Fighting Hunger Worldwide

Market Assessment in the Gaza Strip

Is the market of the besieged enclave conducive to a large CBT intervention?

WFP
World Food Programme
wfp.org

June 2017

Market Assessment in the Gaza Strip

Is the market of the besieged enclave conducive to a large CBT intervention?

Authors: Lucia Latino and Tobias Flämig

Published in June 2017 - Data collected in November 2016 / January 2017

For additional information, please contact:

WFP Jerusalem
Peter Holtsberg, *Head of Programme*
peter.holtsberg@wfp.org

Salah Lahham, *VAM Officer*
salah.lahham@wfp.org

WFP Headquarters
Tobias Flämig, *Head of Economic and Market Analysis Unit*
tobias.flaemig@wfp.org

Lucia Latino, *Economist*
lucia.latino@wfp.org

World Food Programme
Via Cesare Giulio Viola, 68/70 - 00148 Rome - Italy
http://vam.wfp.org; wfp.economicanalysis@wfp.org

Contents

List of Figures

List of Tables

List of Boxes

Appendices

Acronyms

ARAs	*Access Restricted Areas*
CBS	*Central Bureau of Statistic (Israel)*
CBT	*Cash-Based Transfers*
CPI	*Consumer Price Index*
DNA	*Detailed Needs Assessment and Recovery Framework for Gaza*
ECHO	*European Civil Protection and Humanitarian Aid Operations*
EMOP	*Emergency Operation*
FCS	*Food Consumption Score*
GDP	*Gross Domestic Product*
GRM	*Gaza Reconstruction Mechanism*
NIS	*Israeli Shekel*
PA	*Palestinian Authority*
PMA	*Palestinian Monetary Authority*
PCBS	*Palestinian Central Bureau of Statistics*
UNCTAD	*United Nations Conference on Trade and Development.*
UN OCHA oPt	*United Nations Office for the Coordination of Humanitarian Affairs*
UNRWA	*United Relief and Works Agency for Palestine Refugees in the Near East*
VAM	*WFP Vulnerability Analysis and Mapping*
WFP	*World Food Programme*

Acknowledgements

This report was jointly prepared by Lucia Latino (leading on data analysis and report writing) and Tobias Flämig (leading on qualitative assessment in the field); it was edited by Zoë Hallington. The trader survey was conducted under the supervision of the Palestinian Central Bureau of Statistics (PCBS). The study was funded by the European Civil Protection and Humanitarian Aid Operations (ECHO).

The authors wish to thank the WFP staff in Jerusalem and Gaza as well as UNRWA staff in Gaza for their support during the study and their insights into the programmes. In particular, gratitude goes to Peter Holtsberg and Salah Lahham, who facilitated the entire process; Mattia Polvanesi, for sharing details of UNRWA's activities in the Gaza Strip and for his valuable comments on an early draft of the report; and Mohammed Almadhoun for organizing and facilitating numerous meetings with stakeholders, traders and partners during the field mission in the Gaza Strip. The report also benefited from discussion with Oscar Caccavale, Susanna Sandström and Valerio Giuffrida.

Finally, thanks are due to the Ministry of National Economy, PCBS, the FAO Gaza Office, Paltrade, the Food Industry Union in Gaza, importers, millers and retailers for providing information during the survey and the semi-structured interview.

Photo credits

Pag. 1: WFP/Colin Kampschoer; pag. 7: WFP/Tobias Flämig; pag.12: WFP/Eyad al Baba; pag. 15: WFP/Colin Kampschoer; pag. 17: WFP/Eyad al Baba; pag. 21: WFP/Tobias Flämig; pag. 25: WFP/Asmaa Nassar; pag. 26: WFP/Eyad al Baba.

.

Executive Summary

In the besieged Gaza Strip, almost 40 percent of the population lives below the poverty line and almost half of households are food insecure. UNRWA and WFP assist more than 1.2 million people with some type of food aid: 93 percent receive in-kind food, 6 percent benefit from value-based electronic food vouchers and 1 percent receive both wheat flour and vouchers. Against this backdrop, **this report investigates the functionality of the food commodity market in the Gaza Strip** to understand whether it is generally conducive to a significant scale-up of cash-based transfer (CBT) interventions. The analysis is based on secondary data as well as primary data collected in November/December 2016 by the Palestinian Central Bureau of Statistics (PCBS) through a trader survey of 859 food shops. The analysis is complemented with qualitative data and information obtained during semi-structured interviews with main stakeholders and partners conducted in January 2017 in the Gaza Strip by the authors of the report.

The overall analysis of the macro-economic environment clearly shows how **Gazan socio-economic development struggles with a dismantled productive sector.** The positive but shy performance of the economy in 2015 and 2016 has not been enough to improve the living conditions of a growing population: the level of real GDP per capita has not yet returned to pre-blockade levels. Gaza is experiencing one of the highest unemployment rates in the world – 42 percent – and 54 percent of the working age population is outside the labour force.

Israeli restrictions and the blockade have curtailed the agricultural and manufacturing sectors, historically considered the backbone of the local economy. The agricultural sector suffers from reduced access to arable land, the rising cost of agricultural inputs and export restrictions. The fishing industry is confronted with water contamination and a fishing area that measures just 6 nautical miles. The high cost of inputs and low productivity also threaten the livestock sector and consequently weaken the Gazan dairy sector, which also struggles to compete with imported products that are diversified and of better quality. Today, local dairy production covers just 20 to 30 percent of total annual needs. Finally, although reliant on imported wheat grain, the milling sector has the potential to satisfy Gaza's needs entirely; however, it is working at only 40 percent of its full capacity because the large inflow of flour in the form of food aid supresses demand for commercial wheat flour.

The constraints on the productive sectors mean **the Gaza Strip is heavily dependent on imports**. However, the inflow of goods is strictly controlled by Israel and is permitted through one single border crossing point. At the same time, Israel has been severely restricting Gazan exports; thus, Gaza has been running a persistent and increasing trade deficit as its exports – worth US$4 million – are able to finance just 0.6 percent of its imports. **Gaza's trade dependency is not only the consequence of a higher volume of trade in relation to its economy, but also the result of its high trade partner concentration**: 68 percent of imports (in metric tons) come from Israel. Finally, the Israeli shekel is the main currency in use. Thus, the economic and political dependence on Israel is overwhelming.

Despite the high trade deficit, **the food imported in 2016 was not enough to meet the needs of the Gazan population.** A lack of reliable data on local food production and food manufacturing as well as difficulties in estimating the goods that come through illegal tunnels make it difficult to gauge the real food deficit/surplus. This report shows that local production of the milling sector may have been enough to fill the gap. However, analysis of the daily movement of trucks in and out of Gaza shows that the actual number crossing Kerem Shalom has never reached the limit set by Israel, i.e. 700 trucks/day; the flow only came close to the limit on a few days of the last quarter of 2016. Thus, this would appear to confirm the opinion of traders interviewed for whom **the constraint is not the border but rather low demand.** The results from the survey show that the high unemployment rate and poor economic conditions of households are holding back sales and that reduced credit is playing an important role in the drop in sales seen over the past six months. Nevertheless, the complex procedures at the crossing may cause delays, which could also explain the low number of trucks crossing each day.

Other than the general deflationary pressure in the State of Palestine and Israel, low household purchasing power coupled with the large presence of food aid, the likely increase in illegal imports from Egypt and the cancellation of the exclusive-agent deal are pushing food prices down in the Gaza Strip. In 2016, Gazan yearly inflation averaged at -0.8 percent, driven down by a significant fall in prices for medical care (-2.9 percent) and food (-2.7 percent). **Average prices for many staple foods have been significantly low in the Gaza Strip** compared with prices in the West Bank (rice and oil being the exceptions). However, the benefits of low prices are threatened by uncertainty. In fact, for almost all staples, **monthly price volatility is a bigger concern in the Gaza Strip** than in the West Bank, and volatility has been increasing over the past two years. In this context, the WFP procedure of setting ceiling prices for the foods included in the voucher programme in combination with a lack of free shop choice is likely to harm beneficiaries, as traders may not have enough incentive to lower prices or offer discounts.

An examination of the **supply chain** reveals the importance of importers, not just because of Gaza's trade dependency. **Importers also play an important role in distribution**. In particular, importers dealing with chilled foods deliver direct to retailers. This is mainly because wholesalers lack refrigerator capacity, but also because importers prefer to deal with multiple shops rather than a few wholesalers to mitigate credit default risks. Households across the Strip rely on 4,700 retailers, which is about one shop for every 70 households. In general, these are small shops with no other branches, and only a quarter of them have a warehouse. Generally, **shops face no major supply problems**: only 28 percent reported encountering difficulties. However, during the 2014 war, half of the shops did face problems and their stocks fell by an average 53 percent.

Local markets play an important and growing role for the humanitarian sector. **A conspicuous proportion of humanitarian aid is already absorbed/provided by the Gazan private sector**: in 2016, UNRWA procured 47 percent of the food needed for in-kind distribution in the local market; for WFP, the share was 62 percent. The agencies still had to import around 73,000 mt of food to satisfy their operational needs – less than 18 percent of the food entering the Gaza Strip through the commercial sector. A large part of the food imported was wheat flour (46,000 mt), even though **local mills have the potential capacity to completely cover the UN food distribution needs**. If wheat flour is excluded, the total amount of food that the two humanitarian agencies had to import last year falls to 27,000 mt. In other words, **if UNRWA and WFP decided to abandon general food distribution (GFD) and adopt a CBT modality, Gazan importers would need to increase their business by 7 percent to meet the increase in local demand**. The Kerem Shalom crossing would probably not become a bottleneck as the overall number of trucks would remain about the same. This report suggests that importers would be able to increase their turnover and **the Gazan retail sector would be able to absorb the extra demand**. Nevertheless, caution and a gradual increase should be adopted as retailers would need time to adapt to the new market conditions.

However, scaling up the CBT operation could require contracting over 2,000 new shops, which has administrative implications and carries the risk of market distortion. Furthermore, **political uncertainty and confrontations with Israel mean that caution would be needed in completely dismantling the in-kind pipeline.** Thus, considering that the market is certainly conducive for a large-scale CBT intervention and thinking of the positive secondary impacts of a voucher programme, the report suggests **a gradual and partial scale-up of the CBT intervention in the Gaza Strip**.

The report also encourages **carefully planned price monitoring activities** not only to measure the volatility that characterizes food prices in Gaza, but also because the eventual reduction in food aid and the money injected into the Gazan economy will likely push food prices up. Finally, the current practice of fixing a ceiling price in contracted shops and assigning beneficiaries to shops should be closely analysed and eventually reviewed. In fact, the risk of creating market distortion and the deflationary context would suggest relaxing these settings to boost competition across shops and likely offset the potential price increases mentioned above.

1. Introduction

Home to 1.91 million Palestinians, 70 percent of whom are refugees,[1] and with an annual population growth rate of 3.3 percent (PCBS, 2016), the Gaza Strip is the third most densely populated region in the world. And unfortunately, this is not the only challenge facing the enclave.

Following the Israeli occupation between 1967 and 2005, people in the Gaza Strip have been living in almost total isolation. After Hamas won the 2006 legislative elections in the State of Palestine, the international community temporarily suspended aid and relations with Palestine; Israel suspended the transfer of the taxes it collected on behalf of the Palestinian Authority and together with the USA, it imposed economic sanctions. The unity government dissolved in June 2007 and the Fatah-Hamas military conflict in June 2007 ended with Hamas' takeover of the Gaza Strip and the *de facto* division of the State of Palestine into two entities: the West Bank, under the Palestinian Authority, and the Gaza Strip, under Hamas. The consequence was a lifting of the sanctions on the West Bank, and a tightening of the Israeli land, air and sea blockade for the Gaza Strip, which is still in place today.

The Israeli blockade and recurrent conflicts have severely undermined Gazan socio-economic development. World Bank analysis shows that the Gaza Strip's economic performance over the past two decades cannot be compared even with that of low-income countries and has been at the global bottom (World Bank, 2016). With the highest unemployment rate in the world, severe electricity shortages, uneven water/sewerage availability, limitations on the movements of people and goods to the external world and other adverse effects from the blockade, it is not surprising that almost 40 percent of the population live below the poverty line (World Bank, 2016) and almost half of all households are food insecure [2] (PCBS, 2016). The dramatic nature of these numbers becomes even clearer when considering that over 80 percent of the population already receives some form of international aid, mainly food assistance.

The majority of beneficiaries receiving food assistance are Palestinian refugees. The United Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) provides a food basket to almost 190,000 families (975,360 refugees) every quarter. The basket is meant to cover between 43 and 80 percent of dietary energy requirements. [3]

[1] According to the UNRWA refugee registration information system, there are 1,348,536 registered refugees in Gaza (data from Q4, 2016).

[2] Around 28.4 percent were severely food insecure (i.e. with a severe or significant consumption gap they cannot counter through economic means or coping mechanisms) and 18.3 percent were moderately food insecure (i.e. facing issues with either the quantity or quality of food consumed, which they cannot address due to their limited financial means or without employing irreversible coping mechanisms).

[3] Depending on whether a household is classified as living in "absolute poverty" or "abject poverty" based on the proxy-means testing formula specific to the Gaza Strip. Currently, 57 percent of beneficiaries are deemed to be in "abject poverty": every quarter, they receive 30 kg of flour, 3 kg of rice, 2 kg of oil, 1 kg of sugar, 0.8 kg of milk, 0.5 kg of lentils, 1 kg of chickpeas and

The World Food Programme (WFP) reaches 157,000 non-refugee beneficiaries, of whom 62,000 redeem value-based electronic food vouchers through 75 contracted shops,[4] 85,000 receive a traditional food ration[5] every three months, and 10,000 receive both wheat flour and vouchers. WFP also distributes in-kind food rations to 79,000 beneficiaries and value-based electronic food vouchers to 10,000 beneficiaries targeted by the Ministry of Social Development via its social safety net programme.

WFP food assistance, independent of the delivery modality, is meant to cover 60 percent of a beneficiary's dietary energy requirement. The voucher programme also aims to improve dietary diversity amongst the non-refugee food-insecure population and, indirectly, to promote the local economy. In fact, cards are topped up weekly to encourage families to buy fresh food,[6] and the programme stipulates that items bought with a voucher are produced locally wherever possible. A 2016 WFP study conducted in the West Bank and Gaza Strip found that since 2013 there had been a 10 percentage point increase in the share of households participating in the voucher programme who had an acceptable Food Consumption Score (FCS), compared with a 6 percentage point increase for households receiving in-kind or cash assistance.[7] The study also found evidence of the positive secondary economic impact of the voucher programme (see Box 3). Accordingly, the study recommended expanding the programme. During the last conflict with Israel in summer 2014, a budget revision to the 'Emergency food assistance to the non-refugee population in the Gaza Strip' (EMOP 200298) proposed temporarily providing food and voucher assistance to an additional 1.2 million people affected by the conflict. WFP managed to scale up its voucher system and reach further 300,000 people "within weeks: the emergency voucher system started 12 days after hostilities commenced" (WFP, 2016). But, the scale-up was only temporary.

In this context, European Civil Protection and Humanitarian Aid Operations (ECHO) have funded this WFP-led market feasibility study in the Gaza Strip to understand whether the market environment is generally conducive to gradually scaling up cash-based transfer (CBT) interventions on a more permanent basis. For WFP, this could mean moving 164,000 beneficiaries (including Ministry of Social Development beneficiaries) to the voucher system – the equivalent of 8 percent of the population. By contrast, the possible transition of UNRWA's caseload (half of Gaza's population) from the current in-kind assistance to CBT would represent a massive scaling-up of CBT activities (even compared to that during the 2014 emergency). Accordingly, the overall objectives of this market assessment are as follows:

1. to assess the ability of Gazan markets to absorb CBT activities on a large scale; and
2. to ascertain the potential risks of scaling up CBT, including the market impact of replacing humanitarian food with commercial food; and (ii) concerns about conflict-related or political curbs on the commercial market.

Within this framework, the study looks at the overall market environment in which the food trade takes place, and it describes the market structure and analyses its conduct. As the Gaza Strip is dependent on food imports and is an isolated area, particular attention is given to the analysis of trade flows.

The study is based on the analysis of secondary data as well as nationally representative trader survey data collected in November/December 2016 by the Palestinian Central Bureau of Statistics (PCBS) from 859 shops and wholesalers in the Gaza Strip (see Appendix III and Appendix IV for their methodology and questionnaire). The analysis is

0.6 kg of canned sardines. The quarterly basket for beneficiaries in "absolute poverty" contains 15 kg of flour, 2 kg of rice, 1 kg of oil, 0.5 kg of sugar, 0.8 kg of milk, 0.5 kg of lentils and 1 kg of chickpeas (UNRWA, 2016).

[4] Each beneficiary is entitled to 10.3US$/month/person and is pre-assigned a shop where he/she can use the voucher to purchase set types of essential foods: cereal, bread, rice, pulses, dairy products, eggs, oil, canned fish and frozen vegetables.

[5] The WFP food basket includes a per capita daily ration of 300 g of wheat flour, 25 g of pulses, 15 g of oil and 5 g of iodized salt.

[6] The amount can be carried over to the following weeks but not over to the following month.

[7] The percentage of voucher beneficiary households with acceptable FCS was 72 in 2013 and 82 in 2016. In the comparison group, 55 percent of households had an acceptable FCS in 2013 against 61 percent in 2016.

complemented with qualitative data and information obtained during semi-structured interviews with main stakeholders and partners[8] conducted in January 2017 in the Gaza Strip by the authors of the report.

The report is organized as follows. Section 2 describes the general macro-economic context of the Gaza Strip and looks into local food production. Section 3 analyses the international trade flow, focusing on Gazan food imports. Section 4 maps out the food supply chain and investigates possible bottlenecks. Section 5 examines food price behaviour to ensure market functionality. Section 6 explores the feasibility of a market solution for humanitarian aid. Section 7 looks at the major threats for a large CBT intervention in the Gaza Strip as well as the opportunities springing from a CBT intervention as opposed to in-kind assistance. The final section draws conclusion and presents recommendations.

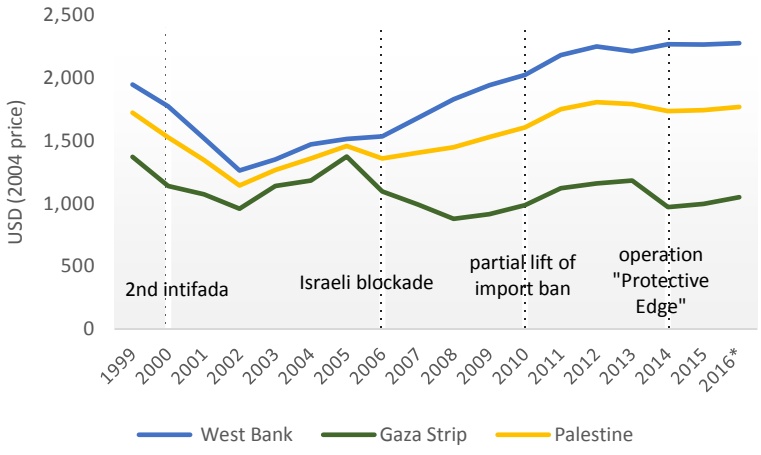
2. The Gazan economy

2.1. A wheezing economy

A decade-long Israeli blockade – coupled with three major military operations and occasionally additional shocks – has not only pushed the Gaza Strip into the limbo of economic stagnation and increasing humanitarian need, but it has also driven the destruction of the economy.

