Fundación MAPFRE

2020 ECONOMIC AND INDUSTRY OUTLOOK: SECOND QUARTER PERSPECTIVES

MAPFRE Economics

2020 Economic and industry outlook: second quarter perspectives

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© For the texts:
MAPFRE Economics - mapfre.economics@mapfre.com
Spain: Carretera de Pozuelo, 52 – Edificio 1
28222 (Majadahonda) Madrid
Mexico: Avenida Revolución, 507
Col. San Pedro de los Pinos
03800 Benito Juárez, Mexico City

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2020, Fundación MAPFRE
Paseo de Recoletos, 23. 28004 Madrid
www.fundacionmapfre.org

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MAPFRE Economics

Manuel Aguilera Verduzco
General Director
avmanue@mapfre.com

Gonzalo de Cadenas Santiago
Director of Macroeconomics and Financial Analysis
gcaden1@mapfre.com

Ricardo González García
Director of Analysis, Sectorial Research and Regulation
ggricar@mapfre.com

José Brito Correia
jbrito@mapfre.com

Begoña González García
bgonza2@mapfre.com

Isabel Carrasco Carrascal
icarra@mapfre.com

Fernando Mateo Calle
macafee@mapfre.com

Rafael Izquierdo Carrasco
rafaizq@mapfre.com

Eduardo García Castro
gcedua1@mapfre.com

Maximilian Antonio Bruno Horn
Verónica Martínez Vera
Almudena Aramburu González
José Luis Pozo Estudillo
Miguel Ángel Martínez Roa
Óscar García García

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The emergence of the COVID-19 pandemic has radically altered the socioeconomic and political vision of the world. The infection process, coupled with the suppression measures imposed across the world (social distancing and population confinement), has produced supply and demand shocks of unknown dimensions so far. In addition, the oil market has tightened up, which has put additional pressure on certain economic sectors, both in developed and emerging countries.

The new global growth forecasts presented by MAPFRE Economics in this report have gone from 3.1%, at the beginning of the year, to a contraction in global GDP that ranges between -3.0% (in the *minimum baseline scenario*) and -8.2% (in the *stressed baseline scenario*), scenarios that may vary depending on the impact that eventually results from the spread of the virus and the suppression or containment measures that may be taken.

In this context, there has been a global synchronicity in the relaxation of monetary and financial conditions. However, this has been carried out in a markedly less coordinated and irregular way in terms of fiscal policy measures. These generally include direct and indirect stimuli, and guarantees that have ranged from 15% of GDP in some countries to 2% in others. The report's baseline scenario of economic growth and inflation is therefore very negative for developed countries and even more so for emerging markets, due to the vulnerabilities accumulated over the last decade and the sharp contraction in foreign revenue, especially because of the fall in oil prices.

In the variants of the baseline scenario considered in this edition of the company's *Economic and industry outlook*, economic growth will return with a varying force in 2021 and will result in a bill in the form of an increase in public debt of at least 15% of global GDP. It should be noted that the report does not include a quantification of an alternative scenario, per se, but this could happen. The components for this would be: a loss of control of the pandemic, and a failed, sterile international action that lengthens the recession into a depression with the potential to generate a systemic event through the finance sector that would not only make the downturn bigger, but the eventual recovery would also be later and weaker.

Insurance markets

Like the economy, the insurance industry is experiencing a situation that is unprecedented, at least in the last 100 years. The COVID-19 pandemic has led to a global health crisis that, as it expands, is saturating health systems in both emerging and developed countries. This has forced measures of social distancing and population confinement that are affecting the economy and, by extension, the insurance markets, with consequences that are still to be determined, but could exceed the impact of the deepest crises of recent times. The widespread application of accommodative monetary policies (along with additional unconventional measures), accompanied by expansionary fiscal policies, could stimulate the recovery of the economy and the insurance industry. However, this is not expected to happen before 2021, with great uncertainty as to the structural effects that may arise from the present crisis.

The reaction of major central banks globally has been virtually immediate, with the application of quantitative easing measures, through bond acquisition programs (both sovereign and corporate), which have been of great help to insurance companies. These programs ensure their liquidity and have an immediate effect on risk premiums (avoiding an abrupt increase), which would cause their valuations to fall and as a result, the shareholders' equity of insurance companies to fall as well. It remains to be seen to what extent the creditworthiness of its issuers will be affected, especially with regard to corporate bonds, which will depend on how long the situation continues. This would damage the solvency position of insurance companies with significant investments in these asset types.

The report's analysis of the worst economic crises in the 40 years since 1980 shows that, overall, sharp declines in GDP lead to significant setbacks in insurance premiums at the aggregate level, in both emerging and developed markets. However, the effect is uneven across the different lines of business. Automobiles, business, industrial and Life insurance are the hardest hit and will suffer the short-term consequences of the crisis. Health insurance has remained very resilient in these situations, even behaving anti-cyclically at the worst times of the crisis. Homeowners and condominium insurance tend to slow down, without experiencing large setbacks. For traditional life annuity and Life savings insurance, the most unfavorable effect (with structural and medium- to long-term implications) is the low-interest-rate environment. This was previously a problem for economies in developed countries, but it is spreading to emerging markets. In addition, the strong setbacks in stock markets harm the Life insurance products in which the policyholder assumes investment risk, in countries in which this type of product has reached a significant weight. Reduced GDP, low interest rates and falling stock markets harm Life insurance due to the loss of business and due to the bailouts that may need to be paid to people who fall into a situation of need as a result of the crisis.

As part of the effects of the current crisis, emerging economies have suffered strong disposals of portfolio investment, with sharp exchange-rate declines, which coupled with the fall in GDP, will have a marked impact on the turnover and profitability of its respective insurance markets. From the aforementioned analysis of the economic crises in the last four decades, it is clear that the sharp falls in the GDP of emerging markets are usually accompanied by strong declines in business volume. However, when GDP recovers and returns to growth, insurance premiums take up their growth robustly during the three or four years after the crisis, well above the average GDP growth in recovery periods.

1. Economic outlook

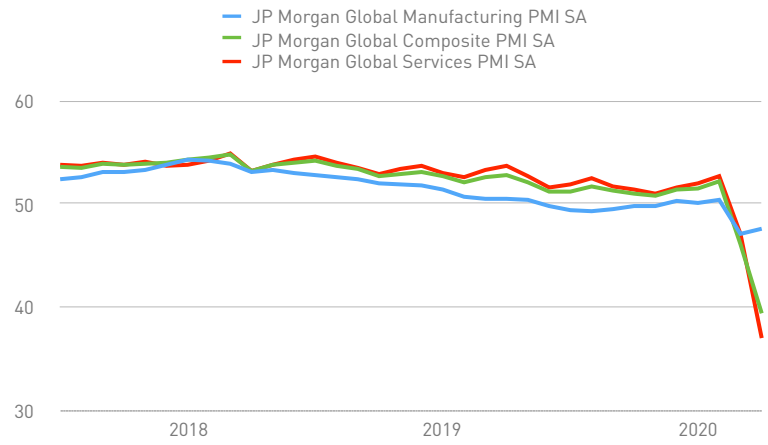
1.1 The global economic outlook

1.1.1 COVID-19 and the new global crisis

Until the end of January, MAPFRE Economics' central global economic performance scenario for 2020 was that of a low traction gain in global activity, although this was expected to be weak, fragile and elusive due to the significant challenges of the present time (such as inequality, the change in economic model and the problems arising from environmental sustainability)[1] and the fact that it should go hand in hand with an expected but difficult eventual recovery of emerging markets, accommodated by a new period of monetary stimulus in developed markets. However, the health emergency caused by the SARS-CoV-2 (COVID-19) global pandemic, which was declared as such by the World Health Organization on March 11, is having an unprecedented impact on economic activity. Although national accounting data is not yet available for most countries, high-frequency indicators show the intensity of the contraction (see Charts 1.1.1-a and 1.1.1-b).

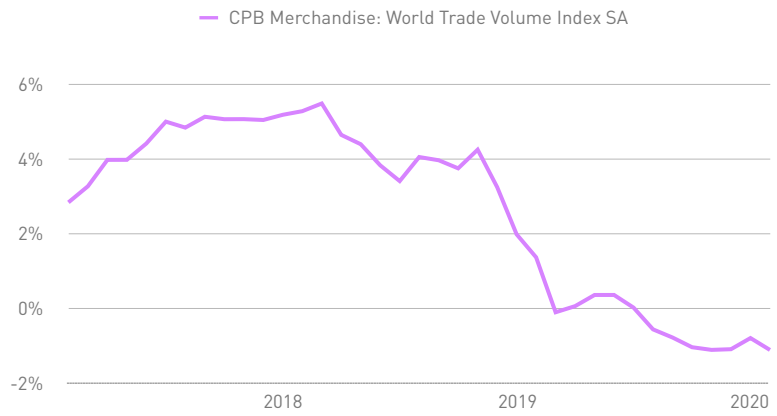
This deterioration is forcing the consensus to completely alter the forecasts for the entire year of 2020. The sudden deterioration (since it occurred in less than a month) of this change in expectations is not the only notable feature, but so too is the high uncertainty in the expected range of deterioration (see Chart 1.1.1-c). Similarly, MAPFRE Economics has also considered it necessary to alter its expectations of growth, inflation and the other global variables, although without defining where the bottom of this recession is, and considering that the only reference to the intensity and duration of this type of crisis leads us to a scenario similar to that of World War II. Thus, as long as the current crisis lasts, MAPFRE will limit itself to providing a range of forecasts.

Chart 1.1.1-a
Global: PMI performance



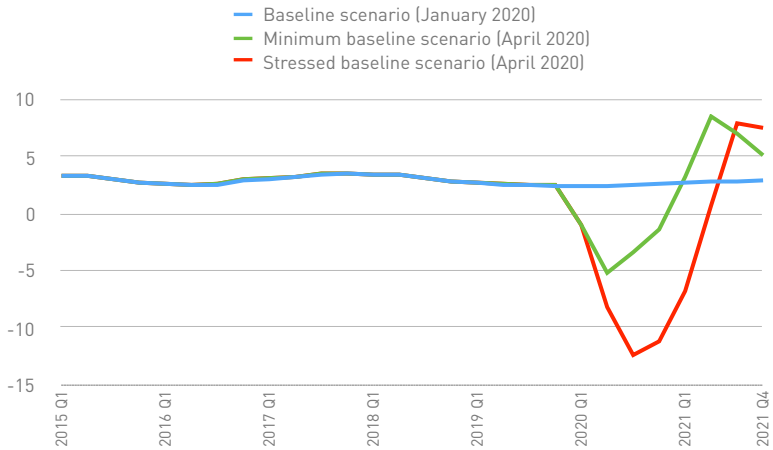
Source: MAPFRE Economics (with JP Morgan data)

Chart 1.1.1-b
Global: trade volume performance
(growth rates, YoY)



Source: MAPFRE Economics (with data from CPB Institute, Netherlands)

Chart 1.1.1-c
Global: change in GDP forecasts
(growth rates, YoY)



Source: MAPFRE Economics

The two extremes of the central vision are: minimum baseline scenario and stressed baseline scenario

As indicated in Table 1.1.1-a, the differences between the high and low bands of forecasts in MAPFRE Economics' central vision (*minimum baseline scenario* and *stressed baseline scenario*) are based on the level of stress that the VIX index is subjected to, emerging risk premiums, oil, temporary and risk premium, and global trade in general. There are also substantial differ-ences in the debt burden that accumulates in both scenarios. The *mini-mum baseline scenario* (high band) considers that the recession will occur primarily in the second quarter of the year and partially in the third quar-ter, but that normalization will result in a sharp rebound in 2021. In con-trast, in the *stressed baseline scenario* (low band) the fall is more pronounced (double), longer lasting (one or two further quarters) and the rebound in 2021 will be much smaller.

The main characteristics arising from the use of this approach to prepare forecasts for this report are presented below.

Minimum baseline scenario: global growth stands at -3.0%

- China would recover its activity in the second quarter, and Asian economies are those that would mainly benefit from this. China's role as lender of last resort in the emerging world is not deteriorating; its demand for raw materials, tourism and integrated goods gradually re-covers, and is restored in the fourth quarter of 2020.

- The "suppression" measures in the rest of the world depress domestic and foreign demand, but automatic stabilizers work to mitigate their severity, and the contagion curve flattens to a hiatus, which allows the launch of the containment strategy by the end of the year. This eliminates obstacles to the expected rebound of activity in 2021 in developed markets.

- There would be no feedback between the real and finance sectors. The crisis would not create a solvency problem in the developed world, nor would it lead to the emergence of any sort of unexpected risk. Liquidity is restored, solvency remains and there are no large asset depreciations. A systemic problem would not emerge.

- Oil would return to around 40 USD/bl by the end of 2021. The VIX index would not remain high but also not at levels comparable to those observed in the Lehman crisis or the Chinese crisis in 2015. The value of the US dollar would remain below 1.1 USD/EUR.

Stressed baseline scenario: global growth stands at -8.2%

- More countries become more severely infected for a longer period of time, with effects on the important finance sectors, especially in the countries of Emerging Asia and Latin America.

- Global trade would contract by 15% throughout 2020.

- The price of oil would remain very low, below 15 USD/bl.

- There is a collapse of capital earnings that leads to abrupt changes in market valuation of many assets on the balance sheet, matching effects between assets and liabilities must occur by significantly reducing the size of the financial market and the possibilities of global financing. The role of Safe Havens would increase, hoarding liquidity and pushing down interest rates, which would cause even greater damage to the financial system.

- The fundamentals of this adjustment would occur in the last quarter of 2020 and the first of 2021, and its effects would be felt well into next year.

Extreme vision: the alternative scenario

The alternative scenario (extreme vision), which has not been quantified in this report, is an unpredictable scenario that would involve permanent structural changes triggered by a systemic crisis caused by known risks and vulnerabilities, or by the emergence of those that are not yet known and may have a profound effect on the economy. Although it cannot be said what mechanism would lead to such an extreme situation, some assumptions can be made about the minimum elements that would be present: (i) the biological assumptions of the baseline scenario about the infection (seasonality and fatality of the virus, among others) are not fulfilled and (ii) national interests prevail without some form of international coordination to tackle the problem, resulting in recurrent partial and delayed measures without power to control the epidemic.

This extreme vision also assumes that any of the risks observed and reflected in the risk assessment (see Chart 1.1.2) will unleash a potentially systemic financial crisis that dislocates the finance sector from the real sector, preventing a return to normalcy in the future because there are no mechanisms for risk mitigation, term transformation and balance-sheet stability offered by the finance sector. The financial crisis is triggered by the materialization of some kind of risk relating to liquidity, debt financing, the solvency of the system, a lack of revenue or counterparties. These risks fundamentally act by increasing the aversion to global risk, the

Box 1.1.1-a
Central vision in the baseline scenario

Central vision

Given the dynamics of the COVID-19 pandemic, coupled with the international coordination and reaction, a resulting short and sharp recession can no longer be counted on (V curve). Therefore, the alternatives that have been considered in preparation of this report focus on the possible scope of a U-shaped recession (assuming that the response prevents the recession from causing permanent damage), which lasts between two and four quar-ters and with variable depth primarily dependent on the biological severity of the virus and the speed and intensity of the measures taken. In short, MAPFRE Economics' central vision on the basis of this report is that there is relative success in flattening the curve of infections that allows for a U-shaped recovery.

This vision has a range of potential scenarios and results and, therefore, in this report, MAPFRE does not refer to a "baseline" scenario and an "alternative" scenario (as has been done in previous analyses). Instead, a *minimum baseline scenario* (MBS) and a *stressed baseline scenario* (SBS) are provided, both with equivalent probabilities that offer "extreme bands" of an entire range of forecasts.

The "alternative scenario" to this vision is described below as an "extreme vision," and is characterized by a new long-term balance, with permanent economic dysfunctions in both supply and demand and a finance sector unable to perform basic functions (mitigating risks, transferring savings, promoting demand, etc.), given that the shock has bolstered weaknesses that have been forged and are now present in the real sector. In MAPFRE Economics' versions of the "baseline scenario" (*minimum baseline scenario* and *stressed baseline scenario*) we return, within a longer or shorter period of time, to pre-crisis levels, while in the "alternative scenario" (for which no forecasts have been included in this report) we never return to these levels again.

The basic assumptions of the baseline scenario

In the preparation of the baseline scenario forecasts, the following general assumptions have been considered:

1. **Nature of the virus**. On the most benign side of the spectrum of the company's central vision (MBS), it is assumed that SARS-CoV-2 (COVID-19) has a seasonal nature and retreats in the warmer weather. This is also why its severity in hot countries (mostly emerging markets) is expected to be limited. Under this vision, the virus mutates at the rate of the flu and allows for relatively rapid passive immunization (after infecting 20-40% of the population). Its ability to spread (R0) is about twice that of the common flu, as anticipated. The fatality rate is about 1%, and both factors together allow us to confirm that the number of infected people is between eight and ten times the number of reported cases. The temporal distribution of the virus does not have a single maximum, but shows a second outbreak, although lower in intensity thanks to all the assumptions listed above.

   In the most stressed vision of the baseline scenario (SBS), some of these assumptions are relaxed, particularly those relating to infection and immunization, which leads to a seasonal outbreak equal to or more severe than the original as there was not enough immunization and the virus strengthened. Moreover, there is an obvious toll at economic and political levels, and the ability to withstand the shock is much lower than that observed in March.

Box 1.1.1-a (continued)
Central vision in the baseline scenario

2. **Epidemiological strategy** It is assumed that the strategy adopted is severe "suppression." In the central vision of the baseline scenario (MBS), this is successful and buys time to search for treatments, vaccines, and to reinforce the health care system. The seasonality of the virus also provides greater room for maneuver before a phase of progressive containment is introduced in the fall.

   Under a more stressed vision of the baseline scenario (SBS), the nature of the virus forces a longer confinement period. This, coupled with the absence of seasonality and a weathered institutional response, allows the virus to spread more rapidly than expected. The "suppression" strategy gives way to a more or less involuntary collective "immunization" strategy, in which the number of infected people grows steeply along with fatalities. However, in this case, as in the previous case, what makes the difference is the information, which is sufficient to establish relatively correct strategies that lead to more or less delayed success. The most important thing about this stressed vision is that, in extremes, the institutional response to the virus prioritizes the support of the health care system and reducing uncertainty through mass testing to understand the true behavior and scope of the virus. It is assumed that, from this point, the more or less delayed success depends fundamentally on both strategies.

3. **Institutional reaction**. The central vision of the baseline scenario (MBS) assumes that the institutional response is the correct one, by which the cost of the pandemic is able to be distributed over time without leading to extreme situations, and that the unemployment caused is temporary and the arrears remain under control. Therefore, a systemic situation cannot be achieved, which, from the point of view of the consensus, translates into:

   - Local institutions that properly manage relevant information and manage expectations without causing panic or social discontent.
   - Acceleration of the early recovery of the goods markets and factors with necessary regulatory changes.
   - Activation of mechanisms to prevent the collapse of the health care system.
   - Palliative economic measures are implemented correctly and on time: (a) *fiscal measures* for temporary income replacement, sensitive but controlled public sector involvement (avoiding "crowding out") and guarantees that allow credit to flow in support of activity being restored, especially retail activity; and (b) *monetary measures* that manage to provide frictionless liquidity to the system and control sovereign spreads, curbing asset impairment in the balance sheet of the financial system and without an adjustment to it.

   On the other hand, in the stressed vision of the baseline scenario (SBS), the duration of the recession in the most vulnerable countries transforms the real crisis into financial and sovereign crises with real implications. Under the stressed vision, Latin America and Turkey have another balance-of-payment crisis and debt crisis like in the 1980s and 1990s, and emerging Asia has another sort of liquidity crisis similar to that experienced at the end of the 1990s.

Box 1.1.1-a (continued)
Central vision in the baseline scenario

4. **Price of crude oil**. In line with what was explained in Box 1.1.1-d, the agreement to reduce the oil supply by approximately 10 million barrels a day attempted to put a floor under the fall in the Brent price. However, the absence of demand and the excess in existing inventories keep prices very reasonable (even leading to the economic "abnormality" that occurred when the price of May's futures became negative), which leave the current framework in a very gradual dynamic that manages to reach 40 USD/bl at the end of 2020 (20 USD/bl under the stressed baseline scenario). Emerging exporting countries face additional pressure due to cuts in revenue and the impairment of its trade terms, which weakens their currencies and curbs the looser monetary policy needed to better cushion the slowdown.

5. **Financial dimension**. Pressure on US dollar liquidity remains, despite global dollar auctions. The dollar therefore remains appreciated against all currencies and, eventually, its structural downward path against the euro stops. Portfolio investment outflows from emerging markets are slowing, but the shift in monetary bias in emerging countries does not produce a complete backflow, which remains in search of security and in high yield. Pressure on the financial account remains in emerging markets. This is partly because they must coexist with levels of global risk aversion that are still high. The strong financial integration of markets such as Brazil, Mexico and Turkey is an additional element of regional tension, given the fear of a collapse of regional indices that may impact the valuation of market assets.

Source: MAPFRE Economics

collapse of all revenue and income, and the flooding of the system of financial assets for which there is no demand. These detonators produce outflows that are unsustainable in financial accounts in emerging markets, the de-preciation of most currencies, as well as all asset types through adjust-ments in net present value (NPV) or market value (credit and income equi-ties), thus adjusting the balance sheet size of the real and finance sectors.

In this alternative scenario, the effects of the health crisis caused by COVID-19 end up looking like the pandemic that occurred about 100 years ago. That health crisis was the prelude to the "isms" (nationalism, fascism, communism, etc.) in Europe; a crisis that we cannot and do not want to imagine. The change in market expectations can be followed monthly in the online analytics prepared by MAPFRE Economics for that purpose[2]. In this review mechanism, it can be seen that the wide range of forecasts is proportional to the uncertainty in the possibilities of how COVID-19 will be managed.

It is appropriate to reiterate the idea expressed in MAPFRE Economics' previous report that we are in a scenario of extreme Knightian uncertainty, in which it is impossible to anticipate the outcome of economic and social policy decisions due to the unpredictable development of the biological event, as well as the incremental consequences of the current vulnerabilities that can turn any global scenario into one dominated by new risks whose nature and implications are still unknown. Economic and social policy decisions in this scenario involve a full adverse selection exercise.

Biology, uncertainty and crisis

The duration and intensity of the current crisis, as well as the form of recovery when it is in remission, are conditioned not only by the indefinite dynamics of the economic process that they are involved in, but also by the process of continuous discovery about the nature of the virus itself. In this regard, there are three main unknowns: (i) virus behavior; (ii) optimal health strategy; and (iii) economic policy options.

Behavior of the virus

Given its relative biological novelty, little is known about COVID-19. It is known to be a variant of a familiar virus, SARS, which is transmitted from animal to human, and is highly contagious through fluids and has a moderate mortality rate[3]. However, there are more unknowns and they remain over aspects regarding their nature, which conditions the response of health and socioeconomic policy that can be taken.

Some of the most relevant unknowns include the following: (a) its true rate of infection R0 (estimated to be close to twice the rate of the common flu); (b) the number of truly infected people (estimated to be 8x or 10x the reported number of cases); (c) the true mortality rate; (d) the possible seasonal component; (e) whether immunization (passive or active) is possible and how quickly (with what percentage of the infected population); (f) whether asymptomatic infected people are contagious or not; and (g) crucially, the true distribution of cases of infection over time (the infection curve).

The optimal health strategy

All of the aforementioned unknowns make the search for an optimal epidemiological management strategy a very complex adverse selection exercise, for which it can only be ensured that *any* decision taken with partial information will always leave room for improvement (less than optimal) and will be strongly conditioned by a socioeconomic trade-off that may be implemented.

Thus, crisis management requires two types of decisions with very different levels of certainty; some are obvious and others depend on the audacity of the assumptions made when deciding. First, the most obvious part is that of *unavoidable decisions*:

- Unconditional and sufficient political and financial support for the health system to control deaths; this is especially important in countries that are less prepared to handle the crisis (see Chart 1.1.1-d).
- The search for palliative treatments and vaccines that guarantee a back stop to the problem.
- Reducing uncertainty about the behavior of the epidemic through sampling and random testing and the infected people themselves[4].

Second, the other, less obvious, type of decision to make is *the strategy of control* (biological and social) of the pandemic. Although there are countless variants, the two major avenues currently under discussion are "containment" and "suppression." Both are based on quite restrictive assumptions given the absence of sufficient information, and with very different health, social and economic consequences. The health policy decision revolves

around managing the infection. Therefore, the two sides of the spectrum of such measures are in fact fundamentally different due to the target level of the parameter of its infection capacity (R0).

Containment

- This seeks to reduce the R0 to levels in line with the goal of achieving herd immunity, for which between 20% and 80% of the population needs to become infected[5].

- Although the economic costs are manageable, it is not manageable for the health system. It is usually implemented when strong health systems are available (see Chart 1.1.1-d).

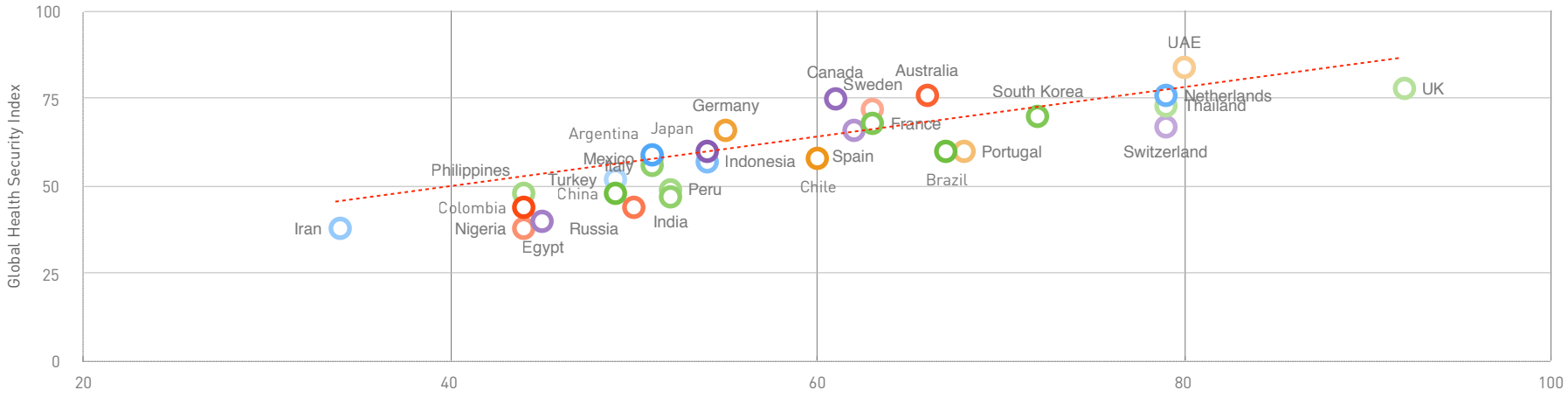
- It implies, however, that immunization is possible and that it is possible to reduce R0 and keep it under control to allow immunization.

Suppression

- This seeks to reduce R0 to below 1, which is when it becomes recessive, in order to gain time to take advantage of the seasonality of the virus, create treatments and vaccines, prevent the collapse of the medical system and reduce fatalities.

- Its disadvantage is that it leaves the population vulnerable to future resurgences, since it strengthens the strain against which immunization has not been achieved.

Chart 1.1.1-d
Global: health system readiness metrics



Source: MAPFRE Economics (with WHO data)

- Historical experience shows that the virus returns seasonally and forces a switch to the *containment* strategy.

- The economic cost is enormous, due to supply disruptions, risk aversion and the potential financial implications.

Economic policy options

Based on the health strategy implemented by most countries, it is clear that economic costs would be much higher if monetary and fiscal support measures[6] had not been implemented, and the damage (temporary for now) would probably become permanent. These measures have been aimed at preventing the collapse of aggregate demand (liquidity, solvency, employment), returning flexibility to factor markets, and making firewalls between the real and finance sector to avoid terrible recurrences that reinforce cyclical deterioration (bankruptcies, sovereign tightening, etc.). In MAPFRE Economics' view, the success of these measures will result in the current crisis having a more or less orderly exit (U-shaped), or an exit that leads to a new balance of lower growth and loss of permanent welfare (L-shaped). Both alternatives represent the possible scenarios in this document, one main baseline (U) and one extreme (L).

Economic policy options to avoid the above effects are divided into four groups: (i) institutional and regulatory coordination aimed at accelerating the recovery of sectors most affected by suppression measures; (ii) monetary measures aimed at providing liquidity, ensuring balance-sheet stability of the financial system and accommodating fiscal policy measures; (iii) fiscal measures aimed at financing the health shock, sustaining incomes and investing in the potential for economic growth by taking advantage of the existing broad multipliers (see Box 1.1.1-b); and (iv) the search for financing mechanisms and pooling of the costs of the crisis aimed at seeking sufficient fiscal space (domestic, international or multilateral).

The approach of the global economic policy has been to contain the effects of epidemic management decisions, which have generally been channeled through the suppression health strategy. The somewhat widespread *suppression* strategy has led to economic disruption with three distinct dimensions:

1. *Demand*. Marked by the reduction of salary and non-salary incomes that have led to postponing demand (consumption, investment in equipment and residential), as well as reducing the propensity for consumption due to precautionary reasons. This has affected all proximity sectors, such as tourism and catering, and the mitigating effect of public demand has been insufficient.

2. *Supply*. Marked by the dislocation of value chains and world trade, bottlenecks and a shortage of inventory have been produced, leading to a productive standstill and price distortions in a localized manner.

3. *Financial markets*. Marked by increased risk aversion (VIX), the search for safe assets, balance-of-payments problems, exchange-rate instability, dollar appreciation and rising global financial conditions despite central bank efforts. It has also generated a shortage of liquidity in dollars and a risk of asset repricing due to the effect of a permanent fall in revenue (through NPV or market valuations). The higher the local vulnerabilities, the greater the recurrence between real and financial effects. Emerging markets, in general, and Latin America, in particular, are textbook cases (see Box 1.1.1-c).

Box 1.1.1-b
Economic policy measures

Economic policy and COVID-19

Up until the date of publication of this report, the economic policy response to the spread of the COVID-19 pandemic has been aimed at curbing immediate deterioration and stabilizing the economy. A reference to the overall measures taken to that effect can be found in the summary prepared by the International Monetary Fund (IMF)[1], although, in general, they can be summarized in measures to: (i) replace demand; (ii) avoid a liquidity crisis that could turn into a solvency crisis; (iii) curb the impairment of financial and real sector expectations (producers and consumers); (iv) curb the impairment of private sector revenue and its implications on unemployment and both personal and corporate bankruptcies; (v) create firebreaks that prevent a vicious circle between the real and financial sectors and, fundamentally, (vi) prevent a temporary shock, such as COVID-19, from becoming a permanent one.

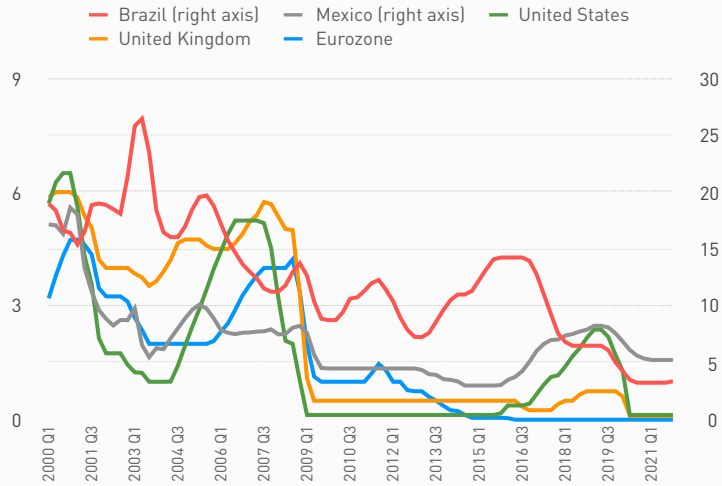
From an analytical point of view, the main economic policy measures can be summarized as follows:

1. **Monetary policy** Broadly, they have been placed in ultra-accommodative territory, both in developed and emerging markets (though the latter to a lesser degree, thus trying to mitigate portfolio outflows). This laxity has been implemented through:

   - Aggressive interest rate cuts (where there was room to do so). This has virtually led rates in developed markets to the Zero Lower Bound (ZLB), such as in the United States or the United Kingdom, often followed by emerging markets such as Brazil and Mexico, which contributed partly to the depreciation of their currency (see Chart A).

