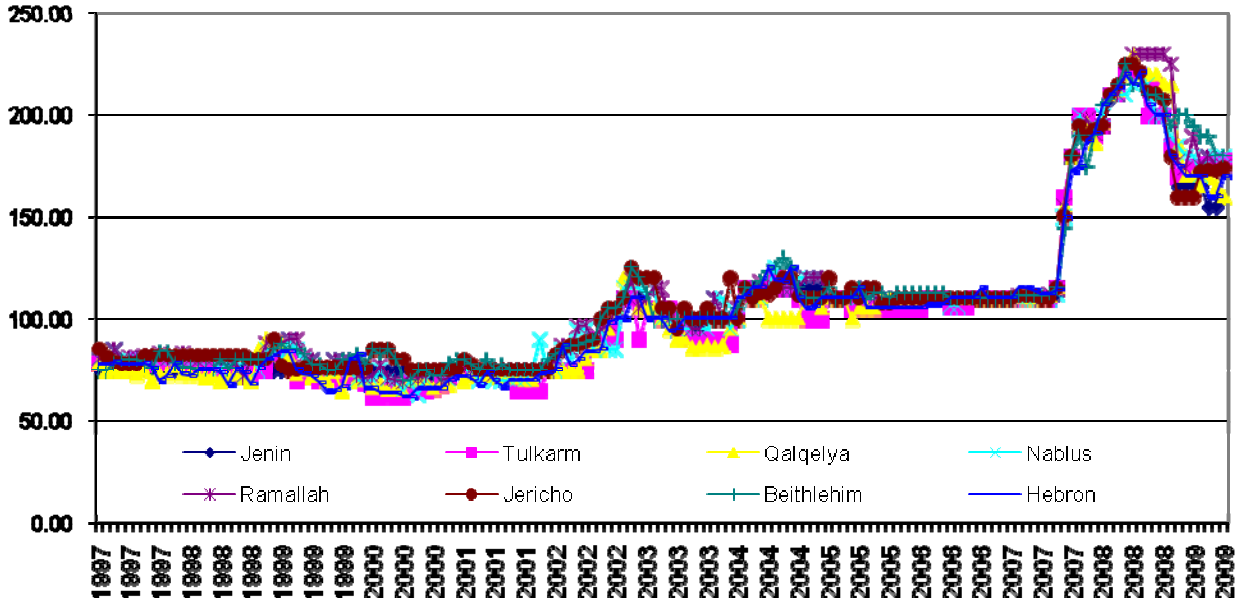
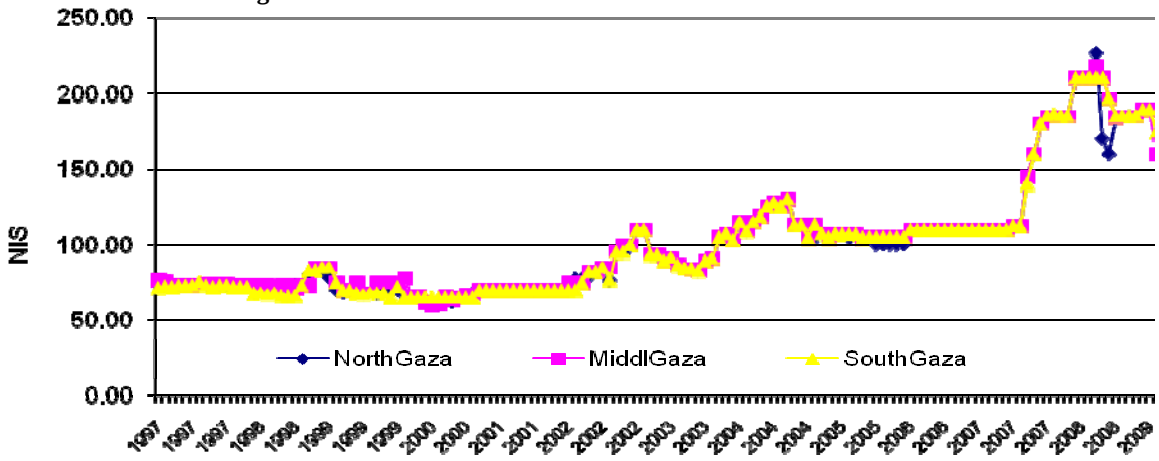


Figure 12: Prices of flour in Gaza Markets: Jan 1997 to June 2009



The below tables shows that over the period studied, there is no statistically significant price difference between Gaza-average and individual markets in Gaza for both wheat flour and rice, albeit prices were found to be more volatile in Gaza than in the West Bank. The tables also show that Gaza markets are more integrated than West Bank markets.[31]

[31] The data was statistically tested for unit roots, and the null hypothesis (data has unit roots) was rejected. See annex for the test results.

Table 8: Differences in wheat flour prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-18.00	5.62	-2.0146	3.89564
Tulkarem	149	-19.38	8.88	-2.6238	4.02343
Nablus	149	-13.12	14.62	.9366	4.39046
Jerusalem	149	-17.14	21.75	2.1325	4.87353
Ramallah	149	-4.38	30.62	3.0337	4.67618
Bethlehem	149	-16.12	26.43	3.0021	5.17688
Hebron	149	-17.75	9.94	-2.2102	4.38853
Valid N (listwise)	149				

Table 9: Differences in rice prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-10.98	9.33	-1.0109	2.39777
Tulkarem	149	-8.15	11.31	-.0743	2.83675
Nablus	149	-61.69	7.33	-1.7280	5.27885
Jerusalem	149	-6.21	10.98	.7293	1.96553
Ramallah	149	-18.44	9.40	.4690	2.75486
Bethlehem	149	-62.67	7.75	.2866	5.52322
Hebron	149	-13.96	9.33	-.1539	2.16845
Valid N (listwise)	149				

Table 10: Differences in the price of wheat flour (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-26.67	31.67	0.1124	6.17311
Middle_Gaza	149	-14.50	36.67	1.4686	5.57792
South_Gaza	149	-68.33	13.33	-1.5810	9.99925
Valid N (listwise)	149				

Table 11: Differences in the price of rice (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-7.67	7.50	-.3809	2.21842
Middle_Gaza	149	-10.00	4.00	-.0470	1.75467
South_Gaza	149	-8.33	12.67	.4279	3.20880
Valid N (listwise)	149				

In addition to the above tables, a series of t-tests were conducted to ascertain whether the regional differences in prices of the above commodities are of statistical significance. These tests revealed the existence of statistically significant differences in prices between some markets. For example, prices of wheat flour in Jenin, Tulkarm, and Qalqelya were found to be less than flour prices in Nablus, Ramallah, Jericho and Bethlehem. However, these differences were not of a practical significance from a trading perspective as they range between 2% to 8%. Similar picture was found for the prices of the other main food commodities (see Annexes 3 and 6).

Box 2: Overview of food prices of main food groups

Grains: The price levels for both flour and rice showed an increasing trend since 2003 in both the West Bank and the Gaza Strip. However, in 2008, the prices of these two commodities increased significantly (eg. flour experienced a 143 percent yearly increase in the West Bank and 139 percent in the Gaza Strip). However, the prices of flour in 2009 started to fall while the prices of rice kept rising. Comparatively, bread prices rose modestly in the West Bank (60 percent) and in the Gaza Strip, (25 percent) over the same period. Throughout the entire period, Gaza Strip prices were lower than the West Bank.

Sugar: Sugar prices increased by around 50% between 1997 and 2009, although more substantial increases have been witnessed during these years. In 2006, for example, prices in the West Bank and the Gaza Strip increased by 70 and 120 percent respectively, compared to 1997. Since 2006, sugar prices in the West Bank and the Gaza Strip seem to be converging.

Meat and Dairy Products: Prices of Lamb, Beef, and Chicken were rising since 2006 which can be attributed to the increase in international food prices. The increase in chicken prices can also be attributed as it is a cheap substitute for beef and lamb. Price of chicken is fluctuating with a peak following Cast Lead Operation in the Gaza Strip – due to the destruction of poultry farms – as well shortage of cooking gas during the winter is an additional factor for increased prices. Related to fish, in the West Bank, the prices of fish were rising until 2007 then they started to fall since then. However, in the Gaza Strip, the prices of fish were fluctuating with a constant trend during the whole period.

Milk: Milk prices were rising during the time period of 1997 to 2009 in both West Bank and Gaza Strip. Powdered Milk on the other hand, fluctuated with an increasing trend in both West Bank and Gaza Strip with a sharp increase in West Bank in the year 2009. The pattern of price change for Leban in both West Bank and Gaza Strip was the same with a sharp rise since 2007.

Fruits and Vegetables: This is the only group of food items that experienced the least rise in prices of less than 50% over the period of Jan 1997 to May 2009. Most of the items in this group are locally planted and hence there prices are more determined by local factors of supply and demand than they are by international prices.

Box 3: Percentage change in diesel and food prices between May 1997 and various years in WB and GS

Item	Region	May 2000	May 2003	May 2005	May 2006	May 2007	May 2008	May 2009
Diesel	WB	44%	92%	149%	243%	222%	380%	255%
	GS	38%	87%	142%	234%	213%	367%	245%
Apples	WB	29%	43%	0%	5%	11%	55%	24%
	GS	-17%	-11%	3%	12%	7%	119%	41%
Chicken	WB	37%	62%	58%	50%	91%	123%	128%
	GS	-3%	43%	11%	27%	50%	92%	136%
Cucumber	WB	-3%	19%	0%	19%	29%	3%	51%
	GS	-61%	-43%	-42%	-34%	-29%	21%	32%
Fish	WB	-4%	-3%	11%	32%	38%	17%	7%
	GS	31%	-12%	-12%	31%	10%	31%	17%
Frozen Fish	WB	-5%	-15%	35%	77%	75%	56%	62%
	GS	-12%	-42%	-17%	-9%	-9%	-10%	10%
Flour	WB	-12%	23%	42%	40%	42%	185%	124%
	GS	-15%	19%	47%	51%	51%	188%	139%
Greenhouse Tomatoes	WB	17%	7%	-31%	-6%	-23%	-2%	-23%
	GS	-21%	-51%	-61%	-50%	-44%	-3%	-26%
Local Onions	WB	9%	16%	7%	8%	-1%	6%	40%
	GS	-23%	-29%	-31%	-33%	-33%	9%	23%
Lamb	WB	33%	32%	25%	45%	42%	69%	90%
	GS	33%	41%	45%	46%	56%	103%	90%
Leban	WB	19%	16%	17%	4%	17%	32%	53%
	GS	-12%	7%	0%	-15%	0%	20%	53%
Milk	WB	14%	17%	22%	24%	26%	41%	49%
	GS	13%	19%	21%	31%	34%	53%	60%
Olive Oil	WB	92%	37%	27%	83%	58%	87%	95%
	GS	63%	29%	34%	42%	54%	85%	79%
Powered Milk	WB	-3%	11%	4%	7%	8%	7%	37%
	GS	1%	15%	6%	6%	4%	17%	23%
Rice	WB	11%	16%	41%	47%	48%	144%	187%
	GS	13%	14%	53%	41%	41%	116%	187%
Sugar	WB	-15%	1%	5%	69%	69%	50%	52%
	GS	-14%	-7%	14%	129%	71%	50%	50%
Beef	WB	25%	18%	31%	66%	44%	70%	78%
	GS	21%	1%	28%	67%	63%	110%	150%
Bread	WB	-10%	8%	18%	19%	19%	78%	59%
	GS	-29%	-17%	-13%	-13%	-13%	22%	23%
Cheese	WB	22%	17%	38%	32%	35	51%	44%
	GS	0%	-33%	-33%	-33%	-33%	-17%	-17%
Chickpeas	WB	43%	20%	29%	31%	37%	66%	83%
	GS	36%	1%	33%	36%	29%	64%	52%
Corn Oil	WB	17%	13%	16%	24%	20%	109%	152%
	GS	25%	18%	21%	24%	24%	98%	142%
Eggs	WB	-6%	-8%	9%	26%	43%	41%	73%
	GS	-21%	-20%	-6%	-1%	31%	54%	61%
Potatoes	WB	-4%	-16%	1%	1%	22%	-6%	27%
	GS	-31%	-31%	-15%	-3%	37%	-8%	49%
Eggplants	WB	26%	30%	2%	2%	3%	-3%	13%
	GS	12%	-9%	-30%	57%	-3%	16%	24%

C. The Fruits and Vegetables Market[32]

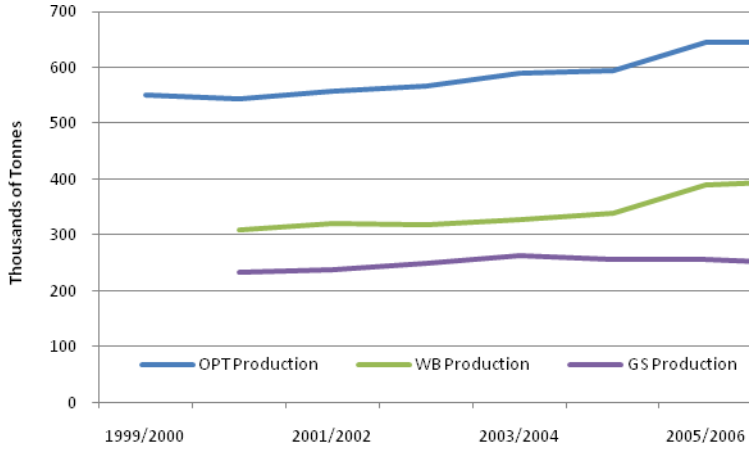
1. Local Production of Fruits and Vegetables

The following paragraphs highlight the key changes in agricultural production in the oPt between 1999 and 2007 on the basis of calculations of PCBS data, and provide an overview of implications of these changes on food availability from local production.

1.1. Vegetable Production

According to the MoA and market experts, the agricultural sector in both the West Bank and the Gaza Strip yields sufficient quantities of staple vegetables such as tomato, cucumber, squash, eggplant, beans, peppers, cabbage and cauliflower exceed local demand in both areas, due largely to a noticeable shift from open irrigation to covered facilities that characterized by higher irrigation efficiency and yields. This is consistent with foreign trade figures which indicate that comparatively large amounts of vegetables were exported to the Israeli markets. However, the local production of a small number of other staple vegetables such as melons, muskmelons, lettuce and garlic is insufficient to meet local consumption requirements, with imports from Israel filling the gap in production.

Figure 13: Production of vegetables between 1999/2000 and 2006/2007



In per capita terms, local production of vegetables remained relatively constant and ranged between 169 kg per person per year (2004/2005) and 180 kg per person per year in 1999/2000. In 2006/2007 marketing year the share per capita of vegetables from local production in the oPt was 173 kg.[33]

Noteworthy to highlight (and monitor) here is a trend of convergence between the West Bank and the Gaza Strip in terms of per capita local production. While the Gaza Strip throughout the eight year period had an average of 38 kg higher production of vegetables per capita than the West Bank, the difference in production between the two regions decreased to 7 kg per capita. Between 2006 and 2007, the per capita production of vegetables in the Gaza Strip dropped by 12 kg (compared to 1 kg in the West Bank), the largest annual drop since 1999. It is likely that this noticeable decrease in production is the result of many strawberry and cherry tomato producers stopping their production following the imposition of the closure and the ban on exports in 2006 and the massive destruction of agricultural lands in seam areas since 2006.

1.2. Fruit Production

The main fruit crops produced in the oPt are olives, citrus, grape, plum, guava, fig and banana. Local production of fruits has exhibited large fluctuations between 1999/2000 and 2006/2007 marketing years due –as noted above- to the bi-annual production cycle of olives and weather conditions. The general trend in fruit production, however, is strongly downward, falling from approximately 394 thousand tonnes during the 1999/2000 marketing year to 220 thousand tonnes during the 2006/2007 season.

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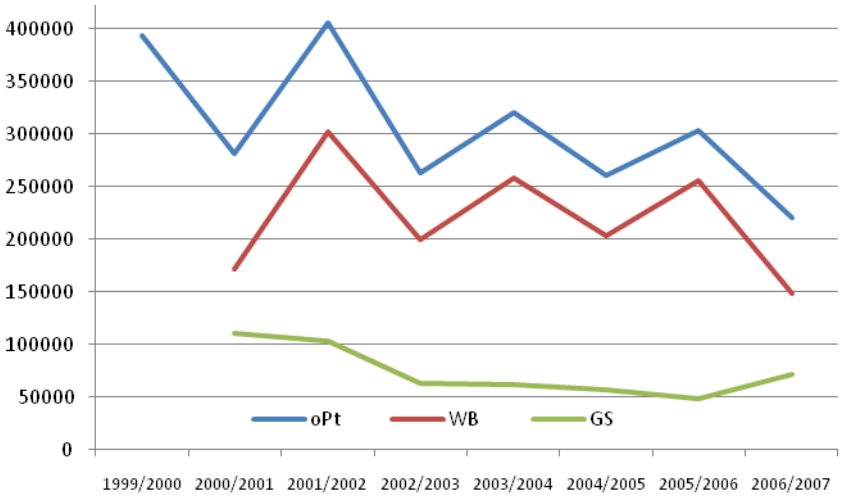
[32] Further analysis on local production of milk, eggs, mean, fish and sweetners in Annex 7.

[33] Per capita production for vegetables and other agricultural crops was calculated by dividing the total production figures for the specific crop by the total population in the same year. Consumption data from the Consumption and Expenditure Survey results was used for certain crops to gauge the availability from local production.

When factoring out the effect of the bi-annual production of olive on the total fruit production, it becomes clear that most of the decline in production is due to the decrease in the bearing citrus tree area. All the main citrus fruits show a downward trend in production, with the sharpest drop for oranges and mandarins and the slowest decline for lemons. Orchards have been destroyed and citrus producers have faced difficult marketing problems since September 2000, but it is obvious that producers were in some difficulty before then. All the citrus trees are irrigated and it appears that the root of the problem lies with the availability and cost of irrigation water and the efficiency of open field irrigation on which the overwhelming majority of citrus trees depend.

Figure 14: Production of fruits between 1999/2000 and 2006/2007



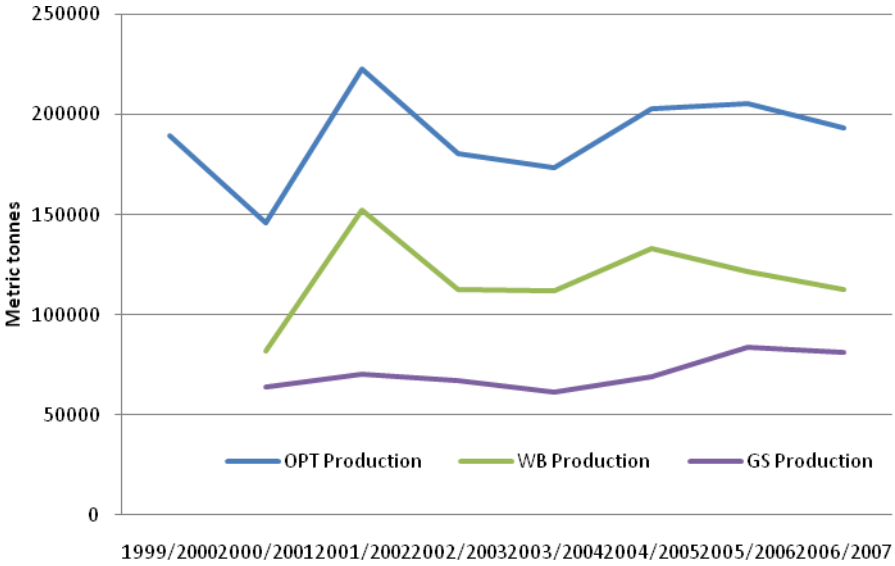
The production trends for the other fruits differ, with decreases over the eight seasons (1999/2000 – 2006-2007) for most of them and a near disaster for guava, plum, and banana. During this period, guava production dropped by 58.4 percent, while fig, banana and plum production dropped by 36.4, 34.7 and 30.6 percent respectively. According to MoA officials, these losses in production are largely attributed to the construction of the West Bank Barrier and farmers' reduced access to irrigation water as a result of the below average rain fall in recent years. The latter is particularly true for bananas and guava which are fully irrigated crops.

Substantial increases, on the other hand, have been realized for grapes and some of the fruits of lesser importance. The production of grape has traditionally been known to be sufficient to meet local demand, albeit farmers face difficulties in marketing it at profitable prices due to the supply of Israeli grape which has an earlier yield. At 9.2 percent, the growth in production of grapes has been well in excess of the growth in population. Around 52 thousand dunums are now used to produce almonds, the main nut crop. Production of almonds increased by 19.7 percent since 1999/2000 season (from 4391 to 5257 tonnes).

1.3. Field Crops

In terms of cereals, wheat is the only cereal produced primarily for food in the oPt. A substantial quantity of barley is produced as well as small quantities of sorghum, but these cereals are grown almost entirely for animal feed. Wheat relies almost entirely on rainfall for growth, and therefore is subject to major year-to-year variability in production. The years 1999/2000 and 2001/2002 were the high rainfall years and exceptional wheat harvests were the result, reaching 53,422 and 54,308 tonnes. In sharp contrast, only 24,983 tonnes were produced in 2000/2001. While the instability in production precludes any clear perception of the trend in wheat production, harvested area

Figure 15: Production of field crops between 1999/2000 and 206/2007



has risen. The instability in production is a major problem for the producers but it is of minor consequence to the consumers as they depend primarily in good years and bad on flour, rice, wheat and cereal preparation imports from commercial and food aid sources for this essential component of their diet.

In the field crops group, potatoes are the second most important crops to the Palestinian diet. Potato production has been tending upwards since 1999/2000 agricultural season, with total production reaching 62,841 tonnes in 2006/2007 marketing year, mostly in Gaza. Potato production in Gaza covers a substantial portion of local demand for potatoes, whereas the West Bank relies heavily on Potato imports from Israel.

The main pulses in the same group are chickpeas, lentils, dry broad beans and cowpeas. Of these dry cowpeas is the least important but it is the only one to have around one-third of the area under irrigation. Production is small relative to the consumption requirement and is extremely volatile, having ranged from 1,511 tonnes (1998/99) to 4,562 tonnes (2001/02) over the last eight years. Production in 2001/02 was at 1.3 kg per person, down only slightly from the 1.4 kg during 1996/97 and 1997/98. The yield in 2001/02 was record high. Like cereals, the overwhelming majority of the supply of legumes comes from commercial and food aid sources.

Box 4: Trade and competitiveness of Palestinian agricultural products

The Palestinian Authority's Ministry of Agriculture was established in 1994 and has pursued a policy of minimal direct support to farmers. The difference between government intervention policies is perhaps due to significantly higher average annual per capita donor support to Israelis than to Palestinians (US$500 vs. US$200) as well as the fact that Israel has a sophisticated farm subsidy program already in place. Although direct support is minimized, the Israeli policy of protective tariffs on agricultural products and inputs apply to the West Bank and the Gaza Strip under the customs union agreed upon in 1994. Import tariffs for most agricultural products and inputs range from 100-350 percent. The result is that prices in the West Bank and the Gaza Strip are significantly higher than world market prices for many products and inputs.

The Paris Protocol also impacts Palestinian costs. While Israeli farm products have free access to the markets of the West Bank and the Gaza Strip, Palestinian agricultural exports to Israel are restricted. The MoA estimates that Palestinian companies pay 30 percent higher transaction costs than Israeli companies for identical export shipments. According to the World Trade Organization (WTO), Israel maintains a relatively large array of trade and trade-related measures intended to support its domestic agricultural sector. Domestic support to agriculture reached US$524 million in 1997, but declined in 1998, and 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 percent, from around US$646 million in 1995 to close to US$569 in 2004. These policies have significantly impacted the competitiveness of Palestinian agricultural products.

Israel provides subsidies to cut flowers, vegetables, and citrus (all of which the Palestinians export), as well as goose liver and cotton. Other measures benefiting Israeli agricultural exports include those available to all sectors, such as export promotion and marketing assistance. In addition to price support, the Israeli Ministry of Agriculture operates deficiency payments and investment programs in support of horticulture, eggs, poultry, and bovine meat production. Other measures consist of specific assistance programs for co-operative villages under a Rural Department debt-relief scheme, expenses of the Agricultural Research Centre, new settlement infrastructure and other services to farmers. All direct and indirect subsidies impact the costs and competitiveness of Palestinian products.

Farmers in Israel, the Palestinians main trading partner and competitor in regional and international markets, received government support amounting to one-fifth of the value of agricultural output in 1997. The WTO reports that for calendar year 1997 (the most recent data available), almost one half of the product-specific support was for milk production, followed by poultry meat (28.3 percent of the total) and eggs (17.1 percent). Although government interventions in support of Israeli agriculture have been declining during the period for which data are available, both general and targeted support caused distortions in prices on products of importance for Palestinian farmers, including dairy, poultry, meat, cut flowers, vegetables, and citrus fruit. This means that Palestinian food products were not competing on a level playing field with their Israeli competitors.

2. Types of Markets and Overall State of Development

Formal vegetable and fruit markets in the oPt are traditionally classified into two categories according to their primary role, namely: central wholesale markets, and retail markets.

2.1. Wholesale Markets

Wholesale markets are municipality-owned structures where farmers come to sell their produce in bulk quantities to wholesalers. Wholesale markets are leased on an annual basis through a closed-envelope bidding process, whereby the municipality bestows the highest bidder the responsibility for management and facilitation of the trade transactions that take place in the market against a commission on all sales made within the market. The commission is charged equally to buyers and sellers and is determined through negotiations with the municipality, the bidder, and –sometimes- the Office of the Governor. Trade transactions in wholesale markets take place in one of two ways: Direct sales from farmers to traders and auctions, where farmers ask market auctioneers (Dallaleen) sell their produce on their behalf to traders who had already registered their interest to buy. The Dallaleen are usually employees of the commission agents.

Traditionally, wholesale markets in the West Bank have been limited in number and known to be located in the main urban centers in the governorates with high levels of agricultural production. Until 2000, there were four central wholesale markets in the West Bank. These were located in the cities of Jericho, Nablus, and Hebron and Jenin. Nablus held the central market for agricultural products in the West Bank, Jericho was the centre through which the Jordan Valley products were marketed to the West Bank or exported Israel and beyond, Jenin was the centre through which the Jenin governorate products were marketed to the West Bank, and Hebron was the centre through which goods were distributed form the southern West Bank to the North.

However, as access to these markets became very difficult following the imposition of the closure and movement restrictions regime in the West Bank, Nablus and Jenin markets lost their central marketing roles to newly established markets in Beita and Qabatia, two rural communities located on and immediately near main West Bank roads, and other small wholesale markets that were known to be mainly used for local marketing started gaining more prominence as central markets. At the time of this writing, however, Beita, Qabatia, Hebron and Jericho central markets were considered the main central markets in the West Bank, and seemed to have the largest volume of trade and number of traders of all markets visited.

Wholesale markets in the Gaza Strip, are located throughout the region, with 2-7 markets per governorate. The largest central markets are Firas Market in Gaza City, Jabalia Market in the north, Nuseirat Market in the middle, and Khan Younis and Rafah in the south. Storage capacity in all oPt markets is limited, while refrigeration capacity is limited to very few wholesalers who own small second-hand refrigerators. On the flipside, all wholesale markets in the oPt are connected to or are located to main road networks, thus are relatively easily accessible to commercial traffic.

2.2. Retail Markets

Retail markets are those markets where retail sales to end-users (consumers) dominate the other marketing activities. Consumers can purchase vegetables and fruits from retailers who have stalls in wholesale markets (some of these are also wholesalers), shops outside the wholesale market, temporary roadside kiosks and traveling retailers. In several communities, supermarkets and grocery shops also carry fruits and vegetables sometimes to attract customers (especially in urban areas) and other times to meet demand. Like wholesale markets, consumer markets have grown in recent years and now can be found in almost every city, village and refugee camp in the West Bank and the Gaza Strip.

While access to vegetable and fruit markets to market participants is not problematic from a physical access perspective, the heavy market reliance on commission agents implies less income for farmers and increased costs for consumers. Farmers interviewed expressed feelings of being “extorted” by wholesalers who do not seem to pay a fair price for farmers produce; and noted that the commission fees they pay not only reduce their income, but also often make their products (especially fruits) less competitive than Israeli products that enter the market directly without the involvement of agents. Since they rely almost exclusively on imports from Israel, the overwhelming majority of fruit wholesalers own or lease stores outside the central markets through which they conduct most of their business. .

Farmers seem to be reticent to explore opportunities for selling their products outside their traditional wholesale markets as many of them have established long relations (including receiving advance payments on crops) with wholesale traders in these markets. Wholesalers, on the other hand, reported that their ability to pay higher prices to farmers is constrained by the lack of refrigeration facilities, market uncertainty –owing to unpredictable supply- and low local demand.

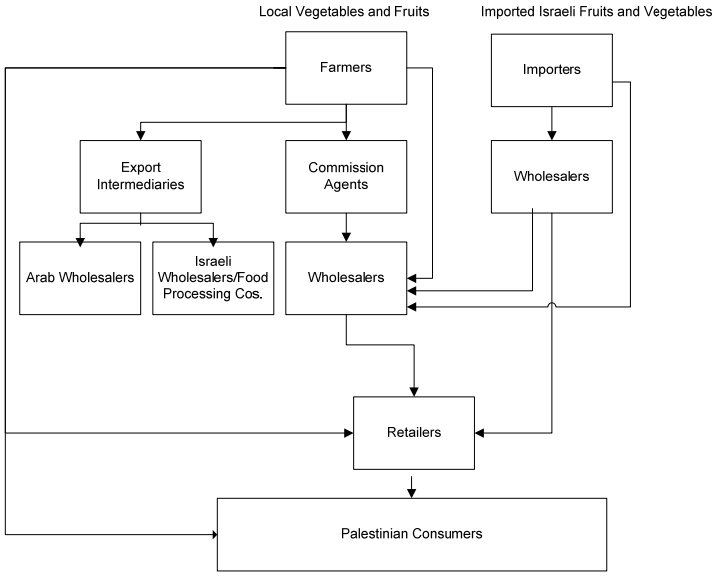
3. Supply Chain Actors

While a variety of market actors are involved in moving fruits and vegetables from Palestinian farmers or Israeli importers to the Palestinian consumers, the market remains largely traditional. The primary actors are farmers, who produce and sell vegetables and fruits, and buy agricultural inputs; traders, including retailers, intermediaries, semi-wholesalers and

wholesalers; transporters, who are responsible for moving goods via trucks; rural and urban consumers, who purchase the final good in rural or urban retail markets; and state structures, such as the Ministry of Agriculture, Ministry of Trade and National Economy, and the Customs Police. Also, involved is the Israeli Agricultural Coordination Unit which is responsible for agricultural trade relations between Israel and the oPt.

Figure 16 below shows the oPt vegetable market structure and vertical commodity flows among the various actors. For locally produced vegetables and fruits, the supply chain begins with farmers who produce vegetables and fruits and sell it either to wholesalers through commission agents (in central markets), to export intermediaries, or directly to retailers or to consumers. Anecdotal evidence suggests, however, that sales through wholesalers are dominant of the three types of transaction. Wholesalers, sell exclusively to retailers, who in turn sell directly to urban and rural consumers. What is noteworthy to mention here is that while farmers are known to sell directly to retailers and consumers, the most dominant transaction is directly with wholesalers.

Figure 16: Fruit and Vegetable Supply Chain in the West Bank and Gaza Strip



The flow of imported Israeli vegetables and fruits is slightly different than the flow of locally produced vegetables and fruits. Here, importers buy produce directly from the Israeli central market in Tel Aviv and transport their purchases to their warehouses, where they sell to wholesalers that are exclusively specialized in fruit trade or to wholesalers who also trade in vegetables. These in turn sell to retailers, who sell to end consumers.

With the exception of some MoA-supported promotional activities for locally produced fruits and vegetables, state structures play no role in the marketing process of fruits and vegetables. The MoA's role is mostly regulatory in nature, whereby it provides phytosanitary clearance certificates for shipments destined for import into Israel. The Palestinian Customs Police enforces adherence of traders to trade procedures, and particularly inspects whether shipments bound to Israel are accompanied by a waybill and lading bills. The West Bank Agricultural Relations Officer of the Israeli Agricultural Coordination Unit is responsible for the transfer of agricultural produce from Israel to the West Bank and from the West Bank to Israel, in terms of supervision and monitoring that basic standards are met.

Box 5: Coordination of agricultural trade between the oPt and Israel

The Agricultural Relations Officer is in charge of coordinating meetings on all issues concerning agricultural relations between Israel and the oPt, and maintains ongoing contact with the Palestinian MoA and his Deputy. The Agricultural Relations Officer assists in coordinating the movement of trucks loaded with agricultural produce in border crossings between Israel and the oPt and vice versa. In addition, the officer is responsible for the issuing of traffic permits to agriculturalists and coordinating meetings between Palestinian agriculturalists/retailers and Israeli army representatives (and meetings between Israeli retailers and Palestinian retailers/ agriculturalists). The Agricultural Relations Officer operates a team of professionals which sample test the fruit and vegetables (within the cultivation areas in the oPt) which are designated to reach the Israeli market, in order to prevent "insecticide infested" produce from reaching the consumer. The team sample-tests a wide variety of produce.

4. Market Structure and Concentration

While recent data is not available on the total number of fruit and vegetable traders, anecdotal evidence and market observations suggest that retailers dominate 70-80 percent of the market. Wholesalers constitute anywhere between 5-10 percent of all types of traders, while export intermediaries represent about 5 percent. Farmers who engage in direct sales constitute an additional 10 percent. Although the survey could not establish the proportion of trade marketed through each of these traders, a recent socio-economic assessment conducted by the Applied Research Institute-Jerusalem (ARIJ) estimates that 80 percent of vegetable and fruit trade in the West Bank is done through wholesalers and commission agents in central markets. Interviews with vegetable and fruit traders in the Gaza Strip suggest this is also applicable in this part of the oPt.

Noteworthy to highlight here however, is the fact that local production of vegetables has been traditionally known to meet 90 percent of local demand in both the West Bank and the Gaza Strip, with the remaining 10 percent coming from Israel. The opposite is true for fruits, where imports from Israel account for 90 percent of local consumption, with local production accounting for the remaining 10 percent. While these figures uphold in the West Bank, the Gaza Blockade and the measures taken by the de facto government in the Gaza Strip to promote local agricultural production (see below) have increased the importance of domestic supply channels. Interviews with traders in the Gaza Strip strongly suggest that local production of vegetables covers 100 percent of local demand, while local fruit production covers anywhere between 20 to 30 percent.

While the market structure have been known to be relatively uniform in different regions in the West Bank and the Gaza Strip, interviews with traders strongly suggest that the structure is quickly changing in the Gaza Strip. According to traders in the Gaza Strip, export intermediaries who were known to responsible for marketing substantial volumes of tomatoes, okra, potatoes, eggplant, green and hot peppers, strawberries, and cut flower have suspended their operations due to ban on exports from the Gaza Strip. Most of these are now active in local wholesale marketing of fruits and vegetables, albeit at a much lower scale than before. According to retailers, the ban on exports has caused supply of local vegetables to substantially increase, thereby having a stabilizing effect on prices of vegetables. In addition, several traders reported a substantial increase in the number of street vendors due to the relatively small capital needed to establish such an enterprise. The study team was able to confirm the existence of a large number of street vendors in all markets visited, but could not verify whether a shift in the structure of the retail market is happening as a result of the alleged increase in the number of street vendors as many of them seemed to be linked in one way or another to well-established retailers.

In the West Bank, however, intermediaries seem to maintain their market position as they are still able to export vegetables to Israel. Although trade figures show a steady reduction in the volume of vegetable and fruit exports to Israel since the movement restrictions and closure system was instituted, the business decisions made by these intermediaries seem to continue to have a substantial affect on local prices. Anecdotal evidence suggests that the export of substantial volumes of local vegetables to the Israeli market, especially before Jewish holidays, leads to a noticeable decrease in local supply, which causes prices to increase rapidly, taking sometime to return to normal. For example, several retailers reported that the price of a box of zucchini increased overnight before the Jewish Easter holiday from NIS 40 to NIS 110, before dropping again to maintain an average price of NIS 70 two days thereafter.

5. Government Policies

Traditionally, the PA has adopted a *laisser faire* policy vis-à-vis fruit and vegetable marketing, maintaining a minimum regulatory role through the MoA and MoTNE. This remains largely the case in the West Bank, while the role of de facto government in the Hamas-controlled Gaza Strip has increased, according to traders and farmers interviewed. The government in the Gaza Strip has been stepping up its efforts to encourage private investment in the agricultural areas of the evacuated Israeli settlements by providing direct support to farmers and offering opportunities to farmers to rent or lease state owned agricultural lands at subsidized rates.

In an attempt to improve marketing of locally produced fruits and vegetables, the MoA and MoTNE in the Gaza Strip have also introduced a protectionist policy by imposing restrictions on the import of fruits and vegetables that have a local substitute. While it was not possible for the study team to obtain a copy of the official policy in this regard, interviews with traders strongly suggest that the imports of all types of vegetables and all types of locally produced fruits have been banned. This ban, however, seems to be temporary as long as local production is sufficient to meet local demand. Moreover, the Gaza authorities negotiated a reduction in commission rates charged at wholesale markets, which were lowered from 8 to 5 percent in 2009. The import of canned tomato paste and other canned foods permitted entry into the Gaza Strip is reported to have been restricted by the Israeli authorities as part of the Blockade restrictions.

6. Market Conduct and Availability

6.1. Changes in Key Markets, Suppliers and Clients

Famers in the oPt are generally slow in responding to the changes in demand and supply conditions in deciding what crops to grow. Most farmers interviewed indicated that they have been planting the same crops for years, despite confronting marketing problems due to high levels of supply and low market prices for their crops. The exception is Gaza's cash crop farmers, who have been forced -due to the ban on exports- to shift to traditional crops. While farmers acknowledge the need for better agricultural planning and coordination amongst themselves to overcome marketing problems they face, none of the farmers interviewed seemed to have been engaged in any serious agricultural planning efforts.

The majority of farmers market their products through the nearest wholesale markets either directly or through transporters with whom they have established long relations. Farmers rely on transporters to negotiate prices on their behalf. The incentive for transporters is the commission they get from both farmers and traders against sales. In the cases where farmers use transporters only to transport their produce to wholesalers, the farmers would have already made the sale deal with wholesalers already over the phone. In this case, transporters do not receive any commission on sales. Noteworthy to mention here is that wholesalers often build "customer" relations with farmers, contracting in advance for their produce and, in some cases, providing them with advance payments. This, along with the predisposition of farmers to market in their traditional local markets, suggests that farmers do not necessarily have capacity to effectively negotiate prices or the ability to shop around for the best price for their produce. Farmers who sell their produce through the auctions in central markets are even in weaker negotiation position as they have to accept whatever the highest auction price offered. By the time they make it to the market, it is too late for them to decide not to sell as the cost of returning their produce is too high. While farmers where open to the idea of exploring business opportunities in other markets with higher prices, they seemed to enjoy the comfort bubble of knowing their "customers" and not having to worry about checkpoints and the damages to their crops in transit to distant markets.

Wholesalers on the other hand seem to be more open to risk taking and exploring new markets. Wholesalers interviewed in the central markets of Qabatia, Beita, Hebron, Jericho, Ramallah, Gaza (Firas), and Rafah reported having trade relations with as many as 20 farmers and 50 retailers from their own and outside their governorate. However, they quickly recouped by saying that the majority of these are from within the same governorate, noting that the both the number and strength of trade relations with farmers and retailers outside the governorate has been weakening since the outbreak of the Intifada. While Gaza wholesalers provided a similar account, they noted that these relations have been weakening since the imposition of the Blockade. This confirms what was noted earlier regarding the limited price negotiation capacity of farmers, and goes to confirm that wholesalers have a stronger command than farmers in the price negotiations process.

Export intermediaries market links are slightly different than those of wholesalers. While both depend on farmers to obtain produce, the trade relations between export intermediaries and their supplying farmers are more entrenched. Export intermediaries provide substantially higher cash advances to farmers and engage in larger volumes of trade with them. Many export intermediaries lease lands and enter into crop-sharing agreements (verbal) with farmers. What enables export intermediaries to enter into such agreements and make forward trade agreements with Israeli wholesalers, retail stores, and, most importantly, food processing companies. Hence, they have access to better information on prices and thus can negotiate more effectively than other traders in the supply chain. Most export intermediaries interviewed reported using trucks with Israeli license plates to transport their products to their destination markets inside Israel whenever possible. They noted that while the use of these trucks is more expensive, it entails less risk than transporting back-to-back via commercial crossings.

Importers of fruits and vegetables from Israel purchase crops from the Israeli Central Market in Tel Aviv, Israeli wholesalers, and farmers and producer cooperatives in Israeli Settlements. While West Bank importers reported that most of their purchases are done at the site of their suppliers and usually after the inspection of produce, only one of six fruit importers interviewed in the Gaza Strip indicated the same. Gaza importers reported relying primarily on phone orders as they cannot gain access to Israel to meet with their suppliers since the imposition of the Blockade. According to these traders, their ability to negotiate price with their suppliers has been extremely undermined as a result.

Importers sell their imports of fruits and vegetables through wholesalers or to retailers through their own wholesale stores. Most importers have cold storage facilities or dry stock rooms in which they keep their imports. They also grade their imports so as to offer their clients a wide variety of choices to choose from.

The majority of retailers interviewed reported that the overwhelming majority of their purchases, with the exception of certain seasonal local fruits and vegetables which are purchased through commission traders or from farmers directly, are

from local wholesalers. The suppliers of all urban retailers interviewed are wholesalers located in the same city. Rural retailers, on the other hand, purchase either from transporters (working on commission basis with farmers), central markets in urban centers, or city wholesalers. Despite shopping around for quality and price, all retailers interviewed reported that their purchase decisions are also done on the basis of commercial and social relations with wholesalers. Generally, retailers have to transport the produce they purchase from their suppliers at their own expense. Most retailers interviewed, however, use their own vehicles to do this.

All traders interviewed in the West Bank and the Gaza Strip reported reduced ability to access local and export markets. However, most of them noted that these conditions have been persistent since the outbreak of the second Intifada, with little changes in the last two years.

While traders (including farmers) in the West Bank noted that conditions of physical access to markets have slightly improved due to the removal of some roadblocks by the Israeli authorities and less frequent flying-checkpoints, most claimed that this has had very little effect on them. Farmers, for example, said that they continue to rely heavily on transporters to market their products, a strategy they began to use more extensively after the imposition closure in 2000. Wholesalers said that the removal of some closure barriers did not affect them much as the newly established markets in Beita and Qabatia have maintained their position as the key central markets in the north even after access to Jenin and Nablus became less obstructed as a result of the removal of permanent checkpoints.

