



Views on The Crisis Grocery Retail Trade



Introduction

While the whole world shares the broad outlines of the economic and social repercussions of the Coronavirus (COVID-19), which are unprecedented in its recent history, the implications thereof for each country are linked to the nature of each country's economic system, its ability to withstand the entailed repercussions and the speed of its recovery.

In light of the need to study the sectoral implications of these repercussions in order to address the crisis properly, the Egyptian Center for Economic Studies (ECES), in its initiative, is producing a set of daily reports entitled "Views on Crisis". The reports aim to

analyze the implications of the coronavirus crisis for Egypt in relation to a number of vital production and service sectors and to key macroeconomic variables. This ECES initiative comes from the belief that the current critical conditions require directing state's efforts towards achieving two main goals: providing a decent life for Egyptians during the crisis and in the recovery phase, preserving the existing investments-especially domestic investments- and helping to overcome the crisis and prepare for a rapid launch with the gradual decline of the crisis and recovery of the global economy.

The methodology used in these reports is based on an analysis of the supply and demand shocks associated with the crisis cycle in its various stages. Given the lack of detailed data on the sectoral impact of the crisis, the sectoral analysis is based on logical assumptions related to the nature of each sector and the degree of sector vulnerability to previous severe crises that were certainly less severe than the current crisis and different in nature. However, it is a starting point for the urgently required scientific diligence at this stage.

“This pandemic is not a war. Nations do not oppose other nations nor soldiers against other soldiers. It is a test of our humanity. This crisis brings out the best and the worst of people. Let us show others what is best in us.”

Frank-Walter Steinmeier
Germany's President

First: Brief description of the subject of the report

- Internal trade is considered one of the main pillars of economic and social development in Egypt, as it is the second source of employment after agriculture accounting for 13 percent of total employment, followed by manufacturing (12.5 percent), not including logistical support services such as storage and transportation, which if added, the internal trade sector will become the top employer with 20.7 percent.¹
- The sector has witnessed huge growth in recent years, with annual investments increasing 21 times between 2002 and 2017 from only EGP 791 million to EGP 16.661 billion. Annual investments in the supporting logistics sector such as storage and transport doubled five times in the same period from EGP 9.801 billion to EGP 51.115 billion, according to central bank data.
- The retail sector is one of the most important sectors of internal trade, as it is directly linked to citizens and their consumption. Its sales during 2016 alone reached EGP 1383.3 billion compared to EGP 8.6 billion in 2009. In other words, the value of sales increased more than 161 times during that period. It is one of the most labor-intensive sectors, as the number of employees registered about four million workers in 2016, according to the latest data of the Central Agency for Public Mobilization and Statistics (CAPMAS).
- The retail food and beverage sector (grocery trade) is the second in size in the retail sector, following the automotive sector (cars and others), as Egypt has the largest consumer market among Arab countries. Some analysts estimated the size of that sector at about \$15 billion in 2018² - a growth rate of more than 71 percent compared to 2011. The number of employed

¹ Source: Federation of Chambers of Commerce.

² Source: US Embassy Cairo Agricultural Affairs Office, Food Retail Trade Report 2019.

reached about 1,442,939, or 36 percent of total employment in the retail sector, according to CAPMAS data.³

- Aside from the Coronavirus crisis, most estimates indicated that the market would grow over the coming years at rates ranging from 15 percent to 20 percent as a result of the continuous increase in population, especially the youth, which reflects in the continuous increase in the demand for food.⁴
- The relative importance of online retail platforms has notably increased in recent years, with the volume of online food and beverage trade reaching about 5.18 percent of total online retail trade, and about 0.08 of total retail trade in Egypt in of 2018.⁵
- Grocery products are divided into local and imported products. The value of imported products was estimated at about \$1.8 billion in the first half of 2018, and was extensively found in hypermarkets and supermarkets. Table 1 shows the most important of these products as well as their import shares in total imports of grocery products according to the latest available data in the first half of 2018.

Table 1. The most important imported grocery products

The imported product	Imports (million dollars) during the first half of 2018	The share of products in total Egyptian imports during the period
Frozen meat and liver	652.5	36%
Dairy, cheese and derivatives	179.8	10%
Red tea	152	8%
Apples and food preparations	142.4	8%
Butter, fats and oils	132.5	7%

Source: The Egyptian Center for Economic Studies, based on data from the report of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Report, 2019.

³ Central Agency for Public Mobilization and Statistics, wholesale and retail bulletin for the private sector, 2016. We would like to point out that these figures represent the numbers of employed in each of the specialized food stores, as well as the non-specialized stores where food and beverages are dominant commodities.

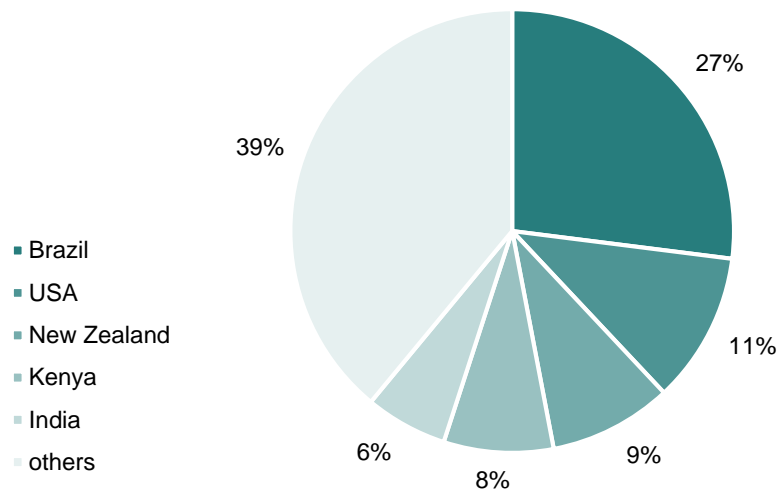
* It should be noted here that, according to CAPMAS estimates, the volume of food sales in specialized and non-specialized stores was estimated at EGP 351 billion pounds in 2016, at 25 percent of total retail trade sales as a whole. This difference in determining the size of the market is likely related to the informal sector.

⁴ Source: Retail foods, FAS Cairo office research, 2019

⁵ Online grocery retail in MENA, Wamda research lab, 2019.