   - Balance sheet expansion. The Federal Reserve has agreed to purchases of up to 700 billion US dollars (in the Lehman crisis, it was

Chart A.
Monetary policy interest rates
(%)



Source: MAPFRE Economics (with data from the central banks of the countries specified)

Box 1.1.1-b (continued)
Economic policy measures

600 billion US dollars) and is open to unlimited purchases; the European Central Bank (ECB) is preparing for 750 billion euros in purchases (see Chart B).

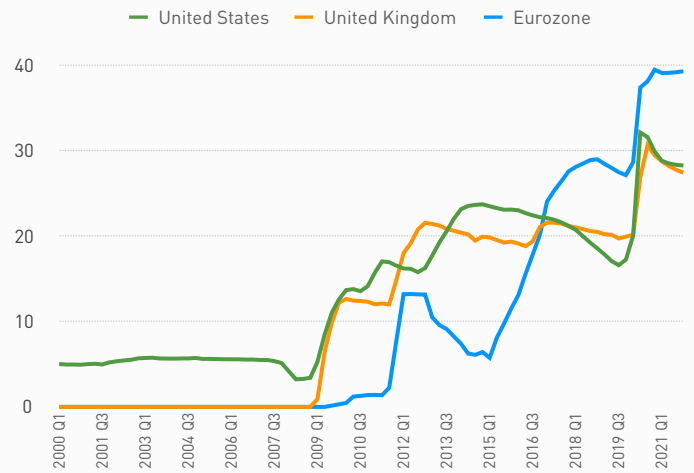
- A stop to asset value impairment. By expanding the purchasing menu of monetary institutions to mortgage-backed securities (MBS), corporate debt, ETFs, etc.

- Liquidity and solvency measures. Coordinated dollar liquidity auctions, flexibility in the banking system's capital requirements (with the ability to release up to 20 billion US dollars in liquidity).

2. **Fiscal policy**. Regardless of the existence of sufficient fiscal space, most countries have embarked on an unprecedented deficit-widening exercise that will largely end in the form of public debt. It is estimated that, at the end of 2021, total public debt will have increased between 15 and 25 basis points (bps) of the global GDP. A list of the most relevant measures in this regard can be found in Table A. These have essentially resulted in direct, indirect and public guarantee measures, and are aimed at moderating demand (in the form of public consumption), income compensation (transfers), and avoiding a liquidity and solvency crisis.

   In addition, more radical approaches (with still uncertain consequences), such as the coordination of plans from various bailout funds (Europe), the monetization of the deficit (United States) and even the creation of universal wage incomes (some countries), are being promoted; these are experiments that must be treated with extreme caution.

Chart B.
Balance sheet of central banks
(% of GDP)



Source: MAPFRE Economics (with data from the central banks of the countries specified)

Box 1.1.1-b (continued)
Economic policy measures

Emerging countries, with less public policy space available, may need to resort to multilateral institutions to enable measures comparable to those implemented within developed countries. In this regard, focus has been placed on the IMF and on the mechanisms for unconditional liquidity, such as Special Drawing Rights (SDRs), which are interchangeable securities (at 1.36/USD) between the central bank system and the IMF. It is estimated that the liquidity contained in the system in the form of SDRs amounts to approximately 200 billion US dollars. During the Lehman crisis, they required 250 billion US dollars in this type of instrument, therefore the IMF is debating the creation of new issuances that may range from 500 billion to 4 trillion US dollars. It should be noted that the IMF is the only entity that can function as a lender of last resort in the emerging world.

1/ See: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

Source: MAPFRE Economics

Table A.
Impact of fiscal measures to tackle COVID-19
(% of GDP)

	Direct	Indirect	Guarantees	Total
Americas				
United States	5.2%		4.1%	9.3%
Colombia	1.4%	-	-	1.4%
Jamaica	1.1%	0.0%	-	1.2%
Costa Rica	0.0%	0.8%	-	0.8%
Mexico	0.7%	-	-	0.7%
Guatemala	0.1%	0.4%	-0.1%	0.6%
Panama	0.0%	0.1%	-	0.2%
Europe				
Germany	9.0%	2.9%	11.6%	23.6%
Italy	1.4%	-	19.2%	20.6%
Czech Republic	1.8%	-	16.1%	17.8%
United Kingdom	1.5%	-	15.1%	16.6%
France	1.9%	-	12.4%	14.3%
Croatia	1.2%	11.7%	-	13.0%
Poland	3.0%	4.7%	1.8%	9.5%
Spain	1.2%	-	7.2%	8.4%
Switzerland	1.1%	0.2%	-	1.4%
Asia and the Middle East				
China	4.0%	-	-	4.0%
South Korea	1.0%	2.6%	-	3.6%
Israel	1.0%	2.1%	-	3.1%
Japan	2.3%	0.3%	-	2.6%
Egypt	0.0%	1.9%	-	1.9%
Philippines	1.0%	-	-	0.1%

Source: MAPFRE Economics (with data from national authorities, updated April 2020)

1.1.2 Risk assessment

The current risk map (see Chart 1.1.2) remains similar to the one presented in MAPFRE Economics' previous report[7]. However, now its nature is not that of a possible catalyst for a recession, but a factor of added aggravation that may have an effect on the current scenario and turn the observed U-shaped recession into one in which there is a shift in balance. This would be characterized by a depression that, because of the dislocation of the finance sector after a systemic event, cannot return to normal (L-shaped).

Global governance

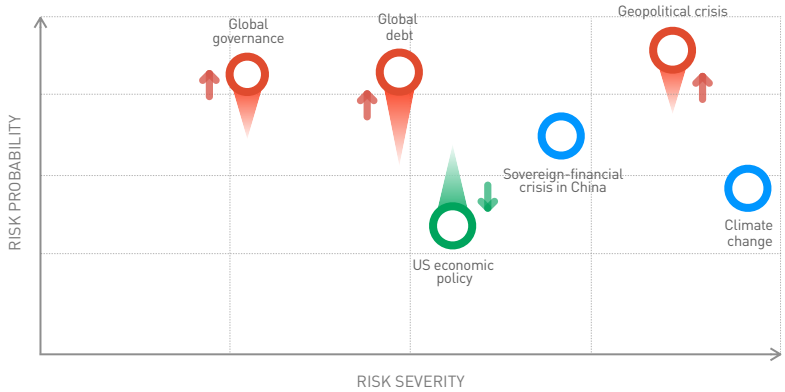
In general, the implementation of the health suppression strategy to address the spread of the COVID-19 pandemic, coupled with its effects on economic activity, may lead to increased tensions over governance worldwide, especially in regions (emerging countries) where health systems are weaker and less prepared to deal with the emergency.

Meanwhile, in the eurozone, the progress made in the attempt to implement common measures (Eurobonds, aid such as rescue via the MREL, unlimited QE), in case of inadequacies and greater cohesion, may represent a "before and after" scenario in terms of greater social divide and the strengthening of populism, creating a situation like the one seen with Mario Draghi in the eurozone crisis.

Global debt

It is necessary to stress the vulnerability associated with the continued rise in global debt levels. Disrupted cash flows that impair debt-servicing capacity, with increasing liquidity alarms in the system, may ultimately lead to solvency problems on the banks' balance sheets, turning the COVID-19 crisis into a systemic crisis. Meanwhile, governments attempting to stimulate their economies will run larger deficits, in an environment of weak borrowers who may react negatively to their obligations.

Chart 1.1.2
Vulnerabilities and global risks*



Source: MAPFRE Economics

*The arrow indicates the observed bias of the risk

Box 1.1.1-c
COVID-19 and the vulnerabilities of emerging markets

The vulnerability of emerging markets

In the last decade, emerging markets have experienced increased financial vulnerability and debt in a context of lukewarm economic growth, trade slowdowns, a slowing of real investment and rising income inequality. It should be noted that this is especially true in Latin America, where low productivity and GDP growth predominate, along with a lack of domestic savings mediated by the finance sector. These problems expose the region to external shocks that can be transmitted through its current account or foreign debt stock.

Therefore, emerging markets that were already at high risk of sovereign external debt problems at the end of 2019 currently have a very high debt burden. Total debt is estimated at more than 220% of the GDP of emerging markets, with private debt close to three quarters of this figure, mostly due to the expansion of the leverage of private companies (see Chart A).

In addition, the growing proportion of sovereign debt (which is owed to foreign non-bank institutions) has also meant an increase in debt service costs and an avalanche of obligations on international bonds due to mature relatively soon over the next decade. The external funding needs of emerging countries are particularly relevant (current account balance and debt repayments) and account for between 8% and 25% of GDP.

It is also estimated that a large part of the debt of private non-financial firms in emerging countries (around 35%) is in the hands of external creditors in foreign currency. Last but not least, corporate debt in many emerging markets is expanding much faster than investment in physical capital, suggesting a clear speculative bias toward increasing growth potential and the resulting future repayment capacity.

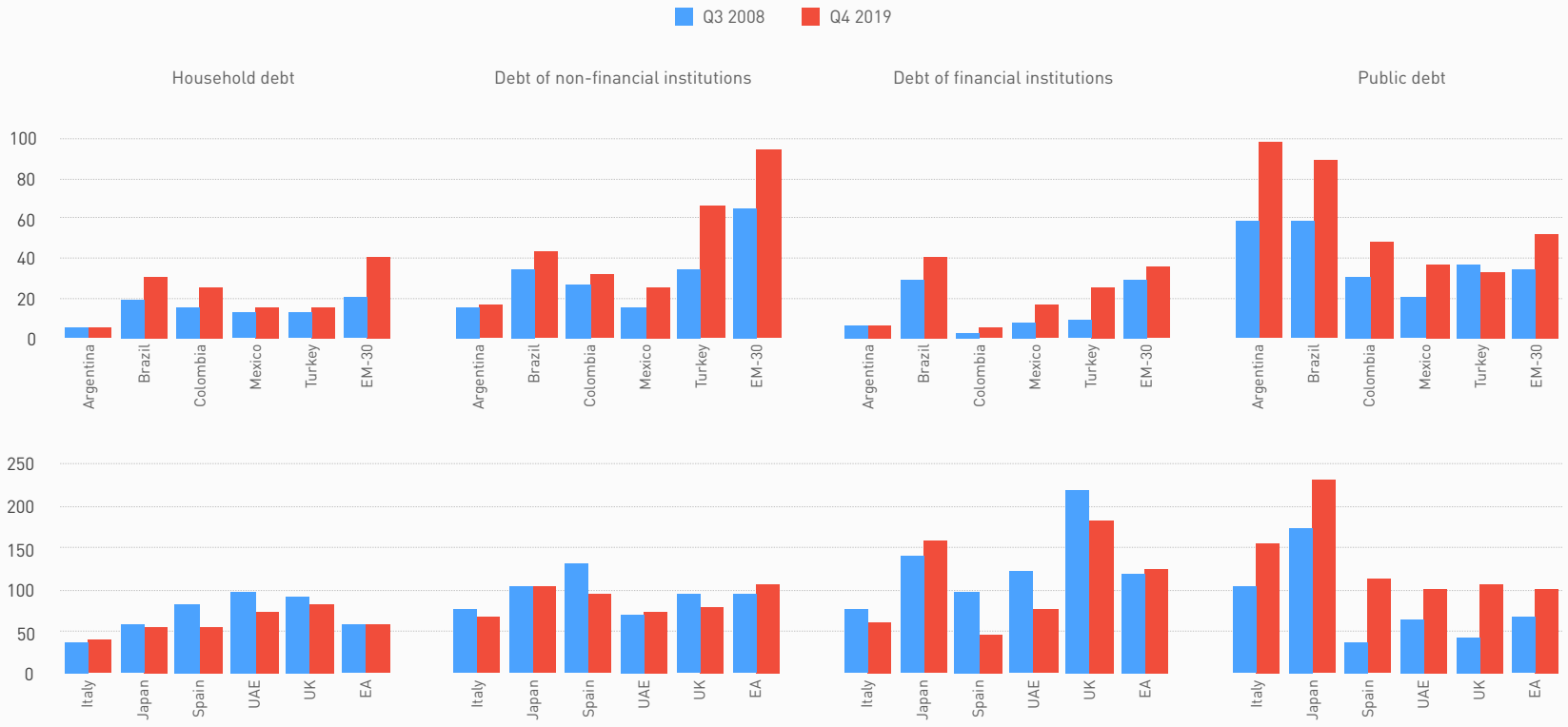
The outbreak of the COVID-19 crisis

This increasingly complex, dangerous and rapidly growing debt does not bode well for the ability to withstand another external shock such as that caused by COVID-19, especially when the liquidity position of these markets is so seriously threatened. The reasons are both stock and flow. On the one hand, the relationship between international reserves and short-term debt (stock) has been steadily declining since 2009 to date. And on the other hand, the slowdown in growth since mid-2019 has seen a decrease in export revenue (flow), because of both the lower volume of sales and the deterioration of trade terms closely linked to the fall in the price of non-agricultural raw materials. That's why export revenue and direct reserves do not appear to be sufficient to stem the accumulated imbalances, let alone the effects of COVID-19.

Finally, understanding that this crisis also leads to a shock on the supply side, it is necessary to anticipate what will happen in the future of a region that is so deeply integrated commercially and in terms of financing with China, a country that has been heavily impacted by the health crisis and, in addition, by the significant conditionality that mobility restrictions are imposing on the cycle. As confirmed in the analytics prepared by MAPFRE Economics[1], the impairment of growth

Box 1.1.1-c (continued)
COVID-19 and the vulnerabilities of emerging markets

Chart A.
Emerging vs. developed markets: debt levels by segments
(% of GDP)



Source: MAPFRE Economics (based on IIF data)

Box 1.1.1-c (continued)
COVID-19 and the vulnerabilities of emerging markets

prospects is simultaneous to the level of proximity and mobility constraints prevailing in each economy.

Emerging markets are already facing an impairment in their debt positions, as they lack commodity and trade revenue, and the financing of China and developed markets remains weak. And now the crisis caused by social distancing and population lockdown measures implemented to deal with the COVID-19 pandemic has been added. With current levels of international reserves, emerging markets' ability to cushion the downturn of this crisis seems extremely limited.

1/ See: https://app.klipfolio.com/published/ca635768cc1b32264d33836fc491e79c/institucional-response-to-the-covid19-crisis-and-effects-on-expected-growth

Source: MAPFRE Economics

Macro-financial adjustment in China

Gradually, normalcy is returning to the Chinese economy. However, the "factory of the world" remains linked to global performance and its consumption needs as well as China's domestic consumption, which is still in shock. In the short-term, it is estimated that the risk of macro-financial adjustment in China will maintain its level of potential probability and severity.

Economic policy in the United States

The effort being made by central banks around the world dwarfs what was seen in the aftermath of the 2008 crisis, which is a major absorber to the global shock of the pandemic. In spite of this, it may not be enough and may open the door to the implementation of very unorthodox measures, such as the monetization of the deficit in all its forms regardless of current debt and deficit levels and laying the foundation for the return of high inflation in the future. Yet, for the time being, the risk of a global systemic effect stemming from a major misalignment of the US economic policy seems to have a reduced probability.

Box 1.1.1-d
Update on the performance of the oil market

Oil market

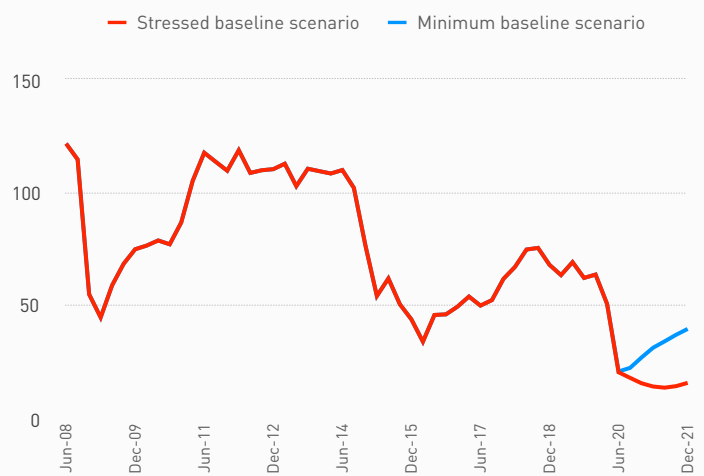
Since the first half of March, oil prices have suffered a sharp correction of close to 66%, thus recording one of the biggest declines since the 1990 fall and leading the current Brent price (as on April 22) to be around 20 USD/bl. The scale of the price collapse can be seen by noting that the value of the hydrocarbons market to date accounts for one fifth (approximately 1% of global GDP) of what it was before the COVID-19 crisis.

The strong price correction has been the result of the combination of supply and demand forces. Firstly, the drop in activity in China during the first quarter of 2020 and, presumably, in the rest of the world during the second and third quarters of the year (at best), as a result of the COVID-19 crisis, has moved *de facto* to demand for energy raw materials in general and through the expectations channel. Secondly, the economic crisis caused by the pandemic coincided with the escalation of geopolitical tensions between Russia and Iran, accelerating their disagreement over adjustment policies in crude oil production and thus indicating a price war[1] articulated through an increase in the total oil supply.

OPEC's reaction and market prospects

At an extraordinary meeting, OPEC decided to cut crude oil production in a staggered way from May 1 to the end of April 2022[2], trying to accommodate the positions of Saudi Arabia and Russia, which maintain their share of 11 million barrels a day. In addition, the US has urged Saudi Arabia to unilaterally reduce its share at the expense of maintaining US involvement in the Gulf.

Chart A.
Brent Oil: spot price
(USD/bl)



Source: MAPFRE Economics (with data from the Energy Information Administration)

In this context, the volatility of the price of crude oil is expected to be high in the short-term and highly conditioned by the immediate geopolitical development and its effects on supply, as well as by the behavior of demand depending on the speed and depth of the withdrawal of the social

Box 1.1.1-d (continued)
Update on the performance of the oil market

distancing and population lockdown measures implemented to deal with the COVID-19 pandemic. As a sign of this extremely volatile environment, the May WTI futures fell into negative territory on April 21 as a result of Saudi Arabia's crude oil-flooding strategy in the Gulf of Mexico (where it shipped almost 19 million barrels in 15 cargo ships, making their storage impossible). The effect of this was a 20% drop in the Brent barrel price, placing it around 20-25 USD/bl. This new geopolitical-marked territory will remain highly present as long as the United States receives an over-supply of crude oil; however, the formation of a long-term price will depend on the potential growth expectations set in the wake of the health crisis.

Both the futures curve and MAPFRE Economics' estimates rule out that the Brent price will reach its previous level of equilibrium (63/65 USD/bl) in the near future. The Brent price is expected to finish out 2021 in a range that, given the supply uncertainty and the sluggishness in demand, will fluctuate between 20 USD/bl and 40 USD/bl. In light of the facts, it is increasingly possible that the low band of this forecast will prevail (see Chart A).

1/ Since the last meeting of the Organization of the Petroleum Exporting Countries (OPEC), where the organization proposed a further reduction in oil production, and following the momentum of the market share from which United States producers were benefiting due to the resolutions of previous meetings, Russia's discrepancies with the agreement materialized in its breach of the agreement and the announcement of an increase in its output. Saudi Arabia's reaction was to join the stance of increasing supply and to announce its intention to add more than 1 million barrels a day in the coming months. As a result, the collateral damage has hit the United States because they are faced with the possible collapse of their industry due to the price war, at a time when they are finding it difficult to respond to the economic hibernation as a result of the spread of COVID-19.

2/ Agreement reached by OPEC on April 9, 2020, consisting of a downward adjustment of oil production by 10 million barrels per day from May 1, for an initial period of two months (ending on June 30, 2020). For the next six months, the agreed total adjustment will be 8 million barrels a day, followed by an adjustment of 6 million barrels a day over a 16-month period. The base production to estimate the adjustments is the oil production levels of October 2018, with the exception of Saudi Arabia and Russia, which will have a base level of 11 million barrels a day. Any extension of the agreement would take place in December 2021.

Source: MAPFRE Economics

Geopolitics

In addition to recent high-tension flows, the unstable relationship between oil producers in their attempt to rebalance their market shares has led to all-time low levels of raw material prices (see Box 1.1.1-d).

Climate change

In an increasingly interconnected world, the rapid spread of shocks (with local ignition) toward the rest of the world again shows the vulnerability and premature state of the coordinated response mechanisms and the global institutional network that connect them. In this sense, the unpredictable emergence of tail events and their necessary global coordination emphasize the urgent need to address climate risk, the response of which involves all economic actors and, specifically, the insurance industry for its foundational role in risk protection. Greater involvement and active management of financial and non-financial risks arising from tail events is necessary, although with accumulated frequencies of increasing occurrence, high impact and whose losses can reach extreme magnitudes.

1.2 Forecasts and risk assessment in selected economies

1.2.1 United States

An unprecedented standstill will lead to an economic recession

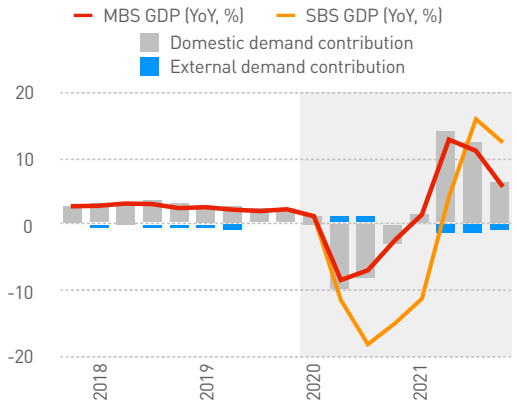
The widespread standstill in economic activity opens up an unprecedented scenario. The US economy, which increased to 2.3% in the fourth quarter of 2019, was truncated by the March 2020 outbreak of the COVID-19 virus and the consequent closure of all non-fundamental economic activity. This has resulted in an increase of 10 million new unemployed people in the space of two weeks, with an estimated additional 10 million that may be added up to mid-April. As a result, the unemployment rate is greater than 4.4%.

- **An economic contraction of at least -4.1% is expected in 2020.**
- **The sharp fall in the stock exchanges will have second-round effects, impacting family savings and suspending dividend payments.**
- **The Federal Reserve has committed to an unlimited securities purchase program, lowering interest rates to 0%-0.25% and expanding liquidity mechanisms in domestic and international currency markets, and also accommodating unprecedented fiscal measures.**

It is expected that, in April, PMIs will reflect an impairment similar to that experienced in the European Union in March (<30 points, clearly in decline). Data from the *Empire Manufacturing Survey* of the Federal Reserve (-21.5, the worst reading since 2008) and the impairment in the University of Michigan's consumer sentiment index (89.1) anticipate this foreseeable decline, offering the first pictures of the looming recession.

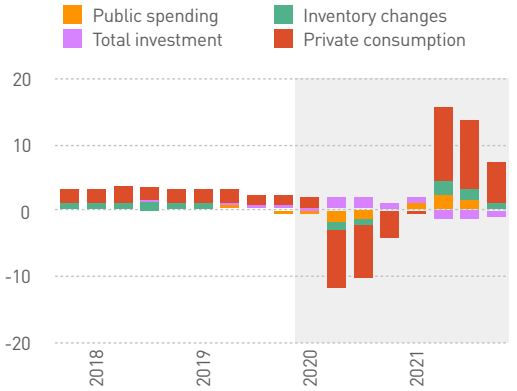
According to the *minimum baseline scenario* (MBS) of this report (see Box 1.1.1-a), a drop in gross domestic product (GDP) of -4.1% YoY (which could reach -10.8% of the conditions of the *stressed baseline scenario* (SBS)) is expected throughout 2020, due to a drop of -0.3% QoQ or more in the first quarter of the year, and a drop of -9% QoQ in the second quarter, which may even be extended (see Table 1.2.1, and Charts 1.2.1-a and 1.2.1-b). It should be noted that MAPFRE Economics' central vision predicts that activity will restart gradually and conditionally from the second half of the year, without achieving a sustained and visible growth until at least the end

Chart 1.2.1-a
United States: GDP breakdown and forecasts



Source: MAPFRE Economics (based on Federal Reserve data)

Chart 1.2.1-b
United States: domestic demand breakdown and forecasts



Source: MAPFRE Economics (based on Federal Reserve data)

Table 1.2.1
United States: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	2.9	1.6	2.4	2.9	2.3	-4.1	7.8	-10.8	5.4
Domestic demand contribution	3.7	1.9	2.7	3.3	2.5	-4.8	8.6	-12.2	6.7
External demand contribution	-0.8	-0.3	-0.3	-0.3	-0.2	0.7	-0.8	1.4	-1.3
Private consumption contribution	2.5	1.9	1.8	2.1	1.8	-4.7	6.9	-9.7	6.4
Total investment contribution	0.7	0.4	0.8	0.9	0.4	-0.6	1.1	-2.2	-0.6
Government consumption contribution	0.3	0.3	0.1	0.2	0.3	1.4	-0.6	1.4	-0.7
Private consumption (% YoY, average)	3.7	2.7	2.6	3.0	2.6	-6.7	10.3	-14.0	9.9
Government consumption (% YoY, average)	1.8	1.8	0.6	1.7	1.8	10.0	-3.5	10.0	-3.5
Total investment (% YoY, average)	3.3	1.9	3.7	4.1	1.8	-3.0	5.0	-10.5	-2.8
Exports (YoY in %)	0.5	-0.0	3.5	3.0	0.0	-6.0	7.5	-11.5	-0.2
Imports (YoY in %)	5.3	2.0	4.7	4.4	1.0	-8.1	9.3	-15.6	7.9
Unemployment rate (%, last quarter)	5.0	4.8	4.1	3.8	3.5	8.7	4.8	12.1	6.3
Inflation (% YoY, last quarter)	0.7	2.1	2.1	1.9	2.3	0.3	1.9	-2.1	-0.4
Fiscal balance (% of GDP)	-4.8	-5.4	-4.2	-6.5	-7.2	-14.5	-9.1	-17.0	-12.9
Primary fiscal balance (% of GDP)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trade balance (% of GDP)	-4.4	-4.2	-4.3	-4.4	-4.1	-3.6	-3.8	-3.4	-3.6
Current account balance (% of GDP)	-2.2	-2.3	-2.3	-2.4	-2.3	-2.2	-2.6	-1.7	-2.4
Official interest rate (end of period)	0.50	0.75	1.50	2.50	1.75	0.25	0.25	0.20	0.20
3-month interest rate (end of period)	0.61	1.00	1.69	2.81	1.91	0.38	0.64	0.33	0.34
10-year interest rate (end of period)	2.27	2.45	2.40	2.69	1.92	1.14	1.63	0.34	0.74
Exchange rate vs. USD (end of period)	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Exchange rate vs. euro (end of period)	1.09	1.05	1.20	1.15	1.12	1.08	1.10	1.07	1.11
Loans private sector (% YoY, average)	2.4	3.3	7.0	4.7	5.3	3.9	4.7	3.3	3.9
Loans to Households (% YoY, average)	1.9	2.2	3.5	3.5	3.2	4.1	4.6	4.2	5.7
Loans non-financial priv. sect. (% YoY, average)	5.7	5.3	6.4	8.8	6.5	-2.0	7.1	-2.0	7.1
Loans to financial priv. sector (% YoY, average)	2.1	4.3	2.9	2.2	2.2	1.9	3.0	1.8	2.6
Savings rate (as % pers. disp. income, avg.)	7.6	6.8	7.0	7.7	7.9	12.4	7.1	17.1	10.2

Source: MAPFRE Economics (based on Federal Reserve data)
Forecast end date: April 13, 2020.

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of the first half of 2021. It is not possible to anticipate today how such an alternative scenario would play out, but what can be made clear is that it would render permanent damage to the economy as a result of the lack of coordination, mismanagement of public policies and/or Knightian ramifications of the current uncertainty. This report does not include a quantitative forecast for this scenario.

The immediate impact of the crisis has been caused by disruptions to production chains, the unprecedented reduction in sales, the tightening of family and small and medium-sized enterprise revenue, and energy sector difficulties linked to fracking, which also echoes the sharp decrease in the price of energy as a result of the struggle between Saudi Arabia and Russia (see Box 1.1.1-d). This sharp impairment has begun to be channeled through the finance sector, with strong equity contractions, tensions over corporate liquidity and a steady increase in failed loans, especially consumer receivables and the emerging corporate sector. On the corporate side, there is a growing difficulty in financing, and many companies have started to suspend dividend payments.

The measures put in place by the US government will try to mitigate economic damage and, mainly, to avoid socially dramatic situations. In this regard, at the end of March, a package of support measures[8] worth 2 billion dollars was launched, aimed at alleviating the financial tensions that households and businesses will have to face in the coming months. The aid package has been implicitly implemented in a deficit monetization scheme (as it is counterbalanced with the *ad infinitum* purchase of debt by the Federal Reserve), and is only comparable to the efforts undertaken during the Second World War (See Box 1.1.1-b).

Economic theory anticipates that the excess liquidity caused by such measures will revert to inflation and debt, but at the moment all means seem justified. In the short-term, however, in its next measurements, inflation will not be very representative, due to the distortion caused by business closures and, at the same time, will be reduced by the abrupt fall in the price of oil to levels of 20 USD/bl. Thus, March inflation (CPI) should be around 1.5%, down from 2.3% in February.

In addition, the Federal Reserve lowered interest rates twice (by 150 basis points, bps) as a matter of urgency before its official meeting, to a range of 0-0.25%. However, of greatest significance were the successive announcements of liquidity support measures in the monetary and debt markets, until, on March 23, it announced unlimited support measures to support the flow of credit to households and businesses, addressing the tensions in the Treasury stock markets and rating agencies with respect to backed securities. The Federal Reserve will continue to purchase securities in the amounts necessary to support the smooth functioning of the market and the effective transmission of the monetary policy to general financial market conditions.

The Federal Reserve has also sent a strong signal that its asset-purchase program will be unlimited in size and also expanding support far beyond the Treasury bond markets and mortgage-backed securities. The Federal Reserve's latest moves point to a "whatever it takes" attitude to calm markets. The measures demonstrate far-reaching efforts to stabilize financial markets and prevent a liquidity crisis from becoming a solvency crisis. Thus, the Federal Reserve is responding rapidly to the need to inject liquidity into markets, including international financing markets in dollars, by creating liquidity mechanisms (discount securities) to a dozen central banks worldwide.

The main risk to the US economy at present is a lengthening of the lockdown period that prevents the economy from returning to normal in a short time frame. The longer that period, the greater the risk of survival for certain businesses (mainly small and medium-sized enterprises) and the

greater the risk of permanent loss of employment. Support measures are aimed at avoiding this situation; however, the cost of these will be reflected in the level of sovereign debt.

1.2.2 Eurozone

Steep recession and limited means

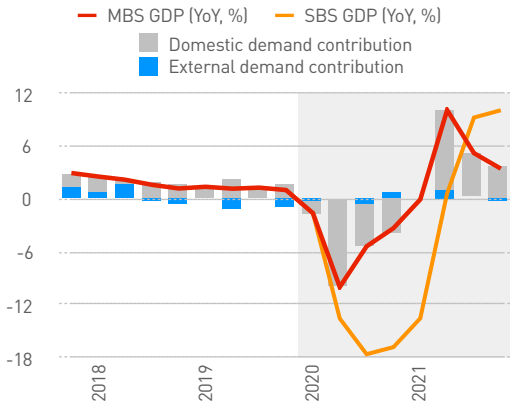
Eurozone growth in 2019 stood at 1.2% and, although it showed obvious signs of slowing, no one anticipated the current stage of things that placed this economic region at the epicenter of the COVID-19 crisis, with the major economies, in all likelihood, entering into recession. March PMIs (construction at 29.7 points and, alarmingly, services at 26.4 points) are consistent with a decline in GDP greater than what was suffered in 2009. In this way, a decreased eurozone GDP is expected, in the *minimum baseline scenario*, of at least -5.1%. This estimate will depend on the duration and depth of the contraction in economic activity, the effectiveness of the health and economic support measures and, in particular, on the institutional commitments to finance the financial rescue of the region to be attained, being able to arrive at this situation, in the *stressed baseline scenario*, at a fall in GDP of -12.4% in 2020 (see Table 1.2.2, and Charts 1.2.2-a and 1.2.2-b). The virus is the eurozone's greatest challenge since its foundation.

On March 12, the European Central Bank (ECB) announced an unprecedented package of measures: (i) it intensified the quantitative easing program, with an additional 120 billion euros of net asset purchases up to the end of the year (in addition to the monthly purchases of 20 billion euros), extending purchases to corporate bonds; (ii) it announced temporary changes (from June 2020 to June 2021) in the long-term refinancing operations program (TLTRO III), to make it more generous in the provision of liquidity[9]; (iii) it extended the maximum amount that banks can borrow, from 30% of eligible loans (generally all loans, excluding mortgages) to 50%, and noted that it could also consider easing collateral requirements; (iv) it announced additional LTRO to provide liquidity support such as the fixed-rate auction with full award at an interest rate equal to the average deposit rate; and (v) it announced the additional acquisition of an additional 750 billion euros of assets until the end of the year (although it did not explain unlimited purchasing capacity like the Federal Reserve), while softening the guarantee requirements for its market operations. All of these are measures aimed at providing unprecedented liquidity to avoid a vicious circle between liquidity and solvency of the system, and to achieve a reduction in country risk premiums given the fiscal expansion of those countries with less fiscal space to do so.

