
ТЕОРЕТИЧЕСКИЕ
И МЕТОДОЛОГИЧЕСКИЕ ПРОБЛЕМЫ

Would the lock-down induced economic contraction be a prelude
to a major depression?

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Abstract. The coronavirus or Covid-19 epidemic has stricken the imagination. The fear of a total collapse of advanced countries health system gave birth to what had been called the lock-down of major economies. These measures also have a cost. Obviously, the longer would the lock-down situation go, the higher its economic cost. But, at some point, we could have some irreversible consequences as the number of Small or Very Small enterprises going bankrupt could reach a critical mass. One could then ask the question to know if the health emergency linked to epidemic is not paving the way to a major economic crisis, one that could dwarf all other post-1945 crises. The end of the containment is not to simply jump-start the economy. The level of depression experienced during the lock-down situation would be a serious indicator to estimate the duration of the return to a pre-Covid situation. The difficulty in initially estimating the extent of this crisis can be understood. However, various governments clearly underestimated the gravity of the situation, like the French and the Italian ones, until the beginning of April 2020. They also continue for some, like the French government, to underestimate the extent of the recession. We have attempted in this text to produce realistic estimates and in the subsequent paper we are comparing our estimates with others, be they produced by public bodies or by private ones. If the drop in production figures is actually closer to the level of the 1929 crisis, what is new is the speed with which production is almost at a standstill. As with the 1929 depression the number of changes, for the better or for the worse, is to be extremely important.

Keywords: Covid-19 epidemic, economic collapse, lock-down, economic cost, small enterprises, bankruptcy, containment, post-1945 crises, economic crisis.

JEL Classification: D78, E32, E65, G33, I18, J64.

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The coronavirus epidemic strikes the imagination: media is filled with images of hospitals in distress, people under respiratory assistance, and most of the world experiences an unprecedented partial or total so called *lock-down*. Beyond the human aspect, with its dramas and its pain, there is also the question of the economic cost of this epidemic (Eichenbaum, Rebelo, Trabandt, 2020), and especially of lock-down measures (Markel, Lipman, Navarro et al., 2007, pp. 644–654). We know, since the Spanish Flu of 1918–1920 that pandemics can have a distinct economic impact even if the death number is quite limited (Garrett, 2007; Brainerd, Siegler, 2003). We also know that the use of non-pharmaceutical interventions (i.e. quarantine and lock-down) is improving the situation (Hatchett, Mecher, Lipsitch, 2007, pp. 7582–7587). Nevertheless these measures also have a cost. Obviously, — the longer the lock-down situation the higher the economic cost. But, at some point, we could have some irreversible consequences. One could then ask the question, if the health emergency linked to epidemic is not paving the way to a major economic crisis, one that could dwarf all other post-1945 crises.

If the current situation is without comparison in modern times, some elements of comparison could however be found in the post-WWI depression. Here, after a good start the British transition from wartime to peacetime economy faltered. A serious recession struck between 1921 and 1922. This situation was worsened by the fact other major economies were also mired in recession. The export-dependent economy of Britain was then particularly hard-hit with unemployment reaching 17% and overall exports at only half of their pre-war levels (Carter, Means, 2011). In United States, after a small boom in 1919, GDP went down to 96.4% of its 1919 level in 1921 for John Kendrick (Kendrick, 1961, table A-II) and to 79.4% of its 1918 level for the *Commerce Department* (US Commerce Department, 1986, table 1.25, p. 87). Whatever the exact amplitude there is no doubt that the economy contracted quite severely in the post-war times. One reason

given was the brutal change of relative prices induced by the resumption of shipping. The unit value of imports indicates that the supply shock due to the resumption of shipping was also significant with a fall of 56% of the unit value against a mere 10% in pre-WWI recessions (Romer, 1988, pp. 91–115).

Of course, the current situation is quite different from the one after the First World War. But what these examples are telling us is that a return to the situation before what was major an event like the Covid-19 is neither to be fast nor to be simple. The end of the containment is not to simply jump-start the economy. The level of depression experienced during the lock-down situation would be serious and indicator to estimate the duration of the return to a pre-Covid situation.

1. A SIGNIFICANT IMPACT ON THE WORLD ECONOMY

It is clear today that the impact of the coronavirus epidemic will be very significant. All statistical institutions and think tanks are racing toward making estimates. As a matter of fact, early March 2020, the OECD published previsions, are looking today tragically rosy (OECD. Interim Economic Assessment, 2020). The Euro area economies were moved from a 0.8% forecast to -0.3% one; the German economy in the same previsions was downgraded from 0.3 to -0.1% , the French economy fell from 0.9 to -0.3% , and the Italian economy — from 0.0 to -0.4% (Idem, p. 2.). However, imposition of lock-down in various countries dramatically changed the economic situation.

One has then to notice the quite pessimistic forecast established by the Italian bank UniCredit (Silvestre, 2020). By comparison with official or semi-official estimates, this forecast is describing a very bleak future. UniCredit estimates are done on the assumption that containment (lock-down) is to last at least till June (Table 1).

It is important to read the commentary attached to these figures: “*We expect the bulk of containment measures in the US and Europe to last through June. In this environment, uncertainty surrounding forecasts is huge. Nevertheless, today, we present our best guesses*” (Idem, p. 3). This amounts to 12 weeks when other estimates are done on shorter periods of time and could explain the very ‘pessimistic’ mood of UniCredit experts. Quite interestingly, and to the contrary of other studies, UniCredit experts are forecasting quite a swift recovery, but they temper optimism with a possible second pandemic wave: “*We suspect that the trough is likely to be much deeper — and the recovery swifter — than in the 2008–2009 financial crisis. Risks are skewed to the downside, particularly with respect to the strength of the recovery. There is a risk of the second wave of infection, while business*

Table 1. UniCredit estimates: GDP rates of growth for 2020 and 2021,%

| Regions & Countries | 2020 | 2021 | 2021 in% of 2019 |
|---------------------|---------------|--------------|------------------|
| World | −6.00 | 8.60 | 102.1 |
| US | −10.80 | 11.80 | 99.7 |
| Eurozone | −13.00 | 10.00 | 95.7 |
| of which | | | |
| Germany | −10.00 | 10.00 | 99.0 |
| France | −13.80 | 11.60 | 96.2 |
| Italy | −15.00 | 9.00 | 92.7 |
| Spain | −15.50 | 9.50 | 92.5 |
| United Kingdom | −10.50 | 9.80 | 98.3 |
| Norway | −5.50 | 6.50 | 100.6 |
| Switzerland | −10.20 | 9.70 | 98.5 |
| Asia | | | |
| China | 0.60 | 10.0 | 110.6 |
| Japan | −7.50 | 6.0 | 98.0 |
| Russia ¹ | −4.10 | 2.6 | 98.4 |

Source: Table reconstituted from data of Table 1 (Silvestre, 2020, p. 4).

¹ Data communicated by *Alexander Schirov*, Deputy-Director, Institute of Economic Forecasting RAS, Moscow.

failures and much higher unemployment may cause long-term damage to productive potential" (Idem, p. 3). This is quite the opposite of what is commonly accepted, and one can think that here UniCredit experts are probably wrong. On the other hand, if we take estimates for a lock-down of 8 weeks duration, GDP losses, if higher than what the INSEE said, are much more in line with what has been forecasted. Actually, lock-down duration was 8 weeks expected.

2. WHAT IMPACT ON FRANCE?

The confinement of the population has put a stop to a large part of production in France. Another part of the production was affected by the slowdown in production in countries with which we have a lot of economic trade and the lack of spare parts. The number of workers laid-off is progressively revealed by statistics. Telework, often presented as a quick fix to the situation, is not applicable in many industries, and, when it is done, entails a sharp drop in productivity. Finally, the end of confinement will not immediately mean a return to normal. The end of confinement will be gradual, and so will be the return to a normal rate of activity. This impact can therefore be estimated. We know we had from 8 to 11 million workers on partial unemployment in France. This number amounts to 40.5% of private sector wage earners².

Institut National de la Statistique et des Études Économiques (INSEE), the National bureau of statistics and national economics, published estimates on March 26³ and confirmed them by April 9th⁴. The Observatoire Français des Conjonctures Économiques (OFCE), a well-known institute linked to the Higher School of Political Sciences (*Sciences Po*) has also produced estimates (OFCE. Evaluation au 30 mars 2020). INSEE and OFCE estimates differ, and not only because assumptions about the lock-down duration are different but also because we have a significant difference in method of computations. OFCE is modelling and computing a *major demand shock*. One cannot deny that such a shock exists. But, the lock-down of the society is mostly inducing a supply shock by physical closing of activities and plants. This is what has been observed in China in the Hubei province⁵.

One senior OFCE researcher, Mr. Eric Heyer, has produced on his own another estimates on the ground of the drop experienced by electricity consumption in France⁶. This is interesting as it covers the drop of supply. He deduces from his finding a drop of monthly GDP in line with OFCE estimates. But, one has to remember that electricity industrial consumption declines less than proportionally with industrial production,— a fact demonstrated during the 1990s in the Russian transition. That could be explained by the fact that even if in a given plant we have production at 10% of normal, the need to lighten buildings, to heat them or to acclimatize then, to power instruments and machine tools, will imply a consumption of electricity higher than 10% of normal power. The relation between production and electric consumption is not linear and probably vary with the production level. So, again, Heyer's estimates, if very ingenious and interesting, are probably too optimistic in the present situation. The fact that now the number of people on partial unemployment benefits amount to more than 40% of private sector wage earners is an indication that the drop down level of the French economy is greater than 35/36 (%) given by INSEE and OFCE.