West Bank export intermediaries noted that the key access problem they have been enduring for the past two years is related to the procedures and working hours of the terminals, highlighting that access to Israeli markets on Fridays and Saturdays - when crossing terminals are closed or have short working hours- is particularly difficult and entails higher than average transport costs as transporters have to take long alternative routes to bypass these terminals. Export intermediaries also noted that agreed upon arrangements between the PA and Israel regarding the safe movement of agricultural produce from the West Bank to Israel are often not respected at terminals. They argued that when it is evident that the transfer of a particular product may have a negative effect on prices of Israeli produce, the Israeli authorities make a concerted effort to prevent or obstruct the processing of this product through the terminal crossings. The extent to which this argument affects local supply and demand conditions, however, remains unknown as the quantity of Palestinian agricultural commodities entering the Israeli market illegally (and vice versa) is impossible to measure.

Importers of Israeli fruits and vegetables seemed the least affected by market access conditions. Other than increased transport costs owing to fuel price increases, most of these reported no changes in their ability to access market in the West Bank, implying the exercise of lesser degree of restrictions on inspections on imports compared to exports at terminals. As we shall present below, however, importers do seem to be facing problems with reduced local demand for fruits.

Market access conditions for Gaza traders changed differently for different types of traders. While the restrictions imposed by Hamas government on imports of Israeli fruits and vegetables have improved the market position of Gaza farmers who produce for the local market, interviews with export farmers indicate that they are grappling to create a niche for themselves in Gaza's well-established wholesale market. This group does not have well-established relations with local wholesalers and has less experience in local marketing of agricultural products. The situation is different for Gaza wholesalers, who reported experiencing no changes in market access conditions in the last two years. Gaza produce importers, however, noted that their market access conditions are severely constrained by their inability to travel to Israel to negotiate business transactions and inspect their orders. Like the West Bank importers, Gaza importers reported that their sales of fruits have substantially decreased in the last two years as a result of high prices.

As for clients, both West Bank and Gaza traders claimed that the number of their clients has been shrinking. This, however, was most prominent among retailers who reported substantial reduction in sales volume and increased competition. Again, this was most evident in the Gaza Strip, where most retailers seemed to be losing customers to "cart retailers" whose numbers –according to all retailers interviewed in Gaza- have been increasing in the last two years. Two of the relatively large fruit and vegetable retailers in the Gaza Strip who used to operate different retail shops in Gaza City reported having to close down some of their shops due to the substantial reduction in sales. These retailers explained that the economies of scale they used to enjoy have been undermined by reduced demand, increased competition from "cart traders" and limited liquidity, all of which are a byproduct of the Israeli closure measures.

6.2. Financial Resources and Payment Terms

Forward and backward credit plays an important role in the fruit and vegetables supply chain. Traders in both the West Bank and the Gaza Strip rely on credit to finance their operations, albeit to various degrees. With the exception of

importers and exporters who sometimes are obliged by their Israeli counterparts to have open letters of credit from local banks, most of the credit operations are informal.

As noted earlier, farmers obtain credit from wholesalers or suppliers of agricultural inputs to purchase the agricultural inputs they need for cultivation. Repayment is usually done after harvest, in cash to agricultural suppliers and in-kind to wholesalers. According to farmers, this credit arrangement is crucial for the sustainability of their livelihood and business. When selling to other wholesalers through commission agents, farmers usually receive payment within a few days (1-5) from commission agents. Depending on the established commission rates in these markets, farmers receive anywhere between 96-97.5 percent of the agreed sale price as commission agents deduct their commissions immediately from the settlement payment. Farmers' sales to retailers are usually done on a "cash-and-carry" basis, except in the cases where farmers and retailers have long established relations. In such cases, farmers receive payment in cash within a maximum of two weeks after sale. Farmers are creditors, however, when it comes to making sales to or through exporters. In such cases, farmers often do not receive payment from exporters until the latter have received payments from their clients in Israel. This could take anywhere between one to three months according to some exporters, which confirms what farmers have reported regarding the importance of credit they receive.

Wholesalers interviewed in both the West Bank and the Gaza Strip seemed to have less access to credit than farmers. Most wholesalers reported that most of their purchases from central markets are paid in cash within one to five days. Wholesalers, however, extend forward credit to retailers. The amount of credit sales terms of payment, nevertheless, are determined on the basis of the commercial and personal relations between the wholesaler and retailer, and the level of immediate need of the wholesaler for cash. Retailers in turn provide forward credit to their customers.

While farmers interviewed did not report witnessing any changes in the credit arrangements over the past two years, all other traders interviewed confirmed the opposite:

- Exporters in the West Bank reported experiencing more delays in payment by their Israeli clients, which in turn have forced them to defer payments to farmers or pay in small installments.

- Importers in the West Bank noted that their suppliers in Israel have considerably reduced the credit lines they extend to them and at the same time demand payment to be made within 14 days, shorter than ever before. Gaza importers, on the other hand, noted that their Israeli suppliers stopped extending credit altogether to them since June 2007, and now demand payments to be made in advance. Importers in turn have tightened credit to wholesalers, especially in the Gaza Strip, in an attempt to reduce their business risk.

- Confronted with reduced credit from their suppliers, wholesalers in both the West Bank and Gaza Strip reported reducing forward credit to retailers. Reductions, however, seemed to be more drastic in the Gaza Strip where several wholesalers indicated that in most cases they require 50 percent cash payment and demand their clients to settle the remaining 50 percent within a week or before making new orders, whichever comes first. The degree to which these new terms are enforced, however, could not be verified through the market visits.

- Retailers in the Gaza Strip also reported reducing credit sales. Retailers interviewed reported that they did not have to take many steps to reduce credit as the demand for credit by their clients has considerably decreased in the past two years. Retailers attributed this to competing expenditure demands and the increased inability of Gazan households to repay debts they incur.

- For the most part, retailers in the West Bank reported no change in their credit policies to customers, indicating that credit is essential for customer retention. However, they reported that they keep a very close track of their clients' repayment and demand repayment of partial amounts of the debt when they deem appropriate. The threshold for this demand, nevertheless, differed from one retailer to another and ranged between NIS 200 for the small retailers to NIS 800 for the big urban retailers, a much larger range than that reported by Gaza retailers.

6.3. Pricing Decisions and Profit Margins

Although the process of price setting is very complex and differs between the various levels of the supply chain, generally, prices of fruits and vegetables in the oPt are determined by demand and supply factors.

Prices of exported vegetables are largely determined by demand and supply conditions in the Israeli markets. According to exporters, rare are the occasions when they can negotiate a price before delivery at central markets. Hence, the ability of exporters to determine sales price of the products they export is very limited. Where exporters have an authority and

leverage to set prices is in determining farmers prices. Here, exporters use local market prices for the same product on the day on which they make the sale to determine the producer prices. The most common standard practice quoted by farmers interviewed is that exporters give farmers anywhere between NIS 0.5 to NIS 1 per kilogram above local market price. In most cases, however, farmers do not know the total weight of the products they load onto exporters trucks, although they can gauge it through the number of boxes they load. According to farmers, the profit margins of exporters could reach up to 100 percent, while in best case scenarios farmers do not get more than 15 percent above local market prices. Exporters indicated, however, that their profit margins do not exceed 25 percent, which is rather unlikely given the usually large spread between local and Israeli prices. Of particular importance here is the fact that exporters buying decisions can have a substantial influence on local prices of export vegetables in low production periods. The export of vegetables to Israel during these periods can sometimes more than double the prices of these vegetables locally, putting beyond the economic reach of consumers.

Both wholesalers and retailers indicated that they determine their purchase prices on a daily basis by following market prices and estimating demand on any given day. Generally, however, both are price takers, although price haggling is a common practice by both. Wholesalers generally set a profit margin of 10-15 percent, while retailers set an initial profit margin of 30-50 percent per kilogram for fresh (purchased on the same day) products. While seemingly high, retailers seem to factor the high likelihood of market price decreases and spoilage into their price setting mechanism. Retailers estimate that their average weighted profit margin ranges between 15-20 percent; i.e. NIS 0.5-0.8 on average per kilogram. This seemed to be a reasonable estimate considering that most retailers interviewed indicated that 5-10 percent of their daily purchases go unsold or are not displayed for sale due to damage.

Noteworthy to mention here is that the total price retailers pay for purchased products from wholesalers include a lost weight of the boxes carrying the produce. This lost weight reaches anywhere between 0.5 – 0.75 kilogram, depending on the type and material of the carrying box. Of note also, is the fact that retailers continuously degrade their products as long as they sit unsold and as market prices evolve. According to retailers in the Gaza Strip, many of their customers anxiously wait for them to degrade products to make the purchase, implying that a significant.

While importers also follow market prices to determine what, how much and where to buy, they are generally price takers. In setting their sale prices, apply a markup of 15-20 percent on their total purchase costs (including costs of purchase, transport and storage). While this seemed to be working for West Bank importers, Gaza importers reported that their pricing strategy is no longer feasible as their sales are dropping and transport costs rising. According to these importers, the local demand for fruits has been dropping steadily since 2006 and have reached bottom this year as prices of other commodities increased.

6.4. Availability of and Demand for Fruits and Vegetable

While some shortages have been reported by retailers in the Gaza Strip, both market visits and trader interviews confirmed that staple fruits (apples and bananas) and vegetables (tomatoes and potatoes) are abundantly available in local markets in the West Bank and the Gaza Strip, which is an indicator of the resilience of the supply chain and farmers determination to sustain their livelihoods despite all the restrictions they have to endure. The main shortages reported by Gaza retailers were only limited to certain types of Israeli produced fruits; particularly, banana, most of apples, peers, and mango. Local substitutes of these products seemed to be abundantly available at the retail level. Market visits also revealed, however, that certain types of fruits that do not have a local substitute are not available in the local markets in Gaza, such as kiwi, cherry and apricots. These items neither command a large market share nor are they consumed by the poor.

The main problem facing traders is related to reduced sales volumes as a result of depressed demand, especially for fruits and non-staple vegetables, and most prominently in Gaza. All retailers interviewed confirmed that their sales have dropped in the last two years between 30-40 percent, which in turn has forced retailers to reduce the variety of products they have been used to offer as well as reduce their stock levels of various items. Reduced credit by wholesalers has been going the same way as reducing retailers ability to make larger purchases. Moreover, retailers confirmed witnessing an increasing trend towards purchases of lower quality and cheaper products, noting that the majority of their sales are made in the late afternoons and early evening when consumer expect prices to have decreased.

D. Imported Staple Food Markets

1. Characteristics of Traders Surveyed

With the exception of large importers, staple food traders in both the West Bank and the Gaza Strip do not deal exclusively in staple foods. In fact, the sales of the majority of staple food wholesalers are mostly driven by non-staple

food and non-food sales, with staple food sales comprising between 50 percent of the total sales (for wholesalers specialized in food stuffs) and 20 percent (for wholesalers who engage in the wholesale trade of non-food items). For retailers, sales of staple foods –generally- comprise anywhere between 5-15 percent of total sales.

Figure 17 shows that 74 percent of staple food traders interviewed in the oPt have been in the business for seven years or more. Of the wholesalers interviewed, close to 79 percent have been in the business, compared to 44 percent of the retailers. A similar picture emerges when we compare West Bank traders with their peers in the Gaza Strip (Figure 18). This implies that both retailers and wholesalers interviewed have solid business experience as the majority of them have sustained their business through the turbulent times of the first and second Intifada.

Figure 17: Distribution of traders by classification with respect to the number of years in business

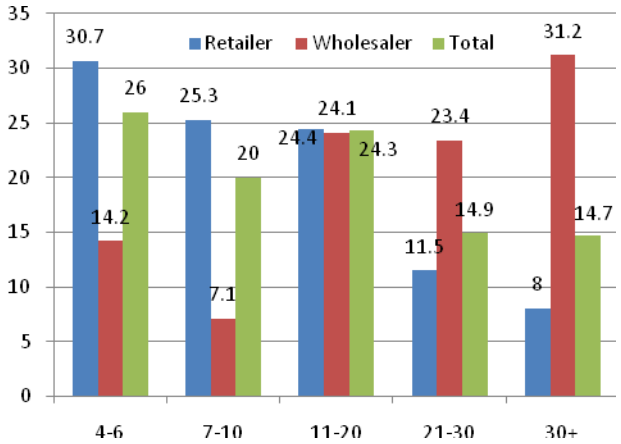
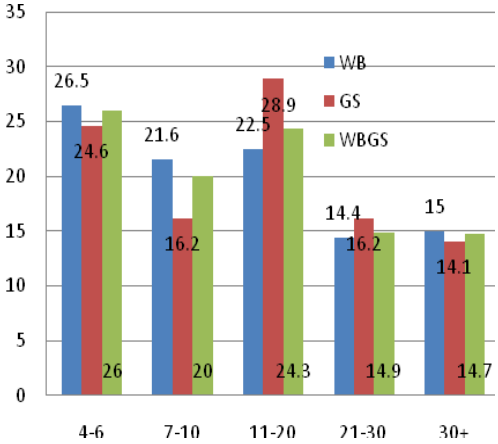
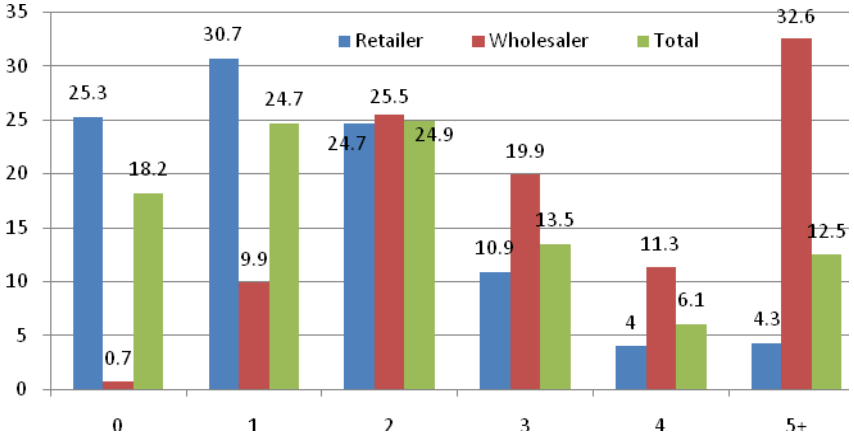


Figure 18: Distributions of traders by region with respect to the number of years in business



Due to the larger scale of their business operations, wholesalers, in general, retain more employees than retailers. As Figure 19 shows, about one third of the wholesalers interviewed have five or more employees; compared to 4.3 percent of the retailers.

Figure 19: Distribution of traders with respect to the number of employees they retain



While the survey questionnaire did not include questions on the level of education or communications channels available to traders, visual observations recorded by enumerators indicate that the overwhelming majority of surveyed traders can read and write. Almost all of them have both mobile and fixed-line phones. About one third of the traders (60 percent of the wholesalers) had offices in which they kept one or more computers. All of the traders in the urban and semi-urban localities reported retaining the services of a book-keeper/accountant, while rural retailers reported maintaining their accounts themselves.

Wholesalers interviewed trade in several food and non-food items. Nearly all of them trade in wheat flour (60 percent), and all of them in sugar (100 percent), rice (100 percent), and pulses (such as lentils and chickpeas) (100 percent). Retailers on the other hand trade in all of these items, although their trade in wheat flour is mostly limited to the small one-kilogram bags. Both wholesalers and retailers interviewed did not seem to be exclusive traders of any specific item or group of items. Linked to this the survey results revealed that 13.5 percent of wholesalers interviewed are direct importers from abroad, of whom the majority is located in the Gaza Strip.

Table 12: Distribution of traders with respect to whether they import from abroad or not disaggregated by trading business and areas

Region	Trader Classification	Yes	No	Total
WB	Retailer	0.0	100	100
	Wholesaler	12.8	87.2	100
	Total	**3.2**	**96.8**	**100**
GS	Retailer	0.0	100.0	100
	Wholesaler	14.5	85.5	100
	Total	**5.6**	**94.4**	**100**
Total oPt	**Retailer**	**0.0**	**100.0**	**100**
	Wholesaler	**13.5**	**86.5**	**100**
	Total	**3.9**	**96.1**	**100**

With respect to imports from Israel, the survey results show that 11.3 percent of the traders import directly from Israel, of whom 11.8 percent are located in the West Bank and 9.9 percent in Gaza Strip.

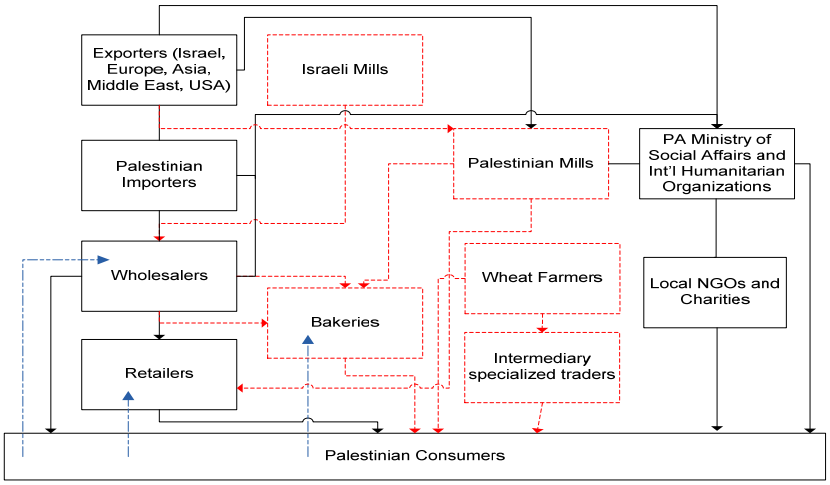
Table 13: Distribution of traders with respect to whether they import from Israel or not disaggregated by trading business and areas

Region	Trader Classification	Yes	No	Total
WB	Retailer	3.8	96.2	100
	Wholesaler	36.0	64.0	100
	Total	**11.8**	**88.2**	**100**
GS	Retailer	3.4	96.6	100
	Wholesaler	20.0	80.0	100
	Total	**9.9**	**90.1**	**100**
Total oPt	**Retailer**	**3.7**	**96.3**	**100**
	Wholesaler	**29.8**	**70.2**	**100**
	Total	**11.3**	**88.7**	**100**

2. Supply Chain Actors

Figure 20 below shows the imported staple foods market structure and vertical commodity flows among the various market actors in the oPt. While the entire diagram presents the market chain for wheat and wheat flour, the supply chain for sugar, and rice is limited to the boxes with a solid black border.

Figure 20: Imported Staple Foods Supply Chain in the West Bank and the Gaza Strip



A large number of diverse market actors are involved in moving the imported staple foods under study to consumers. The primary actors that will be considered here however, are those deemed to have the largest effect on market performance, namely: Palestinian importers, wholesalers, and retailers. While the Palestinian mills, bakeries, the Ministry of Social Affairs (MoSA), and International humanitarian organizations play a substantial role in the market in terms of having an effect on supply and prices, they were excluded from the market analysis for reasons related to limited time availability and resources. Farmers were excluded from the analysis as their contribution to the supply chain is almost negligible.

2.1. Wheat Flour Market

The supply chain for wheat flour is quite complex as the number of actors involved in moving it from producers to consumers is substantially larger than the other food commodities. While the supply chain structure is the same in both the West Bank and the Gaza Strip, the number of and primacy of market chain actors differs substantially between the two regions, and between urban and rural areas within them (due to traditional consumption preferences).

In the West Bank, the primary actors are the importers who import wheat from Israel and abroad through trucks and boats and sell primarily to wholesalers; wholesalers who purchase bulk quantities of wheat flour from importers and –in some cases- Israeli mills and sell to wholesalers, retailers and bakeries in the same governorate, and to wholesalers in other governorates; retailers who purchase wheat flour from wholesalers and the Ramallah-based Golden Mills for sale to end consumers; and bakeries who purchase wheat flour from wholesalers and Israeli intermediaries. Of all types of traders surveyed, only the importers and large wholesalers are involved in supplying wheat flour to humanitarian organizations for food aid purposes.

The wheat flour supply chain is largely the same in the Gaza Strip, with the exception of the much larger role played by the five out of six local mills still operating since the Cast Lead Operation as one of the mill was destroyed during the war. These mills have an estimated average daily production output of 900-1,000 tonnes, and are the main suppliers for the 45 Gaza bread producing bakeries[34], for UNRWA, WFP and other humanitarian organizations operating in the Gaza Strip. Combined, the wheat flour produced by the Gaza mills is estimated to account for anywhere between 65-75 percent of the total market size in Gaza

Overall, the importers of wheat flour are large scale wholesalers who distribute the imported flour directly to bakeries, to retailers and to wholesalers; most of these importers distribute flour directly to stores and shops in rural areas. Of all the imported wheat flour, 40-50 percent goes directly to the bakeries while between 20-30 percent goes to wholesalers and the remaining percentages goes directly to retailers. Wheat flour is available for sale to end-consumers in bags of 60, 50, 30, and 1 kilograms.

[34] Total number of bakeries is 76 including those producing pasta, pizza and sweets as informed by the Gaza Chairman of the bakery association.

Box 6: Locally produced wheat

In both the West Bank and the Gaza Strip, wheat farmers constitute a very weak link in the supply chain. Anecdotal evidence strongly suggests that the majority of these farmers cultivate wheat to produce Frika (a local Palestinian substitute to rice) for commercial purposes. A small portion of these farmers sell wheat through specialized intermediaries mainly to consumers in rural areas. After milling the wheat, rural consumers usually mix it with the locally purchased wheat flour for bread making. Locally produced wheat flour is known to cost more than the imported wheat flour available in the local markets in the oPt.

2.2. Sugar and Rice Market

The supply chain for sugar market in both the West Bank and the Gaza Strip is largely homogenous. Importers purchase sugar either directly through dealing in forward contracts and futures contracts in international commodities markets and purchasing from international sugar exporters, or through Israeli traders who in turn have connections to international exporters of sugar or deal in international commodities markets. As is the case for all goods imported directly from abroad, Palestinian sugar imports get shipped to the Israeli port of Ashdod at which point they are processed and inspected by the Israeli Ports Authority and Israeli Customs. Israeli clearing agents are commissioned to facilitate this process. When importing from Israeli traders, also as is the case with all goods, sugar imports are shipped to the West Bank through Commercial Terminals with trucks with Israeli license plates.

Sugar importers sell almost exclusively to wholesalers, who in turn sell to retailers, and in some cases directly to consumers. Some importers and wholesalers of sugar act as "bulk-breakers" by repackaging their purchases into smaller packages before selling to their clients under their brand names. Retailers comprise the last chain in the supply, but the most important link in the chain in terms of physical access. Sugar is available for sale to end consumers in packages of 50, 25, and 1 kilograms.

Rice moves from international markets to the oPt market in much of the same way as sugar. The key difference, however, is that "bulk-breaking" is only a common practice by a limited number of rice retailers.

The traditional sources of rice in the Palestinian markets are Australia, America and Southeast Asia such as Vietnam and Thailand. Recently, Egyptian rice has been gaining a significant market share, especially in the Gaza Strip. Interviews with traders suggest that Australian and American rice marketed under Al-Shuqha brand account for 50 percent of the market share in the West Bank and 30 percent of the market share in the Gaza Strip.

Al-Shuqha rice is imported directly through an Arab-Israeli dealer form Nazareth, who distributes to some 100 wholesalers through regional agents. Anecdotal evidence strongly suggests that Al-Shuqha brand has been losing significant market share in both the West Bank and the Gaza Strip during the past three years to cheaper brands such as Diamond, Yasmina ,Khasab, and Abu Gharbeyah in the West Bank and Sunwhite and other brands in the Gaza Strip.

The rice market is competitive with a relatively large number of traders and importers engaged in rice trade. Thai and Egyptian rice represent the cheapest rice in the market with 40 percent lower prices compared to American or Australian brands, but due to consumer preferences, buying habits and relatively limited distribution have not yet captured a large market share. Rice is available for sale to end consumers in pre-packaged bags of 25, 5, and 1 kilogram. Some retailers offer consumers the option to buy in smaller or bigger quantities than what is available in pre-packaged forms through bulk-breaking large 50 kilogram bags.

3. Market Structure and Concentration

The most recent data by PCBS reveals that 17,653 food traders operate in the oPt, of which 759 (4.3 percent) are wholesalers and 16,894 (95.7 percent) are retailers. The data also reveals that close to three quarters of the food wholesalers and more than two thirds of the retailers are in the West Bank.[35] While data is not readily available on the commodities being traded by the wholesalers and retailers and the volumes of trade transacted by each to verify whether inter- and intra-regional disparity exists as these numbers initially imply, anecdotal evidence gathered through interviews with traders suggests that there is a relatively varying degree of concentration within wholesale markets of imported foods at the national, regional and sub-regional levels, depending on the food commodity in question.

[35] PCBS, Population, Housing and Establishment Census 2007, Economic Establishments: Main Findings, 2008.

As we shall present below, sugar market is the most concentrated of the three markets studied as it is largely controlled by one importer who is the exclusive oPt agent for one of the world's largest refineries. The wheat flour is less concentrated than the sugar market as it has a larger number of importers that deal with the same suppliers in Israel. The rice market is the least concentrated of all markets studied due to a much larger number of importers and more diversified sources of rice. Despite being a cause of concern from a food security market performance perspective, the high level of concentration is to be expected from an economic point of view given the oPt's comparatively small market size on the one hand, and the large amount of bureaucracy, complexity of import procedures and uncertainty with which Palestinian traders have to deal on the other hand.

3.1. Wheat Flour Market

As noted above, the key players in the wheat flour market in the Gaza Strip are the six mills (out of which five are currently operating), whose production is estimated to hold anywhere between 65-75 percent of the total market share in the Gaza Strip. Aside from UNRWA and WFP, the mills' main clients are the Gaza bakeries, which are estimated to consume between 45-60 percent of the mills' daily production for bread making. Traders interviewed estimated that local bakeries market bread to 40-50 percent of the population.

While the survey could not objectively ascertain the number of wheat flour importers accounting for the remaining 25-35 percent of the total market share, market interviews strongly suggest that these do not exceed half a dozen as many wholesalers stopped their imports of wheat flour since the Gaza mills started gaining substantial market share and as global prices increased. The Gaza Blockade and the increased levels of food aid may have provided an additional incentive for traders to stop dealing in wheat flour.

Market interviews suggest that 90 percent of all commercial wheat flour available in the West Bank is directly imported from mills inside Israel, of which anywhere between 60-70 percent is said to originate from a single supplier: The Greater Haifa Mills. This mill markets wheat flour in the West Bank and the Gaza Strip exclusively through six Palestinian importers (4 in the West Bank and 2 in Gaza), each covering a distinct market catchment. All of these importers also trade in other staple foods such as rice, sugar and pulses.

Several traders noted that in the past two years imports of Ukrainian and Egyptian wheat flour have been increasing and slowly gaining market share, which has increased price competition between the various importers. This notwithstanding, discussions with bakery owners and various wholesalers revealed that the number of importers of wheat flour from both Israel and abroad is relatively small. A total of 11 importers could be identified through market interviews, and these were distributed almost equally between the cities of Nablus, Ramallah and Hebron, and Gaza city. Of those interviewed among these importers, none of them seemed to have relations with bakeries or wholesalers outside their own region, which suggests even a larger degree of market concentration.

3.2. Sugar Market

Commercial sugar -like wheat flour- is either imported directly from abroad through international exporters and commodity markets or from Israeli traders. The key movers in the supply chain for the former (direct imports from abroad) are quite few, with one importer in Nablus (Al-Shunnar) reportedly accounting for more than 95 percent of direct sugar imports and about half of the total sugar market in the oPt.[36] As for the latter, the key movers are wholesalers who trade in other staple food items, hence they are many. However, most of these import sugar from Israeli traders for mostly sale within their governorates.

3.3. Rice Market

As noted above, various brands from different sources are available in the oPt market. Al-Shuqha brand commands the largest market share in both the West Bank and theGaza Strip, although its share has been recently dropping as imports of other brands have been increasing. The rice market is the least concentrated of all imported staple foods under study.

[36] Several wholesalers in both the West Bank and the Gaza Strip confirmed dealing with Al-Shunnar either directly or indirectly through other wholesalers. Reportedly, Al-Shunnar imports an average of 3,500-4,000 tonnes of sugar per month, of which he ships 80 percent directly to wholesalers in the West Bank and the Gaza Strip without unloading in his warehouses. Al-Shunnar is an exclusive oPt agent of one of the largest sugar refineries in the world, which Al-Shunnar estimates to have 33 percent share of the global sugar market.

4. Government Policies

While both the MoTNE in the West Bank and the Gaza Strip are regulating food markets, market visits and trader interviews suggest that the latter – possibly as a result of the unpredictable supply caused by the Blockade- is much more proactive in monitoring and stabilizing the availability of staple foods and market prices. Interviews with traders and MoTNE officials in the Gaza Strip revealed that the Ministry has adopted and institutionalized the following strategies to stabilize prices of staple imported food commodities and increase accessibility of the Gazan consumers to these foods:

- Regular daily monitoring of the flow of imports: using daily monitoring data on commercial imports entering through the different commercial terminals, the MoTNE conducts spot checks to importers and wholesalers warehouses to monitor whether any of them are hoarding imports to raise prices. In such cases, traders are subject to fines that get determined on an individual, case-by-case basis.

- Encouraging and providing incentives for traders to import specific food commodities deemed to be in short supply. The MoTNE in the Gaza Strip estimates that the daily import needs of wheat, sugar and rice are 450, 110, and 72 tonnes respectively.

- Exercising a price control policy for staple foods, particularly bakery bread and – to a lesser extent- wheat flour. For example, 3 kilogram of flat bread costs NIS 6, which is the daily amount needed for an average family, with wheat flour being provided by the various mills (at MoTNE's controlled price). Anecdotal evidence suggests that prices are set by MoTNE in the Gaza Strip through some consultations with traders associations.

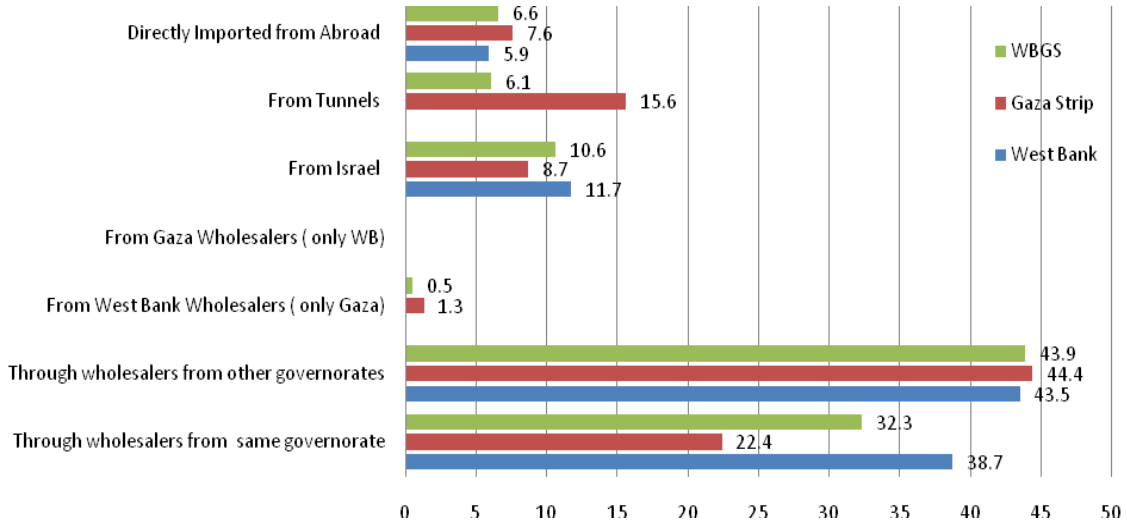
In the West Bank, the MoTNE has a minimalist role in monitoring market performance and seems to have very limited resources to do so since the merger of the Ministries of Trade, Economy and Supply. The Ministry of Supply was previously responsible for monitoring and managing marketing and purchases of staple food imports, regulating staple food prices, and maintaining strategic stocks of staple foods. Traders contend that since the dissolution of the Ministry of Supply, the PA has had very little market monitoring function aside from the inspection and monitoring of traders' adherence to product safety and labeling standards. MoTNE's most recent intervention aiming at regulating market prices was in 2008, when the Ministry set the price of bread from bakeries at NIS 4.5 per kilogram. It seems, however, that bakery owners did not adhere to the Ministry set price due to the lack of enforcement mechanisms in place.

5. Changes in Market Conduct and Food Availability

5.1. Supply Chain Linkages and Market Structure

The main sources of supply for more than three quarters of the wholesalers in the West Bank and the Gaza Strip are Palestinian traders from the same governorate (38.7 percent) or from a different governorate in the same region (43.5 percent). A meager 1.3 percent of the surveyed wholesalers in the Gaza Strip are dealing with West Bank counterparts, whereas none of the West Bank traders surveyed reported having any trade relations with the traders in the Gaza Strip. Israeli wholesalers are the main direct suppliers of imported staple foods for 10.6 percent of the Palestinian traders in the oPt (11.7 percent in the West Bank and 8.7 percent in Gaza Strip). 15.6 percent of the Gaza wholesalers rely on tunnel trade as shown in Figure 21 below.

Figure 21: Distribution of wholesalers according to the reported origin and source of main suppliers



Survey results strongly suggest that supply relations between traders have changed quite considerably in the Gaza Strip (Figure 21). Close to 47 percent of the traders in the Gaza Strip reported having changed their suppliers during the past two years, and attributed this change mostly to the consequences of the Israeli closure. While some 13 percent of the surveyed traders in the West Bank indicated changing their supplier in the past two years, the reasons for these changes seemed to be much less motivated by closure policies. As Figure 22 shows, West Bank wholesalers changed their suppliers as a result of a relatively equal combination of factors related to their desire to lower prices, whereas Gaza traders seemed to have much lesser opportunities for doing the same. Gaza traders explained that the closure constrains their ability to seek suppliers who provide cheaper prices as most of these either cannot import food into the Gaza Strip or are reticent to do so. The consequence, according to Gaza traders, is a forced change in suppliers.

Figure 22: Distribution of traders with respect to whether the change in their supply sources in comparison to two years ago

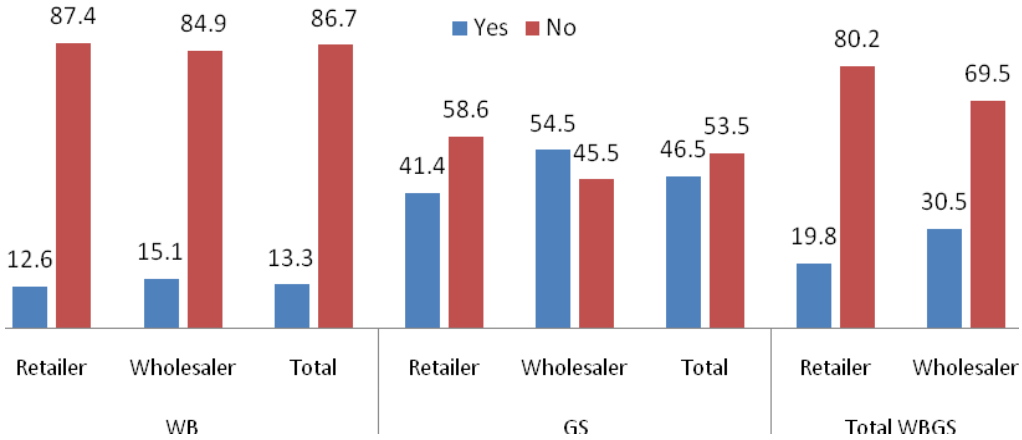
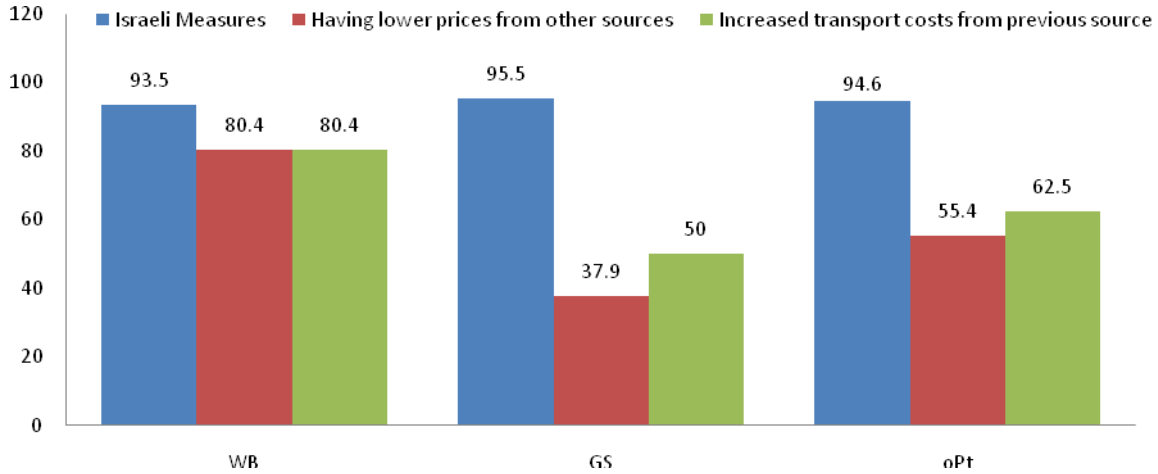


Figure 23: Distribution of traders according to the reasons for changing their sources of supply



The key changes in the supply chain reported by surveyed traders are summarized in Table 14 below. The figures in this table indicate an increasing trend towards trade localization in the West Bank and towards increased informal trade and market concentration in the Gaza Strip, with close to 60 percent of the traders indicating increasing trade transactions with suppliers from the same governorate at the expense of transactions with traders from different governorates, and a whopping 90.4 percent of the Gaza traders indicating increasing reliance on supplies smuggled through the Rafah tunnels. The latter is quite substantial as it clearly suggests a shift towards a more informal and unregulated supply chain. The implied risk is a breakdown in formal –and more reliable- supply chain channels and the likelihood of entry of food items that do not meet the minimum safety and health standards.

Table 14: Percentage of traders indicating the change in main sources of the supply channels for their products

Supply channels		**Increased**	**Decreased**	**No change**	**Total**
From the same governorate	WB	59.5	27.0	13.5	100
	GS	28.0	46.0	26.0	100
	Total	**41.4**	**37.9**	**20.7**	**100**
From a different governorate	WB	55.3	31.6	13.2	100
	GS	38.5	34.6	26.9	100
	Total	**45.6**	**33.3**	**21.1**	**100**
From Israel	WB	7.7	80.8	11.5	100
	GS	0	100.0	0	100
	Total	**4.7**	**88.4**	**7.0**	**100**
From Tunnels	GS Retailers	86.7	10.0	3.3	100
	GS Wholesalers	95.5	0.0	4.5	100
	Total	**90.4**	**5.8**	**3.8**	**100**

Linked to the above and consistent with the earlier conclusions related to market integration analysis, the survey findings also reveal an increased tendency towards localization of sales among wholesalers, where close to 82 percent of the traders reported that their sales are made to traders from the same governorate as shown in Table 15 below.

Table 15: Percentage of wholesalers indicating main marketing channels for their products

Marketing channels	West Bank	Gaza Strip	oPt
The same governorate	86.0	75.6	81.9
To a different governorate	13.6	24.4	17.8
To the west bank (only Gaza)	0.0	0	0.0
To Gaza (only WB)	0.3	0	0.2
To Israel	0.2	0	0.1
Total	**100**	**100**	**100**

5.2. Financial Resources and Payment Terms

Findings from trader interviews indicated that payment terms and credit sales in the local markets are largely determined by the interplay of several factors including the perceived credibility of buyers, and the personal and commercial relationship between suppliers, wholesalers, retailers and customers. Recently, however, other market factors such as the fluctuation in commodity prices, risks entailed in the transport of goods, and political conditions, have becoming increasingly important for traders in determining payment terms. Despite this, credit sales and payment terms remain among the key marketing penetration and market share acquisition strategies employed by Palestinian traders.

Trader interviews suggested that traders adjust their forward credit they offer to their clients according to the changes they experience in the backward credit they receive from their suppliers, although these adjustments do not seem to be made on the basis of thorough financial calculations. Generally, traders tend to increase forward credit to their clients at a much higher rate than the rates of increase in backward credit they receive from their suppliers. However, the same is not true when backward credit reductions are involved, where traders reduce forward credit in smaller percentages; mainly to retain clients.

Overall, both the survey results and traders interviews suggest that traders in the oPt have sufficient access to credit to sustain financing their business operations, despite substantial reductions. The survey findings indicated that on average more than one third of the traders have experienced reduced access to credit facilities from their suppliers in the last two years, with significant differences between West Bank and Gaza Strip traders in this regard. As shown in the table below 24.2 percent of the traders in West Bank reported a decrease in the credit facilities provided by suppliers compared to 66.9 percent in the Gaza Strip.

Table 16: Distribution of traders with respect to the change in credit facilities provided by suppliers in comparison to two years ago

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	10.0	19.2	70.9	100
	Wholesaler	14.0	39.5	46.5	100
	Total	**11.0**	**24.2**	**64.8**	**100**
GS	Retailer	9.2	66.7	24.1	100
	Wholesaler	9.1	67.3	23.6	100
	Total	**9.2**	**66.9**	**23.9**	**100**
Total oPt	**Retailer**	**9.8**	**31.0**	**59.2**	**100**
	Wholesaler	**12.1**	**50.4**	**37.6**	**100**
	Total	**10.4**	**36.6**	**53.0**	**100**

While changes in payment terms between traders are a common in business as market factors change, the extent to which payment terms (credit) granted by suppliers to their clients have decreased (43.9 percent) is quite alarming, especially since backward credit is one of the key business financing strategies for most traders. As Table 17 below shows, the

average decreases in credit facilities reported by Gaza traders are even more critical, implying a significant reduction in traders financial capacity to make purchases (which could also explain the reduction in stock levels reported above).

Table 17: Distribution of traders with respect to the percentage of decrease in credit facilities provided by suppliers (Among those who reported a decrease in credit facilities)

Areas	Average percentage decrease in credit facilities provided by suppliers
North WB	41.8
Middle WB	27.9
South WB	18.9
Total WB	**30.7**
Middle and North GS	59.8
South GS	52.5
Total GS	**55.5**
Total oPt	**43.9**

Noteworthy is the disparity between the changes reported by traders in urban and rural areas and refugee camps vis-à-vis backward credit facilities. Substantially more urban traders (42 percent) witnessed decreases in backward credit facilities from their suppliers than traders in refugee camps (23.1 percent) and in rural areas (8.8 percent), as shown in the table below. Anecdotal evidence suggests that this may be due to the fact that rural traders generally have lower terms of credit than urban traders, and a large proportion of them purchase their supplies on a cash basis when placing orders on at delivery.

Table 18: Distribution of traders (by locality type) with respect to the change in credit facilities provided by suppliers in comparison to two years ago

Locality type	Increased	Decreased	No change	Total
Urban	11.2	42.0	46.8	100
Rural	7.0	8.8	84.2	100
Refugee camps	7.7	23.1	69.2	100
Total oPt	**10.4**	**36.6**	**53.0**	**100**

Consistent with the above generalization on the relationship between backward and forward credit, the survey findings showed that one third of the traders in the West Bank and the Gaza Strip have decreased their forward credit to their clients, while 35 percent introduced increases. As would be expected given the higher rates of decreases in backward credit reported earlier by Gaza traders, decreases in forward credit were mostly introduced by Gaza traders as can be observed in the following two tables.