The victory of Hamas in the 2006 parliamentary election and the reactions of Israel and the international community marked the beginning of the Gazan economic recession: real GDP per capita fell by 20 percent between 2005 and 2006. The shy and slow recovery that followed the partial lifting of the import ban in 2010 was crushed in 2012 by a significant fall in foreign aid. Economic growth slowed further in 2013 when the Egyptian political crisis hampered the functioning of the Rafah crossing and led to the almost total closure of the informal tunnels. Eventually, the Israeli military operation 'Protective Edge' pushed the economy into recession in 2014, when real GDP per capita shrank by 18 percent from the previous year (Figure 1).

Figure 1 - Real GDP per capita in Palestinian Territories, 1999–2016



*Source: authors' elaboration on PCBS data. The parts of Jerusalem governorate that were annexed by Israel in 1967 are excluded. The notation * refers to preliminary estimates of quarterly national accounts.*

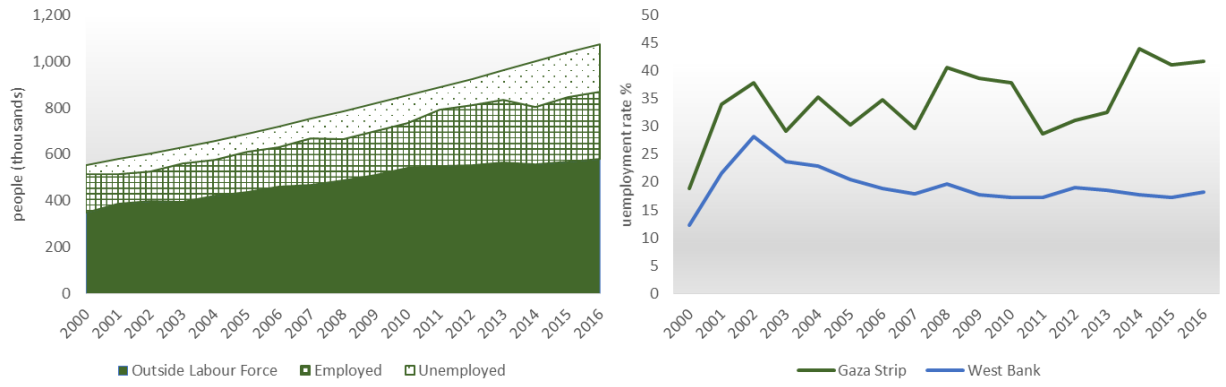
The reconstruction process boosted the Gazan economy in 2015, and preliminary estimates from the PCBS of per capita GDP at constant prices confirm the recent positive performance of the Gazan economy, which grew by 5.4 percent in 2016. However, real GDP per capita has not yet returned to pre-2006 levels and in the last 20 years, real income per capita has declined by nearly a fourth. According to the IMF and the World Bank, the real GDP growth rate for 2016 will not be enough to improve the living conditions of the growing population (International

[8] Semi-structured interviews were conducted with 11 big importers, one local miller, the Ministry of National Economy, the Palestine Trade Center, the Palestinian Food Industries Union, UNRWA and FAO.

Monetary Fund, 2016) (World Bank, 2016). The consequence is also a widening gap with the rest of the Palestinian territory: **GDP per capita in the West Bank is more than double that of the Gaza Strip.**

The weak economic performance and job losses in Israel inevitably translate into a labour market unable to offer enough opportunities. Although the labour force participation rate has been increasing in the past 10 years (up by 10 percentage points and double in absolute terms from 2006), 54 percent of the working age population remained outside the labour force in 2016 (Figure 2) – among the highest rates in the world. After skyrocketing to 44 percent in 2014, the unemployment rate fell to 41 percent in 2015 but went up to 42 percent in 2016. It is currently more than twice as high as that in the West Bank (Figure 2, right panel).

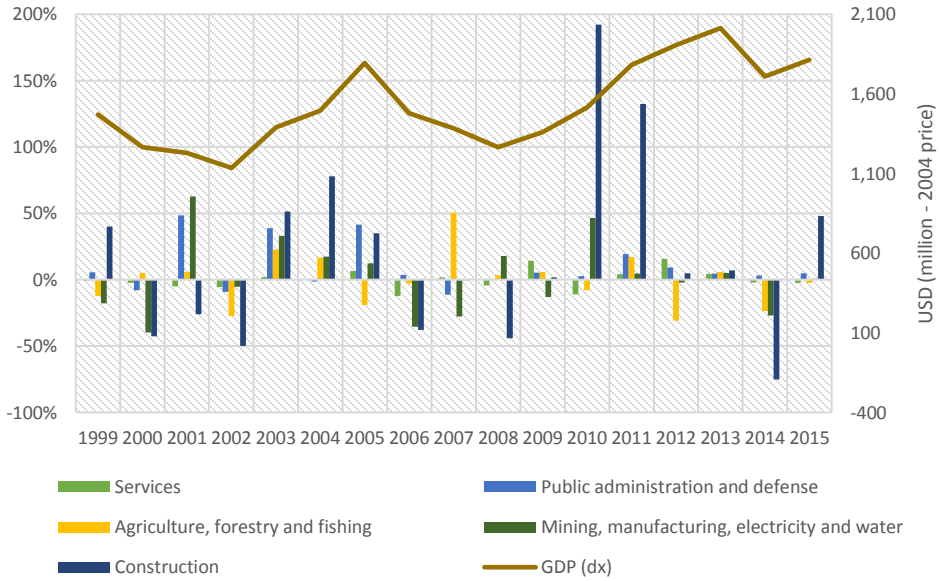
Figure 2 - Labour force status in the Gaza Strip, 2000-2016



Source: authors' elaboration on PCBS data

In the last 15 years, the economy has also been more volatile in the Gaza Strip than in the rest of the Palestinian territory, and periods of relative growth have mainly been linked to rebuilding destroyed infrastructure (Figure 1 and Figure 3). In fact, the Israeli blockade and the military operations significantly damaged the agricultural and manufacturing sectors, historically considered the backbone of the local economy.

Figure 3 - Annual change of main economic activities (value added in 2004 prices)

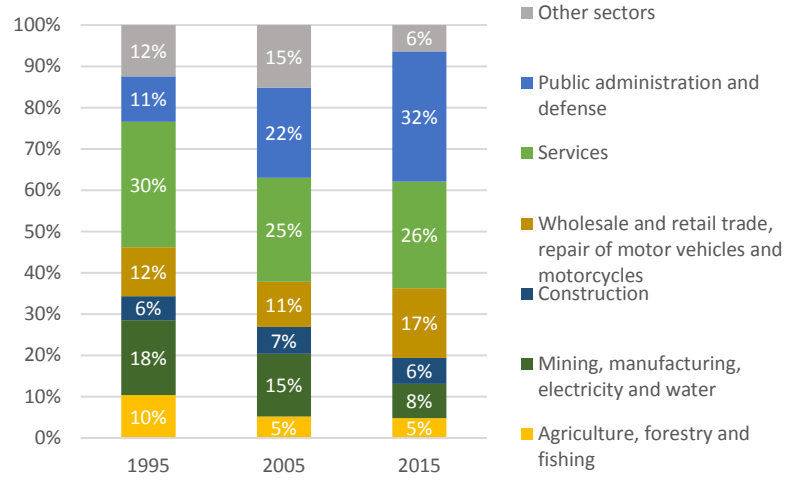


Source: authors' elaboration on PCBS data

2.2. A dismantled productive sector

In 1995, the agricultural and manufacturing sectors made up 29 percent of GDP; twenty years later, their importance had more than halved, leaving space for the expansion of the public administration. Accordingly, the share of the labour force employed in agriculture and manufacturing dropped from 26 percent to 12.5 percent (Figure 4).

Figure 4 - GDP composition (valued added in 2004 prices)



Source: authors' elaboration on PCBS data

The steady decline of the agricultural and manufacturing sectors is the result of Israeli restrictions and the blockade.

First of all, **the agricultural sector** suffers from reduced access to arable land. Israel enforces a 100- to 300-metre-wide restricted zone along the border, and it has placed additional obstacles[9] in the Access Restricted Areas (ARAs), which can include land within 1,500 metres of the border (United Nations Country Team in the State of Palestine, 2016). However, the limits of the ARAs are not clearly defined and they occasionally change; the Gazan population is informed of modifications by leaflets dropped by planes and released military statements. The consequence is great uncertainty and risk for farmers who need to go and work in these areas. And it is not merely a question of the farmers' perception of risk: in 2015, there were 82 documented incidents in ARAs that resulted in the killing of one child and the injury of 31 people (UN Human Rights Council, 2016).

Furthermore, the ARAs have been severely damaged during conflicts with Israel. In the 2010/2011 agricultural season, three years after the blockade and following the 2008/2009 military operations, the cultivated area was reduced to about half of that in 2006/2007. The area devoted to field crop production saw the steepest decline, shrinking by 60 percent (PCBS, 2008) (PCBS, 2012). In 2014, "up to 1,800 hectares of agricultural land" were affected. A handful of organizations, including the ICRC who have access to part of the ARAs, have been facilitating the relevelling and ploughing of farmlands. As a result, in 2015, many farmers were able to access farmland situated between 100 and 300 metres from the fence that had been out of reach for the past 7 to 15 years (UN OCHA oPt, 2015).

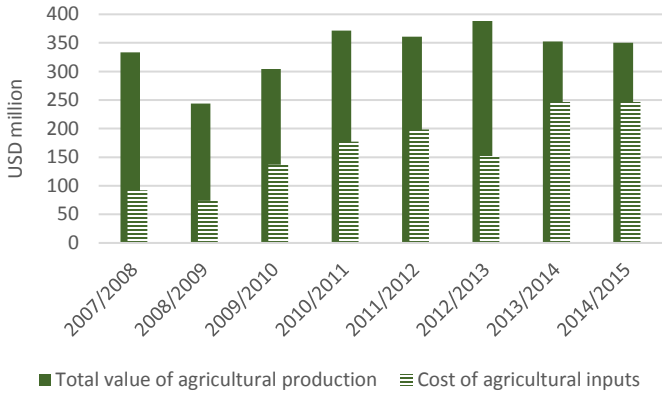
Today, estimates from the Ministry of Agriculture depict a sector that is trying to get back on its feet, with a total cultivated area larger than the pre-blockade years and total production at pre-blockade levels. However, farmers also face other challenges that derive from the Israeli blockade, such as the reduced access to agricultural inputs[10]

[9] For security reasons, the Israel Defence Forces have also occasionally levelled the land using bulldozers or have cleared it to improve visibility by spraying massive areas with defoliants that inhibit crop growth even outside the ARAs (Eldar, 2016).

[10] Israel bans a list of goods classified as "dual-use" (civilian and military) items from being imported into the Gaza Strip without special authorization. Some of them are agricultural inputs. Israel justifies the restrictions asserting that many items, including "electronic and electric equipment, communications equipment, and industrial raw materials, are used to rebuild and upgrade offensive tunnels leading to Israel; to manufacture weapons, particularly rockets; and to create technological combat support units" (UN OCHA oPt, 2015). The concern is that the measure is more a sanction than a defensive measure (Gisha, 2016).

including fertilizers, pesticides and seeds as well as building materials for irrigation and water wells; restricted marketing conditions and limited integration with the rest of the economy; and the high cost of electricity.[11]

Figure 5 - Value of agricultural production (US$ million), 2007–2015



Source: Ministry of Agriculture in the Gaza Strip

The consequence is twofold: a substantial increase in the cost of agricultural inputs (2.7 times higher in 2015 than in 2008 – Figure 5) and a sector that lags behind that of Israel and other comparable countries in the region. In fact, despite sharing similar soil and climate, the yield in the Gaza Strip is just over half of that in Jordan and Israel.[12]

Furthermore, the Israeli restriction on Gazan exports (see sub-section 3) represents a major challenge for farmers who used to export fresh produce. In fact, exports have been all but eliminated and what is allowed often goes bad during the exportation process because of delays at the border and inadequate cold storage facilities. Thus, farmers, forced to either sell their produce to local stores or suffer losses, have drastically reduced their production, diversified their crops to minimize risks and/or shifted to less perishable produce. Tomatoes, cucumber and potatoes are still the main Gazan produce, but the production of cucumber has dropped by a fourth and the amount of strawberries, cauliflower and wheat grown is half that of ten years ago. By contrast, the production of dates has almost tripled, and that of dry onion has more than doubled (Table 1).

Table 1 - Main produce in the Gaza Strip, 2005–2015

Commodity		2004/2005 (tons)	2014/2015 (tons)	change
Vegetables	Tomatoes	111,127	99,912	↓
	Cucumbers	43,060	33,138	↓
	Watermelon	15,676	17,193	↑
	Squash	11,723	10,835	↓
	Aubergines	12,618	14,458	↑
	Strawberries	6,021	2,879	↓
	Cauliflower	6,898	3,820	↓
	Yellow corn	4,992	7,759	↑
Fruits	Date	2,334	6,460	↑
	Oranges	23,289	7,843	↓
	Lemon	5,055	9,190	↑
Field crops	Dry Onion	11,060	23,849	↑
	Potato	39,725	45,220	↑
	Wheat	9,396	4,451	↓

Source: PCBS and Ministry of Agriculture.
Commodities highlighted changed by more than 50%

Similarly, the Israeli blockade has severely harmed **the fishing industry**. Israel limited the fishing area off the Gazan coast to 6 nautical miles in 2006,[13] well below the 20 nautical miles of the Oslo Accords. The consequence is declining yields due to overfishing coupled with water contamination following the destruction of the sewage treatment facility during military operations (UNCTAD,

[11] The Gaza power plant has been hit several times during Israeli military operations and has not been repaired. The consequence is a shortage of electricity such that there is only 3 to 8 hours of power a day.

[12] The yield refers to the average yield for vegetables, fruit trees and field crops. Data for the Gaza Strip are for 2010/2011, source: PCBS. Data for Israel and Jordan are for 2011, source: FAOSTAT.

[13] The fishing limit has been periodically reduced to 3 nautical miles or to zero as during the 2014 hostilities. However, in 2016, Israel temporarily expanded the fishing zone to 9 nautical miles along the southern Gaza coast twice – in April and November – while retaining the 6 nautical mile limit along the northern coast.

2014). The value of fishery production was a mere US$14 million in 2014, after hitting rock bottom in 2010 at just US$3 million, down from US$20 million in 2007.[14] Between 2000 and 2016, the number of fishermen plummeted from 10,000 to 4,000.

According to data from the Ministry of Agriculture, **livestock** is the only sector showing persistent improvements with a production value that has almost doubled in the last seven years. This explains the overall positive performance of the total value of agricultural production in Figure 5. However, the cost of inputs has also risen significantly[15] and milk production from malnourished cattle in Gaza now averages just 21 litres/day compared to 40 litres/day for healthy cattle (Snunu, 2017). **The dairy sector** now comprises 2,600 cattle, down from 5,000 before the 2014 war. Thus, the restrictions on movement for people and goods and the frequent military operations have eroded the productive capacity and competitiveness of the Gazan dairy sector.

Currently, there are only 11 dairy factories, which produce mainly white cheese, *labneh* and yoghurt[16] and cover 20 to 30 percent of total annual dairy needs. Over the last four years, production has more than doubled (Snunu, 2017) and the Ministry of National Economy is planning to boost the sector and expand production so as to reach 50 to 60 percent of the Gaza Strip's needs. However, local producers struggle to compete with imported products that are diversified and of better quality; the blockade prevents them from accessing new and advanced equipment, and the electricity shortage affects both the production and the storage of the products. The consequence is a sector that works at 30 to 40 percent of full capacity.[17]

The wheezing economy is also showing its pain in **the milling sector**: only three out of six mills are currently functioning, with an overall maximum capacity of 720 mt/day. These three mills could potentially produce more than 200,000 mt/year of wheat flour, which would almost be enough to cover the Gaza Strip's needs. However, as Table 1 shows, the local production of wheat is extremely low, at 4,500 mt in 2015, and the variety produced is used mainly as grain for *freekeh* and bulgur. Consequently, local mills have to rely on imported grain from Israel (90 percent), Russia (9 percent) and USA (1 percent).[18] In 2016, just over 105,000 mt of grain was imported. In other words, the sector worked at 40 percent of its full capacity. The millers sell the flour to retailers and bakeries through orders, and to the UN agencies [19] through international tenders. However, it is difficult for the mills to compete in the local market. Once again, the blockade plays a major role. The electricity shortage has more than doubled the running costs of the mills, and at the same time, imported wheat flour is quite cheap. Furthermore, the main consumers of wheat flour are poor and very poor households and the vast majority receive wheat flour directly from the UN agencies. Nevertheless, even if mills could run at full capacity

A mill in Dair Al Balah – Gaza

[14] Source: Ministry of Agriculture in the Gaza Strip.
[15] One sack of Israeli fodder cost NIS85-100 compared with NIS40-60 10 years ago, and 90 percent of dairy farmers rely on imported Israeli fodder.
[16] "According to the Ministry of National Economy's latest report, which Al-Monitor obtained, from January through November 2015 Gaza businesses produced 5,058 tons of milk, 10,624 tons of yogurt and 3,432 tons of assorted cheeses." (al-monitor.com)
[17] Estimates are from the Food Industry Union in the Gaza Strip.
[18] Authors' elaboration from Ministry of National Economy data.
[19] UNRWA and WFP play a major role in the wheat flour market in Gaza. Together, they distributed around 100,000 mt of wheat flour in 2016, half of which was procured inside Gaza.

and exploit their maximum grain and flour storage capacity, if the Gaza border were to close completely, they would be able to supply Gaza just for one month. Today the possibility of a total closure by Israel seems unrealistic, but it did happen in 2008/2009 (Box 2).

Similarly, **the food processing sector** (i.e. canned food) has been negatively impacted by 10 years of isolation. According to the Food Industry Union, the sector is currently working at 10 to 15 percent of its full capacity. Although the ban on empty cans was removed three years ago, nylon and raw materials are still difficult to obtain. But it is the restriction on exports that is hurting the sector the most. In fact, the West Bank was the main market recipient before the blockade, and the Gazan market cannot absorb more than one fourth of the pre-closure output (Gisha, 2015).

According to the Detailed Needs Assessment and Recovery Framework for Gaza (DNA), published in 2015 by the Government of the State of Palestine and developed with the support of the UN, the World Bank and the European Union, US$602 million – out of US$3.9 billion – were needed to address damages and losses of the productive sector (agricultural and non-agricultural) caused by the 2014 military operation. At the October 2014 Cairo Conference, US$3.5 billion was pledged for Gaza, but according to the most recent World Bank figures, only US$472 million has been disbursed and, consequently, progress, especially in the productive sector, has been particularly slow: less than 20 percent of destroyed greenhouses and orchards have been rehabilitated, while less than 50 percent of water wells, ponds and tanks have been reconstructed (United Nations Country Team in the State of Palestine, 2016).

Certainly, recovery is hampered by the lack of funding and the fact that the pipes needed to reconstruct the greenhouses and quality fertilizers are considered “dual-use” items by Israel. However, the struggle of the agricultural and manufacturing sectors cannot be completely understood without looking at the restrictions imposed by Israel on the movement of people. Creating and maintaining a trade relationship is the backbone of any successful activity, but this is not easy in the Gaza Strip. Following the 2014 hostilities, the number of people entering and exiting through the Erez crossing increased, as did the number of refusals. Only 14,000 Palestinians exited Gaza each month in 2016 compared to more than half a million in the months preceding the Second Intifada in 2000. Only 46 percent of applications for crossing permits were approved in 2016 against 80 percent in 2013, and half of the trading permits issued to traders and business people were cancelled (Gisha, 2016).