The OFCE estimates, because they concentrated on a *demand shock* are then slightly less severe than the INSEE ones. First, the *supply shock* is obviously treated as residual. We think; there is misunderstanding logics for a lock-down economy, reacting much closer to a war economy than to a civil-time one. An ample literature exists on this topic (See among others: (Milward, 1977; Hardach, 1977; Fridenson, Griset, 2018; Feldman, 1966)). As a result of this misunderstanding of the situation, the OFCE reaches a slightly better (−2.6 against −3% by INSEE) result for shock consequences on one month (Table 2).

² <https://www.sudouest.fr/2020/04/11/coronavirus-8-millions-de-salaries-en-chomage-partiel-le-gouvernement-met-en-garde-contre-les-fraudes-7404623-4688.php>

³ <https://www.insee.fr/fr/information/4471804>

⁴ <https://insee.fr/fr/statistiques/4478214?sommaire=4473296>

⁵ <https://blogs.imf.org/2020/03/20/blunting-the-impact-and-hard-choices-early-lessons-from-china/>

⁶ <https://www.ofce.sciences-po.fr/blog/quelle-est-l'ampleur-du-ralentissement-industriel-apres-15-jours-de-confinement-une-analyse-a-partir-de-la-consommation-delectricite-en-france/>

Table 2. OFCE estimates in% of different sector activity (monthly value added) and in% of yearly GDP

| Branches \ Nature of shock | Closing of schools | Demand adjustment | Other supply shock | Total |
|--|--------------------|-------------------|--------------------|--------------|
| Agriculture | -6 | -3 | -5 | -13 |
| Energy, water and waste | -3 | -11 | -4 | -18 |
| Food processing | -10 | -6 | -4 | -20 |
| Cooking and refinery | -3 | -42 | -3 | -48 |
| Equipment goods | -4 | -26 | -3 | -33 |
| Transportation equipment | -1 | -68 | -2 | -70 |
| Other industrial goods | -4 | -29 | -3 | -36 |
| Construction | -1 | -47 | -3 | -51 |
| Commerce | -3 | -49 | -2 | -55 |
| Transport | -2 | -42 | -3 | -47 |
| Accommodation and catering | 0 | -87 | -11 | -98 |
| Information and communication | -1 | -11 | -4 | -17 |
| Financial services | -1 | -15 | 0 | -16 |
| Real-estate services | -7 | -7 | -4 | -18 |
| Services for enterprises | -3 | -34 | -11 | -48 |
| Non-market services | -3 | -2 | -5 | -10 |
| Household services | -6 | -29 | -3 | -39 |
| Economy (monthly) | -3.6 | -23.3 | -4.7 | -31.6 |
| One month lock-down impact on GDP | -0.3 | -1.9 | -0.4 | -2.6 |

Source: calculations on (OFCE, 2020).

3. WHAT IMPACT ON GERMANY AND ITALY?

As a matter of fact Germany and Italy are among the most important trading partners of the French economy and industry. Economic results are to have important consequences on French economic growth. If we compare French results to the ones of other European countries, we are to find some interesting bias. German authorities are estimating a coronavirus induced contraction of the economy between 7.6 and 20%⁷, the last case being obviously the worst one. It is interesting to note that the Italian statistical institute (Istituto Nazionale di Statistica, ISTAT) has adopted a demand-linked approach. In its April 7th document⁸ ISTAT is computing a drop in GDP of only -1.9% if the lock-down lasts till the end of April (ISTAT. *Nota Mensile Marzo*, 2020)⁹. This looks hard to believe when one knows that Italy has been the European country the most affected by the pandemia so far. The Directorate-General for Economic and Financial Affairs

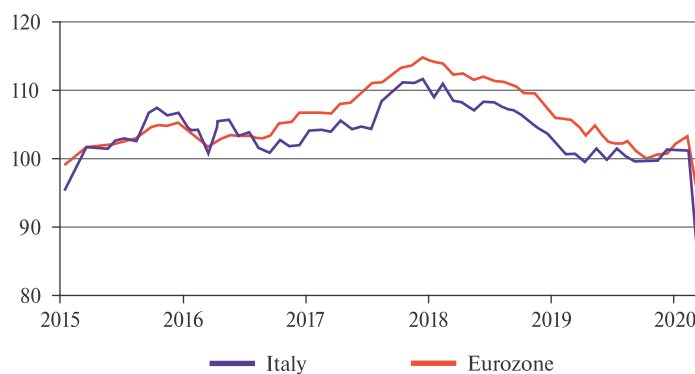


Figure. Economic mood indicator

Source: DG ECFIN¹⁰.

⁷ <https://www.dw.com/en/coronavirus-germany-counts-costs-of-economic-shutdown/a-52890813>

⁸ https://www.istat.it/it/files//2020/04/notamensile_marzo_fin.pdf

⁹ (ISTAT, 2020, figure 11, p. 9).

¹⁰ https://ec.europa.eu/info/sites/info/files/full_bcs_2020_03_en_1.pdf

(DG ECFIN of European Commission) has clearly established that the deterioration of the economic mood has been the worst and the fastest in Italy (see Figure).

Even if we take the drop in GDP at face value, assuming a lock-down till the end of June, the number, —4.5% of yearly GDP, seems far too conservative. Of course, a large part of Italian GDP is produced in SMEs located in what is called the “Terza Italia” (Bagnasco, 1977) stretching from Milano to Roma. And some of them have been less affected by the lock-down than larger enterprises of the North. But, some of these SMEs are slow to register for a lack of work.

As for French OFCE estimates, we think that we have a trend of underestimating economic consequences of lock-down and assuming a return to economic “normalcy” much too faster. The transition from lock-down to a return to “normalcy” is not to be smooth and the new economic losses are to be sustained¹¹.

We are back here to methodology problem. Are estimates to be done by looking to the supply constraint, or to the demand constraint, as done by OFCE? At this point, it is interesting to look at the IMF. The IMF has noted the following about China: “*What started as a series of sudden stops in economic activity, quickly cascaded through the economy and morphed into a full-blown shock simultaneously impeding supply and demand — as visible in the very weak January-February readings of industrial production and retail sales. The coronavirus shock is severe even compared to the Great Financial Crisis in 2007–2008, as it hits households, businesses, financial institutions, and markets all at the same time — first in China and now globally*”¹².

Economic policy, under lock-down situation¹³, as recommended by the IMF is quite interesting and consistent with a *war economy*. Economic policy is to be mostly concerned by *guaranteeing the functioning of essential sectors* that is maintaining health care, food production and distribution, essential infrastructure, and utilities must be maintained. This could involve direct actions by governments to provide key supplies through recourse to wartime powers with conversion of industries, or selective nationalizations like what was possible in the US through the *Defence Production Act*¹⁴. Rationing, price controls, and rules against hoarding may also be warranted in situations of extreme shortages. Then, another priority is to *provide enough resources for people hit by the crisis*. Unemployment benefits should be expanded and extended. Cash transfers are needed to reach the self-employed and those without jobs. Then, governments have to *prevent excessive economic disruption*.

We consider, then, that the supply shock is probably the worst in the lock-down, or containment situation. We will then discuss the different estimates and also present our own estimates.

4. FRANCE: A HUGE ECONOMIC SHOCK

We have then to look back at the French situation. It is important to remember that France entered the lock-down by March 15th. Six weeks containment is then to last till April 27th and 8 weeks — to May 11th. President Emmanuel Macron announced in his Monday April 13th speech that lock-down is to be progressively lifted after May 11th. This puts the theoretical duration of lock-down at 8 weeks as it actually happened (Table 3).

Table 3. Loss of economic activity in France linked to the lock-down, 2020,%

| Economic sector | Share in GDP | Assumption of activity loss, INSEE | Activity loss, Banque de France | Impact on activity loss (in GDP%), INSEE |
|--|--------------|------------------------------------|---------------------------------|--|
| Agriculture and food-processing industry | 4 | —4 | —6 | 0,0 |
| Industry without food-processing | 12 | —52 | —46 | —5,0 |
| Construction | 6 | —89 | —75 | —6,0 |
| Services | 56 | —36 | —37 | —20,0 |
| Non-market services | 22 | —14 | —9 | —3,0 |
| Total | 100 | —35 | —32 | —35,0 |

Source: INSEE¹⁵; (Banque de France, 2020).

¹¹ <https://edition.cnn.com/2020/04/06/business/germany-coronavirus-economy/index.html>

¹² <https://blogs.imf.org/2020/03/20/blunting-the-impact-and-hard-choices-early-lessons-from-china/>

¹³ <https://blogs.imf.org/2020/04/01/economic-policies-for-the-covid-19-war/>

¹⁴ March, April 18th, <https://www.theguardian.com/us-news/2020/mar/27/trump-defense-production-act-coronavirus-gm>

¹⁵ <https://www.insee.fr/fr/information/4471804>

Table 4. Lock-down impact on quarterly and yearly GDP, France (INSEE estimates), %

| Duration of lock-down | Impact on quarter GDP | Impact on yearly GDP |
|-----------------------|-----------------------|----------------------|
| One month | –12.0 | –3.0 |
| Two months | –24.0 | –6.0 |

Source: INSEE.