1. Brazil accounts for the largest share, followed by the United States, New Zealand, Kenya, and India, as shown in Figure 1

Figure 1. Countries share of Egyptian imports of consumption goods, %



Source: US Embassy Cairo Agricultural Affairs Office, Food Retail Trade Report, 2019.

- The sales volume of goods is affected by their nature, whether local or imported, as well as by factors pertaining to individuals' income, purchasing power, consumption patterns, and geographical location. High-income groups control most of the imported products market, especially recreational goods. Presenting these factors helps shed light on the nature of the market, its dynamics, its response and its interaction with economic crises.
- The volume of commodity sales is also affected by the consumption pattern of citizens. The 2017 income and expenditure survey data showed a decline in the annual consumption of households of the higher-priced food items despite their importance such as meat, fish, dairy and eggs, compared to spending in 2015. However, spending on bread, grains and vegetables increased due to higher prices resulting from the liberalization of the exchange rate in 2016. The rural areas had the largest share of that consumption decline due to the higher proportions of limited income groups. Table No. 2 shows the annual consumption rates of households for some

commodities and the rate of change during the period (2015-2017).

Table 2. Relative distribution of annual household consumption of food and beverages, as well as the rate of change over the period (2015-2017).

Commodity	Annual consumption shares (2015) %	Annual consumption shares (2017-2018) %	Percentage of change (2015-2017)
Meat and poultry	29.8	27.8	-2% ↓
Greens	13.9	14.2	0.3% ↑
Grains and bread	11.2	13	1.8% ↑
Dairy, cheese and eggs	13.7	12.5	-1.2% ↓
Oils and fats	7.9	8.8	0.9% ↑
Fish	6.7	6.6	-0.1% ↓
Fruit	6.4	5.7	-0.7% ↓
Sugar and sugary foods	4.7	5.5	0.8% ↑
Non-alcoholic drinks	3.7	3.9	0.2% ↑
Unclassified food products	2	2	

Source: The Egyptian Center for Economic Studies (ECES) based on data from the Income and Expenditure Survey (2017-2018).

- The grocery retail market in Egypt is divided into four main types:

- 1- Hypermarkets
- 2- Supermarkets and mini markets
- 3- Convenience stores
- 4- Traditional grocery stores: Small stores located in most parts of the country and kiosks (both formal and informal)

Regarding the characteristics of each type, Table 3 shows statistics for each of the four types in 2017 (most recent detailed data), as well as the characteristics of each:

Table 3. Statistics and features of all grocery outlets

	Hypermarkets	Supermarkets	Convenience stores (at gas stations and highways)	Traditional grocery stores
Number of outlets (2017)	37	1215	253 in 2020 3597	115041 in addition to 18,000 rationed grocery stores and consumer cooperatives affiliated with of the Ministry of Supply
Percentage of outlets for each type of the total number of grocery outlets in Egypt⁶	0.03%	1.02%	0.21%	96.71%
Outlet growth rate of each type (2016-2017)	Increase ↑ By 6% Average growth rate	Increase ↑ By 15% Significant growth rate	Increase ↑ 10% Significant growth rate	Decline ↓ By 1%
Percentage of sales of each type from total grocery retail sales in 2017	25%			75%
The real value of average sales per unit of each type (million pounds) in 2017	122.7	18.5	4.7	0.58
Closing rate	Weak	Weak	Moderate	High except for groceries and consumer cooperatives
Outlet size	Relatively large	Average		Relatively small

⁶ Source: Retail foods, FAS Cairo office research ,2017, p.8.

Concentration areas	- Concentrated in urban areas - Relatively far from population densities due to their large size and need to provide parking spaces	- Concentrated in urban areas - Concentrated in densely populated areas	- Concentrated in urban areas - Concentrated in gas stations and highway rest-houses	- Concentrated in urban and rural areas in - Prevalent most streets and roads
Purchase cycle (for consumers)	Regular, semi-monthly (many families go to the hyper markets periodically to buy enough for storage)	Regular daily, weekly, monthly	Irregular	Regular daily (to meet daily needs) except for the rationed groceries (monthly)
Storage capacity	Strong	Medium	Weak	Weak
Supply chains	Most products are sourced from the point of origin (factories and direct import)	Some products are sourced from the point of origin as factories, some are from wholesalers or goods imported through import companies		Most of them are through wholesalers except for ration groceries from wholesale and public companies of the Ministry of Supply
Multiplicity of suppliers	Multiple	Medium		Not multiple
Nature of the products offered	Dense, highly diverse, with the ability to meet the needs of most groups	Average density and diversity		Weak density and diversity, with inability to meet most groups
Legal form (formal, informal)	Formal	Formal	Formal	Formal and informal. Informal is in popular and weekly markets,

				road kiosks and inside government buildings
Employment	Intensity of formal employment	Medium-intensity of formal employment	Medium-intensity of formal employment	Mostly informal employment, and are of low intensity
Online purchase	The possibility of buying via online and app stores	The possibility of buying online	Difficulty buying online (Though there is an initiative for financial inclusion that includes 40,000 grocery stores annually, which the Federation of Chambers of Commerce will start implementing)	
Delivery	Enabled but not widespread due to the stores' distance from residential neighborhoods and citizens	Widespread due to the proximity of shops to residential neighborhoods and citizens	Not widespread	Only widespread in urban areas, and not in rural areas
Negotiating power and profitability methods	High negotiating ability - modern profitability methods (rental of premium shelves, discounts for quantities, etc.) - offers from suppliers - advertising campaigns			Traditional trade methods
Facilities	Strong - facilities and offers in commodity prices Payment - facilities through formal channels (such as banks and others)	Strong - facilities and offers in commodity prices		- Weak facilities and special offers on commodity prices. - Payment facilities through informal channels
Outlet fragility (ability to withstand shocks)	Relatively strong due to the complexity of	Relatively strong due to the complexity of	Medium fragility	Very fragile

	administrative structures, and maintaining a strong inventory	administrative structures and maintenance of stocks		
The most important outlets in Egypt	<ul style="list-style-type: none"> - Carrefour - Hyper One 	<ul style="list-style-type: none"> - Carrefour - Ragab's sons - Kazion - Fathallah - BIM - Spinneys - Alpha Market - Saudi - Metro - Kheir Zaman 	<ul style="list-style-type: none"> - On the run - Chillout - Emirates Egypt - Mobil market - Bonjours - Smile 	All grocery stores throughout the country

Source: The Egyptian Center for Economic Studies.