- **A sharp contraction in activity is expected from the first to the second quarter of the year, with the possibility that it will spread in severity and/or duration.**
- **The European Central Bank has used every means possible (purchases of 870 billion euros, liquidity measures, etc.), but has not indicated that its use is unlimited.**
- **Fiscal policy remains fragmented and uncoordinated, and is still waiting for a common funding mechanism.**

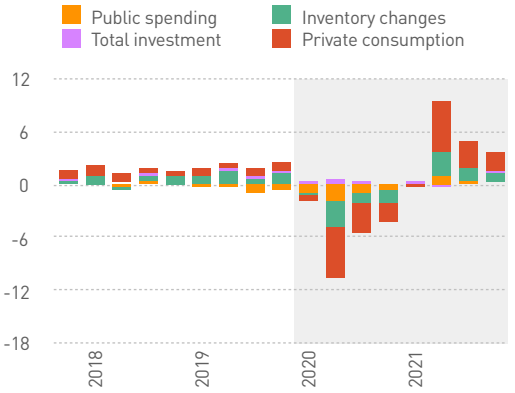
The ECB seems to be the only viable common aid element in the short-term, and its work (beyond the delivery of monetary support) is to be a catalytic and mitigating mechanism for each country's sovereign policies, accommodating the uncoordinated fiscal expansion of each Member State and committing to do everything that is needed (expectations management). The debate, however, is now oriented toward the adequacy of the measures going forward. Unknown risks still to emerge may be huge, and responsiveness may require a global response.

Chart 1.2.2-a
Eurozone: GDP breakdown and forecasts



Source: MAPFRE Economics (based on ECB data)

Chart 1.2.2-b
Eurozone: domestic demand breakdown and forecasts



Source: MAPFRE Economics (based on ECB data)

Table 1.2.2
Eurozone: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	2.0	1.9	2.7	1.9	1.2	-5.1	4.7	-12.4	1.6
Domestic demand contribution	2.1	2.3	2.2	1.5	1.7	-5.0	4.5	-12.0	1.6
External demand contribution	-0.1	-0.4	0.5	0.4	-0.4	-0.0	0.2	-0.4	0.0
Private consumption contribution	1.0	1.0	1.0	0.7	0.7	-2.9	2.7	-8.1	1.8
Total investment contribution	0.9	0.8	0.8	0.5	1.1	-1.6	1.2	-3.3	-0.7
Government consumption contribution	0.3	0.4	0.3	0.2	0.3	0.4	0.1	0.4	0.1
Private consumption (% YoY, average)	1.8	1.9	1.8	1.4	1.3	-5.4	5.1	-15.0	3.7
Government consumption (% YoY, average)	1.3	1.9	1.3	1.1	1.6	2.0	0.3	2.0	0.3
Total investment (% YoY, average)	4.5	4.0	3.7	2.4	5.5	-7.5	6.0	-15.3	-3.2
Exports (YoY in %)	6.4	2.9	5.7	3.4	2.5	-6.4	7.0	-13.1	-0.1
Imports (YoY in %)	7.5	4.2	5.2	2.7	3.8	-6.9	7.2	-13.3	-0.3
Unemployment rate (%, last quarter)	10.5	9.7	8.7	7.9	7.4	9.3	8.3	13.7	11.8
Inflation (% YoY, last quarter)	0.3	0.7	1.4	1.9	1.0	0.2	1.8	-3.2	-1.7
Fiscal balance (% of GDP)	-2.0	-1.4	-0.9	-0.5	-0.7	-5.7	-2.7	-9.0	-7.6
Primary fiscal balance (% of GDP)	-3.6	-3.6	-4.1	-2.4	-3.6	-1.2	-2.4	-1.2	-2.4
Trade balance (% of GDP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current account balance (% of GDP)	2.8	3.2	3.1	3.1	3.0	3.1	3.1	3.4	4.0
Official interest rate (end of period)	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-month interest rate (end of period)	-0.13	-0.32	-0.33	-0.31	-0.38	-0.38	-0.36	-0.88	-0.86
10-year interest rate (end of period)	1.26	0.93	1.13	1.17	0.32	0.44	0.82	1.03	2.20
Exchange rate vs. USD (end of period)	1.09	1.05	1.20	1.15	1.12	1.08	1.10	1.07	1.11
Exchange rate vs. euro (end of period)	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	0.9	1.5	2.3	2.7	3.2	3.1	3.4	2.2	-1.9
Loans non-financial priv. sect. (% YoY, average)	8.9	2.8	2.1	2.6	2.5	0.5	4.4	-2.4	-0.9
Loans to financial priv. sector (% YoY, average)	17.1	3.3	0.9	1.0	2.0	1.1	2.3	0.9	2.5
Savings rate (as % pers. disp. income, avg.)	12.3	12.3	12.0	12.2	12.9	15.4	14.1	22.4	22.2

Source: MAPFRE Economics (based on ECB data)
Forecast end date: April 13, 2020.

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Therefore, the discussion focuses on the feasibility, shape and conditions of possible pan-European rescue mechanisms, as well as the economic, political and structural consequences for the future of the European Union, depending on the measures taken. This discussion refers to a package of loans totaling almost half a trillion euros[10] with a dual purpose: drawing up an immediate European defense line and preparing for the exit of the crisis to favor a recovery and gain in economic pulse in the long-term, something that is linked to a recovery-reconstruction fund in the style of what was the Marshall Plan, but financed entirely by the European Union.

In this regard, there were four forms of financing agreement:

1. The status quo, in which countries finance their own needs by issuing debt without the support of European fiscal rules and accommodated by the ECB's PEPP (Pandemic Emergency Purchase Program), which helps to maintain contained financing costs, although it raises the question of the ECB's ability to make unlimited purchases.

2. European Stability Mechanism (ESM) lines of credit combined with the ECB's OMTs (Outright Monetary Transactions), the option that the Eurogroup is leaning toward, which have sufficient political validation and unlimited capacity to act, but which, at most, can contribute 410 million euros (ESM) and may not be attractive to countries with low sovereign spreads (as ESM loans involve a fee that may be higher) and, most notably, because they involve conditionality on the use of public finances and structural reforms by definition of the ESM (as was the case with Greece).

3. The creation of a Pan-European Debt Management Office and, therefore, the issuing of Eurobonds to mutualize the cost of the economic measures implemented. Conditionality and the stigma of asking for a bailout would be avoided, while this would have the capacity to be extended to one trillion euros at extremely low interest rates and with liabilities likely to be maintained in perpetuity by the ECB. This initiative could be the first step toward a common fiscal policy that would also be used to finance sustainable economic transition. The problems involved with this option include, in terms of politics, those resulting from the perception of freeriding from the south on the fiscal effort of the most responsible states and, in addition, it would increase the debt burden of the Member States to a scenario close to 150%, which may entail refinancing risks when interest rates are not at the current low levels.

4. Creating a fund to mutualize only the costs of the crisis while it lasts (health, economic support, etc.), shared jointly and severally, but paid proportionally.

Reaching a consensus was difficult. The fight over the conditionality of the rescue fund and the creation of a mutual recovery fund has divided the parties. Italy's south refuses to resort to a rescue fund under the imposition of reforms (conditionality) due to the stigmatization that it entails during such exceptional times as these. The central European countries, for their part, do not advocate a mutualized reconstruction fund in which the debts of other countries are guaranteed, as it may pose a moral hazard issue. The problem with that consideration, however, is that it seems to delegitimize the spirit of the European Union and is likely to be used in demagogic arguments about the coexistence of membership of the Union.

On April 9, the European Council approved a comprehensive agreement covering the second and fourth options, enabling an unconditional aid package of 540 billion euros provided by the ESM, which contributes 240 billion euros of unconditional aid (which can only be used for health costs and up to 2% of GDP in each country). The European Investment Bank (EIB) is also contributing 100 billion euros to support small and medium-sized enterprises, and the European Commission will issue special bonds of up to 200 billion euros to help finance the ERTE (Expediente de Regulación Temporal de Empleo — Temporary redundancy plan). Although

there is no conditionality, accepting the bailout implies accepting the fiscal limits of the *Stability and Growth Pact*. This plan only tackles the challenges of the crisis and postpones the creation of a reconstruction fund (which would be the equivalent of a new Marshall Plan) to a later date. It transpired from the meeting that such a future fund would be linked to European budgets, and the European Union's principle of solidarity seems to remain in force for the time being.

1.2.3 Spain

In the event of a deep crisis, rapid recovery is essential to avoid permanent damage

- **The measures taken by the government will only mitigate the lack of liquidity; the impact will be withstood by economic agents.**
- **PMIs plummeted to unprecedented levels, and high unemployment has rebounded rapidly.**
- **The GDP is expected to contract by at least -5.6%, which can be revised according to the extension of the lockdown period.**

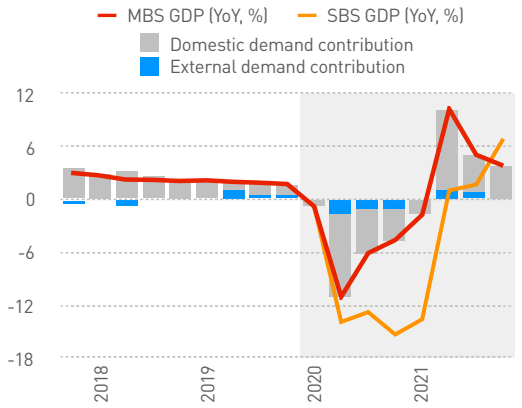
The Spanish economy increased by 1.8% in the fourth quarter of 2019 and 0.4% QoQ, according to the final data published on March 31 by the National Institute of Statistics (INE), leaving the average of the full year of 2019 at about 2.0%. Private consumption increased to 1.5% YoY, investment to 0.6% YoY and exports to 3.3% YoY. It should be pointed out that economic activity was already on a downward trend before it was impacted by the COVID-19 health crisis and by the subsequent economic standstill that will be visible in the figures from the first quarter of 2020.

The strict lockdown measures implemented by the Spanish government on March 13 to contain the spread of the disease, with the halt of many industries and businesses and, in general, in economic activity not strictly related to health, food and safety, will entail a substantial fall, mainly in the second quarter of this year. Spain will quickly enter into recession, as the first indicators show. The number of unemployed people increased by 302,000 in March, without the use of the temporary redundancy plan (ERTEs). In the current scenario, the standstill in proximity sectors (which Spain specializes in) could increase the unemployment rate to around 18%. In a more severe, albeit possible, scenario, unemployment could reach levels equivalent to those of the 2009 crisis. MAPFRE Economics' estimate for 2020, in the *minimum baseline scenario*, is a decrease of -5.6%, but this figure will be revised as information on the impact on different industries, services and employment levels becomes available. It will also depend on the duration of the economic standstill, and in the *stressed baseline scenario* it could reach -10.7% (see Table 1.2.3, and Charts 1.2.3-a and 1.2.3-b).

It should be noted that this *minimum baseline* forecast considers a recovery for the third quarter of 2020, which would be gradual, given that the services and tourism industries would not fully recover. It is currently difficult to estimate structural damage as regards businesses and employment that fail to fully recover. This recovery, however, will have greater vigor depending on the functioning of the automatic stabilizers currently based on the measures imposed by the government.

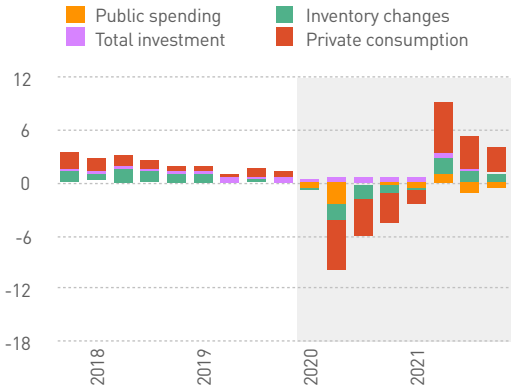
In this context, the government has implemented various measures to support the economy: (i) 17 billion euros (1.5% of GDP) in direct support measures; (ii) the extension of the temporary redundancy regime (ERTE); (iii) the extension of unemployment benefits (75% of the salary); (iv) the suspension of the payment of taxes for workers who lose their jobs or for self-employed workers with a significant loss of revenue; (v) for self-employed workers, a special one-month subsidy, as if their businesses have ceased; (vi) a moratorium on mortgage payments for particularly vulnerable households; and (vii) electricity, water and telephone providers are not

Chart 1.2.3-a
Spain: GDP breakdown and forecasts



Source: MAPFRE Economics (based on INE data)

Chart 1.2.3-b
Spain: domestic demand breakdown and forecasts



Source: MAPFRE Economics (based on INE data)

Table 1.2.3
Spain: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	3.8	3.0	2.9	2.4	2.0	-5.6	4.4	-10.7	-1.0
Domestic demand contribution	3.9	2.0	3.0	2.6	1.5	-4.7	3.8	-9.3	-2.2
External demand contribution	-0.1	1.0	-0.1	-0.3	0.5	-0.9	0.5	-1.4	1.2
Private consumption contribution	1.7	1.6	1.7	1.1	0.6	-3.3	2.7	-6.8	-1.0
Total investment contribution	0.9	0.4	1.1	1.0	0.3	-1.2	0.9	-2.4	-1.4
Government consumption contribution	0.4	0.2	0.2	0.3	0.4	0.6	0.4	0.6	0.4
Private consumption (% YoY, average)	2.9	2.7	3.0	1.9	1.1	-5.8	4.8	-11.8	-1.6
Government consumption (% YoY, average)	2.0	1.0	1.0	1.9	2.3	3.4	2.0	3.4	2.0
Total investment (% YoY, average)	4.9	2.4	5.9	5.3	1.8	-6.3	5.0	-12.6	-7.1
Exports (YoY in %)	4.3	5.4	5.6	2.2	2.6	-7.9	6.3	-14.0	-1.1
Imports (YoY in %)	5.1	2.7	6.6	3.3	1.2	-5.8	5.1	-11.3	-5.2
Unemployment rate (%, last quarter)	20.9	18.6	16.6	14.5	13.8	17.4	16.5	23.4	21.0
Inflation (% YoY, last quarter)	0.0	1.6	1.1	1.2	0.8	-0.7	2.4	-5.0	-2.8
Fiscal balance (% of GDP)	-5.2	-4.4	-3.0	-2.5	-2.7	-6.4	-5.0	-8.8	-9.9
Primary fiscal balance (% of GDP)	-9.6	-7.6	-8.6	-7.4	-7.6	-7.2	-7.4	-7.2	-7.4
Trade balance (% of GDP)	-1.9	-1.3	-1.9	-2.4	-2.3	-1.2	-1.4	-1.3	0.2
Current account balance (% of GDP)	2.0	3.2	2.7	1.9	2.0	1.5	1.1	1.5	2.2
Official interest rate (end of period)	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-month interest rate (end of period)	-0.13	-0.32	-0.33	-0.31	-0.38	-0.38	-0.36	-0.88	-0.86
10-year interest rate (end of period)	1.77	1.35	1.51	1.41	0.46	0.98	1.57	1.53	3.89
Exchange rate vs. USD (end of period)	1.09	1.05	1.20	1.15	1.12	1.08	1.10	1.07	1.11
Exchange rate vs. euro (end of period)	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	-3.7	-2.5	-1.4	-0.3	0.1	2.5	3.2	1.4	-3.3
Loans non-financial priv. sect. (% YoY, average)	-3.0	-2.6	-1.1	-1.5	-0.1	1.3	2.4	-8.3	-18.6
Loans to financial priv. sector (% YoY, average)	-7.7	-17.1	-9.7	-3.8	-4.8	1.7	3.2	2.1	4.3
Savings rate (as % pers. disp. income, avg.)	7.7	7.5	5.9	6.2	7.6	11.5	10.7	14.4	17.5

Source: MAPFRE Economics (based on INE data)
Forecast end date: April 13, 2020.

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allowed to close services to the most vulnerable households. These measures have also been supplemented by public sector guarantees to support small and medium-sized enterprises in need of liquidity covering up to 100 billion euros of loans, and another 87 billion euros of private funds mobilized will raise the total measures to 200 billion euros.

The main short-term risks to the Spanish economy are a very long extension of the lockdown period and a loss of jobs and small businesses that cannot be recovered. In the best-case scenario, recovery of economic activity may begin in May, but it will be gradual, and there are industries such as tourism and hospitality that may take longer to recover due to the social distancing measures that will most likely remain in place. Regardless of the state in which the country may find itself in 2021, the recession and the activation of stabilizing measures will have a colossal impact on public accounts, not only due to the current expenditure needed, but also due to the decrease in revenue resulting from economic activity. It is worth remembering that Spain was starting from a weak fiscal position, so it is expected that debt will exceed 115% of GDP by the end of 2021, although some margin is appreciated due to low interest rates and sovereign stress control measures resulting from the ECB's balance sheet policy.

1.2.4 Germany

2020 in strong recession, conditional exit in 2021

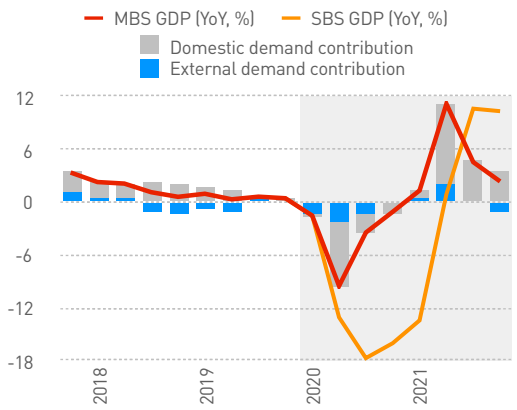
Under the *minimum baseline scenario* of this report, Germany's GDP is expected to decrease by -3.9% in 2020, as a result of the impact of the COVID-19 pandemic and the containment measures implemented; impact on growth which, in the *stressed baseline scenario*, is expected to reach -12.1% (see Table 1.2.4, and Charts 1.2.4-a and 1.2.4-b). This is anticipated by the decrease in GDP already registered during the first quarter of the year (-1.9% YoY); a result strongly determined only by the economic effect of March. Given the serious signs of economic sentiment surveys, such as ZEW and IFO (-49.5 and 79.7, respectively), there is almost complete certainty that, during the second quarter of the year (the period during which the series of containment measures and the decrease in domestic and external demand are confronted), the German economy will decrease in an amount of almost two digits.

- **GDP data from the first quarter of the year and early indicators predict a deep recession in 2020.**
- **The German government is activating support measures of 122 billion euros, breaking the fiscal balance imposed by the Constitution.**
- **Return to normalcy may be slow, with significant after-shocks in employment.**

However, 2021 is expected to be characterized by strong growth backed by the base effect growth and the recovery of both domestic and global unmet demand. With a strong export element, the recovery of the German economy will also depend on the recovery of its trading partners, especially in the south. The effect on employment will be relevant, albeit part of a full employment situation and labor market flexibility, which provides some capacity to mitigate the impact, due to the positive effects of the 2004 labor reform.

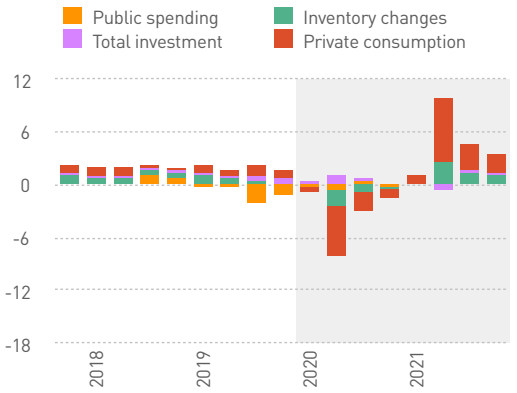
The adoption of the fiscal measures taken to boost economic recovery will mean that Germany will break with its constitutional rule of balance of the primary balance sheet and will end 2020 with a significant fiscal deficit. The supplementary federal budget for 2020 was approved at the end of March, with an increase in expenditure of 122 billion euros (3.5% of GDP) to 485 billion euros (+34%). The additional money will be allocated to: (i) emergency aid to small enterprises and self-employed workers (50 billion euros); (ii) facilitate access to basic social security benefits (8 billion euros); (iii) additional health care expenditure (3 billion euros), and

Chart 1.2.4-a
Germany: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from DESTATIS)

Chart 1.2.4-b
Germany: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from DESTATIS)

Table 1.2.4
Germany: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	1.5	2.1	2.8	1.6	0.6	-3.9	4.9	-12.1	2.1
Domestic demand contribution	1.3	2.8	2.4	2.0	1.0	-2.7	4.6	-10.2	2.0
External demand contribution	0.2	-0.6	0.3	-0.4	-0.4	-1.2	0.3	-1.9	0.1
Private consumption contribution	1.0	1.1	0.9	0.6	0.8	-2.3	3.3	-7.9	2.8
Total investment contribution	0.2	0.7	0.6	0.7	0.5	-0.7	1.1	-2.5	-1.0
Government consumption contribution	0.5	0.8	0.5	0.3	0.5	0.4	0.1	0.4	0.1
Private consumption (% YoY, average)	1.8	2.1	1.6	1.2	1.6	-4.3	6.4	-15.0	5.9
Government consumption (% YoY, average)	2.8	4.1	2.4	1.4	2.6	2.1	0.4	2.1	0.4
Total investment (% YoY, average)	1.2	3.6	3.1	3.5	2.7	-3.3	5.3	-11.9	-4.2
Exports (YoY in %)	4.9	2.2	5.5	2.3	0.9	-7.5	10.2	-15.1	3.0
Imports (YoY in %)	5.4	4.2	5.7	3.8	1.9	-5.7	10.6	-12.7	3.0
Unemployment rate (%, last quarter)	6.3	6.0	5.5	5.0	5.0	5.4	5.0	10.1	8.9
Inflation (% YoY, last quarter)	0.7	1.4	1.4	1.6	1.5	0.8	1.6	-2.3	-1.4
Fiscal balance (% of GDP)	0.9	1.2	1.2	1.9	1.4	-4.9	-0.8	-8.4	-6.1
Primary fiscal balance (% of GDP)	-0.6	-1.9	-1.3	-0.1	-1.9	1.6	-0.1	1.6	-0.1
Trade balance (% of GDP)	8.1	8.0	7.8	6.8	6.5	6.5	6.1	6.5	6.4
Current account balance (% of GDP)	8.6	8.4	7.8	7.5	7.3	6.3	6.7	6.3	7.1
Official interest rate (end of period)	0.05	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00
3-month interest rate (end of period)	-0.13	-0.32	-0.33	-0.31	-0.38	-0.38	-0.36	-0.88	-0.86
10-year interest rate (end of period)	0.63	0.21	0.43	0.25	-0.19	-0.27	0.07	-1.36	-0.72
Exchange rate vs. USD (end of period)	1.09	1.05	1.20	1.15	1.12	1.08	1.10	1.07	1.11
Exchange rate vs. euro (end of period)	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	1.9	2.8	3.2	3.6	4.7	5.8	5.5	4.4	-0.8
Loans non-financial priv. sect. (% YoY, average)	2.8	2.9	4.4	7.7	6.1	-1.3	5.3	-1.8	2.6
Loans to financial priv. sector (% YoY, average)	5.0	0.5	-1.2	4.3	8.3	-1.1	5.3	-1.1	5.0
Savings rate (as % pers. disp. income, avg.)	10.0	10.3	10.3	10.9	10.8	12.2	10.1	20.2	17.8

Source: MAPFRE Economics (based on data from DESTATIS)
Forecast end date: April 13, 2020.

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(iv) a budgetary provision for guarantees (6 billion euros), while another 55 billion euros will finance other expenses relating to COVID-19. In addition, the federal government will issue a record debt of 335 billion euros in 2020; net indebtedness will increase by 156 billion euros (4.5% of GDP) to finance the above-mentioned expenditure increases and the fall in revenue (of 33 billion euros), with a waiver in the debt freeze rule.

1.2.5 Italy

The country most hit and with the lowest fiscal margin in the face of strong GDP decline

- **With a lockdown until May as a result of the pandemic, a very severe contraction of Italian GDP is expected throughout 2020.**
- **The government has taken direct support measures of at least 1.5% of GDP, adding credit lines, guarantees and the deferral of taxes and contributions.**
- **The regional elections in 2020 may create further political instability.**

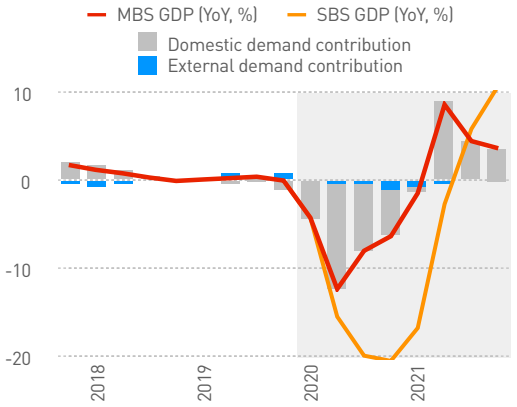
Italy, the European country where the COVID-19 virus attacked earlier and more aggressively, could accumulate at least two months of the close of activities. Thus, an economy that was already stagnant will suffer a very severe decline. Growth in the fourth quarter of 2019 stood at -0.3% QoQ and 0.1 YoY, resulting in an annual growth for 2019 of just 0.3% YoY. All GDP items were already in stagnation "mode," except for investment, and now, with the economic standstill forced by quarantine, all items will enter a contraction zone. PMIs collapsed in March: to 17.4 points for services, 20.2 for construction and 40.3 for manufacturing.

MAPFRE Economics' forecasts for the Italian economy in the *minimum baseline scenario* point to the greater impact in the first and second quarters (the lockdown period), although activity in the second half of the year will continue at levels below those seen in the same period in 2019, meaning that all quarters of 2020 show negative growth. The current estimate under the *minimum baseline scenario* (which can be reviewed as far as the depth of the standstill, its duration and support measures not only announced, but also effectively implemented, are known) leads MAPFRE to forecast a decrease in GDP of -7.6% by 2020; a forecast that, in the *stressed baseline scenario*, could reach -14.9% (see Table 1.2.5, and Charts 1.2.5-a and 1.2.5-b).

The Italian government has allocated direct funds to combat the pandemic amounting to 25 billion euros (1.5% of GDP), in addition to other measures, such as guarantees, lines of credit and postponement of social security withholdings and contributions. Therefore, the government: (i) has allocated 10 billion euros to support the employment and revenue of workers, especially self-employed and temporary workers; (ii) has frozen workers' redundancies for two months from February 23; (iii) has suspended payments to social security and national security until May 31; (iv) has established a cash bonus for people working during closure; and (v) has allocated 3.3 billion euros to the national unemployment fund.

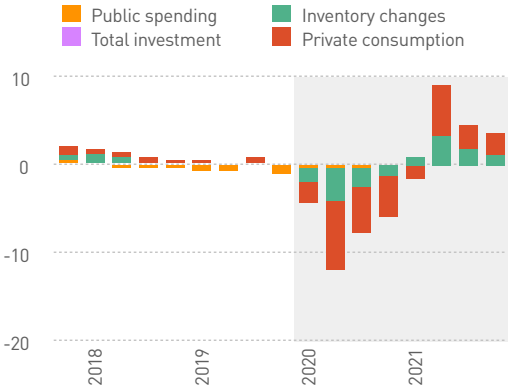
For businesses, the capacity of the credit guarantee fund for small and medium-sized enterprises (SMEs) has been increased, and a moratorium has been established on payments of loans for SMEs until September 2020, as well as the availability of a line of credit of 10 billion euros for medium-sized and large enterprises. In addition, tax and social security levies and VAT have been suspended in the sectors most affected during March and April, and a tax receivable equivalent to 60% of March's income for trade has been provided. Lastly, the government intends to use guarantees to support up to 340 billion euros of credit.

Chart 1.2.5-a
Italy: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from ISTAT)

Chart 1.2.5-b
Italy: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from ISTAT)

Table 1.2.5
Italy: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	0.7	1.4	1.7	0.7	0.3	-7.6	3.9	-14.9	-0.6
Domestic demand contribution	1.1	1.9	1.7	1.0	-0.2	-7.2	4.1	-14.7	-1.9
External demand contribution	-0.4	-0.5	-0.0	-0.3	0.5	-0.4	-0.2	-0.2	1.3
Private consumption contribution	1.1	0.7	0.9	0.6	0.3	-5.0	2.4	-11.0	-1.4
Total investment contribution	0.3	0.7	0.6	0.5	0.3	-2.1	1.6	-3.5	-0.4
Government consumption contribution	-0.1	0.1	-0.0	0.0	-0.1	0.1	0.1	0.1	0.1
Private consumption (% YoY, average)	1.9	1.2	1.5	0.9	0.4	-8.2	3.9	-18.1	-1.9
Government consumption (% YoY, average)	-0.6	0.7	-0.1	0.1	-0.4	0.4	0.4	0.4	0.4
Total investment (% YoY, average)	1.6	4.2	3.4	3.0	1.4	-11.4	9.3	-19.1	-2.2
Exports (YoY in %)	4.1	2.0	6.0	1.7	1.4	-8.0	7.5	-14.3	-0.1
Imports (YoY in %)	6.3	4.1	6.5	2.9	-0.2	-7.4	8.6	-14.9	-4.3
Unemployment rate (%, last quarter)	11.5	11.8	11.0	10.5	9.7	12.8	11.3	16.4	14.4
Inflation (% YoY, last quarter)	0.1	0.5	0.9	1.1	0.5	-0.2	1.4	-3.9	-2.8
Fiscal balance (% of GDP)	-2.6	-2.4	-2.4	-2.2	-1.6	-9.0	-4.9	-12.9	-11.3
Primary fiscal balance (% of GDP)	-0.7	0.1	-0.4	0.5	0.1	1.0	0.5	1.0	0.5
Trade balance (% of GDP)	3.3	3.5	3.1	2.6	3.2	4.4	4.1	4.6	6.2
Current account balance (% of GDP)	1.5	2.6	2.6	2.5	3.0	3.9	3.5	4.6	6.1
Official interest rate (end of period)	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3-month interest rate (end of period)	-0.13	-0.32	-0.33	-0.31	-0.38	-0.38	-0.36	-0.88	-0.86
10-year interest rate (end of period)	1.61	1.82	2.00	2.77	1.43	1.83	2.17	4.28	6.19
Exchange rate vs. USD (end of period)	1.09	1.05	1.20	1.15	1.12	1.08	1.10	1.07	1.11
Exchange rate vs. euro (end of period)	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r	n/r
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	-0.3	0.4	1.3	1.8	2.1	1.3	1.8	0.3	-5.3
Loans non-financial priv. sect. (% YoY, average)	-1.9	-2.1	-2.9	-0.3	-0.9	-5.3	6.6	-17.4	-12.3
Loans to financial priv. sector (% YoY, average)	-3.0	-3.9	-11.5	25.7	13.4	-4.2	-0.7	-12.4	-10.0
Savings rate (as % pers. disp. income, avg.)	10.2	10.2	9.7	9.5	9.7	14.0	13.0	22.3	26.9

Source: MAPFRE Economics (based on data from ISTAT)
Forecast end date: April 13, 2020.

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Inflation in March fell to 0.1% YoY, meaning that we could be at the door of a period of deflation in view of the fall in oil prices that will possibly be lengthened by the accumulation of inventories and the price war unleashed among producing countries.

It should be noted that, as in the case for the other economies analyzed in this report, MAPFRE Economics' forecasts are highly likely to be reviewed, as it is currently difficult to establish the depth and duration of the economic standstill and the effectiveness of the support measures. In this case, if the lockdown lasts far beyond May, the recession could be deeper and there may also be a permanent loss of businesses and jobs. The deficit and debt would increase even more if there is a loss of companies for executing the guarantees that the government is granting. The increase in debt would also call into question the solvency of Italian debt. For the time being, the ECB's intervention seems to appease these concerns, but this may, at some point, be insufficient.

1.2.6 United Kingdom

A stagnant economy even before COVID-19

The UK economy stagnated in the fourth quarter of 2019 (0% QoQ and 1.1% YoY), leaving the growth rate for the entire year at 1.4%. Private consumption did not grow in the last quarter, even though it grew in 2019 by 0.9%. Investment, for its part, had also stagnated and it was exports that contributed most to growth: 10.5% YoY in the fourth quarter of 2019 and 4.8% in the entire year. The confirmation that GDP had stagnated in the fourth quarter of 2019 meant that the economy lacked momentum, even before the problems relating to COVID-19 arose.