It is clear that the 10 years of isolation have severely harmed the economy in the Gaza Strip, and the severity of the damage is such that even if the restrictions were lifted, it would not immediately translate into economic recovery. Agriculture and manufacturing would have to overcome the challenge of re-adapting to markets and rebuilding networks. Furthermore, political instability, the uncertainty of rules, informality and double taxation have a deterrent effect on business development. Sustainable development will only be possible when the productive and tradable sectors (e.g. manufacturing, agriculture) are healed and allowed to grow.

3. Trade dependency

Given the heavy constraints on the productive sectors, it is no surprise that the Gaza Strip and, more generally, the State of Palestine are economically heavily dependent on international trade. Palestine has been running a persistent and increasing trade deficit. For the first time since 2002, the balance of trade showed an improvement in 2015, falling by 10 percent compared to 2014. Even so, the trade deficit is 2.5 times higher than 20 years ago and equal to 34 percent of GDP.

Furthermore, the aggregate data hide a significant regional difference. In the Gaza Strip, the total value of imported goods fell by just 1.4 percent compared to 2014 (it dropped by 8.9 percent in the West Bank), and the total value of exports shrank by 37.5 percentage points while it registered a shy increase of 1.7 percent in the rest of the

Figure 6 - Number of trucks entering Gaza by crossing points each month, 2006–2016

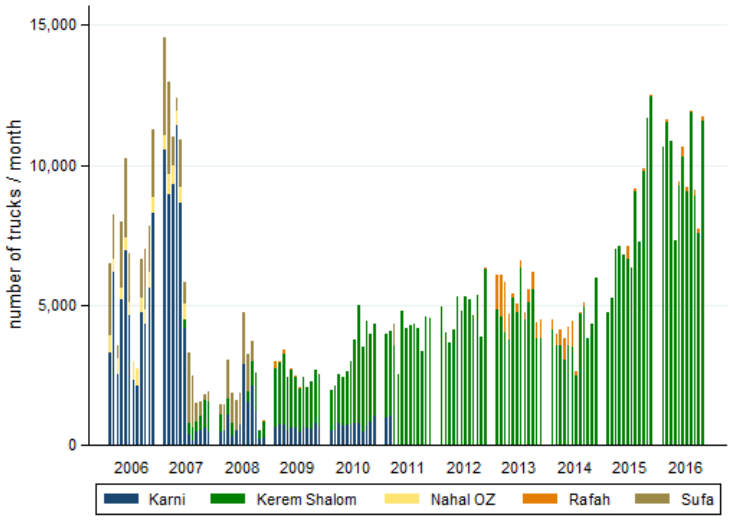
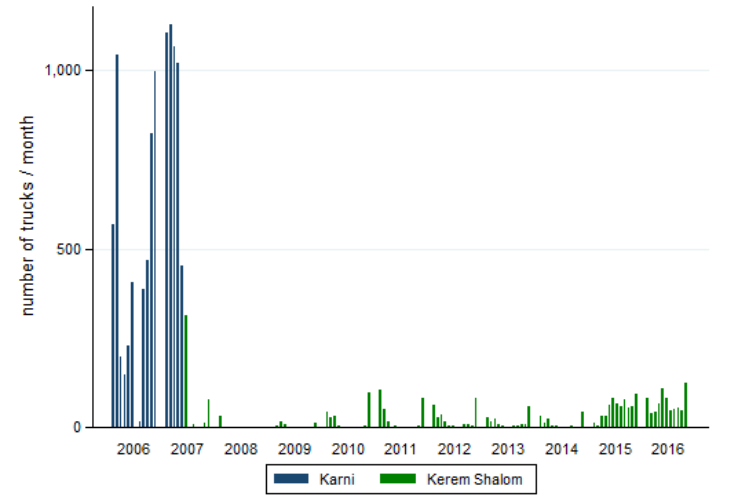


Figure 7 - Number of trucks exiting Gaza by crossing points each month, 2006–2016



Source: authors' elaboration on UN OCHA oPt data

Palestinian territories (PCBS, 2016). In other words, US$4 million of exports can finance a mere 0.6 percent of imports in the Gaza Strip but over 20 percent of imports in the West Bank.

After all, Israel has been pursuing a policy of closure towards the Gaza Strip since the 1990s with the construction of a fence around the territory and increasing restrictions on the movement of people and goods in and out of the Strip, which has culminated in the current blockade.

Right after the start of the Israeli blockade, the number of trucks[20] entering and exiting the Gaza Strip fell significantly. Little by little, the Karni crossing lost its importance and was finally closed in 2011. Gradually,[21] the movement of goods into the Gaza Strip has been gathering pace since 2009 through another crossing, Kerem Shalom. The number of trucks entering the region went up significantly by the end of 2015, reaching pre-blockade levels (Figure 6).

Imports of construction materials from the private sector have been pushing up the overall number of trucks since November 2015 and, at the same time, generating monthly import volatility. The main reason behind this is the reconstruction plan following the 2014 military operation.[22] The plan has boosted the construction sector as it also allows imports of restricted construction materials under the Gaza Reconstruction Mechanism (GRM).[23]

By contrast, Gazan exports are still severely limited and negligible compared to before the imposition of the blockade in 2007.

[20] The analysis is based on the number of trucks rather than the quantity imported because of a lack of pre-blockade data. However, other datasets show that between 2008 and 2009, the average truckload for imported food was 20 mt, with a maximum of 39 mt. Excluding exports of basil and green mint, trucks exiting Gaza carried an average 9 mt of food, with a maximum of 31 mt.

[21] Excluding the backdrop of July 2014.

[22] The DNA outlines the damages and losses incurred during the 2014 hostilities and sets out a US$3.9 billion framework for reconstruction and recovery in five key sectors: Infrastructure; Productive Sector; Livelihoods and Social Protection; Social Development; and Governance (United Nations Country Team in the State of Palestine, 2016).

[23] The GRM is a temporary agreement between the Government of Palestine and Israel, brokered by the UN in September 2014, to allow the entry of items defined by Israel as having a "dual" civilian/military use (primarily cement and steel bars).

The Office of the Quartet valued Gaza's annual exports to Israel before 2007 at US$35–40 million, whereas the estimated value in 2014 was a meagre US$1.5 million (United Nations Country Team in the State of Palestine, 2016). Limited amounts of exports have been allowed in certain sectors since 2010, the ban on the sale of Gazan goods in the West Bank was lifted in November 2014 and the limited sale of Gazan produce was allowed in Israel in 2015; even so, the total number of trucks exiting Gaza in 2016 was barely equal to the monthly average of 2005.

Immediately after the blockade, the coping mechanism put in place in Gaza was the development of a 'tunnel economy' with Egypt. The Hamas authorities largely regulated the tunnels and almost all possible goods were transferred through them (e.g. construction materials, fuel, food). While official statistics are unavailable, according to UN OCHA oPt the number of tunnels in operation in 2008–2009 was between 400 and 600 (UN OCHA oPt, 2009). However, the military coup in Egypt in July 2013 compromised the functioning of the Rafah crossing and led to the almost total closure of the informal tunnels. Certainly, the tunnels were dangerous for those transporting goods through them because of the risk of tunnel collapse, electrocution, flooding and gas poisoning, but they did provide some short-term relief from the blockade. In the months immediately preceding the Egyptian coup, the food entering Gaza through the informal tunnels was estimated to be about 60 percent of total food imports. Just two months after the coup, in September, only 10 to 20 tunnels were said to be operational (WFP VAM, 2014), but the closure of the tunnels triggered only a partial increase in the official imports[24] (see Figure 6). Recently, rumours of the regular re-opening of Rafah crossing have become louder as a delegation of Gazan traders has held several meetings in Egypt. If Rafah were open regularly for the transfer of goods, it would likely be a positive change for the Gaza Strip because of lower taxation, prices and transportation costs, but it is unlikely to happen, according to many stakeholders interviewed. On the other hand, a trader interviewed in Gaza for this study reported that the transportation cost for tunnels had dropped by almost three quarters in the previous months; although the price is still four times higher than in the golden age of the tunnel economy, **the significant drop in transportation costs may indicate a resurgence of the underground economy.**

One last aspect to consider when talking about trade dependency is that it does not only refer to higher volumes of trade in relation to the total economic activity, but also to trade partner concentration.[25] Israel is the main Palestinian commercial partner receiving 84 percent of Palestinian exports, covering 58 percent of Palestinian imports, and leaving a bilateral trade deficit of US$2.2 billion in 2015. The transaction volume (import + export value) with its second and third main commercial partners (i.e. Turkey and China) represents only 12 percent of the Palestinian trade volume versus 62 percent of Israeli trade (PCBS, 2016). Focusing on the Gaza Strip only, the situation does not change much. According to 2016 data from the Ministry of National Economy, 68 percent of the import volume (in metric tons) in the Gaza Strip came from Israel and the share for each of the other main commercial partners (i.e. Spain, Egypt, China, Turkey and Palestine) stood between 4 and 6 percent. In particular, half of the food imported and as much as 62 percent of wheat flour was from Israel, while another fourth of food items came from Egypt and Turkey.

Two elements stand out. One is the gaping absence of the West Bank as a main trade partner[26] and thus the confirmation that the "separation policy" implemented by Israel to sever Gaza from the rest of the Palestinian territories is working. The other is Gaza's total dependence on Israel both economically and politically.

Scholars argues that "high trade partner concentration not only renders a state more vulnerable to the disruption

[24] Except for sugar and wheat: imports of sugar through Kerem Shalom in the second part of 2013 tripled and those of wheat doubled compared to the first semester.

[25] Trade partner concentration is given by the ratio of a country's trade value going to its most important trade partner over its total trade value. It measures the "degree to which a country engages in international trade with a limited number of partner countries" (Babones & Farabee-Siers, 2012).

[26] Only in 2015 and 2016 does the West Bank emerge as a major recipient of the meagre Gazan exports.

of a trade boycott by the principal trading partners, but also increases the likelihood of detrimental effects from changes in tariffs, change in import-export patterns, fluctuations in the principal trade partner's economy" (Farmer, 1999). In the case of Gaza, the dependence is even stronger as the new Israeli shekel is the main currency in use,[27] Israel controls Gaza's borders almost completely, it prohibits or limits the entry of "dual-use" items into Gaza and it uses mathematical formulas to determine how much food should be allowed to enter Gaza (Bashi & Diamond, 2015).

3.1. Humanitarian versus commercial imports

A large proportion of the truckloads entering the Gaza Strip belong to humanitarian actors, particularly UNRWA and Qatari projects.[28] In 2012 and 2013, 46 percent of the trucks entering Gaza were humanitarian. However, the relative importance of the humanitarian sector decreased slightly thereafter and it dropped drastically in 2016, when only 12 percent of trucks entering the Gaza Strip were humanitarian. This low percentage is the result of two opposing factors: the significant increase in the number of commercial trucks crossing the border (up by 44 percent) and the contemporaneous fall in humanitarian trucks (down by 45 percent).

Figure 8 - Number of humanitarian and commercial trucks entering Gaza, 2007–2016

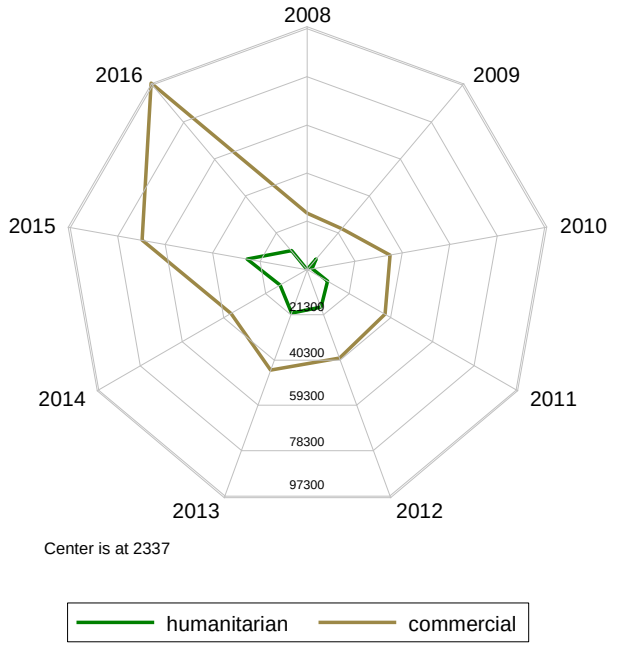
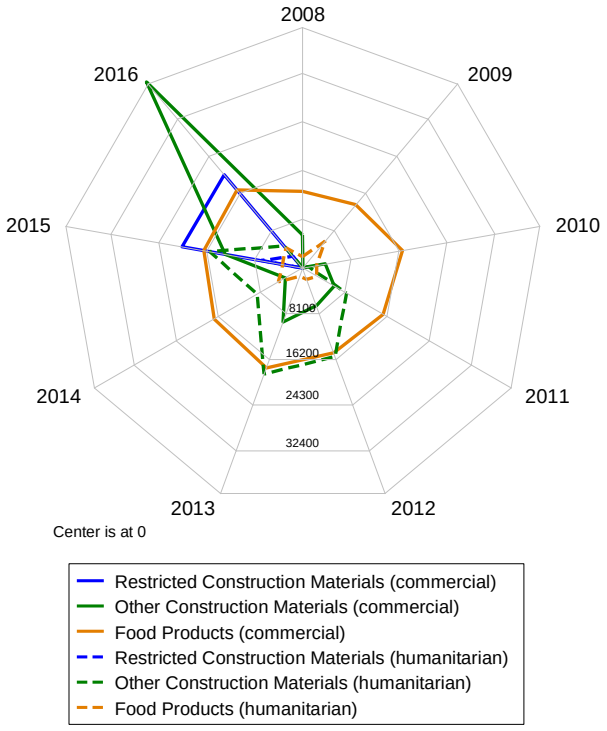


Figure 9 - Commercial and humanitarian trucks with main commodities



Source: authors' elaboration based on UN OCHA oPt data. Data for 2016 exclude December

[27] The State of Palestine has an independent banking system, supervised by the Palestinian Monetary Authority (PMA), but it does not have its own currency. US dollars, the new Israeli shekel (NIS) and, to a lesser extent, the Jordanian dinar are all used. Particularly in the Gaza Strip, NIS is preferred for business dealing, while US$ is preferred for savings; in fact, over half of the deposits are hold in US$ (according to time series data on deposits from the PMA). NIS is issued by the Bank of Israel and the PMA has no control over interest rates. "Attempts have been made to reduce reliance on the shekel, but given that the bulk of trade and tax revenue is sourced through Israel, these have had limited success." (Economist Intelligence Unit, 2017).

[28] Between January and October 2016, trucks belonging to Qatari projects and UNRWA represented 49 and 42 percent of the humanitarian trucks respectively (68 and 25 percent in terms of volume); if only the humanitarian food sector is taken into account, UNRWA dominates the scene with 87 percent of trucks and 85 percent of truckloads imported into Gaza.

Construction materials and food make up the bulk of the humanitarian trucks (between 75 and 99 percent in the last 10 years) as well as a significant share of the commercial ones (between 55 and 74 percent in the same period). Unlike imports of construction materials, the food trucks have shown a more stable pattern, but with higher volatility in the humanitarian sector (Figure 9).

Box 1 - Trade in times of conflict

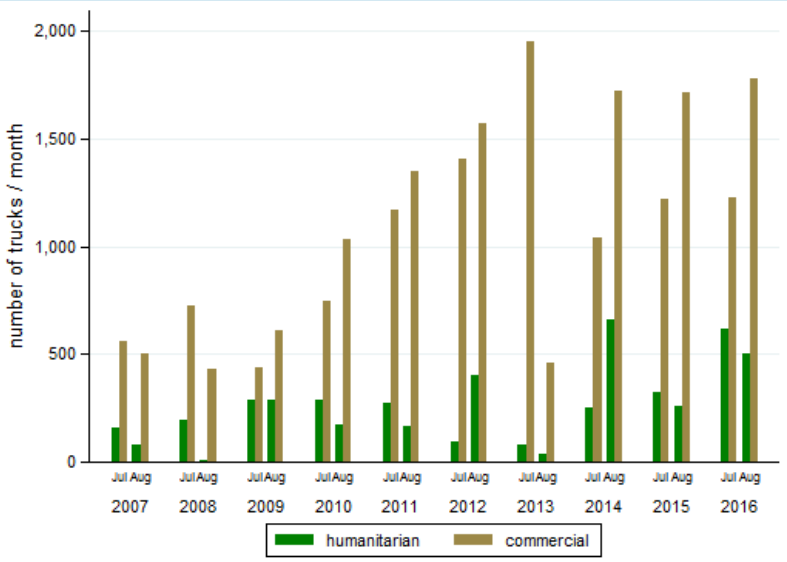
The 2014 military operation lasted 51 days and has been defined as the most devastating round of hostilities in Gaza since the beginning of the Israeli occupation in 1967. During this time, the overall number of food trucks in July and August was actually higher than the same months in previous years (between 14 and 57 percent higher).

However, the difference between the humanitarian and private sector was substantial. In July–August 2014, 1,814 humanitarian food trucks entered the Gaza Strip through the Kerem Shalom crossing, compared with 144 in July–August 2013. In fact, in response to the huge humanitarian needs, there was a substantial increase of in-kind donations moved from the West Bank into Gaza.

The number of commercial food trucks went down by 27 percent (2,763 trucks against 3,783 in 2013). Private sector activities were affected by operational challenges and some were completely interrupted.

Furthermore, humanitarian imports were prioritized at the crossing.

Figure 10 - Number of food trucks entering Gaza through Kerem Shalom in July and August by sector



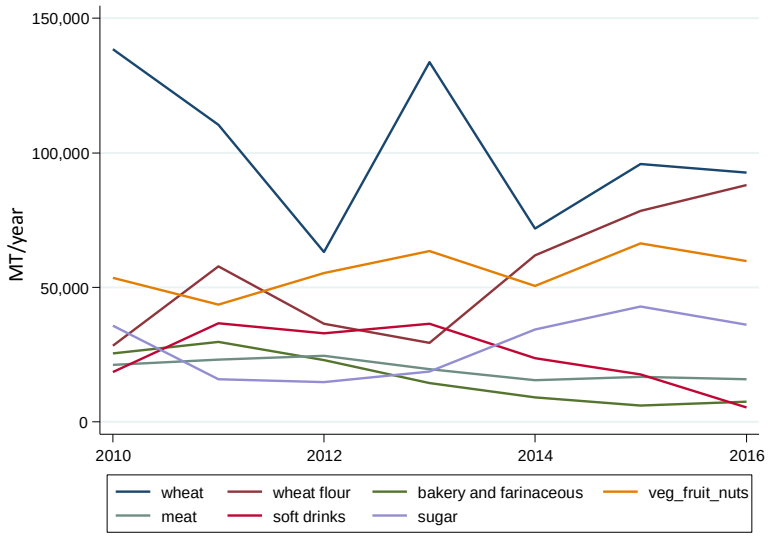
Source: authors' elaboration on Paltrade – UN OCHA oPt data

For the first time since the blockade of Egypt's Rafah crossing started in 2007, a WFP humanitarian convoy crossed from Egypt into the Gaza Strip on August 2014

3.2. Food imports and needs

Wheat, fruit and sugar are the main foods entering the Gaza Strip, and the import quantities have been increasing. This is no surprise if we consider the increasing food needs of a population that is growing by more than 3 percent every year. In particular, the number of metric tons of imported wheat flour has more than tripled since 2010. However, this has been partially offset by a drop in wheat grain imports, the main input of local mills. In other words, the data on trade confirm that the milling sector is struggling to compete with cheap or free imported flour (section 2.2). Furthermore, the contemporaneous fall in imports of meat, soft drinks and farinaceous products may reflect the weakening of Gazan purchasing power.