Table 5. Losses in yearly France GDP with time. Comparison between INSEE and OFCE estimates, %

| Duration of lock-down | INSEE | Banque de France | OFCE | UniCredit |
|-----------------------|-------|------------------|------|-----------|
| One month | –3.0 | 3.0 | –2.6 | 4.6 |
| Two months | –6.0 | 6.0 | – | 9.2 |

Source: INSEE; (Banque de France, 2020); UniCredit, adapted from table 1; (OFCE, 2020).

First of all, it is clear that the French economy is to suffer a major shock with the society lock-down, and a shock that is to be greater — the longer the lock-down will be implemented. We will begin by looking at the INSEE estimates disclosed by March 26th.

Very clearly, sectors most affected are industry and construction. INSEE estimates the loss of activity at –52% for industry and –89% for construction¹⁶. In the more recent studies published by the French Central bank, the *Banque de France*, on April 8th, the productive capacities are computed for late March up to 56%¹⁷, in January they were at around 85%.

The lock-down induced losses appear then to be at around one-third of the value-added, which is in the same range with what was computed by INSEE by late March. However, there are some discrepancies as shown in Table 4.

These figures however are nevertheless probably below the actual situation (Annex I)¹⁸. Production losses in agriculture and services are underestimated. Certain services, those linked to tourism, hotels and restaurants, are much more affected than in INSEE estimates. By the way, we should add that the shock impact is very different depending on whether we think of large companies, or SMEs (Small and Medium Enterprises), and VSEs (Very Small Enterprises). The loss of income for VSEs and SMEs is truly dramatic for them. And, we tend to forget that SMEs and VSEs are the first employers in France. According to these estimates the loss of production could reach –8% for 8 weeks — for the whole year of 2020. On the other hand, the *Banque de France* is estimating the loss of yearly GDP for the 2 lock-down weeks of March at around –1.5%, something close to the INSEE estimates¹⁹. Is it nevertheless to be noted that the *Banque de France* is not taking into account the possible cumulative effect of lock-down (Table 5).

As has been noted, both these estimates are probably still too optimistic, even if very bleak. If we include the production losses, which come from the fact that the efficiency of telework is *less* than that of “direct” work, losses induced by the fact that agriculture and the food industry will lack seasonal labour, that the return to work activity can be progressive, as all the countries have not been hit at the same time, we understand that the longer the duration of confinement, the greater the losses per week. As a matter of fact, the number of worker benefiting by mid-April of the “partial unemployment system”, a safety net extremely important for France, is over 44% of the private sector workforce and had reached during the April 20th, week even 50%. This is a clear indication that the activity drop has been much more important than the assumed –35% of INSEE estimates. Estimates made at the Center for the Study of Industrialization Pattern (CEMI, Center for the Study of Industrialization Pattern, Robert de Sorbon Centre) reveal more pessimistic hypotheses. Estimates have been made by the CEMI as early as March 22nd; the production drop in France will be more probably around –48% as the productivity level of people still employed would go down. Here are CEMI estimates (under given median) compared with INSEE and *Banque de France* ones (Table 6).

¹⁶ <https://www.insee.fr/fr/information/4471804>

¹⁷ Banque de France. Point sur la Conjoncture Française à fin Mars 2020. Paris: Banque de France. 2020. April 8th (https://www.banque-france.fr/sites/default/files/media/2020/04/08/200407-point_de_conjoncture_banque_de_france_v2a_modele2.pdf).

¹⁸ For a more precise discussion on INSEE estimates (<https://www.les-crisis.fr/russeurope-en-exil-lhypothese-blanche-neige-les-previsions-de-linsee-et-leur-discussion-par-jacques-sapir/>).

¹⁹ Point sur la Conjoncture Française à fin Mars 2020. Paris: Banque de France — French Central Bank. 2020. April 8th, p. 5.

Table 6. Loss of economic activity linked to the lock-down France, 2020, %

| Economic sectors | Share in GDP | Assumption of activity loss (in %) INSEE | Activity loss as computed by Banque de France | Activity loss, median CEMI estimates |
|--|--------------|--|---|--------------------------------------|
| Agriculture and food-processing industry | 4 | −4 | −6 | −12.0 |
| Industry without food-processing | 12 | −52 | −46 | −43.3 |
| Construction | 6 | −89 | −75 | −89.0 |
| Services | 56 | −36 | −37 | −54.3 |
| Non-market services | 22 | −14 | −9 | −28.0 |
| Total | 100 | −35 | −32 | −48.1 |

Annex. * — these estimates include the productivity drop induced by the lock-down.

Source: INSEE; (Banque de France, 2020).

Table 7. Global lock-down losses in GDP, France, %

| Lock-down time | INSEE | UniCredit | CEMI Assumption 1 * | CEMI Assumption 2 ** |
|----------------|-------|-----------|---------------------|----------------------|
| 8 weeks | −8.0 | −9.2 | −10.3 | −9.7 |

Source: CEMI.

* Assuming a constant level of losses through weeks.

** Assuming a progression of losses percentage with passing weeks.

We also added in these hypotheses, as in those made by INSEE, the inevitable production losses in the period of “lock-down exit”. The French government informed then the population that exit from lock-down will begin by May 11th. This is putting the total duration of lock-down to 8 weeks. One can then compare different estimates for these 8 weeks (Table 7).

We can therefore estimate that losses for the year 2020 would be greater than what INSEE estimated by at least 1.7% and could range from −9.7 to −10.3% for 8 weeks. The latest data of April 20th were indicating that the French economy was now operating at 52–55% of its normal activity level, if we add unemployment (44% of the private sector) and the drop of productivity induced by health safety measures at shop-floor. This is very close to CEMI estimates (see Annex). What we called the “Assumption 2”, which is an economy at first near the INSEE given activity level and then going to a much deeper drop in activity, is the more probable situation.

Such a shock, which has been without equivalent for the French economy and also to the world since 1945, will have disastrous consequences for unemployment. The rise in unemployment has begun in March, when lock-down partly in force. Once the lock-down will be lifted, unemployment could reach between 500,000 and 1 million people, depending on the nature of the measures taken to avoid a disaster in SMEs and VSEs. The risk is therefore real, given the measures modifying access to unemployment insurance system, which came into force on January 1, 2020, that the French economy would enter a cycle of recession-depression.

Hence, even if non-pharmaceutical intervention could ease the situation by comparison with countries or with cities not applying such measures as demonstrated by various studies on the “Spanish flue” of 1918–1920, they have their cost on their own (Correia, Luck, Verner, 2020). The cost is to be monetary with the economic depression, but could be human too — with a considerable increase in depression among people living under lock-down conditions. Conditions for exiting the lock-down situation are then of the utmost relevance.

5. QUESTIONS ABOUT LEAVING LOCK-DOWN SITUATION

To ensure a smooth economic exit from the lock-down first of all the epidemic is to be under control. A new burst of the Covid-19, once the society and the economy have been moved out from the lock-down implying, then a return to the previous containment, could have truly dramatic consequences, as it would destroy for most economic agents the very possibility to make expectations. And, this possibility is central

to an economic rebirth. Nevertheless the French government is assuming that lifting the lock-down from May 11th onwards is not to produce a new health emergency.

Two problems are important here: the recovering of supply (production), and also the reconstitution of demand²⁰.

The problem of supply recovering has a double dimension: internal and external. From an internal point of view, and assuming that the lock-down is lifted on the same date throughout the metropolitan territory, which probably will not be the case, at least, in France, the main question will lie in the capacity of SMEs and VSEs to resume their activity, after having stayed 8 weeks idle and without cash receipts. From an external point of view, most of countries exporting to France have the same problems, as we do. The end of the lock-down situation will certainly not be on the same date depending on these countries. *The desynchronization of the return to activity is raising the risk of seriously disrupting production chains*. The example that immediately comes to mind, and by no means the only one, is the automotive industry. Given that the countries of Central and Eastern Europe are, for the time being, relatively late in being affected than France, Italy and Spain, we can think that they will emerge from the lock-down procedures — more or less strict — after France. It is therefore clear, that in many branches production will not be able to return to its level before lock-down for several weeks, even several months, just for technical reasons, and whatever the demand would be.

The problem of demand reconstitution also has an internal component and an external component. As for the internal aspect, the question of consumer psychology will weigh heavily (Sapir, 2005). However, it is to be understood that psychology is not the same according to the different social positions, the conditions of lock-down and the level of education. Here what can be called an extension of the *Endowment Effect* described by A. Tversky and K. Kahneman will certainly have a decisive relevance (Kahneman, Knetsch, Thaler, 1991; Kahneman, 1996). But, the *Framing Effect* will too play a role (Tversky, 1996; McNeil, Pauker, Sox, Tversky, 1982). How the process of exiting from the lock-down will be presented to individuals? Is the accent to be put on uncertainties inherently plaguing this process or on its possible irreversibility? Such a question is of tremendous relevance for the reconstitution of demand, but also for its very structure at the micro-economic level. It will too heavily weigh on investment decision to be taken by Summer and Fall 2020.