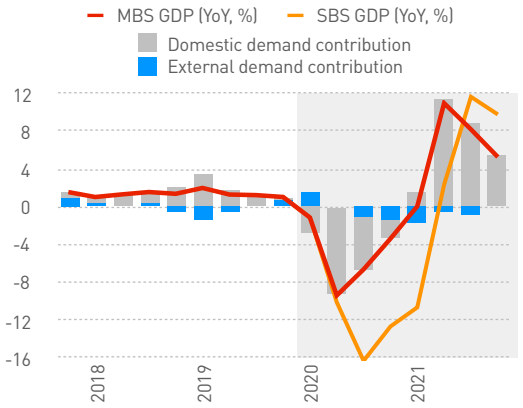
- **The UK economy had exhausted its momentum even before the COVID-19 crisis; the pandemic will worsen the situation.**
- **Faced with the difficulty of forecasting the depth of the crisis, for now the estimate is that GDP contraction will be at least -5.1%.**
- **The Bank of England has acted by lowering interest rates twice and announcing 650 billion pounds sterling in asset purchases.**

March PMI surveys have been very negative, with services falling to 34.5 points, manufacturing to 47.8 and construction to 36. Likewise, consumer confidence (GfK), which has remained negative since 2016, stood at -9 in March, and industrial production decreased at a rate of -2.9% YoY, according to January data. Thus, it is clear that the UK's GDP is being affected by measures to stop business and will enter into recession. Under the *minimum baseline scenario*, it is estimated that the economic decrease in 2020 will be -5.1%; an estimate that, in the *stressed baseline scenario*, could reach -10.1% (see Table 1.2.6, and Charts 1.2.6-a and 1.2.6-b).

In addition, inflation stood at 1.7% in February, while core inflation also stood at 1.7%. Inflation is expected to tend to fall with the drop in oil prices and the impending recession. However, in the second instance, massive injections of financial and fiscal aid can later be demonstrated, when the economy and the price of oil recover, to be inflationary.

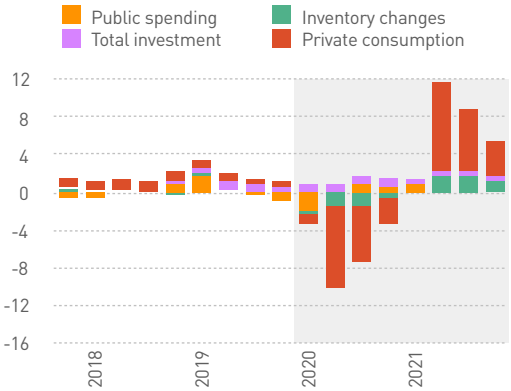
After the drops of 50 bps to 0.25% (March 11) and 15 bps to 0.10% (March 19), the Bank of England, at its meeting of March 26, decided to continue an additional quantitative easing (QE) of 200 billion pounds sterling of purchases of UK government bonds and investment grade (non-financial)

Chart 1.2.6-a
United Kingdom: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from the Office for National Statistics)

Chart 1.2.6-b
United Kingdom: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from the Office for National Statistics)

Table 1.2.6
United Kingdom: main macroeconomic aggregates

						Minimum BS		Stressed BS	
	2015	2016	2017	2018	2019(e)	2020(f)	2021(f)	2020(f)	2021(f)
GDP (% YoY, average)	2.4	1.9	1.9	1.3	1.4	-5.1	6.1	-10.1	3.3
Domestic demand contribution	2.5	2.5	1.1	1.2	1.7	-4.9	6.8	-10.2	3.6
External demand contribution	-0.1	-0.6	0.7	0.1	-0.3	-0.2	-0.7	0.2	-0.3
Private consumption contribution	1.8	2.4	1.4	1.0	0.7	-4.7	4.8	-8.9	3.0
Total investment contribution	0.6	0.6	0.3	-0.0	0.1	-0.9	1.2	-1.8	-0.1
Government consumption contribution	0.3	0.2	0.0	0.1	0.7	0.7	0.6	0.7	0.6
Private consumption (% YoY, average)	2.9	3.8	2.3	1.6	1.1	-7.4	7.9	-14.0	5.3
Government consumption (% YoY, average)	1.8	1.0	0.3	0.4	3.5	3.8	2.8	3.8	2.8
Total investment (% YoY, average)	3.7	3.6	1.6	-0.2	0.6	-5.2	7.3	-10.6	-0.6
Exports (YoY in %)	3.8	2.7	6.2	1.2	4.8	-9.7	5.9	-13.3	0.7
Imports (YoY in %)	5.5	4.4	3.5	2.0	4.6	-9.7	8.3	-14.8	1.7
Unemployment rate (%, last quarter)	5.1	4.7	4.4	4.0	3.8	6.0	4.0	9.1	6.9
Inflation (% YoY, last quarter)	0.5	1.8	2.7	2.0	1.3	0.5	2.1	-0.7	-0.2
Fiscal balance (% of GDP)	-4.5	-3.2	-2.4	-2.2	-2.1	-10.8	-3.1	-11.8	-6.1
Primary fiscal balance (% of GDP)	-7.8	-6.0	-6.6	-5.1	-6.0	-3.9	-5.1	-3.9	-5.1
Trade balance (% of GDP)	-6.1	-6.7	-6.6	-6.5	-5.9	-4.0	-4.5	-3.9	-3.4
Current account balance (% of GDP)	-4.9	-5.2	-3.5	-3.8	-3.8	-3.0	-3.4	-2.4	-2.0
Official interest rate (end of period)	0.50	0.25	0.50	0.75	0.75	0.10	0.10	0.00	0.00
3-month interest rate (end of period)	0.59	0.37	0.52	0.91	0.79	0.30	0.44	0.20	0.19
10-year interest rate (end of period)	2.02	1.28	1.25	1.33	0.91	0.56	1.06	-0.54	0.32
Exchange rate vs. USD (end of period)	1.48	1.23	1.35	1.28	1.32	1.26	1.30	1.26	1.30
Exchange rate vs. euro (end of period)	1.36	1.17	1.13	1.11	1.18	1.17	1.18	1.17	1.18
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	2.9	4.0	3.9	3.7	3.6	1.9	2.7	1.7	-1.8
Loans non-financial priv. sect. (% YoY, average)	-1.9	6.2	9.5	5.6	-0.5	3.0	2.4	2.9	1.7
Loans to financial priv. sector (% YoY, average)	-13.9	7.3	9.4	5.6	3.0	2.1	5.2	2.0	4.6
Savings rate (as % pers. disp. income, avg.)	10.0	7.2	5.3	5.8	5.7	10.6	7.1	14.8	10.4

Source: MAPFRE Economics (based on data from the Office for National Statistics)
Forecast end date: April 13, 2020.

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corporate bonds financed by the issuing of central bank reserves, to raise the total of these purchases to 645 billion pounds sterling.

Lastly, the pound sterling performed similar to other currencies in the week of March when the dollar was significantly revalued, although the Federal Reserve's announcement that it would inject all the liquidity required to make financial markets operate as normal as possible has placed it at the level of 1.24 USD/GBP.

1.2.7 Japan

Recession in 2020, despite the fact that the pandemic has not hit with the same virulence

- **Although the COVID-19 pandemic has not impacted Japan with the same virulence, containment measures will be costly for its economy.**
- **Japan increases the scale of a stimulus plan that was already needed before the disease.**
- **Japanese GDP is expected to shrink by at least -4.8% in 2020.**

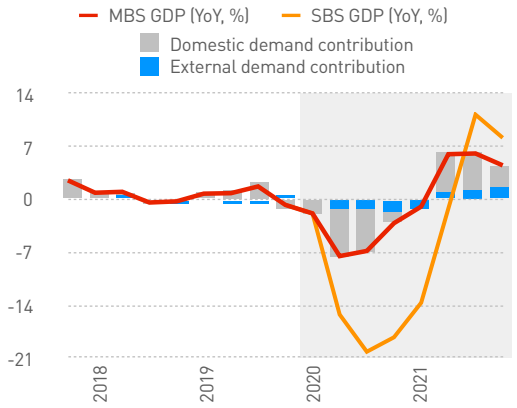
In the fourth quarter of 2019, Japanese GDP fell -0.7% YoY (-1.8% QoQ), largely due to the effect of the October VAT hike. Private consumption also fell by -2.5% YoY, exports by -2.2% YoY and private non-residential investment by -4.4%. Components of the coincident indicator for February show that the slowdown continues (industrial production -4.7%, shopping mall sales -12.8%, wholesale sales -6.2%). March purchasing managers' indices (PMIs) have fallen by as much as 32.7 points in services, 44.8 in manufacturing and 35.8 in composite.

Considering the circumstances arising from the application of containment measures and given that the intensity and duration of the lockdown is difficult to estimate, MAPFRE Economics' growth forecast for 2020 is, in the *minimum baseline scenario*, -4.8%. In the *stressed baseline scenario*, this forecast could be up to -13.9% (see Table 1.2.7, and Charts 1.2.7-a and 1.2.7-b). In the aforementioned *minimum baseline scenario*, MAPFRE believes that the coronavirus outbreak will have less of a negative impact on the Japanese economy than in the United States or Europe, given the relatively lower number of infections and deaths to date and Japan's lower dependence on international trade. In addition, a smaller decline in real GDP is expected compared to the financial crisis of 2008-09; a big difference this time is that the yen has not experienced significant appreciation.

In addition, inflation is at a very low level and was 0.4% in March, which is associated with low wage pressure and economic slowdown. Falling crude oil prices will also help keep it low. Central bank interest rates are stable at -0.10%, and the yield curve control target is to put them close to 0.00%. In addition, the central bank introduced a new loan program regarding corporate debt as a guarantee, with an interest rate of 0.0% and interest rate incentive on excess reserves. This will last until the end of September 2020. The Bank of Japan also joined six major global central banks to increase the dollar's liquidity by decreasing the liquidity exchange rate by 25 bps and extending the maturity of liquidity provisions.

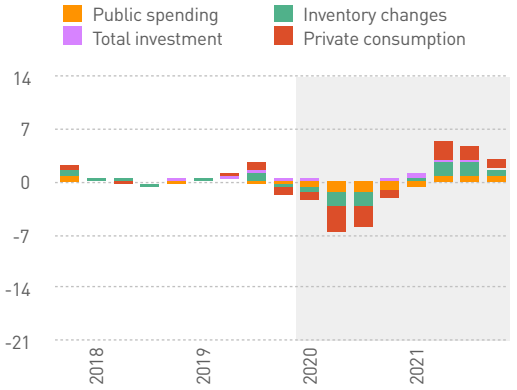
Japanese Prime Minister Shinzō Abe said at a press conference on March 28 that the government would approve an economic stimulus package and a supplementary budget. It is expected that the scale of the package will be at least as high as that of the 2009 package during the financial crisis. The approach is likely to be to help households and small businesses that suffer from loss of income. It is expected that the resulting increase in fiscal spending and the expected decrease in tax revenue will lead to an increase in bond issuing The Bank of Japan's yield curve control policy suggests that it will act to suppress any increase in yields from higher Japanese Government Bonds (JGB) issuing by increasing its bond purchasing volume.

Chart 1.2.7-a
Japan: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from the Statistics Bureau)

Chart 1.2.7-b
Japan: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from the Statistics Bureau)

Table 1.2.7
Japan: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	1.3	0.5	2.2	0.3	0.7	-4.8	3.9	-13.9	1.2
Domestic demand contribution	0.9	-0.1	1.6	0.3	0.9	-3.9	3.4	-13.6	1.0
External demand contribution	0.4	0.6	0.6	0.0	-0.2	-0.9	0.6	-0.3	0.2
Private consumption contribution	-0.1	-0.2	0.8	-0.0	0.1	-2.3	1.3	-9.5	0.6
Total investment contribution	0.4	-0.1	0.7	0.1	0.3	-1.0	1.3	-3.5	-0.6
Government consumption contribution	0.3	0.3	0.0	0.2	0.4	0.4	0.3	0.4	0.3
Private consumption (% YoY, average)	-0.2	-0.3	1.3	-0.0	0.2	-4.0	2.3	-17.1	1.4
Government consumption (% YoY, average)	1.5	1.4	0.1	0.9	1.9	2.0	1.2	2.0	1.2
Total investment (% YoY, average)	1.7	-0.3	3.0	0.6	1.3	-4.3	5.3	-14.5	-2.3
Exports (YoY in %)	3.0	1.7	6.8	3.5	-1.7	-19.2	18.7	-26.0	11.1
Imports (YoY in %)	0.7	-1.6	3.4	3.3	-0.7	-13.7	12.7	-24.0	8.4
Unemployment rate (%, last quarter)	3.3	3.0	2.7	2.4	2.3	2.6	2.2	6.6	4.9
Inflation (% YoY, last quarter)	0.2	0.3	0.6	0.9	0.5	-0.8	0.2	-5.3	-6.0
Fiscal balance (% of GDP)	-3.6	-3.5	-3.0	-2.4	-2.7	-5.7	-4.5	-9.1	-9.5
Primary fiscal balance (% of GDP)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trade balance (% of GDP)	-0.2	1.0	0.9	0.2	0.1	-0.3	0.1	0.6	1.7
Current account balance (% of GDP)	3.1	3.9	4.2	3.5	3.6	2.6	3.5	4.1	6.3
Official interest rate (end of period)	0.04	-0.06	-0.06	-0.06	-0.07	-0.06	-0.05	-0.50	-0.50
3-month interest rate (end of period)	0.08	-0.05	-0.02	-0.07	-0.05	-0.07	-0.06	-0.52	-0.50
10-year interest rate (end of period)	0.35	0.04	0.05	0.13	-0.21	-0.11	-0.06	-0.50	-0.42
Exchange rate vs. USD (end of period)	120.50	116.80	112.90	110.83	109.12	106.00	106.00	106.65	105.56
Exchange rate vs. euro (end of period)	131.19	123.12	135.40	126.90	122.59	114.48	117.10	114.34	116.72
Loans private sector (% YoY, average)	2.0	2.2	4.2	2.9	2.1	-3.8	4.0	-13.4	-7.6
Loans to Households (% YoY, average)	1.1	1.3	2.2	2.8	1.7	0.0	0.0	-0.2	-2.4
Loans non-financial priv. sect. (% YoY, average)	0.4	1.8	2.4	1.9	3.8	1.9	1.5	1.7	0.8
Loans to financial priv. sector (% YoY, average)	7.8	-0.2	8.0	5.9	2.3	2.0	1.7	2.1	1.8
Savings rate (as % pers. disp. income, avg.)	1.2	2.9	2.5	4.3	4.9	6.4	5.7	17.8	15.4

Source: MAPFRE Economics (based on data from the Statistics Bureau)
Forecast end date: April 13, 2020.

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In March, the yen showed signs of appreciating nearly 102 JPY/USD, but by the end of March it seemed to want to rank at around 108-110 JPY/USD for the last 12 months.

1.2.8 Turkey

The Turkish economy will enter into a recession in 2020

- **The economic standstill to contain the virus will lead to the Turkish economy contracting at least -1.2%.**
- **Strong financial flows have led to the Turkish lira surpassing the 6.60 barrier against the dollar.**
- **The government has taken fiscal support measures for 2% of GDP.**

In the fourth quarter, the Turkish economy rebounded (+6.5% YoY), partly because of the base effect of the last quarter of 2018, leaving 2019's annual growth at 0.8%. Until now, before the pandemic struck the world, all components of GDP were showing signs of recovery. However, the health crisis and associated confinement measures will lead to a recession in Turkey's economy. MAPFRE Economics' estimate, in the *minimum baseline scenario* (reportable according to the measures to be taken, the depth of the drop in activity and its duration) is that the contraction in 2020 will be at least around -1.2%. This forecast, however, could reach -8.7% in the *stressed baseline scenario* (see Table 1.2.8, and Charts 1.2.8-a and 1.2.8-b).

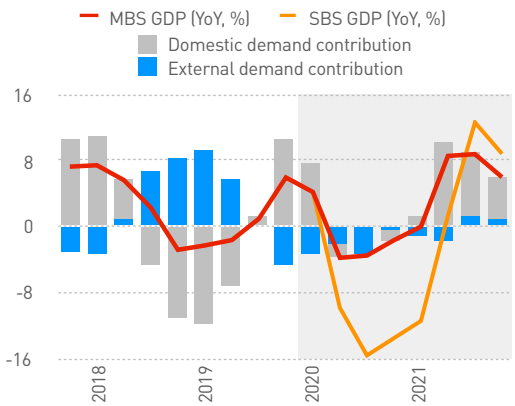
March inflation stood at 11.9%, appearing to have stabilized since the beginning of 2020. The sharp fall in oil prices and the crisis that is coming will bring it down to a lower level. The Central Bank of the Republic of Turkey (CBRT) reduced its key rate again on March 17 by 100 bps to 9.75%, making real interest rates negative. It also introduced several liquidity-related measures to ensure that credit continues to flow to businesses and households. The most notable are two new facilities in which banks can access central bank financing at an interest rate lower than the official interest rate, if they meet certain credit growth targets.

In addition, at the fiscal level, the government announced a package of measures worth 2% of GDP. These measures include temporary exemptions from VAT and social security contributions, and paid holidays for the sectors affected, as well as a new time frame for the existing credit guarantee fund, a service in which the government guarantees the losses that banks may face until the rate of delinquent loans reaches 7%.

In the first quarter, and especially in March, the Turkish lira depreciated significantly due to the high flow of capital outflows from emerging markets in general. As an economy with high foreign debt in dollars, this may become problematic if doubts begin to arise regarding the solvency of both government and private company issuers. In this context, the Turkish lira reached the quota of 6.60 TRY/USD at the end of March.

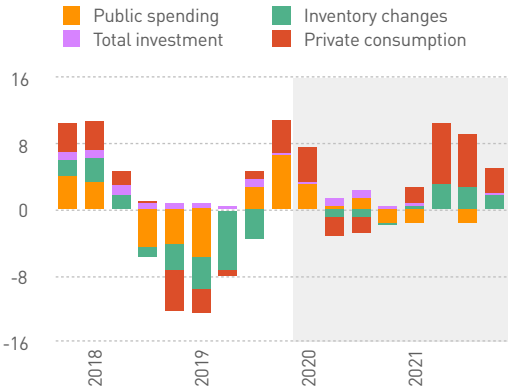
First and foremost, the main risks to the Turkish economy lie in the depth of the recession caused by the health crisis, but also in its dependence on the dollar for its external financing. The solvency and liquidity of its financial system risk being questioned. In this regard, the Turkish economy will be able to benefit from the announcement by the US Federal Reserve that it will provide international financial markets (especially some emerging ones) with currency swaps in order to avoid a tightening of their currencies.

Chart 1.2.8-a
Turkey: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from TURKSTAT)

Chart 1.2.8-b
Turkey: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from TURKSTAT)

Table 1.2.8
Turkey: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS		Stressed BS	
						2020(f)	2021(f)	2020(f)	2021(f)
GDP (% YoY, average)	6.0	3.3	7.4	3.1	0.8	-1.2	5.8	-8.7	2.8
Domestic demand contribution	5.5	4.6	7.1	-0.0	-1.8	1.1	6.1	-6.7	3.8
External demand contribution	0.5	-1.3	0.3	3.2	2.5	-2.3	-0.2	-2.0	-1.0
Private consumption contribution	3.4	2.2	3.8	0.3	0.3	0.1	4.7	-6.4	4.4
Total investment contribution	2.7	0.7	2.4	0.0	-3.6	-0.5	2.0	-1.6	0.5
Government consumption contribution	0.5	1.3	0.7	0.9	0.6	0.7	0.1	0.4	-0.2
Private consumption (% YoY, average)	5.5	3.6	6.2	0.4	0.6	0.2	8.0	-10.9	8.0
Government consumption (% YoY, average)	3.5	9.8	5.2	6.6	4.6	4.6	0.9	3.1	-1.4
Total investment (% YoY, average)	9.1	2.4	8.2	0.1	-12.2	-2.3	8.0	-6.7	1.9
Exports (YoY in %)	4.3	-1.7	12.0	7.6	6.6	-10.5	13.8	-15.6	7.8
Imports (YoY in %)	1.8	3.7	10.2	-6.3	-2.3	-0.8	17.1	-8.1	14.1
Unemployment rate (%, last quarter)	10.5	12.1	10.3	12.3	13.3	14.1	11.7	18.1	14.8
Inflation (% YoY, last quarter)	8.8	8.5	11.9	20.3	10.3	9.0	9.3	5.8	8.6
Fiscal balance (% of GDP)	-1.1	-1.3	-1.6	-1.9	-2.9	-4.3	-2.7	-5.9	-5.4
Primary fiscal balance (% of GDP)	0.0	0.6	0.8	1.6	0.6	1.7	1.6	1.7	1.6
Trade balance (% of GDP)	-5.7	-4.6	-6.9	-5.5	-2.5	-1.7	-2.3	-1.4	-1.1
Current account balance (% of GDP)	-3.2	-3.1	-4.8	-2.7	1.1	-0.8	-1.7	-0.8	-1.7
Official interest rate (end of period)	8.81	8.31	12.75	24.06	11.43	9.09	8.84	3.93	5.69
3-month interest rate (end of period)	11.47	9.90	14.61	24.07	10.76	9.09	8.90	5.55	8.38
10-year interest rate (end of period)	10.74	11.40	11.72	16.53	11.95	11.06	9.96	10.71	11.68
Exchange rate vs. USD (end of period)	2.92	3.52	3.79	5.29	5.95	6.95	7.16	7.74	7.28
Exchange rate vs. euro (end of period)	3.18	3.71	4.55	6.06	6.68	7.51	7.91	8.29	8.05
Loans private sector (% YoY, average)	23.0	12.8	20.6	18.3	9.9	9.1	12.0	8.8	10.3
Loans to Households (% YoY, average)	12.5	7.1	17.5	9.8	3.3	9.5	12.2	8.9	9.3
Loans non-financial priv. sect. (% YoY, average)	29.9	14.7	24.3	20.9	5.4	-11.0	26.1	-19.6	15.4
Loans to financial priv. sector (% YoY, average)	26.4	9.0	27.2	25.1	18.3	2.4	18.1	-5.7	14.1
Savings rate (as % pers. disp. income, avg.)	28.3	32.8	30.9	30.0	28.6	28.3	27.0	34.2	29.0

Source: MAPFRE Economics (based on data from TURKSTAT)
Forecast end date: April 13, 2020.

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1.2.9 Mexico

The Mexican economy's exposure to oil prices and the US economy will magnify its own problems

- **The recession will deepen in 2020 and the Mexican economy will fall by at least -3.9%.**
- **The sharp decline in oil prices will impact fiscal revenues, giving the government less room for fiscal stimuli.**
- **The virus crisis is at an earlier stage than in other regions of the world, but economic ties with the United States also expose it to indirect impact.**

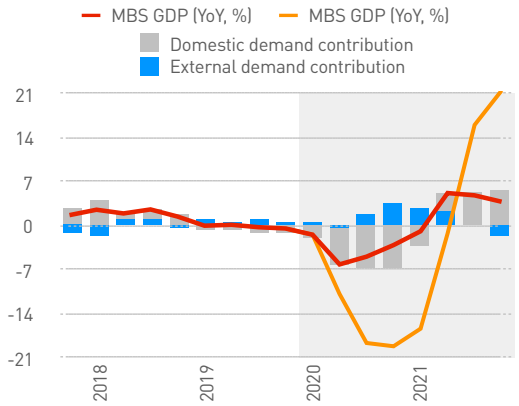
The Mexican economy was already in recession in 2019, before the start of the COVID-19 health crisis. In the fourth quarter of 2019, GDP contracted -0.5% YoY, bringing annual growth to -0.1%, with almost all line items (except consumption) on negative territory. The Mexican economy had been hampered by the impairment of trade in general, as well as by decreased public and private investment. The slowdown in oil prices, as early as 2019, was an additional problem for both economic activity and fiscal sustainability.

At the beginning of 2020, two shocks came to affect the Mexican economy: first, the global pandemic and, second, the escalation in downward pressure on the crude market as a result of the disputes between Russia and Iran, which decreased the Brent price below 23 USD/bl. These phenomena will impact the Mexican economy differently, given its enormous commercial and industrial integration with the United States, and its major fiscal and industrial dependence on the energy sector.

The COVID-19 crisis will have both supply and demand effects on the Mexican economy and will raise already prominent stress levels on investment and consumption expectations. On the supply side, temporarily displaced US value chains and trade disruption will continue to diminish the manufacturing sector. Likewise, private commercial and residential construction echoes the domestic and imported uncertainty of COVID-19, so demand for cement, stagnant in 2019, is expected to shrink significantly in 2020. Public construction, recently conditioned by public consultation processes triggered by the administration, has no better prospects in 2020 due to the productive hibernation of the current exhausted fiscal resource (heavy use to deal with the health crisis of scarce tax revenue despite the lack of activity of low oil profits). In terms of demand, the fall in investments in the context of unprecedented uncertainty, along with diminished trust from producers and consumers and the impairment of household income (employment and wages trending downward), will limit domestic demand. In the context of border closures and containment measures, foreign demand will not be a mitigating factor in this situation either. The above elements are the basis for setting the company's 2020 GDP forecast, in the *minimum baseline scenario*, at -3.9%. This forecast, however, could be up to -12.5% in the *stressed baseline scenario*, depending on, first, the depth and duration of the economic effects of the pandemic and, second, the economic measures that may be taken to address both the economy's economic and structural situations (see Table 1.2.9, and Charts 1.2.9-a and 1.2.9-b).

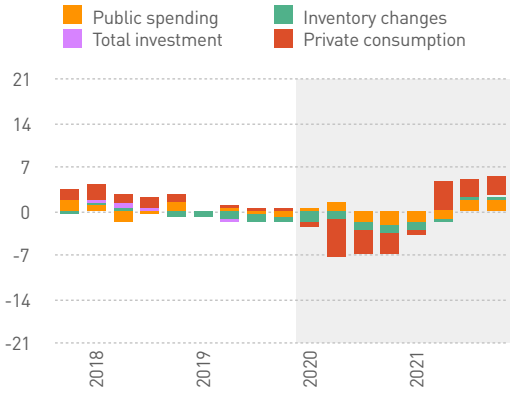
In March, inflation stood at 3.25%, with core inflation at 3.6%. For the 2020 average, inflation is expected to have some upward trend, with limits on aggregate supply and currency depreciation more than offsetting the downward forces of widening output gaps and collapsing energy prices. The current situation will require a supportive reaction from the Bank of Mexico, which before the crisis still held real interest rates well above what the natural rate would be. In this regard, at its March meeting, the central bank lowered by 50 bps to 6.50% and, again at an unscheduled meeting in April, reduced an additional 50 bps to set the monetary policy interest rate at 6.00%. However, it is possible that the central bank could continue to lower rates, despite a situation in which portfolio outflows and domestic weakness have at times brought the exchange rate close to 25 MXN/USD.

Chart 1.2.9-a
Mexico: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from INEGI)

Chart 1.2.9-b
Mexico: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from INEGI)

Table 1.2.9
Mexico: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS		Stressed BS	
						2020(f)	2021(f)	2020(f)	2021(f)
GDP (% YoY, average)	3.3	2.6	2.4	2.1	-0.1	-3.9	3.2	-12.5	5.0
Domestic demand contribution	2.5	2.2	3.3	2.2	-1.0	-5.2	2.5	-15.8	1.6
External demand contribution	0.8	0.4	-0.9	-0.0	0.8	1.3	0.7	3.3	3.4
Private consumption contribution	1.8	2.3	2.3	1.6	0.4	-3.4	2.4	-9.5	1.3
Total investment contribution	1.1	0.2	-0.3	0.2	-1.0	-1.5	-0.2	-2.0	-2.5
Government consumption contribution	0.2	0.3	0.1	0.4	-0.2	0.1	0.2	0.1	0.2
Private consumption (% YoY, average)	2.7	3.5	3.5	2.3	0.6	-5.0	3.6	-14.0	2.0
Government consumption (% YoY, average)	1.9	2.6	0.7	3.0	-1.5	0.5	1.4	0.5	1.4
Total investment (% YoY, average)	5.1	1.1	-1.5	0.9	-5.0	-7.7	-1.0	-10.3	-12.8
Exports (YoY in %)	8.6	3.6	4.3	5.9	1.2	-6.4	2.5	-14.2	-0.6
Imports (YoY in %)	6.0	2.3	7.0	5.9	-1.0	-10.1	0.7	-23.4	-7.6
Unemployment rate (%, last quarter)	4.2	3.5	3.3	3.3	3.4	5.2	4.2	11.7	5.1
Inflation (% YoY, last quarter)	2.1	3.4	6.8	4.8	2.8	3.8	3.2	1.7	4.5
Fiscal balance (% of GDP)	-3.4	-2.5	-1.1	-2.0	-1.7	-3.9	-4.0	-5.6	-7.4
Primary fiscal balance (% of GDP)	-0.1	-0.9	-0.2	-0.9	-0.9	-0.6	-0.9	-0.6	-0.9
Trade balance (% of GDP)	-1.2	-1.2	-0.9	-1.1	0.4	0.3	0.9	2.8	7.4
Current account balance (% of GDP)	-2.6	-2.3	-1.8	-1.9	-0.2	-0.1	0.7	2.0	6.6
Official interest rate (end of period)	3.25	5.75	7.25	8.25	7.25	5.25	5.25	1.38	1.76
3-month interest rate (end of period)	3.58	6.19	7.66	8.63	7.45	5.76	5.78	3.82	0.78
10-year interest rate (end of period)	6.28	7.42	7.66	8.70	6.84	6.49	6.53	6.29	6.94
Exchange rate vs. USD (end of period)	17.20	20.74	19.67	19.65	18.93	22.00	20.63	24.06	21.72
Exchange rate vs. euro (end of period)	18.73	21.86	23.59	22.50	21.26	23.76	22.79	25.79	24.01
Loans private sector (% YoY, average)	13.6	16.3	12.1	10.4	9.0	-1.9	6.8	-9.8	8.9
Loans to Households (% YoY, average)	8.4	12.8	10.0	8.4	6.2	5.7	9.2	4.3	8.1
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	-11.4	3.5	1.7	-0.8	6.2	12.1	13.6	2.8	15.1
Savings rate (as % pers. disp. income, avg.)	14.6	12.8	10.7	12.5	16.5	21.6	20.3	27.0	22.4

Source: MAPFRE Economics (based on data from INEGI)
Forecast end date: April 13, 2020.

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Other measures implemented by the Bank of Mexico aimed at providing liquidity have been decreasing banks' reserve requirements by some 50 billion Mexican pesos (15% of current inventories); decreasing repo rates; the auction of liquidity in dollars from swap lines of 60 billion US dollars established with the Federal Reserve; and active participation as a market maker in the bond market.

Mexico's economy faces perhaps a higher risk than other countries, since its tax revenue depends largely on oil revenue. Given the administration's decision not to raise public debt levels, this situation leaves the government with little margin (beyond the direct transfer programs in place before this crisis) to introduce the type of fiscal stimuli implemented elsewhere to counteract the economic effects of the pandemic (on economic activity and employment).

1.2.10 Brazil

Brazil will enter a strong economic recession

- **In the context of the health crisis, the Brazilian economy will contract at least -2.7% in 2020.**
- **The government announced a support package equivalent to 30 billion US dollars to combat the economic effects of the standstill due to COVID-19.**
- **In the best case scenario, regeneration will begin in the second half of the year, but the pace of activity will not be recovered, due to the permanent damage caused.**

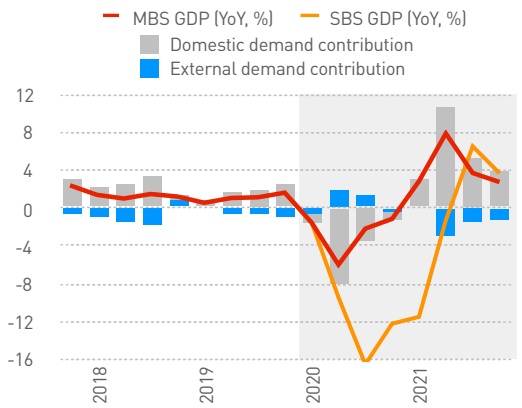
The Brazilian economy grew 1.1% year-on-year in 2019, mainly supported by consumption, but without consolidating the 2018 recovery with the expected magnitude. As early as January, industrial production data pointed to an impairment in the manufacturing sector, which has been precipitated by the arrival of the health crisis. Leading indicators such as PMIs show a recessionary environment in March, indicating a figure of 37.6. Supply and demand shocks will have temporary but profound effects firstly on domestic industry and construction, and secondly on labor market expectations and impairment that will affect consumption and investment.