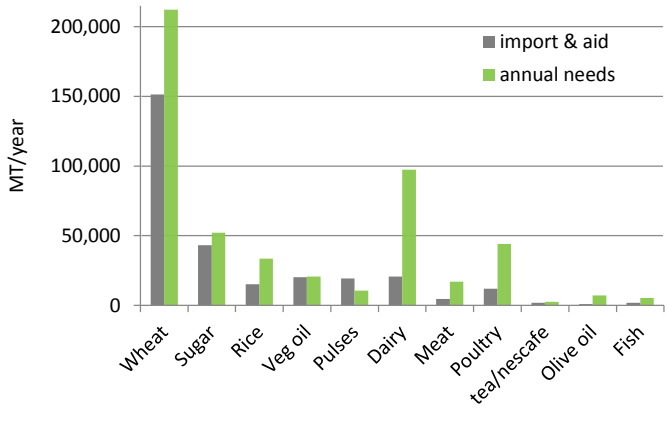
Figure 11 - Yearly quantities of selected food commodities entering the Gaza Strip, 2010–2016



Source: authors' elaboration on Paltrade – UN OCHA oPt data
Note: 2016 data excludes December import data

According to the Ministry of National Economy (2016), 2015 imports of meat, fish and dairy products covered just one fourth of the annual needs of the Gazan population; local production helped to make up the shortfall in supply. However, the condition of the local dairy and fishing sectors as described in section 2.2 seems to contradict this belief. Similarly, although less severe, the rising imports of cereal and sugar were not enough to satisfy the needs of a growing population. However, according to the same Ministry memo, the wheat and sugar deficit was ostensible because the imports of other products such as biscuits, noodles, brioches, pastries, sweets and candies offset the deficit. In fact, the Ministry reports that the supply of these products in the local market completely met the demand. The lack of comprehensive and reliable data on local food production and food manufacturing makes it difficult to estimate the real food deficit/surplus. Data on wheat grain imports suggest that the milling sector may have produced enough flour to fill the gap, but nothing is known for the other cereals and sugar. In any case, the demand for – and consequently the import/supply of – baked and farinaceous products was likely to be low simply because of weak purchasing power.

Figure 12 - Deficit/surplus of basic food commodities in the Gaza Strip in 2015



Source: Ministry of National Economy (2016)

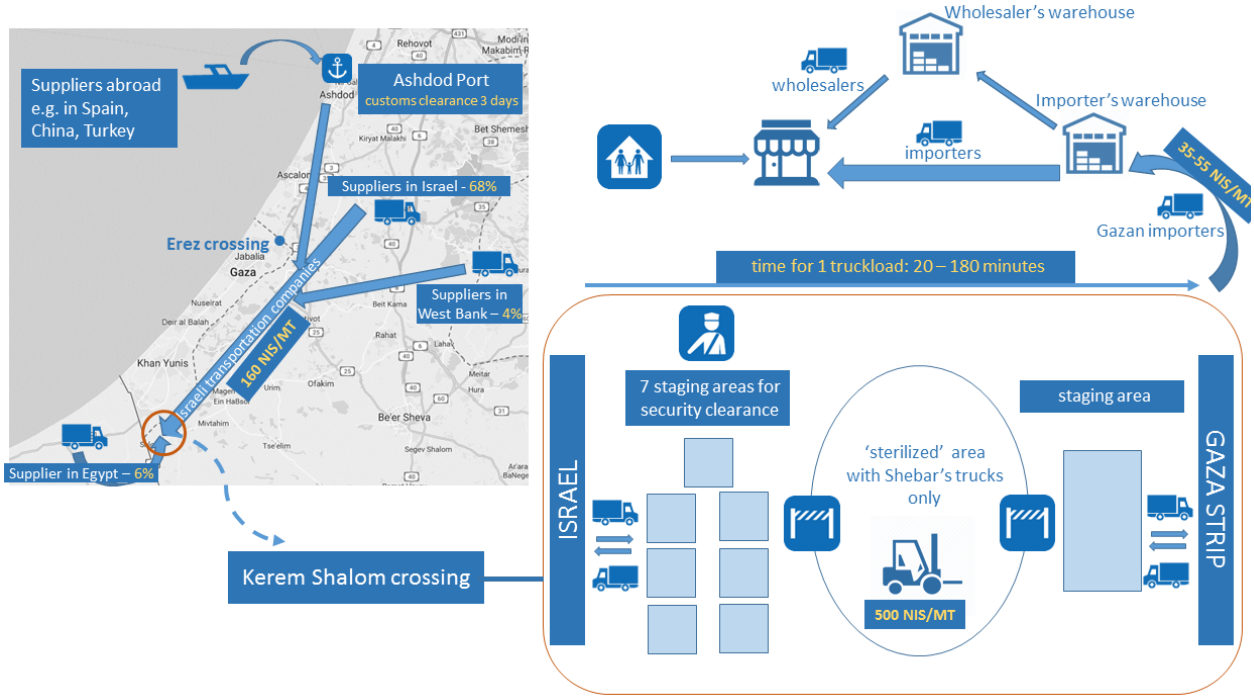
4. Supply chain route

4.1.From and through Israel to the Gaza Strip

The Gaza Strip has 40 km of Mediterranean coastline. It borders Israel to the east and north for 51 km, and Egypt to the southwest for 11 km. There is no functioning seaport or airport in the region. Currently, there is a small fishing port in Gaza City. Since the Oslo Accords (1993), there have been plans and several attempts to build a larger seaport, but construction has not yet materialised. Gaza International Airport, located close to the Egyptian border, was severely damaged by the Israeli Air Force during the Second Intifada and it has not been operational since 2002.

Today, only two out of five crossing points with Israel are regularly open: the Erez crossing opens six days a week for the movement of international workers and a limited number of authorized Palestinians including medical referrals, humanitarian cases, business people and aid workers;[29] and the Kerem Shalom crossing opens five days a week for the movement of authorized goods. The sole crossing point with Egypt – the Rafah crossing – is only open on an exceptional basis for a limited number of authorized people and a few truckloads, mainly humanitarian (UN OCHA oPt, 2016);[30] although goods from Egypt still enter Gaza through illegal tunnels (section 3).

Figure 13 - Food supply chain map



Source: authors' elaboration

[29] In October 2016, the overall number of crossings was the lowest since December 2014. Furthermore, only 309 out of 455 permit applications for business people were approved, including permit renewals, and the denial rate for national UN staff from Gaza stood at 52 percent (UN OCHA oPt, 2016).

[30] Since October 2014, the Rafah crossing has been open 72 days (UN OCHA oPt, 2016). Occasionally, humanitarian trucks with various materials have been allowed to enter the Gaza Strip through the Rafah crossing, especially in 2013 and 2014. However, this was fewer than 1,000 trucks between 2007 and 2016. In the same period, fewer than 100 commercial trucks crossed Rafah.

Consequently, there are currently four sources of food in Gaza: (1) food produced and/or processed locally, (2) food imported via Israel, (3) food obtained through illicit trade via Egypt, and (4) food received as in-kind donation from the humanitarian sector, which is also transported via Israel.

Ashdod port, in Israel, is the main port for shipping international goods

The main port for shipping international goods, Ashdod – the largest port in Israel located in its Southern District, is almost 100 km north of Kerem Shalom. Gazan businesses are not allowed to operate in the port, thus most Gazan importers rely on a few Israeli transporters with sufficient capacities and good links to the authorities to deal with clearance at the port and transportation to Kerem Shalom. However, it is expensive and time-consuming to use Ashdod port. "Because of bureaucracy, security checks and transportation requirements, it takes a Palestinian-bound container 38 days to reach its destination, compared to 10 days for a delivery in Israel. The costs are more than double" (Brilliant, 2016). On average, it would cost around NIS160/mt to move goods from the port to the crossing.

Furthermore, before moving goods to the Gazan border, traders have to communicate the number of trucks and type of goods to the Ministry of National Economy, who authorize the imports and fix the date of entry. In fact, the Ministry fixes the number of trucks that can enter Gaza by commodity (based on population needs) and type of cargo (priority is given to humanitarian vs. commercial cargo).

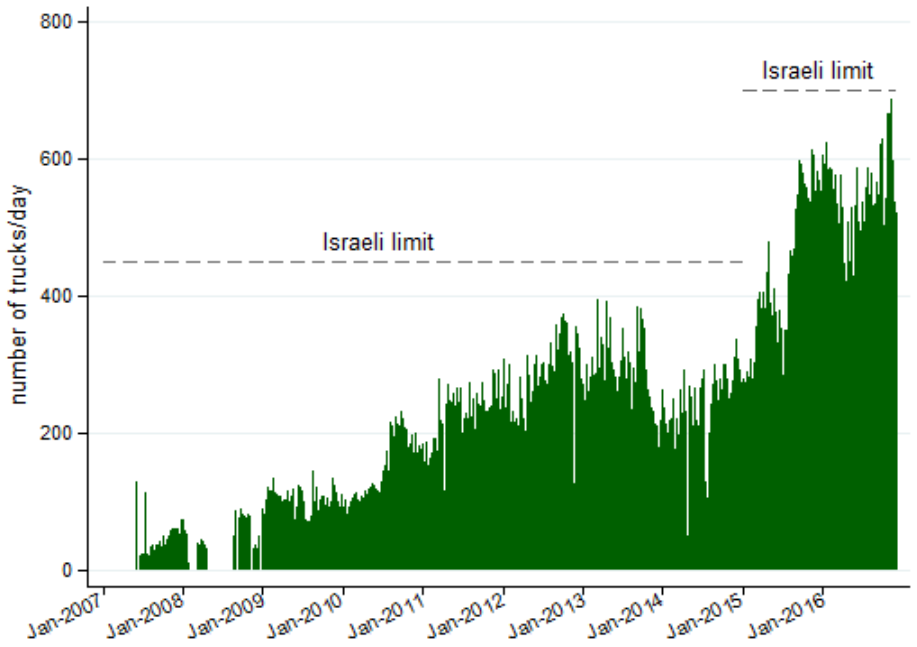
At the crossing, all the goods are offloaded by Israeli workers and are security checked before being moved from the Israeli to the Gazan border by Shebar – the only company authorized to operate in the restricted area between the Israeli and Gazan staging areas and whose trucks never leave the crossing. Shebar's operations cost NIS500/mt. From the Gazan staging area, Palestinian trucks load the cargo and transport it to Gaza. Transportation costs in Gaza usually range between NIS35 and NIS55/mt, although some importers, especially those dealing with dairy products, use their own refrigerator trucks. It is a long and complex journey that sees goods being loaded and unloaded at least six times before they reach the warehouse in the Gaza Strip, thus increasing the risk of damage.

A similar process and the same facilities are used to export goods from Gaza once the import procedures, which take place in the morning, are completed. Overall, for export and import, the Kerem Shalom crossing is open from 07:30 to 16:30[31] and it may take between 20 minutes and three hours for a truckload to cross the border. The capacity of the crossing has increased over the years and today there are seven staging areas, including a conveyor belt. According to key informants, the maximum capacity of the crossing is 700 trucks per day, of which 300 to 400 are for palleted goods. Some informants report that the maximum capacity is much higher – 1,200 trucks a day if the crossing is open for eight hours – but the small facilities on the Palestinian side make it difficult to believe that 1,200 trucks could be handled in a day. In any case, Israel has set the maximum number of trucks that can enter the Gaza Strip each day to 700 (previously it was 450[32]). The actual number of trucks crossing Kerem Shalom has never reached

[31] Source: Coordination of Government Activities in the Territories (COGAT).
[32] Logistic Cluster, Gaza Emergency – Weekly Situation Update, 2014.

this limit and has only come close to it during a few days of the last quarter of 2016 (Figure 14). Thus, the figures appear to confirm the opinion of the traders interviewed that **the border is not a constraint; it is rather an issue of low demand.** However, the complex procedures at the crossing point may cause delays, which could also explain the low number of trucks crossing each day.

Figure 14 - Daily number of trucks entering Kerem Shalom, 2007–2016



Source: authors' elaboration on UN OCHA oPt data

4.2. From the Gazan border to the household table

Shops in the Gaza Strip get their supply from Gazan wholesalers/importers or cash vans.[33] **Importers play an important role in distribution**. In particular, importers who deal with dairy products and other chilled foods reach retailers directly either with their own refrigerator trucks or simply via cash vans, if the shops have not placed orders. The main reason for this is the lack of refrigerator capacity of the wholesalers, but importers also prefer to deal with multiple shops rather than a few wholesalers in order to mitigate credit default risk.[34] According to the trader survey, 60 percent of interviewed shops have a credit line in their payment terms with their main suppliers[35] for half of their sales; however, debt usually has to be paid back within a month, mostly within two weeks. A credit line of more than one month is rare and credit for more than two months is usually a prerogative of wholesalers.

[33] The survey methodology defines cash vans as sales representatives of importers and/or distributors of fast-moving consumer goods. They are hired to work in local distribution set-ups and are responsible for a) delivering goods, b) collecting cash from the retailer network, and c) managing their van stocks. They are accountable for achieving sales and receivable targets from assigned outlets in accordance with their company's annual sales plan, and maintaining an awareness of sales and other developments among competitors. They also have to identify and exploit opportunities for additional sales by widening their product range and customer portfolio. Cash van traders regularly visit retailers to ensure the availability of specific goods at the retail point. See also (WFP, 2015).

[34] Information based on key informant interviews.

[35] The share is relatively higher among WFP-contracted shops.

In general, shops face no major problems in getting their supply, whether imported or locally produced, although 28 percent of shops interviewed reported having difficulties. For these shops, it takes on average 4.5 days to restock staples and 4.2 days for non-staple food. For the other shops, staples are restocked in 4.2 days and non-staples in 3.9 days – these are statistically significant differences.[36] The percentage of shops experiencing problems is relatively higher in Rafah governorate, and it is mainly shops with no warehouse that face planning difficulties given the volatility of imports.

Households across the Strip rely on 4,700 retailers selling food and beverages, which is about one shop for every 70 households. They are generally small shops, with a median[37] shopping area of 30 m^2 and no other branches; only one quarter of them have a warehouse. In the densely populated area of Gaza governorate, the ratio of households to shops is slightly higher (76), but shops are also bigger (median area 40 m^2) and 43 percent have a warehouse. The average daily number of customers is higher in Gaza governorate – a median of 60 customers per day against an overall median of 40.[38] In these shops, households can easily find rice, roasted or crushed wheat, canned food, pulses, oil, eggs, dairy products and sugar. Only 4 percent carry fresh vegetables and fruit, and less than one fifth stock frozen vegetables. Wheat flour is also somewhat difficult to find in shops. In Gaza governorate, half of the retailers sell flour; in other parts of the Gaza Strip, just one quarter of retailers offer wheat flour. This is unsurprising as although wheat flour is a staple food for the Gazan population, it is also the main commodity distributed by humanitarian agencies and the Ministry of Social Development.

Households can easily buy on credit in most shops (86 percent), but reduced credit has played an important role in the drop in sales of the past six months, according to 73 percent of shops. Furthermore, the high unemployment rate and poor economic conditions of households are holding back sales (section 2). The purchasing power of

[36] This is based on the two-sample Kolmogorov-Smirnov test for equality of distribution functions and 1% significance level.
[37] Median area rather than average area is reported because of high data dispersion across and within some of the governorates.
[38] For WFP-contracted shops, the average daily number of customers is over 155, excluding beneficiaries.

workers in the Gaza Strip has declined over the past decade, with a 22 percent drop in average real wages of workers between 2005 and 2014 (PCBS, 2016). Furthermore, irregular payments of salaries are not uncommon in the public sector, which employed 36.4 percent of workers in 2016 (PCBS, 2017), and in April 2017, the Palestinian Authority announced a 30 percent cut in salaries for its employees in the Gaza Strip.

Box 2 - Getting food supplies in times of war

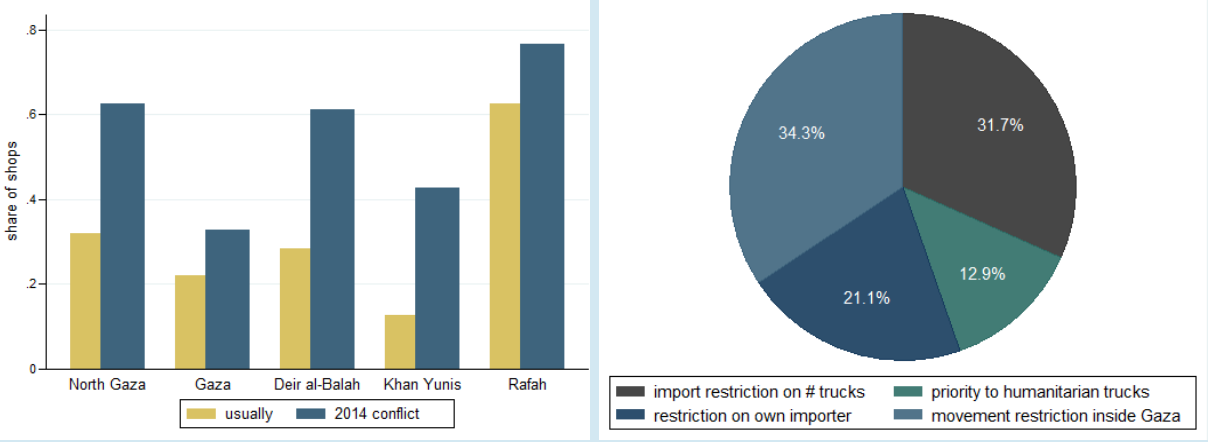
During the two months that preceded operation "Cast Lead", the conveyer belt at the Karni crossing was closed, making it impossible to import wheat grain. The consequences were dramatic: all mills – six at that time – shut down, UNRWA had to halt food distribution, and many bakeries were forced to close gradually, creating a bread shortage that lasted about one and a half months (UN OCHA oPt, 2009).

Based on trader survey data, during the 2014 war half of shops faced supply problems and their stock shrank by an average 53 percent. Conditions were particularly critical in North Gaza, Deir al-Balah and Rafah. In Deir al-Balah, shop stocks fell by 59 percent. Considering the usual average number of days needed to sell the entire stock in these shops, staple foods were probably sold out in 13 days, and non-staples in 4 days.

According to survey data, the restricted number of trucks allowed to enter Gaza and distribution difficulties were the main reasons for the shop supply bottleneck (Figure 15). Box 1 showed that the number of commercial food trucks fell by 27 percent in July–August 2014, but importers interviewed did not report any problems at the crossing. Instead, they had difficulty in reaching retailers, especially on the border with Israel, and their warehouses were damaged. Difficulties in getting the supply did not affect all goods in the same way. Dairy products, eggs and sugar suffered the most: 90 percent of retailers with supply constraints mentioned dairy products among the items most affected. The large price rise for fruit and vegetables during the war (see Appendix I) suggests that those products were also scarce. After all, the conflict was concentrated in the ARAs and as a result, a significant portion of Gaza's agricultural land was off-limits (section 2.2).

In this context, humanitarian food distribution was a lifeline, easy to scale up.

