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#### Views on the Crisis

# Impact of the COVID-19 Crisis on the Manufacturing Sector Combined



#### 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 sever 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.

The reports attempt to provide a detailed perception of the magnitude and direction of crisis impact on each sector at present and until the end of the crisis. They aim to propose quick solutions to reduce the adverse impacts of the crisis in a balanced and integrated means that complement the serious efforts made by the state in this regard, and to offer other longer-term solutions to the existing institutional flaws, clearly revealed by the crisis. It is high time that these flaws are radically removed, which will improve post-crisis development

"The coronavirus pandemic could be the straw that breaks the camel's back of economic globalization."

#### **Robin Niblett**

<sup>\*</sup> Reports will be issued in Arabic on a daily basis. An English translation of each report will be sent on the day following its issuance.

#### 1. Brief description of the subject of the report

Manufacturing industries are among the economic sectors which various countries rely on as an engine of the development process, due to the of the high degree of forward and backward linkages between them and other economic sectors, whether production or services. Therefore, any crisis to which manufacturing industries are exposed has a direct impact on other economic activities, in addition to its contribution to employment.

This report examines the implications of the Coronavirus crisis on manufacturing industries as a whole and will be followed by four other reports over the coming weeks that address the impact of the crisis on specific industries, as follows:

- 1. The group of industries that meet the daily needs of the citizens, foremost among which are the food industries.
- 2. The group of industries related to the public health of citizens, foremost among which are the pharmaceutical industries, medical supplies, disinfectants and detergents.
- 3. The group of industries producing intermediate goods and production requirements.
- 4. The group of other industries producing luxury goods such as cars and electronic goods.

The manufacturing industries are generally considered to be one of the most affected sectors in the current crisis, for the following two main reasons:

Firstly, manufacturing industries are among the most tradable economic sectors, especially foreign trade.

Secondly, as globalization in the manufacturing sector has led to the dispersal of the stages of manufacturing industry across the world (fragmentation of production), the production process in any country has been linked to global supply chains, resulting in increased sensitivity of the manufacturing sector to various crises.

The products of the manufacturing industries vary in the extent to which the consumers rely on these products in their daily, as well as in the degree of overlap in the factors of production used (labor, capital and technology), and hence their vulnerability to crises varies.

In Egypt, manufacturing industries play an important role in their contribution to GDP, employment, investment and foreign trade as shown in the following table, in addition to the contribution of the informal sector to these industries.<sup>1</sup> In the beginning of the

<sup>&</sup>lt;sup>1</sup> The Egyptian Center for Economic Studies is in the process of preparing a separate report on the impact of the Corona crisis on the informal sector.

second phase of the economic reform program, the State attempted to increase the contribution of the manufacturing industry to the economy, specifically the role of the private sector.

Table 1. Contribution of Manufacturing Industries to the Egyptian economy<sup>2</sup>

Variable	Contribution %
Share of manufacturing industries in GDP (2018-2019)	16.2
Share of manufacturing industries in investment (2018-2019)	11.8
Share of manufacturing exports in total exports (2018)	St/57
Share of manufacturing imports in total imports (2018)	66
Share of manufacturing industries in employment (Q3 2019)	12.4
Female share of total workers in manufacturing (third quarter of 2019)	6.4

<sup>\*</sup> The latest data are available from the following sources:

Ministry of Planning and Economic Development, Quarterly Bulletin of Manpower Survey and Trade Map.

<sup>2</sup> The focus here is on the latest data, not Trend, because it is the starting point for a crisis.

#### 2. The impact of previous crises on the manufacturing sector

In general, the manufacturing industry is affected by crises through one or two channels, according to the nature of the crisis.

The first channel is the repercussions of the global economy on the local economy, which is mainly related to the movement of foreign trade in manufacturing industries, whether imports and exports, representing global supply and demand, respectively.

The second channel is the effect of any internal events on supply and demand on manufacturing industries.

The Egyptian economy has been subject to two shocks, the first is an external shock which is the global financial crisis in the last quarter of 2008, and the second is an internal shock, which is the Revolution of January 25, 2011. Both these shocks affected all aspects of manufacturing industries. Here we focus on the impact of the two crises on foreign trade.