Table 19: Distribution of traders with respect to the change in forward credit provided to customers in comparison to two years ago

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	41.8	23.0	18.4	100
	Wholesaler	30.2	19.8	20.9	100
	Total	**38.9**	**22.2**	**19.0**	**100**
GS	Retailer	26.4	54.0	14.9	100
	Wholesaler	23.6	70.9	5.5	100
	Total	**25.4**	**60.6**	**11.3**	**100**
Total oPt	**Retailer**	**37.9**	**30.7**	**17.5**	**100**
	Wholesaler	**27.7**	**39.7**	**14.9**	**100**
	Total	**35.0**	**33.3**	**16.8**	**100**

Table 20: Distribution of traders with respect to the percentage of decrease in credit facilities provided to customers (Among those who reported a decrease in credit facilities)

Region	Average percentage decrease in credit facilities provided to consumers
North WB	42.4
Middle WB	27.9
South WB	20.0
Total WB	**39.5**
Middle and North GS	48.8
South GS	47.2
Total GS	**47.8**
Total oPt	**43.9**

Interviews with traders in the Gaza Strip suggest that the ability of Gaza traders to extend forward credit to their clients is severely constrained by decreased sales, limited availability of cash in Gaza banks, and the uncertain business environment induced by the closure. Several traders reported that their decisions to decrease forward credit to consumers is part of a business strategy to maximize their liquidity and reduce their business risk should security situation worsens. Wholesalers explained that they reduced forward credit to their clients due to emerging financing needs as a result of engaging in tunnel trade, which requires traders to pay in advance for all merchandise bound for smuggling through the Rafah tunnels.

5.3. Pricing Decisions

Most wholesalers and retailers interviewed reported "shopping" for prices of the brands they want to purchase of wheat flour, sugar, and rice before making purchases or placing orders. Market observations suggest, however, that most of the traders limit their shopping to a maximum of three suppliers with whom they usually trade. Retailers seemed to spend less time and effort shopping for prices than wholesalers as their businesses are not dependent on the trade in these food commodities.

Market information on prices seemed to be particularly important for importers who deal in a limited number of food commodities. This group of traders seemed to spend substantial amount of time monitoring market prices before placing orders (especially large ones) with their suppliers. This was particularly true for sugar importers, who were observed following prices of sugar in international commodity markets before making decisions on what, how much and at what price to buy. Al-Shunnar –the largest sugar importer in the oPt- noted that he often seeks the advice of economists and sugar market analysts working for the company in Europe with which he trades before placing orders. Wheat flour and rice importers, however, did not seem to consider the availability of such information for wheat and rice to be of much importance to them. Noting that most of them seemed to know how to obtain it if needed.

Interviews with West Bank and Gaza traders revealed that traders set prices for staple foods by applying a fixed amount markup on their purchases of staple foods. Most, traders interviewed however, did not seem to carefully consider their total fixed costs in their pricing process. While the survey could not ascertain the different markup methods used for different foods and by traders in different regions, the general conclusion is that wholesalers apply a fixed markup of 10-15 percent, while retailers apply a markup of 20-30 percent. The highest markup is applied to the smaller packages of foods; i.e. the one kilogram packages. That said, it should be noted here that Hebron and Gaza traders seemed to apply the lowest markups of all traders interviewed, which could explain the relatively high level of correlation between prices of staple imported foods in both regions.

The survey results show that traders consider a number of variable expenses when setting their sale price. These can be categorized under five main groups, namely: purchase costs and profit margins, competition, consumers' ability to pay (effective demand), the extent to which product is available to consumers through food aid programs, and costs related to closure (including additional transport costs, demurrage at ports, and product damage). While all of these factors are important to traders, Table 21 below shows that West Bank and Gaza traders view the importance of these factors quite differently.

Table 21: Distribution of traders with respect to the first importance factors the determine pricing disaggregated by trading business and areas

Region	Trader Classification	Costs related to closure	Competition between traders	Consumers ability to pay	Cost at source + Profit margin	Availability through food assistance	Others	Total
Total WB	Retailer	15.8	25.4	33.8	20.0	4.6	0.4	100
	Wholesaler	24.4	32.6	15.1	16.3	10.5	1.2	100
	Total	**17.9**	**27.2**	**29.2**	**19.1**	**6.1**	**0.6**	**100**
Total GS	Retailer	48.3	6.9	3.4	25.3	16.1	0	100
	Wholesaler	40.0	10.9	7.3	10.9	30.9	0	100
	Total	**45.1**	**8.5**	**4.9**	**19.7**	**21.8**	**0**	**100**
Total oPt	Retailer	23.9	20.7	26.2	21.3	7.5	0.3	100
	Wholesaler	30.5	24.1	12.1	14.2	18.4	0.7	100
	Total	**25.8**	**21.7**	**22.1**	**19.3**	**10.7**	**0.4**	**100**

Forty five percent of the traders in the Gaza Strip (compared to 17.9 percent of the West Bank traders) identified closure related costs to be among the top two factors they consider when setting prices, indicating the extent to which the Blockade is contributing to increasing traders transaction costs in the Gaza Strip. While closures also affect West Bank prices, there are other more important factors affecting prices in the West Bank; such as competition and economic access for consumers. Closure related costs are the additional expenses incurred by traders as a result of the extra costs associated with back-to-back transport, waiting times, and damages to products at commercial terminals.

With nearly 22 percent of the Gaza traders indicating that food assistance availability is among the two most important factors they consider when setting prices, food aid may be affecting markets in the Gaza Strip. As we shall examine below, interviews with traders in Gaza confirmed depressed demand for wheat flour in particular which is being distributed by the main food agencies operating in the Gaza Strip. However, as mentioned earlier, food aid in plays a significant role, according to traders, in stabilizing prices of staple foods, such as wheat flour.

5.4. Closure-Related Marketing Constraints and their Impact on Traders

Table 22 below presents the closure-related marketing constraints identified by traders, and the perceived effect of each on traders' overall business operations. The survey results confirmed to a large extent what had been widely reported and documented by various international organizations on the negative effects of closure on local markets. The most important aspects of the closure system perceived to have a big toll on market function are the closure of commercial crossings (including the closing of Al-Montar/Karni in the Gaza Strip), the Israeli incursions in Gaza, and the Separation Wall and permanent checkpoints in the West Bank.

Table 22: Distribution of traders with respect to their opinions regarding the effects of various Israeli measures on their business

Israeli measures		Yes, to a large extent	Yes, somewhat	Yes, but to a small extent	No, did not affect my business	Total
The West Bank Barrier (WB)		41.3	20.8	17.1	20.8	100
Flying checkpoints (WB)		19.2	28.1	24.3	28.4	100
Permanent checkpoints (WB)		31.4	26.6	19.8	22.2	100
Security procedures at Commercial Checkpoints	WB	18.1	17.1	19.7	45.2	100
	GS	41.9	23.1	7.7	27.4	100
	Total	24.8	18.8	16.3	40.1	100
Security checks at checkpoints (WB)		21.3	17.2	25.8	35.7	100
Ability to obtain permits to enter Israel	WB	9.9	11.6	9.9	68.5	100
	GS	38.6	6.8	9.1	45.5	100
	Total	14.5	10.9	9.8	64.9	100
Closure of crossings	WB	10.9	7.3	18.2	63.6	100
	GS	96.4	2.9	0.7	0	100
	Total	72.3	4.1	5.6	17.9	100
Israeli incursions (Gaza)		71.4	20.1	2.9	5.8	100

As Table 22 shows, Gaza traders perceive the closure to have a larger negative impact on their business than West Bank traders. This could be attributed to the fact that the West Bank closure has been slightly eased in recent months on the one hand, and that traders have found ways to circumvent its effects on the other. The closure of commercial crossings is perceived to have a greater impact on the Gaza traders than on the West Bank traders. More than 96 percent of the surveyed traders in the Gaza Strip indicated that the closure of the Gaza crossings seriously affects their business (compared to 10.9 percent of the West Bank traders). Similarly, the procedures at commercial crossings seem to be more disproportionately affecting Gaza traders than West Bank traders. Israeli incursions in the Gaza Strip are perceived by 91.5 percent of the traders to have a direct negative impact on business operations as they usually coincide with a closure of Gaza's commercial crossings.

While all of the closure aspects have been in place for more than two years, survey results suggest that their cumulative negative impact on Palestinian businesses has been surmounting during the past two years as Table 23 below shows. For example, 17 percent of the surveyed traders indicated that the delivery time for their imports has increased as a result of the Israeli measures in the last two years, while 52.4 percent and 73.4 percent of the traders reported an increase in the transportation cost and in the number of competitors in the market as direct and indirect result of the closure, respectively.

Table 23: Distribution of traders with respect to the perceived impact of the Israeli measures on their businesses

Israeli measures	Increased	Decreased	No change	Total
Delivery time from direct supplier	17.1	7.2	75.7	100
Distance from supply source to store/warehouse	2.2	1.7	96.1	100
Transport costs	52.4	2.4	45.2	100
Stock levels	6.1	54.1	39.8	100
Availability of traded foods	22.5	36.8	40.7	100
Number of competitors or new entrants	73.4	13.3	13.3	100
Sales volume	13.7	75.2	11.1	100
Business operations	4.4	35	60.6	100

About 54 percent of the traders indicated that the transportation costs for foodstuffs (from the source to their stores) have increased by 29.4 percent on average (Table 24). Transport costs represent more than 70 percent of traders marketing costs, implying the gravity of the increase in transport cost on consumer prices. This increase is attributed to the mobility restrictions that have increased the time and the distance needed to transport and process foodstuffs through commercial Terminals. The increase was slightly more prominent in the West Bank, where close to 56 percent of the surveyed traders reported having increased closure-related costs. This suggests that the recent easing of internal movement restrictions within the West Bank did not fully offset the transport cost increases and the costs of inspection delays experienced by traders at terminal crossings.

Table 24: Distribution of traders with respect to the nature of change in transportation cost caused by the Israeli measures

Sub-Region	Increased	Decreased	No change	Average increase in transportation cost
North WB	56.2	0	43.8	34.1
Middle WB	62.6	3.3	34.1	23.1
South WB	47.0	8.4	44.6	11.6
Total WB	**55.8**	**3.4**	**40.8**	**25.2**
Middle and North GS	58.7	0	41.3	38.7
South GS	45.5	1.3	53.2	42.5
Total GS	**50.0**	**0.8**	**49.2**	**40.7**
Total oPt	**54.1**	**2.6**	**43.3**	**29.4**

More than 75 percent of the traders surveyed reported a decrease in their sales volume as a direct result of the Israeli measures, with the percentage of traders who reported a decrease in their sales volume in the Gaza Strip being significantly higher than what was reported by traders in the West Bank. Reductions in sales ranged between 29.1 percent and 47.7 percent, with the Gaza Strip accounting for most sales reductions as can be observed from the following table.

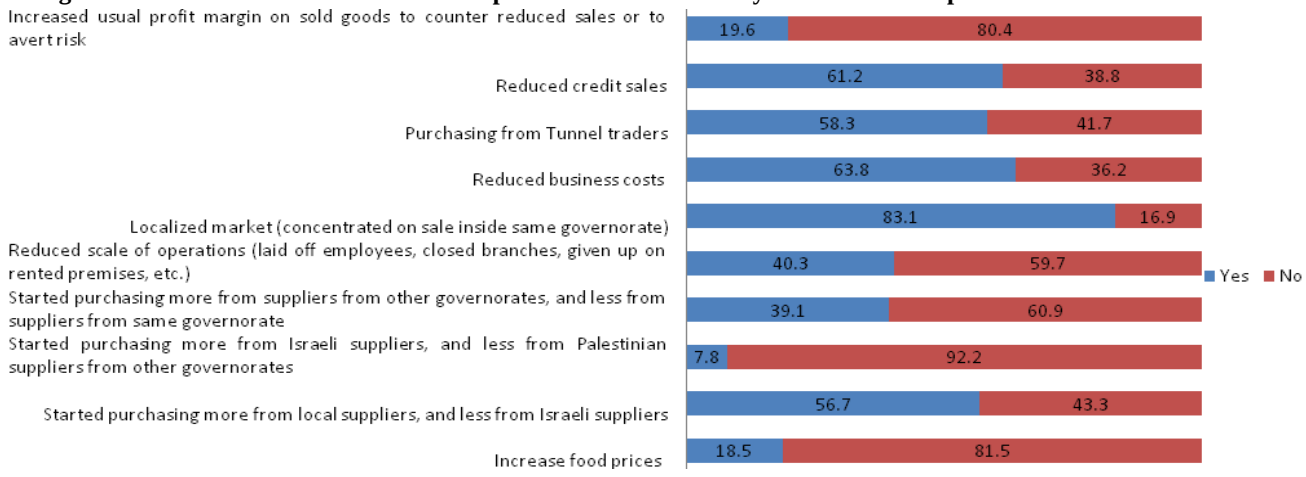
Table 25: Distribution of traders with respect to the nature of change in sales volumes caused by the Israeli measures

Region	Increased	Decreased	No change	Average decrease in sales volume
North WB	18.2	64.8	17.0	43.8
Middle WB	1.1	90.2	8.7	41.2
South WB	27.8	62.2	10.0	29.1
Total WB	**14.6**	**72.8**	**12.6**	**39.6**
Middle and North GS	10.2	81.4	8.5	47.9
South GS	6.1	89.0	4.9	47.7
Total GS	**7.3**	**86.3**	**6.5**	**47.7**
Total oPt	**13.7**	**75.2**	**11.1**	**42.3**

Recent FAO/WFP reports confirm traders' claim of reduced sales volume, although more strongly for the West Bank. These reports indicate that 42 percent of the West Bank households reported decreasing their expenditures on food by reducing the quality (37 percent) and quantity (34 percent they consume).[37] Fourteen percent of the household in the Gaza Strip reported doing the same, and 75 percent reported no change in expenditures. However, given the high price increases witnessed in the past two years and the fact that 75 percent of the households in the Gaza Strip have not witnessed a change in their income levels in the past two years, WFP argues that those households who reported that their expenditure level has remained the same have in reality increased their consumption gap due to their reduced purchasing power. [38]

Traders reported employing various strategies to cope with the Israeli measures and their effects over the past two years. Most traders resorted to localizing their trade activities and marketing inside the same governorate. Adopting cost reduction measures and reducing credit facilities were also frequently used by traders. More than 50 percent of the traders surveyed reported that they either deliberately or have been forced as a result of the closures to substitute Israeli suppliers with local suppliers, as well as localizing their suppliers. Measures taken by traders to cope with Israeli closure policies are summarized in Figure 24 below.

Figure 24: Distribution of traders with respect to the measures they have taken to cope with Israeli closures



Disaggregating the above figures by region indicates that stress coping mechanisms have been tapped more by Gaza traders than their peers in the West Bank, which implies higher rates of vulnerability among the Gaza traders. As table 26 below shows, the percentage of Gaza traders who resorted to increasing food prices is three times higher the percentage of

[37] WFP, Socio-Economic and Food Security Survey Report- West Bank, July 2009.
[38] WFP, Socio-Economic and Food Security Survey Report 2- Gaza Strip, November 2009.

traders who did the same in the West Bank. A similar picture emerges when considering the percentage of traders who reported reduction of credit sales. In interviews, most Gaza traders reported inability to further reduce their business costs or credit facilities, and highlighted that any further reduction in costs or profit margins would entail additional loss in sales volume. Such expressions were not voiced by interviewed traders in the West Bank.

Table 26: Distribution of traders with respect to the Measures they taken to cope with Israeli closure policy

Coping strategies		Yes	No	Total
Increase food prices	WB	12.8	87.2	100
	GS	32.4	67.6	100
	Total	**18.5**	**81.5**	**100**
Started purchasing more from local suppliers, and less from Israeli suppliers	WB	55.7	44.3	100
	GS	61.7	38.3	100
	Total	**56.7**	**43.3**	**100**
Started purchasing more from Israeli suppliers, and less from Palestinian suppliers from other governorates	WB	7.5	92.5	100
	GS	10.5	89.5	100
	Total	**7.8**	**92.2**	**100**
Started purchasing more from suppliers from other governorates, and less from suppliers from same governorate	WB	31.6	68.4	100
	GS	59.2	40.8	100
	Total	**39.1**	**60.9**	**100**
Reduced scale of operations (laid off employees, closed branches, given up on rented premises, etc.)	WB	42.3	57.7	100
	GS	35.4	64.6	100
	Total	**40.3**	**59.7**	**100**
Localized market (concentrated on sale inside same governorate)	WB	83.2	16.8	100
	GS	83.0	17.0	100
	Total	**83.2**	**16.8**	**100**
Purchasing from Tunnel traders	**Total (GS)**	**58.3**	**41.7**	**100**
Reduced credit sales	WB	56.7	43.3	100
	GS	71.4	28.6	100
	Total	**61.2**	**38.8**	**100**
Increased usual profit margin on sold goods to counter reduced sales or to avert risk	WB	22.3	77.7	100
	GS	13.0	87.0	100
	Total	**19.6**	**80.4**	**100**

Moreover, 65 percent of the importers surveyed indicated that import procedures have become more difficult in the past two years, with a larger proportion of importers in the Gaza Strip reporting increased difficulties. As the table below shows, 89 percent of the importers in the Gaza Strip reported that the importing procedures became more difficult compared to 45.5 percent of the traders in West Bank who reported the same.

Table 27: Distribution of importers with respect to their opinions regarding the change in various importing procedures from abroad

Region	Became more difficult	Became easier	No change	Total
WB	45.5	9.1	45.5	100
GS	88.9	0.0	11.1	100
Total oPt	**65.0**	**5.0**	**30.0**	**100**

Among those traders who reported that the importing procedures became more difficult in the last two years, 92.3 percent reported increase in the difficulties related to transporting mechanisms due to commercial crossing standards and

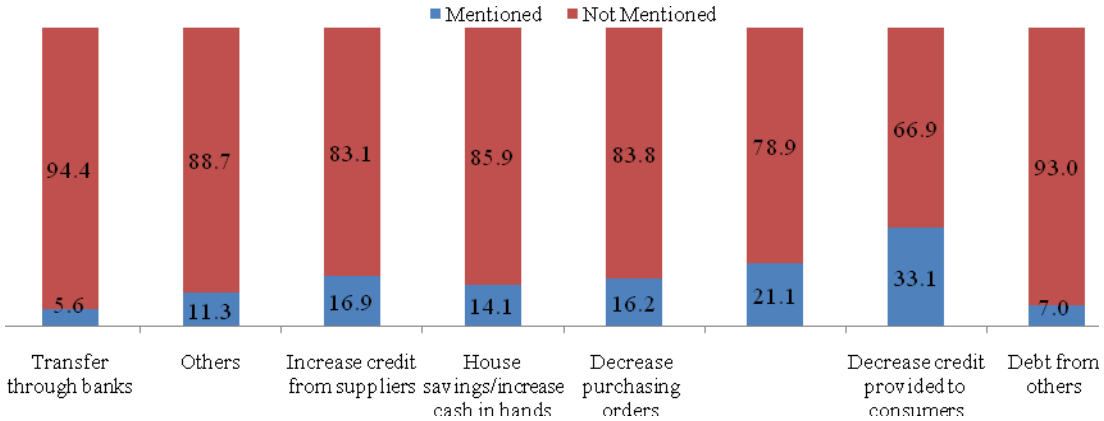
protocols, 81.8 percent reported an increase in demurrage and associated costs, and 69.2 percent indicated increased shipping costs to Palestinian areas. More details in this regard are presented in the following table.

Table 28: Distribution of importers with respect to their opinions regarding the level of difficulties in various importing procedures (among those who reported that importing procedures became more difficult)

Difficulties in importing procedures	Yes	No	Total
Increase in shipping costs	69.2	30.8	100
Increase in demurrage and associated costs	81.8	18.2	100
Increased difficulties in transporting mechanisms due to commercial crossing standards and security protocols	92.3	7.7	100
Increase difficulties in processing banking transactions	30.8	69.2	100

Interviews with traders in the Gaza Strip suggested that Israeli Sheqel notes are generally available despite the restrictions on cash transfers from the Banks in West Bank to Gaza Banks. Even when cash shortages were problematic, traders were quick to find ways to deal with these shortages without necessarily affecting their businesses. The survey results showed that Gaza traders coped with cash shortages during the past two years by decreasing credit provided to consumers (reported by 33.1 percent of traders); decreasing bank deposits and bank transactions (21.1 percent of traders), and reducing their own household expenditures (14.1 percent of traders). Traders reported coping strategies vis-à-vis cash availability problems are presented in the Figure 25 below.

Figure 25: Distribution of traders with respect to measures they employed to cope with the liquidity problem



5.5. Food Availability, Demand and Sales

Traders have different perceptions of food availability in local markets in the oPt. The survey results show that 27.3 percent of the traders perceive food availability to have increased in comparison to two years ago, while 40.8 percent of the traders (mostly from the West Bank) believe that food availability has not changed over the past two years. The remaining 30.7 percent of the traders surveyed think that food is less available than two years ago. Of this group more than 70 percent are Gaza traders. On the balance, however, Gaza traders think that food is less available than two years ago, while West Bank traders believe that food availability has not changed in the last two years. While highly perceptual, traders perceptions of food availability provide an indication of the overall market performance.

Table 29: Distribution of traders with respect to their opinions regarding the change in food availability in comparison to two years ago

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	24.2	18.5	55.8	100

	Wholesaler	14.0	32.6	51.2	100
	Total	**21.7**	**22.0**	**54.6**	**100**
GS	Retailer	49.4	46.0	4.6	100
	Wholesaler	27.3	61.8	10.9	100
	Total	**40.8**	**52.1**	**7.0**	**100**
Total oPt	**Retailer**	**30.5**	**25.4**	**42.9**	**100**
	Wholesaler	**19.1**	**44.0**	**35.5**	**100**
	Total	**27.3**	**30.7**	**40.8**	**100**

Market visits and interviews with traders confirmed that the availability of wheat flour, sugar and rice in West Bank and Gaza markets is not problematic. Various brands of wheat flour, sugar and rice were found in both West Bank and Gaza markets, and traders did not report witnessing any shortages in these commodities in recent months. The West Bank market seems to be fully functional despite the closure regime, as traders maintain their business operations and regularly re-evaluate their supply chains.

The Tunnel trade in the Gaza Strip seems to have been contributing quite significantly to food availability and is believed to circumvent the effects of supply shortages in basic and non-basic foods resulting from the Blockade and the limited entry of food into the Gaza Strip through the Israeli controlled crossings. The sustainability of tunnels as a pipeline for food is highly uncertain, however, as the Israeli Air Force continues to launch strikes against tunnels. An escalation of such strikes will likely lead to decreased levels of availability relatively immediately. Food aid in both regions is also playing a significant role, according to traders, in stabilizing prices of staple foods. But at the same time, it is depressing demand for these foods (especially in the Gaza Strip). In both regions, availability and physical access to markets will remain subject to the Israeli restrictions on the ground, rendering monitoring of movement of restrictions and entry of food imports through the crossings of paramount importance for market functionality food security analysis.

The main problem facing staple food traders is related to reduced sales volumes as a result of depressed demand. The majority of surveyed traders reported a decrease in their sales volume in comparison to two years ago. Disaggregating traders responses by region reveals that more than 87 percent of traders in the Gaza Strip have witnessed reductions in sales volumes during the last two years, compared to 67.7 percent of the West Bank traders. Wholesalers and retailers in the Gaza Strip seem to be equally affected by sales decreases, whereas in the West Bank retailers seem to be more disproportionately affected.

Table 30: Distribution of traders with respect to the change in their sales volume in comparison to two years ago

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	13.8	72.4	13.8	100
	Wholesaler	18.6	53.5	27.9	100
	Total	**15.0**	**67.7**	**17.3**	**100**
GS	Retailer	5.7	88.5	5.7	100
	Wholesaler	9.1	85.5	5.5	100
	Total	**7.0**	**87.3**	**5.6**	**100**
Total oPt	**Retailer**	**11.8**	**76.4**	**11.8**	**100**
	Wholesaler	**14.9**	**66.0**	**19.1**	**100**
	Total	**12.7**	**73.4**	**13.9**	**100**

The scale of the decrease in sales volume reported by Gaza traders is slightly higher than that reported by West Bank traders. The latter group reported an average decrease 42.1 percent, while the former reported a decrease of 48.2 percent as the table below shows.

Table 31: Distribution of traders with respect to the percentage of decrease in their sales volume (among those who reported a decrease in their sales)

Region	Average decrease in sales volume reported by traders
North WB	46.3

Middle WB	41.7
South WB	34.6
Total WB	**42.1**
Middle and North GS	48.9
South GS	47.9
Total GS	**48.2**
Total oPt	**44.2**

As table 32 below shows, while the decrease in sales was reported by urban, refugee camp and rural retailers, sales decreases were more frequently reported by the rural and refugee camp traders. This is consistent with recent WFP data that show higher levels of food insecurity among rural and refugee households than urban and non-refugee households.

Table 32: Distribution of traders with respect to the change in their sales volume in comparison to two years ago

Locality type	Increased	Decreased	No change	Total
Urban	13.5	71.8	14.8	100
Rural	10.5	82.5	7.0	100
Refugee camps	7.7	76.9	15.4	100
Total oPt	**12.7**	**73.4**	**13.9**	**100**

The survey result revealed various factors contribute to the decrease in sales volume:

- All the traders reported that the poor economic conditions of the consumers as very important or important factor behind the decrease in their sales.
- 92 percent of the traders mentioned the increase in food prices as a very important or important factor behind the decrease in their sales.
- 95.7 percent of the traders reported that the closure on Gaza Strip as a very important or important factor behind the decrease in their sales.
- 84.7 percent of the traders reported that the Israeli closures and commercial trade routes as a very important or important factor behind the decrease in their sales.
- 79.7 percent of the traders reported that the increase in competition caused by new entrants as a very important or important factor behind the decrease in their sales.
- 68.1 percent of the traders reported that food assistance as a very important or important factor behind the decrease in their sales volume.

More details in this regard are presented in the following table.

Table 33: Distribution of traders with respect to their opinions regarding the level of importance of various factors behind the decrease in their sales volume

Factors	Very important	Important	Not important	Entirely not important	Total
Increase in food prices	76.5	15.9	5.9	1.7	100
Closure of Gaza	87.0	8.7	3.1	1.2	100
Israeli closures and commercial trade routes (WB)	52.1	32.6	11.3	4.0	100

Food assistance	45.8	22.3	19.3	12.6	100
Increased competition caused by new entrants	46.7	33.0	13.7	6.6	100
Poor economic conditions among consumers	88.5	11.5	0	0	100
Reduced credit from suppliers	27.6	39.0	25.1	8.3	100
Reduced credit to clients	30.7	30.1	27.5	11.7	100

Traders reported decreases in the number of clients over the past two years, especially among Gaza traders (Table 34) who reported an average perceived loss of 43.6 percent of their clients, compared to 35.6 percent among the West Bank traders. While seemingly high, these figures are consistent with figures provided during in-depth trader interviews.

Table 34: Distribution of traders with respect to the perceived change in the number of clients over the last two years

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	18.4	46.7	34.9	100
	Wholesaler	29.1	40.7	30.2	100
	Total	**21.0**	**45.2**	**33.7**	**100**
GS	Retailer	16.1	56.3	27.6	100
	Wholesaler	18.2	65.5	16.4	100
	Total	**16.9**	**59.9**	**23.2**	**100**
Total oPt	**Retailer**	**17.8**	**49.1**	**33.0**	**100**
	Wholesaler	**24.8**	**50.4**	**24.8**	**100**
	Total	**19.8**	**49.5**	**30.7**	**100**

5.6. Response to Price Increases

When asked about the importance of various factors to prices in local markets, surveyed traders indicated to the following:

- 95 percent of the traders reported that the increase in global food prices was very important or important factor behind the increase in food prices in local markets.
- 75.7 percent of the traders reported that the increase in shipping/transport costs was very important or important factor behind the increase in food prices in local markets.
- 81.8 percent of the traders reported that the Checkpoints and Israeli movement restrictions was very important or important factor behind the increase in food prices in local markets.

Further details emerging from the survey results in relation to factors affecting prices in local markets are presented in the table below.

Table 35: Distribution of traders with respect to their opinions regarding the importance of various factor related to the increase in food prices

Price Effect on Performance of Local Market		Very important	Important	Not important	Entirely not important	Total
Increase in shipping/transport costs	WB	42.2	30.1	17.7	10.0	100
	GS	48.6	35.2	12.0	4.2	100
	Total	**44.1**	**31.6**	**16.0**	**8.3**	100
Global food price	WB	91.1	8.4	0.6	-	100

	GS	55.6	28.9	10.6	4.9	100
	Total	**80.8**	**14.3**	**3.5**	**1.4**	**100**
Checkpoints and Israeli movement restrictions	WB	53.7	26.0	13.3	7.1	100
	GS	69.9	20.5	3.6	6.0	100
	Total	**56.9**	**24.9**	**11.4**	**6.8**	**100**
Limited Availability of food in local market	WB	43.6	21.8	18.7	16.0	100
	GS	73.0	15.6	7.8	3.5	100
	Total	**52.5**	**19.9**	**15.4**	**12.2**	**100**

The increase in food prices has had various effects on traders business operations as shown in the table below. 55.3 percent of the traders reported that the increase in food prices depressed the overall demand for food, 50.9 percent and 73.3 percent of the traders reported that the increase in food prices forced them to decrease their stock levels and resulted in reduced sales, respectively.

Table 36: Distribution of traders with respect to effect of the increase in food prices on various aspects in trading business

Price increase Effect on …		**Increase**	**Decrease**	**No change**	**Total**
Overall change in demand for food	WB	20.5	57.2	22.3	100
	GS	34.5	50.7	14.8	100
	Total	**24.6**	**55.3**	**20.1**	**100**
Demand for lower price and quality varieties	WB	90.8	2.6	6.6	100
	GS	81.0	9.9	9.2	100
	Total	**87.9**	**4.7**	**7.4**	**100**
Change in your stock levels	WB	11.0	41.6	47.4	100
	GS	11.3	73.8	14.9	100
	Total	**11.1**	**50.9**	**38.0**	**100**
Change in availability of food in local market	WB	17.1	25.7	57.2	100
	GS	29.6	62.0	8.5	100
	Total	**20.7**	**36.3**	**43.0**	**100**
Change in sales volume of foods traded	WB	17.7	67.2	15.1	100
	GS	6.3	88.0	5.6	100
	Total	**14.4**	**73.3**	**12.3**	**100**
Change in your profit margin/mark-up	WB	13.3	56.1	30.6	100
	GS	7.7	74.6	17.6	100
	Total	**11.7**	**61.5**	**26.8**	**100**

When asked to reflect their observations on how the increase in food prices affected the consumption patterns of their clients, about 88 percent of the traders reported that the increase in food prices increased the demand for lower price and quality variety without significant differences in this regard between the West Bank and the Gaza Strip.

Table 37: Distribution of traders with respect to their opinions regarding the effect of the increase in food prices on the demand for lower price and quality varieties

Areas	Trading business	Increase	Decrease	No change	Total
WB	Retailer	91.9	1.9	6.2	100
	Wholesaler	87.2	4.7	8.1	100
	Total	**90.8**	**2.6**	**6.6**	**100**

GS	Retailer	81.6	8.0	10.3	100
	Wholesaler	80.0	12.7	7.3	100
	Total	**81.0**	**9.9**	**9.2**	**100**
Total oPt	**Retailer**	**89.3**	**3.5**	**7.2**	**100**
	Wholesaler	**84.4**	**7.8**	**7.8**	**100**
	Total	**87.9**	**4.7**	**7.4**	**100**

The above findings are consistent with the findings of two recent FAO/WFP assessments of the socio-economic and food security conditions in the West Bank and the Gaza Strip, which showed that 37 percent of households in the West Bank and 94 percent of the households in the Gaza Strip have reduced the quality of foods they purchase.[39, 40]

5.2. Stock Levels

While surveyed traders gave mixed answers when asked to compare their current stock levels to those levels two years ago, the majority of them seemed to have reduced their stock levels: 48.5 percent of surveyed traders reported maintaining lower levels of stock, compared to 13.7 percent reporting increases; 37.8 percent reported no change. Decreases in stock levels were mostly reported by Gaza retailers and wholesalers (72.5 percent), West Bank retailers and wholesalers also reported an average stock decrease of 38.6 percent.

Table 38: Distribution of traders with respect to the change in their current stock levels compared to two years ago

Region	Trader Classification	Increased	Decreased	No change	Total
WB	Retailer	14.6	34.5	51.0	100
	Wholesaler	15.1	51.2	33.7	100
	Total	**14.7**	**38.6**	**46.7**	**100**
GS	Retailer	10.3	73.6	16.1	100
	Wholesaler	12.7	70.9	16.4	100
	Total	**11.3**	**72.5**	**16.2**	**100**
Total oPt	**Retailer**	**13.5**	**44.3**	**42.2**	**100**
	Wholesaler	**14.2**	**58.9**	**27.0**	**100**
	Total	**13.7**	**48.5**	**37.8**	**100**

Traders interviews provided similar findings to those presented in the table above. Generally, traders in the West Bank reduced their stocks levels of staple food items due to the increase in global prices of these commodities. Traders in the Gaza Strip reduced their stock levels for much of the same reason, but also had other considerations such as depressed demand for these commodities due to the increased levels of food aid distribution following the imposition of the Blockade and in the aftermath of the war.

[39] WFP, Socio-Economic and Food Security Survey Report- West Bank, August 2009.
[40] WFP, Socio-Economic and Food Security Survey Report 2- Gaza Strip, November 2009.

Part IV: Conclusion and Programming Recommendations

A. Conclusion

Analysis of the markets in the oPt shows that traders have been highly resilient in confronting both increased global food and fuel prices, which have been immediately transferred to local markets, and increased complications of the closure regime. This notwithstanding, the resilience of markets' is rapidly eroding due to the protracted closure regime - which has been increasing market fragmentation and trade localization, thin profit margins, and increasing transaction costs. These factors have exacerbated weakness of market structures and functions, characterized by the limited number of traders for key basic foods, high degree of concentration, and restricted movements of food both in and out of oPt.

Market conditions in the Gaza Strip are the most precarious. Traders in the Gaza Strip are experiencing higher levels of risk and inflated transaction costs, larger reductions in effective demand and lowered access to credit facilities than their West Bank peers. The depressed state of the economy in the Gaza Strip has forced many people into the informal marketing sector, which has resulted in lost incomes for traders (especially retailers). The tunnel trade is introducing gradual –yet significant- changes to the market structure as increasing numbers of traders are engaging in tunnel trade. The underlying risks are the breakdown of traditional market systems and the increased dependence on unreliable supply chains.

Key to restoring market functionality and improving market performance is free and unobstructed movement of people and goods within the West Bank, between the West Bank and the Gaza Strip, and between the two regions and the rest of the World. The World Banks recently noted that "without efficient and predictable movement of people and goods, there is very little prospect for a sustainable Palestinian economic recovery."[41] The analysis presented in this report confirmed this by showing various evidence of worsening market conditions over the past two years.

While the Government of Israel has relaxed some internal West Bank restrictions, as described earlier, such incremental steps are not likely, by themselves, to lead to any sustainable improvement. Moreover, sustainable economic recovery will remain elusive if large areas of the West Bank – currently almost 60 percent of the land -- remain inaccessible for economic purposes and restricted movement remains the norm for the vast majority of Palestinians and expatriate Palestinian investors. Only through a fundamental reassessment of closure, and a restoration of the presumption of movement, will the Palestinian markets be able to restore their functionality. In the Gaza Strip, the lifting of the Blockade, including the removal of all restrictions imposed on the banking sector and cash transfers between the West Bank and the Gaza Strip, and the facilitation of movement of imports and exports through the commercial crossings are essential for restoring market functioning.

B. Market Situation Scenarios and Programming Implications

Given the current socio-economic and political conditions in the oPt, the following scenarios and programming implications are envisaged:

- Status Quo:
  Internal movement restrictions will be gradually eased within the West Bank, resulting in improvements in employment and poverty indicators, and market performance; alternative transport routes from and to Israel will gradually become inaccessible as new sections of the West Bank Barrier get constructed resulting in increased transport costs and trade impediments.

  The Gaza Blockade will persist, exacerbating the poor economic conditions and causing further deterioration in market conditions. Food and humanitarian imports will be allowed to entry into Gaza, while tunnel trade continues to circumvent supply shortages. Cash transfer restrictions persist, but traders continue to be able to effect transaction through West Bank branches of their banks in the Gaza Strip.

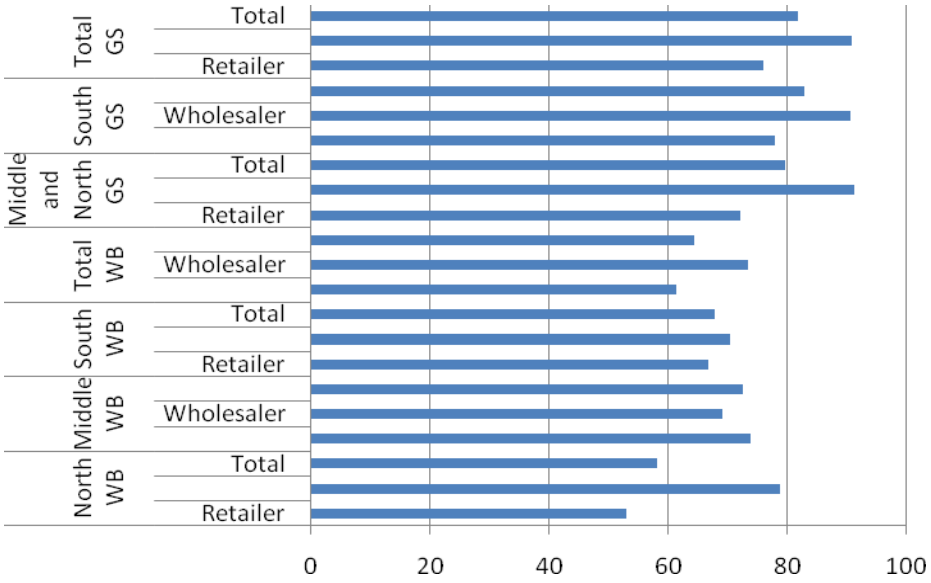
[41] World Bank, A Palestinian State in Two Years: Institutions for Economic Revival, *Economic Monitoring Report to the Ad Hoc Liaison Committee, September 22, 2009*

Under this scenario, assistance to vulnerable groups in the West Bank can be pursued through scaling-up of existing cash-for-work and food voucher programs. Such interventions may provoke price increases in markets that are not able to respond quickly by supplying more of the food products in demand, however this will not be the case under this scenario as markets in the West Bank will be functioning relatively well and have a fair degree of competition and integration. Thus, West Bank markets will most likely be able to meet the increased demand pull induced by the cash assistance programs. The introduction and/or expansion of cash assistance and food voucher programs, do not preclude the possibility of invoking other programming modalities such as food assistance as these would be needed to respond to the needs of various groups.

While markets will continue to operate and staple foods will be available under this scenario, the certainty of food supply cannot be granted. Thus, given the high level of unpredictability of the operations of the commercial terminals in the Gaza Strip and the difficulty of and unpredictability of transferring cash notes into Gaza banks, the introduction of a large scale cash assistance program may drive prices upwards by inducing higher demand. The introduction of a food voucher programme could go the same way, unless the restrictions on imports of food are eased and the de factor Gaza authorities continue to monitor and regulate market prices. Hence, the appropriate response option, given this market scenario and information available at this time, would generally call for food transfers (imports) and market support to vulnerable traders and/or shopkeepers to preclude exit from the sector. Such support could include provision of subsidies, extension of buffer loans and credit guarantee schemes, and advocacy. Support to farmers in the form of input subsidies and food-for-work would also be prudent.

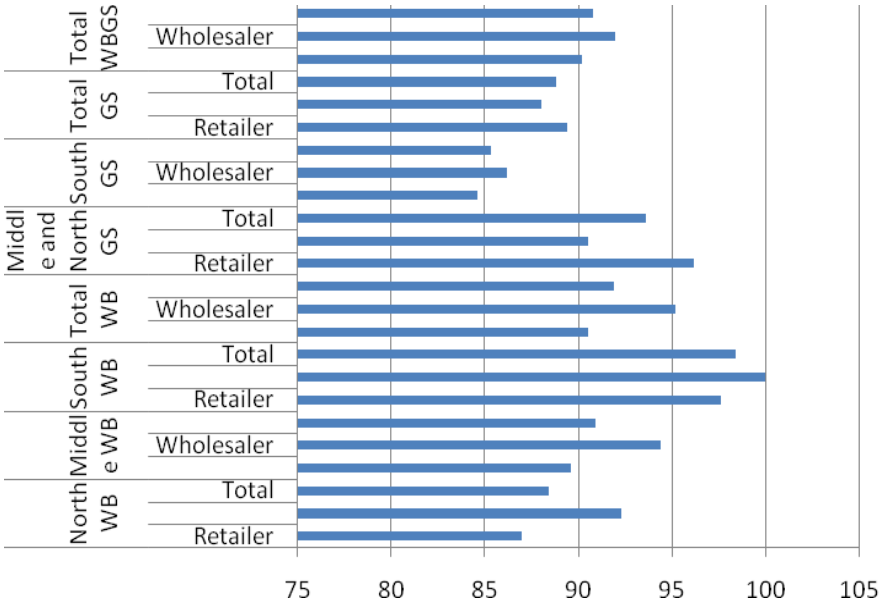
The overwhelming majority of traders surveyed in the West Bank and the Gaza Strip expressed having both interest and the financial capacity[42] to part-take in WFP food voucher program if the opportunity arises.

Figure 26: Percentage of traders surveyed indicating interest in part-taking in a WFP food voucher program



[42] The question was: Would you join the food voucher program even if you knew that it might take for WFP up to six months to reimburse you for food vouchers cashed?

Figure 27: Percentage of traders surveyed indicating interest in part-taking in a WFP food voucher program and also expressing having the financial capacity



- Best Scenario – Improved Access Conditions in the West Bank and the Gaza Strip
  Same conditions envisaged above for the West Bank will apply under this scenario, while the Gaza Blockade will be partially lifted leading to a slow economic recovery and improved market performance. The latter will manifest in increased imports and reduced transportation and transaction costs. Daily food imports, in particular, will be sufficient to meet demand, causing prices to stabilize.

  The same recommendations listed for the West Bank under the first scenario would also apply under the Best Scenario for both the West Bank and the Gaza Strip. Considering the current situation in the Gaza Strip, the easing of the closure would necessitate increased support for livelihood recovery.

- Worst Scenario – Worsening Access Conditions in the West Bank and the Gaza Strip
  Internal movement restrictions in the West Bank will increase, and commercial crossings will become fully functional, thus increasing transport and transaction costs. Also, main economic indicators will worsen, but not significantly as budgetary support and humanitarian assistance programs continue.