Figure 15 - Share of shops with supply constraints in 2014, by governorate and constraint



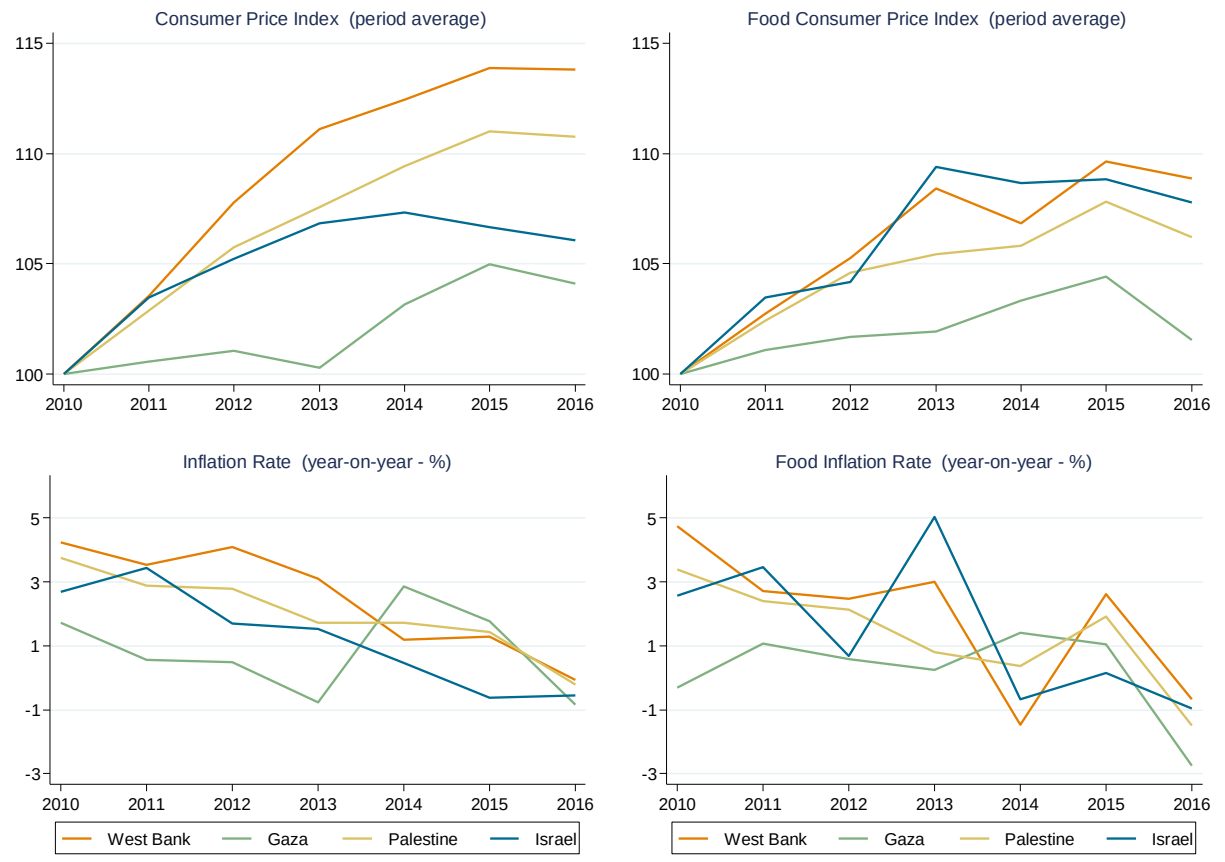
Source: authors' elaboration on 2016 PCBS-WFP retailer survey

5. Deflationary pressure and volatility

Weak local demand and economic stagnation in the Gaza Strip coupled with Israeli deflation and the fall in global fuel and food prices explain the deflationary pressure in the State of Palestine and, particularly, in the Gaza Strip. However, while inflationary trends in the West Bank closely follow Israeli trends, the Gaza Strip follows a slightly different path.[39]

Between 2010 and 2015, a clear deflationary trend emerged in the region, but price increases in Israel and especially in the West Bank outpaced those in Gaza (Figure 16), and in 2016, Gazan yearly inflation averaged at -0.8 percent (against -0.5 percent in Israel and -0.1 percent in the West Bank), driven down by a significant fall in prices for medical care (-2.9 percent) and food (-2.7 percent).

Figure 16 - Inflation and food inflation in Israel and the Palestinian territories, 2010–2016



Source: authors' elaboration on PCBS and Israeli CBS data

Food makes up a large share of total household expenditure in the Gaza Strip. According to the last Household Expenditure and Consumption Survey conducted in 2011 by PCBS, 41 percent of household expenditure was devoted to food and almost the entire food requirements had to be met by the market or food aid.[40] These facts coupled

[39] Based on survey data, international food prices are a very important factor in determining prices in Gaza for 42 percent of traders, while the closure of Gaza is a very important factor for 78 percent of shops.

[40] In fact, own production accounted for just 2 percent of food expenditure against 4 percent in the West Bank (PCBS, June 2012).

with the diminishing purchasing power of Gazan households make it crucial to understand and monitor food prices.

Since 2010, the prices of many staple foods have been significantly lower than prices in the West Bank, although a few goods such as rice and oil are around 20 percent more expensive in Gaza (Figure 17).[41] Inside the Gaza Strip, prices are rather homogeneous. No clear pattern emerges to identify an area as relatively more expensive,[42] but the southern area suffers from slightly higher price volatility.

Different factors determine low prices in the Gaza Strip, from low household purchasing power to the large presence of food aid, the likely increase in illegal imports from Egypt and the cancellation of the exclusive-agent deals.[43]

Poor economic conditions are shrinking traders' profit margins. Importers interviewed reported very small profit margins with a difference between buying and selling prices of 3 to 4 percent. The trader survey showed a slightly larger gross profit margin for shops,[44] but it was still below 7 percent.

The large-scale distribution of staple foods by humanitarian agencies negatively affects demand[45] and therefore the price of commercial products. Furthermore, as with many in-kind operations, beneficiaries monetize part of their benefit.[46] Although the volume sold is not known, the resale prices of food aid on local markets are monitored by UNRWA and they are significantly below the prices of comparable commercially available products[47] (see Appendix II). Survey data support this intuition as 69 percent of shops believe that food distribution by humanitarian organizations negatively affects food prices. Finally, the food illegally entering the Gaza Strip via the tunnels is very likely playing a role in the deflationary pressure. Key informants report that products in Egypt are bought at significantly lower subsidized prices, and the recent decision of the Ministry of National Economy to abolish the exclusive-agent agreements has made it easier for smuggled goods to reach local markets.

On the other hand, monthly price volatility is a bigger concern in the Gaza Strip than in the West Bank, for almost all staples. As a measure of volatility, Table 2 reports the standard deviation of the percentage monthly change in the real prices of selected goods. Standard deviation is calculated for the pre-2014 war period and for the past two years. In both cases, volatility is significantly higher in the Gaza Strip for all foods; the only exceptions are sugar in 2015–2016, and meat and wheat flour before the 2014 war. The benefits of low prices for poor households in Gaza are thus in reality threatened by uncertainty. Furthermore, the volatility of some staples in the Gaza Strip has been worsening in the last two years – running counter to trends in the West Bank. For example, the price of bread has ranged between NIS2/kg and NIS2.7/kg; real prices for eggs have ranged between NIS4.6/kg and NIS8.3/kg because of monthly inflation swinging between -16 percent and 22.4 percent; and real prices for meat have ranged between NIS28.7/kg and NIS34.8/kg. Finally, the high volatility of inflation for rice and pulses is also clear from Table 2. In 2015–2016, the monthly inflation rate ranged between -3.7 and 16.4 percent for rice and between -7.8 and 13.6 percent for pulses, with a price difference of more than one shekel per kilo. This volatility is somewhat unexpected as both foods are also distributed as food aid.[48]

[41] See Appendix I for the nominal price of foods in the Gaza Strip and the West Bank.
[42] The only exception is Rafah governorate for wheat flour. Based on the trader survey data, a 50 kg bag of flour costs an average NIS10 more than in the other governorates.
[43] Source: al-monitor.com
[44] The average gross profit margin was 5.9 percent for wheat flour, 5.1 percent for rice and 6.7 percent for vegetable oil.
[45] Key informants reported that demand for similar goods negatively correlates with food aid distribution cycles.
[46] Millers reported that bakeries source part of their inputs from the food aid market.
[47] On average, beneficiaries sell the flour received as aid at 80 percent of the price of the cheapest available commercial flour. Rice is sold at less than 20 percent of the price of the cheapest available commercial rice. The price of milk is resold at least three times less. No significant differences exist for oil and sugar.
[48] The volatility of wheat flour, the main food item distributed by UNRWA and WFP, is in fact quite low. In 2015-2016 the inflation rate ranged between -4.2 and 4.7 percent determining a price difference of only 0.2 shekels.

Table 2 - Price and volatility of selected foods in the Gaza Strip and West Bank (period average, 2010–2016)

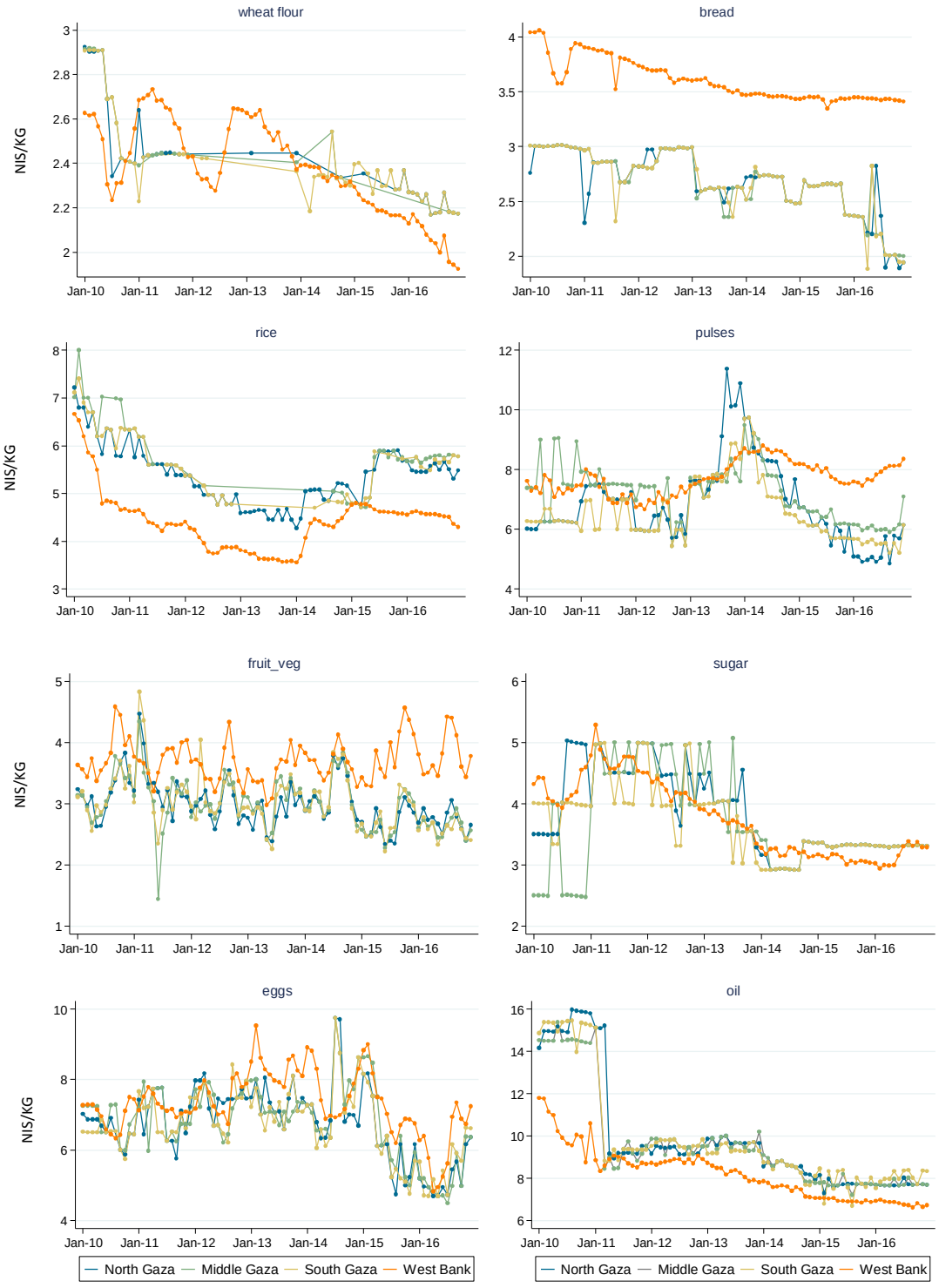
Commodity	Gaza Strip			West Bank		
	real price (NIS/kg)	δ (%Δp_m)		real price (NIS/kg)	δ (%Δp_m)	
	(2010-2016 average)	(2010-2013)	(2015-2016)	(2010-2016 average)	(2010-2013)	(2015-2016)
wheat flour	2.4	2.05	2.76	2.38	2.52	1.61
bread	2.68	2.78	7.21	3.6	2.27	0.67
rice	5.41	3.03	3.98	4.42	2.57	1.06
pulses	6.89	8.26	4.73	7.7	3.67	1.63
eggs	6.76	6.63	10.62	7.33	5.26	8.3
meat	31.77	1.73	3.25	33.69	2.3	2.21
cheese	16.82	1.96	4.11	15.62	2.03	1.35
milk	40.99	2.38	1.34	41.38	2.05	0.77
fruit & veg	3	11.25	9.11	3.7	7.94	9.38
oil	9.78	5.16	4.35	8.2	4.97	1
sugar	3.74	8.58	0.49	3.76	3.75	2.22
salt	1.18	5.18	4.51	1.56	3.55	2.67

Source: authors' elaboration on PCBS data
Note: symbol δ stands for standard deviation. *Price are deflated by the non-food CPI*

Finally, WFP currently sets a ceiling price every month for goods purchased under its voucher programme from contracted shops.[49] This measure aims to protect beneficiary purchasing power, but it was also deemed necessary because beneficiaries are assigned to shops and thus floating prices would be unfair. Based on the trader survey data, no major differences emerge between the price-setting behaviour of shops that participate in the WFP programme and those that do not.[50] However, fixing a ceiling price is not only likely to create market distortion, it could also harm beneficiaries, given Gaza's price volatility and deflation. In fact, traders may not have any incentive to lower prices or offer discounts when they can sell an item at a higher price – i.e. the ceiling price. The risk of creating market distortion and the deflationary context suggest that these measures should be relaxed. Allowing beneficiaries to choose their shops and traders to set the prices would boost competition across shops and likely favour beneficiaries.

[49] WFP monitors and registers daily prices of all the CBT items from all contracted shops and 10 non-contracted shops. Based on prices collected during the first three weeks of each month, the average prices are used as ceiling prices for the following month. Ceiling prices are only binding for beneficiaries, i.e. if prices increase, traders can charge more to non-beneficiaries.
[50] Of the three commodities investigated, only rice had slightly higher prices and gross profit margin for non-participating shops; the difference is statistically significant.

Figure 17 - Real prices of selected foods by area, 2010–2016



Source: authors' elaboration on PCBS data

Note: Nominal prices are deflated by the non-food CPI

6. The role of the local market for the humanitarian sector

More than 80 percent of the population in the Gaza Strip receives some form of international aid. This is mainly in the form of food assistance; the greatest share of distributions are carried out by UNRWA followed by WFP, with other distributions by occasional donors, such as Turkey in 2016. It is therefore unsurprising that a large proportion of the trucks crossing at Kerem Shalom belong to humanitarian actors, as shown in sub-section 3.1.

UNRWA distributes food parcels to almost 190,000 families, that is, 975,630 refugees or 72 percent of the refugee population in Gaza. WFP reaches 164,000 beneficiaries with food rations and an additional 10,000 people with wheat flour only.

Both UN agencies procure food via international tenders from the most cost-effective markets whether international, regional or local. Part of the food is procured inside Gaza and this food bulk enters Gaza through commercial channels. This means that the importance of the humanitarian sector is not fully reflected in the quantities of food crossing at Kerem Shalom (i.e. in sub-section 3.1). It also means that **part of the humanitarian aid is already absorbed/provided by the Gazan private sector** (i.e. by Gazan importers/traders).

Over the past two years, WFP has procured iodized salt and part of its wheat flour requirements inside Gaza, purchasing 45 percent of its needs from the Gazan commercial sector in 2015 and 62 percent in 2016. Similarly, UNRWA is increasingly turning to the Gazan local market to purchase part of its requirements for flour, rice, pulses and meat. In 2015, food UNRWA procured in the Gaza Strip would have covered 30 percent of its food requirements; in 2016, the local market covered 47 percent. In terms of food quantity, in 2016, the two humanitarian agencies had to import around 73,000 mt of food to satisfy their operational needs;[51] this is less than 18 percent of the food brought into the Gaza Strip by the commercial sector.[52]

However, a large portion of the UN agencies' food requirements is for wheat flour: WFP and UNRWA procured more than 65,000 mt of flour from local Gazan mills in 2016, but they still had to import almost 46,000 mt for their operations. However, **local mills would have been able to cover the UN food distribution demands entirely** (section 2.2). Thus, if we exclude wheat flour, the total amount of food that the two humanitarian agencies had to import to satisfy their operational needs falls from 73,000 mt to 27,000 mt, i.e. about 7 percent of the food brought into the Gaza Strip by the commercial sector. In other words, **if UNRWA and WFP decided to abandon GFD and adopt CBT, Gazan importers would need to increase their business by 7 percent to meet the corresponding increase in local demand**. As long as border processes did not change to prolong the time taken for goods to enter Gaza, the Kerem Shalom crossing would not become a bottleneck because the overall number of trucks would remain about the same. Furthermore, it is likely that importers would be able to increase their turnover. After all, importers interviewed in January reported that local weak demand and crowding out from food aid[53] were the main barriers to expanding their businesses. Plus, a 7 percent increase is even less than one month's turnover.[54]

Even if importers had no problem in increasing their turnover, the Gazan retail sector would then have to absorb the increase in demand. Thus, it is crucial to understand whether the retail sector is conducive to such a scale-up.

[51] The actual quantity of food imported by UNRWA and WFP is slightly higher because goods are also imported and kept as stock for emergency preparedness.
[52] Data on quantities imported in December 2016 are not available so this calculation assumes that the value for December was equal to the monthly median import.
[53] The interviews with key informants highlighted that humanitarian food distribution affects the demand for commercial products. Even millers reported that bakeries source part of their inputs from the food aid market.
[54] Importers also reported that their usual stock is equal to one month's turnover.

Switching more than 1 million beneficiaries to CBT would require contracting a significant number of new shops. Currently, WFP has contracted 75 shops to serve 72,000 beneficiaries. According to the results of the trader survey, 54 percent of non-contracted shops – almost 2,500 – would be interested in taking part in a food voucher programme.[55] If these shops had the same characteristics as WFP-contracted shops, both in terms of shop area and business volume, at least 1,100 new shops would be needed. However, these shops are smaller than WFP-contracted shops (average shop size is 53 m^2 against 102 m^2) and they have a lower average daily number of customers (79 against 155 for WFP-contracted shops). Shop owners willing to participate in a voucher programme believe that given the current set-up of their businesses, they would be able, on average, to more than double their customers and 62 percent would be able to increase their stock by a quarter in just one week; only 18 percent would be able to double their stock in the same time frame. To avoid shops becoming over-dependent on the UN operations, the scale-up for CBT might mean contracting even more than 2,000 new shops, which comes with administrative implications (e.g. for contracting and monitoring).