The following are important notes to the above table:

- 1- Traditional stores constitute the vast majority of grocery stores in Egypt, accounting for about 98 percent of enterprises, and about 75 percent of grocery sales in Egypt, while modern stores account for only about 2 percent of enterprises. However, modern stores account for 25 percent of the volume of sales. The performance of one unit of those stores is much greater than that of traditional store units, due to its large storage capacity and its ability to withstand shocks in times of crisis.
- 2- The linkage of modern stores to a huge value chain contributes significantly to the upgrading of the product in terms of quality and packaging, as well as the low price of the commodity. It also contributes to increasing the number of workers and suppliers in a way that exceeds traditional stores.
- 3- There is a relative shift in the purchase pattern of citizens from daily purchase to weekly purchase, as hypermarket and supermarket outlets located in commercial centers provide an opportunity for entertainment alongside purchase, which calls

for a program to support small groceries to help them align with the new purchase pattern.

- 4- The informal sector accounts for a large proportion of the grocery retail sector, represented in the kiosks scattered on the streets and street vendors, whether in the streets or inside government buildings as well as popular and weekly markets. The number of employed in this sector (in addition to the construction sector) is estimated at about 30 percent of the size of the informal labor sector in Egypt.⁷
- 5- The grocery sector and its various outlets are affected by the logistics associated with the supply of goods to factories, the distribution of products after their manufacture to wholesalers and retailers, the availability of transportation and ease of movement.
- 6- Supply chains are also affected by the availability of liquidity, as all stages operate with cash. This effect was evident when the central bank set limits for withdrawals and deposits, which negatively affected all supply chains to small grocers.

The impact of previous crises on the grocery retail sector

The focus here is on two phases: The January 25th Revolution in 2011 and the beginning of economic reform and in the heart of it liberalizing the exchange rate in November 2016. The choice of each was driven by its clear impact on the grocery sector, as well as its relation to the income of individuals, the purchasing power of consumers, high inflation, as well as the logistics associated with obtaining food.

The January 25th Revolution Crisis

- **In 2011, despite the sharp decline in the retail sector in Egypt, as sales posted an estimated decline of about 47 percent,⁸ the decline in grocery sector sales was less severe than that in the retail sector as a whole, which was**

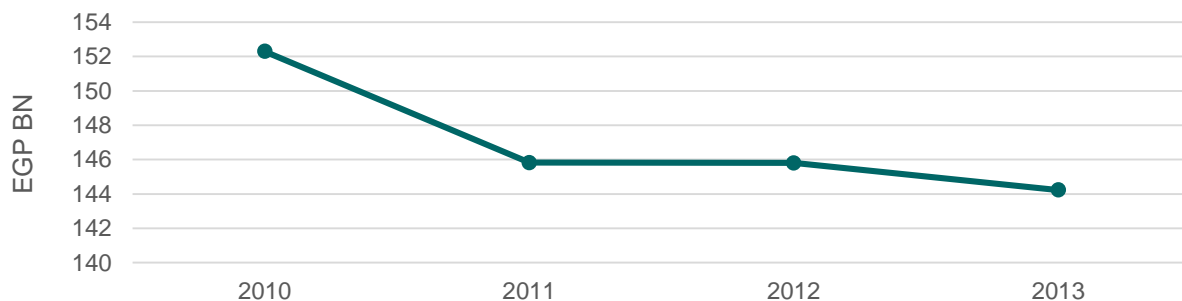
⁷ The Egyptian Center for Economic Studies, Views on Crisis, the informal sector, dated 6/4/2020, p. 6.

⁸ Wholesale and retail bulletins for 2011, 2010, Central Agency for Public Mobilization and Statistics, 2012.

estimated at only 4 percent in the year of the Revolution, as shown in Figure 2. This is mainly due to the nature of the sector, which assumes its permanent growth as it is related to meeting the basic needs of citizens in terms of food and drink, as well as other requirements that are indispensable.

- As for the number of employees, the retail sector has also witnessed a decline, reaching nearly 50 percent, according to CAPMAS data.⁹ Although the exact percentages of decline in the grocery sector are unknown, they are likely lower by far than those of the retail sector as a whole due to the predominance of traditional outlets and the nature of commercial activity.
- The sector also experienced many logistical problems during that crisis due to the imposition of curfews and lack of liquidity in the Revolution year.

Figure 2. Development of the real value of grocery trade sales in the period 2010-2013 in billion pounds after excluding the effect of inflation (base year 2010)



Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2015.

- The impact of the crisis on the grocery sector can be analyzed in two phases: **The crisis phase itself and the recovery phase.**

First, the year of the crisis itself, 2011

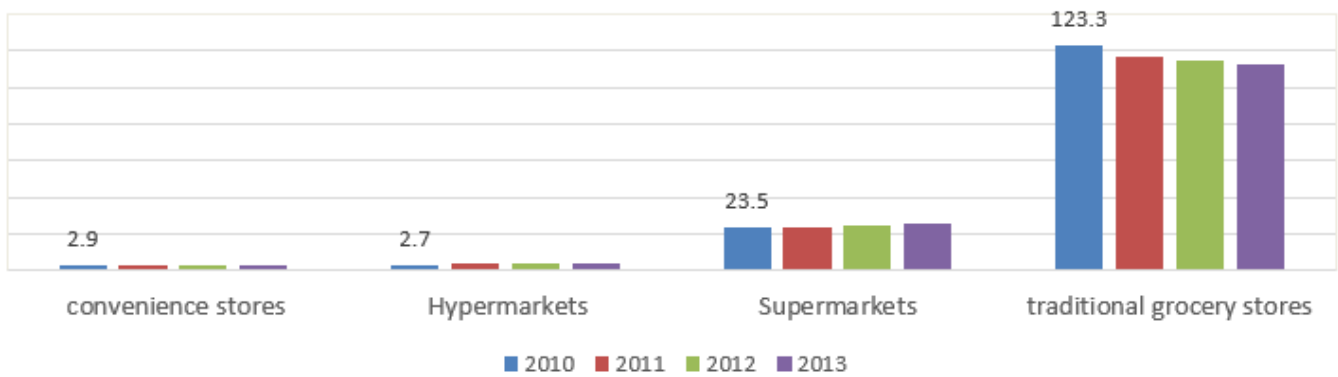
- By calculating the real value of grocery sales as a whole, we notice that sales fell sharply during 2011 by 4 percent, as real sales value reached about EGP 146 billion, compared to EGP

⁹ Ibid.