  The Gaza Blockade will be maintained, while air strikes against the tunnels destroy a significant proportion of them. A food supply crunch begins to materialize and efforts by Hamas government to control prices and introduce food rationing fail. Unemployment and poverty increase, while cash shortages rematerialize.

  Under this scenario, food aid (through imports) would be the optimal intervention option in both the West Bank and Gaza Strip. Market support to vulnerable traders in the form of subsidies and loans would also be needed, although at much higher levels than under the status quo scenario. Advocacy for circumvention of the closure would also be of paramount importance.

Additional recommendations under the three scenarios are:

- Work with MoA, WFP, FAO and other local NGO to realign Food-for-Work activities towards improved agricultural production. This should include collaborative efforts towards increasing agricultural productivity, through improved technologies, expansion of extension services, and improved access to agricultural inputs and multiplication centers for improved and high yielding cereal seeds.

- Work with the MoTNE to improve its market regulation and monitoring capacity. Specifically, provide technical support to the ministry to improve its price regulation capacity, establish thresholds for monthly import requirements of staple foods, and re-evaluate the effectiveness of establishing strategic stocks of staple cereals.

- Improve monitoring of markets and prices within the context of the Food Security Monitoring System (see below).

- Increase vulnerable farmers' direct access to market through poor farmer to poor household programs.

- Work with producer cooperatives to increase farmers' capacity access markets, both locally and internationally.

- Linked to the previous, coordinate with MoA, FAO and like-minded organizations and stakeholders the establishment of cold storage facilities in central markets.

C. Market Monitoring

One of the objectives of the market survey is to provide guidelines for improving current practice and indicators on market and price monitoring.

In order to capture the full range of possible key determinants of prices and market functionality, it is recommended that the following key indicators get monitored on a monthly basis:

- Consumer Price Index (CPI).

- Food Price Index (FPI). In addition to this, develop the current market price monitoring practice within WFP by establishing a clear methodology and guidelines for monthly monitoring of food prices in rural and urban areas and refugee camps in the West Bank and the Gaza Strip. The methodology should ensure that comparisons can be made with prices monitored by PCBS.

- Transport Price Index (TPI)

- International prices of basic foods, particularly wheat, wheat flour, rice, sugar, vegetable oils and pulses.

- The levels of operational efficiency of Border Crossings (through PalTrade's monthly monitoring reports and cross-checking with MoTNE in the Gaza Strip). This would capture the effect of the closure.

- Exchange rates (mainly US$/NIS, Jordanian Dinar/NIS, and Egyptian Pound/NIS).

- Producer Price Index, particularly for agriculture and fisheries.

- Availability and prices of diesel fuel in the Gaza Strip. It is quite possible that the Gaza Strip has not witnessed higher prices due to the availability of cheap diesel smuggled from Egypt. Should this source become unavailable, local transport prices will most likely significantly increase, exerting an upward pressure on food prices.

- Focus market monitoring on rural areas, with a particular focus in the Gaza Strip on traders located in areas where sub-regional food distribution coverage is comparatively high.

- Volume of trade in the central markets of Beita, Hebron, and Jericho in the West Bank, and Firas, Jabalia Khan Younis and Rafah in the Gaza Strip.

- In the Gaza Strip, monitor tunnel trade performance. This could be done through weekly visits to tunnel areas to specifically gauge the entry of food commodities. Given the security conditions, WFP could commission a local Gaza firm to conduct the monitoring.

In addition to the above indicators, the following model –developed on the basis of the correlation between the oPt FPI and the FAO Global Food Index- can be used to predict the evolution of food prices in both the West Bank and the Gaza Strip.

Box 7: Modeling West Bank Food CPI

Modeling the West Bank CPI

Since the West Bank FPI was found to be correlated with the FAO Food CPI, a regression analysis was used to model this relationship. In addition to explaining the exact relationship between the two indices, this model could be used to forecast future values for the West Bank Food CPI using current values for the FAO Food CPI. A series of regression models were tested and the best model found was the one that relates the current West Bank Food CPI with the West Bank Food CPI with ***lag 1*** and the FAO Food CPI with ***lag*** 1; meaning that West Bank Food CPI next month can be predicted using West Bank Food CPI this month and the FAO Food CPI this month. The estimated regression equation for this model is as follows:

$$WBFCPI = 7.411 + 0.864 * WBFCPI(-1) + 0.063 * FAOFCPI(-1)$$

$R^2 = 0.98$, which means that the predictivity power of the model is 98 percent.

Modeling the Gaza Strip Food CPI

Since the Gaza Strip Food CPI was found to be correlated with the FAO Food CPI, a regression analysis was used to model this relationship. In addition to explaining the exact relationship between the two indices, this model could be used to forecast future values for the Gaza Strip Food CPI using current values for the FAO Food CPI. A series of regression models were tested and the best model found was the one that relates the current Gaza Strip Food CPI with Gaza Food CPI with ***lag 1*** and the FAO Food CPI with ***lag*** 1; meaning that Gaza Food CPI next month can be predicted using Gaza Food CPI this month and FAO Food CPI this months. The estimated regression equation for this model is as follows:

$$GSFCPI = 1.649 + 0.934 * GSFCPI(-1) + 0.052 * FAOFCPI(-1)$$

$R^2 = 0.99$, which means that the predictivity power of the model is 99 percent.

Further details on how this model was developed and tested appear in the annexes of this report.

Annexes

Annex I: Food Price Analysis: Jan 1997 – May 2009

Food Price Analysis: January 1997 – May-2009
Yearly price averages in NIS

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rice	70.89	65.08	59.92	62.23	69.94	81.18	84.37	86.11	93.18	134.82	164.65
Flour	74.75	67.79	73.08	91.79	98.11	112.19	108.71	109.06	139.08	202.06	174.95
Bread	2.18	2.10	2.10	2.23	2.56	2.64	2.76	2.73	3	3.94	3.7
Lamb	42.25	42.71	42.47	43.79	43.60	43.11	42.24	46.20	48.21	56.37	61.96
Beef	31.68	30.35	29.18	28.72	29.24	30.93	32.91	40.03	38.05	44.95	49.17
Chicken	7.03	7.80	7.48	7.90	9.33	9.34	9.25	10.01	11.38	14.18	15.12
Fish	25.10	27.10	27.11	26.43	23.58	27.63	25.51	28.04	32.52	29.15	27.47
Milk	4.84	5.02	4.97	5.04	5.17	5.26	5.37	5.59	5.9	6.57	6.86
Powdered Milk	77.39	74.68	73.65	82.44	86.40	85.84	81.76	83.28	83.91	90.90	103.47
Leban	3.75	3.83	3.64	3.57	3.60	3.47	3.75	3.64	4.07	4.88	5.49
Cheese	23.67	21.71	21.26	20.93	20.35	21.82	24.39	22.57	24.17	25.41	25.11
Eggs	9.02	9.47	10.20	9.20	9.26	12.52	11.48	11.69	13.62	14.44	17.14
Olive Oil	21.43	24.64	19.46	18.85	17.57	17.33	19.42	23.34	21.77	24.97	25.08
Corn Oil	18.92	18.92	17.45	18.16	18.40	18.28	18.65	19.40	20.32	36.29	40.39
Lemons	2.33	2.12	2.48	2.15	2.55	2.89	2.19	2.60			
Oranges	3.39	3.00	2.82	3.07	3.17	2.46	2.36	2.39	2.48	3.02	3.16
Apples	6.78	6.26	5.77	5.85	6.39	4.32	3.81	4.27	4.36	6	5.42
Tomatoes	2.05	1.99	2.03	2.13	2.03	2.27	2.22	1.93			
Greenhouse Tomatoes	2.20	2.11	2.11	2.18	2.11	2.32	2.29	2.14	2.32	3.15	1.82
Eggplants	2.11	2.33	2.05	2.01	2.27	2.37	2.52	2.18	2.29	2.86	2.71
Cucumbers	2.31	2.38	2.12	2.33	2.17	2.37	2.38	2.21	2.43	2.83	2.63
Local Onions	2.35	2.10	2.48	2.15	2.55	2.51	1.92	2.25	1.96	2.16	2.78
Israeli Onions	1.98	1.72	2.18	1.74	2.26	2.27	1.80	2.12			
Chickpeas	5.79	5.79	5.60	5.27	4.93	5.37	5.26	5.68	5.70	6.78	7.24
Sugar	2.11	2.11	2.17	2.32	2.40	2.36	2.65	4.04	4	3.6	3.55

Annex 2: Pearson Correlation Coefficients Between Market Prices of Selected Food Coomodities

Wheat Flour												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.992	.988	.987	.985	.989	.983	.990	.971	.981	.922
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarem	Pearson Correlation	.992	1	.988	.987	.986	.987	.984	.989	.972	.982	.922
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqilya	Pearson Correlation	.988	.988	1	.983	.990	.983	.980	.983	.963	.976	.915
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.987	.987	.983	1	.989	.984	.986	.986	.975	.984	.925
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.985	.986	.990	.989	1	.985	.983	.984	.964	.979	.920
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.989	.987	.983	.984	.985	1	.982	.985	.964	.976	.916
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.983	.984	.980	.986	.983	.982	1	.986	.979	.988	.927
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.990	.989	.983	.986	.984	.985	.986	1	.977	.987	.924
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.971	.972	.963	.975	.964	.964	.979	.977	1	.988	.932

	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.981	.982	.976	.984	.979	.976	.988	.987	.988	1	.938
South Gaza	Pearson Correlation	.922	.922	.915	.925	.920	.916	.927	.924	.932	.938	1

Beef												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.945	.927	.944	.959	.893	.894	.961	.926	.927	.932
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Tulkarem	Pearson Correlation	.945	1	.937	.949	.940	.902	.915	.945	.901	.921	.921
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Qalqilya	Pearson Correlation	.927	.937	1	.927	.929	.906	.897	.927	.909	.928	.913
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Nablus	Pearson Correlation	.944	.949	.927	1	.947	.903	.905	.959	.881	.892	.900
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Ramallah	Pearson Correlation	.959	.940	.929	.947	1	.908	.886	.963	.899	.899	.898
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Jericho	Pearson Correlation	.893	.902	.906	.903	.908	1	.888	.908	.861	.888	.873
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
Bethlehem	Pearson Correlation	.894	.915	.897	.905	.886	.888	1	.887	.842	.885	.890
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149

Hebron	Pearson Correlation	.961	.945	.927	.959	.963	.908	.887	1	.907	.912	.909
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	149
North Gaza	Pearson Correlation	.926	.901	.909	.881	.899	.861	.842	.907	1	.966	.969
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	148	148	148	148	148	148	148	148	148	148	148
Middle Gaza	Pearson Correlation	.927	.921	.928	.892	.899	.888	.885	.912	.966	1	.977
South Gaza	Pearson Correlation	.932	.921	.913	.900	.898	.873	.890	.909	.969	.977	1

Chicken												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.924	.884	.944	.759	.817	.821	.860	.906	.913	.915
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Tulkarem	Pearson Correlation	.924	1	.958	.937	.687	.764	.775	.799	.887	.888	.878
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Qalqilya	Pearson Correlation	.884	.958	1	.902	.671	.739	.726	.772	.849	.867	.849
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Nablus	Pearson Correlation	.944	.937	.902	1	.733	.801	.822	.842	.881	.889	.883
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Ramallah	Pearson Correlation	.759	.687	.671	.733	1	.812	.721	.826	.708	.724	.737
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Jericho	Pearson Correlation	.817	.764	.739	.801	.812	1	.776	.866	.765	.795	.800
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Bethlehem	Pearson Correlation	.821	.775	.726	.822	.721	.776	1	.835	.775	.801	.795
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148

Hebron	Pearson Correlation	.860	.799	.772	.842	.826	.866	.835	1	.830	.846	.834
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
North Gaza	Pearson Correlation	.906	.887	.849	.881	.708	.765	.775	.830	1	.935	.937
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	148	148	148	148	148	148	148	148	148	148	148
Middle Gaza	Pearson Correlation	.913	.888	.867	.889	.724	.795	.801	.846	.935	1	.953
South Gaza	Pearson Correlation	.915	.878	.849	.883	.737	.800	.795	.834	.937	.953	1

Olive Oil												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.825	.813	.815	.746	.441	.317	.594	.703	.677	.519
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarem	Pearson Correlation	.825	1	.810	.812	.706	.571	.398	.667	.748	.732	.616
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqilya	Pearson Correlation	.813	.810	1	.896	.774	.471	.363	.625	.597	.614	.493
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.815	.812	.896	1	.729	.498	.295	.617	.614	.617	.472
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.746	.706	.774	.729	1	.570	.437	.712	.539	.566	.483
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.441	.571	.471	.498	.570	1	.457	.558	.512	.570	.551
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.317	.398	.363	.295	.437	.457	1	.701	.526	.525	.675
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149

Hebron	Pearson Correlation	.594	.667	.625	.617	.712	.558	.701	1	.701	.692	.653
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.703	.748	.597	.614	.539	.512	.526	.701	1	.872	.823
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.677	.732	.614	.617	.566	.570	.525	.692	.872	1	.838
South Gaza	Pearson Correlation	.519	.616	.493	.472	.483	.551	.675	.653	.823	.838	1

Corn Oil												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.987	.961	.954	.967	.961	.964	.971	.915	.893	.953
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Tulkarem	Pearson Correlation	.987	1	.964	.961	.974	.969	.973	.968	.898	.887	.956
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Qalqilya	Pearson Correlation	.961	.964	1	.929	.923	.924	.941	.940	.907	.892	.958
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Nablus	Pearson Correlation	.954	.961	.929	1	.948	.940	.948	.954	.920	.889	.953
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Ramallah	Pearson Correlation	.967	.974	.923	.948	1	.970	.964	.956	.865	.873	.922
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Jericho	Pearson Correlation	.961	.969	.924	.940	.970	1	.963	.945	.862	.868	.918
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Bethlehem	Pearson Correlation	.964	.973	.941	.948	.964	.963	1	.962	.903	.916	.955
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148

Hebron	Pearson Correlation	.971	.968	.940	.954	.956	.945	.962	1	.901	.875	.934
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
North Gaza	Pearson Correlation	.915	.898	.907	.920	.865	.862	.903	.901	1	.958	.952
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	148
Middle Gaza	Pearson Correlation	.893	.887	.892	.889	.873	.868	.916	.875	.958	1	.946
South Gaza	Pearson Correlation	.953	.956	.958	.953	.922	.918	.955	.934	.952	.946	1

Greenhouse Tomatoes												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.815**	.789**	.703**	.790**	.740**	.688**	.724**	.512**	.572**	.615**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarem	Pearson Correlation	.815**	1	.879**	.780**	.843**	.785**	.797**	.819**	.599**	.709**	.739**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqelya	Pearson Correlation	.789**	.879**	1	.748**	.843**	.772**	.747**	.781**	.630**	.728**	.755**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.703**	.780**	.748**	1	.716**	.691**	.773**	.772**	.524**	.630**	.652**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.790**	.843**	.843**	.716**	1	.784**	.831**	.832**	.564**	.672**	.716**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.740**	.785**	.772**	.691**	.784**	1	.712**	.708**	.496**	.642**	.669**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149

Bethlehem	Pearson Correlation	.688**	.797**	.747**	.773**	.831**	.712**	1	.915**	.510**	.624**	.638**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.724**	.819**	.781**	.772**	.832**	.708**	.915**	1	.609**	.689**	.708**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.512**	.599**	.630**	.524**	.564**	.496**	.510**	.609**	1	.866**	.861**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.572**	.709**	.728**	.630**	.672**	.642**	.624**	.689**	.866**	1	.974**
South Gaza	Pearson Correlation	.615**	.739**	.755**	.652**	.716**	.669**	.638**	.708**	.861**	.974**	1

Cucumbers												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.767**	.809**	.820**	.755**	.797**	.648**	.704**	.566**	.541**	.588**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarem	Pearson Correlation	.767**	1	.833**	.829**	.755**	.791**	.749**	.773**	.459**	.485**	.546**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqilya	Pearson Correlation	.809**	.833**	1	.870**	.794**	.827**	.768**	.780**	.467**	.466**	.537**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.820**	.829**	.870**	1	.878**	.853**	.810**	.818**	.517**	.532**	.581**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.755**	.755**	.794**	.878**	1	.822**	.759**	.753**	.372**	.378**	.454**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.797**	.791**	.827**	.853**	.822**	1	.746**	.776**	.416**	.460**	.513**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.648**	.749**	.768**	.810**	.759**	.746**	1	.816**	.351**	.440**	.502**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149

Hebron	Pearson Correlation	.704**	.773**	.780**	.818**	.753**	.776**	.816**	1	.444**	.562**	.588**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.566**	.459**	.467**	.517**	.372**	.416**	.351**	.444**	1	.851**	.782**
Middle Gaza	Pearson Correlation	.541**	.485**	.466**	.532**	.378**	.460**	.440**	.562**	.851**	1	.900**
South Gaza	Pearson Correlation	.588**	.546**	.537**	.581**	.454**	.513**	.502**	.588**	.782**	.900**	1
**. Correlation is significant at the 0.01 level (2-tailed).												

Powder Milk												
		Jenin	Tulkarem	Qalqilya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.939**	.941**	.920**	.900**	.898**	.925**	.930**	.731**	.706**	.795**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarem	Pearson Correlation	.939**	1	.906**	.897**	.847**	.856**	.898**	.902**	.756**	.727**	.808**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqilya	Pearson Correlation	.941**	.906**	1	.895**	.887**	.897**	.928**	.928**	.779**	.776**	.835**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.920**	.897**	.895**	1	.857**	.876**	.893**	.947**	.749**	.723**	.808**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.900**	.847**	.887**	.857**	1	.834**	.801**	.881**	.704**	.688**	.745**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.898**	.856**	.897**	.876**	.834**	1	.905**	.921**	.805**	.760**	.865**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.925**	.898**	.928**	.893**	.801**	.905**	1	.917**	.751**	.726**	.826**

	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.930**	.902**	.928**	.947**	.881**	.921**	.917**	1	.737**	.702**	.835**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.731**	.756**	.779**	.749**	.704**	.805**	.751**	.737**	1	.938**	.894**
	N	.706**	.727**	.776**	.723**	.688**	.760**	.726**	.702**	.938**	1	.886**
Middle Gaza	Pearson Correlation	.795**	.808**	.835**	.808**	.745**	.865**	.826**	.835**	.894**	.886**	1
South Gaza	Pearson Correlation	1	.939**	.941**	.920**	.900**	.898**	.925**	.930**	.731**	.706**	.795**

Bread												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.942**	.939**	.966**	.962**	.941**	.961**	.947**	.700**	.895**	.911**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarm	Pearson Correlation	.942**	1	.956**	.950**	.909**	.933**	.946**	.943**	.667**	.855**	.897**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqelya	Pearson Correlation	.939**	.956**	1	.957**	.917**	.944**	.951**	.945**	.651**	.842**	.885**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.966**	.950**	.957**	1	.956**	.941**	.959**	.967**	.673**	.880**	.897**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.962**	.909**	.917**	.956**	1	.942**	.966**	.953**	.690**	.897**	.899**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.941**	.933**	.944**	.941**	.942**	1	.948**	.948**	.701**	.869**	.908**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.961**	.946**	.951**	.959**	.966**	.948**	1	.954**	.690**	.885**	.913**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.947**	.943**	.945**	.967**	.953**	.948**	.954**	1	.723**	.899**	.912**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
NorthGaza	Pearson Correlation	.700**	.667**	.651**	.673**	.690**	.701**	.690**	.723**	1	.837**	.757**
MiddleGaza	Pearson Correlation	.895**	.855**	.842**	.880**	.897**	.869**	.885**	.899**	.837**	1	.937**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	149	149	149	149	149	149	149	149	149	149	149
SouthGaza	Pearson Correlation	.911**	.897**	.885**	.897**	.899**	.908**	.913**	.912**	.757**	.937**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	149	149	149	149	149	149	149	149	149	149	149
**. Correlation is significant at the 0.01 level (2-tailed).												

Cheese												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.273**	.078	.473**	-.749**	-.288**	.350*	.138	-.138	-.038	-.132
	Sig. (2-tailed)		.010	.499	.000	.000	.006	.025	.196	.460	.840	.218
	N	89	89	77	89	29	89	41	89	31	31	89
Tulkarm	Pearson Correlation	.273**	1	.446**	.426**	-.021	.186*	.608**	-.114	-.144	-.123	-.246**
	Sig. (2-tailed)	.010		.000	.000	.871	.032	.000	.166	.204	.281	.002
	N	89	149	137	149	65	134	74	149	79	79	149
Qalqelya	Pearson Correlation	.078	.446**	1	.298**	-.092	.497**	.562**	-.103	-.408**	-.384**	-.065
	Sig. (2-tailed)	.499	.000		.000	.467	.000	.000	.229	.000	.000	.447
	N	77	137	137	137	65	122	74	137	79	79	137
Nablus	Pearson Correlation	.473**	.426**	.298**	1	-.191	.193*	.652**	.371**	.119	.137	.165*
	Sig. (2-tailed)	.000	.000	.000		.127	.026	.000	.000	.298	.228	.045
	N	89	149	137	149	65	134	74	149	79	79	149
Ramallah	Pearson Correlation	-.749**	-.021	-.092	-.191	1	-.025	-.239	-.347**	-.222	-.186	-.296*
	Sig. (2-tailed)	.000	.871	.467	.127		.863	.095	.005	.163	.243	.017
	N	29	65	65	65	65	50	50	65	41	41	65
Jericho	Pearson Correlation	-.288**	.186*	.497**	.193*	-.025	1	.343**	.083	-.212	-.226	.132
	Sig. (2-tailed)	.006	.032	.000	.026	.863		.003	.338	.093	.073	.129
	N	89	134	122	134	50	134	74	134	64	64	134
Bethlehem	Pearson Correlation	.350*	.608**	.562**	.652**	-.239	.343**	1	.006	-.081	-.066	.100
	Sig. (2-tailed)	.025	.000	.000	.000	.095	.003		.959	.577	.651	.399

	N	41	74	74	74	50	74	74	74	50	50	74
Hebron	Pearson Correlation	.138	-.114	-.103	.371**	-.347**	.083	.006	1	.190	.179	.194*
	Sig. (2-tailed)	.196	.166	.229	.000	.005	.338	.959		.093	.114	.018
	N	89	149	137	149	65	134	74	149	79	79	149
NorthGaza	Pearson Correlation	-.138	-.144	-.408**	.119	-.222	-.212	-.081	.190	1	.969**	.900**
MiddleGaza	Pearson Correlation	-.038	-.123	-.384**	.137	-.186	-.226	-.066	.179	.969**	1	.839**
SouthGaza	Pearson Correlation	-.132	-.246**	-.065	.165*	-.296*	.132	.100	.194*	.900**	.839**	1
	Sig. (2-tailed)	.218	.002	.447	.045	.017	.129	.399	.018	.000	.000	
	N	89	149	137	149	65	134	74	149	79	79	149
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Chickpeas												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.632**	.854**	.857**	.587**	.724**	.805**	.563**	.738**	.617**	.617**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Tulkarm	Pearson Correlation	.632**	1	.719**	.683**	.585**	.647**	.703**	.697**	.586**	.552**	.662**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Qalqelya	Pearson Correlation	.854**	.719**	1	.847**	.591**	.715**	.782**	.634**	.754**	.653**	.663**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Nablus	Pearson Correlation	.857**	.683**	.847**	1	.548**	.657**	.748**	.610**	.782**	.683**	.694**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Ramallah	Pearson Correlation	.587**	.585**	.591**	.548**	1	.533**	.480**	.523**	.480**	.532**	.552**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Jericho	Pearson Correlation	.724**	.647**	.715**	.657**	.533**	1	.761**	.572**	.611**	.428**	.583**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
Beithlehim	Pearson Correlation	.805**	.703**	.782**	.748**	.480**	.761**	1	.634**	.644**	.506**	.597**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	148	148	148	148	148	148	148	148	147	148	148
Hebron	Pearson Correlation	.563**	.697**	.634**	.610**	.523**	.572**	.634**	1	.610**	.569**	.735**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	148	149	148	149	149
North Gaza	Pearson Correlation	.738**	.586**	.754**	.782**	.480**	.611**	.644**	.610**	1	.596**	.649**
Middle Gaza	Pearson Correlation	.617**	.552**	.653**	.683**	.532**	.428**	.506**	.569**	.596**	1	.733**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	149	149	149	149	149	149	148	149	148	149	149
South Gaza	Pearson Correlation	.617**	.662**	.663**	.694**	.552**	.583**	.597**	.735**	.649**	.733**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	149	149	149	149	149	149	148	149	148	149	149
**. Correlation is significant at the 0.01 level (2-tailed).												

Eggplants												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.414**	.431**	.369**	.272**	.205*	.219**	.406**	.342**	.343**	.371**
	Sig. (2-tailed)		.000	.000	.000	.001	.012	.007	.000	.000	.000	.000
	N	149	147	148	149	149	149	149	148	149	149	149
Tulkarm	Pearson Correlation	.414**	1	.449**	.652**	.479**	.557**	.691**	.653**	.462**	.528**	.533**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	147	147	146	147	147	147	147	146	147	147	147
Qalqelya	Pearson Correlation	.431**	.449**	1	.567**	.542**	.414**	.479**	.579**	.403**	.428**	.452**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	148	146	148	148	148	148	148	147	148	148	148
Nablus	Pearson Correlation	.369**	.652**	.567**	1	.755**	.645**	.779**	.811**	.473**	.511**	.529**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	147	148	149	149	149	149	148	149	149	149
Ramallah	Pearson Correlation	.272**	.479**	.542**	.755**	1	.585**	.668**	.754**	.355**	.351**	.370**
	Sig. (2-tailed)	.001	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	147	148	149	149	149	149	148	149	149	149
Jericho	Pearson Correlation	.205*	.557**	.414**	.645**	.585**	1	.748**	.679**	.321**	.441**	.448**
	Sig. (2-tailed)	.012	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	147	148	149	149	149	149	148	149	149	149
Bethlehem	Pearson Correlation	.219**	.691**	.479**	.779**	.668**	.748**	1	.810**	.401**	.522**	.516**
	Sig. (2-tailed)	.007	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	147	148	149	149	149	149	148	149	149	149
Hebron	Pearson Correlation	.406**	.653**	.579**	.811**	.754**	.679**	.810**	1	.503**	.575**	.568**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	148	146	147	148	148	148	148	148	148	148	148
North Gaza	Pearson Correlation	.342**	.462**	.403**	.473**	.355**	.321**	.401**	.503**	1	.841**	.807**
Middle Gaza	Pearson Correlation	.343**	.528**	.428**	.511**	.351**	.441**	.522**	.575**	.841**	1	.963**
South Gaza	Pearson Correlation	.371**	.533**	.452**	.529**	.370**	.448**	.516**	.568**	.807**	.963**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	149	147	148	149	149	149	149	148	149	149	149
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Eggs												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.897**	.898**	.830**	.860**	.828**	.800**	.862**	.838**	.879**	.882**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Tulkarm	Pearson Correlation	.897**	1	.931**	.882**	.910**	.844**	.832**	.910**	.829**	.908**	.906**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Qalqelya	Pearson Correlation	.898**	.931**	1	.866**	.918**	.873**	.833**	.924**	.834**	.897**	.896**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Nablus	Pearson Correlation	.830**	.882**	.866**	1	.880**	.795**	.820**	.894**	.763**	.833**	.825**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Ramallah	Pearson Correlation	.860**	.910**	.918**	.880**	1	.833**	.832**	.927**	.806**	.866**	.865**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Jericho	Pearson Correlation	.828**	.844**	.873**	.795**	.833**	1	.786**	.824**	.794**	.862**	.848**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
Bethlehem	Pearson Correlation	.800**	.832**	.833**	.820**	.832**	.786**	1	.851**	.720**	.796**	.812**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	149	149	149	149	149	149	149	148	149	148
Hebron	Pearson Correlation	.862**	.910**	.924**	.894**	.927**	.824**	.851**	1	.789**	.858**	.864**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	148	149	148
North Gaza	Pearson Correlation	.838**	.829**	.834**	.763**	.806**	.794**	.720**	.789**	1	.853**	.887**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	148	148	148	148	148	148	148	148	148	148	148
Middle Gaza	Pearson Correlation	.879**	.908**	.897**	.833**	.866**	.862**	.796**	.858**	.853**	1	.931**
South Gaza	Pearson Correlation	.882**	.906**	.896**	.825**	.865**	.848**	.812**	.864**	.887**	.931**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
	N	148	148	148	148	148	148	148	148	148	148	148
**. Correlation is significant at the 0.01 level (2-tailed).												

Fish												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.807**	.742**	.494**	.598**	.584**	.749**	.688**	.221**	-.014	-.048
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.007	.867	.558
	N	149	65	149	149	149	89	89	89	149	149	149
Tulkarm	Pearson Correlation	.807**	1	.930**	.725**	.514**	.778**	.166	.023	-.201	.184	.279*
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.235	.869	.109	.141	.024
	N	65	65	65	65	65	53	53	53	65	65	65
Qalqelya	Pearson Correlation	.742**	.930**	1	.533**	.654**	.685**	.736**	.704**	.196*	-.002	.025
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.017	.981	.765
	N	149	65	149	149	149	89	89	89	149	149	149
Nablus	Pearson Correlation	.494**	.725**	.533**	1	.418**	.415**	.419**	.397**	.105	.294**	.241**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.202	.000	.003
	N	149	65	149	149	149	89	89	89	149	149	149
Ramallah	Pearson Correlation	.598**	.514**	.654**	.418**	1	.602**	.459**	.451**	.189*	-.126	.013
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.021	.126	.875
	N	149	65	149	149	149	89	89	89	149	149	149
Jericho	Pearson Correlation	.584**	.778**	.685**	.415**	.602**	1	.168	.187	.019	-.239*	-.227*
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.114	.080	.856	.024	.032
	N	89	53	89	89	89	89	89	89	89	89	89
Beithlehim	Pearson Correlation	.749**	.166	.736**	.419**	.459**	.168	1	.912**	.457**	-.033	-.083
	Sig. (2-tailed)	.000	.235	.000	.000	.000	.114		.000	.000	.761	.441

	N	89	53	89	89	89	89	89	89	89	89	89
Hebron	Pearson Correlation	.688**	.023	.704**	.397**	.451**	.187	.912**	1	.432**	-.048	-.101
	Sig. (2-tailed)	.000	.869	.000	.000	.000	.080	.000		.000	.653	.347
	N	89	53	89	89	89	89	89	89	89	89	89
North Gaza	Pearson Correlation	.221**	-.201	.196*	.105	.189*	.019	.457**	.432**	1	.100	.132
Middle Gaza	Pearson Correlation	-.014	.184	-.002	.294**	-.126	-.239*	-.033	-.048	.100	1	.593**
South Gaza	Pearson Correlation	-.048	.279*	.025	.241**	.013	-.227*	-.083	-.101	.132	.593**	1
	Sig. (2-tailed)	.558	.024	.765	.003	.875	.032	.441	.347	.109	.000	
	N	149	65	149	149	149	89	89	89	149	149	149
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Fresh Milk												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.895**	.841**	.925**	.857**	.842**	.873**	.852**	.860**	.905**	.920**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarm	Pearson Correlation	.895**	1	.810**	.902**	.836**	.847**	.853**	.865**	.843**	.907**	.921**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqelya	Pearson Correlation	.841**	.810**	1	.881**	.883**	.844**	.840**	.879**	.844**	.883**	.905**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.925**	.902**	.881**	1	.899**	.884**	.915**	.916**	.862**	.920**	.929**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.857**	.836**	.883**	.899**	1	.834**	.873**	.875**	.810**	.894**	.888**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.842**	.847**	.844**	.884**	.834**	1	.874**	.830**	.804**	.892**	.875**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.873**	.853**	.840**	.915**	.873**	.874**	1	.871**	.776**	.858**	.860**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.852**	.865**	.879**	.916**	.875**	.830**	.871**	1	.834**	.862**	.885**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.860**	.843**	.844**	.862**	.810**	.804**	.776**	.834**	1	.912**	.911**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.905**	.907**	.883**	.920**	.894**	.892**	.858**	.862**	.912**	1	.957**
South Gaza	Pearson Correlation	.920**	.921**	.905**	.929**	.888**	.875**	.860**	.885**	.911**	.957**	1
**. Correlation is significant at the 0.01 level (2-tailed).												

Frozen Fish												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.726**	.826**	.234	.445**	.356**	.470**	.207	.145	.101	.174
	Sig. (2-tailed)		.000	.000	.092	.001	.009	.000	.137	.299	.218	.212
	N	149	53	53	53	53	53	53	53	53	149	53
Tulkarm	Pearson Correlation	.726**	1	.768**	.470**	.351**	.118	.498**	.111	-.202	-.273*	-.203
	Sig. (2-tailed)	.000		.000	.000	.010	.401	.000	.430	.146	.048	.144
	N	53	53	53	53	53	53	53	53	53	53	53
Qalqelya	Pearson Correlation	.826**	.768**	1	.305*	.651**	.409**	.574**	.379**	.269	.142	.184
	Sig. (2-tailed)	.000	.000		.026	.000	.002	.000	.005	.052	.310	.187
	N	53	53	53	53	53	53	53	53	53	53	53
Nablus	Pearson Correlation	.234	.470**	.305*	1	.432**	.065	.672**	.478**	-.201	-.296*	-.323*
	Sig. (2-tailed)	.092	.000	.026		.001	.642	.000	.000	.149	.031	.018
	N	53	53	53	53	53	53	53	53	53	53	53
Ramallah	Pearson Correlation	.445**	.351**	.651**	.432**	1	.519**	.615**	.717**	.366**	.214	.203
	Sig. (2-tailed)	.001	.010	.000	.001		.000	.000	.000	.007	.125	.145
	N	53	53	53	53	53	53	53	53	53	53	53
Jericho	Pearson Correlation	.356**	.118	.409**	.065	.519**	1	.270	.501**	.419**	.475**	.439**
	Sig. (2-tailed)	.009	.401	.002	.642	.000		.050	.000	.002	.000	.001
	N	53	53	53	53	53	53	53	53	53	53	53
Bethlehem	Pearson Correlation	.470**	.498**	.574**	.672**	.615**	.270	1	.710**	.145	.051	.024
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.050		.000	.300	.717	.865

	N	53	53	53	53	53	53	53	53	53	53	53
Hebron	Pearson Correlation	.207	.111	.379**	.478**	.717**	.501**	.710**	1	.434**	.368**	.273*
	Sig. (2-tailed)	.137	.430	.005	.000	.000	.000	.000		.001	.007	.048
	N	53	53	53	53	53	53	53	53	53	53	53
North Gaza	Pearson Correlation	.145	-.202	.269	-.201	.366**	.419**	.145	.434**	1	.830**	.710**
	Sig. (2-tailed)	.299	.146	.052	.149	.007	.002	.300	.001		.000	.000
	N	53	53	53	53	53	53	53	53	53	53	53
Middle Gaza	Pearson Correlation	.101	-.273*	.142	-.296*	.214	.475**	.051	.368**	.830**	1	.897**
South Gaza	Pearson Correlation	.174	-.203	.184	-.323*	.203	.439**	.024	.273*	.710**	.897**	1
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Laban												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.887**	.850**	.375**	.760**	.769**	.724**	.820**	.809**	.565**	.667**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarm	Pearson Correlation	.887**	1	.847**	.372**	.717**	.720**	.641**	.780**	.797**	.521**	.588**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqelya	Pearson Correlation	.850**	.847**	1	.324**	.617**	.651**	.572**	.710**	.708**	.686**	.639**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.375**	.372**	.324**	1	.389**	.385**	.381**	.516**	.432**	.199*	.362**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.015	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.760**	.717**	.617**	.389**	1	.782**	.826**	.861**	.789**	.400**	.552**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.769**	.720**	.651**	.385**	.782**	1	.751**	.770**	.760**	.374**	.529**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.724**	.641**	.572**	.381**	.826**	.751**	1	.792**	.774**	.466**	.566**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.820**	.780**	.710**	.516**	.861**	.770**	.792**	1	.817**	.474**	.590**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.809**	.797**	.708**	.432**	.789**	.760**	.774**	.817**	1	.505**	.674**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.565**	.521**	.686**	.199*	.400**	.374**	.466**	.474**	.505**	1	.515**
South Gaza	Pearson Correlation	.667**	.588**	.639**	.362**	.552**	.529**	.566**	.590**	.674**	.515**	1
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Local Onions												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.385**	.339**	.665**	.684**	.545**	.446**	.632**	.124	.249*	.162
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.299	.013	.139
	N	145	121	109	118	64	133	117	70	72	99	85
Tulkarm	Pearson Correlation	.385**	1	.719**	.413**	.762**	.509**	.385**	.780**	.108	.268*	.491**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.383	.014	.000
	N	121	125	94	105	60	113	103	66	68	83	78
Qalqelya	Pearson Correlation	.339**	.719**	1	.489**	.786**	.595**	.597**	.736**	.157	.365**	.586**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.217	.001	.000
	N	109	94	112	88	59	100	90	67	64	79	72
Nablus	Pearson Correlation	.665**	.413**	.489**	1	.767**	.640**	.481**	.647**	-.007	.159	.211
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.957	.152	.081
	N	118	105	88	119	57	110	96	58	70	82	69
Ramallah	Pearson Correlation	.684**	.762**	.786**	.767**	1	.675**	.697**	.871**	.067	.276	.378*
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.665	.050	.011
	N	64	60	59	57	65	62	56	49	44	51	45
Jericho	Pearson Correlation	.545**	.509**	.595**	.640**	.675**	1	.497**	.742**	.240*	.347**	.384**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.047	.001	.000
	N	133	113	100	110	62	137	109	66	69	95	79
Bethlehem	Pearson Correlation	.446**	.385**	.597**	.481**	.697**	.497**	1	.818**	.118	.282*	.254*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.342	.011	.025

	N	117	103	90	96	56	109	120	62	67	80	78
Hebron	Pearson Correlation	.632**	.780**	.736**	.647**	.871**	.742**	.818**	1	.068	.251	.490**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.667	.060	.000
	N	70	66	67	58	49	66	62	72	43	57	55
North Gaza	Pearson Correlation	.124	.108	.157	-.007	.067	.240*	.118	.068	1	.893**	.771**
	Sig. (2-tailed)	.299	.383	.217	.957	.665	.047	.342	.667		.000	.000
	N	72	68	64	70	44	69	67	43	74	49	51
Middle Gaza	Pearson Correlation	.249*	.268*	.365**	.159	.276	.347**	.282*	.251	.893**	1	.888**
South Gaza	Pearson Correlation	.162	.491**	.586**	.211	.378*	.384**	.254*	.490**	.771**	.888**	1
**. Correlation is significant at the 0.01 level (2-tailed).												
*. Correlation is significant at the 0.05 level (2-tailed).												

Sheep												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.959**	.943**	.966**	.934**	.894**	.939**	.897**	.857**	.910**	.909**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Tulkarm	Pearson Correlation	.959**	1	.935**	.968**	.929**	.879**	.930**	.908**	.869**	.919**	.918**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Qalqelya	Pearson Correlation	.943**	.935**	1	.946**	.913**	.901**	.922**	.873**	.837**	.872**	.884**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Nablus	Pearson Correlation	.966**	.968**	.946**	1	.945**	.928**	.941**	.911**	.894**	.933**	.935**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Ramallah	Pearson Correlation	.934**	.929**	.913**	.945**	1	.893**	.899**	.895**	.861**	.876**	.865**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Jericho	Pearson Correlation	.894**	.879**	.901**	.928**	.893**	1	.927**	.868**	.869**	.875**	.881**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Bethlehem	Pearson Correlation	.939**	.930**	.922**	.941**	.899**	.927**	1	.899**	.855**	.894**	.894**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	149	149	149	149	149	149	149	149	149	149	149
Hebron	Pearson Correlation	.897**	.908**	.873**	.911**	.895**	.868**	.899**	1	.842**	.887**	.897**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
North Gaza	Pearson Correlation	.857**	.869**	.837**	.894**	.861**	.869**	.855**	.842**	1	.924**	.908**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	149	149	149	149	149	149	149	149	149	149	149
Middle Gaza	Pearson Correlation	.910**	.919**	.872**	.933**	.876**	.875**	.894**	.887**	.924**	1	.962**
South Gaza	Pearson Correlation	.909**	.918**	.884**	.935**	.865**	.881**	.894**	.897**	.908**	.962**	1
**. Correlation is significant at the 0.01 level (2-tailed).												

Potatos												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.348*	.163	.400**	.556**	.627**	.558**	.510**	.366*	.372**	.541**
	Sig. (2-tailed)		.019	.285	.006	.000	.000	.000	.000	.013	.000	.000
	N	141	45	45	45	45	45	45	45	45	136	45
Tulkarm	Pearson Correlation	.348*	1	.128	.183	.188	.288	.278	.254	.338*	.428**	.477**
	Sig. (2-tailed)	.019		.403	.229	.217	.055	.065	.092	.023	.003	.001
	N	45	45	45	45	45	45	45	45	45	45	45
Qalqelya	Pearson Correlation	.163	.128	1	.262	.378*	.226	.180	.086	.275	.196	.289
	Sig. (2-tailed)	.285	.403		.082	.010	.136	.236	.576	.067	.197	.054
	N	45	45	45	45	45	45	45	45	45	45	45
Nablus	Pearson Correlation	.400**	.183	.262	1	.434**	.353*	.574**	.364*	.299*	.235	.408**
	Sig. (2-tailed)	.006	.229	.082		.003	.017	.000	.014	.046	.120	.005
	N	45	45	45	45	45	45	45	45	45	45	45
Ramallah	Pearson Correlation	.556**	.188	.378*	.434**	1	.496**	.723**	.469**	.427**	.375*	.424**
	Sig. (2-tailed)	.000	.217	.010	.003		.001	.000	.001	.003	.011	.004
	N	45	45	45	45	45	45	45	45	45	45	45
Jericho	Pearson Correlation	.627**	.288	.226	.353*	.496**	1	.604**	.564**	.481**	.447**	.613**
	Sig. (2-tailed)	.000	.055	.136	.017	.001		.000	.000	.001	.002	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Bethlehem	Pearson Correlation	.558**	.278	.180	.574**	.723**	.604**	1	.660**	.533**	.520**	.603**
	Sig. (2-tailed)	.000	.065	.236	.000	.000	.000		.000	.000	.000	.000

	N	45	45	45	45	45	45	45	45	45	45	45
Hebron	Pearson Correlation	.510**	.254	.086	.364*	.469**	.564**	.660**	1	.680**	.564**	.722**
	Sig. (2-tailed)	.000	.092	.576	.014	.001	.000	.000		.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
North Gaza	Pearson Correlation	.366*	.338*	.275	.299*	.427**	.481**	.533**	.680**	1	.752**	.905**
	Sig. (2-tailed)	.013	.023	.067	.046	.003	.001	.000	.000		.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Middle Gaza	Pearson Correlation	.372**	.428**	.196	.235	.375*	.447**	.520**	.564**	.752**	1	.746**
South Gaza	Pearson Correlation	.541**	.477**	.289	.408**	.424**	.613**	.603**	.722**	.905**	.746**	1
*. Correlation is significant at the 0.05 level (2-tailed).												
**. Correlation is significant at the 0.01 level (2-tailed).												