Although a more detailed assessment for retailer selection would be needed, the trader survey already shows that among the shops willing to be part of a voucher programme, 85 percent already use an electronic shop management system, 64 percent believe they have sufficient capacity and liquidity to be part of the programme even if reimbursement for the vouchers takes up to a month and 61 percent have prices displayed in the shop. However, only 38 percent have a bank account.

Almost all of these shops – between 82 and 99 percent – already carry all the main staples in their assortment except wheat flour. The partial lack of wheat flour[56] in Gazan shops is a sort of crowding-out effect caused by the strong presence of humanitarian actors (section 4.2). Local mills do not see any problem in changing customers[57] (from the UN agencies to retailers) and as shop owners believe they can add new goods to their current selection, the lack of wheat flour should not be a deterrent against a possible scale-up of CBT. Nevertheless, caution and a gradual increase should be adopted as retailers would need some time to establish new networks and adapt to the new market conditions.

A final consideration for this thumbnail sketch of the Gazan retail sector is the refugee camps. In fact, the potential scale-up of CBT would mainly involve refugees, and 30 percent of UNRWA's beneficiaries live in refugee camps. Based on the 2007 census and the 2012 Establishment Census (PCBS), on average, there is one shop for every 230 refugees or 40 households in camps (the ratio is one shop for every 70 households in the Gaza Strip). Over half the shops in camps want to take part to a voucher programme and they have similar characteristics to the shops outside camps. Furthermore, distances in the Gaza Strip are short and evidence from the West Bank indicates that refugees go outside the camps and into the main cities to shop. None of this offers any clear evidence that the retail sector in Gaza would not be conducive to a gradual scale-up of the current CBT interventions.

7. Threats and opportunities for a large-scale CBT intervention in Gaza

The main goal of food assistance is to end hunger, improve nutrition and achieve the food security of beneficiaries; nevertheless, the choice of the transfer modality cannot ignore the secondary impact of the intervention, the market environment and the specific challenges of the region deriving from political instability and uncertainty.

[55] In all governorates except North Gaza, more than half the shops are willing to participate in a voucher programme. In North Gaza, just 38 percent expressed an interest.
[56] The percentage of shops selling wheat flour is higher among those willing to take part to a voucher programme: 45 percent against a mere 15 percent of shops not willing to be part of a programme.
[57] Interviews with key informants carried out in January 2017 by WFP staff.

Currently, the majority of food assistance beneficiaries in the Gaza Strip receive in-kind food assistance: this is the modality for the UNRWA's entire caseload and for 67 percent of WFP's beneficiaries. The current CBT intervention reaches 7 percent of those who receive food assistance. In this context, this study investigated whether the market would be conducive to a scale-up of CBT and what the main risks would be, exploring the choice between maintaining the in-kind modality and gradually switching to CBT.

Certainly both modalities have positive and negative aspects. Large-scale **food distribution has inevitably introduced some distortions in the market**: the crowding-out effect has pushed down the demand for, and consequently the price of, commercial products (sections 2.2 and 5). However, **in-kind distribution was a safe shelter during the 2014 war**. In fact, although no special restrictions were put in place, the number of commercial trucks carrying food products that entered Gaza in July–August 2014 dropped by 27 percent compared to the same period in 2013, while the humanitarian sector was able to substantially increase its imports – which were 12 times higher than in July–August 2013 (see Box 1). Gazan importers and local millers could only partially reach the retailers by distributing their stock; movements inside Gaza were also restricted and many shops faced supply problems. However, it is also true that WFP was able to scale up its voucher intervention reaching a further 300,000 beneficiaries, and this sudden increase in demand may have partially taken the shops by surprise.

Looking at the voucher programme, a 2014 study (WFP, 2016) showed that the **WFP voucher programme not only improved dietary diversity** amongst beneficiaries, **it also had a positive secondary impact on the local economy**, although the effect diminished (see Box 3). On the other hand, the WFP measure of **fixing the price for the goods included in the programme could interfere with the market.** Although current survey data show no significant price differences between contracted and non-contracted shops, fixing a ceiling price is likely to create market distortion if there is a huge increase in CBT and, given the current volatile and deflationary context, it could harm beneficiaries (section 5).

From a cost-efficiency and benefit analysis, both transfer modalities have positive and negative aspects. In-kind distribution has the well-known advantage of VAT exemption, whereas the VAT accrued in retail shops is currently not reimbursed to the UN by the government for CBT operations. Thus, all things being equal, in-kind distribution would be 16 percent cheaper.[58] A rough estimate of the average cost of the two modalities based on actual financial expenditure and beneficiary numbers confirms that **the voucher programme is 22 percent more expensive** in the entire State of Palestine, working out at US$91.1/person vs. US$74.4/person for in-kind (WFP, 2016). However, as also mentioned by the external evaluation of WFP Palestine's portfolio, one of the reasons for the cost disparity is the different composition of the food basket of the two modalities. In fact, although both baskets are meant to cover 60 percent of a beneficiary's dietary energy requirement, the voucher programme basket aims to increase dietary diversity by including "dairy and fresh produce, often more expensive than the items provided in the in-kind ration" (WFP, 2016). In the event of **a complete shift to CBT interventions**, the absence of food aid on one side and the

[58] Although tax reimbursements from the Palestinian Authority have not been obtained since 2010 because of the Palestinian Authority's financial constraints.

money injected in the Gazan economy on the other **will likely contribute to an increase in food prices** further increasing the cost of the voucher programme or reducing the already low purchasing power of the beneficiaries. **However, there is also a benefit loss with the in-kind intervention – although it is difficult to quantify – for beneficiaries as they re-sell part of the food aid they receive at a low price.** In 2016, beneficiaries sold the flour received as aid at a price which was on average 30 percent lower than a similar commercial product. In summer 2016, commercial flour was 60 percent more expensive. The average price difference was even higher for rice (80 percent) and milk (107 percent) (see Appendix II for more details).

WFP's success in scaling up CBT during the 2014 crisis suggests that an increase in local demand coming from the gradual shift of 164,000 WFP beneficiaries to a voucher programme could easily be met by the local market. Moreover, **the market analysis above reveals no discouraging evidence for the adoption of a CBT intervention** even for UNRWA's beneficiaries. In fact, despite the constraints of an economy under siege, the food retail market is functioning (section 4.2). The existing food deficit in the region appears to be the result of weak demand, not lack of supply. The Kerem Shalom crossing is operating below maximum capacity, and importers have the financial capability to import more. Yet, the lack of demand arising from the continuously decreasing purchasing power of the Gazan population disincentivizes importers from expanding their businesses. The scale-up of the voucher programme would create that demand. Section 6 shows that, if we exclude wheat flour and if all current UNRWA and WFP beneficiaries are included in a voucher programme, Gazan traders would need to import just 7 percent more food. This percentage goes up to 18 percent if we include flour (section 6). However, the millers would be likely to take the flour market as they have the capacity to meet all of Gaza's needs (section 2.2). The quantity of wheat flour demanded would probably fall slightly compared with the quantity currently distributed as beneficiaries would likely diversify their diets. Finally, the potential injection of money – about 4-5 percent of GDP – into the Gazan economy that would come from the scale-up of CBT would be likely to have a positive secondary impact on the local economy. Although this effect would be limited, it would offset – at least partially – the loss of jobs linked with in-kind food distribution.

Market functionality may not be a constraint to a large-scale CBT intervention, but **political uncertainty and confrontations with Israel would advise caution in totally dismantling the in-kind pipeline**. The likelihood of a total closure of the border only for the commercial food sector seems quite low, and there is clearly the perception that a significant drop in available food is not in anybody's interest. However, as mentioned above, private sector imports fell sharply during the 2014 war, and Israeli caused a wheat flour shortage during the 2008–2009 hostilities (see Box 2). If all in-kind distribution were to switch to CBT, reinstating in-kind distributions for more than 1 million people could take up to 3 or 4 months. Furthermore, if the restriction on importing non-food items (i.e. "dual use" items) was lifted, the current capacity of the Kerem Shalom crossing could mean that not enough food trucks would be able to enter Gaza – or else some Gazan importers might simply switch from food imports to more profitable goods. If in-kind distribution remains in place, humanitarian trucks will always have preferential treatment at the crossing.

Box 3 - The wheezing economy may hold back the CBT multiplier effect

Two studies conducted in 2014 and 2016 on the secondary impact of WFP's voucher programme in Palestine (WFP, 2014) (WFP, 2016) *found a clear positive secondary impact of the programme on the local economy in terms of increased sales, new business investments and job creation for the shops and the dairy processors who participated in the scheme. However, the aggregate figures hide significant differences between the West Bank and the Gaza Strip, and between 2014 and 2016.*

In a simplistic way, the secondary economic impact induced by the vouchers is derived by looking at the difference between the difference-in-difference reported average monthly sales and the average monthly value of vouchers redeemed by beneficiaries in participating shops. Assuming that the additional sales are induced purely by the electronic voucher sales, the two studies report that in the State of Palestine each voucher dollar redeemed by beneficiaries generated 40 cents of additional sales for participating shops in 2014 and 36 cents in 2016. However, the values are much lower in the Gaza Strip, where each voucher dollar generated just 24 cents of additional sales in 2014 and 16 cents in 2016. Thus, the secondary impact of the voucher programme in the Gaza Strip is not only weaker, it also shrank significantly more in the last two years (-34 percent versus -12 percent in the entire State of Palestine).

The story told by these numbers does not change when sales are deflated by the CPI. Still, in Palestine each voucher dollar redeemed by beneficiaries generated 38 cents of additional sales in 2014 and 35 cents in 2016. In the Gaza Strip, additional sales for participating shops were only 22 cents in 2014 and 13 cents in 2016 for each dollar redeemed. Thus, in real terms, the impact fell by 41 percent in the Gaza Strip versus only 8 percent in Palestine.

The overall impact may even be lower given that, on average, sales dropped in the non-participating shops of the comparison group in 2014 and in 2016. The balance remains positive, but in 2016 the overall sales increase was only 40 percent of the voucher value redeemed.

Even though the CBT multiplier effect is not properly calculated, the two studies report that the additional sales were re-invested by participating shops to improve the shops themselves and the majority of shop owners attributed this investment to the increased sales and business activity induced by the programme. Similarly, shop owners reported creating additional full-time jobs (50 percent more in 2014 and 41 percent more in 2016 compared to the baseline versus 6 percent and 2 percent for the comparison group).

Furthermore, the sales of participating dairy processors almost tripled in 2014 and were six times higher in 2016 when compared to the pre-programme sales (sales of non-participating processors were 1.6 times more in 2014 and they tripled in 2016). The number of workers in participating processors also went up by 33 percent in 2016. However, in absolute terms, this means that only 14 new full-time jobs have been created since 2013 (vs. 13 for non-participating dairy processors).

Finally, both studies report that the impact of the voucher programme did not trickle down to the farmers.

The secondary impact of the voucher programme on the local economy therefore appears limited. After all, the programme reaches just 4 percent of the Gazan population and injects in the economy a value equal to 0.3 percent of GDP. But most importantly, the impact is weakening.

Although it is not easy to extrapolate the possible impact of a large CBT scale-up on the local economy based on the above and to do so would go beyond the scope of this study, the trend shown by the two WFP studies, the severe constraints to the productive sectors (section 2.2), the high poverty rate, skyrocketing unemployment and the decreasing purchasing power of workers (section 4.2) all suggest that the CBT multiplier effect on the Gazan economy would probably be low.

8. Concluding remarks

The complex political situation of the State of Palestine – with the dispute with Israel and the *de facto* division of Palestine into two separate entities – created and keeps fuelling a climate of uncertainty that is dismantling the Gazan economy and pushing more and more people into poverty and food insecurity.

In a region which keeps facing many challenges (section 1), the humanitarian sector plays an essential role but at the same time it is a potential source of worry. In fact, when more than 60 percent of the population receives some sort of food aid,[59] the possibility of creating market distortions is very real. Similarly, contracting 2,000 shops to provide food assistance could also have a distortive effect on the markets.

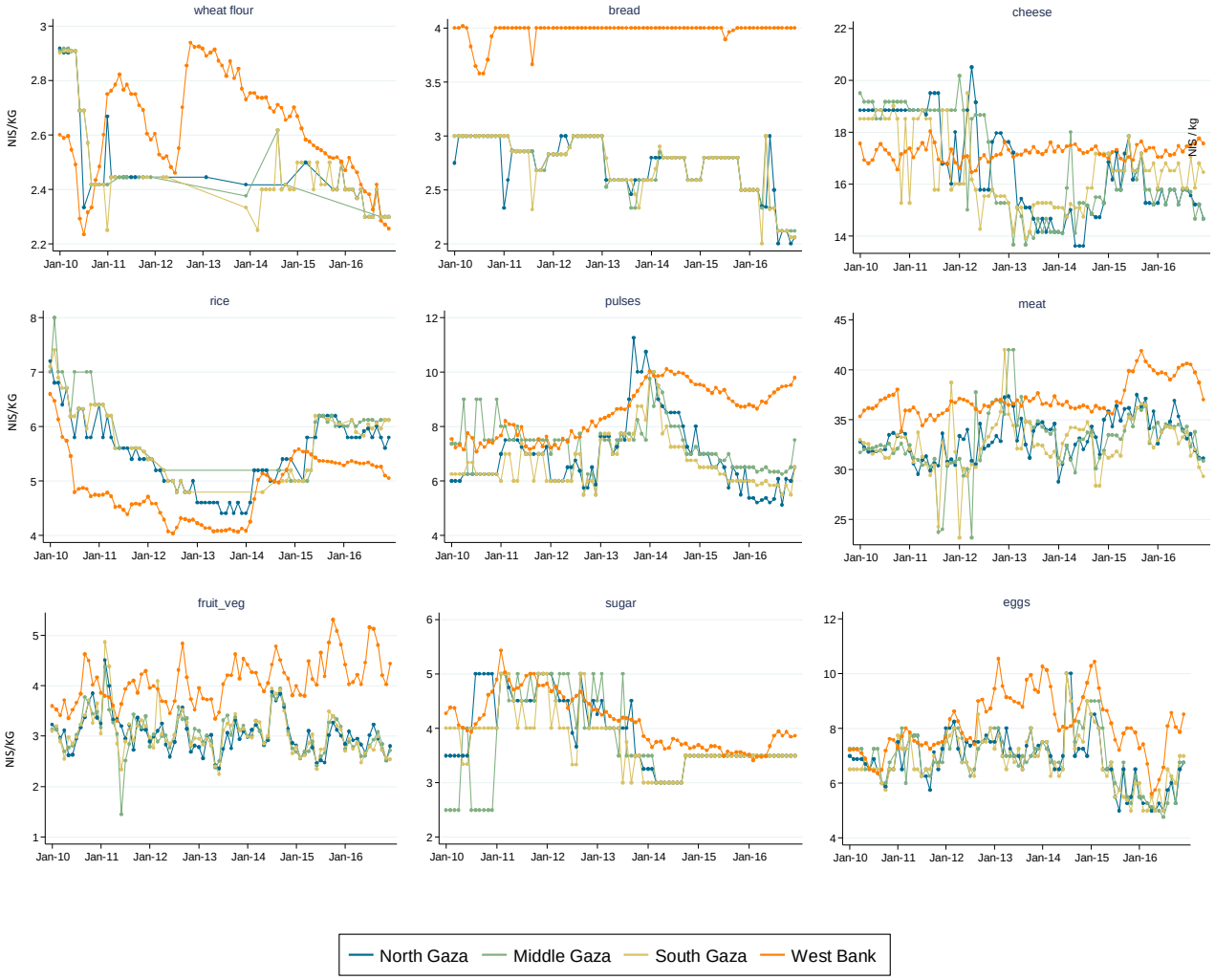
The economic and market analysis conducted in this report coupled with considerations about the complexity and uncertainty of the socio-political situation shed some light on the feasibility of a large CBT intervention in the Gaza Strip. In conclusion, the report offers the following recommendations for decision-makers:

- ***A partial and gradual scale-up of the CBT intervention in the Gaza Strip***. The market environment does not pose any substantial constraints for a large CBT operation in Gaza; furthermore, the limited positive secondary economic impact of the current WFP voucher programme as well as the higher impact of vouchers compared with in-kind distribution in improving household food security support a more far-reaching implementation of CBT. However, because of the clear need to keep the humanitarian food pipeline open, the operational constraints in contracting possibly over 2,000 new shops (unless a different CBT modality is implemented) and the potential inflationary pressure triggered by the lack of food aid and the money injected in the economy all suggest that shifting to CBT for the entire WFP and UNRWA caseloads would be risky. Thus, the recommendation is for a gradual and partial scale-up of the CBT intervention in the Gaza Strip. The partial scale-up is justified by the need to keep the in-kind pipeline open in order to mitigate risk. The gradual nature of the scale-up would be extremely important to mitigate the risk of a supply failure. In fact, 10 years of isolation have severely damaged the economic fabric in Gaza and economic actors would face the challenge of re-adapting to markets and rebuilding networks (section 2.2). Furthermore, a gradual change would help identify and address any potential market distortion, and the gradual market adjustment to the increase in demand would be likely to offset the inflationary pressure.
- **Retailer sector assessment**. Although the quick overview of the Gazan retail sector contained in this market assessment depicts a sector able to cope with a significant increase in demand arising from a CBT scale-up (sections 4.2 and 6), a follow-up and more detailed analysis of retailer capacity to participate in a voucher programme is needed in the event of a large CBT scale-up.
- **Retention of the in-kind pipeline for emergency preparedness and response.** The unstable and complex socio-political situation in the Gaza Strip coupled with the constraints of the private sector and the crucial role played by humanitarian actors during the last two wars (Box 1 and Box 2) underline the importance of keeping the in-kind pipeline open.
- **Price monitoring activities.** The volatility that characterizes food prices in the Gaza Strip (section 5) and the possible inflationary pressure caused by the contemporaneous reduction of food aid in the market and the money injected into the economy mean it would be important to monitor food prices closely.
- **Revision of the current CBT modality.** The practice of fixing a ceiling price in the contracted shops should be closely analysed and eventually revised. The risk of creating market distortion if a large CBT scale-up is implemented and the potential harm for beneficiaries given the volatile and deflationary context (section 5) would suggest that this measure should be abolished and beneficiaries should be allowed to choose their shops. This would boost competition across shops and likely favour beneficiaries.

[59] This percentage refers to the WFP and UNRWA caseload.

