

Covid-19 and Economy :Case of Tunisia

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Abstract-This paper highlights the immense economic and social effect of COVID-19 on studies that either anticipated such a large-scale phenomenon and its economic implications or measured the effect of other epidemics and pandemics. Consideration of the potential impacts of COVID-19 on financial markets and institutions, either directly or indirectly, is briefly illustrated in a number of literatures. The COVID-19 pandemic has had a catastrophic impact on the entire world in terms of health, economics and social life.

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I-Introduction

The model of economic and social development put in place in the 1970s, and with adjustments in favor of greater opening and liberalization of markets in the 1990s, gave its first signs of running out of steam in 2008 with the global economic crisis. The tensions social policies began to gain force, particularly in the mining area, and intensified in December Real GDP growth rate, year on year, for the year 2019. 2010s contributes to the fall of the regime in place in January 2011. It followed the entry of Tunisia in a phase of political transition, accompanied by an economic transition whose development has been largely seized by post-revolution social, political and security instability. This resulted in low economic growth, around 1.8% on annual average over the period 2011-2019, and 1% in 2019.

In Tunisia, the Covid-19 pandemic shed light on the capacities of public hospitals and the health sector in general. More than three months after the announcement of the first detected case and at the approach of the reopening of the borders, the health crisis seems, for the moment, to be under control.

The rest of our paper is organized as follow: section 1, presents the comparison between the first and second wave of coronavirus in Tunisia. Section 2 summarizes Policies taken to slow down the spread of the virus .Finally, Section 3 presents the impact of the coronavirus on the economy.

II-Comparison between the first and the second wave of Covid-19 in Tunisia

In March, when the covid-19 reaches Tunisia, drastic measures are quickly taken: border

closures, curfews and confinement. Faced with a fragile health system and lack of infrastructure, the impact of Covid-19 is likely to be fatal. But after the rapid increase in the number of patients in the first weeks, the situation stabilizes and the pandemic seems to be under control. Covid-19 seems far away until the borders reopen on June 27, 2020.

For the first time since the beginning of the Covid-19 epidemic in Tunisia, the bar of 100 daily cases is exceeded on August 14, 2020. In comparison, during the first period, the peak had been reached with 59 cases reported on March 24th and has steadily declined since then.

During the first wave, the number of contaminations began to decrease one month after the first case was discovered. Since June 27, on the contrary, the new cases observed during this second wave have been increasing steadily, particularly from August onwards. Thus, over the same period, the increase in the number of cases since the opening of the borders is much more consequent than during the first period.

But despite the significant increase in the number of cases, the authorities are still far from practicing a policy of massive screening despite the recommendations of the World Health Organization (WHO). For several weeks, the strategy was to screen people who had been in contact with the patients in order to limit the risks of contamination. On September 18, the Ministry of Health announced that asymptomatic people would no longer be screened.

After the opening of the borders, while the chains of transmission were under control on the territory, the new contaminations came above all from abroad. Thus, the first local case was not detected until July 13 and the curve gradually took off only one month after the opening of the borders. In March, by comparison, local cases grow rapidly. However, during the first wave, the evolution of local cases increased steadily and began to stabilize two months after the detection of the first case. On the contrary, the post-border reopening curve began to increase very rapidly around August 10. Thus, between September 6 and 7, nearly 300 new local cases were discovered.

During the first wave, the low rate of cases requiring hospitalization was partly explained by the fact that 85% of newly infected people were asymptomatic, according to information provided

by the National Observatory of New and Emerging Diseases (ONMNE). They therefore did not require any special care. But even without apparent symptoms, these people remained contagious and if not detected, they risked infecting vulnerable populations while escaping the radar of the authorities.

On Saturday, September 26, 936 new cases were detected. Faced with this increase, certain decisions have been taken to slow down the spread of the virus, particularly by the local authorities in some outbreaks. Nationally, the authorities have made masks mandatory in airports, large commercial areas, public transport and hospitals. All large-scale gatherings are cancelled (conferences, fairs, seminars etc.).

III- Policies taken to slow down the spread of the virus

To limit the risks of renewed contamination, the Ministry of Health has established health measures depending on the country of origin. This list is updated regularly; the last update was on September 24. Among the countries subject to new regulations, France is on the list of "neighboring countries" concerned by specific measures that are still unclear, along with Italy, Malta and Luxembourg. Belgium has joined the list of countries classified in red, for which only persons of Tunisian nationality and foreigner's resident in Tunisia are allowed to enter the territory. The travelers are subject to mandatory testing and quarantine, as well as nationals of countries classified in orange. Since August 26, all travelers must provide an RT-PCR¹ test when entering the territory, regardless of the country of origin.