If we can reasonably anticipate a burst of consumption in the immediate post-lock-down period, as we can see now in China and as we saw in the immediate post-war period, it is far from certain that it will be sustainable. Some of extraordinary consumptions like travels and holidays, which have been planned before the coronavirus outbreak, can no longer take place in the same way and must, at least in part, be carried over to the year 2021. The consumption of durable goods will be subject to trade-off with the constitution of precautionary cash and an increase of saving (Nakamura, Steinsson, Barro, Ursua, 2013). Here, government responsibility will be very important. If the government announces measures suggesting that households may have to pay part in the cost of containment, we can fear that the volume of this precautionary savings would be very large as it was demonstrated in other pandemics (Jorda, Singh, Taylor, 2020).

As for the external component, we should understand that France realizes around 29% of its GDP from exports. What will be the foreign demand? If we can imagine that the demand for luxury goods will be relatively little affected, the same is not true, for example, for transport equipment. This fall, or this very slow recovery, of external demand will penalize the recovery of some of the branches of the French economy and will cascade then into the whole economy. Consumption will not automatically recover its volume, or its composition, as compared to the pre-containment. Again, this could significantly delay the economy's "return to normal".

It will therefore take at least 2 months and perhaps much longer, for the French economy to return to its normal level of activity, if it has to find it again. Because there is a real risk, which could be aggravated if the government implements an unsuitable macroeconomic policy because a public-debt obsession that the economy locks itself in a depressive equilibrium, standing steadily at a level well below that was reached in 2019. The figures that can be estimated at the moment are therefore likely to be increased. If we go back to UniCredit estimates, they are forecasting for several countries a 2021 GDP lower to the 2019 one. And these estimates are taking as granted a "quick" return to activity. As a matter of fact there is a significant possibility that the depressive state of the economy would last for years.

²⁰ See the Op-ed paper in the digital newspaper "La Tribune" (www.latribune.fr/opinions/tribunes/covid-19-choc-d-offre-ou-choc-de-demande-rate-les-deux-843729.html).

6. GOVERNMENT RESPONSES

The French government is committed to guaranteeing the wages of employees through what is called “partial unemployment” benefits, and that means that the unemployment insurance system will have to spend around 5 billion euros per week. The government has pledged to guarantee loans and to help companies overall. It wanted at first to inject 45 billion euros into the economy in direct spending. Now, by April 11th, this target has been moved to 100 billion²¹. This is to be increased and by end May we will be significantly over 100 billion. In addition it plans to spend 300 billion in financial guarantees²². However, these figures remain below needs and are to be exceeded if one wants the economic recovery to be strong.

Direct spending could then reach more than 130 billion and financial guarantees are now up to around 450 billion. In addition, the government will lose revenue (VAT, income tax) due to the sharp drop in activity (Table 8).

At first the government predicted that the budget deficit could reach -3.9% and not -2.2% of GDP, or a direct increase by -1.7% ²³. But in reality, the total budget deficit should be much higher. Mr. Alberic de Montgolfier, the head of the French Senate Budget Committee, has spoken of a deficit of -6.2% ²⁴ by March 24th 2020. By April 9th, the government revised the budget deficit figures to 7.6% ²⁵, and then to 9% GDP in a speech delivered by the Minister of Budget, Mr. Gerald Darmanin²⁶.

If one adds the different assumptions made here, the total budget deficit for the 2020 fiscal year is to be closer to -10% / -13% of GDP than to the -3.9% announced at first by the French government (Table 9).

Here again we have to compare with UniCredit estimates. We have to remember that these estimates are made for a longer time, 12 weeks on average. But, it is interesting to note that budget deficit is very high on 2020 and will still rise for 2021 for some countries.

But the budget deficit is not what raises our concerns now. The main question is to know how the French economy could exit from the lock-down with the minimum of pain. It is therefore important that the government reserves part of the consumption of public administrations for SMEs and VSEs, to provide them with the conditions for a good restart²⁷. Like what is done in the United States with the *Small Business Act*, about 30% of public orders should be reserved for SMEs and VSEs working in France. The government must then make sure that no big business goes bankrupt. Bruno Le Maire, the French Minister of Economy

Table 8. Budget consequences of the Covid-19 for France, (INSEE and CEMI estimates)

| Lock-down losses and expenditures | INSEE1 | CEMI Assumption 1 | CEMI Assumption 2 |
|--|--------|----------------------|----------------------|
| Losses in GDP (8 weeks of lock-down) in% | -8.0 | -10.3 | -9.7 |
| Losses in budget income (8 weeks) in bln euros | -100.4 | -129.3 | -121.7 |
| New expenditures (8 weeks) in bln euros | 130.0 | 130.0 | 130.0 |
| Additional deficit (8 weeks) in bln euros | -230.4 | -259.3 | -251.7 |
| Forecasted deficit in the finance law in bln euros | -54.5 | -54.5 | -54.5 |
| Forecasted deficit in the finance law in GDP in% | -2.2 | -2.2 | -2.2 |
| Total deficit (8 weeks) in bln euros | -284.9 | -313.8 | -306.2 |
| Total deficit (8 weeks) in GDP in%* | -12.4 | -13.9 | -13.5 |

* With GDP volume adjusted to estimates.

²¹ Figure given by Bruno Le Maire, French Minister of the economy. 2020, April 9th (<https://www.lesechos.fr/economie-france/budget-fiscalite/exclusif-coronavirus-gerald-darmanin-et-bruno-le-maire-e-plan-durgence-revise-a-100-milliards-deuros-1193765>).

²² <https://www.economie.gouv.fr/coronavirus-soutien-entreprises>

²³ <https://www.lesechos.fr/economie-france/budget-fiscalite/coronavirus-le-deficit-public-va-se-creuser-dans-des-proportions-encore-inconnues-1186670>

²⁴ <https://www.lesechos.fr/economie-france/budget-fiscalite/coronavirus-pourquoi-le-deficit-public-va-encore-saggraver-1188109>

²⁵ <https://www.usinenouvelle.com/article/le-gouvernement-prevoit-un-deficit-de-7-6-du-pib-en-2020.N952126>

²⁶ <https://fr.reuters.com/article/topNews/idFRKCN21W0P6>

²⁷ <http://www.cci-paris-idf.fr/informations-territoriales/ile-de-france/actualites/aider-entreprises-surmonter-epidemie-coronavirus-ile-de-france>

Table 9. Financial consequences of the pandemic (UniCredit estimates), %

| Zone & Countries | 2020 | 2021 | Debt in GDP%, 2021 |
|------------------|--------|--------|--------------------|
| US | −13.00 | −10.00 | 133.00 |
| Eurozone | −11.00 | −4.00 | 102.00 |
| of which | | | |
| Germany | −12.90 | −2.90 | 72.60 |
| France | −12.20 | −4.50 | 112.70 |
| Italy | −12.30 | −4.90 | 155.50 |
| Spain | −12.50 | −4.50 | 119.70 |

Source: Silvestre, 2020, p. 4.

announced the possibility of nationalizations²⁸. Such nationalizations must be carried out whenever the survival of the company is in question and the risk of significant job losses is present. The Italian government has already begun the nationalization process with the Alitalia air transportation company²⁹. Finally, it will have to provide an income guarantee to households, while the economy is back on track.

Beyond that, this epidemic made it clear to political leaders that it is no longer possible to depend at the point where we were, on foreign imports. For all strategic products, in the health sector but also elsewhere, 50% of national consumption should be satisfied by national production. This would allow, if trade relations would again be interrupted, to rapidly increase production of domestic producers. This implies close monitoring of production capacities, but also a subsidy and price system in order to guarantee this strategic production reserve.

7. HOW TO FUND THE PANDEMIC AND ITS CONSEQUENCES?

In the medium term, the main trade-off for the various governments will be between the speed of a “return to normal” of the economy and additional debt. The conditions for breaking out of confinement will certainly be more difficult than what is expected today, and the subsidies, both to households and to businesses, will have to be massive. In this situation, if the debt issue is not resolved by the end of the year, it will weigh heavily on the economic conditions of 2021 and beyond. The risk is that the exogenous shock of the epidemic will then be followed by an endogenous recessionary shock of budgetary origin. Indeed, the amount of debts is today such that it is excluded, except to cause a new depression with its political consequences, to make pay these debts by the households. The idea put forward by Ms Christine Lagarde and the IMF in 2013 of an authoritarian levy of 10% of savings would also have significant depressive effects³⁰, because households would like to replenish their savings as quickly as possible and would severely limit their consumption (This would be a kind of reverse “*wealth effect*”: (Ando, Modigliani, 1963; Arena, 1964; Ando, 1988)). Huge losses experienced in stock markets are indeed already pushing the economy in this direction.

What could be the possible solutions? The idea of using special pandemic European bonds, called “coronabonds” has been plainly refused by Germany³¹. So was the Italian proposal to use the European Solidarity Mechanism (ESM) but without constraints usually imposed by such a mechanism³². This too was refused by Germany. The Eurogroup meetings convened on April 9th 2020 reached a new compromise, which excluded still “coronabonds” as wanted by Italy, but pledged, through different sources, around 500 billion euros. This compromise has been refined by mid-April, but amounts available are far too low: 500 billion euros when Eurozone governments will need at least 1150 billion euros and may be 1300. If we add to that the potential deficit of 455 billion euros for 2021, we are to reach the total amount of 1605 billion euros. This level is greater than what was spent in 2008 and 2009, even when recomputed in constant euros. As the global Eurozone GDP is to shrink to 95.7% of its 2019 level, and the ratio of debt to GDP is to increase dramatically.