The following table compares the response of total exports and imports, and manufacturing exports and imports during the two crises:

Table 2. Impact of the Global Financial Crisis of 2008 and the 25<sup>th</sup> of January Revolution on Exports and Imports

	2009	2011	2012	
	The impact of	January 25	January 25	
	the financial	revolution	revolution	
	crisis			
Total import growth rate	-15%	18%	12%	
Total export growth rate	-7%	20%	-7%	
Manufacturing import growth rate *	-13%	12%	8%	
Manufacturing export growth rate *	6%	20%	-7%	

Calculated from the data of Trade map, March 2020

### The table shows the following:

• Regarding the external shock: Despite the similarity of the general trend, manufacturing exports were able to achieve positive rates (6 percent) at a time the rate of growth of total exports decreased, which indicates the ability of manufacturing exports to continue despite the presence of a global demand shock unlike other sources of export. This means that attention to manufacturing exports should be a priority goal for the country, as will be seen in the analysis of the situation in the current Corona crisis.

<sup>\*</sup> The industry includes codes HS 04+ HS 15-99, with the exception of 25, 26, 27, 50, 52, 71.

As for the internal shock, we find that manufacturing exports
were affected in the following year due to contractual
obligations signed before the crisis, which also means the
extension of the period of the impact of the crisis on exports.
A boom is also noticed in imports at the time of the internal
crisis, whether total or manufacturing imports.

We conclude from the above that previous crises to which the Egyptian economy was exposed revealed three results:

- The ability of manufacturing exports to continue to bring in foreign currency to the country more than all other components combined.
- 2. The negative impact on manufacturing may occur in a later period, which means that the sector must be considered even if its figures are positive.
- 3. Increased imports during times of crisis.

In what follows, we will address the impact of the Corona pandemic on the manufacturing sector as a whole and its relationship to the crisis cycle.

## 3. <u>Demand and supply shocks in the context of the crisis</u> cycle

The Corona crisis differs from the previous crises because it is more severe and dangerous, combining both an internal and shock. and therefore impact external has an on manufacturing industries through both channels. On one hand, the Corona pandemic caused a disruption in the global supply chains, with a direct impact on the availability of production inputs for manufacturing. Given manufacturing in Egypt relies heavily on imported primary and intermediate production inputs, which together constitute nearly (44 percent) of total Egyptian imports in 2019 according to the monthly Foreign Trade Bulletin issued in December 2019, the lack of production inputs threatens to stop the production process completely or reduce the production capacity of factories. Most importantly, there is the human aspect, that is the impact on the ability of workers to produce regularly.

On the other hand, the Corona pandemic is expected to result in a decline in global demand, which is starting to be felt. The Organization for Economic Cooperation and Development (OECD) expects the Corona pandemic will lead to a decline in global GDP growth by 1.5 percent in 2020.

In addition, the spread of the pandemic and measures taken to control its spread locally will affect the supply and demand on manufacturing industries.

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: The 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 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 Saudi Arabia and European countries, a major worsening of the crisis in Italy, beginning of the virus's receding in China, and beginning of its spread in the United States.

The 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, Arab countries and the United States.

The Fifth stage: Gradual recovery in 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 its weak impact on it.

Below we will present possible scenarios<sup>3</sup> for the industry-specific indicators in the context of the crisis cycle in light of the following assumptions and concepts:

<sup>&</sup>lt;sup>3</sup> These estimates should be read with caution, as expectations may require further revision due to the evolving nature of the virus day by day, and its duration and scope are still unknown.

- Global demand shock: low global demand for Egyptian products
- Global supply shock: low ability of different countries to supply the various products that Egypt imports
- Domestic demand shock: low domestic consumption of various products
- Domestic supply shock: Egyptian factories' production ability falls short of covering the needs of both domestic and export markets
- In the analysis, we focus mainly on foreign trade because it is the main driver. Any change in manufacturing output is related to the movement of foreign trade and global value chains. This is in addition to the problems faced by local manufacturers at every stage of the crisis, which requires supportive intervention by the state.
- There is a lag between the shock and its impact on foreign trade in manufacturing products.
- The ability of the Egyptian industry to recover is mainly related to the world's ability to recover. Therefore, any pessimistic or optimistic scenario for recovery in Egypt is linked to recovery scenarios globally.

The estimates were built using the following methodology:

- Mirror data were relied on regarding total exports and imports due to their availability on a quarterly basis, in addition to the availability of 2019 data.<sup>4</sup>
- Separating the estimates of China and the rest of the world due to the difference in the timing of the emergence of the crisis. To obtain monthly foreign trade estimates for China for the years 2019 and 2020, Chinese data for actual trade with Egypt in 2018 and January-February 2020 were used, assuming a stable relationship between monthly and quarterly values.
- To estimate exports and imports in 2020, annual growth rates were assumed based on an analysis of the performance of exports and imports in 2009, 2011 and 2012, which represent the impact of the external and internal shocks that hit the Egyptian economy.
- The values of manufacturing exports and imports were estimated with reference to the share of manufacturing exports and imports in total exports and imports of 57 percent and 66 percent, respectively, as previously indicated (Table 1).

of 0.85 percent for exports and 0.80 for imports.

