



Financial Think Tank, EGADE

Research Report:
Economic Impact of The Health Crisis of 2020

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The Difference a Day makes:

The Coronavirus Crisis of 2020

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Introduction.

The shock to the global economy due to the economic, social and health impacts of COVID-19 are significantly shaking markets globally. The virus is more dangerous than the common flu, but not a threat compared to the Spanish Flu of 1918. Nevertheless, short term disruptions in day to day life will be material as households and businesses react -perhaps in an overstated fashion- to minimize infection and ensure continuity of activities.

We must think, facing the current crisis, in three different dimensions before offering a correct prognosis of how the variables of daily life will manifest for Mexico and the world: One is the disease itself, the second is the economic effect that it will cause, and the last is the effect on the stock market and the extended financial system.

As soon as the first signs of relief arrive, markets first and then the economy will portentously surge in response (and this would be the base case) and, that is the difference a single day makes in the human psyche. This is based on two arguments. The first is that governments will provide significant fiscal and monetary stimulus as a result of the COVID-19 crisis. These will ultimately be effective to support sectors and firms most impacted and then to stimulate broader growth recovery. The second factor is that the virus is not -historically- a driver of traditional recessions, but a short albeit severe, shock. For these two reasons, we can expect the longer-term buying intent of consumers and business to remain intact. The health of consumers, business and bank balance sheets prior to the crisis should be encouraging towards this end.

1.- Consequences and features of the illness itself.

As for the first element, after analyzing many other cases in history, since the Spanish Flu of 1918 and all those that have occurred since then, most of the outcomes of all epidemics reach a maximum number of infections (specialists expect infections to peak in early May in most countries) and deaths, and begin to subside when the population becomes naturally immune from contact, plus whatever can be gained by finding a cure.

COVID-19 is a type of SARS¹, like the one in Hong Kong in 2003, which was also caused by a minor feline consumed in China. Its mortality rate is relatively low and close to 3.5% (which varies greatly depending on age and geography²), -nevertheless 35 times more lethal than seasonal influenza-, however, MERS had a rate of 34% and SARS's was 9%. When compared to other serious diseases in deaths per day in the world, Hepatitis B still has a rate of 2400 deaths per day, Pneumonia 2200, AIDS 2100, Rotavirus 1200, Seasonal Influenza a 1000 and COVID, 96 deaths per day, until today.

Another difference in this pandemic is that Seasonal Influenza infects by a factor of 1.3 (new people infected by each carrier) against a factor of 3 for Coronavirus; it is also distinguished in that it incubates slowly and even without symptoms -adding an undesired furtiveness element-, for up to 20 days, against 2 days in the case of Influenza; in addition, Coronavirus can infect -stay active- for up to 4 weeks, against 1 week of Influenza. Doctors become infected in the case of COVID-19 (and some die) and this is very rare in the case of Influenza.

In conclusion, this outbreak is not a common flu, it is more aggressive, but it does not seem to be the most deadly, nor the most contagious and not even the fastest spreading (in comparisons against other epidemics in history), but if it has taken the entire world by surprise, especially in countries that are vulnerable in at least four aspects: Poor preparation of its public health systems; a relaxed culture and lack of civil obedience; high incidence rates of smokers; an old population, which in general, also present aggravating conditions for this virus such as high blood pressure, respiratory complications, diabetes and obesity.

Therefore, the countries best prepared to face it are China, Germany, and South Korea; and the worst are Italy, and emerging countries in general (although the southern hemisphere, due to the temperature and humid climate, has a better position to fend off the virus, for it does not survive above 26 degrees centigrade). In the middle of both extremes are the US and Central Europe.

As a last point, the fear caused by the epidemic itself comes from the difference that social media and technology have made on the consciences of all of us. During SARS, for example, references to the disease appeared in the networks and in the media 63 million times, but in our case now, COVID-19 has been mentioned 2100 million times, an incidence much higher, by a multiple of 33. This is one of the reasons why the impact on the real economy and the prices of financial assets will also be much more serious, some analysts estimate even as high as what was seen in the 2008 crisis.