Since the previous report, MAPFRE Economics has been revising its growth estimates for the Brazilian economy downward. This trend is exacerbated in the current context of the pandemic. As a result, MAPFRE Economics' forecast for growth of the Brazilian economy in 2020 is, in the, *minimum baseline scenario*, -2.7%. In the *stressed baseline scenario*, this estimate could be up to -9.9% (see Table 1.2.10, and Charts 1.2.10-a and 1.2.10-b). The expected recovery in 2021 is forecast to be weaker than previously anticipated, because the crisis will also have political and institutional effects that impact automatic stabilizers. To date, disagreements between the head of the government and other institutions are undermining the consensus reached in fiscal and other areas.

In addition, the slowdown in economic activity will stabilize inflation at around 4.0%, which would enable the Central Bank to trigger ultra-accommodative anti-cyclical measures, like the rest of the world, to support the economy. On March 18, the Central Bank lowered Selic rates by 50 bps to 3.75%, as a monetary response to the package of measures needed to support the crisis. We believe that the Central Bank will keep the Selic rate at this level for the time being, in light of the weakening Brazilian currency, apparent in the negative real interest rate and in global factors. It should be noted that the real exceeded the level of 5.0 BRL/USD in March. In addition to favorable financial conditions, emergency monetary policy has focused on providing liquidity. In this regard, the Central Bank transmitted the dollar liquidity provided by the Federal Reserve in its international auction system to other emerging countries.

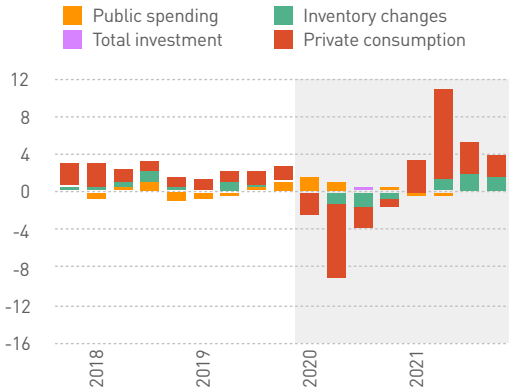
At the fiscal level, the government will use 150 billion reais (30 billion US dollars) to contain the negative impact on economic activity. The implementation consists of improving social spending and deferring corporate

Chart 1.2.10-a
Brazil: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from the Brazilian Institute of Geography and Statistics (IBGE))

Chart 1.2.10-b
Brazil: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from the Brazilian Institute of Geography and Statistics (IBGE))

Table 1.2.10
Brazil: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS		Stressed BS	
						2020(f)	2021(f)	2020(f)	2021(f)
GDP (% YoY, average)	-3.6	-3.3	1.3	1.3	1.1	-2.7	4.3	-9.9	-0.6
Domestic demand contribution	-7.1	-5.1	1.7	2.1	1.7	-3.3	5.7	-11.6	-0.3
External demand contribution	3.6	1.9	-0.4	-0.8	-0.6	0.6	-1.4	1.6	-0.3
Private consumption contribution	-2.2	-2.6	1.3	1.4	1.3	-3.3	4.7	-10.2	0.4
Total investment contribution	-2.9	-2.3	-0.4	0.6	0.4	-0.8	1.2	-2.2	-0.6
Government consumption contribution	-0.2	0.0	-0.1	0.1	-0.1	0.1	0.0	0.1	0.0
Private consumption (% YoY, average)	-3.2	-3.8	2.0	2.1	1.8	-4.7	6.9	-14.6	0.8
Government consumption (% YoY, average)	-1.4	0.2	-0.7	0.4	-0.4	0.5	0.0	0.5	0.0
Total investment (% YoY, average)	-14.0	-11.9	-2.5	3.9	2.3	-5.0	7.4	-13.3	-2.8
Exports (YoY in %)	6.9	0.9	5.4	3.3	-2.4	-6.7	4.7	-12.0	1.5
Imports (YoY in %)	-14.1	-9.6	7.4	7.5	1.2	-8.6	12.5	-18.8	4.2
Unemployment rate (%, last quarter)	8.9	12.0	11.8	11.6	11.0	12.8	10.7	18.4	17.2
Inflation (% YoY, last quarter)	10.7	6.3	2.9	3.7	4.3	2.8	3.2	0.9	4.0
Fiscal balance (% of GDP)	-10.2	-9.0	-7.8	-7.1	-5.9	-10.2	-6.8	-12.2	-10.2
Primary fiscal balance (% of GDP)	1.9	2.6	2.0	3.3	2.6	2.9	3.3	2.9	3.3
Trade balance (% of GDP)	1.0	2.5	3.1	2.8	2.2	1.8	1.4	2.0	1.5
Current account balance (% of GDP)	-3.0	-1.3	-0.7	-2.2	-2.7	-3.1	-3.3	-3.7	-4.6
Official interest rate (end of period)	14.25	13.75	7.00	6.50	4.50	3.25	3.50	0.61	0.13
3-month interest rate (end of period)	14.15	13.65	6.90	6.40	4.40	3.15	3.40	3.38	5.14
10-year interest rate (end of period)	16.10	11.36	10.24	9.28	6.86	6.25	6.50	7.93	8.07
Exchange Rate vs. USD (end of period)	3.90	3.26	3.31	3.87	4.03	5.02	4.41	6.50	4.98
Exchange rate vs. euro (end of period)	4.25	3.43	3.97	4.44	4.53	5.42	4.87	6.97	5.50
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	10.2	4.4	4.7	7.0	10.8	11.6	14.2	9.6	6.7
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Savings rate (as % pers. disp. income, avg.)	18.5	17.2	17.4	16.1	15.8	16.9	14.6	21.2	18.1

Source: MAPFRE Economics (with data from the Brazilian Institute of Geography and Statistics (IBGE))
Forecast end date: April 13, 2020.

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taxes, among others. The current account balance at the start of 2020 was 2.9%, but the loss of the currency's value, coupled with capital flight from emerging markets, will surely force the current-account balance into positive figures, with exports up and imports down.

1.2.11 Argentina

Unfavorable economic expectations remain

- **Argentina's GDP is expected to contract by at least around -5.7% in 2020.**
- **The Argentine peso loses its level of 64 ARS/USD.**
- **The IMF estimates that a debt reduction of between 50 and 85 billion US dollars is needed to re-enter a sustainable path.**

Argentina's GDP fell -1.1% year-on-year in the fourth quarter of 2019, leaving 2019 growth at -2.2% (-2.4% in 2018). The composition of the activity shows that domestic demand continues to drop (consumption, -1.9%, and government spending, -3.1% YoY) while the external sector cushions the recession (exports, 7.4%, and imports, -10.1%), and while investment plummeted by -9% (-15.9% in 2019). Exports, on the other hand, increased 7.4% (+9.4% average in 2019) and imports decreased 10.1% (-18.2% in 2019).

Prospects for Argentina's economy remain poor given that it faces a bad starting point, with activity levels matching those of 2010 and greater domestic uncertainty in light of debt negotiations. Containment measures are another factor, while fiscal restrictions (Argentina does not have access to the market at this time) limit a potential response of government economic support. In this context, the current forecast of growth in line with the *minimum baseline scenario* leads MAPFRE to forecast a contraction of GDP by 2020 of -5.7%. In the *stressed baseline scenario*, this estimate could reach -13.3% (see Table 1.2.11, and Charts 1.2.11-a and 1.2.11-b).

In addition, inflation continues at very high levels (46.4% in February), compounded by the continued currency depreciation that exceeded the level of 64 ARS/USD in March. By 2020, MAPFRE estimates inflation to be around 40%. The Central Bank's reference interest rate (the 7-day LELIQ) is 38%, a substantial decrease from 55% at the close of 2019. Despite the economic situation, official rates could remain relatively high to support the exchange rate. The contraction of domestic consumption and imports reveal the harshness of the adjustment occurring in the Argentine economy. The current account balance stood at -0.5% of GDP in the fourth quarter of 2019 and MAPFRE estimates that it will reach a surplus in 2020 and 2021.

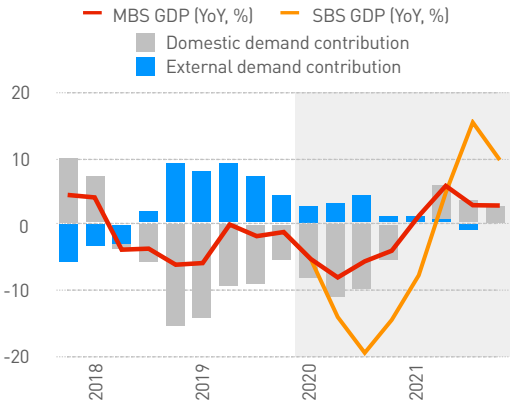
In the midst of the global pandemic, the restructuring of foreign debt seems to be less of a priority. However, on March 19, the International Monetary Fund (IMF) issued a technical note outlining views on a viable macroeconomic framework and assessing the relief needed to restore debt sustainability. The IMF estimates that foreign debt relief between 50 and 85 billion US dollars is necessary, depending on the economy's performance in different scenarios.

1.2.12 China

The economy is starting to revive itself but the return to normalcy will be gradual

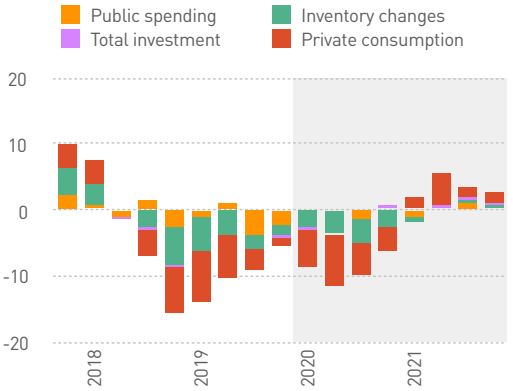
One of the most frequently available indicators of activity is power plant coal consumption. Three months after the COVID-19 crisis had begun, and after the contagion had been controlled, coal consumption revealed that activity was approaching the levels of this time in 2019 (counted from the Chinese New Year). However, the return to normalcy will be gradual.

Chart 1.2.11-a
Argentina: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from INDEC)

Chart 1.2.11-b
Argentina: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from INDEC)

Table 1.2.11
Argentina: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	2.7	-2.0	2.7	-2.4	-2.2	-5.7	3.2	-13.3	5.6
Domestic demand contribution	4.4	-1.6	6.4	-3.6	-9.5	-8.6	2.9	-17.3	6.0
External demand contribution	-1.7	-0.4	-3.7	1.3	7.3	2.9	0.4	4.0	-0.4
Private consumption contribution	2.5	-0.5	2.9	-1.7	-4.7	-5.4	2.3	-12.6	5.6
Total investment contribution	0.7	-1.1	2.3	-1.1	-3.1	-3.1	0.1	-4.7	-0.1
Government consumption contribution	0.9	-0.1	0.4	-0.4	-0.2	0.0	0.3	0.0	0.4
Private consumption (% YoY, average)	3.7	-0.7	4.0	-2.5	-6.1	-7.6	3.4	-17.9	9.1
Government consumption (% YoY, average)	6.9	-0.5	2.7	-3.2	-1.5	-0.0	2.3	-0.0	2.3
Total investment (% YoY, average)	3.4	-5.7	12.0	-4.5	-15.5	-18.1	1.0	-27.1	-0.1
Exports (YoY in %)	-2.8	6.0	1.7	-0.4	9.5	-8.8	11.1	-13.8	8.5
Imports (YoY in %)	4.9	6.1	15.3	-3.8	-18.2	-20.2	10.4	-29.8	13.6
Unemployment rate (%, last quarter)	7.0	7.6	7.2	9.1	8.9	9.8	8.7	15.2	9.6
Inflation (% YoY, last quarter)	26.0	37.5	23.3	47.4	52.2	40.6	30.1	35.0	28.8
Fiscal balance (% of GDP)	-5.9	-5.8	-5.9	-5.0	-3.8	-4.9	-3.9	-6.7	-4.6
Primary fiscal balance (% of GDP)	0.3	-0.2	0.5	-0.2	-0.2	-0.6	-0.2	-0.6	-0.2
Trade balance (% of GDP)	-0.1	0.8	-0.8	-0.1	4.0	4.9	5.7	4.9	4.2
Current account balance (% of GDP)	-2.7	-2.7	-4.9	-5.0	-0.8	0.1	0.1	-0.8	-2.3
Official interest rate (end of period)	33.00	24.75	28.75	59.25	55.00	30.00	22.26	24.67	21.85
3-month interest rate (end of period)	23.50	26.23	27.44	56.76	45.13	25.00	20.03	19.94	19.56
10-year interest rate (end of period)	6.65	7.00	5.91	10.86	19.36	8.38	7.37	9.12	10.17
Exchange Rate vs. USD (end of period)	13.04	15.89	18.65	37.70	59.89	79.93	101.68	89.19	98.43
Exchange rate vs. euro (end of period)	14.20	16.75	22.37	43.17	67.28	86.32	112.33	95.63	108.84
Loans private sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to Households (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Savings rate (as % pers. disp. income, avg.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Source: MAPFRE Economics (with data from INDEC)
Forecast end date: April 13, 2020.

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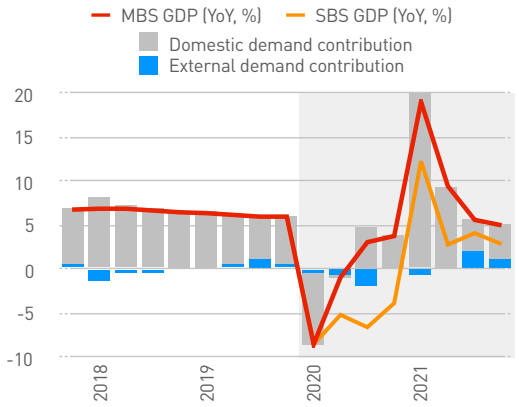
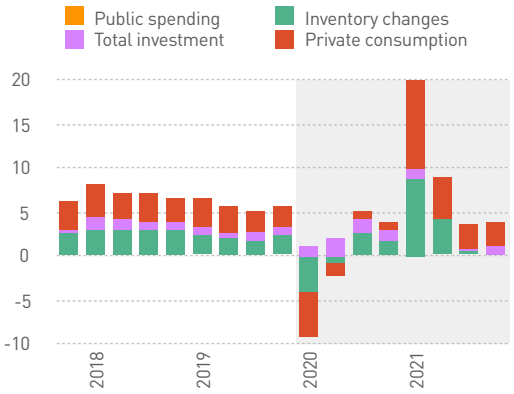
Chart 1.2.12-a
China: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from BoPRC)

Chart 1.2.12-b
China: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from BoPRC)

Table 1.2.12
China: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	7.0	6.9	6.9	6.8	6.2	-0.6	9.8	-6.0	5.5
Domestic demand contribution	6.4	7.7	6.6	7.2	5.7	0.1	9.1	-4.4	4.6
External demand contribution	0.6	-0.8	0.3	-0.5	0.5	-0.7	0.7	-1.6	0.9
Private consumption contribution	3.2	3.3	3.6	3.2	2.8	-1.2	5.1	-3.3	5.4
Total investment contribution	4.4	3.2	2.6	3.0	2.0	-0.1	3.2	-2.8	-1.9
Government consumption contribution	1.6	1.2	0.3	1.1	0.8	1.4	0.7	1.7	1.1
Private consumption (% YoY, average)	8.6	8.7	9.4	8.2	6.9	-2.7	12.8	-8.2	13.5
Government consumption (% YoY, average)	11.3	7.9	1.8	7.7	5.9	10.0	4.2	12.0	6.5
Total investment (% YoY, average)	10.1	7.0	5.8	6.6	4.4	-0.2	7.4	-6.3	-4.3
Exports (YoY in %)	0.4	1.9	6.9	4.4	2.5	-11.9	12.5	-23.8	6.6
Imports (YoY in %)	0.4	3.3	8.3	6.7	-0.4	-8.8	12.2	-17.1	4.2
Unemployment rate (%, last quarter)	4.1	4.0	3.9	3.8	3.6	3.8	3.7	5.2	4.9
Inflation (% YoY, last quarter)	1.5	2.2	1.8	2.2	4.3	1.0	2.4	-0.6	-3.1
Fiscal balance (% of GDP)	-3.4	-3.8	-3.7	-4.1	-4.9	-6.5	-4.4	-7.8	-5.6
Primary fiscal balance (% of GDP)	-3.1	-2.4	-1.7	-1.6	-2.4	-1.8	-1.6	-1.8	-1.6
Trade balance (% of GDP)	5.3	4.4	3.9	2.8	3.0	2.4	2.9	1.8	3.2
Current account balance (% of GDP)	2.8	1.8	1.6	0.2	1.0	0.9	1.1	0.3	1.4
Official interest rate (end of period)	2.32	2.59	3.09	3.07	2.81	1.60	2.78	0.05	0.03
3-month interest rate (end of period)	3.05	4.25	5.53	3.70	3.20	2.30	3.19	0.75	0.44
10-year interest rate (end of period)	2.82	3.05	3.91	3.26	3.15	2.90	3.53	3.22	2.36
Exchange Rate vs. USD (end of period)	6.49	6.94	6.51	6.88	6.99	6.99	6.90	7.18	7.09
Exchange rate vs. euro (end of period)	7.07	7.32	7.80	7.87	7.85	7.55	7.62	7.70	7.84
Loans private sector (% YoY, average)	14.8	13.3	10.5	12.0	12.7	11.6	9.4	9.2	4.5
Loans to Households (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Savings rate (as % pers. disp. income, avg.)	40.6	39.3	38.7	37.9	37.6	38.9	37.6	41.6	39.6

Source: MAPFRE Economics (based on data from BoPRC)
Forecast end date: April 13, 2020.

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For now, it seems that industry activity is recovering but trade and tourism will take longer.

- In the current context of a global pandemic, the Chinese economy is expected to shrink by -0.6% in 2020.
- The COVID-19 crisis will leave some scars on the economy, while waiting for a rebound in activity levels in 2021.
- The Central Bank has taken various measures to reduce the economic impact of the pandemic.

In the first quarter of the year, Chinese GDP fell by -5% YoY, with decreases of over 7% in consumption, investment and exports. In the second quarter, if a new wave of infections does not occur, the economy will grow again, although it will only return to the pace it was maintaining before the pandemic in 2021. It remains to be seen whether more structural damage occurred in the economy due to the closure of companies that fail to survive the period of widespread standstill. As a result, in line with the *minimum baseline scenario* of this report, China's GDP is expected to fall by -0.6% in 2020; an impact that, in the *stressed baseline scenario*, could reach -6.0% if containment measures need to be renewed (see Table 1.2.12, and Charts 1.2.12-a and 1.2.12-b).

In addition, the central bank's (PBOC) measures in support of this crisis have triggered a 10 bps cut in the preferential interest rate on one-year loans, a 10 bps cut to the medium-term loan rate, and a cut in the required reserve ratio for certain banks. The central bank reported that it will collaborate in the international coordination of macroeconomic policies. In this regard, it indicated that its prudent monetary policy must be more flexible, emphasizing aid for economic recovery and using multiple policy tools to maintain ample liquidity and maintain stable prices. The bank also noted that countercyclical adjustments in macroeconomic policy will increase to improve coordination between fiscal, monetary and employment policies to counter the impact of the epidemic on economic growth. In this regard, it will move forward with interest-rate reform and keep the yuan's exchange rate essentially stable at a balanced level.

The current account balance will potentially be close to zero in the first quarter of this year, returning to positive territory in the second quarter as soon as exports recover (which much of the rest of the world depends on), and especially Asian production chains.

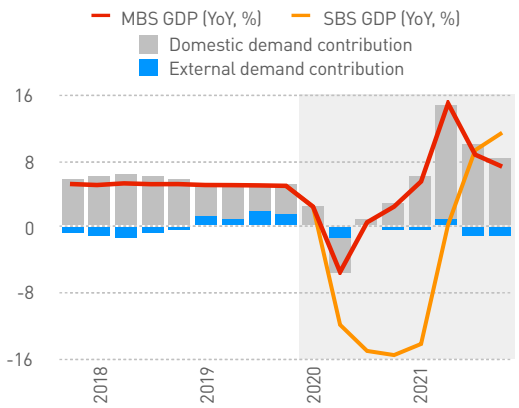
1.2.13 Indonesia

Capital outflows in the context of the pandemic raised fears of a crisis like that of 1997-98

- Capital outflows in all emerging markets are sounding alarms.
- This phenomenon will make the financing of the current account deficit increasingly complex.
- The Indonesian currency fell sharply in March, passing the 16,000 IDR/USD barrier
- In the minimum baseline scenario, Indonesia's GDP is expected to stagnate (0%) in 2020, rather than the 5% forecast in the previous report.

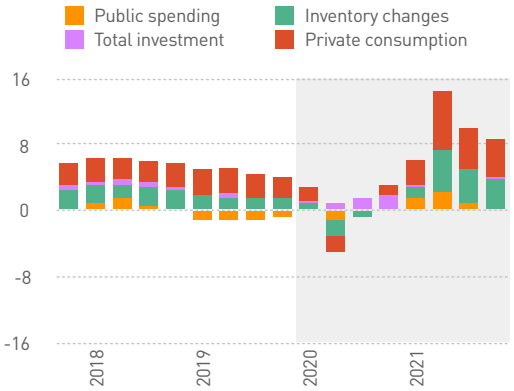
Indonesia's economy grew 5.0% in the fourth quarter of 2019 amid a global slowdown, with stagnant exports and imports that shrank by 8.0%. Private demand and investment were the two factors supporting growth. The looming economic crisis due to the COVID-19 pandemic will be exacerbated in Indonesia due to the outflow of foreign capital, which has raised fears of a currency and sovereign crisis similar to the 1997-98 Asian crisis. At present it is difficult to foresee the depth of the current crisis, but, in addition to a health and economic crisis, Indonesia is likely to face a financial crisis as well if its currency depreciates substantially and the country has difficulty financing the current account balance.

Chart 1.2.13-a
Indonesia: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from BPS)

Chart 1.2.13-b
Indonesia: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from BPS)

Table 1.2.13
Indonesia: main macroeconomic aggregates

	2015	2016	2017	2018	2019(e)	Minimum BS 2020(f)	Minimum BS 2021(f)	Stressed BS 2020(f)	Stressed BS 2021(f)
GDP (% YoY, average)	4.9	5.0	5.1	5.2	5.0	0.0	9.1	-10.0	1.7
Domestic demand contribution	3.9	4.9	4.8	6.1	3.6	0.5	9.6	-10.5	-0.2
External demand contribution	0.9	0.1	0.3	-0.9	1.4	-0.5	-0.4	0.5	1.9
Private consumption contribution	2.7	2.8	2.8	2.8	2.9	0.2	4.8	-6.7	0.6
Total investment contribution	1.6	1.5	2.0	2.2	1.5	-0.4	3.7	-4.5	-1.9
Government consumption contribution	0.5	-0.0	0.2	0.4	0.3	1.0	0.1	1.0	0.1
Private consumption (% YoY, average)	4.8	5.0	5.0	5.1	5.2	0.4	8.7	-12.1	1.4
Government consumption (% YoY, average)	4.9	0.7	2.0	4.7	3.7	12.8	1.1	12.8	0.9
Total investment (% YoY, average)	5.0	4.5	6.1	6.7	4.5	-1.1	11.4	-13.5	-5.6
Exports (YoY in %)	-2.1	-1.6	9.0	6.6	-0.9	-11.1	13.0	-18.7	6.5
Imports (YoY in %)	-6.2	-2.4	8.1	12.1	-7.7	-9.6	16.5	-23.5	-4.0
Unemployment rate (%, last quarter)	5.8	5.5	5.3	5.2	5.1	6.5	4.7	13.4	13.0
Inflation (% YoY, last quarter)	4.8	3.3	3.5	3.3	2.7	2.6	3.4	3.5	-3.3
Fiscal balance (% of GDP)	-2.6	-2.5	-2.6	-1.7	-2.2	-7.3	-3.8	-9.9	-8.4
Primary fiscal balance (% of GDP)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trade balance (% of GDP)	1.6	1.6	1.9	-0.0	0.3	0.3	0.5	1.9	4.8
Current account balance (% of GDP)	-2.0	-1.8	-1.6	-2.9	-2.7	-3.26	-2.57	-2.09	1.06
Official interest rate (end of period)	6.25	4.75	4.25	6.00	5.00	4.00	4.25	1.00	1.13
3-month interest rate (end of period)	8.86	7.46	5.48	7.70	5.51	5.10	6.41	5.42	4.95
10-year interest rate (end of period)	8.81	7.85	6.30	7.90	7.05	7.44	7.45	7.62	5.99
Exchange Rate vs. USD (end of period)	13,836	13,525	13,484	14,380	13,883	15,366	14,076	16,371	14,726
Exchange rate vs. euro (end of period)	15,063	14,257	16,171	16,465	15,596	16,596	15,550	17,553	16,282
Loans private sector (% YoY, average)	10.6	7.8	8.2	10.8	8.8	4.5	11.7	2.1	6.4
Loans to Households (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	32.0	10.1	15.1	5.6	-3.0	5.7	12.8	-4.6	4.7
Savings rate (as % pers. disp. income, avg.)	17.0	17.0	17.0	17.1	17.0	17.2	16.9	21.1	20.1

Source: MAPFRE Economics (based on data from BPS)
Forecast end date: April 13, 2020.

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In this context, MAPFRE Economics estimates that in the *minimum baseline scenario* (reportable according to the factors above) the Indonesian economy will stagnate in 2020 (0.0% GDP growth). This forecast, however, could be as high as -10.0% in the *stressed baseline scenario* if the main risk factors (short-term and structural) facing the economy of that country become a reality (see Table 1.2.13, and Charts 1.2.13-a and 1.2.13-b).

In addition, inflation remained at 3.0% in March, within the central bank's target range (2.0%-4.0%). The Bank of Indonesia has lowered interest rates twice this year by introducing a cut of 25 bps to 4.50%. These lower rates are in the context of measures to support the health crisis and have been made possible by monetary easing movements around the world. However, the crisis of portfolio flow flight from emerging markets may now make these rates too low to defend the currency.

The central bank reduced the regulatory reserve ratio (RRR) of foreign exchange by 400 bps, to increase liquidity in dollars, and amended the rules to allow for greater use of the national service of NDFs (non-deliverable forward contracts). The Bank of Indonesia also improved the "triple intervention," which involves coordinated intervention in the cash exchange market, the national NDF and government bond markets. The central bank has purchased an unprecedented amount of foreign bonds leaving the market, and currently owns about 13% of the bond market.

From a fiscal perspective, the government announced new spending equivalent to 0.2% of GDP, through two stimulus packages. One offers tax exemptions and subsidies to the tourism sector, and the other focuses on decreasing taxes for the manufacturing sector. However, the fiscal margin is limited by the statutory deficit limit of 3%.

1.2.14 Philippines

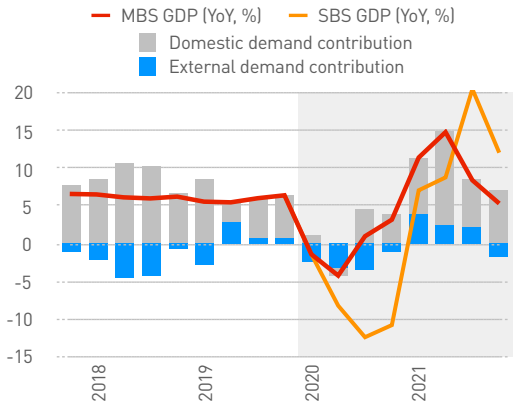
Growth will be affected at least until the end of the year

- **The depth of the fall in economic activity is based on the level of economic closure imposed. For now, the Philippine GDP is expected to shrink by at least -0.3% in 2020.**
- **The duration of the slowdown will depend on several factors, but normalcy will not return to the Philippines until at least the first quarter of 2021.**
- **At its March meeting, the central bank lowered interest rates by 50 basis points to 3.25%.**

The Philippine economy grew by 6.4% YoY in the fourth quarter of 2019, putting the annual average at 5.9%. However, the health crisis will affect the performance of the Philippine economy, as it will in the rest of the world's economies. The extent of deceleration will depend on containment measures, the activities to be carried out and the duration of these measures.

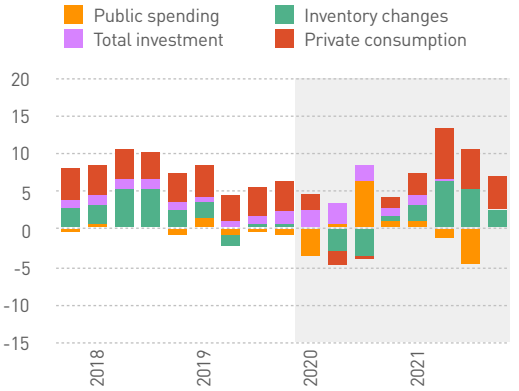
For the time being, the manufacturing PMI fell to 39.7 points in March, from 52.3 in February. Consumer confidence in December (1.3) already predicted a decline, but it did not yet reflect what was to come. Industry and trade surveys also anticipated a worsening economic situation, although they did not reflect all information that is now available. Also, on March 15, Philippine authorities placed Manila in a one-month "community quarantine," as the number of COVID-19 cases increased in the country. These measures were extended the following day to the entire island of Luzón, which houses 53% of the total population and generates approximately 73% of the country's GDP.

Chart 1.2.14-a
Philippines: GDP breakdown and forecasts



Source: MAPFRE Economics (with data from PSA)

Chart 1.2.14-b
Philippines: domestic demand breakdown and forecasts



Source: MAPFRE Economics (with data from PSA)

Table 1.2.14
Philippines: main macroeconomic aggregates

						Minimum BS		Stressed BS	
	2015	2016	2017	2018	2019(e)	2020(f)	2021(f)	2020(f)	2021(f)
GDP (% YoY, average)	6.0	6.9	6.7	6.2	5.9	-0.3	10.0	-8.2	12.1
Domestic demand contribution	9.1	11.9	7.4	9.0	5.5	2.3	8.3	-8.2	10.9
External demand contribution	-3.0	-5.0	-0.7	-2.8	0.3	-2.6	1.7	0.0	1.2
Private consumption contribution	4.4	4.9	4.1	3.8	4.0	0.4	4.9	-7.5	8.6
Total investment contribution	3.6	6.2	2.7	3.7	0.5	-1.4	4.0	-4.0	3.1
Government consumption contribution	0.8	0.9	0.6	1.4	1.1	2.2	0.4	2.2	0.5
Private consumption (% YoY, average)	6.3	7.2	5.9	5.6	5.8	0.5	7.2	-11.1	13.6
Government consumption (% YoY, average)	8.3	8.8	6.3	13.1	10.7	18.4	3.1	18.4	3.1
Total investment (% YoY, average)	16.6	26.6	9.4	13.2	1.5	-4.9	15.0	-13.7	12.6
Exports (YoY in %)	8.7	11.7	19.7	13.4	3.1	-7.7	19.7	-14.3	12.3
Imports (YoY in %)	14.6	20.5	18.2	16.0	2.1	-3.1	13.9	-13.0	10.1
Unemployment rate (%, last quarter)	5.6	4.7	5.0	5.1	4.5	6.9	4.8	7.7	5.0
Inflation (% YoY, last quarter)	0.3	2.0	3.0	5.9	1.5	2.4	3.7	-1.7	1.8
Fiscal balance (% of GDP)	-0.9	-2.4	-2.2	-3.2	-3.5	-7.0	-5.3	-9.3	-8.2
Primary fiscal balance (% of GDP)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Trade balance (% of GDP)	-8.0	-11.7	-12.8	-15.4	-12.9	-11.6	-15.0	-10.5	-11.1
Current account balance (% of GDP)	2.5	-0.4	-0.7	-2.7	-0.1	0.3	-2.3	1.7	2.7
Official interest rate (end of period)	4.00	3.00	3.00	4.75	4.00	3.00	4.00	0.50	4.12
3-month interest rate (end of period)	3.03	2.50	3.22	5.03	3.97	3.16	4.29	1.94	4.18
10-year interest rate (end of period)	4.10	4.63	5.70	7.05	4.44	3.63	4.55	3.46	5.67
Exchange Rate vs. USD (end of period)	47.17	49.81	49.92	52.72	50.74	51.22	50.20	54.24	48.43
Exchange rate vs. euro (end of period)	51.35	52.51	59.87	60.37	57.01	55.32	55.45	58.15	53.55
Loans private sector (% YoY, average)	12.8	15.3	17.6	16.8	9.5	5.1	14.3	3.5	13.5
Loans to Households (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans non-financial priv. sect. (% YoY, average)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loans to financial priv. sector (% YoY, average)	2.6	8.7	9.2	10.2	6.8	1.9	13.9	-5.9	15.4
Savings rate (as % pers. disp. income, avg.)	7.7	7.8	8.1	7.7	6.6	8.7	7.5	14.9	11.3

Source: MAPFRE Economics (based on data from PSA)
Forecast end date: April 13, 2020.