In El Hamma, a delegation from the governorate of Gabes, a curfew has been declared from 17h to 5h in the morning. A measure that comes in addition to others limiting gatherings, such as the ban on wedding parties, the closure of mosques or the ban on weekly markets. A mobile military hospital was set up in the city, where 437 cases were recorded until August 21. These measures include the classification of countries according to their health situation. Travelers from "green countries" were not subject to any procedures. Those from "orange countries" were placed in two categories. Tourists must present a negative test and are obliged to stay in the hotel they have booked with a well determined tourist circuit, while Tunisians residing abroad are also subjected to a test and self-isolation for 14 days. Tourists from countries classified "red" are not allowed to come to Tunisia. Only Tunisians can enter. They must present a

¹ The PCR test can tell if a person is infected with SARS-CoV-2 at the time the test is performed. It usually begins with a nasopharyngeal swab, taken with a swab. Although it is possible to perform it with a saliva sample, since this method is not considered sufficiently reliable.

negative PCR test at boarding, performed less than 120 hours before the trip. They are then compulsorily placed in self-isolation for a period of 14 days.

A new development since the appearance of the virus in Tunisia, 90% of those infected are asymptomatic, the director of the National Observatory of New and Emerging Diseases. Undetected, asymptomatic infected people easily spread the virus, especially in the face of widespread laxity in the application of rules of hygiene, wearing masks and physical distancing.

In view of the large number of asymptomatic cases, the Ministry of Health is encouraging corona virus carriers who have not shown symptoms of illness to quarantine themselves at home. They must respect the sanitary rules, including physical distancing to avoid contamination of their entourage. Pending the start of the new school year on September 15, a health protocol dedicated to schools and universities has been unveiled. It provides for the taking of body temperature at the entrance to educational establishments in places with a high rate of contamination and the wearing of masks for teachers and educational staff.

Since August 25, the wearing of masks is mandatory in all public places and spaces. Violators risk a fine of between 100 and 3 thousand dinars. This penalty could result in imprisonment under [article 312 of the penal code](#)².

A night curfew has been established in the Grand Tunis, for 15 days, to counter the spread of the corona virus pandemic, announced on Wednesday evening by governor of Ariana, adding that the exceptional measures transferred to the Ministry of the Interior and the presidency of the government are all approved. On this occasion, citizens were invited to stay at home until further notice, except in extreme emergencies and while wearing masks.

IV-Impact of Covid-19 on the economy

Like what is happening in several countries, the COVID-19 pandemic has transformed in Tunisia, in an economic and social crisis. The economic impacts of this crisis are heavy, especially for vulnerable households and micro and small enterprises. Everywhere in the world, it is accompanied by worsening unemployment and lower wages in jobs precarious (with a loss of jobs worldwide, ranging from 5.3 to 24.7 million, depending on the severity of impacts considered through different scenarios). For a developing country such as Tunisia, it is essential to take into consideration the informal work when analyzing the impacts of the COVID-19 pandemic on income poverty and multidimensional.

² Anyone who violates the prohibitions and prophylactic or control measures ordered in times of epidemic is punished by six months' imprisonment and a fine of 120 dinars.

Indeed, the current pandemic is reflected in a shock on the demand for labor and therefore by a significant drop in sources of income and the number of hours of work, generating an increase in the number of workers in the informal sector. Special attention must, in addition, be granted to migrant workers, asylum seekers and refugees (household help, babysitter, gardeners, day workers in the construction, tourism and agriculture, etc.) in the informal sector, which are disproportionately affected by the measures containment.

According to table1 the COVID-19 pandemic would lead to economic growth of -4.4%, compared to a growth initially planned under the 2020 finance law of 2.7%. Several factors are believed to be responsible for this decline in growth for 2020: (1) a supply shock negative, the impact of which is direct on the activity of several sectors. All other things being equal, this shock is transmitted to other sectors causing indirect effects through a drop in demand addressed to these sectors as intermediate consumption, (2) a reduction in consumption households due to confinement and declining income for many of them, (3) a reduction in external demand for certain export sectors due to the pandemic of COVID-19 has also impacted Tunisia's main trading partners. The conjugation of these different effects would result in an increase in the consumer price index (CPI). Indeed, the impact on prices depends on the magnitude of the supply and demand shocks. If the shock of the supply is more (less) than the demand shock, the price of a given product / service increases (decrease).

The fall in production also leads to a decrease in demand for the labor factor, and consequently an increase in unemployment. Unemployment is expected to worsen, including the rate would drop from 15% (baseline scenario) to 21.6%, which corresponds to nearly 274,500 new unemployed. This would result in a drop in household income and also in their consumption (due to among other things, difficulties in accessing markets for goods and services). The net effect would be an increase in aggregate household savings, compared to the reference scenario, by 12.5% and 11.4%, respectively under scenarios 1 and 2.

In terms of public finances, the expected economic recession would result in a drop in tax revenues compared to the baseline scenario, as shown in Table 1. With regard to taxes indirect, for example, they will increase from a growth of around 11% provided for in the 2020 finance law, at 1.5% for the crisis scenario. Direct tax, on the other hand, in its corporate tax component would undergo a contraction of -6%. The fall in international hydrocarbon prices allows, however, a relaxation on energy subsidy expenditure and therefore on the operating budget of the state.