¹ There are 200 or more kinds of coronavirus, but only seven affects humans. Four of those are respiratory endemic viruses and cause around 15 to 30% of common colds every year. SARS and MARS are considered epidemic. The COVID-19 is the only new virus and it is considered a pandemic.

² The mortality rate in people over 80 years old is 15%, but if the infected person is in his mid-50's, the rate drops dramatically to 1.3%; if the person is in his 70's the rate is 8%, and if he is in his 60's, 3.6%. The death rate in Italy goes up to 6% in average, versus 0.6% in South Korea, mainly due to the older average age of Italians. On the other hand, there are diseases that are transmitted to 5-8 people with mortality rates of 40-60%, so in comparison, the COVID-19 is just mildly aggressive.

II.- Expected economic outcomes.

The expected economic consequence is a strong shock to supply and demand in the short term, leaving only medium-term impacts, but not long-lasting ones, and to be followed by a rebound of similar magnitude at the end of three quarters in its worst scenario. These effects will be greater and more sustained in China, which will receive a sense of risk aversion in duplicate (the harmful trends already observed in its industrial policy, plus the novel fears around its fragile health culture), followed by those countries that were forced to implement a social distancing policy for longer -such as Italy and Spain- and, the countries most exposed to manufacturing value chains centered on China, such as the USA and Germany.

Reactions to the virus, in economic terms, can be classified into three classes: The first –on the demand side- is the one that comes from consumption and investment decisions in response to the pandemic. The second is the one that derives from the forced social distancing as a palliative to contagion. The third is the interruption and possible fracture of value chains -a purely supply effect- that comes as a consequence of the previous point and also of delays on the part of China in particular, which has been the most important link in manufacturing at the international level for at least two decades.

The reaction in the demand and investment sides will bring caution in both, or at least, delay. Durable goods will need to be put off for some months, but some basic staples will see spikes in demand, such as cleaning, health and household products and finally office supplies. Regarding the second result, all those providers that make possible distance living (home delivery services, internet services, computer equipment, entertainment, virtual meetings, assisted material production, etc.) will see a strong peak in demand, but on the supply side, there will be serious delays in the production of those manufactured goods that are highly dependent on human design and supervision, as well as the entire service economy with a “face to face” presence such as restaurants, hotels, the entire transport cluster, sports and mass entertainment activities, customer service in supermarkets and minor trades (such as mechanics, tailors, technicians, hairdressers, etc.), the education sector and the health sector in its routine and superfluous forms.

These first two effects will have the same duration as the closing of operations from the “normal” mode to the “restricted” mode and, will see a strong rebound with new peaks due to deferred and pent-up demand, when normality is restored (with the exception of on-the-moment demand such as restaurants that will suffer a definitive loss on those months). The third effect, on the contrary, could be extended further, since the transmission channels are more permanent: The inputs for production will bear interruptions in their transit and arrival and, when drastic changes in their prices are factored-in, there will be strains of negative growth. If these elements finally obstruct the production of value added, then it could lead to plant overcapacity, layoffs and subsequent drops in real economic growth that could be extended beyond manufacturing.

The economic effects of epidemics have been low in history, regardless of death rates, although the reactions are usually emotional and the blows on confidence are usually very expensive, but transitory. The Spanish Flu of 1918 (although it was conceived in West Point, USA, upon the return of the soldiers of the first war) is the worst possible scenario, and it had indeed the pattern described here. In those years, 1919 posted no growth of US GDP and 1920 saw a drop of -2% of GDP.

The only factors that would make a noticeable difference with other examples in history are those related to the ailments that the global economy was already carrying before the epidemic. The strong indebtedness in many developed countries, in both governments and companies, is an aggravating element if it is mixed together with what the Coronavirus provides by itself. The outcries of populist movements all around the world -which in turn stem from a decades-old abuse of the elites towards

the masses- is another harsh ingredient that would surely contribute to a bigger and longer shock, if those factors were combined. It does not help either that the economic rescue tools (expansive fiscal and monetary policies) have very little room to maneuver in most G-20 countries.

III.- The reaction in the stock and the extended assets markets.