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The current account balance will tend to behave as it normally does in situations lacking foreign financing. In the weeks that have already been experienced in this crisis, an outflow of capital from emerging markets is occurring, which will lead to difficulties in financing current account deficits. There may be a slowdown of imports, but also exports due to international trade obstacles in the context of a trend to close borders.

Considering the new pandemic environment, MAPFRE Economics' growth forecast for 2020 in the *minimum baseline scenario* is -0.3%. This forecast, which escapes recession for now, considers that the economy will slow substantially (from a previous rate of 5.9%) and will primarily impact the second and third quarters of the year. Private consumption will grow less in that period and will recover slowly from the last quarter of the year, laying the groundwork for a rebound in activity levels in 2021, partially due to the base effect. However, MAPFRE Economics' forecast in the *stressed baseline scenario* (which considers a substantial worsening of the economic effects of the pandemic) could place growth in 2020 at up to -8.2% (see Table 1.2.14, and Charts 1.2.14-a and 1.2.14-b).

In addition, March inflation stood at 2.5% and MAPFRE Economics estimates that this will be 2.4% in 2020. The Central Bank of the Philippines (BSP) lowered official interest rates twice in 2020, once in February (25 bps) and once in March (50 bps) to 3.25%. In addition, the central bank relaxed some banking regulations, including: compliance reports from banks, penalty calculations on required reserves, and single borrower limits.

From a fiscal point of view, the Philippine government announced an expenditure package of 1.6 billion pesos (32 million US dollars) to strengthen the country's medical capacity to respond to the COVID-19 emergency, and a package of 27 billion pesos (527 million US dollars) to support tourism, as well as total additional budget support worth 0.1% of GDP.

2. Industry outlook

2.1 The economic environment and its impact on insurance demand: update

2.1.1 Global markets

The world economy is experiencing a situation that is unprecedented, at least looking at the last 100 years. The COVID-19 pandemic has led to a global health crisis that, as it expands, is saturating health systems in both emerging and developed countries to the extent that they are unable to care for all the infected people who require urgent healthcare assistance to survive. This has forced social distancing and population confinement measures to be adopted, which are slowly alleviating the congestion of health systems in those countries where they had become saturated. However, these measures are affecting the economy and, by extension, will also have an impact on insurance markets to a point that is yet to be determined (see Box 2.1.1). These impacts, in certain scenarios, could exceed the effect on the insurance industry from the most profound crises of recent times.

In order to outline these potential effects, the following paragraphs of this section of the report have analyzed the economic crises experienced in recent decades (since 1980) in each of the insurance markets under analysis, in order to determine what the main consequences of these crises were for the insurance industry. In general, abrupt declines in insurance business premiums are anticipated in all cases at the aggregate level. However, historical evidence shows that, at times, once the economic recovery came, insurance premiums ex-perienced strong growth (above GDP growth) especially in emerging markets.

In the current crisis, the central banks' reaction at the global level has been virtually immediate, with quantitative easing through sovereign and corporate bond acquisition programs, accompanied by accommodative monetary policies with lower interest rates in support of their respective economies in jurisdictions that still had some room to maneuver (as is the case with the United States). This extends the environment of low interest rates that already characterized many developed economies, and this is now spreading to emerging economies in which real interest rates have started to be negative, discounting the effect of inflation.

Asset acquisition programs designed under quantitative easing measures prove to be of great help to insurance companies, by having an immediate effect and preventing spreads on sovereign and corporate bonds (risk premiums) from increasing. This would have a negative impact on the valuation of this type of investment and, therefore, on the shareholders' equity of these companies. These measures seek to

Box 2.1.1
Summary of the impact of the COVID-19 pandemic on the insurance industry

Pandemic analysis perspectives

While it is true that the COVID-19 pandemic is a phenomenon that will have a very significant impact on the world and the different sectors of the global economy, its impact on each one will be different and distinguishable. Thus, in order to analyze the particular effects that the pandemic will have on the insurance industry, its main impacts can be considered to derive from two general perspectives: the *economic perspective* and the *health perspective* (see Chart A).

The economic perspective

First off, it is well known that insurance activity is strongly conditioned by a set of macroeconomic factors: the pace of economic activity, the level and trajectory of interest rates, the behavior of exchange rates, and the degree of volatility presented by the financial markets.

Economic activity

There is a clear correlation between the level of economic activity and the performance of the insurance industry. Thus, with varying degrees of elasticity depending on the size of the insurance gap in the country concerned, when economic activity expands (usually at the top of the economic cycle), this leads to an increase in insurance demand, and vice versa. In the current context of the global expansion of the pandemic, the adoption of social distancing measures to prevent the spread of the virus has led to a sharp and dramatic reduction in economic activity levels, which will consequently lead to a reduction in demand for insurance services.

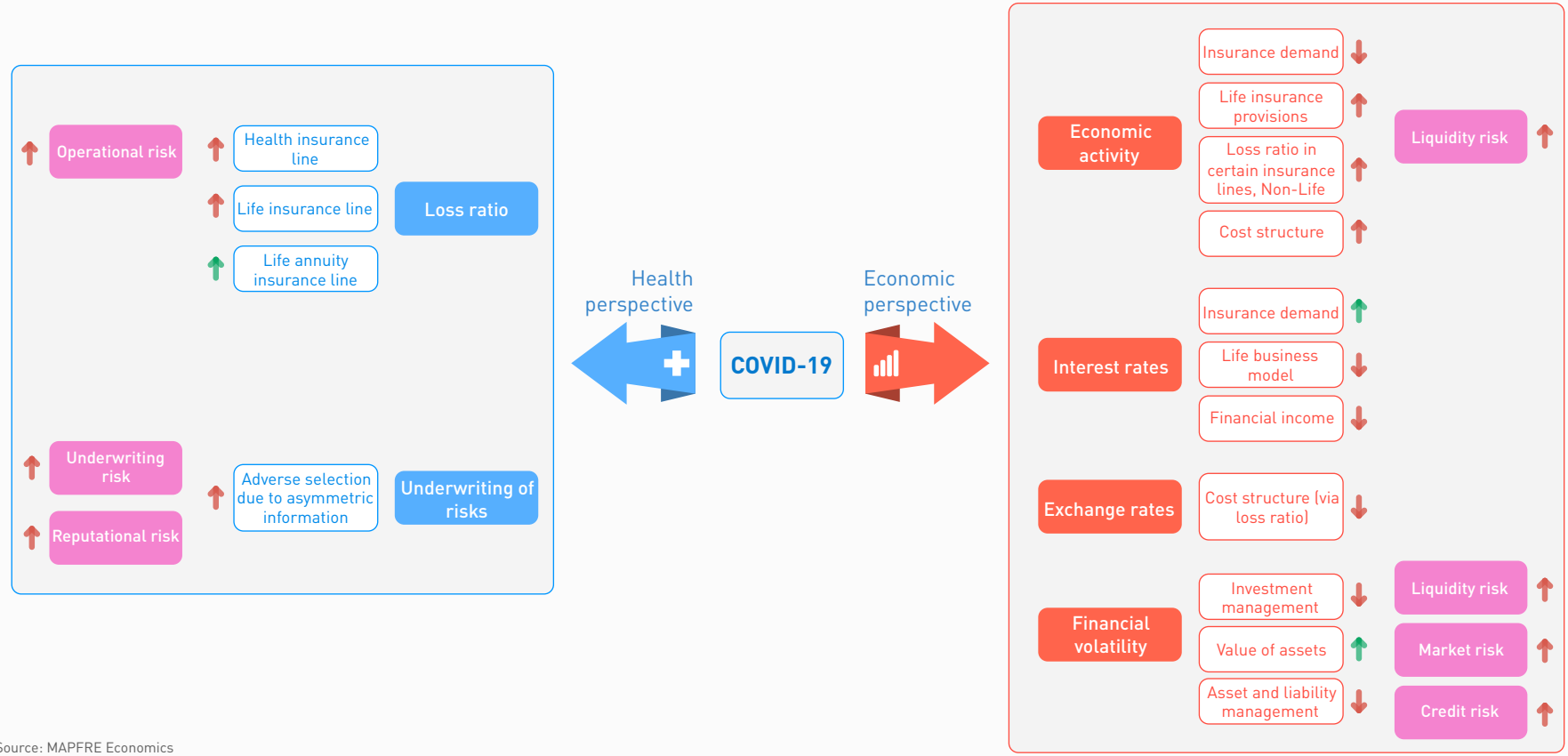
Moreover, given the nature of the health containment measures taken, which in many cases have limited or reduced income flow for individuals and families, the case of a potential increase in Life insurance redemptions (with different savings-investment components) stands out, despite the penalties that these products usually incorporate into their clauses. Also within the Life insurance line, in some markets it is worth mentioning the issue of an increase in the cost of covering the guarantees incorporated into "variable annuity" products due to the drastic increase in levels of financial volatility.

Similarly, there are other Non-Life insurance lines that could be affected by an increase in the loss ratio: travel insurance; insurance that covers the temporary unemployment of the insured; insurance that covers delays or interruptions in the supply chain of industries; business interruption coverage; and credit insurance (both for exports and domestic commercial transactions), among others.

Thus, depending on the structure of each insurer's risk portfolio, both situations will involve an increase in the loss ratio and, consequently, greater stress on its cost structure, in particular because falling insurance demand may entail a significant problem in the short-term, as fixed operating cost levels cannot be reduced at a rate similar to the drop in premiums revenue. Finally, in terms of the risks faced by insurance companies, this context will be able to determine an increase in liquidity risk, due to the effect of the growth of Life insurance redemptions and the greater loss ratio of products that cover temporary unemployment.

Box 2.1.1 (continued)
Summary of the impact of the COVID-19 pandemic on the insurance industry

Chart A.
Elements to assess the impact of the COVID-19 pandemic on the insurance industry



Source: MAPFRE Economics

Box 2.1.1 (continued)
Summary of the impact of the COVID-19 pandemic on the insurance industry

Interest rates

One of the measures widely adopted by central banks worldwide to try to partially deal with the sharp reduction in economic activity levels, stemming from the health containment measures, has been the rapid decrease in interest rates. In many countries (emerging markets), this situation will, for the first time, create a generalized low-rate environment, while in others it will simply strengthen and expand the previous situation (developed markets).

Interest rate reductions will affect the insurance industry in three aspects: one positive and two negative. On the one hand, to the extent that monetary policy succeeds in alleviating the economic contraction, it will generate a relative increase in demand for insurance products. However, on the other hand, interest rate reductions shall affect the traditional life annuity and Life savings insurance business, until the economic agents assume the new levels as something permanent and decide to invest in savings instruments at lower rates, or choose to acquire risk products in which the policyholder assumes the risk of investment. In addition, both the Life and Non-Life insurance business will be affected by the low interest rate environment as financial income is reduced, which will limit its ability to complement the business's technical profitability with the return on investment from its assets.

Exchange rates

One of the temporary consequences that the current global health crisis has brought about is a massive flow of emerging-market portfolio investment resources to developed markets, specifically to low-risk financial assets in the United States. This phenomenon has led to a significant depreciation of virtually all emerging market currencies.

It is well known that the depreciation of exchange rates is a factor that can negatively impact the cost structure of insurance companies. This is an effect that is particularly relevant in markets and lines where the cost of claims is linked to repairs, services, medical treatments, products or machinery being imported. Therefore, under the current circumstances, this effect may be of particular relevance in emerging countries, where currency depreciation has been more significant. Similarly, as a side effect, the impact of the exchange rate depreciation on the cost of the loss ratio will put upward pressure on the level of premiums and, consequently, may entail an additional force that leads to a decrease in the demand for insurance products.

Financial volatility

The change in interest rates affects the valuation of assets in the balance sheets of insurance companies. Moreover, financial volatility has a particularly significant impact on insurance companies that hold Life insurance-linked investment portfolios.

By its nature, the health crisis arising from the COVID-19 pandemic has created an environment of financial volatility that will also affect the performance of insurance activities. High volatility and falling asset valuations in financial markets can have a significant impact on insurers. These insurers' investment portfolios are dominated by fixed income securities. A sharp increase in risk premiums on these securities has a direct impact on their valuation, which also falls sharply, all the more so the

Box 2.1.1 (continued)
Summary of the impact of the COVID-19 pandemic on the insurance industry

longer the durations of the bonds they hold in the portfolio. It should be noted that risk premiums may be affected by various influences, the two main factors being the state of liquidity of the financial markets and, closely related to this, the perception of a possible credit or insolvency risk affecting the counterparties involved in bond investments.

In countries with risk-based solvency regulation systems, there are mechanisms that allow insurance companies to correct the effects of occasional bouts of market volatility, given their nature as long-term investors. These mechanisms seek to prevent forced sales in times of financial market turbulence, with their consequent pro-cyclical effects. The business model of insurance companies leads to the maturities of their investment portfolios being largely aligned with the estimated payment path. This path comes from the commitments assumed in their insurance contracts, so that these assets can be conserved until they reach maturity.

Furthermore, the measures taken by the major central banks worldwide are largely helping to solve the problems of liquidity shortages in bond markets, allowing them to continue to function properly. Issuing companies and states can thus continue to place their issued products in order to gain access to the liquidity needed to deal with the situation they face and, most importantly, to be able to refinance their debts.

Likewise, the quantitative easing measures adopted to date by central banks have been generous, thereby easing bond spreads (risk premiums), particularly with regard to sovereign debt, but also to corporate debt. However, if the problem persists and bond counterparties begin to suffer an impairment in their credit quality, the situation may translate to the insurance companies' balance sheets. In this regard, the composition of their balance sheet is of particular relevance; markets in which the majority of investments is in sovereign bonds, backed by the asset acquisition programs of their respective central banks, have a more limited risk.

Finally, to summarize from a risk-based perspective, the environment of greater volatility created by the health crisis will generate an increase in liquidity risks (tempered by measures taken by central banks), as well as market and credit risks.

The health perspective

From a health point of view, the global COVID-19 crisis may have an effect on insurance activities in two aspects: an impact on the loss ratio of certain insurance lines, and potential adverse selection in the process of underwriting new risks.

Loss ratio

The most direct aspect of the health crisis has to do, of course, with the increase in the population's morbidity and mortality rates. In this aspect, because of the very nature of certain insurance products, the pandemic may have particular effects on some insurance lines.

Firstly, and depending on the features of insurance products in the different markets, the health line is one of the areas that could feel the greatest impact on the loss ratio. So far, the effects of COVID-19 do not appear to imply high health care costs that could entail a significant increase in the severity parameters under which health product premium estimates were calculated. However, disease contagion patterns could generate deviations from the

Box 2.1.1 (continued)
Summary of the impact of the COVID-19 pandemic on the insurance industry

frequent assumptions involved in these products, which, in the aggregate, could lead to insufficient premiums collected and, ultimately, the need to make additional technical provisions for this type of product. This phenomenon, taking into account the nature of the insurance companies' portfolios, could place additional stress on the cost structure, as well as generate increased operational risk, with the sudden rise in the number of cases to be dealt with.

In addition, insurance lines where mortality rates are taken into account for the technical design of products (Life and traditional life annuity insurance) may also be impacted by the effects of the pandemic on this variable. The impact, however, will be mixed depending on the composition of each insurer's risk portfolio, since only in the first case (Life insurance products) will higher mortality involve technical losses.

Underwriting of risks

Finally, the COVID-19 pandemic has also caused an information issue that may affect the insurance industry in terms of risk underwriting. This information problem concerns the uncertainty surrounding certain data that is essential to make an adequate technical assessment of the risk stemming from this virus; for example, the actual rate of infection, the recovery rate of the disease; and the immunity rate observed in recovered patients, among other data.

This situation, in which information is not yet available (in many cases, because it does not yet exist or has not been properly organized), may lead to an information asymmetry problem for insurers that could lead to adverse risk selection, even despite traditional preventive measures such as "qualifying periods." This situation may lead to new risks being underwritten from premiums that are insufficient and that require future technical provisions against the equity of insurers; or, in the face of uncertainty, to a decrease in the insurance offering for the health line, with a consequent effect on the reputational risk of companies.

Source: MAPFRE Economics

support the solution of the liquidity problems of bond-issuing counterparts, but it remains to be seen to what extent their solvency will be affected, especially with regard to corporate bonds. In addition, despite the positive effect that lower interest rates have on stimulating economic activity, from the insurance perspective, they have a negative effect on the sale of Life savings and traditional life annuity insurance products, as well as on insurance companies' financial income. As noted earlier, the environment of low interest rates has so far been a problem for developed economies (and thus their insurance sectors), but it is now also spreading to emerging markets with consequent implications for their insurance industries.

Meanwhile, from the point of view of fiscal policy, the response to this crisis has been to design and implement (with different levels of intensity) expansionary spending policies that seek to create a stimulus on aggregate demand and, consequently, on levels of economic activity. They also seek to provide support to companies, trade and people who have been unemployed because of distancing and confinement measures, to try to prevent this situation from causing structural damage to the economy that would hinder a return to normality as quickly as possible. However, in this case, the intensity of the implementation of these countercyclical policies is strongly conditioned by the (generally limited) fiscal space of each government.

Despite these measures, a significant drop in global GDP is anticipated in 2020, the largest since the Great Depression of the early twentieth century. Given the high degree of uncertainty over the length of time that social distancing and population confinement measures should remain in place, it is difficult to quantify what the impact this health crisis will have on the global economy in 2020, but it is estimated that (compared to 3% growth in 2019) it could mean a decrease ranging from -3% to -8.2%, depending on the evolution of risks (see Table A-1 in the Appendix to this report).

2.1.2 Eurozone

Insurance market performance outlook

Under the current circumstances, a fall in eurozone GDP is estimated in 2020 which, in the analysis scenarios of this report, has ranged from -5.1% to -12.4%, with a strong impact on the employment level and a sharp fall from 2019 growth of 1.2% (1.9% in 2018). Although there is great uncertainty, the outlook is for improvement in 2021, with an estimated GDP growth of 4.7% (see Table 1.2.2, and Charts 1.2.2-a and 1.2.2-b). Thus, the slowdown in the economy (resulting from social distancing and population confinement measures adopted as a result of the pandemic) has been added to a process of declining activity that had already been observed in the eurozone, triggering a recession unprecedented since World War II. This will have a significant impact on the insurance business, which is closely linked to economic behavior.

The response of the European Central Bank (ECB) has been rapid and resounding, with the massive use of unconventional monetary policy measures to provide liquidity to sovereign and corporate bond markets, with two asset acquisition programs approved for a combined amount of 870 billion euros and by making the maximum limits that can be acquired from the various Member States more flexible in order to increase the purchases of those that need it most. In addition to this, fiscal measures have been adopted by the Council of the European Union amounting to 540 billion euros, in addition to those already being taken by the Member States themselves.

This package of measures is helping to moderate the serious problems that could result from the lack of liquidity in the eurozone bond markets, allowing them to continue to function properly and relaxing risk premiums. This means that companies and issuing states will

continue to make their issuances, in order to access the necessary liquidity at a reasonable cost and to cope with the current situation and be able to refinance their debts. However, if the problem persists and bond counterparties begin to suffer a deterioration in their credit quality, the situation may translate to EU insurance companies' balance sheets.

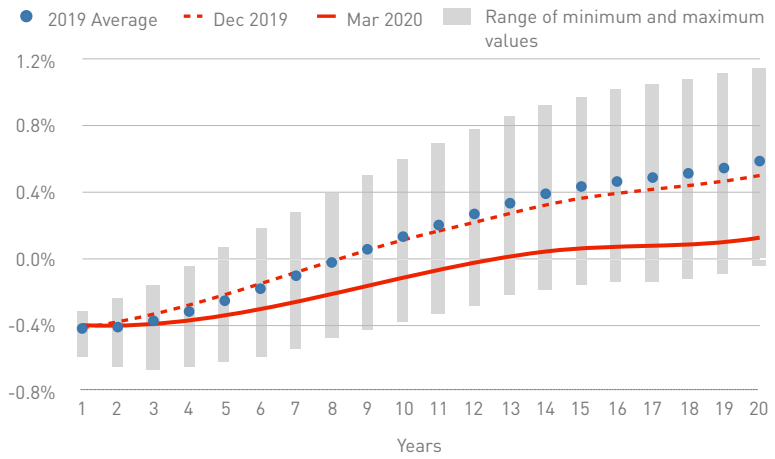
The current situation makes insurance markets vulnerable, especially those where most investment is in corporate bonds, and particularly for insurance companies whose counterparties are close to investment grade and which may suffer downgrades in their credit ratings, or even fall into insolvency. In this sense, the composition of the insurance balance sheet is of particular relevance, because in those markets, most investments are sovereign bonds backed by the asset acquisition programs of their respective central banks, which have a more limited risk.

In the eurozone, at the aggregate level, the insurance companies' share of investment in corporate bonds at the close of 2018 was 31.4%, compared to 51.5% in the United States market[11]. Within the eurozone, the Spanish insurance market has traditionally been more conservative in its investments, with a higher sovereign debt burden and a percentage of corporate bonds that amounted to 21.8% of the aggregate portfolio, so its exposure is lower. The same is true of equity investments, which have suffered widespread declines in valuations due to the pandemic crisis. At the close of 2018, markets in the United States and the eurozone accounted for over 13% of the total portfolio. At the disaggregated level in the eurozone, the Spanish insurance market is again notable, with a reduced percentage of equities, around 6% of the total portfolio.

Moreover, inflation has returned to its downward path, contributing to the fall in oil prices. On this occasion, the ECB did not consider it appropriate to extend the measures to additional interest rate cuts, which are already at all-time low levels. In March's risk-free yield curves produced by the European Insurance and Occupational Pensions Authority (EIOPA), however, there is a fall in rates along the curve from the previous quarter, presenting negative values that affect all curve times of less than 13 years. In practice, this prevents the development of Life savings and traditional life annuity lines of business (see Chart 2.1.2-a, which shows minimum levels, the average and maximum levels reached in 2019, as well as the level of the latest curves published by EIOPA for December and March 2020).

In addition, the Euro Stoxx 50 index, which had increased in the last quarter of the previous year by 25.8%, has fallen by more than 35% in the second half of March, as a result of the crisis triggered by the pandemic. This performance damages the development of Life

Chart 2.1.2-a
Eurozone: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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insurance products in which the policyholder assumes the risk of the investment, since the current situation and the substantial fall in the value of policies may lead to bailouts to those who need liquidity or do not want to expose themselves to greater losses. However, it could stimulate underwriting when an improvement in the development of the pandemic starts to occur.

Economic crisis and the insurance industry

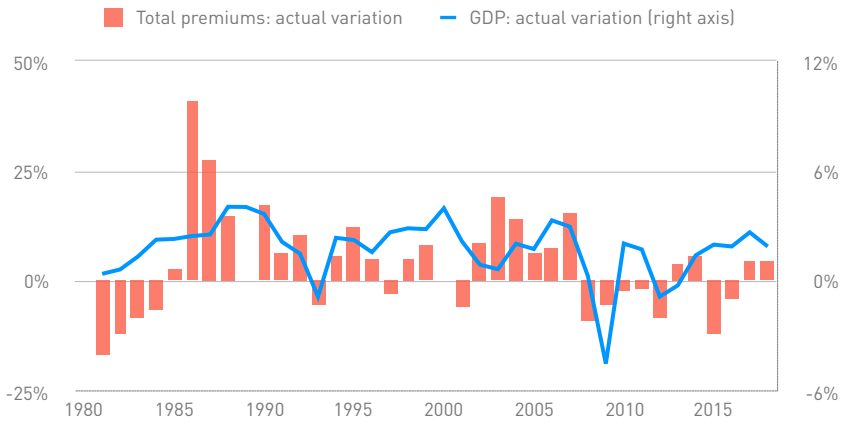
In order to have a reference to the possible effect on the insurance industry due to the crisis that the eurozone is facing, an analysis has been carried out of all the crises experienced since 1980 by all the countries that are currently part of it. In this analysis, two significant periods of crisis are notable because of their severity (see Chart 2.1.2-b).

The first is the economic crisis of the early 1980s, in which the insurance business fell in real terms by -16.5%. Over four consecutive years, several regressions occurred until positive growth was only achieved again in 1985. Also of note was the strong recovery in the growth of the insurance industry once the crisis was overcome, well above the declines in previous years, with an average annual growth of more than 20% between 1985 and 1988.

The second, and perhaps most significant, is the period between 2007 and 2012, in which the European insurance industry was hit hard by the crisis arising from the US real estate market (amplified by instruments in which mortgage debts had been collateralized). It culminated in the bankruptcy of Lehman Brothers in 2008, and the banking and sovereign debt crisis in the European Union in 2012. In this case, the declines in the real premium volumes of the insurance market, which reached -8.8% and -8.4% in 2008 and 2012, respectively, lasted for several years and, although the sector again experienced growth after the crisis, it recorded rates lower than in the pre-crisis period and regressed in 2015 and 2016, due to the ultra-accommodative monetary policy adopted to stimulate growth, which adversely affected (and continues to harm) the business of traditional Life insurance. Moreover, in the crises of the 1990s and in the early 21st Century (the "dotcom" crisis), the eurozone insurance industry also retracted. However, the falls in insurance premiums that occurred were limited to one year in duration, with a strong recovery in subsequent fiscal years.

Without having quantitative estimates, knowing the depth of the expected falls in GDP following the current crisis or knowing the interest rate environment at the time when the measures taken achieve a return to normal, the closest reference to the effects on the insurance industry will likely be that of the last crisis period from 2007-2012.

Chart 2.1.2-b
Eurozone: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

Such sharp declines in insurance premiums and the resulting policy bailouts often have a negative impact on insurance companies' profitability, because they have to cope with administration expenses that are fairly rigid to the downside with lower revenue from premiums, which increases its expense ratio.

2.1.3 Germany

Insurance market performance outlook

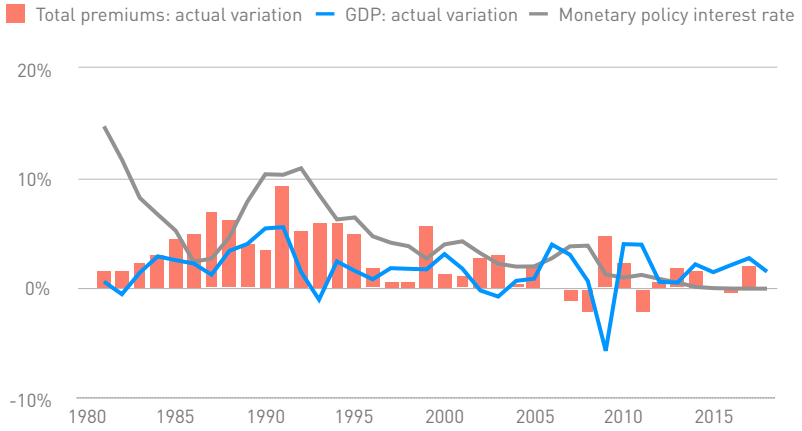
Before the coronavirus crisis broke out, a slight growth was expected for the German economy similar to the 2019 estimate of 0.6% (compared to 1.6% in 2018), with domestic private consumption as the main driver of growth. However, as a result of the global health crisis, the risk of recession has returned. It is anticipated to be profound, with GDP falling between -3.9% and -12.1% (according to the analysis scenarios in this report), because of the export nature of the German economy and its dependence on supply chains in other crisis-affected countries, coupled with the drastic drop in private consumption (see Table 1.2.4, and Charts 1.2.4-a and 1.2.4-b).

Germany's ample space for expansionary fiscal measures, which is exactly what it is doing, could help to bring the forecast closer to the top of the range, with the German economy expected to recover lost ground in 2021 with growth of around 4.9%. In any case, the fall in GDP in 2020 will undoubtedly affect the insurance business, which may experience a profound decline as a result of the deterioration of the economic situation.

Economic crisis and the insurance industry

Moreover, if the most recent crises experienced since 1980 by the German economy are taken as a reference (see Chart 2.1.3), it can be seen that the crisis of the 1990s caused a marked slowdown in the growth of insurance premiums, but without the demand for insurance suffering setbacks. However, the two subsequent crises (during the 2007-2012 period) did cause a decline in insurance industry premiums in single years, leaving the subsequent years' growth anchored at low levels, even below GDP growth. This can be attributed to the effect on the Life savings and traditional life annuity business because of the low interest rate environment that the entire economy of the eurozone

Chart 2.1.3
Germany: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

was plunged into as a result of these crises; an environment that will continue as a result of monetary expansion measures taken to address the economic impacts of the current pandemic.

2.1.4 Italy

Insurance market performance outlook

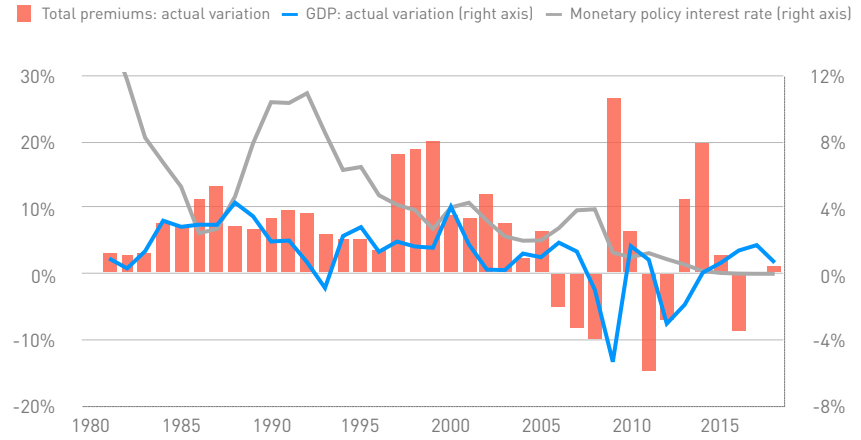
The forecast for the Italian economy according to the scenarios analyzed in this report is a fall in GDP within a range of between -7.6% and -14.9% in 2020, with a partial recovery in 2021, a year in which the economy could grow about 3.9% (see Table 1.2.5, and Charts 1.2.5-a and 1.2.5-b). In Italy, the situation before the coronavirus crisis was already one of low growth (0.3% in 2019), with a high level of public debt as the main vulnerability. Investment and consumption had experienced slight growth during the year, but have now experienced strong setbacks as a result of social distancing measures taken to confront the pandemic. Despite the lower fiscal margin in the Italian economy, the measures taken by the ECB have allowed it to continue to finance itself in the markets without an excessive rebound in the risk premium. This means it can implement important aid packages to families and companies most affected by population confinement measures. This economic environment will undoubtedly hinder the performance of the insurance business, especially the development of the Non-Life and Life protection lines of business of the insurance market.

Economic crisis and the insurance industry

On the other hand, after analyzing the previous crises that the Italian economy has suffered, it was observed that the country's insurance market was traditionally quite resilient to abrupt declines in GDP, with an insurance business that tended to slow down, but without experiencing setbacks. However, the two successive economic crises experienced in the 2007-2012 period did show a difference as they strongly affected the performance of the insurance business, which experienced profound setbacks over periods of two to three years, with very volatile behavior since then and a significant influence not just on GDP, but also on the interest rate environment, swings in the risk premium and the term premium of Italian sovereign debt (see Chart 2.1.4).

The sharp decline in GDP expected for 2020 will particularly harm Life savings, Life investment and traditional incomes, because of the loss

Chart 2.1.4
Italy: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

of business and the increase in bailouts that may occur for people who have remained in need. To this must be added the negative effect that the fall of the stock markets may cause on the perception of Life insurance in which the policyholder assumes the risk of investment and in the mixed Life savings-investment products (which were beginning to be widely publicized in Italy), while low stock prices could attract investors who have liquidity and are willing to take risks. In the case of incorporating financial guarantees, the high volatility of the financial markets will increase the cost of covering these guarantees, to the detriment of the profitability of these products. Such sharp declines in insurance premiums and policy bailouts may also have a negative impact on insurance companies' profitability, because they have to cope with administration expenses that are fairly rigid in the event of lower revenue from premiums, which increases the expense ratio.

2.1.5 Spain

Insurance market performance outlook

The social distancing and population confinement measures to manage the health crisis caused by the COVID-19 pandemic, adopted in Spain since mid-March, will lead to a recession of its economy. GDP could fall back for all of 2020 in a range between -5.6% and -10.7% (according to the analysis scenarios considered in this report), compared with a growth of 2% in 2019 (2.4% in 2018). The effects on employment, trade, tourism and industry are unprecedented, and their impacts will largely depend on the length of time the measures should be extended. The economy could recover in 2021, with an estimated growth of around 4.4%, although with much uncertainty regarding the estimates (see Table 1.2.3, and Charts 1.2.3-a and 1.2.3-b).