²⁸ <https://www.ouest-france.fr/sante/virus/coronavirus/coronavirus-les-eventuelles-nationalisations-d-entreprises-seront-temporaires-6799107>

²⁹ <https://www.latribune.fr/economie/france/coronavirus-le-retour-des-nationalisations-842721.html>

³⁰ <https://www.lefigaro.fr/conjoncture/2013/10/09/20002-20131009ARTFIG00524-le-fmi-propose-une-supertaxe-sur-le-capital.php>

³¹ <https://www.capital.fr/entreprises-marches/lallemagne-soppose-aux-coronabonds-souhaitees-par-la-france-et-litalie-contre-la-crise-1365932>

³² <https://www.lopinion.fr/edition/economie/zone-euro-l-italie-reclame-recours-conditions-mes-215003>

A direct monetary funding done by European Central Bank could in a way ease the situation. The Pandemic Emergency Purchasing Program (PEPP) decision (for a total of 750 bln euros) on March 24th was clearly a step in the good direction³³. But, funding problems are probably to stay with us for quite a long period. The “temporary” nature of this program is probably to be extended and the ceiling so far decided probably to be exceeded. A significant issue is the fact that the ECB has lifted the 33% of a given country limit in its new sovereign securities purchasing program. This limit had been decided after a 2018 judgement of the European Union Justice Court, following a complaint filed by Germany. The future of the PEPP looks then hung in balance with a possible new judicial action from Germany³⁴.

What would be long-term consequences? Could the ECB be transformed in a kind of defeasance fund for sovereign debts? The possible consequences for the Eurozone are clearly disturbing for the government and for those supporting the Euro. We are here in a classical situation where institutions that have been generated by bargaining and compromise since the 1990's are no more able to provide a reasonable answer for today problems.

At this point it is necessary to go back to French politics. On Monday April 13th, the French President, Mr. Emmanuel Macron made an important speech about the post-epidemic world³⁵. Part of it had to be quoted. When he came to the description of the post-epidemic economy he began by plainly acknowledging the fact that a process of deglobalization was under way: “*So if our world will undoubtedly be fragmented, it is our responsibility to build solidarity and new cooperation today*”³⁶. From this point, he moved toward describing quite a different economy: “*We will have to rebuild French agricultural, health, industrial and technological independence...*”³⁷.

This is quite interesting because what Emmanuel Macron is describing in his speech is an economy governed by the principle of economic sovereignty (Сапир, 2020). This is to be understood as a kind of extension from natural resources (Rosenberg, 1983) to a large part of the economy. Such an economic system would however require both a degree of protectionism and some form of planning, as practiced in France from 1945 to the beginning of the 1990's. How could Emmanuel Macron reconcile such a vision of the economic future with statements he previously made about European Union is something we are left to wonder. By the way, it is difficult to think about economic sovereignty without thinking too about monetary sovereignty. And how monetary sovereignty at the national level could be possible under EMU rules is very difficult to understand at best. Would it mean that Emmanuel Macron has already assessed both the EU and the EMU as failures? One has to remember that he previously warned that EU could unravel without strong financial solidarity³⁸. But, what he said in his interview to the “*Financial Times*” of April 16th is indicating that he moved probably farther than just a warning of things to come³⁹. Of course, this is probably to be related to the EU summit that took place by Monday April 20th. But the French President clearly looks disenchanted with the EU and its decision-making (or more precisely decision-non-making) process.

It is then quite interesting to note that at this point of his speech he made two references to the planning process, the second one being quite explicit: “*We will have to build a strategy where we will find the long time, the possibility of planning*”⁴⁰.

Quite obviously, this part of his speech is clearly in line with economic sovereignty at the national level he defended. This would amount to a return of the State in economic affairs after decades of retreat (Strange, 1996), and a probable move to de-globalization (Krasner, 2002, pp. 34–52). But that would imply a complete U-turn as far as the institutional system is concerned. If clearly not impossible such a U-turn looks not very plausible without major a change in French politics. However, Emmanuel Macron's speech could well announce a very important change in economic relations between states in the post-pandemic world.

³³ <https://www.ecb.europa.eu/ecb/legal/date/2020/html/index.en.html?skey=ECB/2020/17>

³⁴ <https://www.usinenouvelle.com/article/coronavirus-la-bce-suspend-ses-limites-aux-rachats-de-dette-souveraine.N946181>

³⁵ <https://www.elysee.fr/front/pdf/elysee-module-15482-fr.pdf>

³⁶ “Alors si notre monde sans doute se fragmentera, il est de notre responsabilité de bâtir dès aujourd'hui des solidarités et des coopérations nouvelles” (<https://www.elysee.fr/front/pdf/elysee-module-15482-fr.pdf>, p. 6).

³⁷ “Il nous faudra rebâtir une indépendance agricole, sanitaire, industrielle et technologique française” (<https://www.elysee.fr/front/pdf/elysee-module-15482-fr.pdf>, p. 6).

³⁸ <https://www.ft.com/content/d19dc7a6-c33b-4931-9a7e-4a74674da29a>

³⁹ <https://www.ft.com/content/317b4f61-672e-4c4b-b816-71e0ff63cab2>. See also <https://www.courrierinternational.com/une/economie-pour-macron-lunion-europeenne-risque-de-seffondrer-sans-coronabonds>

⁴⁰ “Il nous faudra bâtir une stratégie où nous retrouverons le temps long, la possibilité de planifier” (<https://www.elysee.fr/front/pdf/elysee-module-15482-fr.pdf>, p. 6).

CONCLUSION

Estimates of the pandemic global economic shock made by different economic institutions converged progressively with reality from late April till the end of June 2020. A divergence can however still be noted between Banque de France⁴¹ and INSEE⁴². The former, with -11% for the 2020 GDP is probably more realistic than the -9% forecasted by INSEE. Note that the IMF, in its revised forecasts, gives -12.5% GDP for the French economy⁴³. In all cases, nevertheless we are far from initial estimates of a $-5/ -6\%$ GDP depression made late March and early April. The current Covid-19 crisis is much more serious than that of 2008. In 2008 the crisis was initially financial one and later it affected the production sector. The current crisis starts with the shutdown (or the dormancy of part) of the production due to containment. The drop in production figures is in fact closer to the level of the 1929 crisis but the speed with which production is almost at a standstill is unprecedented. As with the 1929 depression the amount of changes, for the better or for the worse, is to be extremely important. The difficulty in initially estimating the extent of this crisis can be understood. The very novelty of the situation puzzled most experts. However, the various governments, and particularly the French and the Italian ones clearly underestimated the gravity of the situation until the beginning of April 2020. They also continue for some, like the French government, to underestimate the extent of the recession. We have attempted in this text to produce realistic estimates. However, the latter suffer from the fact that many unknown factors weigh on the period of release from containment. The possibility of what is called a pandemic “second wave”, bringing with them a possible return to lock-down cannot be completely dismissed. It is nevertheless clear that the contraction of the French economy should reach at least 10% for the year 2020. The fiscal and budgetary consequences of this contraction will not be less important than this contraction itself.

Difficulties plaguing the exit from the lock-down situation are showing that the crisis is not to be quickly over. It will profoundly change economic relations between states, relation between societies and their economies, people’s attitude to globalization and the economic model, and, hopefully, relations between people and those in power.

ANNEX

Using INSEE data on the French GDP disaggregation we constructed the following table

Table AT-1

| GDP at current prices (billion euros) | 2018 | 2019 | Week |
|---|--------------|--------------|--------------|
| Agriculture, forestry and fishing | 38.2 | 39.0 | 0.750 |
| Manufacturing, mining and other industries | 280.2 | 286.4 | 5.508 |
| Extractive industries, energy, water, waste management and depollution | 51.8 | 53.0 | 1.019 |
| Extractive industries | 1.9 | 1.9 | 0.037 |
| Production and distribution of electricity, gas, steam and air conditioning | 34.7 | 35.5 | 0.683 |
| Water production and distribution; sanitation, waste management and depollution | 15.2 | 15.5 | 0.299 |
| Manufacture of food, beverages and tobacco products | 41.7 | 42.6 | 0.820 |
| Coking and refining | 5.0 | 5.1 | 0.099 |
| Manufacture of electrical, electronic and computer equipment; machinery manufacturing | 30.9 | 31.5 | 0.606 |
| Computer, electronic and optical product manufacturing | 12.5 | 12.8 | 0.246 |
| Manufacture of electrical equipment | 6.6 | 6.8 | 0.130 |
| Manufacture of machinery and equipment n.e.c. | 11.7 | 12.0 | 0.230 |
| Transport equipment manufacturing | 27.7 | 28.3 | 0.545 |
| Manufacture of other industrial products | 123.1 | 125.8 | 2.419 |
| Textile manufacturing, clothing industries, leather and footwear industry | 4.8 | 4.9 | 0.094 |
| Woodworking, paper and printing industries | 12.0 | 12.3 | 0.237 |
| Chemical industry | 19.3 | 19.7 | 0.379 |

⁴¹ Banque de France, “Point sur la conjoncture française à fin juin 2020” (<https://www.banque-france.fr/statistiques/conjoncture/enquetes-de-conjoncture/point-de-conjoncture>).

⁴² INSEE, “INSEE Conjoncture – Point de Conjoncture 8 juillet 2020” (<https://www.insee.fr/fr/statistiques/4630548?sommaire=4473296>).