152 billion in 2010, as shown in Figure 2. We notice that the largest percentages of decline are mainly due to the shortage of imported high-priced commodities and not due to lower sales quantity.

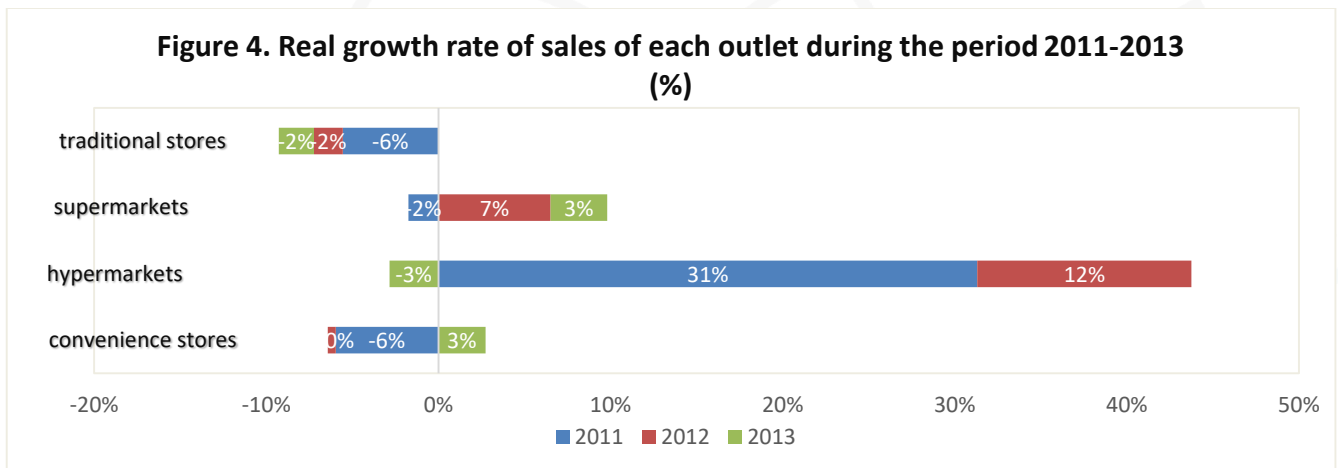
- Despite that general decline, we find a clear difference between the different grocery outlets in terms of the nature of that decline, and the percentages of each outlet, as shown in Figure 3.
- The actual sales of traditional stores, supermarkets, and convenience stores in 2011 decreased by 6%, 2%, and 6%, respectively, compared to 2010, as illustrated in Figure 4. It is noted that the largest percentages of decline were in the share of traditional outlets and convenience stores due to their weak storage capacity and services provided to citizens, and being impacted by curfews, as well as the shortage of imported high-priced goods.
- **The situation is significantly different in the case of hypermarkets.** The real sales of these outlets achieved a high growth rate of 31 percent in 2011, as shown in Figure 4. This is largely attributed to increased spending on food and drink for the purpose of storage in times of crisis, in addition to factors related to economies of scale and the consequent decrease in costs and prices as well as increased storage capacity. **However, the impact of hypermarket growth on the growth trends of the grocery sector as a whole has been limited due to weak sales relative to the sector's total sales, which is still dominated by traditional stores.**

Figure 3. The real value of retail store sales during the period (2010-2013) in billion pounds - the base year 2010 = 100



Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2015.

Figure 4. Real growth rate of sales of each outlet during the period 2011-2013 (%)



Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2015.

Second, the recovery phase

- As for the recovery phase that followed the year of the Revolution, we notice a relatively slow recovery of the grocery sector compared to the recovery of the retail sector as a whole, whether in terms of sales or the return of workers, as shown in Figures 5 and 6, respectively. This means that the difference between the retail sector as a whole and the grocery sector was not limited to the year of the crisis, but also extended to the recovery phase. The retail sector witnessed a stronger decline in sales but relatively faster recovery, while grocery sector witnessed a lower decline in sales but slower recovery.

Figure 5. The real value of sales of the retail sector during the period (2011-2013) - in billion pounds / base year 2010

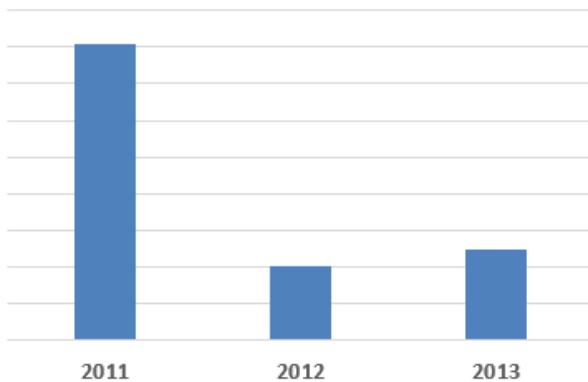
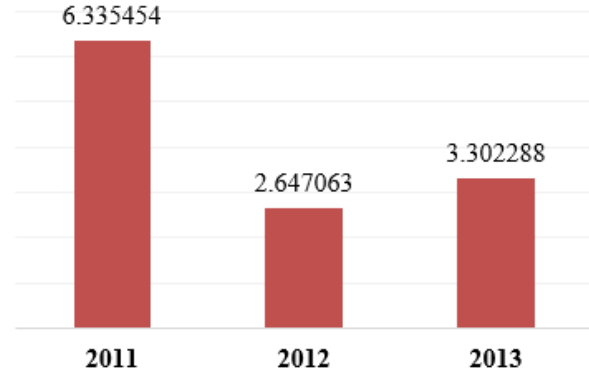


Figure 6. The number of employed in the retail sector during the period (2011-2013) - in million