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<sup>&</sup>lt;sup>4</sup> Unfortunately, mirror data do not include data for all countries, foremost of which is the Kingdom of Saudi Arabia, which is a main trading partner for Egypt. To overcome this, the relationship between mirror data and direct data was studied in 2018, the most recent year for which direct data is available, and it turns out that mirror data makes up 85 percent and 80 percent of the direct data values for exports and imports, respectively. In light of this relationship, after obtaining the estimates of total exports and imports, these estimates were divided by a coefficient

The following are possible scenarios for the rate of growth of manufacturing exports and imports according to the crisis cycle and in light of the assumptions made.

Table 3. Possible scenarios for the rate of growth in total and manufacturing exports and imports according to the crisis cycle

Stage	Demand and/or supply shock	Analysis	Quantitative Impact on manufacturing
1. Emergence of the virus  (December 2019 to January 2020)	Marginal shock on both sides of supply and demand in China (global)	Egyptian manufacturin g was slightly affected by the crisis during this stage as a result of the decline in foreign trade with China, with difficulty searching for alternative markets due to the absence of detailed information on other sources of supply in	Chinese manufacturing imports to Egypt decreased by a limited amount of about 1 percent during the period December 2019 - January 2020 compared to the same period in the previous year, bringing Egyptian imports to \$2 billion (96 percent) of total Egyptian imports from China. As for manufacturing exports, they fell by about 56 percent during the period (December 2019 - January 2020) compared to the same period in the previous year, to reach \$27 million, which accounts for 21 percent of total exports to China. <sup>5</sup>

<sup>&</sup>lt;sup>5</sup> The sector-level impact will be covered in the sectoral reports.

		the context of time constraints and a weak role of commercial representation. This effect may be reduced by the availability of some inventory of production inputs with some manufacturers, however this cannot be generalized.	
2-The beginning of proliferatio n (February through mid-March 2020)	Increased shock on both sides of global supply and demand, and the onset of shocks locally.	With regard to global supply and demand, Egyptian imports and exports declined with both China and the world during that period as a result of the continuing crisis in China	Imports:  The rate of decline in Egyptian manufacturing imports from China accelerated by about 10 percent during the period February – mid-March compared to the same period in the previous year, most of them in the first half of March, bringing imports from China to \$1.5 billion.  As for imports from other countries, we

and its spread to various countries of the world.

With regard to domestic supply and demand, with the emergence of the virus in Egypt, the effect on supply started to appear due to the employment cutback as a result of schools closure, especially among women, in addition to the inability of enterprises to secure some production requirements.

As for domestic demand, this period began

assume Egyptian imports from the world will decrease by 2 percent during the first quarter of 2020 compared to the first quarter of 2019 (the same rate indicated by the UNCTAD report as a decrease in the supply of intermediate goods from China). Manufactured imports from the world are estimated at \$10.6 billion.

#### **Exports:**

Egyptian exports to China continued to decline by about 29 percent during the period (February - mid-March 2020) compared to the same period in the previous year, bringing Egyptian exports to \$37 million.

As for exports to the rest of the world, assuming a decrease in Egyptian manufacturing exports at the same rate of decrease in total exports as a result of the global financial crisis (-7 percent) during the first quarter of 2020 compared to the first quarter of 2019, the value of manufacturing exports is estimated at \$3.3

to witness a limited decline in demand for manufacturing products in general, especially in the second week of March as a result of declining tourism activity. This decline does not apply to domestic demand on some industries, specifically food industries. disinfectants and detergents, whose demand has increased due to the spread of panic buying among citizens with the decision

billion.