⁴³ IMF World Economic Outlook update, June 2020 (<https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>).

End of Table AT-1

| GDP at current prices (billion euros) | 2018 | 2019 | Week |
|---|----------------|----------------|---------------|
| Pharmaceutical industry | 12.4 | 12.6 | 0.243 |
| Rubber, plastic and other non-metallic mineral product manufacturing | 18.7 | 19.1 | 0.367 |
| Metallurgy and manufacture of metal products, excluding machinery and equipment | 26.8 | 27.4 | 0.528 |
| Other manufacturing industries; repair and installation of machinery and equipment | 29.1 | 29.7 | 0.572 |
| Construction | 117.4 | 120.0 | 2.308 |
| Mainly market services | 1 187.7 | 1213.9 | 23.345 |
| Wholesale and retail trade, transport, accommodation and catering | 371.8 | 380.1 | 7.309 |
| Trade; repair of motor vehicles and motorcycles | 216.2 | 221.0 | 4.250 |
| Transport and storage | 94.0 | 96.1 | 1.848 |
| Accommodation and catering | 61.7 | 63.0 | 1.212 |
| Information and communication | 112.0 | 114.4 | 2.201 |
| Publishing, audiovisual and broadcasting | 25.6 | 26.1 | 0.502 |
| Telecommunications | 24.9 | 25.5 | 0.490 |
| IT activities and information services | 61.5 | 62.8 | 1.208 |
| Financial and insurance activities | 80.6 | 82.4 | 1.585 |
| Real estate activities | 269.9 | 275.9 | 5.305 |
| Scientific and technical activities; administrative and support services | 292.9 | 299.4 | 5.757 |
| Legal, accounting, management, architecture, engineering, control and technical analysis activities | 116.3 | 118.9 | 2.287 |
| Scientific research and development | 37.3 | 38.2 | 0.734 |
| Other specialized, scientific and technical activities | 16.6 | 17.0 | 0.326 |
| Administrative and support service activities | 122.6 | 125.3 | 2.410 |
| Other services | 60.4 | 61.7 | 1.187 |
| Arts, shows and recreational activities | 29.3 | 29.9 | 0.575 |
| Other service activities | 28.2 | 28.8 | 0.554 |
| Activities of households as employers | 3.0 | 3.0 | 0.058 |
| Mainly non-market services (*) | 467.5 | 477.8 | 9.189 |
| Public administration and defense — compulsory social security | 163.2 | 166.8 | 3.209 |
| Education | 112.5 | 114.9 | 2.210 |
| Human health activities | 123.0 | 125.8 | 2.419 |
| Medico-social and social accommodation and social work without accommodation | 68.7 | 70.3 | 1.351 |
| Total branches | 2 090.9 | 2 137.2 | 41.100 |

From Table AT-1 we deduced the simplified Table AT-2.

Table AT-2

| Economic sector | Weekly production — 2019 in bln euros | CEMI — Assumption | Weekly value under lock-down |
|--|---------------------------------------|-------------------|------------------------------|
| Agriculture, forestry and fishing | 0.750 | 0.880 | 0.660 |
| Manufacturing, mining and other industries | 5.508 | 0.567 | 3.123 |
| Construction | 2.308 | 0.110 | 0.254 |
| Mainly market services | 23.345 | 0.457 | 10.678 |
| Mainly non-market services (*) | 9.189 | 0.720 | 6.617 |
| Total branches | 41.100 | 0.519 | 21.332 |

The first column gives the weekly production in value (billion euros) in 2019. The second, the estimated level of the activity under confinement (1 = no impact / 0 = total cessation of the activity), and finally, the third column gives the production in estimated value under confinement. We then obtain an overall estimate in value of 21.14 billion against 41.10 billion in 2019, i.e. an activity coefficient of 51.9% (loss of 48.1%) against the estimate of INSEE — with coefficient 65% (loss of 35%). For making assumptions here one has to add the drop induced by a 30–50% drop in labour productivity induced by specific shop-floor conditions linked to the Coronavirus epidemic (to the drop in production produced by closing plants).

Table AT-3

| Sector / sub-sector | Weekly production — 2019 in bln euros | CEMI — Assumption | Weekly value under lock-down |
|--|--|-------------------|---------------------------------|
| Mainly market services | 23.345 | 0.457 | 10.678 |
| 1. Wholesale and retail trade, transport, accommodation and catering | 7.309 | 0.424 | 3.101 |
| Trade; repair of motor vehicles and motorcycles | 4.250 | 0.4 | 1.700 |
| Transport and storage | 1.848 | 0.66 | 1.219 |
| Accommodation and catering | 1.212 | 0.15 | 0.182 |
| 2. Information and communication | 2.201 | 0.8 | 1.761 |
| 3. Financial and insurance activities | 1.585 | 0.6 | 0.951 |
| 4. Real estate activities | 5.305 | 0.7 | 3.714 |
| 5. Scientific and technical activities; administrative and support services | 5.757 | 0.2 | 1.151 |

Table AT-4

| Sector | Weekly production — 2019 in bln euros | CEMI — Assumption | Weekly value under lock-down |
|--|---------------------------------------|-------------------|---------------------------------|
| Mainly non-market services* | 9.189 | 0.720 | 6.617 |
| Public administration and defense — compulsory social security | 3.209 | 0.66 | 2.118 |
| Education | 2.210 | 0.33 | 0.729 |
| Human health activities | 2.419 | 1 | 2.419 |
| Medico-social and social accommodation and social work without accommodation | 1.351 | 1 | 1.351 |

*For the manufacturing industry we have the following.

Table AT-5

| Sector | Weekly production — 2019 in bln euros | CEMI — Assumption | Weekly value under lock-down |
|---|---------------------------------------|-------------------|---------------------------------|
| Manufacturing, mining and other industries | 5.51 | 0.567 | 3.12 |
| Extractive industries, energy, water, waste management and depollution | 1.02 | 0.850 | 0.87 |
| Extractive industries | 0.82 | 0.950 | 0.78 |
| Production and distribution of electricity, gas, steam and air conditioning | 0.10 | 0.700 | 0.07 |
| Water production and distribution; sanitation, waste management and depollution | 0.61 | 0.300 | 0.18 |
| Manufacture of food, beverages and tobacco products | 0.54 | 0.250 | 0.14 |
| Coking and refining | 0.09 | 0.250 | 0.02 |
| Manufacture of electrical, electronic and computer equipment; machinery manufacturing | 0.24 | 0.400 | 0.09 |
| Computer, electronic and optical product manufacturing | 0.38 | 0.500 | 0.19 |
| Manufacture of electrical equipment | 0.24 | 1.000 | 0.24 |
| Manufacture of machinery and equipment | 0.37 | 0.600 | 0.22 |
| Transport equipment manufacturing | 0.53 | 0.330 | 0.17 |
| Manufacture of other industrial products | 0.57 | 0.250 | 0.14 |

The main discrepancy is on services activities. We assume that the reduction of activity is to be far greater than usually expected in market services, first because some crucial activities are to be disrupted by the epidemic fear, and second because activities that could be continued are to see a drastic loss of labour productivity. This is plainly obvious in wholesale and retail trade, but also in transport and storage.

Here is the partial disaggregation of market services.

We maintain our appreciation of activity reduction for the following sectors:

- trade; repair of motor vehicles and motorcycles: the activity level seems to have dropped well under 50% of what was before the lock-down;
- transport and storage;
- accommodation and catering: the reduction is considerable but not total as some activity is maintained for food delivery in large cities and for housing some medical teams.

For non-market services, and under the assumption that all that is related to health and caring would work at 100%, estimates are here.

ПРИЛОЖЕНИЕ⁴⁴

Масштабы эпидемии коронавируса поражают воображение: средства массовой информации полны сообщений о проблемах в работе больниц, о тяжелом состоянии пациентов, вынуждавшем врачей применять аппараты искусственной вентиляции легких. К тому же в большей части стран мира был введен так называемый режим (само)изоляции (или карантина)⁴⁵. Наряду с драматическими проблемами у населения следует также обратить внимание на экономическую цену эпидемии, особенно на меры изоляции. Очевидно, что чем дольше будет продолжаться этот период, тем выше будет его экономическая цена. В некоторый момент могут наступить *необратимые последствия*. Стоит задать вопрос, не приведет ли чрезвычайная ситуация в здравоохранении к глубокому экономическому кризису, который будет превосходить все известные послевоенные кризисы последних 100 лет.

В прогнозах рост экономики стран еврозоны снизили с 0,8% до -0,3%, в том числе в Германии — с 0,3 до -0,1%; Франции — с 0,9 до -0,1%; Италии — с 0,0 до -0,4%. Введение карантина существенно изменило экономическое положение в этих странах.

Стоит обратить внимание на пессимистический прогноз итальянского банка UniCredit. По оценкам UniCredit на апрель, карантин может продлиться по крайней мере до июля.

Карантин во Франции остановит большую часть производств. Другая часть производств остановится в результате нарушения хозяйственных связей и замедления производства в странах, которые ведут между собой торговлю или поставляют комплектующие части. Статистика показывает растущие цифры безработицы. В большей части отраслей удаленная работа, рассматриваемая как временный компромисс, не может быть также внедрена в основной массе производств, а если она и вводится, то значительно снижает производительность.