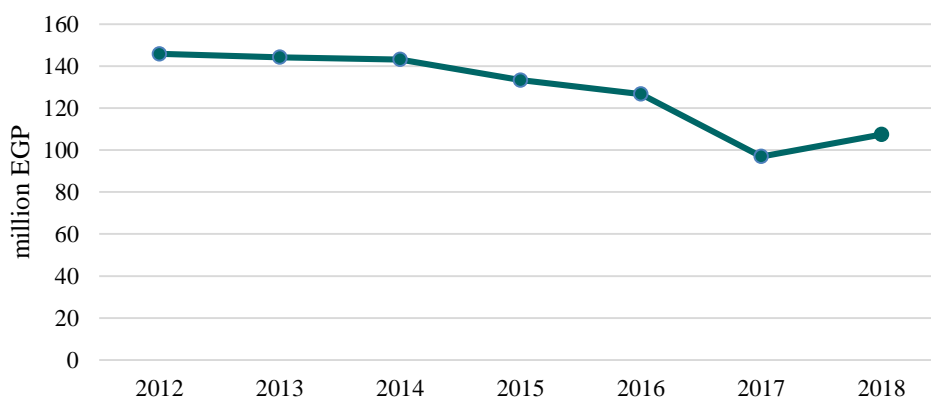
Source: Prepared by the Egyptian Center for Economic Studies based on data from the Central Agency for Public Mobilization and Statistics, wholesale and retail bulletin for the year 2013.

- Real hypermarket sales growth rates continued to rise, achieving a growth rate of 12 percent in 2012, albeit lower than the rate of growth in 2011.
- Traditional stores continued to post losses, but with decreasing rates, from 6- percent in 2011 to 2- percent in 2012, mainly due to their weak ability to withstand shocks, limited capital and their dependence on daily income. In addition, most of these stores are located in remote and less developed neighborhoods in the rural and urban areas—whose demand recovers at slow rates because their incomes are the most affected compared to all other classes during crises.
- As for the supermarket outlets, they witnessed a faster recovery than others, as their sales increased during the year 2012 to reach EGP 24.6 billion, with a growth rate of 7 percent compared to 2011, as shown in Figure 4. Perhaps the reason for this is its spread during that period and their increasing number, which made it a more attractive alternative, given its presence near population density in all neighborhoods of major cities on the one hand and providing the same service offered by the hyper with similar quality on the other hand.

US Dollar shortage crisis and exchange rate liberalization 2016

- With the beginning of economic reforms, preceded by the US dollar shortage crisis, and the noticeable increase in inflation rates, the grocery sector experienced a serious problem, as the rise in prices coincided with the sharp decline in the value of individuals' savings and incomes, especially the middle and low-income groups. This was translated into a decrease in the sector's sales by up to 23 percent in 2017. Figure 7 shows the evolution of the real value of sales from 2014 to 2018 in Egyptian pound:

Figure 7. Evolution of the real value of grocery sales after excluding the effect of inflation (in million pounds) - base year = 2010



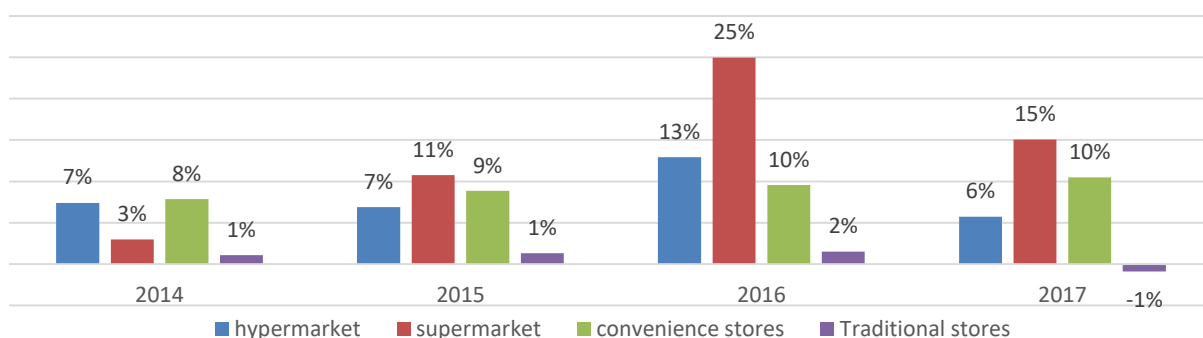
Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2017.¹⁰

- The above figure shows that the decline began in 2016. Perhaps one of the factors associated with it is the decision of the Minister of Trade and Industry to register companies eligible for exporting to Egypt, which limited high-price imports. But that effect did not continue for long after registering the main companies and commodities started to flow again. This was evident on the hypermarkets, supermarkets and convenience stores, but had little effect on traditional grocery stores.

¹⁰ The value of sales for 2018 was obtained from the report issued in June 2019 by the same authority, in which the retail volume was estimated at about \$16 billion.

- Despite the general decline in the grocery sector as a whole, we notice differences between the four outlets, whether in terms of their numbers, sales, or in the recovery phase from the crisis shocks.
- The stage that preceded the crisis witnessed a boom in the number of supermarket and hypermarket outlets in Egypt as shown in Figure 8, as they increased by up to 25 percent and 13 percent respectively in 2016. In fact, that period was associated with a large expansion network and an increase of investments in the sector as a result of the entry of various commercial chains to the Egyptian market, such as Kazion and BIM. However, these percentages did not last long, as the growth rates in the number of those outlets declined to 15 percent in the case of supermarkets and 6 percent in the case of hypermarkets in 2017.
- Traditional stores and convenience stores did not witness a major change before the crisis, as their growth rates remained almost constant. But what is noticeable is that traditional stores achieved negative growth rates after liberalizing the exchange rate, as the growth rate of their number reached -1 percent, which indicates the closure of many of these small outlets due to their inability to withstand crisis shocks.

Figure 8. The rate of change in the number of retail grocery outlets during the period (2014-2017)



Source: The Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2017.

- As for the volume of sales, hypermarkets have witnessed a noticeable decline in their sales since 2016 by -2%,¹¹ which continued until reaching -19% in 2017.
- With regard to supermarket outlets, the increase in their number translated into a noticeable increase in the volume of sales in the period before the crisis, achieving a growth rate of 8 percent in 2016. They were not surpassed in performance except by convenience stores. But these rates have declined significantly during 2017, as they decreased by -21 percent compared to 2016.
- Meanwhile, traditional stores continued to decline in performance both before and after the crisis, although the impact of the crisis on them was more detrimental. They posted a real sales decline of 23 percent during 2017 compared to the previous year. Tables 5 and 6 show the real sales per outlet, and average real value of sales per unit of the total sales of its outlet, which changed in the same direction but with higher proportions consistent with the number of those outlets.