Stock markets have fallen 30% since their peak on February 19th at the time of writing this note, and virtually all markets in the developed world are in bear terrain. Volatility reached almost the same peak -an 80% annualized standard deviation- on Monday, March 16, as it had in October 2008, in the great recession caused by the mortgage market meltdown twelve years ago. These reactions are typical of a scare of the magnitude of COVID-19, as it is also typical its recovery in the form of a “V” or in its worst case, in the form of a “U” (that is, a dip prolonged for a few more months, before going back to its previous levels).

In many of the past epidemic cases, the effects on stock markets and asset prices -including government bonds, corporate bonds and commodity prices- have suffered the described behavior, with some rare cases experiencing an “L” effect for a period of time, that is, a drop that does not recover completely until well beyond 24 months, but due to the characteristics of the financial markets prior to this crisis (there was a lot of cash available, high levels of liquidity, immediate reaction from governments and monetary authorities, high indebtedness but very low interest rates, asset prices below bubble level in most markets), this scenario is unlikely at this point, although not impossible.

It is also foreseeable that earnings per share (EPS) in the Standard & Poor’s 500 (SPX) index, currently close to 154 USD, will fall up to 10% this year due to the effect of the recession and, taking as a reference the average earnings multiples (P/E Ratios) that have been observed in the lowest percentile of previous epidemic-generated crises, we can estimate a price around the nadir of the SPX somewhere close to 2000 points³.

It is conceivable, however, that the effect of the drop in income and profits of those companies most exposed to the crisis -either because of leverage or because they are in one of those highly sensitive sectors as mentioned in Box # 1- will be substantial and bring about strong declines in their share prices of up to 60 or 80%, as is observed already in the case of airlines and hotel operators. Many of these companies will present a buying opportunity -for the market will not distinguish between friend or foe in their drastic reaction to the crash when carrying about their aggressive ousting- and yet others in worse malady will have to be acquired by the strongest players.

Regarding the reaction of the monetary authorities, the backdrop to the measures taken so far⁴ is undoubtedly intended to provide investors with liquidity and confidence, but it also sends an unequivocal sign of panic in policymakers and central bankers, which could end up either barely helping the bear market or even worsen it, as has been reflected in the futures indexes on both occasions when the FED recently acted. In countries where monetary easing is not possible anymore, such as Europe, fiscal policy will be deployed in TARP or 2008 LTRO-style programs, providing relief

³ This calculation derives from 154 USD in EPS, with a 10% drop to produce 139 USD per share, multiplied by a floor level P/E of 14x or 15x, which produces a range of 1940 points in the SPX index and up to 2080 points, still 300 and 400 below the closing level at the moment this note is written, with a total drop of 38-43% as a result of the crash.

⁴ At the pure style of the 2008 economic bailout, we will see significant rises in QE from every central bank in developed countries, beyond the reference rate cuts of those that still have space, as the FED, who has cut its rate twice by a total of 100 basis points the last 10 days, one of those, on a Sunday.

and direct subsidies to companies (as banks are still strong in their balance sheets and in less danger than companies in susceptible sectors, up to this point).

IV.- Expected outcomes for México and final Take-Aways.

The oil war between the US, Saudi Arabia and Russia adds an element of further hurdles for the Mexican economy, which was already in a technical recession (four quarters of negative quarter-on-quarter growth as of December 2019), reaching a condition that has been called before "a perfect storm".

The confirmed cases of COVID-19 at the time of this note were 164, but most observers suspect that the number is higher, since the Mexican authority, under the umbrella of the government of President AMLO, is credited with "empirical professionalism", at the very least. As proof of this, in the official meetings with officers of the US health sector, it was concluded according to subsequent press releases that the process of testing in Mexico and filters at the ports of entry for foreigners were below standards recommended by the World Health Organization and the practices -also remiss- inside the USA itself. This could lead us to think that the controls in place will be very clumsy at first, which will delay the war against the virus for at least three weeks. In addition to this, Lopez Obrador's war against corruption led him to dismantle the public health insurance program for the poor and to drastically change the channels for the supply of medicines in the public health system, which culminated in shortages and serious deficiencies in hospitals and clinics in the Mexican health sector.