Appendices

Appendix I - Nominal price of selected foods by area, 2010–2016

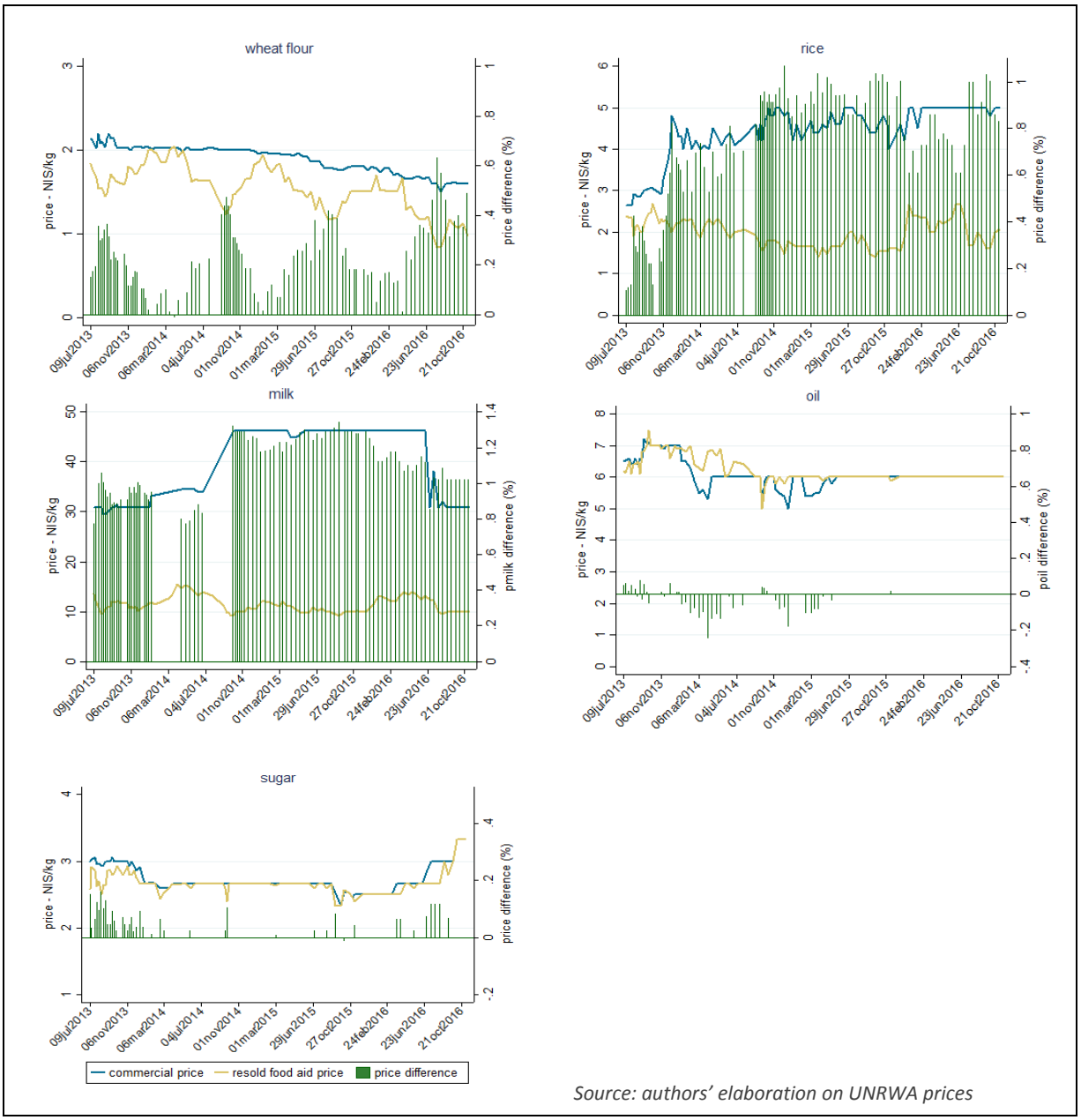


Source: authors' elaboration on PCBS data

Appendix II - Prices of commercial products vs. resold food aid

The UNRWA Gaza Field Office has been monitoring weekly prices of selected food items since July 2013. At the beginning of the series, prices were collected for 3 to 5 weeks per month. In the last two years, prices were collected for 2 to 3 weeks per month, and occasionally only 1 week. UNRWA prices are not comparable with PCBS series as they do not follow the same product (i.e. same brand and size) across time. UNRWA collects the price of the "cheapest" available brand for each food item, so the product may change over time. In fact, its aim is to capture changes in food expenditure for poor households rather than the average population. The assumption is that for low-income households, price rather than brand is the discriminating factor in consumption choices. The consequence is that the price volatility of UNRWA series may be due to changes in the brand monitored.

UNRWA's price series include also food aid resold by beneficiaries in the black market. The graphs below show the price difference between resold food aid and similar commercial products.



Source: authors' elaboration on UNRWA prices

Appendix III - PCBS methodology for the 2016 trader survey in the Gaza Strip

(Inputs for this appendix have been produced by PCBS)

Survey frame and sample

Target population:

This consists of all establishments (retailers and wholesalers) that sold food, beverages and household goods in the Gaza Strip in 2016.

Sampling frame:

The sampling frame comprises all establishments (retailers and wholesalers) that sold food, beverages and household goods in the Gaza Strip that were counted in the Establishments Census in 2012.

Sample size:

The sample size is 1,181 establishments.

Sample distribution over governorates:

Governorate	Frame size	Sample size	Respond sample
North Gaza	1,268	233	173
Gaza	2,142	300	205
Deir al Balah	954	216	166
Khan Yunis	1,336	233	181
Rafah	874	199	134
Total	**6,574**	**1,181**	**859**

Sample design:

The sample is one-stage stratified systematic random sample.

Sample strata:

The population was divided into three levels:

First level: Governorate

1. North Gaza
2. Gaza
3. Deir al Balah
4. Khan Yunis
5. Rafah

Second level: size of workforce

1. 1 to 2 employees
2. 3 to 7 employees
3. 8 employees or more

Third level: economic activity (ISIC revision 4) on five digits.

The sex of the food store owner was considered as an implicit stratum.

Weighting:

The weight of statistical units (sampling unit) in the sample is defined as the mathematical inverse of the selection probability where the sample of the survey is a one-stage stratified systematic random sample. We then adjusted the weights depending on the results of the interviews.

Distribution of response:

The survey sample consisted of 1,181 establishments in the Gaza Strip: 859 establishments completed the interview.

Result of Interview	**Number of cases**
Completed	859
Permanently closed (over coverage)	276
Temporally closed (non-response)	5
Unknown address (non-response)	5
Refuse (non-response)	21
Non-existent (over coverage)	4
Other (over coverage)	11
Total	**1181**

Equations of responsiveness and failures to respond:

Indicator	**Equations**	**Result**
Percentage of increased inclusiveness errors	= Total cases of increased inclusiveness x 100% Number of cases of the original sample	= 24.6%
The percentage of non-response	= Total cases of non-response x 100% Original sample net size	= 3.5%
Net sample	= original sample - (cases of increased inclusiveness)	= 890
Response rate	= 100% - the percentage of non-response	= 96.5%

Accuracy of the data

Fieldwork:

✓ Training

1. Field workers from the Gaza Strip were trained through video-conferencing.

2. The training was held over three days from 23 to 25 October 2016:

   - PCBS & WFP Committee Members have the experience and capacities to administer the survey cloud and questionnaire.
     The technical committee included members from each of the following directorates: Information Systems, Standards, Methodologies, and Quality and Fieldwork. It was chaired by the Economic Statistics Directorate.
   - Field Workers:
     All field workers were selected from those who had previously worked with PCBS in economic surveys and who held a university degree in accounting, business management or financial and banking sciences. The interviewees were called upon in accordance with the survey requirements, the governorate and the workload at each governorate. The work team were invited to a training course to explain the objectives

of the survey and the questionnaire.
Throughout the three days of training, 32 field workers attended and 27 of them were selected for work based on a test exercise to evaluate training results and field worker qualification.

3. Each field worker received a package containing a questionnaire, training manual and validation rules.

4. On the last day of training, a pilot of two questionnaires was filled out in the field as a trial. These were then reviewed to highlight any weak points of the questionnaire.

5. According to the notes taken on the weak points of the questionnaire, adjustments were made. The questionnaire was then modified by PCBS team before fieldwork started.

✓ Field Workers

1. Field workers were distributed into various levels of supervision, and monitoring took place according to the following divisions:

- Field workers
- Field worker supervisors
- Fieldwork auditors
- Fieldwork coordinator (each with monitoring responsibilities)

2. Project management received a daily report on progress and response rates.

3. During fieldwork, frequent visits took place to confirm interviewers' performance and commitment to the instructions. During these visits inquiries were answered and clarified as well as problems resolved.

✓ Data Collection

- A face-to-face interview methodology was adopted using paper questionnaires.
- WFP team was present during part of the data collection period.
- The data collection started on 30 October and ended on 14 November 2016.

<u>Data Processing</u>

Data processing went through several phases from the start of the preparation of data collection until the end of the fieldwork; the period included the following:

1. Programming phase
Data entry programs were prepared using the *ACCESS* package and data entry screens were designed; rules of entry were set up to ensure the successful entry of questionnaires and verification instructions to check data after each entry. These instructions examined the variables on the questionnaire level.

2. Training field workers and data editors
Automated auditing mechanisms were prepared and provided covering the requirements of data processing for the fieldworkers and data editors.

3. Receiving and controlling questionnaires
In this phase, questionnaires were received from the fieldwork using specially prepared forms. Employees checked the questionnaires and ensured they had received all of them using a form prepared for this purpose.

4. Data entry phase
Data entry process began on 3 November 2016, at the same time as employees were trained to use the data entry and cleaning program. If the data of the questionnaire did not match the data entry program, the questionnaire was returned to the project manager to work on having it processed or returned to the field. Entry data ended on 16 November 2016.

5. Verification phase

Verification rules of a comprehensive mechanism were set up among the questions at the questionnaire level to identify responses that were beyond the scope of the question or illogical. This was carried out regularly through a special program. The editing team reviewed the error messages and corrected the mistakes based on the changes or by returning the questionnaire to the field. The mechanism of how to follow up on verification was prepared by the project management and was reflected in the entry program by the programmer where the necessary inspections were set up. The inspections included all questions in the questionnaire.

Data quality

To ensure the quality and consistency of data, a set of measures was introduced as follows:

- A data entry program was created before data collection began.
- A set of validation rules were applied to the program to check the consistency of data.
- The efficiency of the program was pre-tested by entering a few questionnaires including incorrect information and checking its efficiency in capturing the incorrect information.
- Well-trained data entry personnel were selected and trained for main data entry.
- Data files were received by project management to be checked for accuracy and consistency: correction notes were provided to data entry management for implementation.

Problems and obstacles

The survey encountered a number of obstacles.

1. The sampling frame was conducted based on the Establishments Census 2012. This is an old frame which led to high rate of incomplete status for commercial shops. For instance, very small enterprises did not match the enterprise definition. There were also repeat businesses, shops that had been destroyed by the war in 2014 and shops that had simply closed.

2. The bad economic situation caused a change in economic activity and the closure of shops.

3. In many cases, fieldwork coordinators were forced to visit non-responding enterprises to convince them to complete the questionnaire.

4. Financial issues delayed the interviews and in most cases, led business owners to decline to respond.

5. Because of the high rate of incomplete surveys and rejection, we had to upload additional samples.

6. The shop owners were unavailable in some cases, which meant interviewers had to revisit businesses.

Concepts and definitions

Locality: a permanently inhabited place, with an independent municipal administration or other type of adopted administration.

Statistical unit (enterprise): An economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and transactions with other entities.

Employed persons: Men and women working in the enterprise, including owners, self-employed, unpaid family members, or waged workers who receive their compensations in cash or in kind during a specific reference period. However, this term does not include trainees, those on assignments outside the enterprises, or those on long unpaid leave.

Value added: Value added is a central concept of production and refers to the generated value of any unit that carries out any productive activity. Gross value added is defined as the value of gross production less the value of

intermediate consumption.

Compensation of employees: Compensation of employees is the total remuneration, in cash or in kind, including social security contributions, payable by an enterprise to an employee in return for work done by the latter.

Economic activity: The activity generating the majority of value added for the enterprise. The UN International Industrial Classification of all Economic Activities, fourth revision (ISIC-4), was used for coding at the five digit level.

Cash vans: Sales representatives of importers and/or distributors of fast-moving consumer goods. They are hired to work in local distribution set-ups and are responsible for a) delivering goods, b) collecting cash from the retailer network, and c) managing their van stocks. They are accountable for achieving sales and receivable targets from assigned outlets in accordance with their company's annual sales plan, and maintaining an awareness of sales and other developments among competitors. They also have to identify and exploit opportunities for additional sales by widening their product range and customer portfolio. Cash van traders regularly visit retailers to ensure the availability of specific goods at the retail point.

Shop size:

- **Large shop:** Typically supermarkets with a large variety of items and inventories. The size of the selling area exceeds 120 m^2. It has a large/medium stock or warehouse nearby. The shop has more than two cashiers, although not necessarily two point-of-sale (POS) machines.
- **Medium shop:** These have relatively less variety of items and inventories, as well as smaller floor space compared to large stores. The shop size (selling area only) is between 70 m^2 and 120 m^2. It has either a medium-sized stock/warehouse nearby or a large warehouse far from the shop. It has two cashiers.
- **Small shop:** These include neighbourhood stores known as *dekeneh* that serve a local clientele who purchase smaller quantities but more frequently. The size of the selling area is less than 70 m^2. It has a small or no stock/warehouse. It has only one cashier.

Appendix IV - PCBS Trader Survey Questionnaire

(Inputs for this appendix have been produced by PCBS)

A package was received from WFP that contained the questionnaire along with the concepts used. The questionnaire was then redesigned and translated from English to Arabic by PCBS staff.

The questionnaire was redesigned to meet the objectives of the study, and essential variables required to identify characteristics pertinent to the market assessment of the Gaza Strip were added. PCBS and WFP teams worked together to adapt the questionnaire to the Gaza case, and it now covers the following variables:

1. General information (Profile and Introduction)
2. General characteristics of traders and the trading business
3. Supply chain
4. Changes in business operations, access to markets and credit
5. Prices
6. Gender and economic activity

Part One: Profile and Introduction

<table>
<tr><td colspan="4">ID00: Establishment Serial number (office): ☐☐☐☐☐☐☐</td></tr>
<tr><td colspan="2">☐☐☐Serial Number (office) :ID1</td><td colspan="2">ID01: Governorate
……</td></tr>
<tr><td colspan="2">ID02: Locality ……..☐☐</td><td colspan="2">ID03: Shop’s Name
……</td></tr>
<tr><td colspan="4">ID04: Address in detail ……</td></tr>
<tr><td colspan="2">ID05: Respondent Name
……
ID05-1: Are you the owner of this shop: 1. Yes 2. No ☐
ID05-2: Sex of respondent: 1. Male 2.Female ☐</td><td colspan="2">ID06: Tel. No. ☐☐☐-☐☐☐☐☐☐</td></tr>
<tr><td colspan="4">ID07: Mobile. No. ☐☐☐☐-☐☐☐☐☐☐</td></tr>
<tr><td colspan="2">ID08: Years in current business (shop's owner) ☐☐</td><td colspan="2">ID09: Number of years in current premises (shop’s owner) ☐☐</td></tr>
<tr><td colspan="2">If ID05-1 is “No”, answer the below questions:
ID10: Name of shop owner:----------
ID10-1: Gender of shop owner 1. Male 2.Female ☐</td><td colspan="2">ID11:Highest level of education of the shop’s owner:
1. Illiterate
2. Bachelor’s degree
3. Elementary
4. Higher diploma
5. Preparatory
6. Master’s degree
7. Secondary
8. Ph.D
9. Intermediate level diploma</td></tr>
<tr><td colspan="4">Interview Record:</td></tr>
<tr><td rowspan="2">Interview Date</td><td>IR01 Day</td><td>IR02 Month</td><td rowspan="2">2016</td></tr>
<tr><td>☐☐</td><td>☐☐</td></tr>
</table>

IR03	Field Worker Name:	**IR04**	FW No.	☐☐☐☐☐	**IR05:** Date: ...../ / 2016
IR06	Data entered:	**IR07**	Data Entree No.	☐☐☐☐☐	**IR08:** Date: ...../ / 2016
IR10	Supervisor's name:----------	**IR11**	Supervisor's No	☐☐☐☐☐	**IR12:** Date: ……../ / 2016
IR13	Auditor's name: --------	**IR14**	Auditor's No.	☐☐☐☐	**IR15:** Date: ……../ / 2016

IR09: Interview result **1.Completed**		
IF it is not completed please choose the reason:	2.Establishment is permanent closed	3.Temporary stopped
	4.Doesn't find the address	5.Refused
	6.Establishment Not exist	7.Other (specify): ----------

Part Two: General Characteristics for shops

A01	What is the type of ownership for this shop currently: **1. Own 2.Rent 3. Free 4.Other specify: ----------**
A02	Does this shops has other branches (inside Gaza Strip): **1. Yes 2.No (move to A03)**
A02-1	If **yes**, how many of branches do you have (inside Gaza Strip): ☐☐☐ **branches**
A03	Specify your trading activity? **1.Selling at retail level** | **2.Selling at wholesaler level** | **3.Both** ☐
A04	Which is your **major** trading activity? **1.Selling at retail level** ☐ | **2.Selling at wholesaler level** ☐
A05	What is the type of your customers: (you can choose more than one choice) **Type of your customers:** | **1. Yes 2. No** 1. **Consumers** ☐ **2. Retailers** ☐ **3. Wholesalers** ☐
A06	Define the type of the shop (Don't ask trader): **1.Large store** ☐ **2.Medium store** ☐ **3.Small store** ☐
A07	Please indicate the type of products you trade whether food or non-food products? 1. Wheat flour ☐ 2. Rice ☐ 3. Roasted or crushed wheat ☐ 4. Fresh fruits and vegetables ☐ 5. Canned meat and fish ☐ 6. Other canned food (chickpeas, beans, foul, etc.) ☐ 7. Frozen vegetables ☐ 8. Pulses (lentils, chickpeas …etc.) ☐ 9. Raw pulses (lentils, chickpeas, etc.) ☐ 10. Dairy products ☐ 11. Eggs ☐ 12. Sugar ☐ 13. Sweets ☐ 11 Vegetable Oil / Olive Oil ☐ 12 Main Non-food items **(please specify):----------**
A08	Estimated the area of the shop without the warehouse (store) in meter square : ☐☐☐☐ m^2

A09	Do you have one or more warehouse(s) to restore food/non-food items? 1. Yes 2.No **(skip to A10)**			
A09-1	**If Yes:** Estimated the area for your warehouse (s) in meter square: ☐☐☐☐ m^2			
A10	Number of employees in the shop **currently**	Symbols	Male	Female
	A10	**A10-1**	**A10-2**	**A10-3**
	Full-time wage employee	10	☐☐	☐☐
	Part-time wage employee	11	☐☐	☐☐
	Full-time wage employee	12	☐☐	☐☐
	Part-time nonwage employees	13	☐☐	☐☐
A11	Number of employees in the shop **during last year (2015)**	Symbols	Male	Female
	A11	**A11-1**	**A11-2**	**A11-3**
	Full-time wage employee	10	☐☐	☐☐
	Part-time wage employee	11	☐☐	☐☐
	Full-time wage employee	12	☐☐	☐☐
	Part-time nonwage employees	13	☐☐	☐☐
A12	Do you have **permanent** waged-employees **currently**? 1. Yes 2. No **(Skip A13)** ☐			
A12-1	**If Yes**; how many **permanent** wage-employees do you have **currently**? 1. M: ☐☐ F: ☐☐			
A12-2	(If A12-1 is empty) Does the trader refuse to answer to the question above? 1.Yes 2.No ☐			
A12-3	What is the average monthly waged-employee's wages in NIS **currently**? 1. M: ☐☐☐☐ NIS F: ☐☐☐☐ NIS			
A12-4	(If A12-3 is empty) Does the trader refuse to answer to the question above? 1.Yes 2.No ☐			
A13	Do you have waged-**temporary** employees? 1. Yes 2. No **(Skip A14)** ☐			
A13-1	**If Yes**, how many waged-**temporary** employees do you have **currently**? 1. M: ☐☐☐☐ F: ☐☐☐☐ employee			
A13-2	(If A13-1 is empty) Does the trader refuse to answer to the question above? 1.Yes 2.No ☐			
A13-3	What is the average daily waged-temporary employee's wages in NIS? M: ☐☐☐☐ F: ☐☐☐☐☐ NIS			
A13-4	(If A13-3 is empty) Does the trader refuse to answer to the question above? 1.Yes 2.No ☐			