Table 5. Real values of grocery outlet sales during 2014-2017

Year	2014	2015	2016	2017	Real sales value growth rate in 2017
Real sales of hypermarkets in billion pounds	4.6	5.7	5.6	4.5	-19%
Real sales of supermarkets in billion pounds	27.4	26.5	28.6	22.5	-21%
Real sales of convenience stores in billions of pounds	1.0	1.1	1.2	1.2	-4%
Real sales of traditional stores in billion pounds	110.1	91.5	88.7	67.8	-23%

Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2017.

¹¹ Compared to 2015.

Table 6. Average real sales per outlet unit during 2014-2017

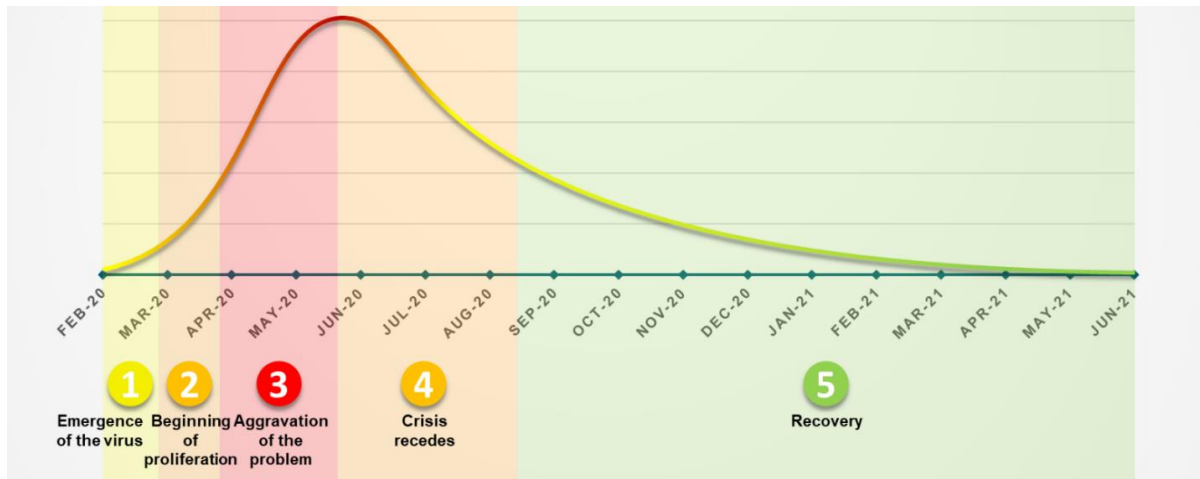
Year	2014	2015	2016	2017	The percentage change in average sales per unit during 2017
Average real sales per unit of hypermarkets in billion pounds	158	185	160	123	-23%
Average real sales per unit of supermarkets in billion pounds	36	31	27	19	-32%
Average real sales per unit of convenience stores in billion pounds	5	5	5	5	-13%
Average real sales per unit of traditional stores in billion pounds	1	1	1	1	-23%

Source: Egyptian Center for Economic Studies calculations based on data of the Agricultural Affairs Office at the American Embassy in Cairo, Food Retail Trade Report 2017.

- As for the recovery phase, we do not have detailed data for that period, although recovery is expected to be relatively slower than in the 2011 case, given that the dollar exchange rate did not change much until late 2019, which may have led to some recovery.
- The sector was not exposed to logistical problems during this crisis.

Second: Demand and supply shocks in the context of the crisis cycle

The expected impact on the demand and supply sides depends on the relevant stage in the crisis cycle. We can trace five stages of the crisis cycle, as shown in the figure below:



Source: Egyptian Center for Economic Studies

Below is a brief description of each stage:

The first stage: Emergence of the virus

The crisis began and aggravated in China only. The rest of the world, including Arab and European countries, were not yet affected by the crisis.

The second stage: Beginning of proliferation

The spread of the virus globally. Arab countries began to be affected at the end of February and hence initiated precautionary measures to prevent the spread of the virus. European countries are greatly affected.

The third stage: Aggravation of the problem

The situation in the world has worsened, tougher measures in the Arab countries, especially in Saudi Arabia and the European countries, a major worsening of the crisis in Italy, beginning of the virus's receding in China, and the beginning of its spread in the US.

Fourth stage: Crisis recedes

The beginning of recovery from the virus globally, starting from China, which is expected to be followed by European countries, and finally, the Arab countries and the US.

Fifth stage: Recovery

Gradual recovery for all countries, including Arab countries, although the latter's recovery is expected to be delayed due to being strongly impacted by the global economy and their weak impact on it.

As for the **supply and demand shocks**, they are defined as follows:

- **Demand shock:** Sudden and large changes in the demand for food products sold in various outlets as a result of the crisis.
- **Supply shock:** The inability of various sales outlets to adapt to developments in demand, or other problems that affect their ability to supply products as a result of the crisis and the precautionary measures associated with it.

Different scenarios will be analyzed by examining the change in the level of sales, the number of employees, the number of outlets, and the impact of the logistics system.

According to the following concepts and assumptions:

- 1-The magnitude of the demand shock varies according to the stages of the crisis, the type of outlet, and its geographical location.
- 2-Precautionary measures and the associated closure of restaurants will unexpectedly lead to an increase in the demand for basic products sold in outlets.
- 3-With the issuance of the curfew decision, all citizens rushed to buying and storing goods, which reflected noticeably on the sales volume, and also in a decrease of sales during the “Welcome Ramadan Initiative” compared to the previous year despite the discounts granted, which ranged between 15 percent and 30 percent due to citizens resorting to hoarding in the beginning of the crisis.
- 4-The ability to provide delivery services and allow payment by bank cards represents a comparative advantage for sales outlets that provide these services.