Foreign trade is also impacted by the fact that Tunisia is an open country dependent on its exchanges with the rest of the world. The COVID-19 pandemic having impacted the whole world, and in particularly Tunisia's main partners such as France and Italy, and because of the difficulties of maintenance of international transport, the overall impact on exports and imports would be negative. The volume of exports and imports fell by 20% and 22.3% respectively during the first four months of 2020 compared to the same period of 2019.

The overall effect of COVID-19 would therefore be negative on the Tunisian economy for the year 2020, with a decline growth of -4.4%. This decrease would be justified mainly by the decrease in investments (-4.9%), private consumption (-8%) and exports (-8%), in percentage points compared to the base line scenario.

Non-manufacturing industries are also very strongly impacted, mainly from caused by the collapse of international energy prices, the consequences of which would also heavy on oil activity and revenue for the state budget in the form of royalties and taxes direct on this sector.

The other sectors of activity are also negatively impacted by the COVID-19 crisis, but in a lesser extent. These are, for example, sectors related to other personal services, trade and repair and information and communication. It is interesting to note, however, that the crisis would have a positive effect on the gross operating surplus of the agri-food, building and civil engineering industries and woodworking and manufacturing of wooden articles. Indeed, the fall in the prices of certain products, in particular energy, would lead to a decrease in the cost of intermediate consumption and an increase in added value, despite the drop in the value of production. For example, consumption intermediary in petroleum products in the "Building and civil engineering" sector represents around 13.1% of total intermediate demand for these products, and 5.5% of total intermediate consumption of the sector. As a result, a 4.5% drop in the administered price of oil benefits this sector by reducing its costs and increasing its added value, despite the drop in the value of the production.

The COVID-19 pandemic appears to impact industries in different ways. Table 2 presents the impact on turnover (turnover), added value (VA) and gross operating surplus (GOS) of the business sectors. The hotel and catering industry, transport and textiles, clothing, leather are among the most impacted by the COVID-19 crisis because they are the most exposed to containment measures imposed by the Tunisian authorities and therefore to both supply and demand shocks.

Other sectors are indirectly impacted, due to their strong connection to the three sectors mentioned above. Agricultural and agri-food products, for

example, represent around 85% of the total intermediate consumption of the hotel and restaurant industry. Therefore, the decline in value production of hotels and restaurants of 23% partly explains the decrease in agricultural production and agri-food respectively by 3% and 2.8% (in terms of turnover).

There has been no funding

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Appendix

Table1. The impact of covid-19 on economy

| | Before Covid-19 | Post Covid-19 |
|-------------------------------|-----------------|---------------|
| Produit Intérieur Brut | 2.7 | -4.4 |
| Inflation rate (CPI) | 6.7 | 7.0 |
| Unemployment rate | 15.0 | 21.6 |
| Gross Fixed Capital Formation | 2.9 | -4.9 |
| Household consumption | 1.9 | -8.0 |
| Exportations | 5.8 | -8.0 |
| Importations | 3.8 | -9.6 |

| | | |
|-----------------------|------|------|
| Indirect taxes | 11.3 | 1.5 |
| Personal Income taxes | 9.5 | 1.4 |
| Society taxes | 4.6 | -6.0 |

Source: Estimates of the CGE model and data from the 2020 finance law

Table2. The impact of covid-19 on different sector

| | Employment | Turnover | Added3 value | Gross4 operating surplus |
|---|------------|----------|--------------|--------------------------|
| Agriculture and fishing | -4.6 | -3.0 | -4.8 | -4.5 |
| Non-manufacturing industries | -34.5 | -29.0 | -29.4 | -25.8 |
| Agrifoods industries | -0.1 | -2.8 | -0.4 | 1.3 |
| Textile, Clothing and Leather | -15.7 | -17.7 | -14.5 | -12.3 |
| Woodworking and manufacture of wood products | -4.1 | -2.6 | 0.3 | 4.5 |
| Metallurgy and Metal Product Manufacturing | -3.2 | -6.9 | -3.8 | -2.4 |
| Other industries | -7.6 | -15.1 | -9.7 | -5.5 |
| Building and civil engineering (construction) | 2.6 | -7.8 | 2.6 | 4.1 |
| Trade and repair | -10.0 | -10.6 | -10.0 | -8.4 |
| Hotels and restaurants | -15.8 | -23.0 | -15.8 | -14.6 |
| Transports | -15.0 | -19.6 | -14.1 | -10.8 |
| Information and communication | -9.1 | -10.2 | -10.9 | -8.7 |
| Other personal services | -13.0 | -12.6 | -9.5 | -9.4 |
| Education | -0.3 | -0.6 | -0.3 | -0.2 |
| Human health activities | -3.4 | -4.6 | -3.4 | -3.1 |
| Other services | -1.0 | -3.6 | -5.4 | -1.7 |

Source: Estimates of the CGE model and data from the 2020 finance law.

³ Added Value = Turnover- (Purchases + Expenses).

⁴ GOS= Added Value + Subsidies - Staff costs - Indirect taxes.