Banana												
		Jenin	Tulkarm	Qalqelya	Nablus	Ramallah	Jericho	Bethlehem	Hebron	North Gaza	Middle Gaza	South Gaza
Jenin	Pearson Correlation	1	.844**	.777**	.866**	.828**	.744**	.866**	.880**	.735**	.418**	.577**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	142	45	45	45	45	45	45	45	45	126	45
Tulkarm	Pearson Correlation	.844**	1	.851**	.818**	.796**	.858**	.871**	.880**	.833**	.813**	.742**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Qalqelya	Pearson Correlation	.777**	.851**	1	.771**	.781**	.773**	.785**	.798**	.772**	.806**	.739**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Nablus	Pearson Correlation	.866**	.818**	.771**	1	.818**	.774**	.875**	.869**	.727**	.703**	.625**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Ramallah	Pearson Correlation	.828**	.796**	.781**	.818**	1	.732**	.815**	.781**	.685**	.679**	.588**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Jericho	Pearson Correlation	.744**	.858**	.773**	.774**	.732**	1	.847**	.759**	.747**	.767**	.694**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Bethlehem	Pearson Correlation	.866**	.871**	.785**	.875**	.815**	.847**	1	.881**	.739**	.711**	.584**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

	N	45	45	45	45	45	45	45	45	45	45	45
Hebron	Pearson Correlation	.880**	.880**	.798**	.869**	.781**	.759**	.881**	1	.734**	.683**	.614**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
North Gaza	Pearson Correlation	.735**	.833**	.772**	.727**	.685**	.747**	.739**	.734**	1	.947**	.893**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	45	45	45	45	45	45	45	45	45	45	45
Middle Gaza	Pearson Correlation	.418**	.813**	.806**	.703**	.679**	.767**	.711**	.683**	.947**	1	.942**
South Gaza	Pearson Correlation	.577**	.742**	.739**	.625**	.588**	.694**	.584**	.614**	.893**	.942**	1
**. Correlation is significant at the 0.01 level (2-tailed).												

Annex 3: The Prediction Model

Test of Stationarity
Unit Root Test

Null Hypothesis: RESID01 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-12.10157	0.0000
Test critical values:	1% level	-3.483751	
	5% level	-2.884856	
	10% level	-2.579282	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: RESID01 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=12)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-12.10157	0.0000
Test critical values:	1% level	-3.483751	
	5% level	-2.884856	
	10% level	-2.579282	

*MacKinnon (1996) one-sided p-values.

Since the p-value is less than 0.05, we reject the null hypothesis and conclude that there is no unit root and that the series is stationary

West Bank Model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.991[a]	.982	.982	1.9336	2.204

a. Predictors: (Constant), FAO_1, WB_1

b. Dependent Variable: WB-Food CPI

Since Durbin-Watson is close to 2 (2.204) there is no autocorrelation problem

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24185.087	2	12092.543	3.234E3	.000[a]
	Residual	444.939	119	3.739		
	Total	24630.026	121			

a. Predictors: (Constant), FAO_1, WB_1

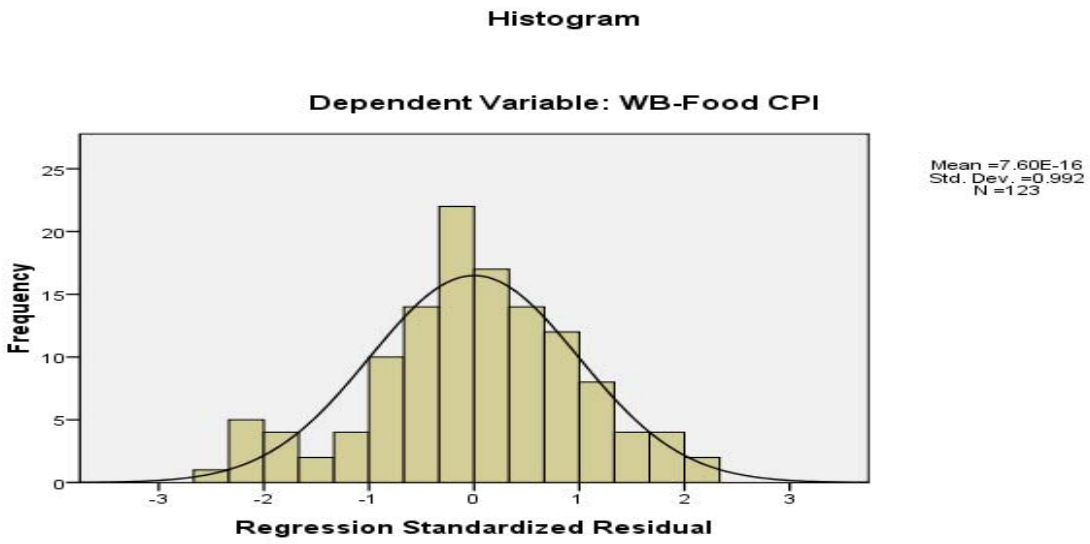
b. Dependent Variable: WB-Food CPI

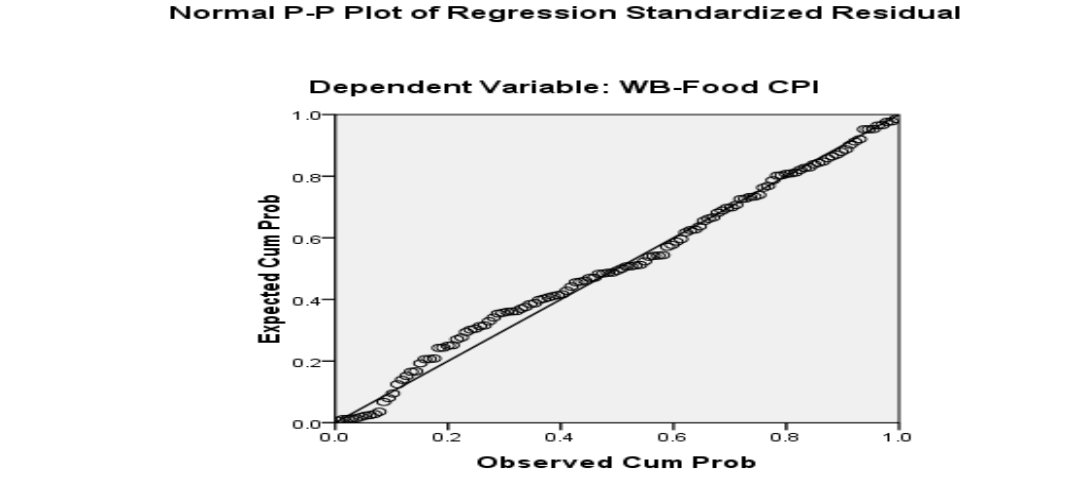
Coefficients[a]

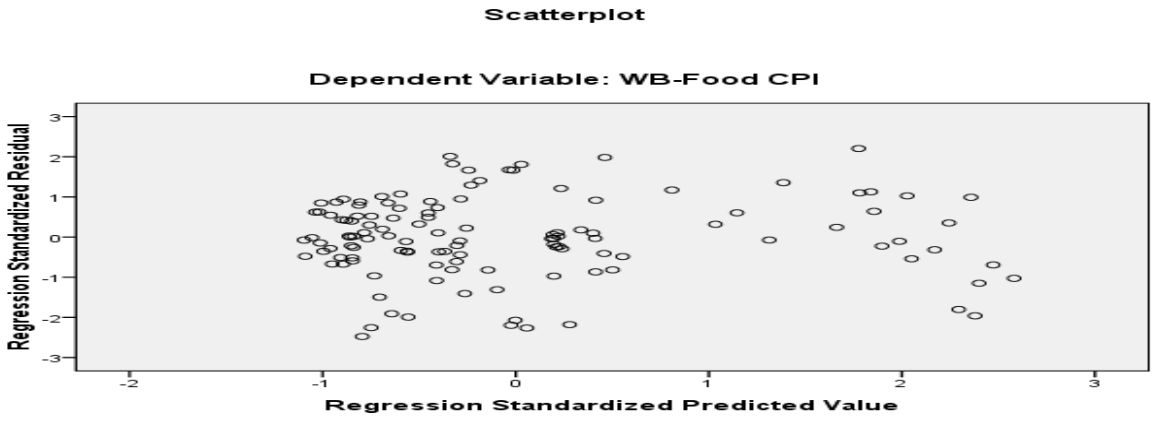
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	7.411	1.939		3.822	.000		
	WB_1	.864	.030	.855	29.102	.000	.176	5.685
	FAO_1	.063	.013	.148	5.027	.000	.176	5.685

a. Dependent Variable: WB-Food CPI

VIF is less than 10 which indicates that there is no multicollinearity problem







The Above residual plots show that the error term meets the regression assumptions (zero mean and constant variance and normally distributed)

Gaza Model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.995[a]	.989	.989	2.0469	2.046

a. Predictors: (Constant), FAO_1, GS_1

b. Dependent Variable: GS-Food CPI

Since Durbin-Watson is close to 2 (2.046) there is no autocorrelation problem

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46738.561	2	23369.280	5.578E3	.000[a]
	Residual	498.599	119	4.190		
	Total	47237.159	121			

a. Predictors: (Constant), FAO_1, GS_1

b. Dependent Variable: GS-Food CPI

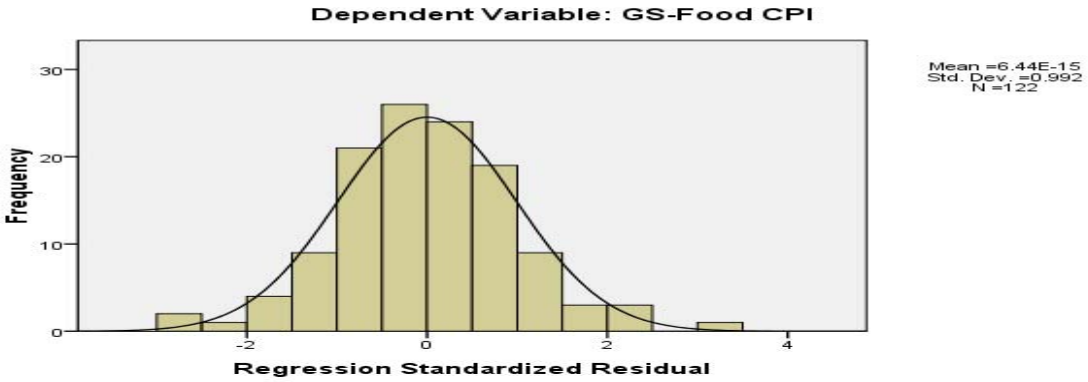
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.649	1.200		1.374	.172		
	GS_1	.934	.020	.917	47.585	.000	.239	4.186
	FAO_1	.052	.011	.088	4.574	.000	.239	4.186

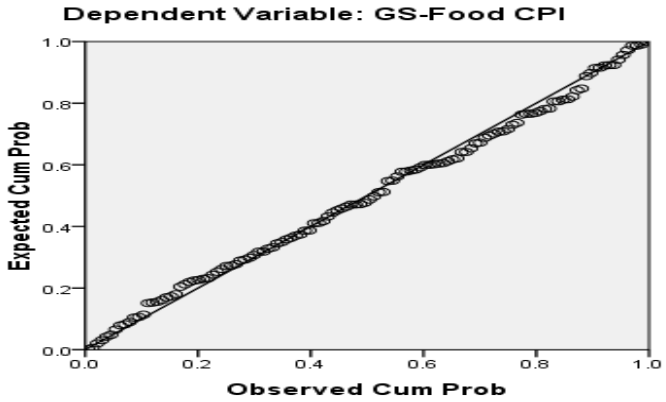
a. Dependent Variable: GS-Food CPI

VIF is less than 10 which indicates that there is no multicollinearity problem

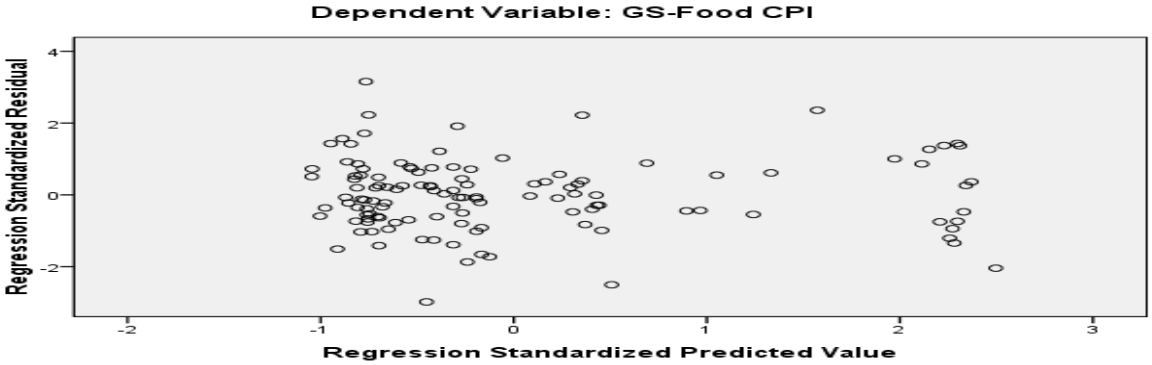
Histogram



Normal P-P Plot of Regression Standardized Residual



Scatterplot



The Above residual plots show that the error term meets the regression assumptions (zero mean and constant variance and normally distributed)

Annex 4: Survey Questionnaire

Introduction to Traders:
Al-Sahel Company for Institutional Development and Communications is undertaking a study of the food market in the West Bank and Gaza Strip on behalf of the World Food Programme. The study aims at enabling WFP to understand the effects of the increase in food prices and Israeli closure measures and enforced transport routes on market functionality. The study findings will be used to inform the design of WFP's food assistance programmes for 2010-2012, while the study itself will be integrated into a more detailed assessment of the food security conditions in the West Bank and Gaza Strip. Within this context, we would like to take about twenty minutes of your time to complete a questionnaire that we have developed for this purpose. All responses you shall provide will remain confidential and responses will remain completely anonymous.
Part One: Profile and Introduction

☐☐☐Serial Number (office) :**ID00**	**ID01**: Governorate …… ☐
ID02: Locality ……..☐☐	**ID03**: Address …… ☐
ID04: Respondent and Shop Name ……	**ID05:** Tel. No. ☐☐☐☐☐☐-☐☐☐
ID5_1: Main field of business: 1. Retail trade 2. Wholesale trade ☐	
ID06: Years in business (must be in business > than 4 years) ☐☐	**ID07:** Number of years in current premises ☐☐

Interview Record			
IR01: Interview Date	Day	Month	Year
	☐☐	9	2009

IR01	Field Worker Name:.....	IR02	FW No. ☐	Date: ...../9/2009
IR03	Data entered by	IR04	Data Entere No. ☐	Date: ...../9/2009

Part Two: Effects of Israeli Closure and Changes in Sources of Supply

A01	Do the trader work with Staple foods (sugar, rice, flour, legumes) 1.yes 2.no (terminate the interview) ☐	

A02: Number of employees (paid unpaid, including owner)
Currently

1. Total ☐☐	2. No. of paid workers/employees ☐☐	3. No. of Unpaid workers ☐☐

A02_1	Area of store, including warehouses (m2) ☐☐☐☐M^2	

A02-2: Number of employees (paid unpaid, including owner)Two years ago

1. Total ☐☐	2. No. of paid workers/employees ☐☐	3. No. of Unpaid workers ☐☐

A03: What is the current distribution of your sales

1. Total ☐☐☐%	2.Retail Sales ☐☐☐%	3. Wholesale Sales ☐☐☐%

Currently, what is the distribution of the different supply sources of your food products ☐☐☐ %						A04
3 .☐☐%	3. From the WB (Gaza only)	2 .☐☐%	2. From another Governorate	.1☐☐%	1. The same governorate	
6 .☐☐%	6. Tunnels	.5☐☐%	5. From Israel	.2☐☐%	4. From Gaza Strip (West Bank Only)	
.9☐☐%	9. Other……	8 .☐☐%	8. Other ……	7 .☐☐%	7. Directly imported	

Currently, what is the distribution of your sales ☐☐☐ %						A05
3 .☐☐%	3. To the WB (Gaza only)	2 .☐☐%	2. Outside the governorate	.1☐☐%	1. Inside the same governorate	
6 .☐☐%	6. tunnels	.4☐☐%	4. from Israel	.2☐☐%	4. To Gaza Strip (West Bank Only)	
		8 .☐☐%	8. Other	7 .☐☐%	7. Other …….	

Did the territorial supply sources change in comparison to two years ago? 1. Yes 2.no (skip to A09) ☐	A06

Please explain the nature of change on the following sources? 1. Yes, increased 2. Yes, decreased 3. No, did not change 4. Not Applicable						A07
3 .☐	3. From the WB (Gaza only)	2 .☐	2. Another Governorate	.1☐	1. The same governorate	
6 .☐	6. tunnels	.5☐	5. from Israel	.2☐	4. From Gaza Strip (West Bank Only)	
.9☐	9. Other	8 .☐	8. Other ……	7 .☐	7. Directly imported	

A08	In your opinion, what is the main reason behind the change in you sources? Yes 2. No 3. Not Applicable		
	1. Israeli measures .1☐	3. Increase transportation cost from previous sources 3 .☐	
	2. Having lower prices from other sources .2☐	4. Others…… 4 .☐	

Currently, what is the distribution of your sales						A09
3 .☐	3. From the WB (Gaza only)	2 .☐	2. Outside the governorate	.1☐	1. Inside the same governorate	
6 .☐	6. tunnels	.4☐	4. from Israel	.2☐	4. From Gaza Strip (West Bank Only)	
		8 .☐	8. Other	7 .☐	7. Other …….	

A10 In general, please indicate whether any of the following Israeli measures has affected your business operations either directly or indirectly through affecting your supply chain over the past two years?
1. Yes, to a large extent 2. Yes, somewhat 3. Yes, but to a small extent 4. No, did not affect my business 5. Not applicable

1. The Separation Barrier (Wall)	☐.1	5. Security checks at checkpoints	☐.5
2. Flying checkpoints	☐.2	6. Ability to obtain permits to enter Israel	☐.6
3. Permanent checkpoints	☐.3	7. Closure of crossings	☐.7
4. Security procedures at Commercial Checkpoints	☐.4	8. Other …….	☐.8
9. Israeli Incursions	☐9.		

A11 What is the nature and scale of changes caused by the Israeli measures in the last two years on the following aspects of your business:

Aspect	Nature of change: 1. Increased 2. Decreased 3. No Change 4. Not Applicable	Percentage change
1. Delivery time from direct supplier	☐.1	☐☐☐%
2. Distance from supply source to store/warehouse	☐.2	☐☐☐%
3. Transport costs	☐.3	☐☐☐%
4. Stock levels	☐.4	☐☐☐%
5. Availability of traded foods	☐.5	☐☐☐%
6. No. of competitors or new entrants	☐.6	☐☐☐%
7. Sales volume	☐.7	☐☐☐%
8. non-sales business health indicators (measured by no. of workers, area of business,	☐.8	☐☐☐%

A12 During the last two years, which of the following steps did you take to deal with the effects of the Israeli closure policies?
Yes 2. No 3. Not Applicable

1. Increased prices	.1☐	7. Localized market (concentrated on sale inside same governorate)	.7☐
2. Started purchasing more from local suppliers, and less from Israeli suppliers	.2☐	8. Reduced business costs	.8☐
3. Started purchasing more from Israeli suppliers, and less from Palestinian suppliers from other governorates	.3☐	9. Purchasing from Tunnel traders	.9☐
4. Started purchasing more from suppliers from other governorates, and less from suppliers from same governorate	.4☐	10. Reduced credit sales	.10☐
5. Reduced scale of operations (laid off employees, closed branches, given up on rented premises, etc.)	.5☐	11. Increased usual profit margin on sold goods to counter reduced sales or to avert risk	.11☐
6. Other ……	.6☐		

A13 Did you relocate your business in the last two years? 1. Yes 2. No ☐

Part Three: Changes in Business Operations and Access to Markets

How do you assess your current sales volume in comparison to two years ago? 1. Increased **(skip to B06)** 2. Decreased 3. No Change **(skip to B06)** ☐	B01
Can you indicate the percentage of change? ☐ % ☐	B02

B03 Please indicate the level of importance of the following factors vis-à-vis your reported drop in sales
1. Very important 2. Important 3 Not important 4. Entirely not important 5. Not applicable

1. Increase in food prices .1☐	6. Poor economic conditions among consumers .6☐
2. Closure of Gaza .2☐	7. Reduced credit from suppliers .7☐
3. Israeli closures and commercial trade routes .3☐	8. Reduced credit to clients .8☐
4. Food assistance .4☐	9. Other …… .9☐
5. Increased competition caused by new entrants .5☐	

In comparison to two years ago, did the number of your clients/customers 1. Increase 2. Decrease 3. Remain unchanged (**skip to B06)** ☐	B04
Can you indicate the percentage of change in your clients? ☐ % ☐	B05
How would you compare the credit facilities you get from your suppliers to those extended two years ago? 1. Increased 2. Decreased 3. No Change **(skip to B08)** ☐	B06
Can you indicate the percentage of change in the credit facilities extended to you? ☐ % ☐	B07
How would you compare the credit facilities you extend to your customers to those you extended two years ago? 1. Increased 2. Decreased 3. No Change **(skip to B10)** 4. Do not know**(skip to B10)** 5. I do not extend credit**(skip to B10)** ☐	B08
Can you indicate the percentage of change in your credit facilities? ☐ % ☐	B09
In general, during the last years did the demand for credit by your customers… 1. Increase 2. Decrease 3. Remained unchanged **(skip to B12)** ☐	B10
Can you indicate the percentage of change in the demand for credit by consumers? ☐ % ☐	B11
In comparison to two years ago, did your stock levels … 1. Increase 2. Decrease 3. Remain unchanged **(skip to B14)** ☐	B12
Can you indicate the percentage of change in your stock levels? ☐ % ☐	B13
In your opinion, did the availability of food (always ask about staple foods traded) in local market …… Increase 2. Decrease 3. Remain unchanged **(Skip to B16)** 4. Do not know **(Skip to B16)**	B14
Can you indicate the percentage of change in food availability? ☐ % ☐	B15
Do you expect food availability in the local market to do any of the following in the next six months? Increase 2. Decrease 3. Remain unchanged 4. Do not know	B16
Do you usually import food directly from international markets (NOT Israel)? ☐	B17

How would you describe the change in importing procedures and processes over the past two years? 1. Became more difficult 2. Became easier (**Skip to B20)** 3. Remained unchanged (**Skip to B20)** ☐	B18

B19	Using the following choices, please explain how importing procedures and processes became more difficult? Yes 2. No 3. Not applicable			
	1. Increase in shipping costs	.1☐	5. Increased difficulties in process of renewal of import licenses	.5☐
	2. Increase in demurrage and associated costs	.2☐	6. Increase difficulties in processing banking transactions	.6☐
	3. Increased difficulties in transporting mechanisms due to commercial crossing	.3☐	7. Increase in taxes on imports	.7☐
	4. Increased PA customs regulations and procedures	.4☐	8. Other ……	.8☐

Do you usually import food directly from Israel; i.e. through Israeli suppliers? ☐	B20

How would you describe the change in importing procedures and processes from Israel over the past two years? 1. Became more difficult 2. Became easier **(Move to Part Four)** 3. Remained unchanged **(Move to Part Four)** ☐	B21

B22	Using the following choices, please explain how importing procedures and processes from became more difficult? Yes 2. No 3. Not applicable			
	1. Increase in shipping costs from Israel to PA areas	.1☐	5. Increased difficulties in payment terms (credit)	.5☐
	2. Increased difficulties at checkpoints	.2☐	6. Inability to verify quality of products before purchase (related to access to Israel)	.6☐
	3. Increased difficulties in gaining direct access to Israel (individual trader movement permits)	.3☐	7. Closure of commercial crossings	.7☐
	4. Security Procedures and inspections at crossings	.4☐	8. Other …….	.8☐

Part Four: Changes in Prices in Effect on Performance of Local Market

In your assessment, what is the percentage of increase in food prices in the last two years (question meant to transition only) ☐☐				C01
C02	In your opinion, how important are the following factors to food price increase in the local market? TRADER TO BE ASKED ABOUT THE FOODS UNDER SURVEY AND IN WHICH HE PRIMARILY TRADES 1. Very important 2. Important 3 Not important 4. Entirely not important 5. Not applicable/no answer			
	1. Increase in shipping/transport costs	.1☐	6. [limited] Availability of food in local market	.6☐
	2. Global food price increases	.2☐	7. Dwindling food stocks in local market	.7☐
	3. Increased ability of traders to determine prices	.3☐	8. Closure of Gaza	.8☐
	4. Checkpoints and Israeli movement restrictions	.4☐	9. Increased demand on food	.9☐
	5. US$ exchange rate fluctuations	.5☐	10. Other ……	.10☐

Of the above factors, please indicate to the two most important factors behind food price increases				
B☐	A. Second most important factor ……..……	A.☐	A. First most important factor……..……	C03

C04	How did price increases affect the following aspects of your business?		
	Aspects	Nature of change: 1. Increased 2. Decreased 3. No Change 4. Not Applicable	Percentage change
	1. Overall change in demand for food	☐.1	☐☐☐%
	2. Demand for lower price and quality varieties	☐.2	☐☐☐%
	3. Change in your stock levels	☐.3	☐☐☐%
	4. Change in availability of food in local market	☐.4	☐☐☐%
	5. Change in sales volume of foods traded	☐.5	☐☐☐%
	6. Change in your profit margin/mark-up	☐.6	☐☐☐%
	7. Other …….	☐.7	☐☐☐%

Please tank the following elements from the most important to the least important in your pricing strategy						
3 .☐	3. the least important	2 .☐	2.	.1☐	1. the most important	A04
3. consumer purchasing power		2. competition with other traders			1. cost related to closure	
	6. others ……..	5. food assistance provided by INGOs			4.cost+profit margin	

C05	In your assessment, what is the nature of effect of the following factors on prices of food? Increases prices 2. Decreases prices 3. No effect 4. Not applicable			
	1. Unregulated inflow of Israeli products into local market	.1☐	4. Increase in transport costs	.4☐
	2. Closure of Israeli market to Palestinian products	.2☐	5. Food distribution by humanitarian organizations	.5☐
	3. difficulty in access to local markets due to Israeli restrictions on free movement	.3☐	6. Other ……	.6☐
Would you be interested in taking part of a food voucher programme by distributing food items contained in the food voucher? ☐ 1. Yes 2. No 3. Do not know				C06
Do you have the sufficient level of capacity and liquidity to be part of the food voucher programme, even if reimbursement for vouchers could take up to 60 days to be affected? 1. Yes 2. No 3. Do not know ☐				C07

Part Five: Cash Availability (GAZA ONLY)

S01	What is the effect of limited cash availability in local banks and restrictions on money transfers on the following aspects of business operations? 1. Increased 2. Decreased 3. No Effect 4. No answer/do not know			
	1. Your own liquidity (cash at hand and accessible in banks)	.1☐	4. Availability of food in local market	.4☐
	2. Credit sales and facilities offered to customers	.2☐	5. Your stock levels	.5☐
	Credit facilities extended to you by your suppliers	.3☐	6. Other ……..	.6☐
S02	What steps have you taken to deal with the limited liquidity problem			
	.1	.1☐	.3	.3☐
	.2	.2☐	.4	.4☐
S03	What is the effect of Tunnel trade on the following aspects of your business? Decreased 2. Increased 3. No effect 4. No answer/Do not know			
	1. Availability of food in which you trade local market	.1☐	4. Your stock levels	.4☐
	2. Prices in local market	.2☐	5. Your sales volume	.5☐
	3. Your profit margin	.3☐	6. Other	.6☐

Annex 5: The Complete List of Survey Tables

Table 39: Distribution of the survey sample disaggregated by trading business and by area

Areas		Retailer	Wholesaler	Total
North WB	Count	133	33	166
	%	80.1	19.9	100
Middle WB	Count	66.0	26.0	92
	%	71.7	28.3	100
South WB	Count	63.0	27.0	90
	%	70.0	30.0	100
Total WB	Count	261	86	347
	%	75.2	24.8	100
Middle and North GS	Count	36.0	23.0	59
	%	61.0	39.0	100
South GS	Count	50.0	32.0	82
	%	61.0	39.0	100
Total GS	Count	87	55	142
	%	61.3	38.7	100
Total	Count	348.0	141.0	489
	%	71.2	28.8	100

Table 40: Distribution of traders with respect to the number of years in business cross tabulated with the type of trading business

Years of work	Retailer	Wholesaler	Total
4-6	30.7	14.2	26.0
7-10	25.3	7.1	20.0
11-20	24.4	24.1	24.3
21-30	11.5	23.4	14.9
30+	8.0	31.2	14.7
Total	100.0	100.0	100.0

Table 41: Distribution of traders with respect to the number of years there been in business

Areas	Years of work					
	4-6	7-10	11-20	21-30	30+	Total
North WB	17.5	23.5	27.1	18.1	13.9	100
Middle WB	34.8	19.6	21.7	10.9	13.0	100
South WB	34.4	20.0	14.4	12.2	18.9	100
Total WB	26.5	21.6	22.5	14.4	15.0	100
Middle and North GS	20.3	18.6	33.9	15.3	11.9	100
South GS	28.0	14.6	25.6	15.9	15.9	100
Total GS	24.6	16.2	28.9	16.2	14.1	100
Total oPt	26.0	20.0	24.3	14.9	14.7	100

Table 42: Distribution of respondents with respect to trading business and the number of employees

No. of employees	Retailer	Wholesaler	Total
None	25.3	0.7	18.2
1	30.7	9.9	24.7
2	24.7	25.5	24.9
3	10.9	19.9	13.5
4	4.0	11.3	6.1
5+	4.3	32.6	12.5
Total	100	100	100

Table 43: Percentage of wholesalers indicating main sources of the supply channels for their products

Supply channels	West Bank	Gaza Strip	WBGS
From the same governorate	38.7	22.4	32.3
From a different governorate	43.5	44.4	43.9
From west bank (only Gaza)	0.0	1.3	0.5
From Gaza (only WB)	0.0	0.0	0.0
From Israel	11.7	8.7	10.6
From tunnels	0.0	15.6	6.1
Directly imported from abroad	5.9	7.6	6.6
Total	100	100	100

Table 44: Percentage of wholesalers indicating main marketing channels for their products

Marketing channels	West Bank	Gaza Strip	WBGS
The same governorate	86.0	75.6	81.9
To a different governorate	13.6	24.4	17.8
To the west bank (only Gaza)	0.0	0	0.0
To Gaza (only WB)	0.3	0	0.2
To Israel	0.2	0	0.1
Exported to abroad markets	0	0	0.0
Total	100	100	100

Table 45: Distribution of traders with respect to the change in their supply sources in comparison to two years ago

Did the territorial supply sources change in comparison to two years ago?				
Areas	Trading business	Yes	No	Total
WB	Retailer	12.6	87.4	100
	Wholesaler	15.1	84.9	100
	Total	13.3	86.7	100
GS	Retailer	41.4	58.6	100
	Wholesaler	54.5	45.5	100
	Total	46.5	53.5	100
Total oPt	Retailer	19.8	80.2	100
	Wholesaler	30.5	69.5	100
	Total	22.9	77.1	100

Table 46: Distribution of traders with respect to their opinions regarding the main reasons behind the change in supply chain

Supply channels	North WB	Middle WB	South WB	Middle and	South GS	Total
Israeli measures	75.0	100.0	94.7	92.6	97.4	94.6
having lower prices from other sources	87.5	55	100	25.9	47.4	55.4
increase transportation cost from previous sources	87.5	70.0	89.5	37.0	57.9	62.5

Table 47: Percentage of wholesalers indicating the change in main sources of the supply channels for their products

Supply channels	Increased	Decreased	No change	N/A	Total
From the same governorate	32.1	29.5	16.1	22.3	100
From a different governorate	36.6	26.8	17.0	19.6	100
From west bank (only Gaza)	0.0	1.8	0.0	98.2	100
From Gaza (only WB)	0.0	3.6	4.5	91.9	100
From Israel	4.7	88.4	7.0	0	100
From tunnels (Gaza only)	90.4	5.8	3.8	0	100
Directly imported from abroad	2.0	9.8	2.9	85.3	100

Table 48: Percentage of wholesalers with respect to the change in their supply channels from Israel

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	6.3	81.3	12.5	100
	Wholesaler	10.0	80.0	10.0	100
	Total	7.7	80.8	11.5	100
GS	Retailer	0.0	100.0	0.0	100
	Wholesaler	0.0	100.0	0.0	100
	Total	0.0	100.0	0.0	100
Total oPt	Retailer	4.5	86.4	9.1	100
	Wholesaler	4.8	90.5	4.8	100
	Total	4.7	88.4	7.0	100

Table 49:Percentage of wholesalers with respect to the change in their supply channels from tunnels

Areas	Trading business	Increased	Decreased	No change	Total
Gaza Strip	Retailer	86.7	10.0	3.3	100
	Wholesaler	95.5	0.0	4.5	100
	Total	90.4	5.8	3.8	100

Table 50: Distribution of traders with respect to their opinions regarding the effects of various Israeli measures on their business

Israeli measures	Yes, to a large extent	Yes, somewhat	Yes, but to a small extent	No, did not affect my business	Total
The Separation Barrier (Wall)	42.9	20.4	16.0	20.7	100
Flying checkpoints	19.6	30.9	18.9	30.5	100
Permanent checkpoints	33.1	30.2	14.9	21.8	100
Security procedures at Commercial Checkpoints	17.8	18.2	18.9	45.1	100
Security checks at checkpoints	22.2	17.5	24.4	36.0	100
Ability to obtain permits to enter Israel	38.1	7.1	9.5	45.2	100
Closure of crossings	72.3	4.1	5.6	17.9	100
Israeli incursions (Gaza)	71.4	11.9	9.5	7.1	100

Table 51 :Distribution of traders with respect to the nature of changes caused by the Israeli measures

Israeli measures	Increased	Decreased	No change	Total
Delivery time from direct supplier	17.1	7.2	75.7	100
Distance from supply source to store/warehouse	2.2	1.7	96.1	100
Transport costs	52.4	2.4	45.2	100
Stock levels	6.1	54.1	39.8	100
Availability of traded foods	22.5	36.8	40.7	100
No. of competitors or new entrants	73.4	13.3	13.3	100
Sales volume	13.7	75.2	11.1	100
Business operations	4.4	35	60.6	100

Table 52: Distribution of traders with respect to the nature of change in delivery time caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average increase in delivery time
North WB	30.6	2.5	66.9	37.3
Middle WB	40.7	4.4	54.9	25.4
South WB	7.2	10.8	81.9	15.0
Total WB	27.2	5.4	67.3	30.8
Middle and North GS	54.3	19.6	26.1	37.9
South GS	46.8	14.3	39.0	46.7
Total GS	49.2	16.1	34.7	43.2
Total oPt	33.7	8.6	57.7	36.0

Table 53 :Distribution of traders with respect to the nature of change in transportation cost caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average increase in transportation cost
North WB	56.2	0	43.8	34.1
Middle WB	62.6	3.3	34.1	23.1
South WB	47.0	8.4	44.6	11.6
Total WB	55.8	3.4	40.8	25.2
Middle and North GS	58.7	0	41.3	38.7
South GS	45.5	1.3	53.2	42.5
Total GS	50.0	0.8	49.2	40.7
Total oPt	54.1	2.6	43.3	29.4

Table 54:Distribution of traders with respect to the nature of change in stock level caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average decrease in stock level
North WB	9.9	26.4	63.6	44.7
Middle WB	5.5	63.7	30.8	33.7
South WB	22.9	54.2	22.9	28.5
Total WB	12.2	45.6	42.2	35.1
Middle and North GS	13.0	76.1	10.9	51.8
South GS	10.4	77.9	11.7	51.8
Total GS	11.3	77.4	11.3	51.7
Total oPt	12.0	55.0	33.0	42.1

Table 55: Distribution of traders with respect to the nature of change in the No. of competitors or new entrants in the markets caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average increase in No. of new entrants
North WB	61.4	18.1	20.5	24.9
Middle WB	59.8	21.7	18.5	30.1
South WB	97.8	2.2	0.0	30.2

Total WB	70.4	16.7	12.9	28
Middle and North GS	69.5	16.9	13.6	40.0
South GS	89.0	3.7	7.3	47.5
Total GS	83.1	8.1	8.9	44.5
Total oPt	73.4	13.3	13.3	33.3

Table 56: Distribution of traders with respect to the nature of change in sales volumes caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average decrease in sales volume
North WB	18.2	64.8	17.0	43.8
Middle WB	1.1	90.2	8.7	41.2
South WB	27.8	62.2	10.0	29.1
Total WB	14.6	72.8	12.6	39.6
Middle and North GS	10.2	81.4	8.5	47.9
South GS	6.1	89.0	4.9	47.7
Total GS	7.3	86.3	6.5	47.7
Total oPt	13.7	75.2	11.1	42.3

Table 57: Distribution of traders with respect to the Measures they taken to cope with Israeli closure policy

Coping strategies	Yes	No	Total
Increase food prices	18.5	81.5	100
Started purchasing more from local suppliers, and less from Israeli suppliers	56.7	43.3	100
Started purchasing more from Israeli suppliers, and less from Palestinian suppliers from other governorates	7.8	92.2	100
Started purchasing more from suppliers from other governorates, and less from suppliers from same governorate	39.1	60.9	100
Reduced scale of operations (laid off employees, closed branches, given up on rented premises, etc.)	40.3	59.7	100
Localized market (concentrated on sale inside same governorate)	83.1	16.9	100
Reduced business costs	63.8	36.2	100
Purchasing from Tunnel traders	58.3	41.7	100
Reduced credit sales	61.2	38.8	100
Increased usual profit margin on sold goods to counter reduced sales or to avert risk	19.6	80.4	100

Table 58: Distribution of traders with respect to whether or not they relocate their business in the last two years

Areas	Trading business	Yes	No	Total
WB	Retailer	1.2	98.8	100
	Wholesaler	7.0	93.0	100
	Total	2.6	97.4	100
GS	Retailer	0.0	100.0	100
	Wholesaler	5.5	94.5	100
	Total	2.1	97.9	100
Total oPt	Retailer	0.9	99.1	100
	Wholesaler	6.4	93.6	100
	Total	2.5	97.5	100

Table 59: Distribution of traders with respect to the change in their sales volume in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	13.8	72.4	13.8	100
	Wholesaler	18.6	53.5	27.9	100
	Total	15.0	67.7	17.3	100
GS	Retailer	5.7	88.5	5.7	100
	Wholesaler	9.1	85.5	5.5	100
	Total	7.0	87.3	5.6	100
Total oPt	Retailer	11.8	76.4	11.8	100
	Wholesaler	14.9	66.0	19.1	100
	Total	12.7	73.4	13.9	100

Table 60: Distribution of traders with respect to the percentage of decrease in their sales volume
(Among those who reported a decrease in their sales)

Areas Group	Average decrease in sales volume
North WB	46.3
Middle WB	41.7
South WB	34.6
Total WB	42.1
Middle and North GS	48.9
South GS	47.9
Total GS	48.2
Total oPt	44.2

Table 61: Distribution of traders with respect to their opinions regarding the level of importance of various factors behind the decrease in their sales volume

Factors	Very important	Important	Not important	Entirely not important	Total
Increase in food prices	76.5	15.9	5.9	1.7	100
Closure of Gaza	87.0	8.7	3.1	1.2	100
Israeli closures and commercial trade routes	52.2	32.6	11.3	4.0	100
Food assistance	45.9	22.3	19.3	12.6	100
Increased competition caused by new entrants	46.7	33.0	13.7	6.6	100
Poor economic conditions among consumers	88.5	11.5	0	0	100
Reduced credit from suppliers	27.6	39.0	25.1	8.3	100
Reduced credit to clients	30.7	30.1	27.5	11.6	100

Table 62: Distribution of traders with respect to their opinions regarding the first important reason behind the decrease in their sales volume

	Trading business	Increase if food prices	Gaza closure	Israeli closure and commercial routs	Food assistance	Increased competition	Poor economic conditions	Others
North WB	Retailer	32.2	1.1	8.9	2.2	6.7	45.6	3.3
	Wholesaler	36.4	0.0	9.1	0.0	9.1	45.5	0.0
	Total	32.7	1.0	8.9	2.0	6.9	45.5	3.0
Middle WB	Retailer	27.6	0.0	34.5	0.0	10.3	25.9	1.7
	Wholesaler	40.0	0.0	16.0	8.0	8.0	24.0	4.0
	Total	31.3	0.0	28.9	2.4	9.6	25.3	2.4
South WB	Retailer	15.0	0.0	2.5	2.5	12.5	50.0	17.5
	Wholesaler	50.0	0.0	10.0	20.0	10.0	0.0	10.0
	Total	22.0	0.0	4.0	6.0	12.0	40.0	16.0
Total WB	Retailer	27.3	0.5	15.5	1.6	9.1	40.1	5.9
	Wholesaler	41.3	0.0	13.0	8.7	8.7	23.9	4.3
	Total	30.0	0.4	15.0	3.0	9.0	36.9	5.6
Middle and North GS	Retailer	6.9	44.8	0.0	31.0	0.0	17.2	0.0
	Wholesaler	10.0	50.0	0.0	30.0	0.0	10.0	0.0
	Total	8.2	46.9	0.0	30.6	0.0	14.3	0.0
South GS	Retailer	14.9	25.5	6.4	31.9	4.3	14.9	2.1
	Wholesaler	18.5	25.9	3.7	48.1	0.0	3.7	0.0
	Total	16.2	25.7	5.4	37.8	2.7	10.8	1.4
Total GS	Retailer	11.7	32.5	3.9	31.2	2.6	16.9	1.3
	Wholesaler	14.9	36.2	2.1	40.4	0.0	6.4	0.0
	Total	12.9	33.9	3.2	34.7	1.6	12.9	0.8
Total oPt	Retailer	22.7	9.8	12.1	10.2	7.2	33.3	4.5
	Wholesaler	27.5	17.6	7.7	25.3	4.4	15.4	2.2
	Total	23.9	11.8	11.0	14.1	6.5	28.7	3.9

Table 63: Distribution of traders with respect to their opinions regarding the level of importance of various factors behind the increase in their sales volume (among those who reported an increase in their sales)

Factors	Very important	Important	Not important	Entirely not important	Total
Ease in Israeli procedures around cities	62.7	15.7	17.6	3.9	100
Ease in Israeli procedures in the crossing terminals	49.1	21.8	21.8	7.3	100
Increase credit to clients	48.3	18.3	28.3	5.0	100
Increase in credit provided from suppliers	49.1	29.8	14.0	7.0	100
Decrease in the number of traders	23.6	25.5	36.4	14.5	100