Однако окончание карантина не будет означать немедленного возвращения к нормальной жизни. Выход из карантина будет происходить постепенно, таким же будет и возвращение к нормальной жизни. Однако его влияние уже вполне можно оценить. Известно, что в настоящее время во Франции около 8 млн человек являются частично безработными. Эта цифра составляет около 40,5% работников частного сектора.

На основе компьютерного моделирования Французское бюро экономической конъюнктуры (Observatoire Français des Conjonctures Économiques, OFCE) предсказывает *огромный шок (провал) спроса*, и этого факта никто не отрицает. Но режим карантина также провоцирует шок предложения по причине остановки всех видов деятельности и работы предприятий. Эти же явления наблюдали в Китае в провинции Хубэй.

Ведущий научный сотрудник, Эрик Хейер (Eric Heyer), предложил собственные оценки состояния экономики на основе анализа опыта, который был получен в результате резкого сокращения потребления электроэнергии во Франции. Это — интересующий нас опыт, поскольку он представляет собой пример падения предложения (поставки). Он вычитает из своего результата месячный спад ВВП — совпадающий с оценками OFCE. Однако следует помнить, что потребление электроэнергии в промышленности снижается не прямо пропорционально сокращению промышленного производства — этот факт был продемонстрирован во время переходного периода в России в 1990-е годы.

Это можно было объяснить тем фактом, что даже если бы на данном предприятии мы увидим производство на уровне -10% от обычного, ведь для того чтобы освещать, отапливать или нормализовать климат в здании, обеспечивать работу механизмов и инструментов, нам потребуется

⁴⁴ Сокращенный перевод статьи Ж. Сапира выполнен Л.Е. Мироновой.

⁴⁵ Далее мы будем применять этот термин, понимая его условность и различное толкование его содержания и правовой формы в разных странах.

больше 10% нормального уровня потребления электричества. Связь между производством и потреблением электричества не является линейной и будет отличаться в зависимости от (нормального) уровня производства.

Число людей, которые стали получать пособия по безработице, достигает 40% получающих заработную плату в частном секторе. Именно эта цифра является настоящим показателем уровня падения уровня французской экономики, она указывает на то, что он оказался ниже 35–36% уровня, рассчитанного INSEE и OFCE.

Оценки OFCE оказались меньше данных INSEE, поскольку они рассчитаны на основе идеи *шока спроса*. Во-первых, *шок предложения*, очевидно, рассматривается как результат. На наш взгляд, это подтверждает логическую ошибку, являющуюся следствием падения экономики в период карантина, которая приближается к экономике военного времени, чем к экономике мирного.

Германия и Италия являются среди прочих торговыми партнерами Франции — как в плане промышленных, так и экономических связей в целом. Сравнивая результаты Франции с результатами других европейских стран, мы обнаружим некоторые интересные отличия. В Германии сжатие экономики в результате эпидемии коронавируса характеризуется большим разбросом — от 7,6 до 20%, последний, очевидно, — самый худший прогноз.

Стоит отметить, что Национальный институт статистики (Istituto Nazionale di Statistica, ISTAT) Италии принял подход, связывающий промышленный рост со спросом. По оценкам ISTAT от 7 апреля 2020 г., спад ВВП оценивался в объеме –1,9%, если карантин продлится до конца апреля. В это трудно поверить, если помнить, что Италия в настоящий момент в наибольшей мере пострадала от пандемии. Генеральный директорат по экономике и финансам (Directorate-General for Economic and Financial Affairs, DG ECFIN) при Европейской комиссии ясно указал, что разрушение экономики Италии стало самым худшим, к тому же оно произошло крайне быстро.

Оценки OFCE для Франции, на наш взгляд, показывают тенденцию занижения экономических последствий для ее экономики и гораздо более быстрому возвращению к нормальному уровню. Переход с состояния карантина к нормальному уровню деятельности не будет гладким, и страну ожидают новые экономические потери.

И здесь мы возвращаемся к вопросу методологии. Будем ли мы в этом вопросе поступать, как OFCE, — с позиций ограничений спроса, или мы будем анализировать ситуацию с позиций ограничения предложения? Стоит обратить внимание на то, как к этому вопросу подходит Международный валютный фонд (IMF). Вот что констатировал IMF в отношении Китая: *«То, что началось как серия внезапных остановок экономической деятельности по всей стране, затем трансформировалось в полномасштабный шок, внезапно парализовавший и предложение, и спрос. Это стало понятно уже в еженедельных отчетах о промышленном производстве и розничной торговле за январь и февраль. Шок, вызванный коронавирусом, оказывается масштабным, даже по меркам Большого финансового кризиса 2007–2008 г., поскольку он бьет и по домашним хозяйствам, и по бизнесу, и по финансовым институтам, и по рынкам, причем одновременно — сначала в Китае, а сейчас — уже по всему миру»*.

Экономическая политика, рекомендованная IMF для купирования данной ситуации, вызывает интерес, ее можно сравнить с *экономикой военного времени*. Экономическую политику следует сосредоточить на *обеспечении функционирования основных секторов* хозяйства, которые помогают поддерживать здравоохранение, производство продовольственных товаров и их распределение, а также инфраструктуру и коммунальные службы.

Такая политика может включать прямые действия правительства, направленные на организацию прямых ключевых поставок ресурсов уполномоченным институтам военного времени с последующей перестройкой промышленности, или даже выборочной национализацией, — подобной той, которая стала возможна в США по Закону «Об оборонной промышленности», 1950 г. (Defence Production Act). Нормирование, контроль цен, установление правил против скупки и накопления продуктов также могут рассматриваться как приемлемые меры в ситуации острого дефицита товаров. Таким образом, еще одним приоритетом является *предоставление достаточного объема ресурсов гражданам, в наибольшей мере пострадавшим от кризиса*. Выплаты по безработице следует расширить и увеличить их объем. Прямые выплаты наличных средств необходимо направить самозанятым и гражданам, оказавшимся без работы. Такими средствами правительства должны *предотвратить массовое обрушение экономики*.

Мы считаем, что шок предложения, вероятно, является худшим последствием карантина. Далее мы обсудим различные оценки, а также предложим свои.

Ясно, что в связи с массовым карантином экономика Франции понесет большие потери, и эти потери будут тем больше, чем дольше будет длиться карантин.

Национальный институт статистики и экономических исследований (Institut National de la Statistique et des Études Économiques, INSEE) оценивает потери французской экономики в объеме 52% промышленного производства и 89% строительства. В более поздних исследованиях, опубликованных Центральным банком Франции, *Banque de France*, на 8 апреля, указывалось, что промышленные мощности заняты на конец марта на 56%, тогда как в январе этот показатель составлял 85%.

Мы также часто забываем, что в малых и средних предприятиях занята большая часть работников Франции. Согласно этим оценкам потери производства здесь могут составить 8% за 8 недель за весь 2020 г. Однако *Banque de France* оценивает потери ВВП за 2 недели карантина в марте в 1,5%, что близко оценке INSEE. Тем не менее следует отметить, что *Banque de France* не учитывает возможных суммарных и накопленных потерь от карантина.

Оценки ЦЭМИ (Москва, Россия) на 22 марта: снижение производства составит 48%, к тому же снизится также и производительность труда оставшихся занятых.

Мы считаем, что потери производства за 2020 г. будут больше, чем их оценивает INSEE, по крайней мере —1,1% (при длительности карантина 6 недель) или —1,7% (при длительности карантина 8 недель), и составят от —7,6% (6 недель) до —10,3% (8 недель). По последним данным (на 12 апреля), французская экономика в настоящее время функционирует на уровне 52–55% от обычного, добавим к этому рост безработицы (44% частного сектора) и падение производительности, вызванное мерами эпидемиологической безопасности. Эти оценки окажутся близки оценкам ЦЭМИ.

Такой экономический шок окажется беспрецедентным не только для Франции, но и для всего мира в целом после 1945 г., он будет иметь катастрофические последствия в плане роста безработицы. Рост безработицы после снятия карантина составит от 500 000 до 1 млн человек, в зависимости от характера мер, предпринятых для предотвращения катастрофы малых и средних предприятий. Риск здесь более чем реальный. Существует также реальный риск того, что французская экономика, даже после изменения доступа к системе социального страхования от безработицы, вступившего в силу 1 января 2020 г., войдет в цикл рецессия—депрессия.

Для того чтобы плавно выйти из карантина, под контролем должно быть эпидемическое состояние в стране. Новый виток эпидемии вируса ковид-19 (Covid-19), т.е. повторное возвращение к режиму карантина, будет иметь поистине драматические последствия, поскольку разрушит у большей части экономических агентов саму возможность надеяться на улучшения. А такие надежды, возможно, ключевой момент для возрождения экономики. Тем не менее правительство Франции считает, что отмена карантина с 11 мая не создаст новой угрозы эксцессов в здравоохранении.

Здесь для нас важны решения двух проблем: восстановление предложения (оно же — производство), а также восстановление спроса.

У проблемы возвращения предложения — две стороны: внутренняя и внешняя. Основная внутренняя проблема — при том, что карантин будет снят одновременно по всей территории, а это может быть не так, по крайней мере во Франции, — состоит в том, смогут ли малые и средние предприятия восстановить свою работу после 8 недель простоя и без поступлений (доходов) на протяжении всего этого периода. Основная внешняя проблема состоит в том, что у большей части стран—экспортеров во Францию — те же проблемы. Окончание периода карантина скорее всего придется на разные даты — с учетом ситуации в каждой такой стране—экспортере. *Такая десинхронизация возвращения к производственной деятельности повышает риск серьезного разрыва в производственных цепочках.*

Тем не менее ясно, что во многих отраслях экономики производство не сможет возвратиться к своему докарантинному уровню в течение нескольких недель, даже нескольких месяцев, по чисто техническим причинам, — каким бы ни оказался спрос на их продукцию.