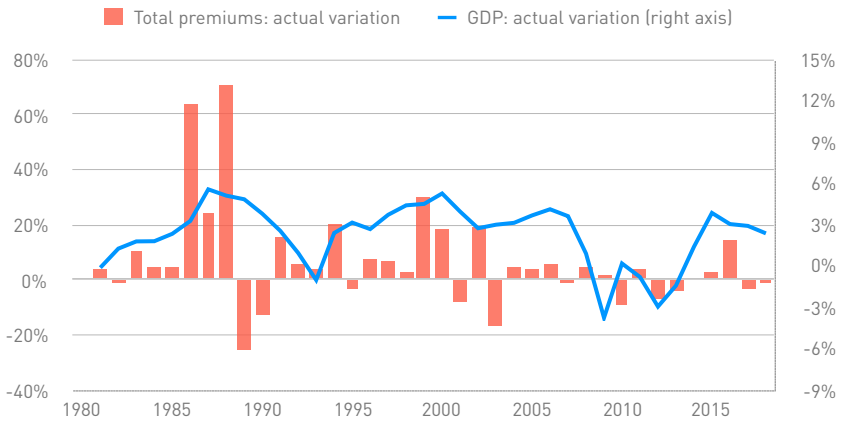
This complex environment will undoubtedly have a significant negative effect on the Spanish insurance market, both at the business level and on insurance companies' balance sheets.

Economic crisis and the insurance industry

If the most recent economic crises in Spain since 1980 are taken as a reference, the periods that most closely compare to the current situation in the sector in terms of severity of the expected impact are the two crises of the 2007-2012 period. They were virtually consecutive, which led to sharp drops in GDP and a decline in insurance industry premiums also in single years (see Chart 2.1.5).

In these events, GDP fell from -3.8% and -3% in 2009 and 2012, respectively, which led to a decline in insurance industry premiums of -8.8% and -7.4% in 2010 and 2012, particularly affecting the Life business but also automobiles, industrial multirisk, third-party liability, transport (hull and merchandise) and credit insurance.

Chart 2.1.5
Spain: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

Health, homeowners and condominium insurance lines were resistant at the worst moments of those crises and only slowed down. Such sharp declines in insurance premiums and policy bailouts often have a negative impact on insurance companies' profitability, because they have to cope with administration expenses that are fairly rigid in the event of lower revenue from premiums, which increases the expense ratio. Once these moments passed, the aftermath of the ECB's measures at the time, with interest rate declines to negative levels (which remain in place today and are going to continue for a long time), led to the growth of insurance premiums in subsequent years anchored at low, even negative, levels that were below GDP growth. This was essentially because of the effect of the low interest rate environment on the traditional life annuity and Life savings insurance business. However, it should be noted that the Non-Life business lines again experienced significant growth after the crisis, and health insurance premiums even showed a countercyclical behavior. One of the engines of growth of the sector in this period was the Non-Life business. Finally, it should be noted that the slowdown and subsequent recession of the late 1980s and early 1990s are not representative of the distortion in the growth of insurance premiums, which involved the process of externalizing companies' pension commitments to their workers that took place at that time.

With regard to the effects of the current crisis on the balance sheets and solvency of insurance companies, it is worth mentioning the fact that the Spanish insurance industry has traditionally had a markedly conservative nature in its investments, in which Spanish and other eurozone sovereign bonds are the main investment, which, having been backed by the ECB's broad asset acquisition programs, have a more limited risk. This feature, which was starting to be questioned due to reasons of profitability (as is often the case in periods of low interest rates and good stock market behavior), has proved to be an appropriate policy that is allowing the sector to deal with the current complex situation with solvency.

2.1.6 United Kingdom

Insurance market performance outlook

According to the macroeconomic scenarios analyzed in this report, the forecast for the UK economy is a fall in GDP in a range of between -5.1% and -10.1% in 2020, compared with 1.4% in 2019. The British economy could recover in 2021, with growth that could be around 6.1%. However, there is much uncertainty regarding these increases, as mentioned when analyzing the previous markets (see Table 1.2.6, and Charts 1.2.6-a and 1.2.6-b).

In the case of the United Kingdom, there is also uncertainty about the effect on its economy following the exit from the European Union at a time when, prior to the problems caused by the pandemic, consumer and business confidence indicators were already pointing to a slowdown. So far, the unemployment rate has remained low (around 3.8%), but the social distancing measures taken have drastically changed the situation and it remains to be seen whether these pre-crisis levels can be recovered if the situation continues over the next few months. This environment will have a negative impact on the development of the Non-Life and Life protection insurance business, which has already been slowing down and may suffer sharp setbacks, given the magnitude of the decline in estimated GDP (greater than in 2009).

With regard to Life savings and traditional life annuity insurance, given the magnitude of the crisis caused by the pandemic, the Bank of England reacted with two interest-rate cuts and a quantitative easing program for asset acquisition of up to 650 billion pounds sterling. In EIOPA's risk-free yield curves, there is a general drop in the interest rates for all segments of the curve with respect to the previous quarter, even coming in below the minimum levels for 2019 in all segments (see Chart 2.1.6). The sharp decline in GDP expected this year

and the low interest rate environment will undoubtedly damage the development of Life savings, Life investment and traditional annuity business, due to the loss of business and the bailouts that may occur.

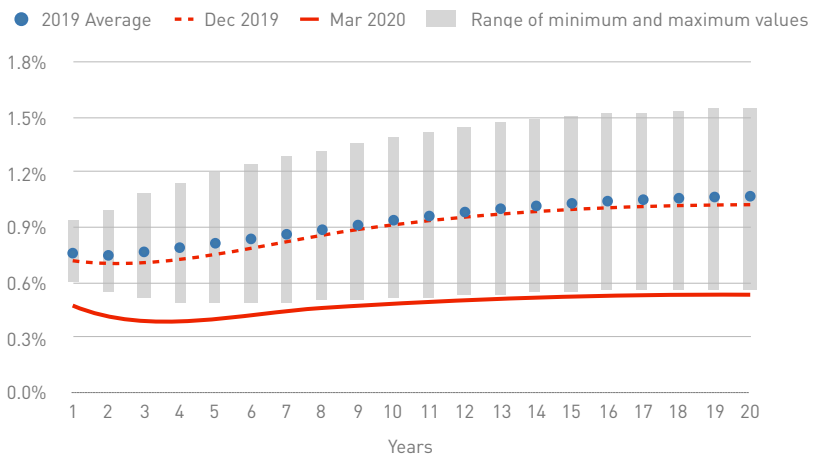
It is necessary to add to this the negative effect that the fall of the stock markets may cause on the perception of Life insurance in which the policyholder assumes the risk of investment, widely distributed in the British market, while the low levels of stock prices may attract investors who have liquidity and are willing to take risks. Likewise, for products incorporating financial guarantees, the high volatility of financial markets increases the cost of covering these guarantees.

Lastly, it is necessary to consider the negative effect that an impaired credit rating and possible insolvency of corporate bonds held in their portfolios, representing a majority percentage of their investments, could have on the shareholders' equity of insurance companies, rising to 36.5% of the aggregate portfolio of their traditional business at the close of 2018[12].

Economic crisis and the insurance industry

Moreover, when looking at what has happened in the United Kingdom insurance market in the economic crises experienced since 1980, it is noted that the crisis that is closest to the current situation is

Chart 2.1.6-a
United Kingdom: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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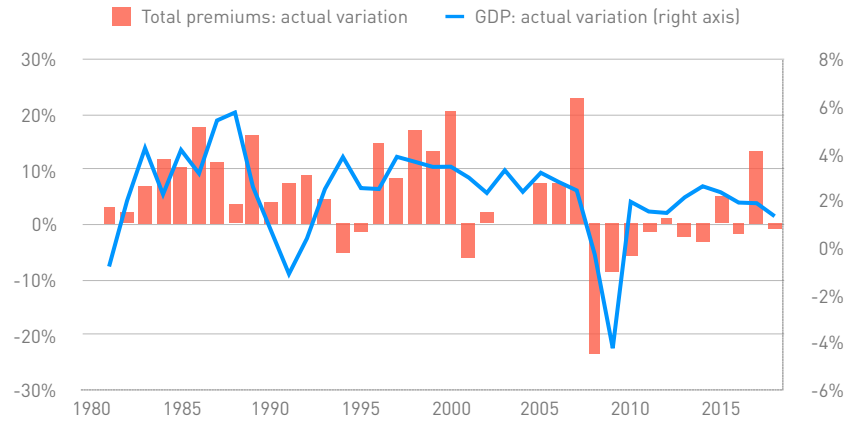
Chart 2.1.6-b
United Kingdom: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

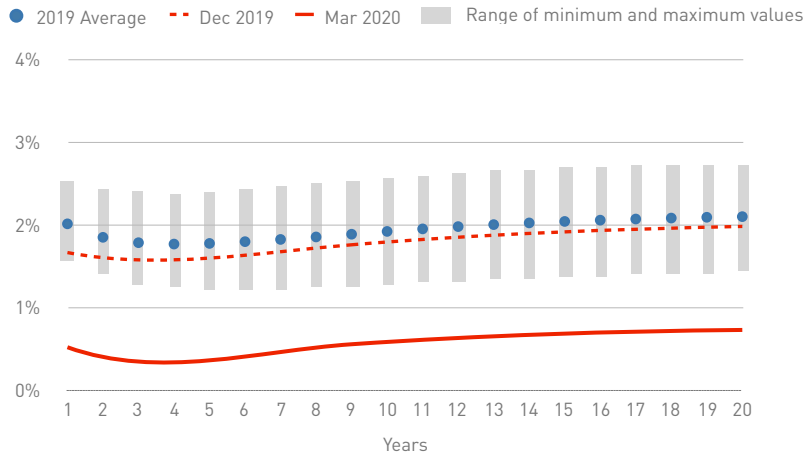
2007-2009, in which GDP fell by -0.3% and -4.2% in 2008 and 2009, respectively, leading to a decline in insurance industry premiums of -23.5% and -8.7% during those years with no clear signs of recovery since then (see Chart 2.1.6-b). These huge declines in insurance premiums originated in the Life business and largely contributed to the stock market declines of -17.5% and -14.8% in 2008 and 2009, respectively, in a market with a high prevalence of Life insurance in which the policyholder assumes the risk of investment. The sharp falls in insurance premiums and the policy bailouts that occur in situations of crisis also have a negative impact on insurance companies' profitability, as they have to cope with administration expenses that are quite rigid against lower premium revenue.

2.1.7 United States

Insurance market performance outlook

The situation caused by the COVID-19 pandemic has led to a total shift in US economic expectations, which anticipate a recession, with GDP potentially falling within a range of between -4.1% and -10.8% in 2020 (based on the analysis scenarios considered in this report), after growth of 2.3% in 2019 (2.9% in 2018). Social distancing measures, with the consequent disruption of non-essential economic activities, have led to unprecedented job destruction within a short space of time. Recovery is expected in 2021, but there is great uncertainty as to the estimates and structural effects that may result from the present crisis, despite the unprecedented monetary and fiscal expansion measures that the US authorities are taking (see Table 1.2.1, and Charts 1.2.1-a and 1.2.1-b). It is expected that the sharp fall in GDP in 2020 will have a negative impact on the development of the insurance industry, both on the Non-Life and Life protection business (the growth of which is closely linked to economic behavior), as well as Life savings, Life investments and traditional annuity. This is due to

Chart 2.1.7-a
United States: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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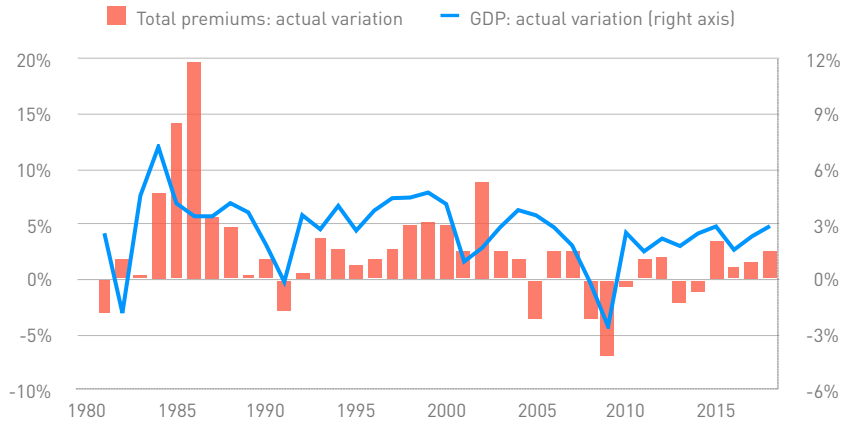
the loss of business and the bailouts that may occur for those people who are in need, given that they cannot carry out their normal work.

It is necessary to add to this the negative effect that the fall of the stock markets may cause on the perception of Life insurance in which the policyholder assumes the risk of investment, while the low stock prices may attract investors who have liquidity and are willing to take risks. Also, for products that incorporate financial guarantees, as with some modalities of "variable annuities" (very common in the US insurance market), the high volatility of financial markets increases the cost of coverage of these guarantees and may produce significant losses for insurers with dynamic coverage programs, which in these

situations are not fully effective. Lastly, it is necessary to consider the negative effect that impaired credit rating and possible insolvency of corporate bonds held in their portfolios, representing a majority percentage of their investments, could have on the shareholders' equity of insurance companies, rising to 51.5% of the aggregate portfolio at the close of 2018[13]. The Life savings business, for its part, will be damaged by the low interest rate environment, following the Federal Reserve's last rate drop to near-zero levels. Thus, in the last risk-free yield curves produced by EIOPA, the drop in the rates is observed in all sections of the curve (see Chart 2.1.7-a).

Chart 2.1.7-b
United States: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

Economic crisis and the insurance industry

Moreover, when looking at what has happened in the United States insurance market in the crises experienced since 1980 by the US economy, it is noted that the crisis that is closest to the current situation is that of 2007-2009, with GDP falling by -2.5%. This led to a decline in insurance industry premiums of -7% in that year, with no clear signs of recovery since then, unlike the crises of the 1980s and 1990s, which were accompanied by a solid recovery with real growth exceeding GDP growth once the economy regained its growth path (see Chart 2.1.7-b). The sharp falls in insurance premiums and the policy bailouts that often occur in such situations also have a negative impact on the profitability levels of insurance companies, as they have to cope with administration expenses that are quite rigid against lower premium revenue.

2.1.8 Brazil

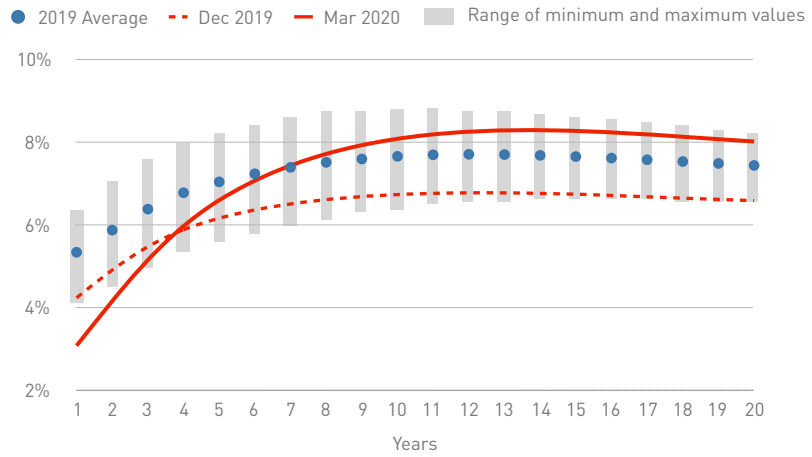
Insurance market performance outlook

In Brazil, the economic expectations for 2020 considered in the analysis scenarios of this report anticipate a decline in GDP in the range of -2.7% to -9.9%, compared with the estimated real growth in 2019 of 1.1% (see Table 1.2.10, and Charts 1.2.10-a and 1.2.10-b). The crisis caused by the pandemic has reversed the improvement in consumption, private investment and public accounts (by reforms implemented to control public spending) that had been underway in previous quarters. Recovery is expected in 2021, but there is great uncertainty as to the economic growth and structural effects that may result from the current crisis. This is despite the monetary and fiscal

expansion measures being taken by the Brazilian authorities, with aid to the most vulnerable population.

One important aspect is that the current situation has led to unprecedented capital outflows of non-residents, resulting in a sharp depreciation of the Brazilian real against the dollar, at around 25% in the first quarter of the year. This situation is detrimental to the development of the insurance industry, particularly for the Non-Life business, the growth of which is closely linked to economic behavior. The impairment in the exchange rate of the Brazilian real negatively affects the profitability of this business line, due to the increase in the cost of repairs in the event of a claim, in cases where imported materials are to be used, and due to the increase in the cost of

Chart 2.1.8-a
Brazil: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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reinsurance, the contracts of which are often negotiated in dollars. In addition there is the effect on shareholders' equity and turnover of those international insurance groups that must consolidate their accounts in a strong currency. It should be noted that the provisional measure announced in November by the federal government of Brazil, which extinguishes the Insurance for Personal Damage caused by Motor Vehicles on Roads, was eventually ineffective when passed through Congress. Instead, the federal government has established a measure of lower impact, setting price limits that can be applied to compulsory coverage.

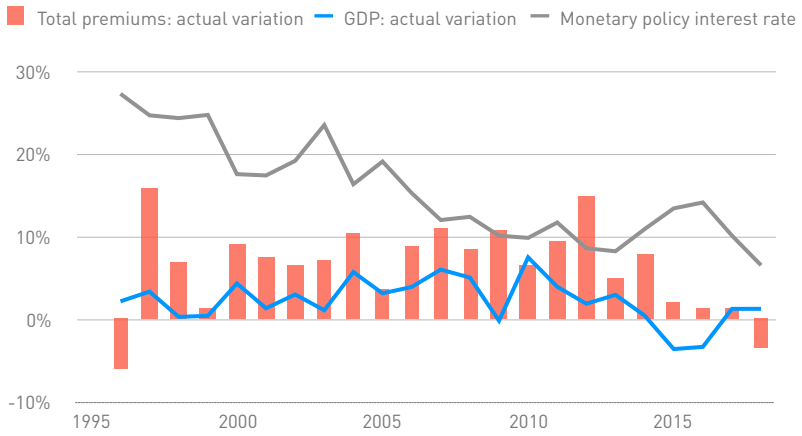
The accommodative monetary policy adopted by the Bank of Brazil to try to stimulate economic activity will pose additional difficulties to the Life savings business, due to the fall in profitability that this type of product can offer to insurance policyholders. The economic situation may also lead to a marked increase in bailouts by people who are suffering from a fall in revenue as they are unable to carry out their work as a result of the pandemic. EIOPA's risk-free yield curves show the fall in short-term risk-free rates, but it is also noted that the curve continues to increase its positive slope (see Chart 2.1.8-a). This may soften the negative effect of GDP reduction and the short-term rate drop on the life annuity and Life savings insurance business, by being able to offer medium- and long-term guaranteed rates above short-term rates. Interest rates on all maturities are already far from those achieved in previous years, which does not help business development, but expectations that some additional downfall may occur may be an incentive to market new products for this business segment.

Economic crisis and the insurance industry

Moreover, in analyzing the crises experienced by Brazil's economy since 1995, the situation that can most be assimilated to the current period would be that experienced in 2015 and 2016, in which GDP fell

-6.8% in aggregate (see Chart 2.1.8-b). During that period, the insurance industry experienced a sharp slowdown, without experiencing setbacks (from 8% growth in 2014 to 2% in 2015 and 2016, in real terms). However, it must be clarified that, at the time, the Brazilian central bank adopted a contractionary monetary policy with strong interest rate rises in order to control inflation. This measure favored the development of Life savings insurance, a major business in the Brazilian insurance market. On this occasion, however, the monetary policy applied is being accommodative (with lower interest rates), and therefore the favorable effect on the Life business cannot be counted upon. In this context, the insurance industry could experience a reduction in total turnover, in real terms, unlike what happened during the previous crisis.

Chart 2.1.8-b
Brazil: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

In addition to the expected fall in turnover is the negative effect on the shareholders' equity of insurance companies resulting from increased volatility and risk premiums in financial markets. However, in the face of this complex outlook, it is also important to note that the return to recovery planned for 2021 would lead to an intense recovery of the insurance business, as can be seen in the analysis of the series shown in Chart 2.1.8-b. Here, moderate GDP growth is seen to lead to larger growth in the insurance business, characteristic of emerging markets, where the low level of insurance penetration in the economy makes its elasticity in the event of GDP growth higher than in developed markets, where the level of competition and saturation of insurance markets is higher.

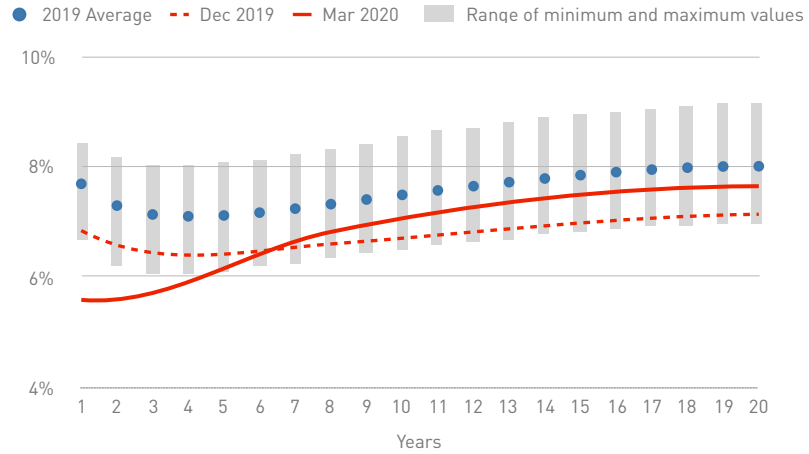
2.1.9 Mexico

Insurance market performance outlook

In Mexico, the economic standstill caused by the application of social distancing measures to deal with the COVID-19 pandemic is expected to have an amplified effect on the performance of the economy due to the sharp fall in the price of oil, given that this is a producer country. In this context, in line with the scenarios analyzed in this report, economic expectations for 2020 anticipate a decline in GDP that could be within a range of between -3.9% and -12.5%, following zero growth in 2019 (see Table 1.2.9, and Charts 1.2.9-a and 1.2.9-b). As in the other economies analyzed in this report, a recovery of the Mexican economy is expected in 2021, with economic growth estimated at around 3.2%. However, there is great uncertainty as to the estimates and structural effects that may result from the current crisis, despite the monetary and fiscal expansion measures being taken by the Mexican authorities.

As in other emerging markets, the current global economic situation has led to unprecedented capital outflows of investment from non-residents of Mexico, with a sharp depreciation of the Mexican peso against the dollar, which exceeded 30% in the last week of March. The sharp decline in GDP expected this year will undoubtedly affect the development of insurance activity in Mexico, particularly for the Non-Life and Life protection business, the growth of which is closely linked to economic behavior. The impairment of the exchange rate will, in turn, have a negative effect on the profitability of the sector, due to the increase in the cost of repairs by insurers in cases where imported materials are to be used and due to the increase in the cost of reinsurance. The effect on the shareholders' equity and turnover of insurance groups must also be noted, which must consolidate their accounts in a strong currency.

Chart 2.1.9-a
Mexico: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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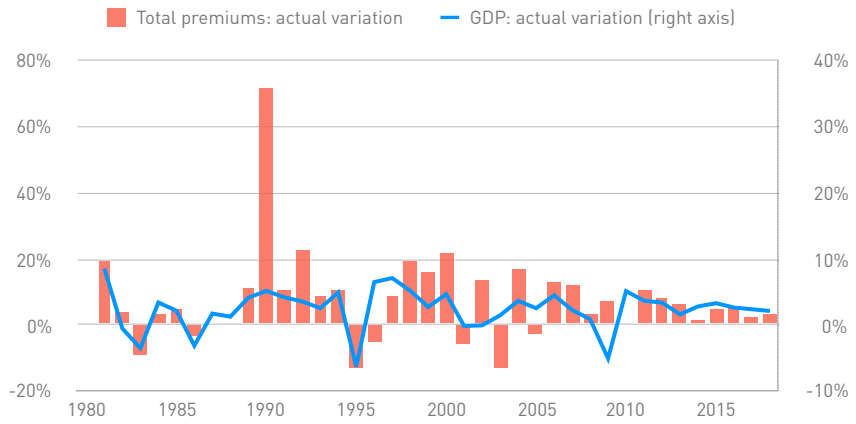
Moreover, the accommodative monetary policy adopted by the Bank of Mexico that attempts to generate stimulus to economic activity will have adverse effects on the development of the Life savings business, due to the fall in profitability that this type of product can offer. The economic situation may also lead to a marked increase in bailouts by people suffering from a fall in revenue, given that they are unable to carry out their normal work as a result of the pandemic, which is still in a less advanced stage of development than other countries. In EIOPA's risk-free yield curves, a rate drop at the end of March may be observed, with a curve that has shifted to a positive slope in virtually all of its sections (see Chart 2.1.9-a). This can soften the negative effect of GDP reduction and the short-term interest rate drop on the life annuity and Life savings insurance business by offering a positive term premium, enabling the offering of guaranteed medium- and long-term rates higher than short-term rates. Expectations that some additional downfall may occur could also be an incentive to market new products for this business segment.

Economic crisis and the insurance industry

In addition, when looking at what has happened in the insurance market in the crises experienced since 1980 by the Mexican economy, it is observed that, during the 1995 crisis, GDP fell by -6.5%. This led to a drop in insurance premiums of -13% during that year and -5% during the following year, despite the economic recovery (see Chart 2.1.9-b). However, during the next four years, the insurance industry experienced strong growth, well above GDP growth, with real average growth (once the effect of inflation had been corrected) of 16% per year. During the Great Recession of 2007-2012, the Mexican insurance industry showed great resilience, slowing down but without experiencing setbacks despite the -5% GDP decline in 2009. In this

Chart 2.1.9-b
Mexico: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

year the insurance industry experienced real growth of 7%, anticipating the subsequent economic recovery. The low level of insurance penetration in the Mexican economy, which results in economic conditions that translate into higher growth in the insurance business, also helped in these recoveries, as is often the case in other emerging markets.

2.1.10 Argentina

Insurance market performance outlook

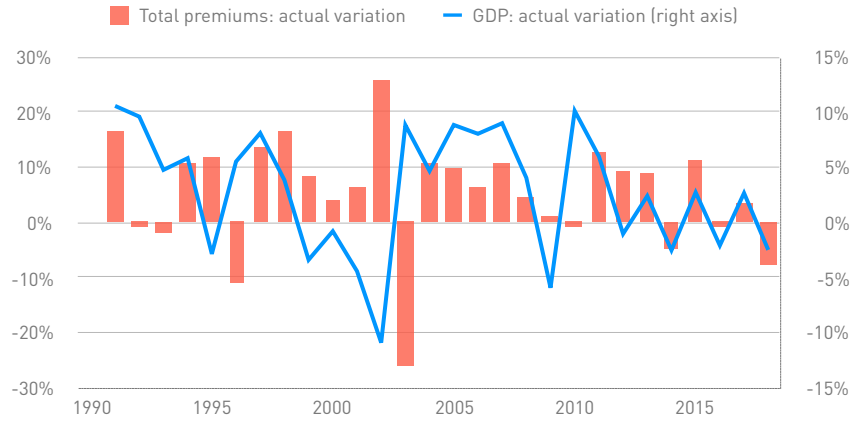
In line with the analysis scenarios considered in this report, the growth forecast for the Argentine economy in 2020 is that of a fall in GDP that could range from -5.7% to -13.3%, in real terms, versus -2.2% in 2019 (see Table 1.2.11, and Charts 1.2.11-a and 1.2.11-b). Private investment and consumption continue to suffer severe setbacks, which have been aggravated by social distancing measures taken as a result of the health crisis caused by the pandemic. Falling imports and rising exports due to currency depreciation are helping to balance the current account, avoiding even sharper declines in GDP. The structural vulnerabilities affecting its economy, mainly resulting from external borrowing in dollars, have been stifling it due to the sharp depreciation that the Argentine peso suffered in 2019, and that was aggravated in the first quarter of this year, with an additional depreciation of 7.1%.

This environment of strong recession negatively affects the development of the insurance business, especially the Non-Life and Life protection business lines. Inflation remains high, at around 50% year-on-year, which negatively affects the profitability of insurance companies by increasing the cost of claims. The central bank has lowered the reference interest rate to 38% in support of the economy, compared with 55% at the end of the year, but it has little room to maneuver and must keep it at high levels to avoid further currency depreciation, and to try to control inflation. However, the insurance industry in Argentina cannot fully benefit from high monetary policy interest rates to offset the effects of inflation in the cost of claims, due to regulatory limits imposed on insurance companies on investments in short-term public debt instruments. These limits also restrict the development of temporary Life savings insurance products that can be renewed annually with short maturities and renegotiation of the guaranteed rate at each maturity, which are appropriate in these situations where the yield curve is reversed.

Economic crisis and the insurance industry

Looking at what happened in the Argentine insurance market in the economic crises experienced since 1990, in the crisis in the late 1990s and early 2000s, which culminated in a GDP decline of -11% in 2002,

Chart 2.1.10
Argentina: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

the Argentine insurance market maintained positive real growth until 2003, in which it suffered a sharp real contraction of -26%, when the economy started to recover (see Chart 2.1.10). However, in the four years after that drop, the insurance industry recovered with an average annual growth of 9.5%, in real terms, above real GDP growth, which grew an average of 7.6% in that period. Subsequently, the global crisis that began with the demise of Lehman Brothers affected the Argentine economy, which suffered a drop in GDP of -5.9% in 2009. However, this event had a smaller impact on the insurance market's progress, which slowed down and experienced a -0.9% decline in 2010. But, again, it recovered remarkably in the three years following the crisis with real growth averaging 10.3% per year, well above GDP growth. Since then, the Argentine economy and insurance industry entered a dynamic in which they had been alternating a year of crisis with a year of slight growth, until the 2018 crisis that is currently continuing to increase its drive due to the added effect of social distancing measures as a result of the COVID-19 pandemic.

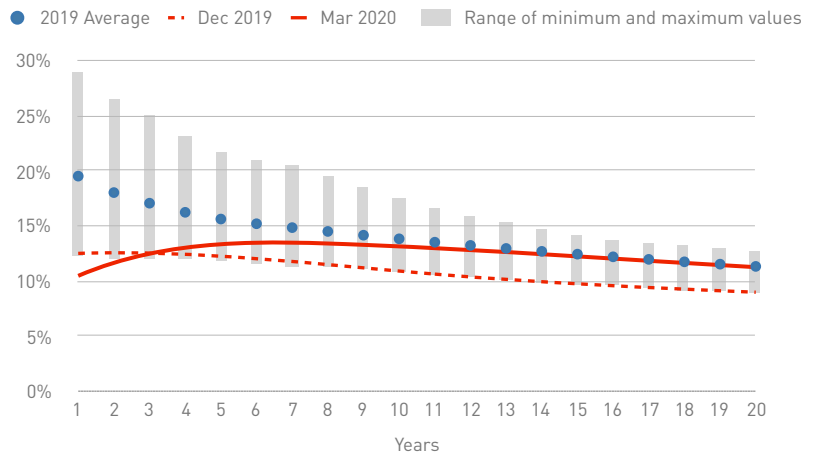
2.1.11 Turkey

Insurance market performance outlook

In line with the analysis scenarios considered in this report, the forecast for the Turkish economy is a decline in GDP ranging from -1.2% to -8.7% in 2020, in real terms, against growth of 0.8% in 2019 (3.1% in 2018). Prior to the pandemic, Turkish economic indicators and expectations were improving, although a number of structural vulnerabilities persisted, mainly stemming from external private borrowing in dollars. If the situation related to the pandemic's development improves, the Turkish economy could experience a significant recovery in 2021, with economic growth estimated at around 5.8%. Although there is great uncertainty regarding the estimates and structural effects that may arise from the present crisis, despite the monetary and fiscal expansion measures (equivalent to 2% of GDP) being taken by the Turkish authorities (see Table 1.2.8, and Charts 1.2.8-a and 1.2.8-b). As in other emerging markets, the current situation has led to unprecedented capital outflows of investment from non-residents, with a sharp depreciation of the Turkish lira against the dollar, which has reached 15% year-to-date. The inflation rate is stabilizing, which is contributing to the drop in oil prices, but is still at high levels (around 9% in the first quarter of 2020), with the negative impact that the impairment of these two indicators has on the cost of insurance company claims.