A14	**Ask this question if the answer of A12 and A13 both is "NO":** Is this a family business only? 1. Yes 2. No ☐
A15	Do you have data connectivity (can you access internet through your phone or through other internet service provider)? **1.Yes** **2.No** ☐
A16	Do you have electronic shop management system? (Sales & Purchases, inventory monitoring?) **1.Yes** **2.No** ☐
A17	**Do you participate in the WFP Voucher programme:** 1.Yes **(move to A21)** 2.No
A18	Are you aware/know of the WFP voucher programme? **Yes** **2. No** ☐
A19	Would you be interested in taking part of a food voucher programme by distributing food items contained in the food voucher? **Yes** **2. No** **3. Don't know** ☐

A20	What are the most important concerns to take part in this programme?	1. **Yes** **2. No**
	1. Little margin of profits	☐
	2. Blockade	☐
	3. Limited local production	☐
	4. Other (specify):----------	

A21	Do you have a bank account? **1.Yes** **2.No** ☐
A22	Are the prices displayed at the commodities in the shop? **1.Yes** **2.No** ☐

Part Three: Supply Chain

B01	Do you trade in imported food? **1. Yes** **2. No (skip to B02)**	
B01_1	What are the two most important supply sources of imported food?	
	1. From the WB ☐	2. From Israel ☐
	3. From the GS ☐	4. From tunnel/Egypt ☐
	5. From China ☐	6. From Turkey ☐
	7. Other, specify:----------	9.No other option ☐
B01_2	What is the type of the trader that provide you with the main supply (choose 2 options):	
	1. WB wholesaler ☐	2.GS wholesaler (same governorates) ☐
	3. GS wholesaler (another governorates)	4. From cash van ☐
	5. Other, specify: ---------- ☐	6. Directly from Israel ☐
	9.No other option ☐	
B02	Do you trade in local food (proceed/manufactured locally at **Gaza Strip**)? **1. Yes** **2. No (skip to B03)** ☐	
B02_1	What are the **two** most important supply sources of local food?	
	1. Own production in Gaza Strip ☐	2. From wholesaler from same governorates in Gaza ☐
	3. Purchase directly from farmers ☐	4. From wholesaler from other governorates in Gaza ☐
	5. Purchase from independent van ☐	6.Purchase directly from local factories ☐
	Other specify:……..	9.No other option ☐
B02-2	Do you trade in local food (proceed/manufactured locally at **West Bank**)? **1. Yes** **2. No** ☐	

B03	Do you usually face problems in getting your supplies whether imported or locally produced? **1.Yes** **2.No (skip to B04)** ☐	
B03-1	**If Yes** , which are the most significant problems you face:	**1. Yes 2. No**
	1. Procedures to cross in Kerem Shalom don't allow a reliable flow of commodities	☐
	2. Opening hours to cross are too limited	☐
	3. Taxation is too high	☐
	4. Transportation costs are too high	☐
	5. Local production is not reliable	☐
	6. Unavailable or limited official credit services (through banks)	☐
	7. Unavailable or limited unofficial credit services (through suppliers)	☐
	8. Other, please specify: ----------	☐
If A03 answer is (2: wholesaler or 3:both), answer these questions <u>B04 , B05 and B06</u>:		
B04	**Currently**, what is the most important **two** means of distribution of your sales: (to whom do you sell)	
	1. Wholesalers in Gaza Strip (same governorate) ☐	2. Wholesalers in Gaza Strip (different governorate) ☐
	3. Large groceries in Gaza Strip ☐	4. Medium/small groceries in Gaza Strip ☐
	5. Other specify: ----------	9. No other option ☐
B05	How many traders (wholesaler) you sell to on average per month during the last 6 months? Male: ☐☐☐☐ Female: ☐☐☐☐ traders	
B06	How many other wholesalers similar to you in term of size and variety of food products are in this governorate currently? Male: ☐☐☐☐ Female: ☐☐☐☐ traders	
If A03 answer is (1: retailer or 3: both), answer these questions <u>B08, B09 and B10</u>		
B08	How many daily customers do you sell to on average in a normal day excluding the e-voucher beneficiaries? ☐☐☐☐ customers	
B09	Given your current business set-up, how many additional customers will you be able to serve per day: ☐☐☐☐customers	
B10	What is the average daily amount in NIS that a customer spends on **<u>food</u>** excluding the peak day (for the voucher redemption day) last month? ☐☐☐☐ (NIS)	
B11	Did you face problems in getting your supplies during the last conflict in 2014? **1.Yes** **2.No (skip to B13)** ☐	
B11-1	**If Yes,** what is the main problems you faced: 1. Fewer trucks per day were allowed to cross in; 2. Humanitarian trucks used to have priority to cross in; 3. Importers in my network were not allowed to cross in; 4. Other specify:----------	☐

B12	Which commodities are more affected? 1 Wheat flour 2 Rice 3 Roasted or crushed wheat 4 Fresh fruits and vegetables 5 Canned meat and fish 6 Other canned food (chickpeas, beans, foul, etc.) 7 Frozen vegetables 9. Pulses (lentils, chickpeas, etc.) 8 Raw pulses (lentils, chickpeas, etc.) 9 Dairy products 10 Eggs 11 Sugar 12 Vegetable Oil / Olive Oil 13 Main Non-food items:----------	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
B13	Are you able to add new commodities to your commodity selection? **1.Yes** **2.No** ☐	
B14	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 month to be affected? **1 .Yes** **2. No** **3. Not applicable (Participants at Voucher)** ☐	
B15	Do you have ability/capacity to increase your commodity stock if the demand increased by: **1. Yes** **2. No (move to B16)** ☐	

B15-1	**Percentage change**	B15-1A	**If yes, what is the time frame to do that**	
	25% 1.Yes 2.No **(Skip to B15-2)** ☐		1. Yes, within a week 2. Yes, within two weeks 3. Yes, within a month 4. Yes, but only after more than one month 5.No answer	☐
B15-2	**50%** 1.Yes 2.No **(Skip to B15-3)** ☐	B15-2A	1.Yes, within a week 2.Yes, within two weeks 3.Yes, within a month 4.Yes, but only after more than one month 5. No answer	☐
B15-3	**100%** 1.Yes 2.No ☐	B15-3A	1.Yes, within a week 2.Yes, within two weeks 3.Yes, within a month 4.Yes, but only after more than one month 5.No answer	☐

B16	**Commodity**	Symbol	How long does it normally take to sell this stocks	How long does it normally take to purchase that amount (in days)
	B16	B16-1	B16-3	B16-4
	Staple food (rice, wheat, fish/meat canned, pulses, etc.)	10	------- day	----------days
	Non-staple (dairy products, frozen vegetables, etc…)	11	------- day	----------days

B17	In case of conflict (2014), what would be the effect on your stock level: 1. Stay the same **(move to C01)** 2. Higher 3.Lower ☐
B17-1	Percentage affected stocks by the conflict (2014 war): ☐☐☐%

Part Four: Changes in Business Operations, Access to Markets and Credit

C01	Please indicate the level of importance of the following factors vis-à-vis your reported **drop** in sales during last six months: **1. Very important 2. Important 3 Not important 4. Entirely not important 5. Not applicable**	
	1. Increase in food prices ☐	6. Poor economic conditions among consumers ☐
	2. Closure of Gaza ☐	7. Reduced credit from suppliers ☐
	3. Israeli closures and commercial trade routes ☐	8. Reduced credit to clients ☐
	4. Food assistance ☐	9. Other specify: ……
	5. Increased competition caused by new entrants ☐	
C02	How much food do you usually purchase in one month (in MT) during last 6 months for **wholesaler**? ☐☐☐☐☐☐☐ MT	
C02-1	How much does it cost to purchase that amount of food (in NIS) **for wholesalers**? ☐☐☐☐ NIS	
C03	What is your average selling value for that amount of food (in NIS) in last 6 months **for wholesalers**? ☐☐☐☐NIS	
C03-1	How much of that selling value goes in taxes (in %)? ☐☐☐%	
C04	How much do you spend on utilities (in NIS) except rent of shop and store? ☐☐☐☐☐NIS	
C05	How much do you spend for renting (in NIS)? ☐☐☐☐☐NIS	
C06	Generally, do you provide credit to your **customers**? 1. Yes 2. No **(Skip to C08)** ☐	
C06-1	Might you provide more credit to your male customers than your female customers? 1. Yes 2.No ☐	
C07	What percentage of your monthly sales (value) do you sell on credit? ☐☐☐ %	
C08	Do you have a credit line with your main **suppliers**? 1. Yes 2. No (**skip to C11)**	
C09	How long is the credit-line before paying back your main suppliers?	1. Yes 2. No
	a) 1-7 days (up to 1 week)	☐
	b) 8-14 days (1-2 weeks)	☐
	c) 15-30 days (1month)	☐
	e) 31-60 days (1-2 months)	☐
	d) > 60 days (more than 2months)	☐
C10	What percentage of the value of your monthly orders do you pay in **cash**? ☐☐☐%	
C11	How much discount (in percent) do you get when you pay in **cash**? ☐☐☐%	
C12	How much discount (in percent) do you get when you order in large quantities? ☐☐☐%	
C13	How much discount **(in percent)** do you provide when you sell in large quantities to other traders? ☐☐☐%	
C14	How much do you have to sell to provide this discount to other traders in NIS? ☐☐☐☐☐NIS	
C15	How much discount **(in percent)** do you provide when you sell to customers/consumers?? ☐☐☐%	
C16	Do you provide credit to your customers holding a WFP e-voucher? **1.Yes 2.No 3. Not applicable** ☐	

C17	Do you have a formal credit with the bank (loan) in the last 2 years? **1.Yes** **2.No** ☐			
C17-1	If yes: Did you take a loan from the bank in the last 2 years? **1.Yes** **2.No** ☐			
C18	Please identify the main investments you did in your shops during last 2 years (whether inside or outside your shops)			
	Type of Investments	**Symbol**	**1.Yes 2.No**	**Value of investment (Israeli Shekel)**
	C18	C18-1	C18-2	C18-3
	1. Purchase new equipment for the shop (shelves, refrigerators, etc.)		☐	☐☐☐☐☐☐☐ NIS
	2.Shop or warehouses expansion		☐	☐☐☐☐☐☐☐ NIS
	3. Improve the overall appearance of the shop (interiors)		☐	☐☐☐☐☐☐☐ NIS
	4. Buy a truck / crane to use the shop		☐	☐☐☐☐☐☐☐ NIS
	5. Hiring more workers		☐	☐☐☐☐☐☐☐ NIS
	6.Other specify:----------		☐	☐☐☐☐☐☐☐ NIS

Part Five: Prices

D01		Please provide us with these information:		
	Commodity	**Symbol**	**Purchasing price (NIS)**	**Selling price (NIS)**
	D01	D01-A	D01-B	D01-C
	1.Wheat flour (local, 50kg)	10	☐☐☐☐☐NIS	☐☐☐☐☐NIS
	2.Vegetable oil (shukha, 3litres)	11	☐☐☐☐☐NIS	☐☐☐☐☐NIS
	3.Rice (sunrise, 10kg)	12	☐☐☐☐☐NIS	☐☐☐☐☐NIS
D02	In your opinion, how important are the following factors to food price changes? **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. Shipping/transport costs (including fuel costs?) ☐		2. Closure of Gaza ☐	
	3. International food prices ☐		4. Dwindling food stocks in local market ☐	
	5. Increased ability of traders to determine prices ☐		6. Increased demand on food ☐	
	7.US$ exchange rate fluctuations ☐		8. Other specify: ……	
D03	Of the above factors, please indicate to the two most important factors behind food price increases:	1. Shipping/transport costs (including fuel costs?) 2. Closure of Gaza 3. International food prices 4. Dwindling food stocks in local market 5. Increased ability of traders to determine prices 6. Increased demand on food 7. US$ exchange rate fluctuations 8. Other specify: …… 9. No other answer	☐ ☐	
D04	In your opinion, how the following factors affect food prices? **1. Increases prices 2. Decreases prices 3. No effect 4. Don't know**			
	1. Restricted (or irregular) inflow of Israeli products into local market ☐			
	2. Food distribution by humanitarian org. ☐			
	3. Increased in transport cost ☐			
D05	What is the effect of Tunnel trade closure on the following aspects of your business? **1. Decreased 2. Increased 3. No effect 4. Do not know**			
	1. Availability of food in which you trade local market ☐		4. Your stock levels ☐	
	2. Prices in local market ☐		5. Your sales volume ☐	
	3. Your profit margin ☐		6. Other, specify:----------	

Part Sex: Gender dynamics and Economic Activity

E01	How you evaluate the entrance to the food market as a trader is for a woman? **1. Harder than men** **2. Easier than men** **3. Same as men** ☐	
E02	What are the main challenges to women to enter the food market? (Please rank importance of your choices from 5-0 as 5 is the most important and 0 is lowers	
	1.Unavailability of enough capital ☐	3.Family rejection ☐
	2.Spouse rejection ☐	4. Traders will not prefer to deal with women. ☐
	5.Security issues ☐	6. Other, specify:----------
E03	Who decide on your business running decisions (buying, selling, pricing, having or giving credit) ☐	
	1. Owner	2. Spouse/wife
	3. Self and other household/family member	4. Employee (worker)
	5.Other, specify:----------	

Bibliography

Babones, S. J., & Farabee-Siers, R. M. (2012). Indices of Trade Partner Concentration for 183 Countries, 1980-2008. *Journal of World-Systems Research*, 267-277.

Bashi, S., & Diamond, E. (2015, June). *Separating Land, Separating People: Legal Analysis of Access Restrictions between Gaza and the West Bank.* Retrieved from gisha.org: www.gisha.org

Brilliant, J. (2016, April 28). Israel Makes Push for Gaza Strip Recovery. *VOA News*. Retrieved March 3, 2017, from http://www.voanews.com/a/israel-makes-push-for-gaza-strip-recovery/3306723.html

Economist Intelligence Unit. (2017, March 28). *Country Report. Palestine.* Retrieved from http://country.eiu.com/Palestine.

Eldar, S. (2016, October 21). *Gaza agriculture on brink of collapse.* Retrieved from Al-Monitor - The Pulse of the Middle East: http://www.al-monitor.com/pulse/originals/2016/10/farmers-agriculture-gaza-strip-collapse-unemployment.html

Euro-Med Monitor for Human Rights. (2017). *Gaza. 100 thousand hours of isolation.* Geneva: Euro-Med Monitor for Human Rights.

Farmer, B. (1999). *The Question of Dependency and Economic Development: A Quantitative Analysis.* Lexington Books.

Gisha. (2015). *Made in Gaza.* Tel Aviv-Jaffa: Gisha.

Gisha. (2016, January). *Dark-gray lists.* Retrieved from gisha.org: http://gisha.org/UserFiles/File/publications/Dark_Gray_Lists/Dark_Gray_Lists-en.pdf

Gisha. (2016). *Gaza up close*. Retrieved from gisha.org: features.gisha.org/gaza-up-close/

International Monetary Fund. (2016, August). West Bank and Gaza, Report to the Ad Hoc Liaison Committee.

Ministry of National Economy. (2016, February). Supply Report for 2015. *memo*. Gaza Strip.

PCBS. (2008). *Agricultural Statistics 2006/2007.* Ramallah - Palestine: PCBS.

PCBS. (2012). *Agricultural Statistics 2010/2011.* Ramallah - Palestine: PCBS.

PCBS. (2016). *Labour Force Survey - Annual Report: 2015.* Ramallah: PCBS.

PCBS. (2016). *Palestinians at the end of 2016.* Ramallah - Palestine: PCBS.

PCBS. (2016, June). *Press Report, Preliminary Estimates of Quarterly National Accounts, First Quarter 2016.* Retrieved from http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_QNAQ12016E.pdf

PCBS. (2016, September). *Press Report, Preliminary Estimates of Quarterly National Accounts, Second Quarter 2016.* Retrieved from http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_28-9-2016-GDP-en.pdf

PCBS. (2016, December). *Press Report, Preliminary Estimates of Quarterly National Accounts, Third Quarter 2016.* Retrieved from http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_28-12-2016-NA-en.pdf

PCBS. (2016, September). Registered Foreign Trade Statistics - Goods and Services, 2015: Main Results. Ramallah, Palestine.

PCBS. (2016). *Socio-Economic & Food Security Survey 2014 - State of Palestine.* PCBS.

PCBS. (2017, February). *Press Release on the Results of the Labour Force Survey in Palestine, 2016.* Retrieved from pcbs.gov.ps: http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_16-12-2017-LF-en.pdf

PCBS. (2017, March). *Press Report, Preliminary Estimates of Quarterly National Accounts, Fourth Quarter 2016.* Retrieved from http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_28-3-2017-NA-en.pdf

PCBS. (June 2012). *Living Standards in the Palestinian Territory. Expenditure, Consumption, Poverty, 2011.* Ramallah - Palestine: PCBS.

Snunu, G. (2017, January). The dairy sector in the Gaza Strip. Oxfam GB.

UN Human Rights Council. (2016, March 7). Report of the United Nations High Commissioner for Human Rights on the implementation of Human Rights Council resolutions S-9/1 and S-12/1.

UN OCHA oPt. (2009). *Locked in: The Humanitarian Impact of Two Years of Blockade on the Gaza Strip.* East Jerusalem: OCHA oPt.

UN OCHA oPt. (2015, September). *Import restrictions impede delivery of services and humanitarian assistance.* Retrieved from http://gaza.ochaopt.org/: http://gaza.ochaopt.org/2015/09/import-restrictions-impede-delivery-of-services-and-humanitarian-assistance/

UN OCHA oPt. (2015, November). *Restoring access to land in Gaza's restricted area along the perimeter fence.* Retrieved from http://gaza.ochaopt.org/2015/11/restoring-access-to-land-in-gazas-restricted-area-along-the-perimeter-fence/

UN OCHA oPt. (2016, October). Gaza Crossing Operations Status: Monthly Update October 2016.

UN OCHA oPt. (2016, August). Gaza Strip, Access and Movement.

UNCTAD. (2014). *The Besieged Palestinian Agricultural Sector.* New York and Geneva: United Nations.

United Nations Country Team in the State of Palestine. (2016). *Gaza: Two Years after.*

UNRWA. (2016). UNRWA Gaza New Food Basket. *unrwa factsheet*.

WFP. (2014). *Secondary Impact of WFP's Voucher Programme in Palestine.*

WFP. (2015). *Exploring Food Assistance Programmes: Evidence for Lebanon.* Rome: WFP.

WFP. (2016). *Secondary Impcat of WFP's Cash Based Transfer in Palestine.*

WFP. (2016). *State of Palestine: an Evaluation of WFP's Portfolio (2011-mid 2015) .* WFP.

WFP VAM. (2014, February). *Gaza Strip Special Focus: Is the closure of the tunnels from Egypt further suffocating the Gaza Economy?*

World Bank. (2016, September). Economic Monitoring Report to the Ad Hoc Liaison Committee.

Published: June 2017 Photos, Front Cover: WFP/Tobias Flämig; Back Cover : WFP/Tobias Flämig

WFP
wfp.org

vam
food security analysis