Table 64: Distribution of traders with respect to the change in their client's number in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	18.4	46.7	34.9	100
	Wholesaler	29.1	40.7	30.2	100
	Total	21.0	45.2	33.7	100
GS	Retailer	16.1	56.3	27.6	100
	Wholesaler	18.2	65.5	16.4	100
	Total	16.9	59.9	23.2	100
Total oPt	Retailer	17.8	49.1	33.0	100
	Wholesaler	24.8	50.4	24.8	100
	Total	19.8	49.5	30.7	100

Table 65: Distribution of traders with respect to the percentage of decrease in their client's number (Among those who reported a decrease in clients number)

Areas	Average decrease in clients number
North WB	41.0
Middle WB	34.7
South WB	21.9
Total WB	35.5
Middle and North GS	45.1
South GS	42.8
Total GS	43.6
Total	38.4

Table 66:Distribution of traders with respect to the change in credit facilities provided by suppliers in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	10.0	19.2	70.9	100
	Wholesaler	14.0	39.5	46.5	100

	Total	11.0	24.2	64.8	100
	Retailer	9.2	66.7	24.1	100
	Wholesaler	9.1	67.3	23.6	100
GS	Total	9.2	66.9	23.9	100
	Retailer	9.8	31.0	59.2	100
	Wholesaler	12.1	50.4	37.6	100
Total oPt	Total	10.4	36.6	53.0	100

Table 67: Distribution of traders with respect to the percentage of decrease in credit facilities provided by suppliers (Among those who reported a decrease in credit facilities)

Areas	Average decrease in credit facilities provided by suppliers
North WB	41.8
Middle WB	27.9
South WB	18.9
Total WB	30.7
Middle and North GS	59.8
South GS	52.5
Total GS	55.5
Total	43.9

Table 68: Distribution of traders with respect to the change in credit facilities provided to customers in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
	Retailer	41.8	23.0	18.4	100
	Wholesaler	30.2	19.8	20.9	100
WB	Total	38.9	22.2	19.0	100
	Retailer	26.4	54.0	14.9	100
	Wholesaler	23.6	70.9	5.5	100
GS	Total	25.4	60.6	11.3	100
	Retailer	37.9	30.7	17.5	100
	Wholesaler	27.7	39.7	14.9	100
Total oPt	Total	35.0	33.3	16.8	100

Table 69: Distribution of traders with respect to the percentage of decrease in credit facilities provided to customers (Among those who reported a decrease in credit facilities)

Areas	Average decrease in credit facilities provided to consumers
North WB	42.4
Middle WB	27.9
South WB	20.0
Total WB	39.5
Middle and North GS	48.8
South GS	47.2
Total GS	47.8

Total	43.9

Table 70: Distribution of traders with respect to the change in their stock level in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	14.6	34.5	51.0	100
	Wholesaler	15.1	51.2	33.7	100
	Total	14.7	38.6	46.7	100
GS	Retailer	10.3	73.6	16.1	100
	Wholesaler	12.7	70.9	16.4	100
	Total	11.3	72.5	16.2	100
Total oPt	Retailer	13.5	44.3	42.2	100
	Wholesaler	14.2	58.9	27.0	100
	Total	13.7	48.5	37.8	100

Table 71: Distribution of traders with respect to the percentage decrease in their stock level in comparison to two years ago (Among those who reported a decrease in their stock level)

Areas	Average decrease in stock level
North WB	44.9
Middle WB	34.7
South WB	27.5
Total WB	35.6
Middle and North GS	52.8
South GS	51.2
Total GS	51.6
Total	42.6

Table 72: Distribution of traders with respect to their opinions regarding the change in food availability in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
WB	Retailer	24.2	18.5	55.8	100
	Wholesaler	14.0	32.6	51.2	100
	Total	21.7	22.0	54.6	100
GS	Retailer	49.4	46.0	4.6	100
	Wholesaler	27.3	61.8	10.9	100
	Total	40.8	52.1	7.0	100
Total WBGS	Retailer	30.5	25.4	42.9	100
	Wholesaler	19.1	44.0	35.5	100
	Total	27.3	30.7	40.8	100

Table 73: Distribution of traders with respect to the percentage decrease in food availability in comparison to two years ago (Among those who reported a decrease in food availability)

Areas	Average decrease in Food availability
North WB	24.2
Middle WB	22.7
South WB	31.8
Total WB	25.5
Middle and North GS	46.0
South GS	43.5
Total GS	44.5
Total	35

Table 74: Distribution of traders with respect to whether they import from abroad or not disaggregated by trading business and areas

Areas	Trading business	Yes	No	Total
	Retailer	0	100	100
	Wholesaler	12.8	87.2	100
WB	Total	3.2	96.8	100
	Retailer	0.0	100.0	100
	Wholesaler	14.5	85.5	100
GS	Total	5.6	94.4	100
	Retailer	0.0	100.0	100
	Wholesaler	13.5	86.5	100
Total WBGS	Total	3.9	96.1	100

Table 75: Distribution of importers with respect to their opinions regarding the change in various importing procedures from abroad

Areas Group	Became more difficult	Became easier	No change	Total
North WB	25.0	12.5	62.5	100
Middle WB	100.0	0.0	0.0	100
South WB	100.0	0.0	0.0	100
Total WB	45.5	9.1	45.5	100
Middle and North GS	85.7	0.0	14.3	100
South GS	100.0	0.0	0.0	100
Total GS	88.9	0.0	11.1	100
Total oPt	65.0	5.0	30.0	100

Table 76: Distribution of importers with respect to their opinions regarding the level of difficulties in various importing procedures (among those who reported that importing procedures became more difficult)

Difficulties in importing procedures	Yes	No	Total
Increase in shipping costs	69.2	30.8	100
Increase in demurrage and associated costs	81.8	18.2	100
Increased difficulties in transporting mechanisms due to commercial crossing standards and protocols	92.3	7.7	100
Increased PA customs regulations and procedures	61.5	38.5	100
Increased difficulties in process of renewal of import licenses	33.3	66.7	100
Increase difficulties in processing banking transactions	30.8	69.2	100
Increase in taxes on imports	46.2	53.8	100

Table 77: Distribution of traders with respect to whether they import from Israel or not disaggregated by trading business and areas

Areas	Trading business	Yes	No	Total
	Retailer	3.8	96.2	100
	Wholesaler	36.0	64.0	100
WB	Total	11.8	88.2	100
	Retailer	3.4	96.6	100
	Wholesaler	20.0	80.0	100
GS	Total	9.9	90.1	100
	Retailer	3.7	96.3	100
	Wholesaler	29.8	70.2	100
Total oPt	Total	11.3	88.7	100

Table 78: Distribution of importers with respect to their opinions regarding the change in various importing procedures from Israel

Areas	Trading business	Became more difficult	Became easier	Remained unchanged	Total
	Retailer	70	0.0	30	100
	Wholesaler	51.6	16.1	32.3	100
WB	Total	56.1	12.2	31.7	100
	Retailer	100.0	0.0	0.0	100
	Wholesaler	100.0	0.0	0.0	100
GS	Total	100.0	0.0	0.0	100
	Retailer	76.9	0.0	23.1	100
	Wholesaler	64.3	11.9	23.8	100
Total oPt	Total	67.3	9.1	23.6	100

Table 79: Distribution of importers with respect to their opinions regarding the level of difficulties in various importing procedures from Israel (among those who reported that importing procedures became more difficult)

Difficulties in importing procedures	Yes	No	Total
Increase in shipping costs from Israel to PA areas	69.0	31.0	100
Increased difficulties at checkpoints	93.5	6.5	100
Increased difficulties in gaining direct access to Israel (individual trader movement permits)	68.6	31.4	100
Security Procedures and inspections at crossings	90.3	9.7	100
Increased difficulties in payment terms (credit)	40.0	60.0	100
Inability to verify quality of products before purchase (related to access to Israel)	58.3	41.7	100
Closure of commercial crossings	84.0	16.0	100

Table 80: Distribution of traders with respect to their opinions regarding the importance of various factor related to the increase in food prices

Price Effect on Performance of Local Market	Very important	Important	Not important	Entirely not important	Total
Increase in shipping/transport costs	44.1	31.6	16.0	8.3	100
Global food price increases	80.7	14.3	3.5	1.4	100
Increased ability of traders to determine prices	47.3	31.4	14.3	7.0	100
Checkpoints and Israeli movement restrictions	56.9	24.9	11.4	6.9	100
US$ exchange rate fluctuations	67.2	24.1	5.1	3.5	100
limited Availability of food in local market	52.5	19.9	15.4	12.2	100
Dwindling food stocks in local market	42.3	33.8	14.4	9.6	100
Closure of Gaza	91.5	3.7	2.7	2.1	100
Increased demand on food	36.4	29.5	24.0	10.1	100

Table 81: Distribution of traders with respect to their opinions regarding the first importance factor behind the increase in food prices

Factors	North WB	Middle WB	South WB	Middle and North GS	South GS	Total WBGS
Global food price increases	53.9	45.1	19.1	10.2	14.8	34.0
Closure of Gaza	0.0	0.0	3.4	52.5	30.9	12.2
US$ exchange rate fluctuations	14.5	13.2	21.3	0.0	0.0	11.3
limited Availability of food in local market	8.5	2.2	19.1	10.2	14.8	10.5
Increase in shipping/transport	6.7	4.4	11.2	15.3	17.3	9.9
Checkpoints and Israeli movement restrictions	7.3	22.0	2.2	1.7	11.1	9.1
Increased ability of traders to determine prices	7.9	3.3	3.4	8.5	3.7	5.6
Increased demand on food	0.0	3.3	13.5	0.0	1.2	3.3
Dwindling food stocks in local market	0.0	5.5	3.4	1.7	6.2	2.9
Others	1.2	1.1	3.4	0.0	0.0	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 82: Distribution of traders with respect to effect of the increase in food prices on various aspect in trading business

Price increase Effect on …	Increase	Decrease	No change	Total
Overall change in demand for food	24.6	55.3	20.1	100
Demand for lower price and quality varieties	87.9	4.7	7.4	100
Change in your stock levels	11.1	50.9	38.0	100
Change in availability of food in local market	20.7	36.3	43.0	100
Change in sales volume of foods traded	14.4	73.3	12.3	100
Change in your profit margin/mark-up	11.7	61.5	26.8	100

Table 83: Distribution of traders with respect to their opinions regarding the effect of the increase in food prices on the demand for lower price and quality varieties

Areas	Trading business	Increase	Decrease	No change	Total
	Retailer	91.9	1.9	6.2	100
	Wholesaler	87.2	4.7	8.1	100
WB	Total	90.8	2.6	6.6	100
	Retailer	81.6	8.0	10.3	100
	Wholesaler	80.0	12.7	7.3	100
GS	Total	81.0	9.9	9.2	100
	Retailer	89.3	3.5	7.2	100
	Wholesaler	84.4	7.8	7.8	100
Total oPt	Total	87.9	4.7	7.4	100

Table 84: Distribution of traders with respect to the first importance factors the determine pricing disaggregated by trading business and areas

Areas	Trading business	cost related to closure	competition between traders	consumer purchasing power	cost +profit margin	food assistance	Others	Total
	Retailer	15.8	25.4	33.8	20.0	4.6	0.4	100
	Wholesaler	24.4	32.6	15.1	16.3	10.5	1.2	100
Total WB	Total	17.9	27.2	29.2	19.1	6.1	0.6	100
	Retailer	48.3	6.9	3.4	25.3	16.1	0	100
	Wholesaler	40.0	10.9	7.3	10.9	30.9	0	100
Total GS	Total	45.1	8.5	4.9	19.7	21.8	0	100
	Retailer	23.9	20.7	26.2	21.3	7.5	0.3	100
	Wholesaler	30.5	24.1	12.1	14.2	18.4	0.7	100
Total oPt	Total	25.8	21.7	22.1	19.3	10.7	0.4	100

Table 85: Distribution of traders with respect to their willingness to participate in the food voucher program

Would you be interested in taking part of a food voucher program by distributing food items contained in the food voucher				
Areas	Trading business	Yes	No	Total
	Retailer	61.4	38.6	100
	Wholesaler	73.3	26.7	100
WB	Total	64.3	35.7	100
	Retailer	75.9	24.1	100
	Wholesaler	90.9	9.1	100
GS	Total	81.7	18.3	100
	Retailer	65.0	35.0	100
	Wholesaler	80.1	19.9	100
Total oPt	Total	69.4	30.6	100

Table 86: Distribution of traders with respect to whether they have the sufficient capacity or not to be part of the food voucher program

Do you have the sufficient level of capacity and liquidity to be part of the food voucher program, even if reimbursement for vouchers could take up to 60 days to be affected?				
Areas	Trading business	Yes	No	Total
	Retailer	90.5	9.5	100
	Wholesaler	95.2	4.8	100
WB	Total	91.9	8.1	100
	Retailer	89.4	10.6	100
	Wholesaler	88.0	12.0	100
GS	Total	88.8	11.2	100
	Retailer	90.2	9.8	100
	Wholesaler	92.0	8.0	100
Total oPt	Total	90.8	9.2	100

Table 87: Distribution of traders with respect to their opinions regarding the effect of Tunnel trade on various aspects of business operations

	Increased	Decreased	No effect	No answer	Total
Availability of food in which you trade in local market	24.3	71.4	4.3	0.0	100
Prices in local market	29.3	60.7	10.0	0.0	100
Your profit margin	50.0	31.4	17.9	0.7	100
Your stock levels	30.7	35.7	32.1	1.4	100
Your sales volume	56.4	31.4	12.1	0.0	100

Table 88: Distribution of traders with respect to measures they employed to cope with the liquidity problem are summarized in the below table.

Measures	Percent
Transfer through banks	4.5
Increase credit from suppliers	13.5
House savings/increase cash in hands	11.2
Decrease purchasing orders	12.9
Decrease dependence on banks/stop dealing	16.9
Decrease credit provided to consumers	26.4
Debt from others	5.6
Others	9.0
Total	100

Table 89: Distribution of traders with respect to the nature of change in distance from supply source to warehouse caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average increase in distance
North WB	12.4	0.8	86.8	34.9
Middle WB	15.4	3.3	81.3	25.4
South WB	10.8	7.2	81.9	13.5
Total WB	12.9	3.4	83.7	26.4
Middle and North GS	15.2	6.5	78.3	38.6
South GS	7.8	2.6	89.6	55.0
Total GS	10.5	4.0	85.5	46.2
Total oPt	12.2	3.6	84.2	31.2

Table 90: Distribution of traders with respect to the nature of change in food availability caused by the Israeli measures

Areas Group	Increased	Decreased	No change	Average decrease in food availability
North WB	7.4	15.7	76.9	29.8
Middle WB	8.8	48.4	42.9	26.6
South WB	43.4	36.1	20.5	33.2
Total WB	18.0	31.3	50.7	29.5
Middle and North GS	37.0	58.7	4.3	45.9
South GS	36.4	54.5	9.1	42.2
Total GS	36.3	56.5	7.3	43.6
Total oPt	23.4	38.8	37.8	36.1

Table 91: Distribution of traders with respect to the change in their supply sources in the past two years

Did the territorial supply sources change in comparison to two years ago?				
	Trading business	Yes	No	Total
North WB	Retailer	2.3	97.7	100
	Wholesaler	15.2	84.8	100
	Total	4.8	95.2	100
Middle WB	Retailer	21.2	78.8	100
	Wholesaler	23.1	76.9	100
	Total	21.7	78.3	100
South WB	Retailer	27.0	73.0	100
	Wholesaler	7.4	92.6	100
	Total	21.1	78.9	100
Total WB	Retailer	12.6	87.4	100
	Wholesaler	15.1	84.9	100
	Total	13.3	86.7	100
Middle and North GS	Retailer	30.6	69.4	100
	Wholesaler	69.6	30.4	100
	Total	45.8	54.2	100
South GS	Retailer	48.0	52.0	100
	Wholesaler	43.8	56.3	100
	Total	46.3	53.7	100
Total GS	Retailer	41.4	58.6	100
	Wholesaler	54.5	45.5	100
	Total	46.5	53.5	100
Total oPt	Retailer	19.8	80.2	100
	Wholesaler	30.5	69.5	100
	Total	22.9	77.1	100

Table 92: Distribution of traders with respect to whether or not they increased prices to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	6.1	93.9	100
Middle WB	22.8	77.2	100
South WB	14.4	85.6	100
Total WB	12.8	87.2	100
Middle and North GS	30.5	69.5	100
South GS	34.1	65.9	100
Total GS	32.4	67.6	100
Total oPt	18.5	81.5	100

Table 93: Distribution of traders with respect to whether or not started purchasing more from local suppliers, and less from Israeli suppliers to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	60.8	39.2	100
Middle WB	29.3	70.7	100
South WB	83.9	16.1	100
Total WB	55.7	44.3	100
Middle and North GS	55.2	44.8	100
South GS	70.0	30.0	100
Total GS	61.7	38.3	100
Total oPt	56.7	43.3	100

Table 94: Distribution of traders with respect to whether or not they started purchasing more from Israeli suppliers, and less from Palestinian suppliers from other governorates to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	9.2	90.8	100
Middle WB	0.0	100.0	100
South WB	15.7	84.3	100
Total WB	7.5	92.5	100
Middle and North GS	26.7	73.3	100
South GS	0.0	100.0	100
Total GS	10.5	89.5	100
Total oPt	7.8	92.2	100

Table 95: Distribution of traders with respect to whether or not they Started purchasing more from suppliers from other governorates, and less from suppliers from same governorate to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	38.0	62.0	100
Middle WB	13.0	87.0	100
South WB	39.5	60.5	100
Total WB	31.6	68.4	100
Middle and North GS	44.9	55.1	100
South GS	69.3	30.7	100
Total GS	59.2	40.8	100
Total oPt	39.1	60.9	100

Table 96: Distribution of traders with respect to whether or not they Reduced scale of operations (laid off employees, closed branches, given up on rented premises) to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	17.9	82.1	100
Middle WB	58.2	41.8	100
South WB	67.8	32.2	100
Total WB	42.3	57.7	100
Middle and North GS	43.6	56.4	100
South GS	28.4	71.6	100
Total GS	35.4	64.6	100
Total oPt	40.3	59.7	100

Table 97: Distribution of traders with respect to whether or not they Localized market (concentrated on sale inside same governorate) to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	97.0	3.0	100
Middle WB	50.0	50.0	100
South WB	92.2	7.8	100
Total WB	83.2	16.8	100
Middle and North GS	74.1	25.9	100
South GS	89.0	11.0	100
Total GS	83.0	17.0	100
Total oPt	83.2	16.8	100

Table 98: Distribution of traders with respect to whether or not they reduced business cost to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	54.5	45.5	100
Middle WB	82.6	17.4	100
South WB	71.3	28.7	100
Total WB	66.5	33.5	100
Middle and North GS	45.6	54.4	100
South GS	65.9	34.1	100
Total GS	57.1	42.9	100
Total oPt	63.8	36.2	100

Table 99: Distribution of traders with respect to whether or not they purchased from tunnel traders to cope with Israeli closure policy

Areas Group	Yes	No	Total
Middle and North GS	63.8	36.2	100
South GS	65.9	34.1	100
Total GS	65	35	100

Table 100: Distribution of traders with respect to whether or not they reduced credit cost to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	56.4	43.6	100
Middle WB	32.9	67.1	100
South WB	77.6	22.4	100
Total WB	56.7	43.3	100
Middle and North GS	69.5	30.5	100
South GS	72.8	27.2	100
Total GS	71.4	28.6	100
Total oPt	61.2	38.8	100

Table 101: Distribution of traders with respect to whether or not they increased usual profit margin on sold goods to counter reduced sales to cope with Israeli closure policy

Areas Group	Yes	No	Total
North WB	28.6	71.4	100
Middle WB	17.8	82.2	100
South WB	14.3	85.7	100
Total WB	22.3	77.7	100
Middle and North GS	10.2	89.8	100
South GS	15.4	84.6	100
Total GS	13.0	87.0	100
Total oPt	19.6	80.4	100

Table 102: Distribution of traders with respect to whether or not they relocate their business in the last two years

	Trading business	Yes	No	Total

	Retailer	0.8	99.2	100
	Wholesaler	12.1	87.9	100
North WB	Total	3.0	97.0	100
	Retailer	0.0	100.0	100
	Wholesaler	0.0	100.0	100
Middle WB	Total	0.0	100.0	100
	Retailer	3.2	96.8	100
	Wholesaler	7.4	92.6	100
South WB	Total	4.4	95.6	100
	Retailer	1.2	98.8	100
	Wholesaler	7.0	93.0	100
Total WB	Total	2.6	97.4	100
	Retailer	0.0	100.0	100
Middle and North GS	Wholesaler	4.3	95.7	100
	Total	1.7	98.3	100
	Retailer	0.0	100.0	100
	Wholesaler	6.3	93.8	100
South GS	Total	2.4	97.6	100
	Retailer	0.0	100.0	100
	Wholesaler	5.5	94.5	100
Total GS	Total	2.1	97.9	100
	Retailer	0.9	99.1	100
	Wholesaler	6.4	93.6	100
Total oPt	Total	2.5	97.5	100

Table 103: Distribution of traders with respect to the change in their sales volume in comparison to two years ago

	Trading business	Increased	Decreased	No change	Total
	Retailer	18.8	67.7	13.5	100
	Wholesaler	36.4	33.3	30.3	100
North WB	Total	22.3	60.8	16.9	100
	Retailer	1.5	89.4	9.1	100
	Wholesaler	0	96.2	3.8	100
Middle WB	Total	1.1	91.3	7.6	100
	Retailer	15.9	65.1	19.0	100
	Wholesaler	14.8	37.0	48.1	100
South WB	Total	15.6	56.7	27.8	100
	Retailer	13.8	72.4	13.8	100
	Wholesaler	18.6	53.5	27.9	100
Total WB	Total	15.0	67.7	17.3	100
	Retailer	80.6	11.1	11.1	100
Middle and North GS	Wholesaler	87.0	0	0.0	100
	Total	83.1	6.8	6.8	100
	Retailer	94.0	2.0	2.0	100
	Wholesaler	84.4	9.4	9.4	100
South GS	Total	90.2	4.9	4.9	100

	Retailer	5.7	88.5	5.7	100
	Wholesaler	9.1	85.5	5.5	100
Total GS	Total	7.0	87.3	5.6	100
	Retailer	11.8	76.4	11.8	100
	Wholesaler	14.9	66.0	19.1	100
Total oPt	Total	12.7	73.4	13.9	100

Table 104: Distribution of traders with respect to their opinions regarding the level of importance the ease in Israeli procedures around the cities

	Trading business	Very important	Important	Not important	Entirely not important	Total
	Retailer	68.0	8.0	20.0	4.0	100
	Wholesaler	91.7	0.0	8.3	0.0	100
North WB	Total	75.7	5.4	16.2	2.7	100
	Retailer	0.0	0.0	100.0	0.0	100
	Wholesaler	0.0	0.0	0.0	0.0	100
Middle WB	Total	0.0	0.0	100.0	0.0	100
	Retailer	37.5	37.5	25.0	0.0	100
	Wholesaler	0.0	100.0	0.0	0.0	100
South WB	Total	30.0	50.0	20.0	0.0	100
	Retailer	58.8	14.7	23.5	2.9	100
	Wholesaler	78.6	14.3	7.1	0.0	100
Total WB	Total	64.6	14.6	18.8	2.1	100

Table 105: Distribution of traders with respect to the change in their client's number in comparison to two years ago

	Trading business	Increased	Decreased	No change	Total
North WB	Retailer	21.8	47.4	30.8	100
	Wholesaler	42.4	24.2	33.3	100
	Total	25.9	42.8	31.3	100
Middle WB	Retailer	1.5	63.6	34.8	100
	Wholesaler	7.7	80.8	11.5	100
	Total	3.3	68.5	28.3	100
South WB	Retailer	28.6	28.6	42.9	100
	Wholesaler	33.3	22.2	44.4	100
	Total	30.0	26.7	43.3	100
Total WB	Retailer	18.4	46.7	34.9	100
	Wholesaler	29.1	40.7	30.2	100
	Total	21.0	45.2	33.7	100
Middle and North GS	Retailer	19.4	50.0	30.6	100
	Wholesaler	21.7	60.9	17.4	100
	Total	20.3	54.2	25.4	100
South GS	Retailer	14.0	60.0	26.0	100
	Wholesaler	15.6	68.8	15.6	100
	Total	14.6	63.4	22.0	100
Total GS	Retailer	16.1	56.3	27.6	100
	Wholesaler	18.2	65.5	16.4	100
	Total	16.9	59.9	23.2	100
Total oPt	Retailer	17.8	49.1	33.0	100
	Wholesaler	24.8	50.4	24.8	100
	Total	19.8	49.5	30.7	100

Table 106: Distribution of traders with respect to the change in credit facilities provided by suppliers in comparison to two years ago

	Trading business	Increased	Decreased	No change	Total
North WB	Retailer	6.0	11.3	82.7	100
	Wholesaler	18.2	39.4	42.4	100
	Total	8.4	16.9	74.7	100
Middle WB	Retailer	9.1	37.9	53.0	100
	Wholesaler	0.0	65.4	34.6	100
	Total	6.5	45.7	47.8	100
South WB	Retailer	19.0	17.5	63.5	100
	Wholesaler	22.2	14.8	63.0	100
	Total	20.0	16.7	63.3	100
Total WB	Retailer	7.4	33.6	59.0	100
	Wholesaler	5.7	62.9	31.4	100
	Total	7.0	40.1	52.9	100
Middle and North GS	Retailer	13.9	58.3	27.8	100
	Wholesaler	13.0	73.9	13.0	100
	Total	13.6	64.4	22.0	100
South GS	Retailer	6.0	72.0	22.0	100
	Wholesaler	6.3	62.5	31.3	100
	Total	6.1	68.3	25.6	100
Total	Retailer	2.0	89.8	8.2	100
	Wholesaler	5.6	75.0	19.4	100
	Total	3.5	83.5	12.9	100
Total oPt	Retailer	9.8	31.0	59.2	100
	Wholesaler	12.1	50.4	37.6	100
	Total	10.4	36.6	53.0	100

Table 107: Distribution of traders with respect to the change in credit facilities provided to customers in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Don't provide credit	Total
	Retailer	29.3	36.1	18.0	16.5	100
	Wholesaler	21.2	42.4	27.3	9.1	100
North WB	Total	27.7	37.3	19.9	15.1	100
	Retailer	34.8	10.6	34.8	19.7	100
	Wholesaler	34.6	3.8	23.1	38.5	100
Middle WB	Total	34.8	8.7	31.5	25.0	100
	Retailer	74.6	7.9	1.6	15.9	100
	Wholesaler	37.0	7.4	11.1	44.4	100
South WB	Total	63.3	7.8	4.4	24.4	100
	Retailer	41.8	23.0	18.4	0.4	100
	Wholesaler	30.2	19.8	20.9	0.0	100
Total WB	Total	38.9	22.2	19.0	0.3	100
	Retailer	30.6	38.9	30.6	0.0	100
Middle and North GS	Wholesaler	17.4	78.3	4.3	0.0	100
	Total	25.4	54.2	20.3	0.0	100
	Retailer	24.0	66.0	4.0	6.0	100
	Wholesaler	28.1	65.6	6.3	0.0	100
South GS	Total	25.6	65.9	4.9	3.7	100
	Retailer	26.4	54.0	14.9	0.0	100
Total GS	Wholesaler	23.6	70.9	5.5	0.0	100
	Total	25.4	60.6	11.3	0.0	100
	Retailer	37.9	30.7	17.5	13.8	100
	Wholesaler	27.7	39.7	14.9	17.7	100
Total oPt	Total	35.0	33.3	16.8	14.9	100

Table 108: Distribution of traders with respect to their answers regarding to the change in demand for credit by customers in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
North WB	Retailer	88.0	12.0	0.0	100
	Wholesaler	78.8	21.2	0.0	100
	Total	86.1	13.9	0.0	100
Middle WB	Retailer	83.3	16.7	0.0	100
	Wholesaler	92.3	7.7	0.0	100
	Total	85.9	14.1	0.0	100
South WB	Retailer	93.7	6.3	0.0	100
	Wholesaler	81.5	18.5	0.0	100
	Total	90.0	10.0	0.0	100
Total WB	Retailer	88.1	11.9	88.1	100
	Wholesaler	83.7	16.3	83.7	100
	Total	87.0	13.0	87.0	100
Middle and North GS	Retailer	83.3	16.7	0.0	100
	Wholesaler	87.0	13.0	0.0	100
	Total	84.7	15.3	0.0	100
South GS	Retailer	82.0	18.0	0.0	100
	Wholesaler	93.8	6.3	0.0	100
	Total	86.6	13.4	0.0	100
Total GS	Retailer	82.8	17.2	82.8	100
	Wholesaler	90.9	9.1	90.9	100
	Total	85.9	14.1	85.9	100
Total oPt	Retailer	86.8	13.2	0.0	100
	Wholesaler	86.5	13.5	0.0	100
	Total	86.7	13.3	0.0	100

Table 109: Distribution of traders with respect to the change in their stock level in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Total
North WB	Retailer	9.0	19.5	71.4	100
	Wholesaler	21.2	39.4	39.4	100
	Total	11.4	23.5	65.1	100
Middle WB	Retailer	3.0	60.6	36.4	100
	Wholesaler	7.7	69.2	23.1	100
	Total	4.3	63.0	32.6	100
South WB	Retailer	38.1	39.7	22.2	100
	Wholesaler	14.8	48.1	37.0	100
	Total	31.1	42.2	26.7	100
Total WB	Retailer	14.6	34.5	51.0	100
	Wholesaler	15.1	51.2	33.7	100
	Total	14.7	38.6	46.7	100
Middle and North GS	Retailer	16.7	58.3	25.0	100
	Wholesaler	17.4	69.6	13.0	100
	Total	16.9	62.7	20.3	100
South GS	Retailer	6.0	84.0	10.0	100
	Wholesaler	9.4	71.9	18.8	100
	Total	7.3	79.3	13.4	100
Total GS	Retailer	10.3	73.6	16.1	100
	Wholesaler	12.7	70.9	16.4	100
	Total	11.3	72.5	16.2	100
Total oPt	Retailer	13.5	44.3	42.2	100
	Wholesaler	14.2	58.9	27.0	100
	Total	13.7	48.5	37.8	100

Table 110: Distribution of traders with respect to their opinions regarding the change in food availability in comparison to two years ago

Areas	Trading business	Increased	Decreased	No change	Don't know	Total
North WB	Retailer	10.6	13.6	75.0	0.8	100
	Wholesaler	12.1	3.0	81.8	3.0	100
	Total	10.9	11.5	76.4	1.2	100
Middle WB	Retailer	9.1	31.8	56.1	3.0	100
	Wholesaler	7.7	57.7	30.8	3.8	100
	Total	8.7	39.1	48.9	3.3	100
South WB	Retailer	68.3	14.3	15.9	1.6	100
	Wholesaler	22.2	44.4	33.3	0.0	100
	Total	54.4	23.3	21.1	1.1	100
Total WB	Retailer	24.2	18.5	55.8	1.5	100
	Wholesaler	14.0	32.6	51.2	2.3	100
	Total	21.7	22.0	54.6	1.7	100
Middle and North GS	Retailer	50.0	44.4	5.6	0.0	100
	Wholesaler	26.1	65.2	8.7	0.0	100
	Total	40.7	52.5	6.8	0.0	100
South GS	Retailer	50.0	48.0	2.0	0.0	100
	Wholesaler	28.1	59.4	12.5	0.0	100
	Total	41.5	52.4	6.1	0.0	100
Total GS	Retailer	49.4	46.0	4.6	0.0	100
	Wholesaler	27.3	61.8	10.9	0.0	100
	Total	40.8	52.1	7.0	0.0	100
Total oPt	Retailer	30.5	25.4	42.9	1.2	100
	Wholesaler	19.1	44.0	35.5	1.4	100
	Total	27.3	30.7	40.8	1.2	100

Table 111: Distribution of traders with respect to whether they import from abroad or not disaggregated by trading business and areas

Areas	Trading business	Yes	No	Total
	Retailer	0.0	100.0	100
	Wholesaler	24.2	75.8	100
North WB	Total	4.8	95.2	100
	Retailer	0.0	100.0	100
	Wholesaler	7.7	92.3	100
Middle WB	Total	2.2	97.8	100
	Retailer	0.0	100.0	100
	Wholesaler	3.7	96.3	100
South WB	Total	1.1	98.9	100
	Retailer	0	100	100
	Wholesaler	12.8	87.2	100
Total WB	Total	3.2	96.8	100
	Retailer	0.0	100.0	100
	Wholesaler	26.1	73.9	100
Middle and North GS	Total	10.2	89.8	100
	Retailer	0.0	100.0	100
	Wholesaler	6.3	93.8	100
South GS	Total	2.4	97.6	100
	Retailer	0.0	100.0	100
	Wholesaler	14.5	85.5	100
Total GS	Total	5.6	94.4	100
	Retailer	0.0	100.0	100
	Wholesaler	24.2	75.8	100
Total oPt	Total	4.8	95.2	100

Table 112: Distribution of traders with respect to whether they import from Israel or not disaggregated by trading business and areas

Areas	Trading business	Yes	No	Total
North WB	Retailer	2.3	97.7	100
	Wholesaler	54.5	45.5	100
	Total	12.7	87.3	100
Middle WB	Retailer	6.1	93.9	100
	Wholesaler	38.5	61.5	100
	Total	15.2	84.8	100
South WB	Retailer	4.8	95.2	100
	Wholesaler	11.1	88.9	100
	Total	6.7	93.3	100
Total WB	Retailer	3.8	96.2	100
	Wholesaler	36.0	64.0	100
	Total	11.8	88.2	100
Middle and North GS	Retailer	8.3	91.7	100
	Wholesaler	39.1	60.9	100
	Total	20.3	79.7	100
South GS	Retailer	0.0	100.0	100
	Wholesaler	6.3	93.8	100
	Total	2.4	97.6	100
Total GS	Retailer	3.4	96.6	100
	Wholesaler	20.0	80.0	100
	Total	9.9	90.1	100
Total oPt	Retailer	3.7	96.3	100
	Wholesaler	29.8	70.2	100
	Total	11.3	88.7	100

Table 113: Distribution of importers with respect to their opinions regarding the change in various importing procedures from Israel

Areas	Trading business	Became more difficult	Became easier	Remained unchanged	Total
North WB	Retailer	66.7	0.0	33.3	100
	Wholesaler	27.8	27.8	44.4	100
	Total	33.3	23.8	42.9	100
Middle WB	Retailer	50.0	0.0	50.0	100
	Wholesaler	80.0	0.0	20.0	100
	Total	71.4	0.0	28.6	100
South WB	Retailer	100.0	0.0	0.0	100
	Wholesaler	100.0	0.0	0.0	100
	Total	100.0	0.0	0.0	100
Total WB	Retailer	70	0.0	30	100
	Wholesaler	51.6	16.1	32.3	100
	Total	56.1	12.2	31.7	100
Middle and North GS	Retailer	100.0	0.0	0.0	100
	Wholesaler	100.0	0.0	0.0	100
	Total	100.0	0.0	0.0	100
South GS	Retailer	0.0	0.0	0.0	100
	Wholesaler	100.0	0.0	0.0	100
	Total	100.0	0.0	0.0	100
Total GS	Retailer	100.0	0.0	0.0	100
	Wholesaler	100.0	0.0	0.0	100
	Total	100.0	0.0	0.0	100
Total oPt	Retailer	76.9	0.0	23.1	100
	Wholesaler	64.3	11.9	23.8	100

Table 114: Distribution of traders with respect to their opinions regarding the effect of the increase in food price increase on the demand for food

Areas	Trading business	Increase	Decrease	No change	Total
North WB	Retailer	22.6	52.6	24.8	100
	Wholesaler	36.4	30.3	33.3	100
	Total	25.3	48.2	26.5	100
Middle WB	Retailer	10.6	66.7	22.7	100
	Wholesaler	0.0	73.1	26.9	100
	Total	7.6	68.5	23.9	100
South WB	Retailer	25.8	64.5	9.7	100
	Wholesaler	22.2	55.6	22.2	100
	Total	24.7	61.8	13.5	100
Total WB	Retailer	20.4	59.2	20.4	100
	Wholesaler	20.9	51.2	27.9	100
	Total	20.5	57.2	22.3	100
Middle and North GS	Retailer	33.3	44.4	22.2	100
	Wholesaler	26.1	52.2	21.7	100
	Total	30.5	47.5	22.0	100
South GS	Retailer	32.0	58.0	10.0	100
	Wholesaler	46.9	46.9	6.3	100
	Total	37.8	53.7	8.5	100
Total GS	Retailer	32.2	51.7	16.1	100
	Wholesaler	38.2	49.1	12.7	100
	Total	34.5	50.7	14.8	100
Total oPt	Retailer	23.3	57.3	19.3	100
	Wholesaler	27.7	50.4	22.0	100
	Total	24.6	55.3	20.1	100

Table 115: Distribution of traders with respect to their opinions regarding the effect of the increase in food price increase on the demand for food

Areas	Trading business	Increase	Decrease	No change	Total
WB	Retailer	20.4	59.2	20.4	100
	Wholesaler	20.9	51.2	27.9	100
	Total	20.5	57.2	22.3	100
GS	Retailer	32.2	51.7	16.1	100
	Wholesaler	38.2	49.1	12.7	100
	Total	34.5	50.7	14.8	100
Total oPt	Retailer	23.3	57.3	19.3	100

	Wholesaler	27.7	50.4	22.0	100
	Total	24.6	55.3	20.1	100

Table 116: Distribution of traders with respect to their opinions regarding the effect of the increase in food prices on the demand for lower price and quality varieties

Areas	Trading business	Increase	Decrease	No change	Total
North WB	Retailer	94.7	0.0	5.3	100
	Wholesaler	93.9	3.0	3.0	100
	Total	94.6	0.6	4.8	100
Middle WB	Retailer	83.3	6.1	10.6	100
	Wholesaler	96.2		3.8	100
	Total	87.0	4.3	8.7	100
South WB	Retailer	95.2	1.6	3.2	100
	Wholesaler	70.4	11.1	18.5	100
	Total	87.6	4.5	7.9	100
Total WB	Retailer	91.9	1.9	6.2	100
	Wholesaler	87.2	4.7	8.1	100
	Total	90.8	2.6	6.6	100
Middle and North GS	Retailer	77.8	2.8	19.4	100
	Wholesaler	73.9	13.0	13.0	100
	Total	76.3	6.8	16.9	100
South GS	Retailer	84.0	12.0	4.0	100
	Wholesaler	84.4	12.5	3.1	100
	Total	84.1	12.2	3.7	100
Total GS	Retailer	81.6	8.0	10.3	100
	Wholesaler	80.0	12.7	7.3	100
	Total	81.0	9.9	9.2	100
Total oPt	Retailer	89.3	3.5	7.2	100
	Wholesaler	84.4	7.8	7.8	100
	Total	87.9	4.7	7.4	100

Table 117: Distribution of traders with respect to their opinions regarding the effect of the increase in food prices on stock level

Areas	Trading business	Increase	Decrease	No change	Total
	Retailer	5.3	19.5	75.2	100
	Wholesaler	15.2	42.4	42.4	100
North WB	Total	7.2	24.1	68.7	100
	Retailer	6.1	53.0	40.9	100
	Wholesaler	7.7	65.4	26.9	100
Middle WB	Total	6.5	56.5	37.0	100
	Retailer	30.6	56.5	12.9	100
	Wholesaler	3.7	66.7	29.6	100
South WB	Total	22.5	59.6	18.0	100
	Retailer	11.5	36.5	51.9	100
	Wholesaler	9.3	57.0	33.7	100
Total WB	Total	11.0	41.6	47.4	100
	Retailer	16.7	58.3	25.0	100
	Wholesaler	17.4	78.3	4.3	100
Middle and North GS	Total	16.9	66.1	16.9	100
	Retailer	6.1	83.7	10.2	100
	Wholesaler	9.4	71.9	18.8	100
South GS	Total	7.4	79.0	13.6	100
	Retailer	10.5	73.3	16.3	100
	Wholesaler	12.7	74.5	12.7	100
Total GS	Total	11.3	73.8	14.9	100
	Retailer	11.3	45.7	43.1	100
	Wholesaler	10.6	63.8	25.5	100
Total oPt	Total	11.1	50.9	38.0	100

Table 118: Distribution of traders with respect to their opinions regarding the effect of the increase in food prices on stock level

Areas	Trading business	Increase	Decrease	No change	Total
	Retailer	11.5	36.5	51.9	100
	Wholesaler	9.3	57.0	33.7	100
WB	Total	11.0	41.6	47.4	100
	Retailer	10.5	73.3	16.3	100
	Wholesaler	12.7	74.5	12.7	100
GS	Total	11.3	73.8	14.9	100
Total oPt	Retailer	11.3	45.7	43.1	100

	Wholesaler	10.6	63.8	25.5	100
	Total	11.1	50.9	38.0	100

Table 119: Distribution of traders with respect to their opinions regarding the effect of the increase of food prices profit margin

Areas	Trading business	Increase	Decrease	No change	Total
North WB	Retailer	15.0	54.9	30.1	100
	Wholesaler	9.1	57.6	33.3	100
	Total	13.9	55.4	30.7	100
Middle WB	Retailer	10.6	54.5	34.8	100
	Wholesaler	11.5	50.0	38.5	100
	Total	10.9	53.3	35.9	100
South WB	Retailer	19.4	59.7	21.0	100
	Wholesaler	3.7	63.0	33.3	100
	Total	14.6	60.7	24.7	100
Total WB	Retailer	15.0	55.8	29.2	100
	Wholesaler	8.1	57.0	34.9	100
	Total	13.3	56.1	30.6	100
Middle and North GS	Retailer	16.7	72.2	11.1	100
	Wholesaler	8.7	69.6	21.7	100
	Total	13.6	71.2	15.3	100
South GS	Retailer	4.0	76.0	20.0	100
	Wholesaler	3.1	78.1	18.8	100
	Total	3.7	76.8	19.5	100
Total GS	Retailer	9.2	74.7	16.1	100
	Wholesaler	5.5	74.5	20.0	100
	Total	7.7	74.6	17.6	100
Total oPt	Retailer	13.5	60.5	25.9	100
	Wholesaler	7.1	63.8	29.1	100
	Total	11.7	61.5	26.8	100

Table 120: Distribution of traders with respect to their opinions regarding the effect of the increase of food prices profit margin

Areas	Trading business	Increase	Decrease	No change	Total
WB	Retailer	15.0	55.8	29.2	100
	Wholesaler	8.1	57.0	34.9	100
	Total	13.3	56.1	30.6	100
GS	Retailer	9.2	74.7	16.1	100
	Wholesaler	5.5	74.5	20.0	100
	Total	7.7	74.6	17.6	100

	Retailer	13.5	60.5	25.9	100
	Wholesaler	7.1	63.8	29.1	100
Total oPt	Total	11.7	61.5	26.8	100

Table 121: Distribution of traders with respect to the first importance pricing technique disaggregated by trading business and areas

Areas	Trading business	cost related to closure	competition between traders	consumer purchasing power	cost +profit margin	food assistance	Others	Total
	Retailer	12.0	28.6	20.3	33.1	5.3	0.8	100
	Wholesaler	27.3	42.4	6.1	21.2	0.0	3.0	100
North WB	Total	15.1	31.3	17.5	30.7	4.2	1.2	100
	Retailer	28.8	22.7	37.9	10.6	0.0	0.0	100
	Wholesaler	30.8	26.9	23.1	19.2	0.0	0.0	100
Middle WB	Total	29.3	23.9	33.7	13.0	0.0	0.0	100
	Retailer	9.7	21.0	58.1	3.2	8.1	0.0	100
	Wholesaler	14.8	25.9	18.5	7.4	33.3	0.0	100
South WB	Total	11.2	22.5	46.1	4.5	15.7	0.0	100
	Retailer	15.8	25.4	33.8	20.0	4.6	0.4	100
	Wholesaler	24.4	32.6	15.1	16.3	10.5	1.2	100
Total WB	Total	17.9	27.2	29.2	19.1	6.1	0.6	100
	Retailer	50.0	11.1	0.0	13.9	25.0	0.0	100
Middle and	Wholesaler	39.1	8.7	13.0	13.0	26.1	0.0	100
North GS	Total	45.8	10.2	5.1	13.6	25.4	0.0	100
	Retailer	48.0	4.0	6.0	32.0	10.0	0.0	100
	Wholesaler	40.6	12.5	3.1	9.4	34.4	0.0	100
South GS	Total	45.1	7.3	4.9	23.2	19.5	0.0	100
	Retailer	48.3	6.9	3.4	25.3	16.1	48.3	100
	Wholesaler	40.0	10.9	7.3	10.9	30.9	40.0	100
Total GS	Total	45.1	8.5	4.9	19.7	21.8	45.1	100
	Retailer	23.9	20.7	26.2	21.3	7.5	0.3	100
	Wholesaler	30.5	24.1	12.1	14.2	18.4	0.7	100
Total oPt	Total	25.8	21.7	22.1	19.3	10.7	0.4	100

Table 122: Distribution of traders with respect to their opinions regarding the importance of various factors effects on food prices

Price Effect on Performance of Local Market	Increase prices	Decrease prices	No change	Total
Unregulated inflow of Israeli products	24.3	65.8	9.9	100
Closure of Israeli market to Palestinian products	47.5	45.0	7.4	100
difficulty in access to local markets due to Israeli restrictions on free movement	63.7	24.2	12.1	100
Increase in transport costs	89.3	2.5	8.3	100
Food distribution by humanitarian organizations	21.7	57.1	21.1	100

Table 123: Would you be interested in taking part of a food voucher programme by distributing food items contained in the food voucher

Areas	Trading business	Yes	No	Total
North WB	Retailer	53.0	47.0	100
	Wholesaler	78.8	21.2	100
	Total	58.2	41.8	100
Middle WB	Retailer	73.8	26.2	100
	Wholesaler	69.2	30.8	100
	Total	72.5	27.5	100
South WB	Retailer	66.7	33.3	100
	Wholesaler	70.4	29.6	100
	Total	67.8	32.2	100
Total WB	Retailer	61.4	38.6	100
	Wholesaler	73.3	26.7	100
	Total	64.3	35.7	100
Middle and North GS	Retailer	72.2	27.8	100
	Wholesaler	91.3	8.7	100
	Total	79.7	20.3	100
South GS	Retailer	78.0	22.0	100
	Wholesaler	90.6	9.4	100
	Total	82.9	17.1	100
Total GS	Retailer	75.9	24.1	100
	Wholesaler	90.9	9.1	100
	Total	81.7	18.3	100
Total oPt	Retailer	65.0	35.0	100
	Wholesaler	80.1	19.9	100
	Total	69.4	30.6	100

Table 124: Do you have the sufficient level of capacity and liquidity to be part of the food voucher programme, even if reimbursement for vouchers could take up to 60 days to be affected?