The projected drop in GDP this year will be detrimental to the insurance industry's development, particularly for the Non-Life and Life

Chart 2.1.11-a
Turkey: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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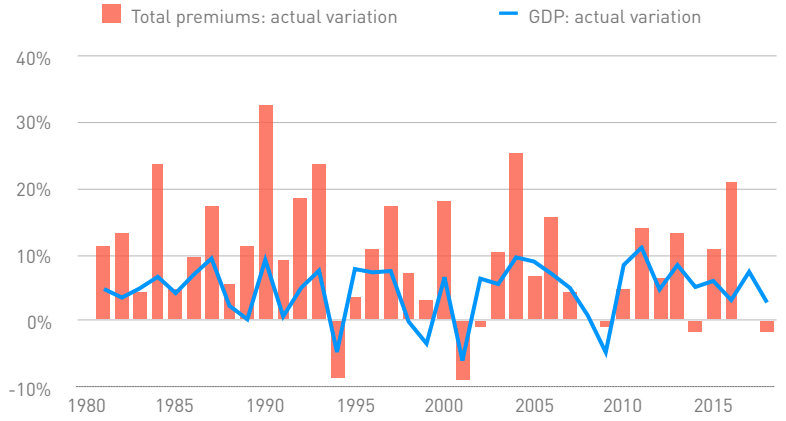
protection business, which is closely linked to economic performance. This is coupled with the effect of exchange rate depreciation on shareholders' equity and the turnover of insurance groups that must consolidate their accounts in a strong currency. The high interest rates of monetary policy that remain high (9.75% since mid-March) may help compensate in part for these adverse effects, underpinning the financial profitability of these business lines.

In the risk-free yield curves developed by EIOPA, the rate drop at the end of March can be observed, with a curve that has shifted to a positive slope in its short and medium sections (see Chart 2.1.11-a). This could soften the negative effect of GDP contraction and the short-term rate drop on life annuity and Life savings insurance business by offering a positive term premium, allowing insurance companies to offer products with better guaranteed medium-term rates than short-term rates. Expectations of an additional interest rate drop may also be an incentive to market new products for this business segment. The economic situation, however, may lead to a marked increase in bailouts by those people suffering from a drop in income, because they are unable to carry out their work as a result of the pandemic.

Economic crisis and the insurance industry

In addition, when looking at what happened in the Turkish insurance market in the economic crises experienced since 1980, it can be seen that the 1994 crisis, the year in which GDP fell -4.7%, saw a drop in insurance premiums of -8.3% in that year (see Chart 2.1.11-b). Over the next four years, however, the insurance industry experienced

Chart 2.1.11-b
Turkey: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

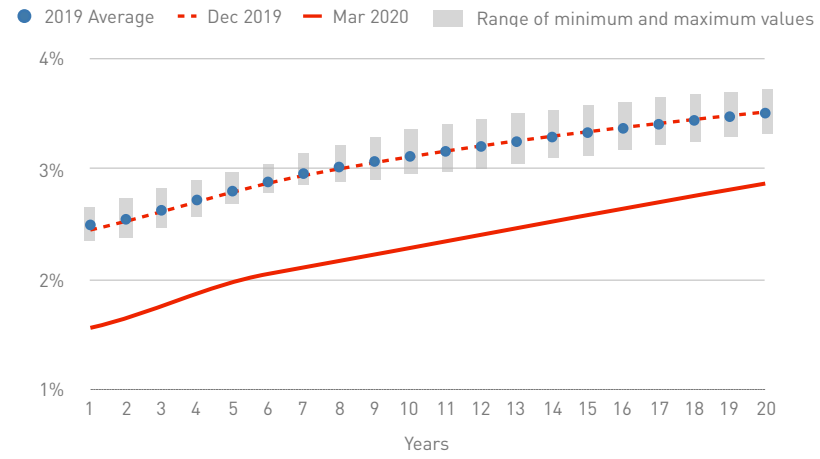
strong recoveries, with real growth (after correcting for the effect of inflation) averaging 10% annually, significantly higher than GDP growth, which had an average growth of 5.7%. Moreover, in the 2007-2009 crisis, the Turkish insurance industry experienced a sharp slowdown during the early years of the crisis and a slight decline in 2009 of -1%, when the fall in Turkish GDP was -4.7%. Significant growth in insurance premiums returned in the subsequent four years, also higher on average than the average economic growth in those years. Therefore, the Turkish insurance industry showed considerable resistance in this latest crisis, as has been observed in other emerging markets. These recoveries are aided by the low level of insurance penetration in the Turkish economy, which leads to an improvement in economic conditions that translates into larger growth in the insurance business.

2.1.12 China

Insurance market performance outlook

In China, economic expectations for 2020 anticipate a decline in GDP in the range of -0.6% to -6%, compared with real growth in 2019 of 6.2%, in line with the analysis scenarios considered in this report (see Table 1.2.12, and Charts 1.2.12-a and 1.2.12-b). The economic crisis caused by the COVID-19 pandemic is driving significant setbacks in consumption, private investment and exports. China was the first economy to suffer the effects of the health crisis and to take social distancing and confinement measures in areas affected by the pandemic. It was also the first country to gradually lift these measures, which is already reflected in some of the leading indicators of activity. In 2021, a recovery is expected that could be at levels around 9.8%, but there is great uncertainty as to the economic growth and structural effects that may arise from the present crisis.

Chart 2.1.12-a
China: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

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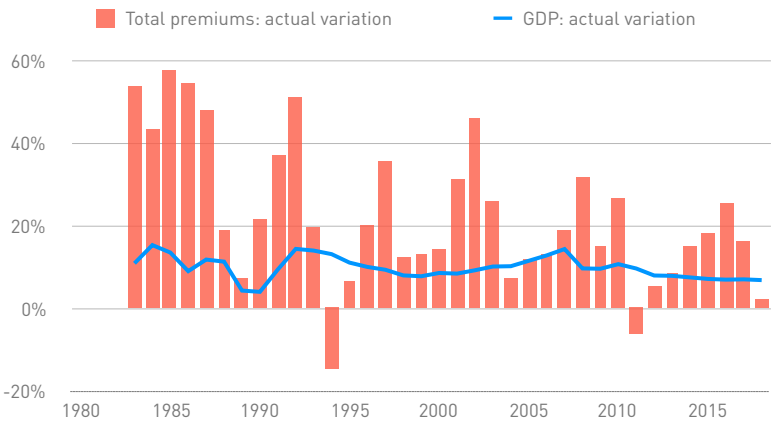
This economic and health environment will hinder the development of the insurance industry in China, particularly with regard to Non-Life and Life protection business, the growth of which is closely linked to economic performance. The Chinese government is pursuing a fiscal and monetary stimulus program to counter the effects of the pandemic, which could prevent an even greater recession and accelerate the return to economic growth. The risk-free yield curves developed by EIOPA show a drop in short-term risk-free rates and the curve continues to show a positive slope (see Chart 2.1.12-a). This may soften the negative effect of GDP contraction and falling interest rates on the life annuity and Life savings insurance business, by being able to offer better medium- and long-term guaranteed rates than short-term

rates. Interest rates on all maturities are already far from those achieved in previous years, which will complicate business development. At the moment, it is exposed to the risk of business loss due to bailouts that may occur due to those people in need as a result of not being able to carry out their normal work because of the pandemic. It should be noted, however, that the expectation that further declines in interest rates to support the economy may be an incentive to market new products for this business segment, when recovery begins to gain strength. In addition, it is necessary to consider the negative effect that an impaired credit rating and possible insolvency of counterparts of corporate bonds that Chinese insurance companies have in their investment portfolios may have on the shareholders' equity of insurance companies.

Chart 2.1.12-b
China: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

Economic crisis and the insurance industry

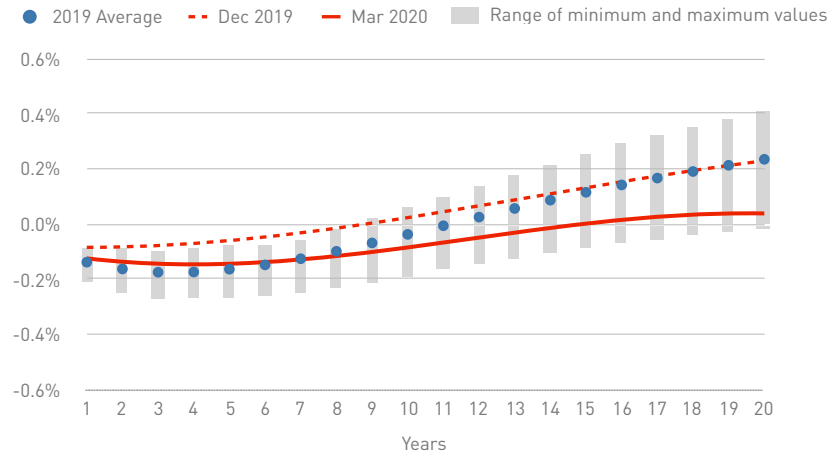
Furthermore, analyzing what happened in the Chinese insurance market in the economic crises experienced since 1980 reveals that in the 1994 crisis and the 2011 crisis, the Chinese economy suffered only slight contractions in terms of GDP. However, insurance industry premiums fell significantly in those years, -15% and -6%, respectively. In the following four years, however, the insurance industry experienced strong growth, significantly higher than GDP growth, with real average growth (after correcting for the effect of inflation) of 19% per year and 12% from 1994 and 2011 respectively (See Chart 2.1.12-b). As in other cases, these recoveries have also helped the low level of insurance development in the Chinese economy, the penetration rate of which is still far from the levels of more developed economies.

2.1.13 Japan

Insurance market performance outlook

Before the advent of the COVID-19 pandemic, the Japanese economy was already in contraction, which, along with the effects of measures taken to prevent its spread, anticipates a strong recession, with a fall in GDP that could range from -4.8% to -13.8% in 2020 (in line with the analysis scenarios established in this report), compared with a growth of 0.7% in 2019 (0.3% in 2018). Recovery is also expected in 2021. However, there is great uncertainty as to the estimates and structural effects that may arise due to the present crisis, despite the monetary and fiscal expansion measures taken by Japanese authorities, in a country where the spread of the disease has been, at least for the time being, less virulent (see Table 1.2.7, and Charts 1.2.7-a and 1.2.7-b).

Chart 2.1.13-a
Japan: risk-free yield curve
(%)



Source: MAPFRE Economics (with data from EIOPA)

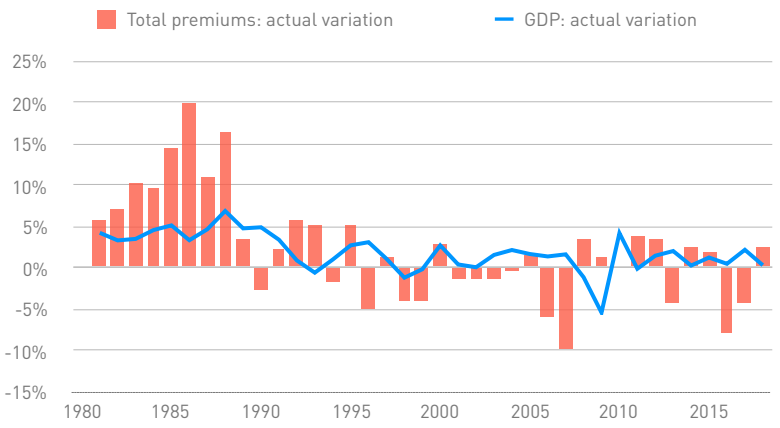
Click here to access the interactive version of this information

From the perspective of insurance activity, the sharp decline in GDP planned for this year will undoubtedly damage its development, especially in the Non-Life and Life protection business, in which growth is highly linked to economic performance. In addition, in the risk-free yield curves developed by EIOPA, rates are seen to fall again, showing negative values for maturities up to 15 years and a very depressed term premium from those maturities. This makes it very difficult to market life annuity and Life savings products (see Chart 2.1.13-a). This sustained context of low interest rates continues to be detrimental to the development of the specified lines of business. Also, it is necessary to consider the negative effect that policy bailouts may have on those who are suffering as a result of social distancing and population confinement measures, as well as the fall in stock markets in the perception of Life insurance in which policyholders assume the risk of investment. However, low stock prices could attract investors who have liquidity and are willing to take on risk. Also, for products that incorporate financial guarantees, as with some modalities of "variable annuities," the high volatility of financial markets increases the cost to cover these guarantees and may produce significant losses for insurers with dynamic coverage programs, which in these situations are not fully effective. Finally, it is necessary to consider the negative effect that the behavior of exchange rates against the dollar may have on the shareholders' equity of insurance companies, given that many of them chose to significantly increase their investments in US fixed income bonds as a result of the prolonged low interest rate environment[14]. This means that exchange-rate volatility may harm them, directly or due to the higher cost of exchange risk coverage that needs to be renewed. For the time being, the yen has remained relatively stable against the dollar and has not experienced strong appreciation, as has been the case in other periods of crisis. Insurance companies operating in that market may also be affected by impaired credit ratings and possible insolvency of corporate bonds they may have in their portfolios, although Japanese insurance companies are more likely to invest in fixed income sovereign bonds.

Economic crisis and the insurance industry

Analyzing what happened in the Japanese insurance market in the economic crises experienced since 1980 shows that the bursting of Japan's housing bubble in the early 1990s marked a turning point both in economic growth and in the development of the country's insurance industry; a structural situation that has not yet fully recovered to date. Thus, in the 1990s (the "lost decade"), solid and sustained growth in the insurance market does not recover (see Chart 2.1.13-b).

Chart 2.1.13-b
Japan: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

2.1.14 Philippines

Insurance market performance outlook

In the Philippines, in line with the analysis scenarios considered in this report, economic expectations for 2020 anticipate a decline in GDP in the range of -0.3% to -8.2%, compared with real growth of 5.9% in 2019 (6.2% in 2018). The crisis caused by the pandemic is driving strong setbacks in private consumption, which was the main driver of economic growth. The expected improvement in the trade deficit, which was showing a tendency toward impairment (the Philippines is a net importer economy), may help to soften the economic impact of the situation caused by social distancing and population confinement measures adopted to deal with the pandemic, with the help of the drop in oil prices. Once the economic effects of the pandemic are overcome, a strong recovery is expected in 2021, which could involve GDP growth in the range of 10%. However, there is great uncertainty as to the estimates and structural effects that may arise from this crisis, despite the monetary and fiscal expansion measures taken by Philippine authorities (see Table 1.2.14, and Charts 1.2.14-a and 1.2.14-b).

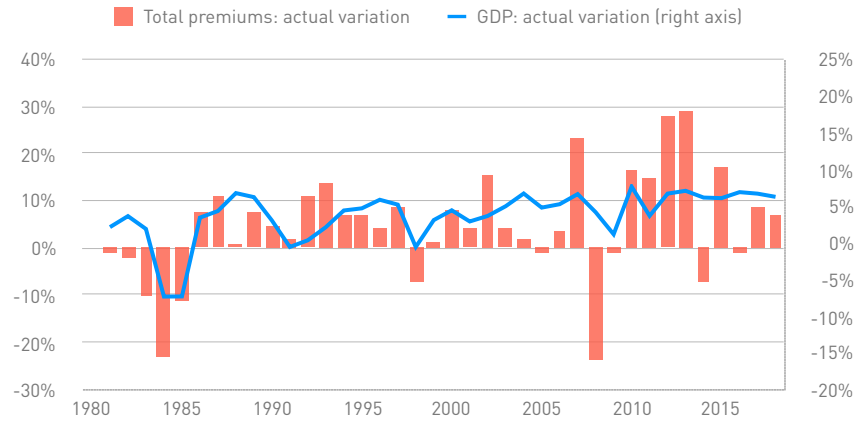
This economic environment will hinder the development of the insurance industry, particularly regarding Non-Life business, the growth of which is closely linked to economic performance. The Central Bank of the Philippines, which has already been implementing an accommodative monetary policy, has taken new measures with additional decreases in interest rates and the easing of regulatory requirements in banking to ensure credit continues flowing to families and companies. Thus, the easing of the restrictive monetary policy applied by the central bank has left the monetary policy reference rate at 3.25% (down from 4%), while the ten-year sovereign bond yield, which stood at 5.1% at the end of March, is forecast to decline to levels of around 3.6% by late 2020. This interest rate environment, with low rates coupled with the flattening of the risk-free yield curve, complicates the outlook for the life annuity and Life savings business lines. These are currently exposed to the risk of business loss due to bailouts that may occur for those people in need who are not able to carry out their normal work as a result of the pandemic. In addition, it is necessary to consider the negative effect that impaired credit ratings and possible insolvency of bonds held by insurance companies in their portfolios may have on the shareholders' equity of insurance companies.

Economic crisis and the insurance industry

Also, reviewing how the Philippine insurance market has been affected by the economic crises experienced since 1980 shows that deeper crises often have severe negative effects on the insurance business. This is seen in the economic crisis of the 1980s, where GDP fell by -7%, resulting in a drop in insurance premiums by -23% in real terms in that year. This is an extreme example that involved a long recovery process in subsequent years (see Chart 2.1.14).

The Asian crisis that unfolded in 1997, which is more similar to the current expected crisis in terms of contraction, led to a fall in insurance premiums of -7%, when GDP went from 5.2% growth in 1997 to a drop of -0.6% in 1998. In this case, the insurance industry performed well in the four years following the crisis, with an average annual growth of 7.1%, doubling the average annual GDP growth of 3.5% in that period. The same happened in the 2008 crisis, when the insurance business fell sharply by -23.5% in real terms (as inflation skyrocketed), but recovered after the crisis hit an average annual growth rate of 22% in the four years that followed, and was again significantly above the average real GDP growth of 6.3%. In these recoveries, as in other emerging markets, the low level of insurance penetration in the Philippine economy has helped, which allows improved economic conditions to result in larger growth in the insurance business.

Chart 2.1.14
Philippines: analysis of the impact of economic crises on the insurance market



Source: MAPFRE Economics (with data from Swiss RE and OEF/Haver)

2.2 Regulatory trends

2.2.1 Global aspects

IFRS 17

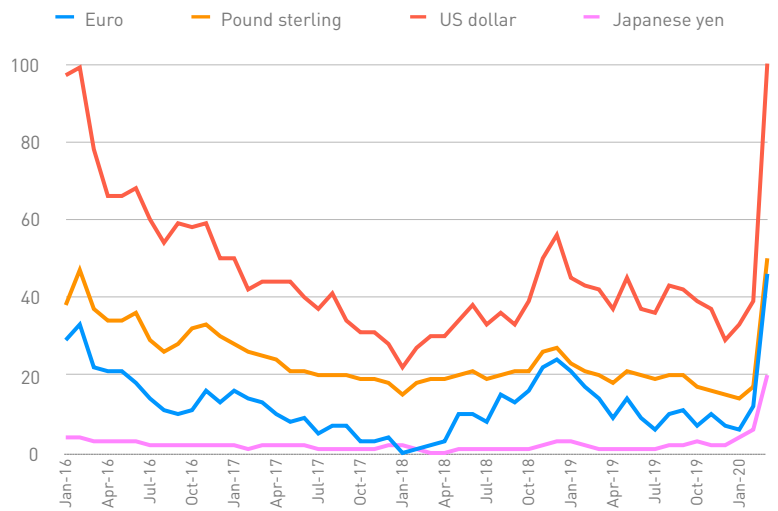
The International Accounting Standards Board (IASB) has once again decided to postpone the deadline by one year for the entry into force of the International Financial Information Standard 17 on Insurance Contracts (IFRS 17). Thus, IFRS 17 would be applicable for the preparation of the 2023 consolidated statements of listed insurance groups. In addition, the IASB has extended the exemption from the application of IFRS 9 on Financial Instruments, so that insurers who decided to apply the exemption can apply the two accounting standards simultaneously[15].

2.2.2 European Union

Solvency II

The European Insurance and Occupational Pensions Authority (EIOPA) has announced that it will proceed with the extraordinary measure to calculate weekly information on risk-free interest rates relevant to the calculation of the solvency position of insurance companies and their groups located in the European Union, due to the situation caused by the COVID-19 pandemic, in order to make it easier for them to monitor their financial position.

Chart 2.2.2
Main currencies: volatility adjustment, 2016-2020



Source: MAPFRE Economics (with data from EIOPA)

It should be noted that high volatility and falling asset valuations in financial markets can have a significant impact on insurance companies, and that the Solvency II guidelines framework establishes mechanisms to correct the effects of occasional bouts of volatility on insurance companies, given their nature as long-term investors. These mechanisms are essentially volatility adjustments, matching adjustments and symmetric adjustments by equity investments, which try to prevent insurance companies from having to make forced sales in times of financial market turbulence, such as those they are currently experiencing, with their consequent pro-cyclical effects.

With respect to the latest data on the volatility adjustment (see Chart 2.2.2), the adjustment as on March 31, 2020 is significant for investments in major currencies, both in dollars and, to a lesser extent, in euros and pounds. The lowest adjustment is for investments in yen, although it has also experienced a significant increase. The quantitative easing measures implemented by central banks have allowed the easing of bond spreads (risk premiums), especially in sovereign debt, but also in corporate debt, therefore volatility adjustments have not reached levels much higher than previous upturns since Solvency II came into effect, at least for the time being. The extraordinary information that EIOPA will publish on a weekly basis will be of great use for this monitoring.

The importance of these adjustment measures, introduced with the entry into force of Solvency II, should be emphasized, as they perform on an anti-cyclical basis when occasional high volatility is observed in market assessments. Based on their business models, insurance companies are not directly exposed to the above-mentioned volatility as they are investors who employ good risk-management procedures, generally focusing on held-to-maturity investments, regardless of the exposure to credit risk that is not subject to adjustment and that will increase solvency requirements if the situation persists and the credit quality of their portfolios deteriorates.

Tables: macroeconomic forecast scenarios

Table A-1
Minimum and stressed baseline scenarios: gross domestic product
(annual growth, %)

	Minimum baseline scenario (MBS)						Stressed baseline scenario (SBS)					
	2016	2017	2018	2019(e)	2020(f)	2021(f)	2016	2017	2018	2019(e)	2020(f)	2021(f)
United States	1.6	2.4	2.9	2.3	-4.1	7.8	1.6	2.4	2.9	2.3	-10.8	5.4
Eurozone	1.9	2.7	1.9	1.2	-5.1	4.7	1.9	2.7	1.9	1.2	-12.4	1.6
Germany	2.1	2.8	1.6	0.6	-3.9	4.9	2.1	2.8	1.6	0.6	-12.1	2.1
France	1.1	2.3	1.7	1.2	-7.2	4.5	1.1	2.3	1.7	1.2	-12.5	2.4
Italy	1.4	1.7	0.7	0.3	-7.6	3.9	1.4	1.7	0.7	0.3	-14.9	-0.6
Spain	3.0	2.9	2.4	2.0	-5.6	4.4	3.0	2.9	2.4	2.0	-10.7	-1.0
United Kingdom	1.9	1.9	1.3	1.4	-5.1	6.1	1.9	1.9	1.3	1.4	-10.1	3.3
Japan	0.5	2.2	0.3	0.7	-4.8	3.9	0.5	2.2	0.3	0.7	-13.9	1.2
Emerging markets	4.6	4.8	4.5	3.9	-2.7	4.3	4.6	4.8	4.5	3.9	-7.4	4.6
Latin America[1]	-0.6	1.2	1.0	0.2	-5.2	3.4	-0.6	1.2	1.0	0.2	-7.6	1.4
Mexico	2.6	2.4	2.1	-0.1	-3.9	3.2	2.6	2.4	2.1	-0.1	-12.5	5.0
Brazil	-3.3	1.3	1.3	1.1	-2.7	4.3	-3.3	1.3	1.3	1.1	-9.9	-0.6
Argentina	-2.0	2.7	-2.4	-2.2	-5.7	3.2	-2.0	2.7	-2.4	-2.2	-13.3	5.6
Emerging European[2]	4.8	3.3	6.0	3.6	-5.2	4.2	4.8	3.3	6.0	3.6	-6.7	3.2
Turkey	3.3	7.4	3.1	0.8	-1.2	5.8	3.3	7.4	3.1	0.8	-8.7	2.8
Asia Pacific[3]	6.3	6.2	6.1	5.7	-0.3	9.6	6.3	6.2	6.1	5.7	-8.1	6.4
China	6.9	6.9	6.8	6.2	-0.6	9.8	6.9	6.9	6.8	6.2	-6.0	5.5
Indonesia	5.0	5.1	5.2	5.0	-0.0	9.1	5.0	5.1	5.2	5.0	-10.0	1.7
Philippines	6.9	6.7	6.2	5.9	-0.3	10.0	6.9	6.7	6.2	5.9	-8.2	12.1
World	3.4	3.8	3.6	3.0	-3.0	5.8	3.4	3.8	3.6	3.0	-8.2	2.3

Source: MAPFRE Economics

[1]Argentina, Brazil, Chile, Colombia, Mexico and Peru; [2]Russia, Turkey, Commonwealth of Independent States (CIS) and Central Europe; [3]Association of Southeast Asian Nations (ASEAN)
Forecast end date: April 13, 2020.

Table A-2
Minimum and stressed baseline scenarios: inflation
(end of period, %)

	Minimum baseline scenario (MBS)						Stressed baseline scenario (SBS)					
	2016	2017	2018	2019(e)	2020(f)	2021(f)	2016	2017	2018	2019(e)	2020(f)	2021(f)
United States	2.1	2.1	1.9	2.3	0.3	1.9	2.1	2.1	1.9	2.3	-2.1	-0.4
Eurozone	0.7	1.4	1.9	1.0	0.2	1.8	0.7	1.4	1.9	1.0	-3.2	-1.7
Germany	1.4	1.4	1.6	1.5	0.8	1.6	1.4	1.4	1.6	1.5	-2.3	-1.4
France	0.5	1.1	1.9	1.1	0.2	1.3	0.5	1.1	1.9	1.1	-0.9	-2.6
Italy	0.5	0.9	1.1	0.5	-0.2	1.4	0.5	0.9	1.1	0.5	-3.9	-2.8
Spain	1.6	1.1	1.2	0.8	-0.7	2.4	1.6	1.1	1.2	0.8	-5.0	-2.8
United Kingdom	1.8	2.7	2.0	1.3	0.5	2.1	1.8	2.7	2.0	1.3	-0.7	-0.2
Japan	0.3	0.6	0.9	0.5	-0.8	0.2	0.3	0.6	0.9	0.5	-5.3	-6.0
Emerging markets	4.3	4.3	4.8	4.7	4.6	4.5	4.3	4.3	4.8	4.7	4.2	1.5
Latin America[1]	5.6	6.0	6.2	7.2	6.2	5.9	5.6	6.0	6.2	7.2	5.6	4.9
Mexico	3.4	6.8	4.8	2.8	3.8	3.2	3.4	6.8	4.8	2.8	1.7	4.5
Brazil	6.3	2.9	3.7	4.3	2.8	3.2	6.3	2.9	3.7	4.3	0.9	4.0
Argentina	37.5	23.3	47.4	52.2	40.6	30.1	37.5	23.3	47.4	52.2	35.0	28.8
Emerging European[2]	5.5	5.4	6.2	6.8	5.1	5.0	5.5	5.4	6.2	6.8	2.7	-0.7
Turkey	8.5	11.9	20.3	10.3	9.0	9.3	8.5	11.9	20.3	10.3	5.8	8.6
Asia Pacific[3]	2.6	2.6	3.0	3.0	2.0	3.2	2.6	2.6	3.0	3.0	0.4	-1.6
China	2.2	1.8	2.2	4.3	1.0	2.4	2.2	1.8	2.2	4.3	-0.6	-3.1
Indonesia	3.3	3.5	3.3	2.7	2.6	3.4	3.3	3.5	3.3	2.7	3.5	-3.3
Philippines	2.0	3.0	5.9	1.5	2.4	3.7	2.0	3.0	5.9	1.5	-1.7	1.8
World	2.8	3.0	3.3	3.7	2.5	2.5	2.8	3.0	3.3	3.7	1.5	-1.7

Source: MAPFRE Economics

[1]Argentina, Brazil, Chile, Colombia, Mexico and Peru; [2]Russia, Turkey, Commonwealth of Independent States (CIS) and Central Europe; [3]Association of Southeast Asian Nations (ASEAN)
Forecast end date: April 13, 2020.

Table A-3
Minimum and stressed baseline scenarios: ten-year government bond yield
(end of period, %)

	Minimum baseline scenario (MBS)						Stressed baseline scenario (SBS)					
	2016	2017	2018	2019(e)	2020(f)	2021(f)	2016	2017	2018	2019(e)	2020(f)	2021(f)
United States	2.45	2.40	2.69	1.92	1.14	1.63	2.45	2.40	2.69	1.92	0.34	0.74
Eurozone	0.93	1.13	1.17	0.32	0.44	0.82	0.93	1.13	1.17	0.32	1.03	2.20

Source: MAPFRE Economics
Forecast end date: April 13, 2020.

Table A-4
Minimum and stressed baseline scenarios: exchange rates
(end of period, %)

	Minimum baseline scenario (MBS)						Stressed baseline scenario (SBS)					
	2016	2017	2018	2019(e)	2020(f)	2021(f)	2016	2017	2018	2019(e)	2020(f)	2021(f)
USD-EUR	0.95	0.83	0.87	0.89	0.93	0.91	0.95	0.83	0.87	0.89	0.93	0.90
EUR-USD	1.05	1.20	1.15	1.12	1.08	1.10	1.05	1.20	1.15	1.12	1.07	1.11
GBP-USD	1.23	1.35	1.28	1.32	1.26	1.30	1.23	1.35	1.28	1.32	1.26	1.30
USD-JPY	116.80	112.90	110.83	109.12	106.00	106.00	116.80	112.90	110.83	109.12	106.65	105.56
USD-CNY	6.94	6.51	6.88	6.99	6.99	6.90	6.94	6.51	6.88	6.99	7.18	7.09

Source: MAPFRE Economics
Forecast end date: April 13, 2020.

Table A-5
Minimum and stressed baseline scenarios: benchmark interest rate
(end of period, %)

	Minimum baseline scenario (MBS)						Stressed baseline scenario (SBS)					
	2016	2017	2018	2019(e)	2020(f)	2021(f)	2016	2017	2018	2019(e)	2020(f)	2021(f)
United States	0.75	1.50	2.50	1.75	0.25	0.25	0.75	1.50	2.50	1.75	0.20	0.20
Eurozone	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
China	2.59	3.09	3.07	2.81	1.60	2.78	2.59	3.09	3.07	2.81	0.05	0.03

Source: MAPFRE Economics
Forecast end date: April 13, 2020.

Index of charts, tables and boxes

Charts

Tables

Boxes

References

1/ See: MAPFRE Economics (2020), *2020 Economic and industry outlook*, Madrid, Fundación MAPFRE. At: https://www.fundacionmapfre.org/documentacion/publico/es/catalogo_imagenes/grupo.do?path=1104044

2/ See the analysis of MAPFRE Economics "Institutional response to the COVID-19 crisis and effects on expected growth," at: https://app.klipfolio.com/published/caccb158c65efaa8a297e30bfd59fd6f/informe-global-coronavirus-

3/ In the general sample, the fatality rate is estimated to be approximately 1% to 3%, but among populations over 45 years of age, this fatality rate exceeds 20%.

4/ The countries where controlling the epidemic has been most effective (South Korea and Singapore) are those where the most investment has been made in obtaining statistical information about the behavior of the virus.

5/ Depending on the severity of the virus.

6/ See: IMF, "Policy responses to COVID-19". At: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19

7/ See: MAPFRE Economics (2020), *2020 Economic and industry outlook*, Op.cit.

8/ People with income up to 75,000 US dollars per year will receive 1,200 US dollars in direct cash payments. Households will also receive an additional 500 US dollars per child. For four months, the unemployment benefit will be increased by 600 US dollars per week, adding to the average subsidy of 385 US dollars per week given by states. The duration of the most common unemployment benefit has been extended by 13 weeks, beyond the 26 weeks offered by many states. The tax package also provides for a substantial amount of funds to be used for loans to small businesses.

9/ The rate applied to loans will be 25 bps lower than the main refinancing rate, and 25 bps lower than the deposit rate, should banks comply with certain limits of the loans.

10/ Earmarked to support public finances (240 billion euros), businesses (200 billion euros) and workers (100 billion euros).

11/ See: MAPFRE Economics (2020), *Insurance Industry Investment*, Madrid, Fundación MAPFRE. At: https://www.fundacionmapfre.org/documentacion/publico/es/catalogo_imagenes/grupo.do?path=1104940

12/ MAPFRE Economics (2020), *Insurance Industry Investment*, Op. cit.

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Fundación
MAPFRE

www.fundacionmapfre.org
Paseo de Recoletos, 23
28004 Madrid

Fundación MAPFRE

www.fundacionmapfre.org

Paseo de Recoletos, 23
28004 Madrid