As for the local impact, given that the change occurred in the first half of March, it is difficult to quantify the change in production. However, although a decline in production is not expected to occur, this period witnessed cancellation of some existing export contracts, which predicts a slowdown in production in the coming period.

to suspend

		schooling.			
Aggravation of the problem (From mid-March to May 2020) To 5-Recovery (as of September 2020)	The beginning of the acute shock in supply and demand domesticall y, and continued production and trade imbalance globally	Together, these stages are characterized by being highly dynamic, because the recovery of the world is interlinked, and the impact on Egypt is linked to this global recovery. Therefore, we see the current situation as follows:  • From mid-March to the end of March, the Chinese economy begins to recover, while stoppage of	This analysis to three year-round scenarios (from April 2021).  The first scenarios assumes:  The rate of domanufacture of lower companding of the decline in manufacture of the local control of the local control of the local control of the rate of domanufacture of the rate of	rio (optine di importa red to the rate of ared to ed as a risis  Growt h Rate (½)  -14  -7  enario: ecti assure ecline in dimporta ecline in dimporta esult of the result	on 20 to onistic)  Sister of ring the result  Value (bn)  12.5  46.3  mes:  sister of ring the result

- economic activity in European countries continues and even peaks. The pandemic is expected to continue, at least until June, according to WHO reports.
- As for the situation in Egypt, we find that the period from the second half of March witnessed a slowdown in the production system due to the partial cessation of economic activity and the closure of schools

 Doubling of the rate of decline in manufactured exports compared to the assumed figure in the first scenario.

	Growt	Valu	
	h Rate	е	
	(%)	(bn)	
Manufacture	-28	10.5	
d exports	-20	10.5	
Manufacture	-15	42.3	
d imports	-13	42.3	

#### <u>The third scenario</u> (pessimistic) assumes:

- Higher rate of decline in manufactured imports compared to the rate assumed in the second scenario.
- Higher rate of decline in manufactured exports compared to the rate assumed in the second scenario.

	Growt	Valu	
	h Rate	е	
	(%)	(bn)	
Manufacture	-56	6.4	
d exports	-30	0.4	
Manufacture	-30	34.8	
d imports	-50	34.0	

and universities.

All of this means that Egypt will not recover before European countries and the United States

As new cases emerge in China, the most pessimistic scenario is most likely to happen.

countries and the United States because these are the traditional markets for Egyptian exports, followed by Arab countries. On the other hand, we find that China's

recovery may

result in a

increase in

imports from

Egyptian

China in

terms of

production

as well as

requirements

final products

gradual

to meet the needs of the local market, which the local manufacturing system cannot fully provide in view of the precautionary measures related to the disease. A full recovery of the Egyptian manufacturing system is not expected, at least before the beginning of next year.

As for manufacturing output, in light of the estimates of the Egyptian Center for Economic Studies in issue No. 2 dated March 24 of the impact of the Coronavirus on the rate of GDP growth, and with an overall view of manufactured output, manufacturing output can be estimated (16 percent of GDP) in the various stages of the crisis as shown in the following table.

Table 4. Estimating Manufactured Output during the Various Stages of the Crisis as a Percentage of GDP

	Assumption		Estimating the value of real manufacturing output		
1-Emergence of the virus (December 2019 to January 2020)	GDP growth rate of 5.6% from the fourth quarter of 2019		EGP	EGP 161 billion	
2-The beginning of proliferation (February through mid-March 2020)	GDP growth rate of 4.9% in the first quarter of 2020 compared to the first quarter of 2019		EGP 163.8 billion		
3- Aggravation of the problem (From mid-March 2020)	Scenario  1 2 3	Annual growth rate of GDP 3.5 2.3 0.8	Scenario  1  2	Annual real manufacturing output  EGP 657 billion  EGP 649 billion  EGP 639.4 billion	

It is important to add to this analysis three important points:

1. The negative impact of the Coronavirus on Egyptian manufacturing will automatically affect all economic activities

- in Egypt due to the interrelationships and interconnections with the rest of economic activities as previously mentioned.
- 2. With the complete deterioration of tourism and remittances of workers abroad, the manufacturing sector remains the only source capable of providing foreign currency and therefore requires special attention from the state.
- 3. Factories currently suffer from a severe shortage in liquidity as a result of a sharp decline in production and sales with obligations towards employment continued and the **Below** problems government. are some that the manufacturing sector suffers as of the beginning of March:
  - Curfew measures that affected the shift system in factories.
  - The emergence of some cases in factories leading to production stoppage for a period of time, depending on the decision of each factory because as there is no clear protocol that applies to everyone for how to behave and the period of production stoppage.
  - Factory productivity declines as a result of following virus prevention measures, including reducing the number of workers
  - Individual decisions by official bodies that impact workers shifts or the movement of workers from one