Areas	Trading business	Yes	No	Total
	Retailer	87.0	13.0	100
	Wholesaler	92.3	7.7	100
North WB	Total	88.4	11.6	100
	Retailer	89.6	10.4	100
	Wholesaler	94.4	5.6	100
Middle WB	Total	90.9	9.1	100
	Retailer	97.6	2.4	100
	Wholesaler	100.0	0.0	100
South WB	Total	98.4	1.6	100
	Retailer	90.5	9.5	100
	Wholesaler	95.2	4.8	100
Total WB	Total	91.9	8.1	100
	Retailer	96.2	3.8	100
	Wholesaler	90.5	9.5	100
Middle and North GS	Total	93.6	6.4	100
	Retailer	84.6	15.4	100
	Wholesaler	86.2	13.8	100
South GS	Total	85.3	14.7	100
	Retailer	89.4	10.6	100
	Wholesaler	88.0	12.0	100
Total GS	Total	88.8	11.2	100
	Retailer	90.2	9.8	100
	Wholesaler	92.0	8.0	100
Total oPt	Total	90.8	9.2	100

Table 125: Distribution of traders with respect to their opinions regarding the effect of limited cash availability in local banks and restrictions on money transfers on various aspects of business operations

	Increased	Decreased	No effect	No answer	Total
Your own liquidity (cash at hand)	71.4	5.7	22.9	0.0	100
Credit sales and facilities offered to customers	63.6	21.4	15.0	0.0	100
Credit facilities extended to you by your suppliers	62.9	15.0	22.1	0.0	100
Availability of food in local market	54.3	28.6	17.1	0.0	100
Your stock levels	60.7	22.1	16.4	0.7	100

Annex 6: Evolution of Food Prices And Mean Price Differences

This section provides analysis of the evolution of prices of the 22 food commodities studied and exhibits the differences in regional markets. The analysis herein could be summarized as follows:

- Rice and flour; over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, also it shows that Ramallah, Jericho, and Bethlehem have the highest price, while Jenin, Tulkarm, and Hebron have the lowest one.

- Olive oil; over the period studied ,the evolution of olive oil prices within West Bank and Gaza markets are not following the same patterns with the difference between West Bank-average and individual markets in West Bank are higher than the differences in olive oil prices between Gaza Strip markets.

- Beef, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that, Bethlehem, Ramallah and Jericho have the highest price, while Tulkarem, Qalqilya and Nablus have the lowest one.

- Bread, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that, Bethlehem, Ramallah and Hebron have the highest price, while Tulkarem, Qalqilya and Nablus have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in Middle Gaza.

- Sheep, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Hebron, Bethlehem and Jericho have the highest price, while Jenin,Tulkarem and Qalqilya have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in Middle Gaza.

- Chickens, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Ramallah and Jericho have the highest price, while Tulkarem, Qalqilya and Nablus have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in South Gaza.

- Chicken Eggs, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Bethlehem, Jericho and Nablus have the highest price, while Tulkarem, Qalqilya, Tulkarem and Ramallah have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in Middle Gaza

- Fresh Milk, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Qalqelya and Jericho have the highest price, while Hebron, Nablus and Jenin have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in South Gaza

- Powder Milk, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Jericho ,Qalqelya and Ramallah have the highest price, while Nablus ,Hebron and Bethlehm have the lowest one. In Gaza Strip the highest prices was found in Middle Gaza while the lowest price found in South Gaza.

- Leban, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Jericho, Qalqelya and Ramallah have the highest price, while Nablus ,Hebron and Bethlehem have the lowest one. In Gaza Strip the highest prices was found in Middle Gaza while the lowest price found in South Gaza.

- Corn oil, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Jericho, Tulkarem and Ramallah have the highest price, while Nablus,

Hebron and Jenin have the lowest one. In Gaza Strip the highest prices was found in Middle Gaza while the lowest price found in North Gaza.

- Chickpeas, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Jericho, Qalqelya and Ramallah have the highest price, while Nablus, Tulkarem and Jenin have the lowest one. In Gaza Strip the highest prices was found in Middle Gaza while the lowest price found in North Gaza.

- GH Tomatoes, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Bethlehem, Jericho and Ramallah have the highest price, while Jenin, Nablus and Tulkarem have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in South Gaza.

- Apple, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Ramallah, Jericho and Bethlehem have the highest price, while Jenin and Nablus have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in Middle Gaza.

- Cucumbers, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Hebron, Bethlehem and Jericho have the highest price, while Tulkarem, Nablus and Jenin have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in South Gaza.

- Eggplants, over the period studied, there is a price difference between West Bank-average and individual markets in West Bank, and also it shows that Qalqelya, Hebron and Ramallah have the highest price, while Nablus and Jenin have the lowest one. In Gaza Strip the highest prices was found in North Gaza while the lowest price found in South Gaza.

Olive oil

- **Figure 28: Prices of olive oil in West Bank Markets: Jan 1997 to June 2009**

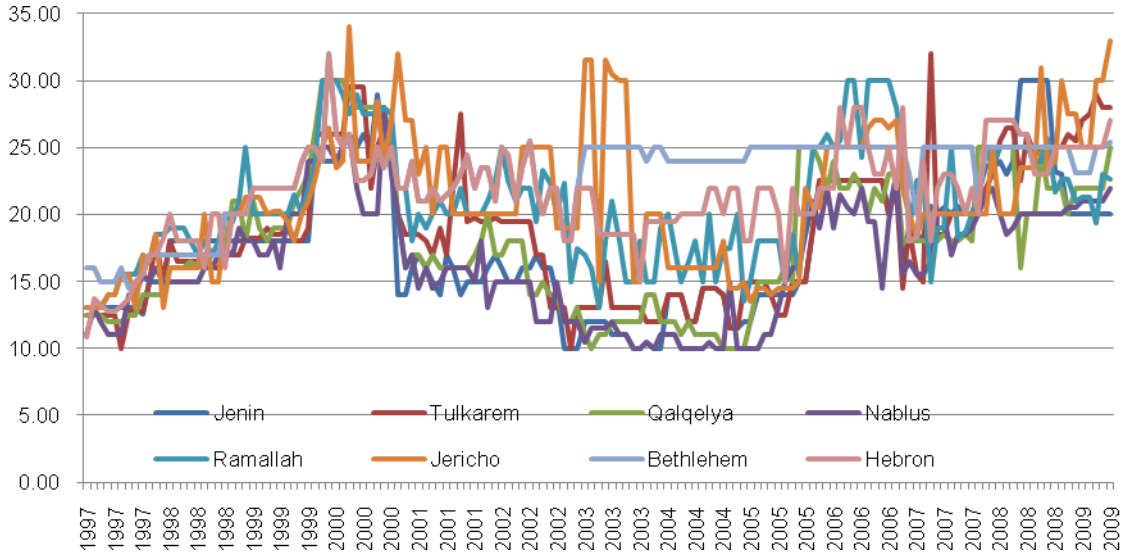


Figure 29:Prices of olive oil in Gaza Strip Markets: Jan 1997 to June 2009

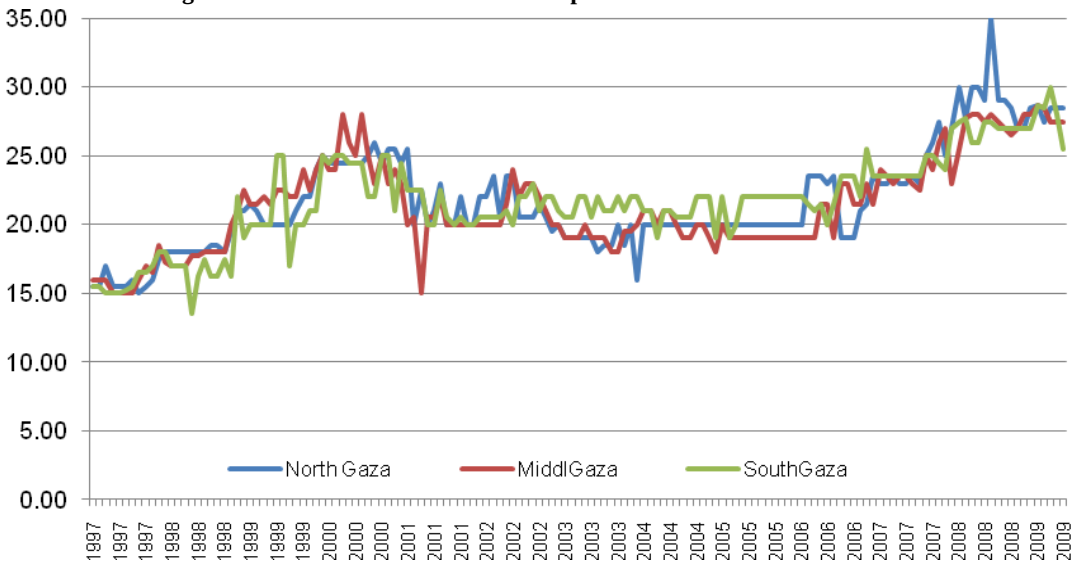


Table 126: Differences in olive oil prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-7.500	6.500	-1.963	2.495
Tulkarem	149	-5.938	11.358	-0.942	2.392
Qalqelya	149	-7.625	6.688	-1.603	2.517
Nablus	149	-8.688	2.313	-3.220	2.007
Ramallah	149	-5.643	6.813	1.192	2.146
Jericho	149	-3.938	13.875	1.471	3.588
Bethlehem	149	-2.813	10.250	3.186	3.199
Hebron	149	-2.813	7.563	1.879	2.203
Valid N (listwise)	149				

Table 127: Differences in the price of olive oil (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-3.333	4.833	0.101	1.151
Middl_Gaza	149	-5.000	2.333	-0.220	1.025
South_Gaza	149	-2.917	2.667	0.119	1.200
Valid N (listwise)	149				

Beef

Table 128:Differences in Beef prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-3.583	5.292	0.569	1.579
Tulkarem	149	-5.666	3.042	-1.851	1.211
Qalqelya	149	-4.396	1.667	-0.994	1.509
Nablus	149	-3.792	2.708	-0.723	1.200
Ramallah	149	-3.625	3.523	0.806	1.246
Jericho	149	-4.146	4.958	0.796	1.831
Bethlehem	149	-3.000	5.708	1.158	1.858
Hebron	149	-2.646	4.792	0.241	1.405
Valid N (listwise)	149				

Table 129: Differences in the price of Beef (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-5.333	3.667	0.502	1.394
Middle Gaza	149	-4.000	4.000	-0.024	1.196
South Gaza	149	-3.333	2.980	-0.474	1.154
Valid N (listwise)	149				

Figure 30: Prices of Beef in West Bank Markets: Jan 1997 to June 2009

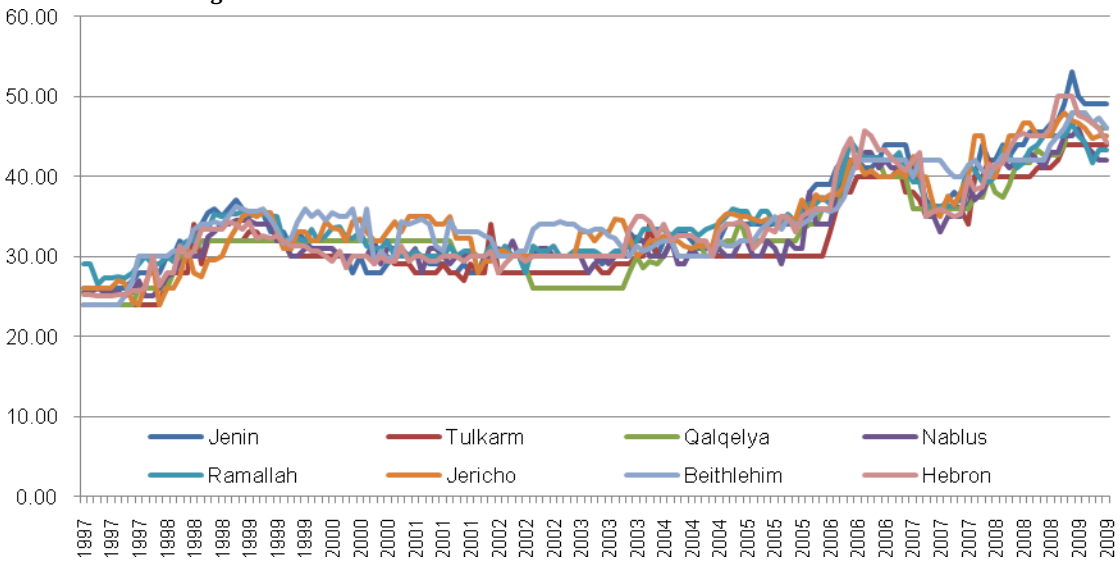
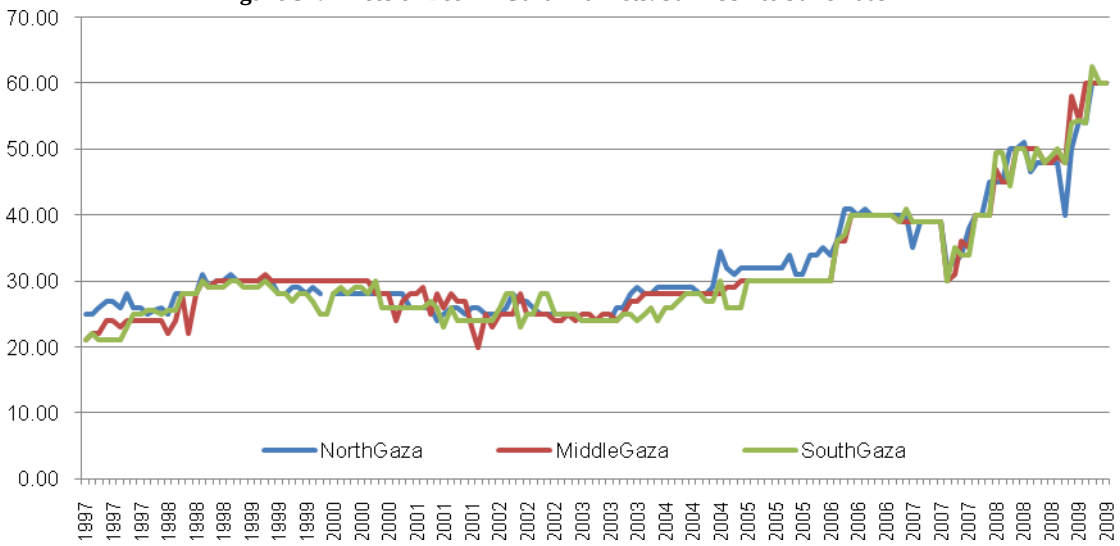


Figure 31: Prices of Beef in Gaza Markets: Jan 1997 to June 2009



Bread

Table 130: Differences in Bread prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-0.469	0.297	-0.115	0.150
Tulkarem	149	-0.377	0.875	-0.096	0.183
Qalqelya	149	-0.406	0.471	0.008	0.150
Nablus	149	-0.529	0.125	-0.160	0.159
Ramallah	149	-0.350	0.254	0.067	0.149
Jericho	149	-0.413	0.963	0.127	0.154
Bethlehem	149	-0.292	0.608	0.099	0.137
Hebron	149	-0.292	0.626	0.070	0.125
Valid N (listwise)	149				

Table 131: Differences in the price of Bread (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-0.377	0.873	0.060	0.183
Middle Gaza	149	-0.300	0.190	-0.042	0.107
South Gaza	149	-0.877	0.373	-0.018	0.139
Valid N (listwise)	149				

Figure 32: Prices of Bread in West Bank Markets: Jan 1997 to June 2009

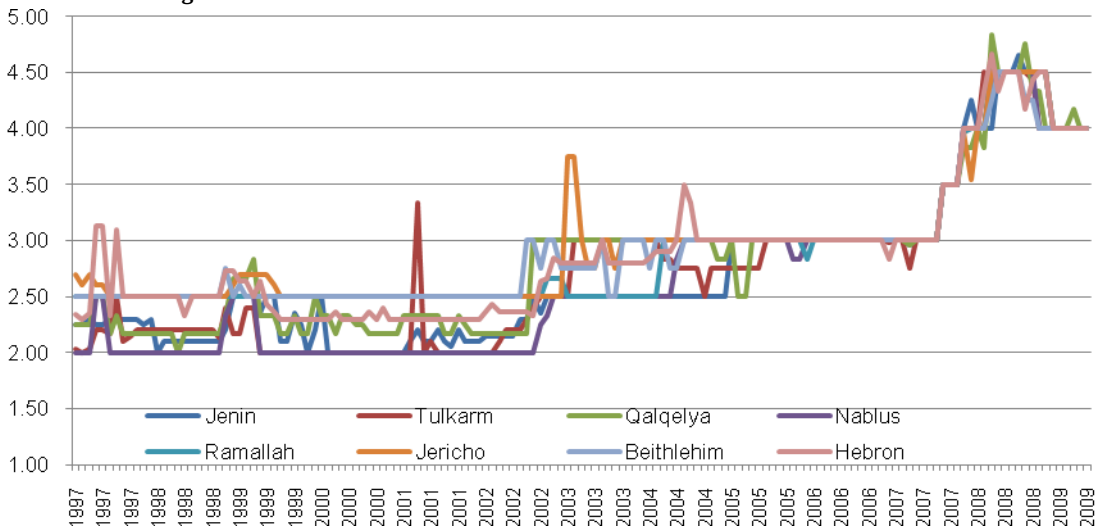
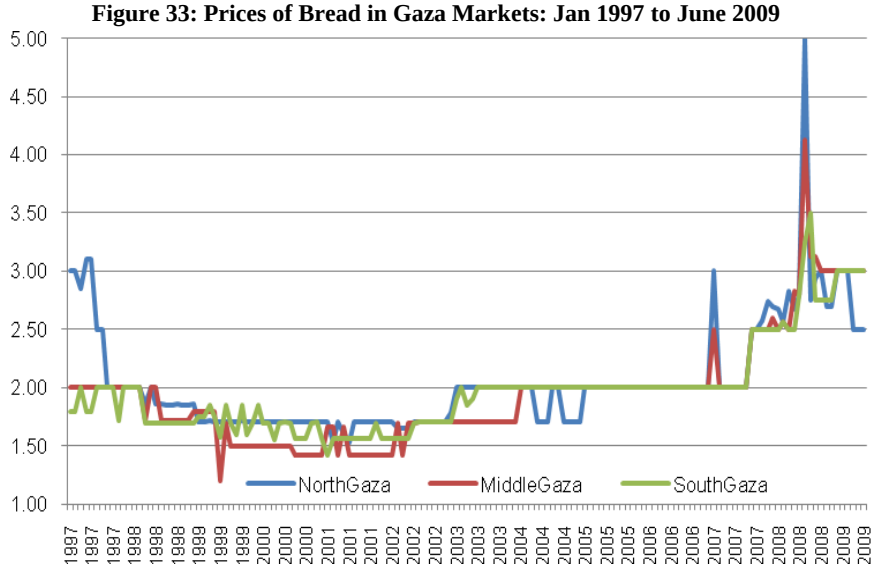


Figure 33: Prices of Bread in Gaza Markets: Jan 1997 to June 2009



Sheep

Table 132: Differences in Sheep prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-6.479	2.217	-1.156	1.445
Tulkarem	149	-5.792	3.458	-1.905	1.469
Qalqelya	149	-8.083	1.854	-2.288	1.731
Nablus	149	-4.500	1.292	-2.094	1.272
Ramallah	149	-5.937	6.500	1.037	1.801
Jericho	149	-6.542	6.571	1.378	2.143
Bethlehem	149	-1.792	7.396	2.496	1.857
Hebron	149	-4.292	8.771	2.531	2.420
Valid N (listwise)	149				

Table 133: Differences in the price of Sheep (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-5.333	5.000	1.091	1.861
Middle Gaza	149	-5.000	3.333	-0.669	1.325
South Gaza	149	-6.667	3.333	-0.421	1.453
Valid N (listwise)	149				

Figure 34: Prices of Sheep in West Bank Markets: Jan 1997 to June 2009

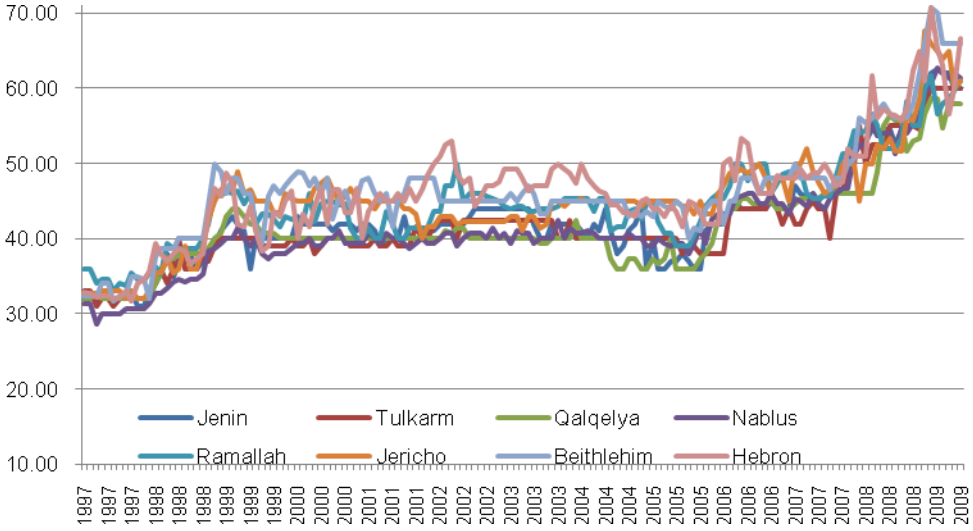
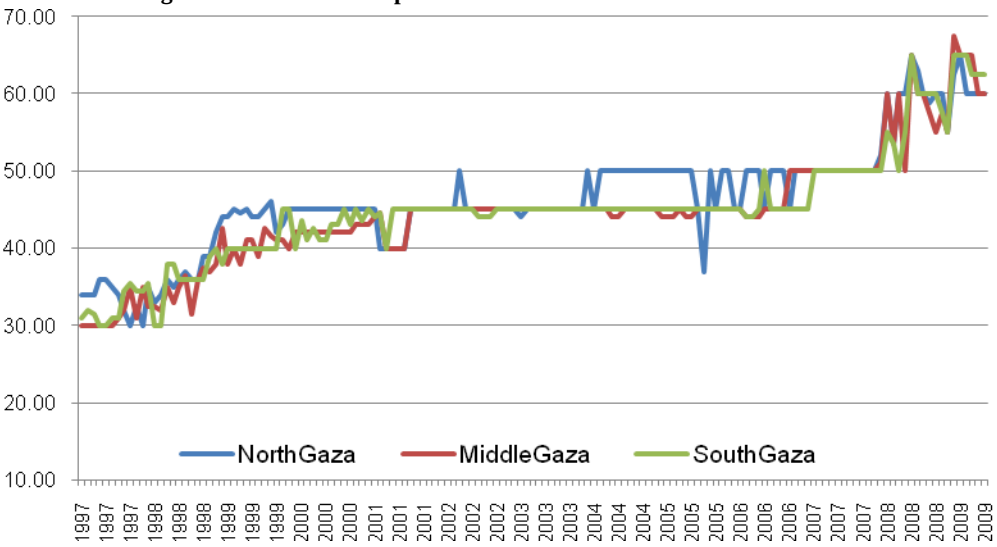


Figure 35: Prices of Sheep in Gaza Markets: Jan 1997 to June 2009



Chickens

Table 134: **Differences in Chickens' prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics**

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-4.044	2.006	-0.842	0.817
Tulkarem	149	-3.131	2.529	-0.672	0.978
Qalqelya	149	-2.592	8.956	-0.476	1.168
Nablus	149	-2.058	1.092	-0.486	0.682
Ramallah	149	-1.598	4.719	2.015	1.266
Jericho	149	-2.417	3.408	0.656	1.149
Bethlehem	149	-3.206	2.635	0.014	1.131
Hebron	149	-2.377	2.279	-0.207	0.901
Valid N (listwise)	149				

Table 135: Differences in the price of Chickens' (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-1.200	3.861	0.221	0.623
Middle Gaza	149	-2.306	2.400	0.122	0.521
South Gaza	149	-2.000	1.200	-0.344	0.514
Valid N (listwise)	149				

Figure 36: Prices of Chickens in West Bank Markets: Jan 1997 to June 2009

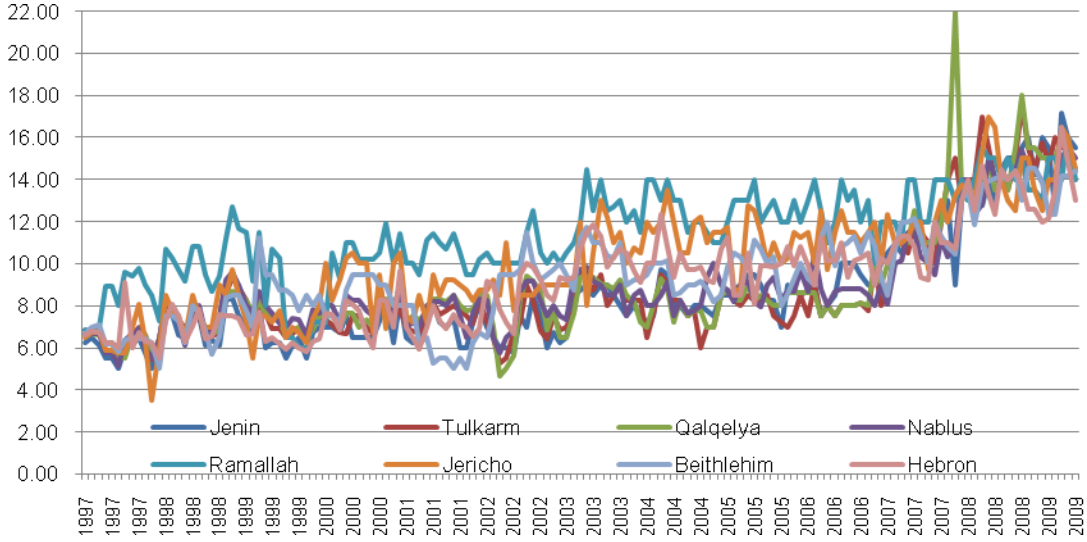
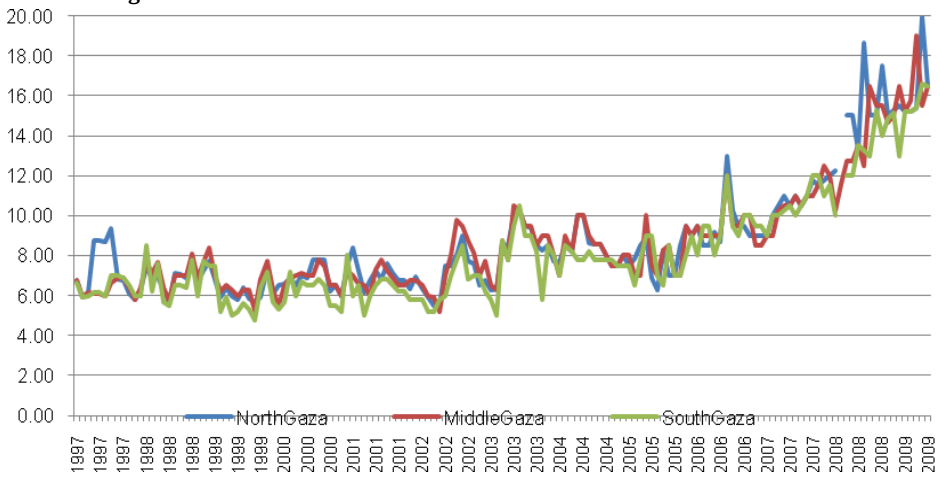


Figure 37: Prices of Chickens in Gaza Markets: Jan 1997 to June 2009



Chicken Eggs

Table 136: Differences in Eggs prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-2.521	1.492	-0.368	0.779
Tulkarem	149	-2.604	3.344	-0.490	0.663
Qalqelya	149	-3.042	1.344	-0.516	0.740
Nablus	149	-2.115	2.250	0.397	0.794
Ramallah	149	-1.854	1.781	-0.348	0.646
Jericho	149	-2.719	4.344	0.451	0.957
Bethlehem	149	-1.688	2.802	0.792	0.933
Hebron	149	-2.656	1.979	0.082	0.602
Valid N (listwise)	149				

Table 137: Differences in the price of Eggs (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-1.890	3.083	0.313	0.835
Middle Gaza	149	-2.667	2.000	-0.219	0.694
South Gaza	149	-1.417	2.333	-0.093	0.587
Valid N (listwise)	149				

Figure 38 : Prices of Eggs in West Bank Markets: Jan 1997 to June 2009

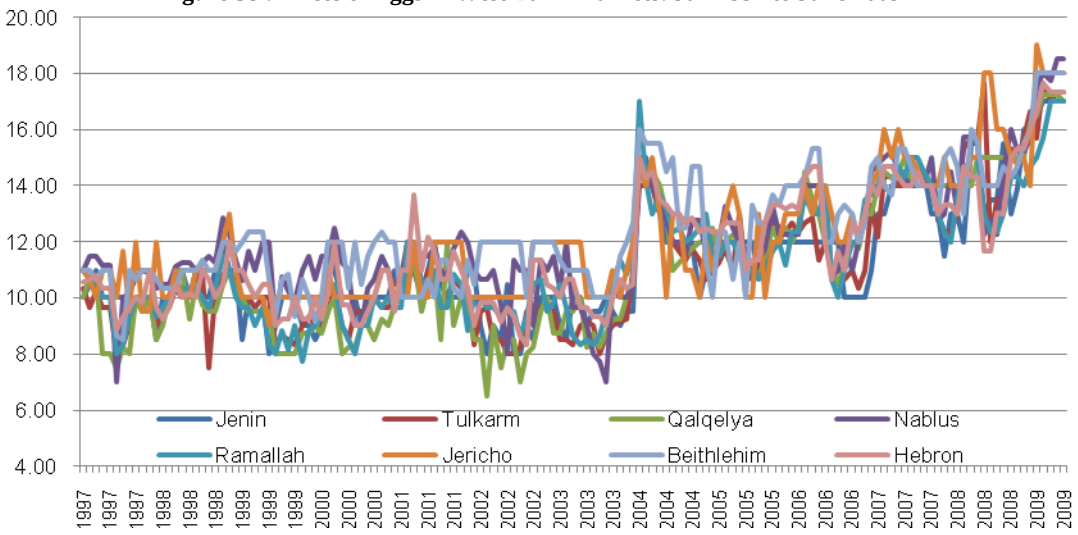
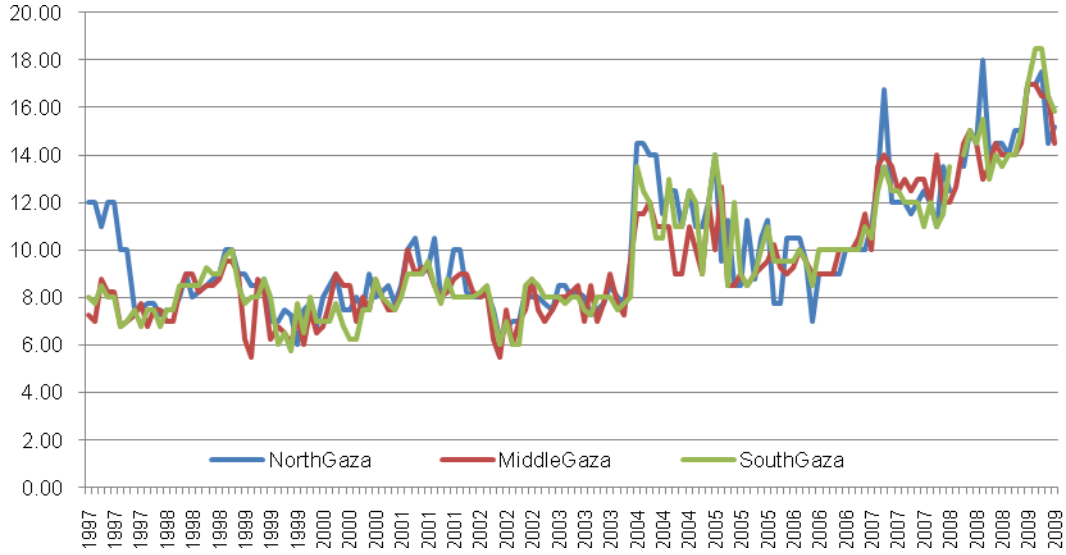


Figure 39: Prices of Eggs in Gaza Markets: Jan 1997 to June 2009



Fresh Milk (Tnuva)

Table 138: Differences in Fresh Milk prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-1.094	0.646	-0.036	0.217
Tulkarem	149	-0.542	0.833	-0.027	0.279
Qalqelya	149	-0.963	0.885	0.163	0.245
Nablus	149	-0.563	0.260	-0.059	0.127
Ramallah	149	-0.813	0.450	0.043	0.209
Jericho	149	-0.521	0.937	0.066	0.212
Bethlehem	149	-1.125	0.250	-0.059	0.186
Hebron	149	-0.792	0.292	-0.091	0.211
Valid N (listwise)	149				

Table 139: Differences in the price of Fresh Milk (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-1.086	0.615	0.059	0.273
Middle Gaza	149	-0.750	0.589	0.101	0.198
South Gaza	149	-0.646	0.688	0.112	0.194
Valid N (listwise)	149				

Figure 40:Prices of Fresh Milk in West Bank Markets: Jan 1997 to June 2009

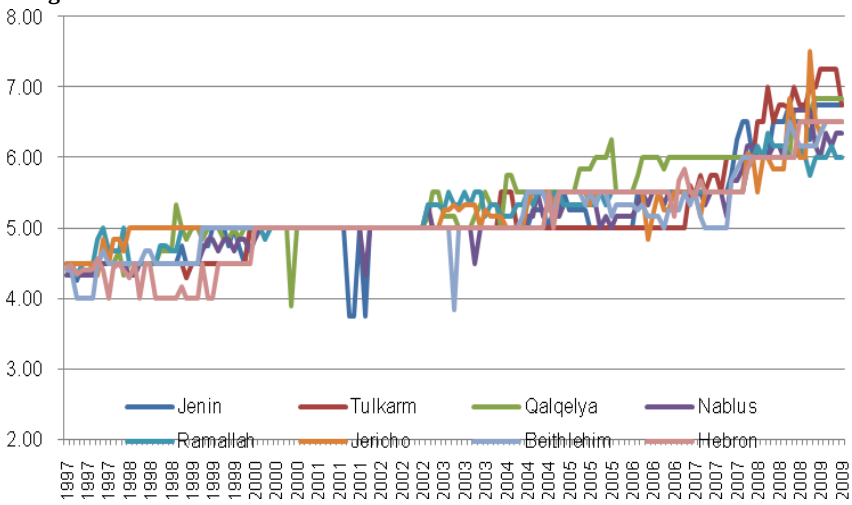
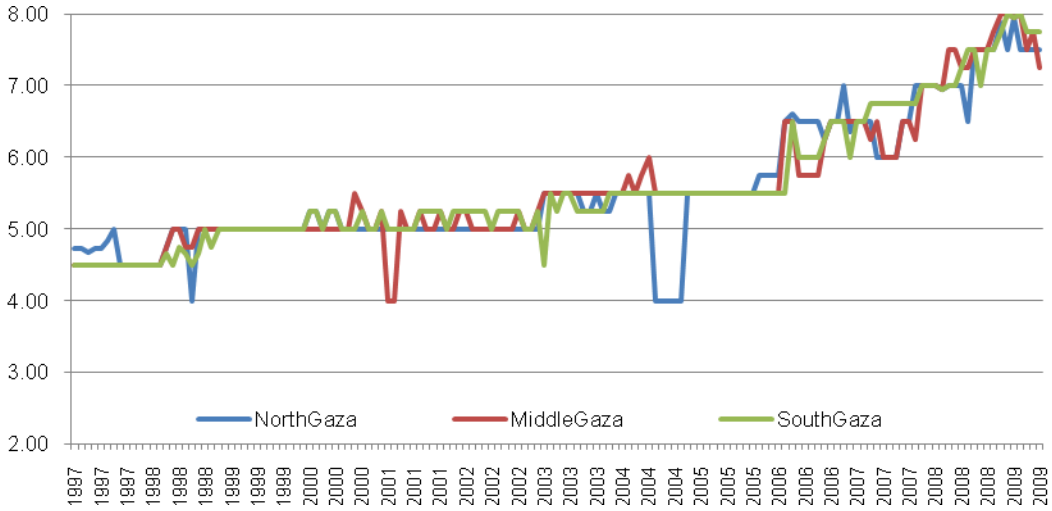


Figure 41:Prices of Fresh Milk in Gaza Markets: Jan 1997 to June 2009



Powder Milk (Nido)

Table 140: Differences in Powder Milk (Nido) prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-6.500	4.156	-0.012	1.664
Tulkarem	149	-6.667	13.513	0.339	2.430
Qalqelya	149	-4.333	5.375	0.451	1.940
Nablus	149	-10.204	7.313	-1.442	2.312
Ramallah	149	-12.146	9.167	0.410	3.154
Jericho	149	-3.750	16.342	1.720	3.625
Bethlehem	149	-7.833	6.882	-0.390	2.648
Hebron	149	-6.310	5.094	-1.076	1.751
Valid N (listwise)	149				

Table 141: Differences in the price of Powder Milk (Nido) NIS between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-6.737	7.500	-0.280	1.383
Middle Gaza	149	-3.132	7.000	0.948	1.464
South Gaza	149	-7.500	9.868	-0.668	1.934
Valid N (listwise)	149				

Figure 42: Prices of Powder Milk (Nido) in West Bank Markets: Jan 1997 to June 2009