- 5- The precautionary measures impact the arrival time of citizens to the outlets, and the ability of the outlets to provide the goods.
- 6- The offered products relate to the industrial production value chain for each of them, and therefore any interruption in industrial production will affect the sales of the various outlets.
- 7- All factories have a stock of final products in preparation for variations in demand, but this stock is usually for a limited time.
- 8- The sales activity is affected by decisions that are not related to the sector, such as decisions regarding withdrawals and deposits issued by the Central Bank.
- 9- The quantitative assessment of the percentage of change in sales and employment is estimated according to three sources:
 - a. Limited survey of a number of supermarkets, hypermarkets and traditional stores.¹²
 - b. The percentage of change during the aforementioned crisis periods.
 - c. The average percentage of decline in the volume of fast food restaurant sales.¹³

Two remarks should be noted here before starting the crisis analysis:

First: Many of the hypermarket and supermarket outlets resorted to **manufacturing** recently and provided many ready-made meals, which made them an alternative to fast food restaurants during the crisis period.

Second: Most of the hypermarket outlets are located in malls, which affected their sales activity as a result of precautionary decisions to close the malls.

¹² These percentages were obtained from a survey conducted by the Egyptian Center for Economic Studies on a limited number of different outlets in Cairo and Alexandria.

¹³ These percentages were obtained from a video recording of the Center for International Private Enterprise (CIPE) on April 30, 2020.

The following table presents potential scenarios for the crisis impact on the sector according to the above-mentioned crisis cycle and in light of the assumptions made:

Stage	Supply and/or demand shock	Analysis	Impact
1- Emergence of the virus (December 2019 to January 2020)	There are no shocks to most grocery stores either in demand or supply	This is due to the emergence of the virus in this period in China only. Despite the large volume of Egyptian imports from China, most of the food products are sourced from other countries such as Brazil, US, New Zealand and others.	There is no effect due to the fact that supply and demand have not changed.
2-The beginning of proliferation (February through mid-March 2020)	- Very limited shock in demand and supply	- A limited shock to the demand appeared at the end of February, as some citizens began to worry about the virus in Egypt and this was translated into a desire for hoarding. But the real pressure did not come about until mid-March with the beginning of the precautionary measures. - As for the supply shock, the increase in the	A slight increase in the volume of hypermarket and supermarket sales, but no noticeable change in anything else.

		<p>volume of demand has been absorbed by various sales outlets, but the shock has appeared in some complementary non-food products that are offered in large outlets such as hypermarkets and supermarkets.</p>	
<p>3- Aggravation of the problem (From mid-March to mid-May 2020)</p>	<p>This stage is divided into two periods:</p> <p><u>First period:</u> starts from mid-March to 24 April (beginning of Ramadan)</p> <p>- This period witnessed a severe shock in demand, and a limited supply shock that progressively increased in difficulty as events unfolded</p>	<p><u>The first period</u></p> <p>The beginning of the crisis, especially in the first three weeks, created a state of anxiety and fear among citizens, especially with the beginning of precautionary measures and the imposition of curfews, which led most citizens to purchase more basic commodities for the purpose of storage. This resulted in an unprecedented demand for grocery outlets of all kinds, but to varying degrees, according to the nature of the outlet and the day of the week. Most</p>	<p><u>The first period</u></p> <p>- Hypermarket and supermarket outlets witnessed an unprecedented increase in the volume of their daily sales during the first three weeks, reaching from 40% to 100% according to the nature of the outlet, its quality, the level of health measures, and the ability to deliver orders to homes faster.</p> <p>- The period also witnessed an increase in the number of workers (especially delivery workers), with rates between 20% and 40%, albeit most of them are irregular</p>

		<p>factory owners resorted to intensifying work in order to meet the increasing demand during the first period of the crisis, with the emergence of gradual problems associated with fear of health measures. Large transport vehicles used in the transfer of goods were not exempted from the decisions of the curfew (at the beginning of the crisis), unevenly affecting outlets as follows:</p> <ul style="list-style-type: none"> - Hypermarkets and supermarkets: Hypermarkets and supermarkets contributed to increasing the volume of demand and the influx of citizens due to the availability of products and their relatively low prices, and availability of parking spaces, achievement of social distancing, as well as the 	<p>and temporary workers.</p> <ul style="list-style-type: none"> - As for the traditional stores, their sales volume increased during that period by rates ranging between 20% and 40%, though they did not reach the same percentages of increase as in the case of the supermarket and hypermarket, due to the changing consumer habits and their resorting to safer outlets in addition to their weak storage capacity. - Traditional stores were also affected by the decision to cap withdrawals and deposits issued by the Central Bank, which had a negative impact added to the problems of limited potentials. - We note in general the increase in the volume of sales, especially deliveries, on
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		<p>ease of delivery and use of bank cards. Sales increased unprecedentedly, especially for basic commodities of rice, pasta, sugar, fatty oils, ghee and flour, in addition to detergents and disinfectants.</p> <p>We note that the largest percentages of the increase were in the case of supermarket outlets due to their proximity to citizens and the speed of their delivery of orders, unlike hypermarkets whose outlets are located inside the malls (which have been closed) and are relatively far from residential areas.</p> <p>- Traditional stores: Traditional stores also witnessed an increase in the volume of</p>	<p>Fridays and Saturdays, due to the presence of most citizens in their homes.</p> <ul style="list-style-type: none"> - The abolition of popular markets also increased unemployment and the difficulty of life for low-income people, especially in rural areas. - As for the fourth week, the percentages decreased between 20% and 60% as a result of most citizens being satisfied with what they stored, as well as feeling reassured about the availability of goods at the time of the crisis. - As for the factories, they resorted to increasing the number of working hours from 12 hours to 24 hours to increase production and dividing workers over different tasks
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		<p>demand, especially in the areas where supermarket outlets do not exist, although that increase was less compared to supermarkets and hypermarkets</p> <p>While the decline was higher in rural areas, where most of the inhabitants depend on domestic stocks of agricultural crops and the basic commodities they obtain using the ration cards.</p> <p>- Convenience stores: Convenience stores have witnessed a huge decrease in the volume of demand as a result of the application of precautionary measures (as they mainly depend on the movement of cars and pedestrians).</p> <p>We note that the previous effect</p>	<p>- A decline was noted in the supply of imported products sourced from European countries and America, where the virus has spread significantly</p>
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		<p>applies to the first three weeks, while the fourth week witnessed lower percentages than those achieved in the previous weeks.</p>	
	<p><u>The second period:</u> Starts from April 24 and continued to mid-May</p> <p>This period witnessed the persistence of demand and supply shocks, though less severely</p>	<p><u>The second period</u> The second period witnessed a relative decline in the volume of sales compared to the first period. Despite the advent of Ramadan, during which outlets experience a large increase in sales, a decrease in the volume of sales was observed compared to previous years (except for a few). This could be ascribed to the end of the state of extreme fear and anxiety that afflicted many at the beginning of the crisis and which already started to decline since the last week of the first period, in addition to the decline in the storage capacity of</p>	<p><u>The second period:</u></p> <ul style="list-style-type: none"> - Supermarkets and hypermarkets have witnessed an increase in the volume of sales by rates ranging between 20% and 60%. However, this increase was lower compared to the previous period, and to the advent of the month of Ramadan in the past years. - The number of employed did not witness an increase, though, as most of the outlets were satisfied with those appointed during the first period. - As for traditional stores, they have returned to their normal levels, with the beginning of a