Regarding the final impact on the national economy, it can be anticipated that a fall in the American GDP will have duplicated effects in Mexico, such that -2% there, can mean -4% here (there are analysts who have posted estimated below -4% for the year, but these opinions too are changing every day as the crisis abides). The main transmission channels are through exports to the US, which weigh 80% of the total, and tourism, which weighs 9% of Mexican GDP. Then, we shall add to this the drop in oil price, which directly affects the public spending budget by 18%.

The peso has lost about 20% of its value, which will affect private companies that are indebted in US dollars, but not the government, whose debt is 78% denominated in Mexican pesos and 81% at a fixed rate, even though Pemex does have most of its debts in USD, so it is very plausible that it will be downgraded soon, since 75% of its fields are -in terms of profit margins- below the cost of extraction. This can be certainly and promptly transferred to the UMS sovereign debt and with it, the stock market and the level of interest rates, which could descend towards 5% en the following 12 months (which now stands at 6.5%, after a surprise cut this morning).

Behind this, and despite all that has been mentioned, there is a silver lining that illuminates the dark cloud in front of us and it is the fact that China, due to the double blow referred to in the previous sections, will lose the investment glare in manufacturing that it has enjoyed so far, leading the manufacturing world to cut and shortened its supply chains to geographies that represent less risks and are otherwise viable, and Mexico, of course, will come out as the great winner in all of this, as early as in the course of the next eighteen months, once this crisis is over.

Box #1: Major effects of the Crisis on Sectors and Geographies.

The sectors that will be primarily impacted (measured by a change in their own GDP from the peak before the crisis, in G-20 countries) by the force of the virus itself and all the efforts to contain it, in particular those directed at the so called social distancing, can be listed as follows:

1. Health sector -hospitals and related services- can see an increment in demand by 15%
2. Entertaining services, sports, tourism will suffer cancellation rates of around 80%
3. Public transport services and casinos Will see a drastic fall of close to 65%
4. Hotels, restaurants y car rentals Will experience a considerable shortfall in demand by 50%
5. Trading of general staples and goods -without food- such as personal care, education, and social services, could see a limited fall of around 20%

Those countries most ailed by their initial conditions such as Italy and Spain could experience more drastic consequences, and all this translated to the incidence on final GDP growth, would result in a drop in real annual rates reaching -6 or -7% at their bottom.

From the geographic standpoint, the world could land a very dreaded growth rate of 2% in 2020 (the floor to consider a global recession playing) compared to the original estimate by the IMF of 3.4%, -and some analysts are already posting numbers below that reference-. This blow can be traced down to five main elements (and their contribution to the whole): a.- A drop in the Chinese GDP on 1Q and maybe also 2Q (-0.25%); b.- The loss that the world will suffer in 2020 from Chinese tourism (-0.2%); c.- The exports to China the entire world will miss (-0.6%); d.- The direct effect of the social distancing policy on consumption and supply (-0.2%) and e.- The effect on world aggregate production due to interruptions on value chains centered in China (0.25%).

Main Revisions to the Base Case for Global GDP Growth under the Health Crisis of 2020

	2020 Old	2020 New	2020 recession scenario
Global	2.8	2.2	1.4
China	5.2	4.6	3.2
Global ex China	2.2	1.6	0.8
Developed Markets	1.0	0.5	-0.2
US	1.6	1.2	0.5
Euro area	0.6	0.2	-0.3
Emerging Markets	4.0	3.3	2.4
Emerging Asia	4.9	4.2	3.1
Emerging EMEA	2.8	1.9	1.0
Latin America	1.3	0.9	0.2

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BOX 2: Glosary of Terms:

QE: Acronym for quantitative Easing, a strategy by the Central Bank through which open market operations are made to inject liquidity to the banking system.

EPS: Acronym for Earnings per Share.

SPX: Acronym for Standard & Poors Index with 500 issuers.

Bear: Metaphor for a down stock market. *Bull* would be the reverse for up markets.

SARS: Acronym for Severe Acute Respiratory Syndrome.

MARS: Acronym for Middle Eastern Respiratory Syndrome.

UMS: Acronym for United Mexican States, a way of referring to any sovereign paper issued by the government of México.

TARP: Acronym for Troubled Asset Relief Program, implemented in the US in the crisis of 2008.

LTRO: Acronym for Long-Term Refinancing Operations, implemented in the EU in the crisis of 2008..