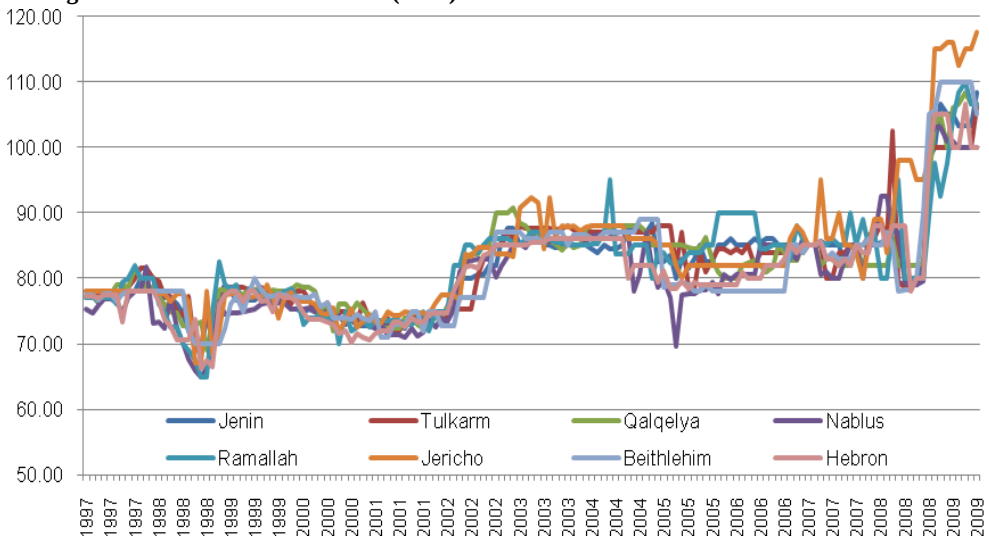
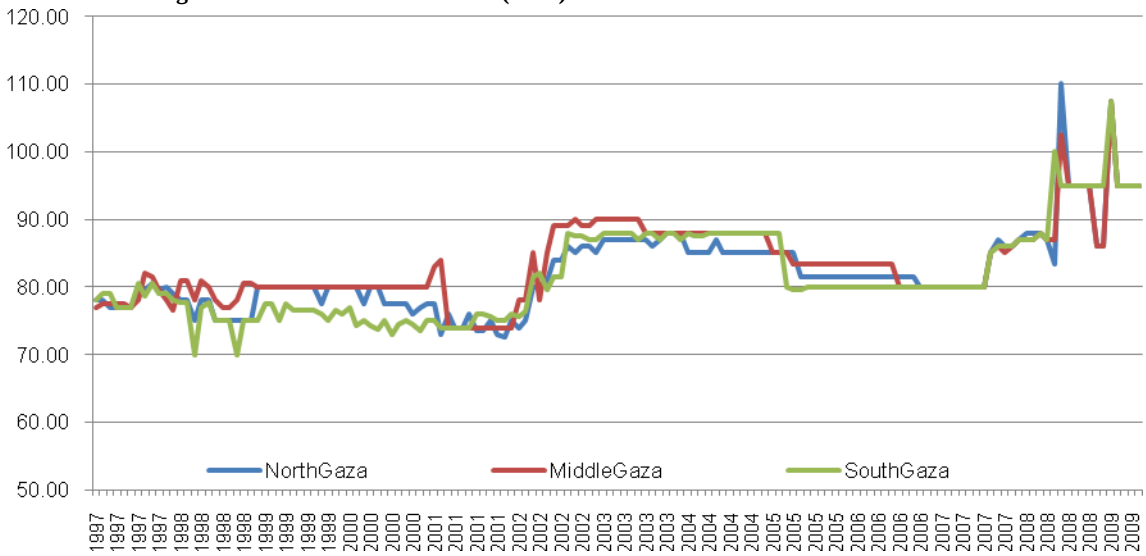


Figure 43: Prices of Powder Milk (Nido) in Gaza Markets: Jan 1997 to June 2009



Normal Leban- Al-Juendi

Table 142: Differences in Normal Leban (Al-Juendi) prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-0.556	0.523	0.012	0.166
Tulkarem	149	-1.083	1.583	-0.048	0.422
Qalqelya	149	-0.778	1.458	0.147	0.390
Nablus	149	-1.115	3.067	-0.011	0.375
Ramallah	149	-0.733	0.969	-0.008	0.194
Jericho	149	-0.854	0.392	-0.049	0.202
Bethlehem	149	-0.854	0.875	-0.045	0.220
Hebron	149	-0.583	0.646	0.002	0.154
Valid N (listwise)	149				

Table 143: Differences in the price of Normal Leban (Al-Juendi) (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-2.000	1.667	-0.137	0.533
Middle Gaza	149	-1.833	2.333	-0.070	0.644
South Gaza	149	-1.167	2.333	0.207	0.531
Valid N (listwise)	149				

Figure 44: Prices of Normal Leban (Al-Juendi) in West Bank Markets: Jan 1997 to June 2009

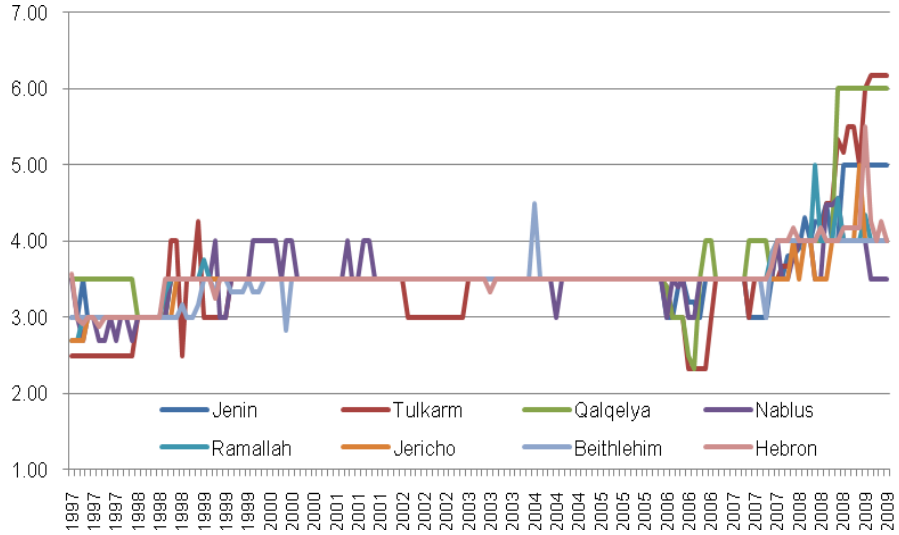
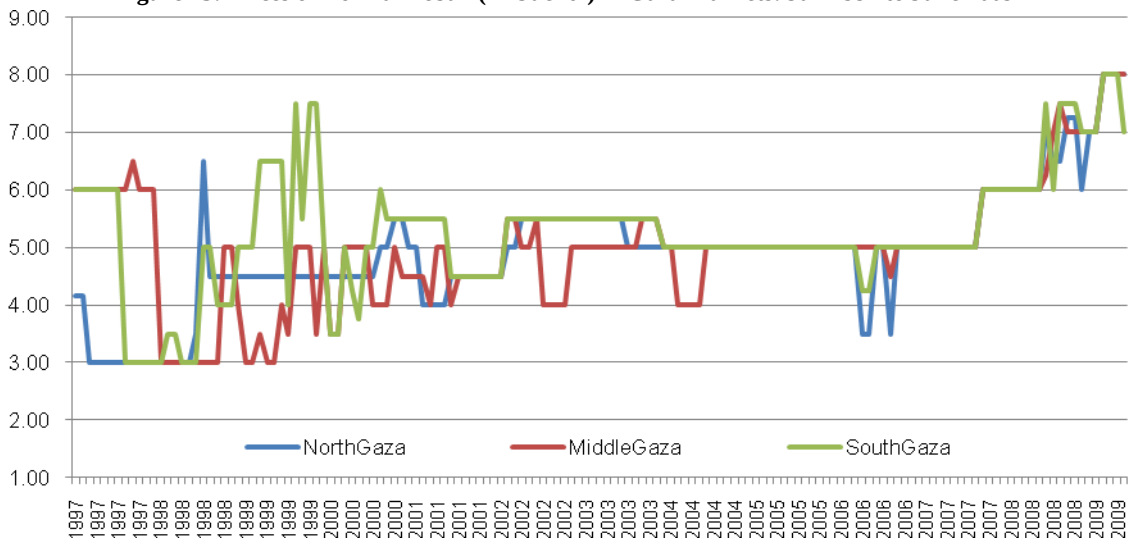


Figure 45: Prices of Normal Leban (Al-Juendi) in Gaza Markets: Jan 1997 to June 2009



Corn oil

Table 144: Differences in Corn Oil (Shuqha 3 Liters) prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-2.781	10.813	-0.462	2.141
Tulkarem	149	-2.125	6.250	0.466	1.363
Qalqelya	149	-12.750	5.563	0.030	1.887
Nablus	149	-8.688	2.938	-0.807	2.008
Ramallah	149	-5.438	4.250	0.446	1.406
Jericho	149	-4.938	7.000	0.621	1.547
Bethlehem	149	-4.688	2.313	0.127	1.383
Hebron	149	-4.938	3.031	-0.421	1.506
Valid N (listwise)	149				

Table 145: Differences in the price of (Shuqha 3 Liters) (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-4.053	1.667	-0.177	0.933
Middle Gaza	149	-4.000	3.333	0.213	0.966
South Gaza	149	-1.667	8.000	-0.036	1.224
Valid N (listwise)	149				

Figure 46: Prices of Corn Oil (Shuqha 3 Liters) in West Bank Markets: Jan 1997 to June 2009

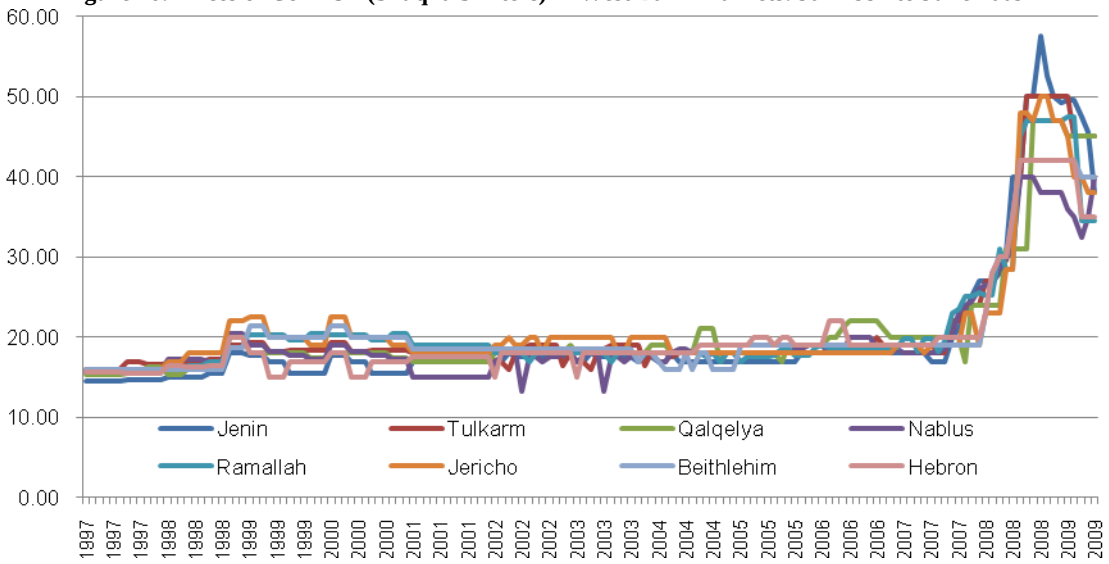
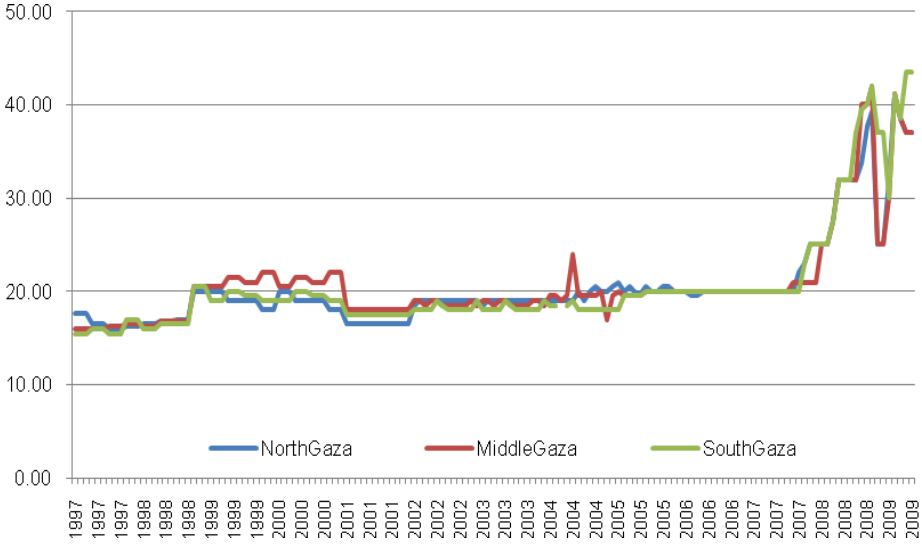


Figure 47: Prices of Corn Oil (Shuqha 3 Liters) in Gaza Markets: Jan 1997 to June 2009



Chickpeas

Table 146: Differences in Chickpeas prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-1.333	0.479	-0.571	0.419
Tulkarem	149	-2.073	0.813	-0.170	0.512
Qalqelya	149	-0.898	0.760	0.128	0.332
Nablus	149	-2.014	0.721	-0.354	0.399
Ramallah	149	-0.771	3.326	0.897	0.791
Jericho	149	-1.602	3.086	0.217	0.638
Bethlehem	149	-0.813	1.290	-0.043	0.386
Hebron	149	-1.898	1.417	-0.105	0.539
Valid N (listwise)	149				

Table 147: Differences in the price of Chickpeas (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-1.500	1.056	-0.350	0.439
Middle Gaza	149	-1.028	1.000	0.190	0.404
South Gaza	149	-0.667	1.333	0.158	0.338
Valid N (listwise)	149				

Figure 48: Prices of Chickpeas in West Bank Markets: Jan 1997 to June 2009

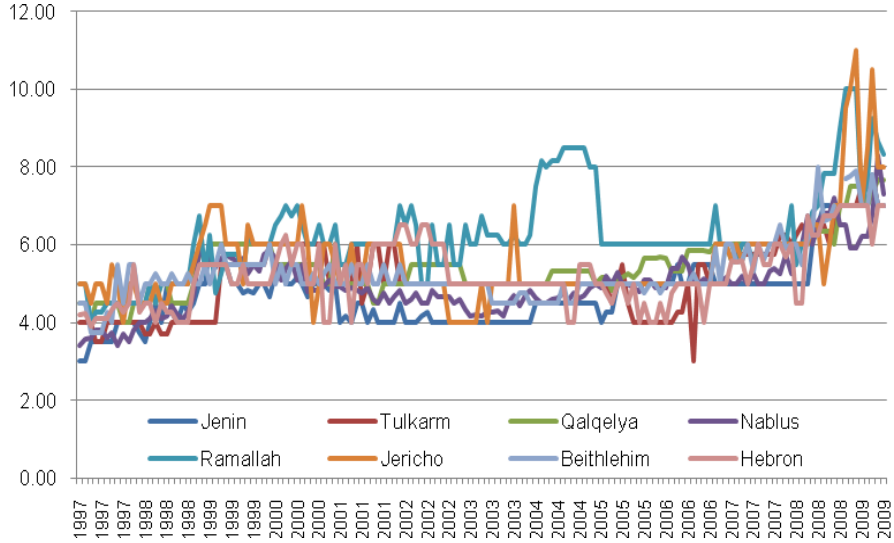
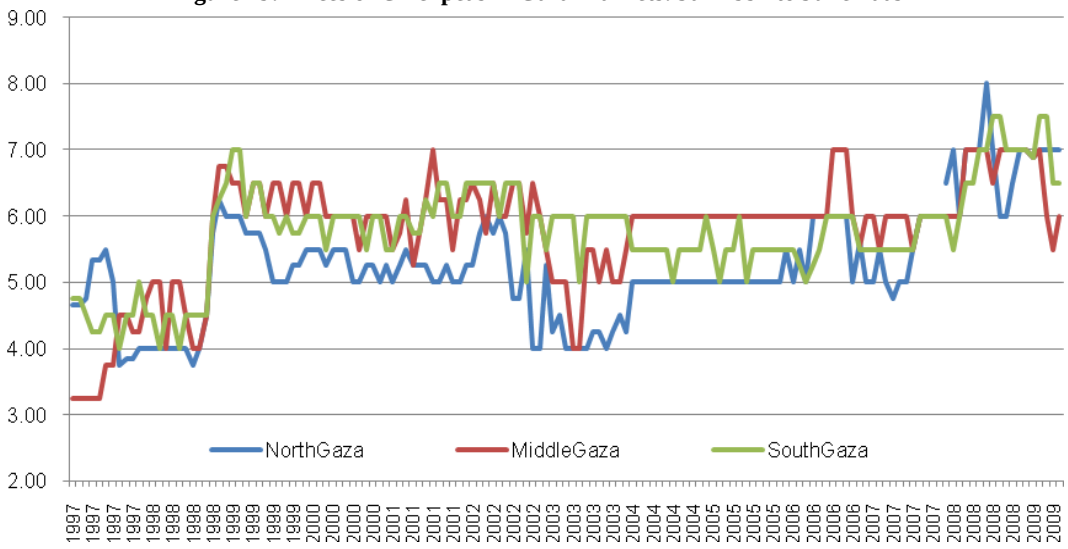


Figure 49: Prices of Chickpeas in Gaza Markets: Jan 1997 to June 2009



Green house tomatoes

Table 148: Differences in GH Tomatoes prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-1.619	2.279	-0.373	0.486
Tulkarem	149	-1.422	0.925	-0.229	0.389
Qalqelya	149	-1.167	1.009	0.168	0.391
Nablus	149	-1.614	4.798	-0.249	0.514
Ramallah	149	-0.952	1.670	0.182	0.374
Jericho	149	-1.060	3.236	0.204	0.499
Bethlehem	149	-1.004	1.231	0.275	0.424
Hebron	149	-0.733	1.027	0.023	0.395
Valid N (listwise)	149				

Table 149: Differences in the price of GH Tomatoes (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-0.237	1.603	0.132	0.249
Middle Gaza	149	-0.863	0.259	-0.046	0.144
South Gaza	149	-0.740	0.473	-0.086	0.149
Valid N (listwise)	149				

Figure 50: Prices of GH Tomatoes in West Bank Markets: Jan 1997 to June 2009

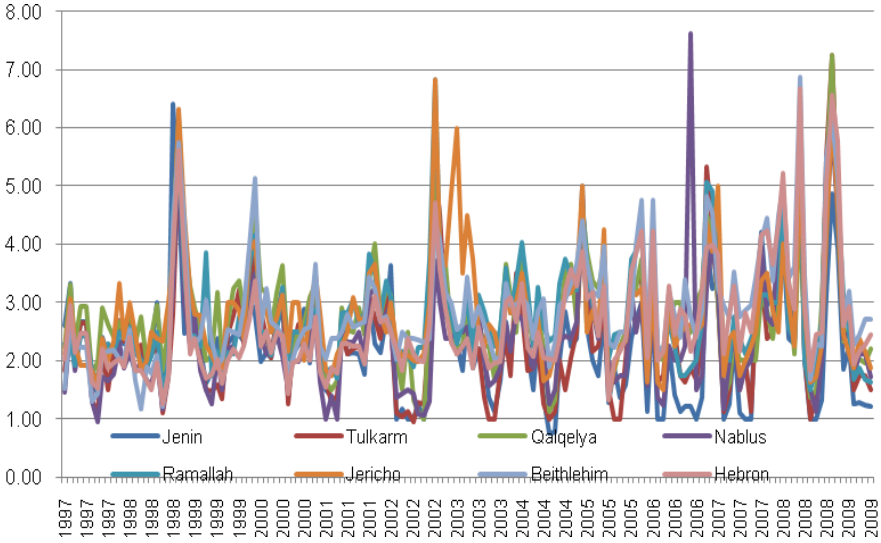
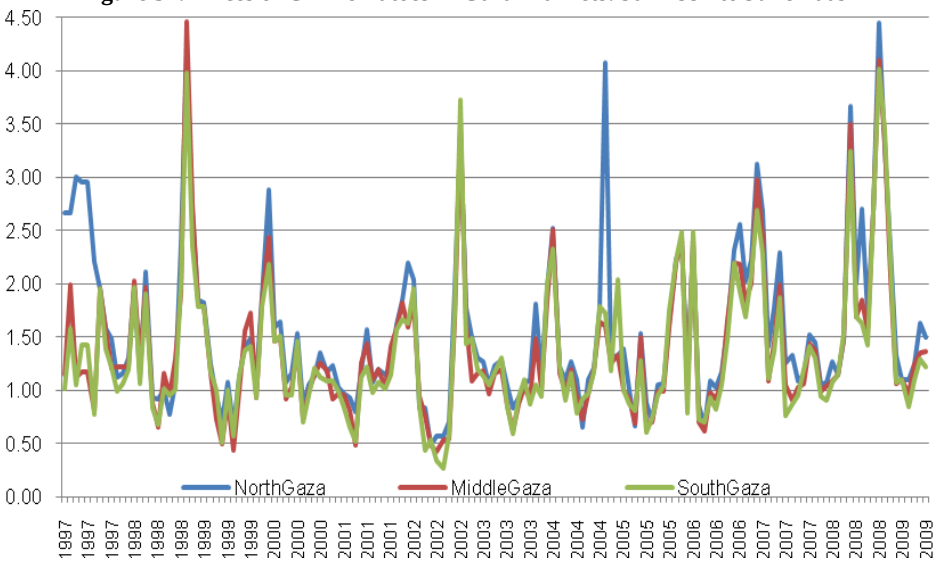


Figure 51: Prices of GH Tomatoes in Gaza Markets: Jan 1997 to June 2009



Apple

Table 150: **Differences in Apple prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics**

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-3.872	2.459	-0.860	1.119
Tulkarem	149	-2.333	4.387	-0.261	1.052
Qalqelya	149	-4.474	2.501	-0.034	0.837
Nablus	149	-2.166	2.406	-0.638	0.817
Ramallah	149	-2.239	4.175	0.969	1.236
Jericho	149	-2.927	2.597	0.455	0.957
Bethlehem	149	-2.295	3.116	0.417	1.062
Hebron	149	-3.225	2.082	-0.049	0.790
Valid N (listwise)	149				

Table 151: Differences in the price of Apple (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-0.569	4.002	0.347	0.650
Middle Gaza	149	-1.668	0.697	-0.191	0.348
South Gaza	149	-2.333	0.906	-0.158	0.450
Valid N (listwise)	149				

Figure 52: Prices of Apple in West Bank Markets: Jan 1997 to June 2009

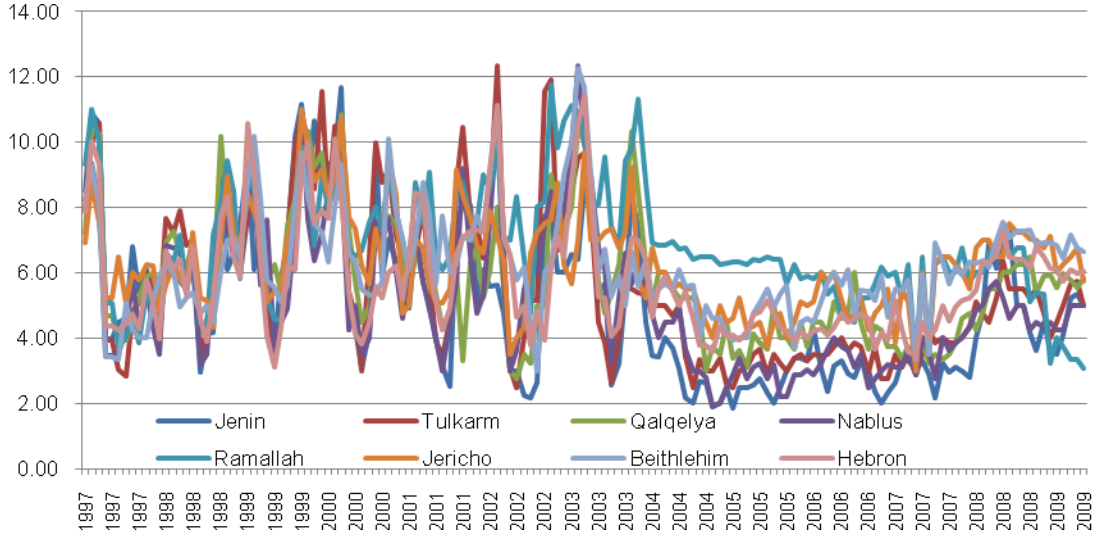
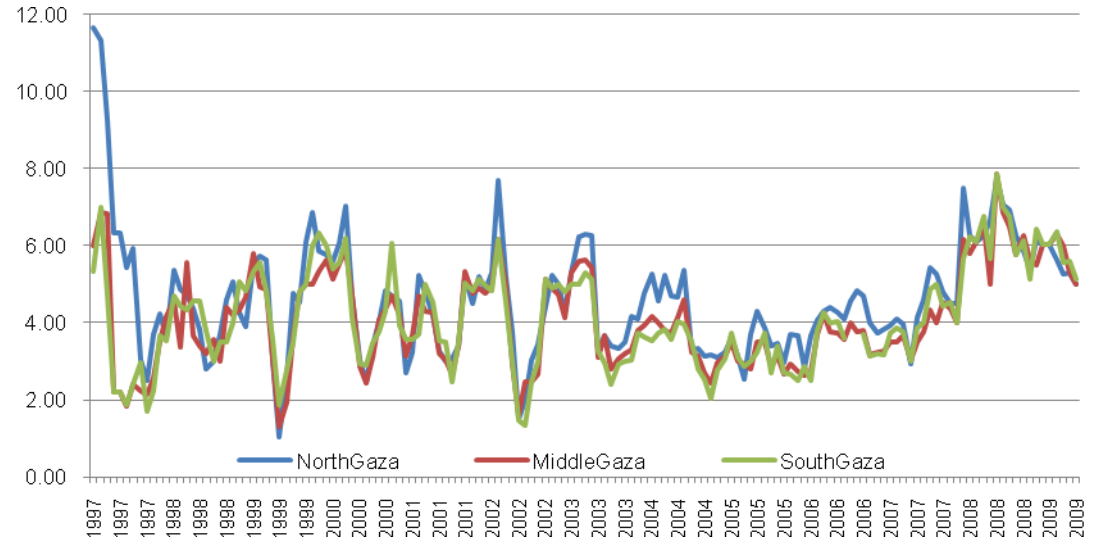


Figure 53: Prices of Apple in Gaza Markets: Jan 1997 to June 2009



Cucumbers

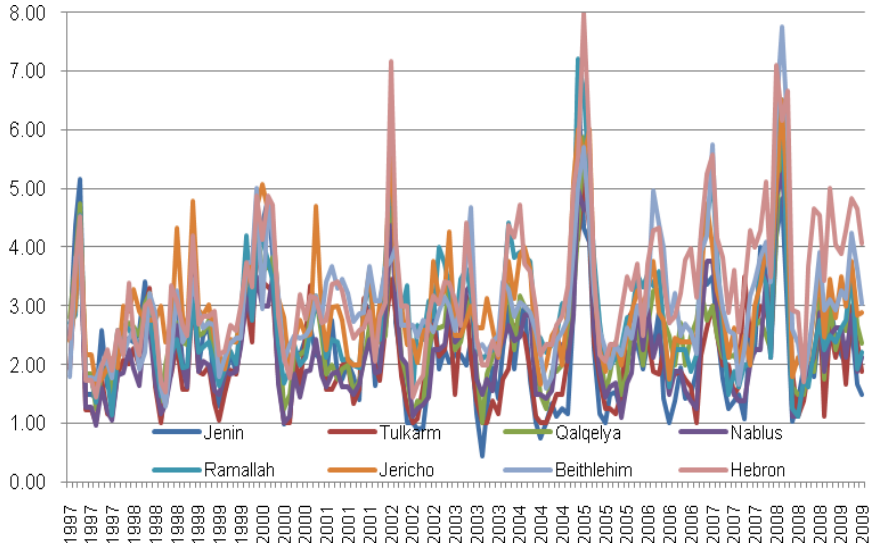
Table 152:Differences in Cucumbers prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-1.647	1.478	-0.409	0.514
Tulkarem	149	-1.702	1.246	-0.476	0.411
Qalqelya	149	-1.272	0.641	-0.130	0.347
Nablus	149	-1.148	0.193	-0.444	0.277
Ramallah	149	-1.174	1.686	0.123	0.455
Jericho	149	-0.594	1.607	0.337	0.387
Bethlehem	149	-1.358	1.728	0.346	0.477
Hebron	149	-0.199	2.261	0.659	0.548
Valid N (listwise)	149				

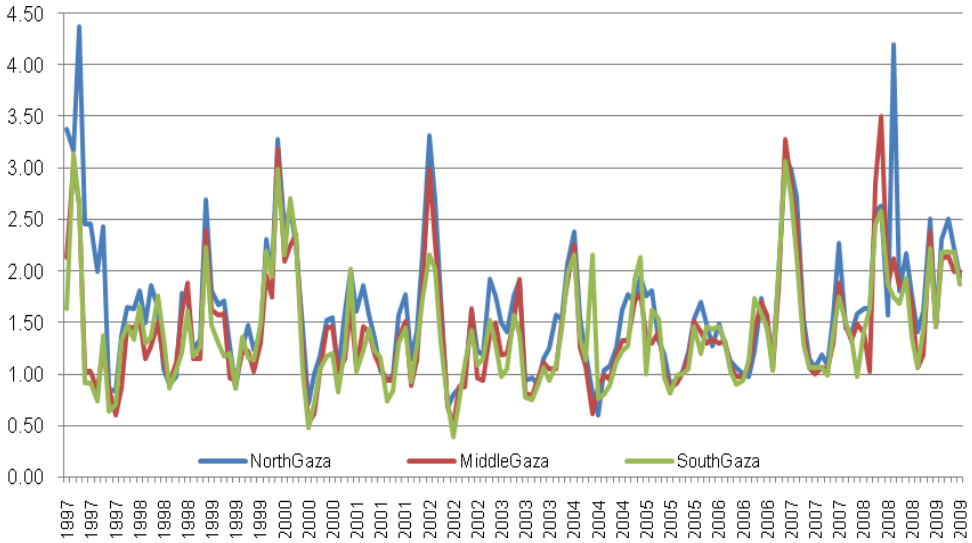
Table 153: Differences in the price of Cucumbers (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-0.378	1.508	0.149	0.242
Middle Gaza	149	-0.588	0.595	-0.058	0.145
South Gaza	149	-0.942	0.965	-0.084	0.203
Valid N (listwise)	149				

Prices of Cucumbers in West Bank Markets: Jan 1997 to June 2009



Prices of Cucumbers in Gaza Markets: Jan 1997 to June 2009



Eggplants

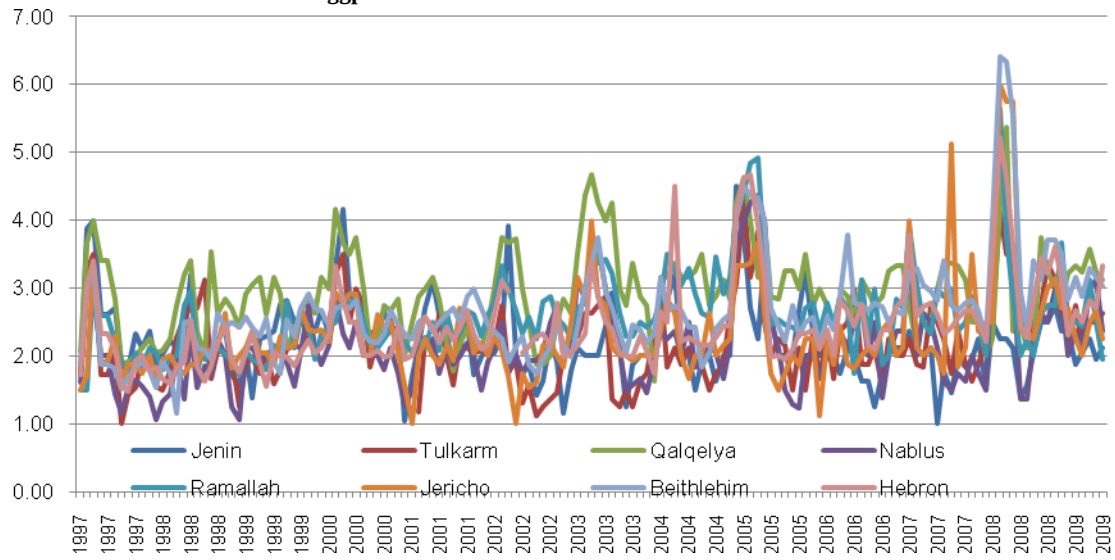
Table 154: **Differences in Cucumbers prices in NIS, between West Bank average and individual markets in West Bank during the period January 1997 to June 2009 - Descriptive Statistics**

Governorate & West Bank Average	N	Minimum	Maximum	Mean	Std. Deviation
Jenin	149	-2.642	1.326	-0.218	0.551
Tulkarem	149	-1.302	1.000	-0.262	0.383
Qalqelya	149	-1.268	1.573	0.495	0.469
Nablus	149	-1.171	0.606	-0.269	0.327
Ramallah	149	-1.378	1.156	0.154	0.372
Jericho	149	-1.207	2.454	-0.129	0.468
Bethlehem	149	-0.829	1.895	0.218	0.393
Hebron	149	-0.553	1.471	0.011	0.277
Valid N (listwise)	149				

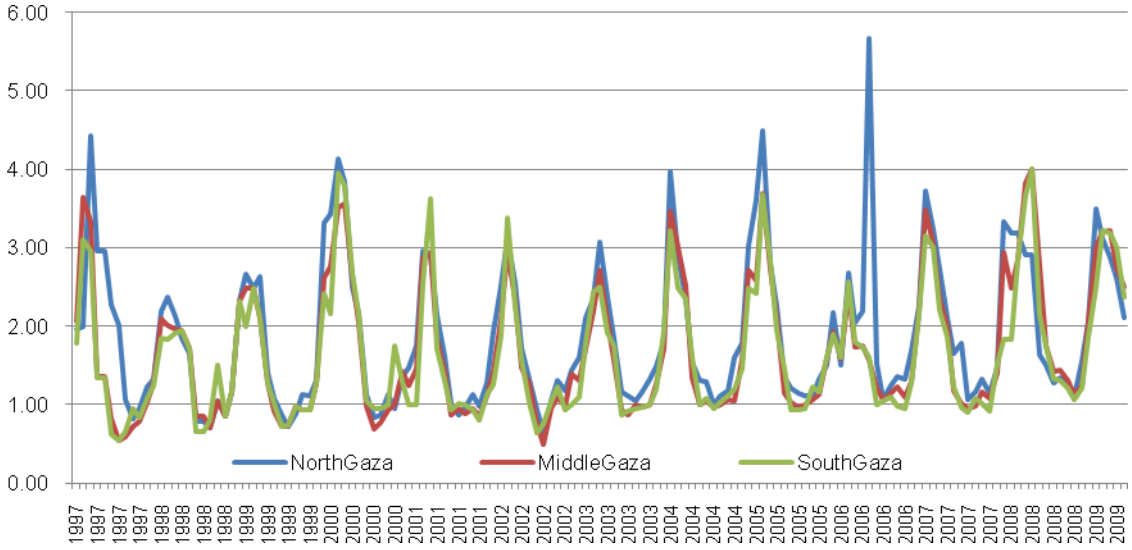
Table 155: Differences in the price of Cucumbers (NIS) between Gaza Strip average price and individual markets in Gaza during the period January 1997 to June 2009 – Descriptive Statistics

Governorate & Gaza Strip Average	N	Minimum	Maximum	Mean	Std. Deviation
North Gaza	149	-0.916	2.723	0.149	0.343
Middle Gaza	149	-1.381	0.722	-0.054	0.188
South Gaza	149	-1.341	0.518	-0.099	0.232
Valid N (listwise)	149				

Prices of Eggplants in West Bank Markets: Jan 1997 to June 2009



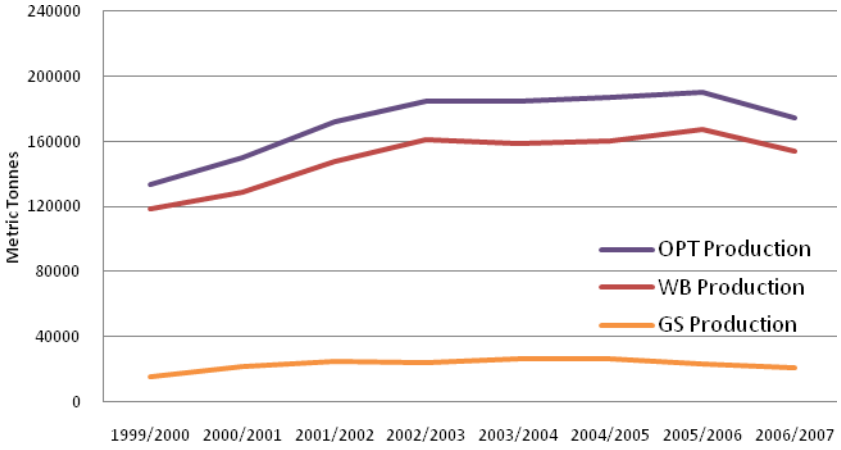
Prices of Eggplants in Gaza Markets: Jan 1997 to June 2009



Annex 7: Local Production of Milk, Eggs, Meat, Fish and Sweetners

1. Milk Production

Production of milk between 1999/2000 and 206/2007



PCBS figures indicate that milk production exhibited a strong rising trend over these years, with cow milk rising the fastest and goat milk the slowest. Total milk production is reported to have risen from 133,687 tonnes in 1999/2000 to 190,642 tonnes in 2005/2006, before going down to 174,724 tonnes in 2006/2007. The 14.3 percent increase during the second year of the Intifda (2001/2002) is exceptional, but would be on trend with the annual increases of 12.3 percent and 15 percent for the previous two years. According to dairy cooperatives interviewed within the framework of this study, this increase was largely caused by planned efforts by producers to fill the supply gap created by an exceptional drop in imports of milk from Israel in 2000. This effort seems to have been only partially successful in offsetting the effects of drop in imports as evidenced by a surge in prices over the previous year, indicating a relatively tight supply situation.

The above figures on milk production assume that the productivity for sheep and goats has remained constant at 70 and 84 kg per animal over the past several years (on the basis of pre-Intifada gains), a rather unlikely assumption given the problems reported by interviewed farmers and meat traders vis-à-vis accessing grazing pastures, the increase in feed prices, and unfavorable weather conditions. Such difficulties, according to producers, caused productivity to drop, but instead an increase is indicated. Moreover, anecdotal evidence suggests quite strongly that the number of cows, sheep and goats in the oPt has been declining in the last few years, especially in Gaza where effective demand for fresh red meat has been diminishing quite quickly. While potentially indicative of some gains achieved by large scale producers, the reliability of milk production figures may need to be investigated beyond the scope of this study.

2. Eggs

Egg production was trending upwards, reaching an estimated 605 million eggs during 1999/2000, but remained at that level in 2000/2001, the first year of closures and curfews, and declined to 522 million for 2001/02, the second year of closures and curfews. Since then, production has resumed its upward trend to reach 672 million eggs in 2006/2007. trending upwards again. If we calculate the available supply of eggs per person using the corresponding population figures to the production year, we find that this ranged between 161 eggs (in 2001/2002) and 224 eggs (in 2005/2006). In 2006/2007, this figure was at 181 eggs, which seems to be lower than what would be needed to cover the average monthly consumption of 0.5 kg per person indicated in the 2007 Expenditure and Consumption Survey results. According to traders interviewed, 2007 marked the beginning of a trend of rapidly rising production costs -mainly due to intensification of closures, heavy inter-factional fighting in Gaza and other curbs on transportation routes- led to the pause in production which led to a decline in aggregate production and increased producer prices. Egg producers appear to be very seriously affected by the restrictions on the movement of items needed in the production process as well as restrictions on the movement of their produce.

3. Meat

Over the period under review, local meat production has fluctuated between 113,746 tonnes (2001/2002) and 78,425 tonnes (2006/2007). The best production years during this period were those pre-2002 and 2004/2005, when total

production increased by an average of 7.1 percent stimulated by the strong rate of growth for cattle meat and the exceptional growth in broiler meat production. At the end of 2006/2007 season, the average local production of meat per capita in the oPt was slightly less than 30 kg, above the previous year's 27.4 kg but lower than all the preceding six seasons.

Throughout the eight year period, white (broiler) meat accounted for 66 percent of the total availability of meat in the oPt, significantly higher in the Gaza Strip (89 percent) than the West Bank (59 percent). What is interesting to note here is the noticeable decrease in the production –hence availability- of locally produced white meat in the West Bank after the 2001/2002 season. In both areas, however, local production seems to have not kept pace with the needs of the growing population and imports continued to compensate for the difference, especially for broilers. Interviews with meat traders strongly suggest a noticeable decrease in the volume of sales and demand for both red and white meat.

While both red meat and poultry meat producers have been affected by the restrictions on the movement of inputs and outputs, the latter group of producers seems to have been affected to a greater degree than red meat producers. They rely heavily upon imported feeds and medicines that must be available on a precise time schedule. Closures and the other impediments to transportation make it essentially impossible to conform to the schedule, so productivity suffers. The timing problem is aggravated by the extreme increase in the cost of transport of inputs or to move the finished birds to slaughter and then on to the consumer. The closure of Gaza adds another layer of problems and uncertainty for the Gaza producers, who are reportedly decreasing in numbers.

4. Fish

Fish production, entirely in the Gaza Strip, trended downwards between 1999/2000 and 2003/2004 season, which reflected a trough for fish catch. With the Israeli disengagement from Gaza, fish catch resumed an upward trend and reached 2.7 thousand tonnes in the 2006/2007 season, but well below its potential. Fishermen have been seriously affected by the events since September 2000, but the data indicate that they also were having problems before then. Earlier estimates of losses to the fishery sector since the beginning of the second Intifada in September 2000 were estimated by the PA at US$5.5 million, of which US$700,000 was damage to equipment and boats. These damages continue, so the estimate of losses also continues to rise.

In the aftermath of the Israeli Cast Lead Operation in the Gaza Strip December 08/January 09, the fishing sector was estimated to have sustained losses in the realm of US$ 320,000. Of this amount, about US$ 120,000 refer to damages to various types of fishing boats, which used to employ some 400 fishermen. Losses relating to loss of fishing days during the same period were estimated at US$ 1.75 million. Losses related to ongoing restrictions on the movement of fishing boats have not been studied, but they are believed to be more significant than the direct losses sustained by the sector since 1999. The Israeli Defense Forces currently prohibits Palestinians from fishing beyond three nautical miles (nm) from the shore, undermining the volume of fishing catch, the bulk of which is located in deeper waters than 3 nm. This prohibition followed a previous reduction of the fishing zone in October 2006 from 12 to 6 nm. Many fishermen have been forced to adopt alternative strategies, such as fishing with smaller nets in the 3nm accessible zone to try to catch smaller fish (e.g. baby sardines); for others the current situation has become unsustainable causing them to cease fishing altogether.

Even more serious is the ban imposed on all fish exports since 2006. A significant share of fish production has always been exported, but a larger quantity has been imported. From 1997 to 2000 the value of fish exports averaged US$1.83 million, while the value of imports averaged US$7.25 million, leaving net imports at US$5.43 million. The gap peaked at US$6.8 million in 1999, and fell to US$4.8 million for 2000, just as production was declining. Even in the current seriously depressed food market, fish prices remained very high, indicating a longer term supply problem. The demand for fish has also been dwindling as consumers' purchasing power have been significantly eroded. The fish industry clearly is in a difficult situation. It needs assistance across the board.

5. Sweeteners

A relatively small and declining amount of honey is produced. Even smaller quantities of sugar beets were reported to have been produced during the early years of the period under consideration, but no production has been reported since 2001/2002. Although the number of beehives still is substantial, around 69,000, productivity appears to be on a serious downhill slope as a result of extreme weather temperatures in the Summer and Winter, increased price of sugar (used to feed bees during the winter) and below average and poor distribution of rainfall.