		citizens, the increase in the unemployment rates, the decrease in income levels, and the decision to cancel Ramadan charity banquets.	gradual decrease in the volume of sales.
4- The crisis recedes (Mid-May-August 2020)	Supply and demand shocks during this period are related to the persistence of the precautionary measures and the periods of curfew	<p>Perhaps this stage of the crisis easing is the most important stage for the grocery sector. A rapid recovery or deterioration might occur subject mainly to traditional outlets, which constitute more than 70% of the sector's sales volume, and accordingly there are more than one scenario:</p> <p>- <u>The first scenario:</u> It is the optimistic scenario in which the outbreak is expected to subside, and the precautionary measures will end at the end of May (as indicated by some officials).</p> <p>It is expected that the growth rates of</p>	<p><u>In the first scenario:</u></p> <p>- It is expected that normal growth rates will return, with the hypermarkets and supermarkets reaching rates ranging between 7% and 15% annually</p> <p>- Traditional stores will gradually start to recover</p> <p>- The volume of sales of convenience</p>

		<p>the sector will return to their normal of the previous years.</p> <p>It is also expected that the additional employment that took place in the first period of the crisis will gradually be eliminated</p> <p>- <u>The second scenario:</u> It is the pessimistic scenario in which the large increases in infections during the second half of Ramadan are expected to lead to the continuation of the precautionary measures.</p> <p>In this case, the growth rates associated with the month of Ramadan are likely to continue, and an increase in the sales volume will occur again due to the depletion of the stocks stored by most households.</p>	<p>stores will increase significantly due to the end of the curfew and increase in car traffic and pedestrians</p> <p><u>In the second scenario:</u></p> <ul style="list-style-type: none"> • Hyper and supermarket sales are expected to increase at the same average rates of Ramadan, which range from 20% to 40%. • As for traditional stores, they will resort to closure, achieving an estimated decrease of -6% annually.
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		<ul style="list-style-type: none"> - As for traditional stores, the continuity of the crisis for more than 3 months exposes these outlets to severe losses not only in the volume of their sales but also in the continuity of investment therein as a result of the resort of many of their owners to closures. - As for the convenience stores, a decrease in the volume of sales is also expected, but investments therein will not be affected due to being connected to gas stations and car traffic. 	
<p>5. Recovery (As of September 2020)</p>	<p>The supply and demand shocks here are linked to the previous stage scenarios</p>	<ul style="list-style-type: none"> - Continuity of the <u>optimistic scenario</u> means the return to a normal lifestyle and thus a return to normal rates. - As for the <u>pessimistic scenario</u>, it is 	<p><u>In the case of the optimistic scenario:</u> Annual growth rates return to normal as in the previous stage percentages.</p> <p><u>In the case of the pessimistic scenario:</u></p>

		<p>expected that the number of problems associated with traditional stores will increase, and that these problems may extend to some supermarket outlets, as a result of increased obligations in light of declining income levels and increasing unemployment.</p>	<p>A sharp decrease in the volume of sales, exit of investments, and the growth rates of the sales of the grocery sector fall to less than -20%, similar to the exchange rate liberalization period. Also, a closure of many of stores is expected, with their return to operation becoming very difficult.</p>
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Third: Interventions required to mitigate the effects of the crisis

- 1- Strict control over all outlets to counter any monopolistic practices, or attempts to hoard commodities, while adopting legislation related to health procedures, and ensuring health and safety standards.
- 2- Encouraging outlets to adopt health and safety procedures and treating them as permanent with a future return rather than merely an increase in cost through sterilization gates, purification of shopping carts, obliging employees to wear masks and gloves, and setting a specific system to achieve social distancing between people and avoid crowding as much as possible. The Egyptian Center for Public Opinion Research (Baseera) conducted a survey inside 25 branches of large and medium stores to measure the extent of following the proper health procedures and the extent of disinfection and sterilization of the shopping carts. The result was 92 percent of carts were not disinfected.

- 3- **Strengthening the e-commerce system** to increase online purchase.
- 4- Continuous coordination between the chambers of commerce, sales outlets and the Ministry of Interior, and implementing the special decisions regarding exempting grocery outlet labor from curfew decisions, as many of those workers resort to staying overnight in workplaces until the curfew ends.
- 5- Establishing a branch of the crisis management committee to follow up on the inventory status in each governorate and every sub-region, so that the surplus from the strategic stock is directed from one governorate to another or from one region to another in the event of any deficit
- 6- Providing the necessary support to owners of small grocery stores especially in the rural areas, and enabling them to get the 500 pound grants, or providing facilities and exemptions that enable them to increase their sales and restore their growth rates.
- 7- Encouraging and assisting civil society organizations and societies to provide basic commodities to limited income citizens, activating supply chains and creating economic activity. This was already done by some voluntary associations, as amounts of money were transferred to small grocery stores in villages and neighborhoods instead of buying and delivering goods to the citizen directly, so that the citizen gets the support provided, while grocery store owners also benefit.

Fourth: Institutional weaknesses revealed by the crisis

1. **The absence of accurate databases** on retail outlets in Egypt and their distribution in the rural and urban areas. Such databases can be used to determine the required assistance or

intervention, especially since many workers in that sector are under the umbrella of informal employment.

2. Weak percentage of organized retail trade in food. There is a need to expand it due to its association with a huge productive value chain, which guarantees more efficient quality of the product and packaging methods.

3. Weak system of communications and information technology and e-commerce, as well as lack of platforms for direct communication between supply chains and outlets.

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