Объем потребления не восстановится автоматически, не восстановится и его структура в сравнении с докарантинным уровнем. И это также будет дополнительно препятствовать возвращению экономики к нормальному уровню.

Французское правительство приняло на себя обязательства гарантировать заработную плату занятых по программе под названием выплаты «частично занятым». Это означает, что Ассоциация занятости в промышленности и торговле (Association pour l'emploi dans l'industrie et le commerce, ASSEDIC) должна будет выплачивать 5 млрд евро еженедельно.

Государство берет на себя обязательство гарантировать займы и помочь компаниям в целом. Оно обязалось влить в экономику 45 млрд евро прямых расходов. В настоящий момент, на 11 апреля, эта сумма увеличилась до 100 млрд евро. Дополнительно правительство планирует направить 300 млрд евро в виде финансовых гарантий. Однако эти цифры остаются ниже необходимого уровня. Прямые расходы могут превысить 130 млрд евро, если режим карантина продлится 8 недель. Финансовые гарантии в настоящее время достигают 450 млрд евро. Кроме того, правительство потеряет доходы (НДС, налог на прибыль).

Также правительство оценивает ожидаемый дефицит бюджета в размере $-3,9\%$, а не $-2,2\%$ ВВП, т.е. потери будут на $-1,7\%$ больше. Однако на самом деле потери бюджета могут оказаться значительно большими. Глава французского Сенатского комитета по бюджету Альберик де Монгольфье (Alberic de Montgolfier) 24 марта 2020 г. называл цифру в $-6,2\%$. Однако уже 9 апреля правительство пересмотрело возможные размеры дефицита бюджета, и в своем выступлении Министр бюджета Жеральд Дарманен (Gerald Darmanin) привел уже другие оценки: от $-7,6$ до -9% ВВП. Если мы добавим другие оценки, то общий бюджет фискального 2020 г. окажется, вероятно, ближе (в -10 — -13% ВВП) к цифре $-3,9\%$, ранее объявленной французским правительством.

Сейчас основной вопрос состоит в том, как французской экономике выходить из режима карантина, или самоизоляции, с минимальными потерями. Тем не менее важно, что правительство резервирует часть потребления общественного сектора для малых и средних предприятий и предоставляет им условия для благоприятного начала работы после карантина.

Правительство должно создать у них уверенность в том, что предприятия большого бизнеса не будут переживать банкротств. Министр экономики Франции Бруно Ле Мэр (Bruno Le Maire) объявил о возможном проведении национализации. Такая национализация должна быть проведена в том случае, если выживание экономики окажется под вопросом и возникнет риск потери большого числа рабочих мест. Итальянское правительство уже начало проводить национализацию воздушной транспортной компании Alitalia. И, наконец, оно должно будет предоставлять гарантии доходов домохозяйствам до тех пор, пока экономика не вернется в нормальное русло.

Несмотря на все стратегические продукты, не только в секторе здравоохранения, но и в других секторах, 50% национального потребления будет удовлетворено за счет национального производства. Это позволит быстро нарастить производство силами внутренних производителей, если снова будут разорваны торговые связи. Это предполагает плотный мониторинг производственных мощностей, но также и субсидирование и систему цен не только, чтобы гарантировать этот стратегический резерв производства.

Условия для выхода из режима карантина, вполне вероятно, будут более сложными, чем можно ожидать в настоящее время, а также субсидии домашним хозяйствам и бизнесу должны быть массированными. В этой ситуации, если вопрос о долге не будет решен до конца года, он станет тяжелым бременем условий ведения экономики и в 2021 г., и далее. Этот риск представляет собой экзогенный шок, вызванный эпидемией, за ним последует эндогенный шок от рецессии, и он будет исходить от бюджета. И в самом деле, размер задолженности в настоящее время таков, что уже невозможно оплатить задолженности домашних хозяйств, не вызвав при этом новой депрессии с соответствующими политическими последствиями.

Идея, выдвинутая Кристин Лагард (Christine Lagarde) и МВФ в 2018 г., о взимании 10% со сбережений также будет вносить вклад в формирование депрессии, поскольку домашние хозяйства склонны пополнять свои сбережения при малейшей возможности. Однако такой маневр серьезно ограничит потребление. Огромные потери рынков уже реально направили экономику по этому пути.

Какое решение здесь можно было бы предложить? Идею введения специальных пандемических евро-облигаций, названных «корона-облигациями», сразу же отвергла Германия. Также было отвергнуто предложение Италии применить Европейский стабилизационный механизм (European Solidarity Mechanism, ESM), пусть даже без ограничений, с которыми обычно сопряжено его введение. Его также отвергла Германия. Встречи Еврогруппы (неформальная группа министров финансов стран, в которых евро является официальной валютой) от 9 апреля 2020 г. позволили достичь нового

компромисса, исключавшего «корона-облигации», предложенные ранее Италией. Однако было решено собрать из различных источников сумму в размере 500 млрд евро, выдаваемых под залог.

Ситуацию до некоторой степени могут облегчить прямые денежные выплаты средствами Европейского центрального банка. Шагом в правильном направлении стало решение от 24 марта 2020 г. создать Экстренную пандемическую программу закупок (Pandemic Emergency Purchasing Program, PEPP) в размере 750 млрд евро. Однако ясно, что проблемы финансирования скорее всего сохранятся на протяжении длительного периода.

Какими могут быть долгосрочные последствия пандемии? Будет ли Европейский центральный банк трансформирован в своего рода фонд для погашения суверенных долгов? Возможные последствия для еврозоны, очевидно, тревожат правительство и всех, кто поддерживает евро. Мы оказались в классической ситуации, где институты, созданные путем согласования и компромиссов в 1990-е годы, уже не в состоянии дать адекватные ответы на текущие проблемы экономики.

Эти маневры стоит рассматривать как своего рода распространение схемы природных ресурсов на всю экономику. Такая экономическая система потребует до некоторой степени как протекционизма, так и некоторой формы планирования, — наподобие той, которая действовала во Франции с 1945 г. до начала 1990-х годов.

Кроме того, трудно думать об экономическом суверенитете, не думая о суверенитете валютном. А каким может быть валютный суверенитет на национальном уровне по правилам Европейского валютного союза (EMU, European Monetary Union)? Ответ на этот вопрос по крайней мере трудно себе представить.

Текущий кризис Covid-19 — гораздо серьезнее кризиса 2018 г. Кризис 2018 г. был изначально финансовым, и только позднее он затронул производственную сферу. Текущий кризис начался с закрытия производств (или замедления их работы) в результате их перевода на карантин. Масштабы падения производства вполне сопоставимы с данными кризиса 1929 г. Новым качеством оказалась скорость, с которой было практически полностью остановлено все производство. Это — поистине беспрецедентное явление.

Трудности, связанные с выходом из карантина, показывают, что кризис в скором времени не закончится. Он глубоко изменит экономические отношения между странами, отношения внутри стран и в их экономиках, изменятся отношения между людьми и, можно надеяться, отношения между гражданами и теми, кто стоит у власти.

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Станет ли сжатие экономики, вызванное режимом изоляции, прелюдией крупной депрессии

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Аннотация. Эпидемия коронавируса, или вируса Covid-19, поражает воображение. Страх полного коллапса системы здравоохранения в экономически развитых странах породил меры, которые впоследствии были названы «изоляция» в большей части экономик. Эти меры дорого обходятся этим странам. Очевидно, что чем дольше будет сохраняться ситуация изоляции, тем дороже она обойдется стране. В некоторый момент наступят необратимые последствия, поскольку число обанкротившихся малых или средних предприятий достигнет критической величины. Стоит выяснить, не прокладывает ли чрезвычайная ситуация в здравоохранении, вызванная эпидемией, дорогу общему экономическому кризису, масштаб которого превзойдет все послевоенные кризисы с 1945 г. По окончании режима изоляции запустить экономику одним щелчком так просто не удастся. Уровень ожидаемого спада экономики станет значимым показателем того, каким может быть продолжительность такого периода изоляции, или карантина, чтобы экономика могла вернуться на докарантинный уровень. Трудности даже такой предварительной оценки очевидны. Однако некоторые правительства, например французское и итальянское, явно недооценивают масштабы такого кризиса, по крайней мере так было на начало апреля 2020 г. Как и французское правительство, они продолжают на этот момент недооценивать масштабы спада. Цель статьи — предложить реалистичные оценки этого спада и сравнить наши оценки с другими оценками, предложенными частными лицами или публичными организациями. Размеры сокращения производства окажутся близкими к уровню 1929 г., новым же является скорость торможения экономики. Если сравнивать с депрессией 1929 г., то масштабы изменений — как в лучшую, так в худшую сторону, — окажутся крайне важными.

Ключевые слова: эпидемия Covid-19, коллапс экономики, (само)изоляция, затраты экономики, малые предприятия, банкротство, сдерживание распространения болезни (карантин), послевоенные кризисы, экономические кризисы.

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