- governorate to another without coordination, which disrupts the production process.
- High rate of leave as a result of injury, female leave or workers refusing to go to factories, especially in small factories.
- The increasing difficulty in providing the required raw materials and intermediate goods as the crisis worsens globally.
- Insufficient production capacity may appear to meet the increasing demand for food products, disinfectants, detergents, and medical supplies.
- Canceling many existing export contracts (under implementation), not just new ones.
- There is a group of export products whose exports will decrease not only due to the irregularity of the production process in Egypt but also as a result of government decisions to prohibit the export of those products or imposing export fees. The decisions of the Ministry of Industry and Trade include prohibiting the export of alcohol, and imposing an export fee on cotton scraps and related products for a year, as well as requiring Egyptian companies producing and importing medical supplies to supply their products and inventory

- to the Unified Medical Procurement Authority for a period of 3 months.
- The sharp change in other sectors (such as tourism and others) has negatively affected the various manufacturing sectors, and this will be covered in subsequent sectoral reports.

Finally, the importance of supporting manufacturing in this crisis must be emphasized in order to maintain investments in this sector and ensure full return of its activity after the crisis, in addition to maintaining employment as an integral part of respecting the rights of Egyptians to a decent life. Other countries, specifically the UK, have supported manufacturing to maintain employment, as the UK has borne 80 percent of the wages of factories, in particular those of small businesses.

#### 4. Interventions required to mitigate the effects of the crisis<sup>6</sup>

#### 1. Measures to avail liquidity to companies

- Exempting all companies from filing tax returns for a period of three months until June 30, 2020
- Exempting all companies from their obligations towards the government and service companies for a period of three

<sup>&</sup>lt;sup>6</sup> Most of these proposals have been submitted by the Federation of Industries to the relevant authorities.

months, foremost of which is exemption from payroll tax and social security taxes, fixed installments of electricity and gas fines.

- A 50 percent discount on toll road fees.
- Expediting the procedures of the committee formed in accordance with Prime Minister Decision No. 776 of 2020 in respect of the Emergency Workers' Benefits Fund to ensure prompt disbursement.
- Paying the companies dues with the Ministry of Finance.
- Expediting the disbursement of arrears of export subsidies due to exporters from the fiscal year 2017/2017 to 6/30/2019, and looking into the possibility of converting some items of export support to direct cash transfers, specifically with regard to external exhibitions and technical support, as it is currently impossible to benefit from such subsidies.
- Paying companies dues in the national projects.
- Take advantage of the assistance provided by international institutions, particularly the World Bank and the International Finance Corporation (IFC), which announced a \$14 billion financing package to help countries tackle the spread of the virus, including \$8 billion directed to support private sector companies and their employees who have been negatively affected by the decline in economic

activity, and to finance business activity, working capital and provide short-term financing. This funding will support the sectors most affected by the pandemic, particularly the tourism and manufacturing sectors, as well as the sectors that support the response to the pandemic, in particular the health system and related industries.

#### 2. Other immediate measures to support manufacturing

- Reviewing the percentage of inward exports in free zones and increasing them temporarily to 50 percent instead of 20 percent, while studying the possibility of their continuation.
- Operating all factories suspended due to some procedural obstacles that may prevent starting the activity.
- Motivating factories to adjust production lines to suit the current needs through state tenders. For example, directing furniture and clothing factories to the manufacture of medical masks, doctors' clothes, hospital needs and protective clothing for citizens, as well as engineering and electronic industries to manufacture artificial respiration devices and similar medical devices, and allowing cosmetic companies to obtain a percentage of alcohol to enable them to produce antiseptics.

 Applying international procedures to dealing with virus cases that may appear in factories, which include isolating infected cases and stopping production at the factory for 48 hours to carry out purification and restore production activity.

#### 5. <u>Institutional weaknesses revealed by the crisis</u>

The crisis is an opportunity to fix the institutional problems that have been longstanding, many of which have clearly emerged in the context of the crisis. The following are some of the reform proposals to deal with some of these problems:

- Forming a permanent crisis management committee headed by the Prime Minister to manage this and other crises centrally, with centralized oversight and follow-up of implementation so that no confusion occurs.
- Evaluating the impact of approved exceptional procedures related to import, licenses and examination to facilitate the performance of business and enacting them as permanent procedures.
- Accelerating the process of issuing permits, licenses, and allocating lands for industrial activity to speed up the injection of new investments. A complete and comprehensive reform of the land system is need as it remains the biggest obstacle to

industrial investment (refer to the study of the Egyptian Center for Economic Studies in this regard)

• Activating the role of commercial representation to provide information in an organized and institutional way, which would promote new investments and avail opportunities for foreign trade and better handling of crises. This is necessary and important for small factories that represent more than 80 percent of manufacturing plants.

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