Fundación MAPFRE

ECONOMIC AND INDUSTRY OUTLOOK 2018

MAPFRE Economic Research

Economic and industry outlook 2018

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MAPFRE Economic Research

Manuel Aguilera Verduzco
General Manager
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

Johannes Rojas Díaz
Mónica Lisset Velásquez Roldán
José Manuel Díaz Lominchar
Monika Kukuneshoska
Laura Pérez González
Lidia Román Ventura

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Presentation

This information is essential for the interpretation of the environment and to make the best possible decisions at all times. This is increasingly required as regards economic matters due to the expanding complexity and number of variables that appear in such a globalized world. To assist in this task and share its knowledge universally, Fundación MAPFRE has published this new edition of the “Economic and industry outlook” report, in which MAPFRE Economic Research provides keys for a better understanding of the events occurring in the global economic setting and its repercussions on the insurance industry.

In this second edition, corresponding to 2018, we can already discern how Outlook is becoming a benchmark publication to understand the economic underpinnings of what is occurring worldwide and the expectations for upcoming quarters.

This is a yearly publication in Spanish and English recommended for reference throughout the year and published in a variety of formats so it can be easily accessed. It has also been conceived as a dynamic document capable of adapting to the ever-changing settings we live in. It is updated quarterly by including valuable information for the readers to support their decision-making process as regards the financial environment and the insurance industry. The quality and abundance of information concerning this industry is one of the attributes that distinguishes this document from other economic reports.

As the publisher of this report, Fundación MAPFRE not only fulfills its commitment to lend support to and disseminate insurance knowledge and culture, but facilitates universal, simultaneous and free access to an economic and industry analysis that enables a clear and effective forecast of what can be expected in this newly arrived year of 2018.

Fundación MAPFRE

Introduction

MAPFRE Economic Research presents its "Economic and industry outlook" for the second consecutive year. The aim of the report is to offer a global view of the economic outlook and forecasts for 2018, both worldwide and in the main economies, and to use this general framework to analyze the environment that the insurance industry is likely to encounter.

This year, our report will review the base scenario presented in the analysis of forecasts for 2017 and show the particulars behind the fulfillment of the most important characteristics of the scenario. economic growth that continues to gain traction, still incipient global reflation, continued financial market optimism, the sustained rally of expectations, flattening of the yield curve and the fact that tail risks for the global economy have not yet made their appearance.

This report also discusses three factors that are key to understanding the underlying features of this macroeconomic scenario. First, the change in growth make-up; secondly, the prevalent loosening in monetary policies and global liquidity and, thirdly, the apparent disaggregation that is being observed between levels of economic activity and inflation. Along these same lines, the report emphasizes the risk of lower expectations for long-term inflation, which will be especially significant in 2018, which will be dominated by the cycle change in several developed economies, the potential reversal of the excessive optimism that usually occurs before changes in the economic cycle and the start of a gradual adjustment of global liquidity.

Thus, our core vision of macroeconomic performance is a scenario where 2018 will be a point of inflection and 2019 may involve the beginning of a gentle and orderly slowdown of economic activity and inflation. In this scenario, economic activity and inflation will remain essentially the same and will therefore provide a favorable setting for growth in the insurance industry in both developed and emerging economies, with anticipated growth in the Life and Non-Life segments during 2018.

We trust that this report will contribute to an understanding of overall economic performance and the setting encountered by the insurance industry in 2018, in particular.

MAPFRE Economic Research

Executive Summary

Economic outlook

In 2017, economic growth gained global traction and synchronicity, while forcing a postponement of the anticipated change in the global economic cycle. Although both developed and emerging markets contributed to this growth, the performance of China and the Eurozone stood out in particular, while the expectations about the moment in the economic cycle of the United States were confirmed.

This growth was spurred by two main events: continued loosening of global monetary policies (especially in developed markets) and the boost in China, which favored global trade and a renewed raw materials price cycle, which enhanced the economies of exporting countries (especially in Latin America). Global liquidity remained constant, uninhibited by inflationary pressure, despite the cyclical moment some economies were passing through.

We expect last year's trends to continue in 2018 to some degree, although within the context of an orderly slowdown. In this context, the global economy will see a growth of approximately 3.7 percent, where developed markets will grow nearly 2 percent and emerging markets 4.9 percent.

Global economic growth will be accompanied by certain discrepancies in monetary policies. The United States Federal Reserve will continue withdrawing monetary stimuli at a very slow pace and raise interest rates gradually, while the European Central Bank (ECB) will continue its quantitative easing (QE). Emerging markets will apply dissimilar monetary policies, influenced by global and local factors, described in detail in this report.

Inflation will remain contained though focused on central bank targets, while long-term interest rates will rise, with timid improvements in their term premiums. We expect a U.S. official interest rate of around 2 percent by the end of 2018, while the ECB rate will remain at 0 percent, resulting in a somewhat sharper curve in the U.S. than in the Eurozone over the same time period. Long-term interest rates will rise, with modest improvements in their term premiums, more so in the U.S than in the EMU. The dollar will remain near its current value (1.2 USD/EUR) gaining a certain degree of appreciation versus emerging currencies.

Tail risks for the global economy did not appear in 2017, although their probability has increased in many cases, given persistent strong nominal imbalances, especially as regards exuberant asset valuation and corporate leveraging. The world is still caught up in a series of expectations which, in spite of buoyant economic activity, have not yet been borne out by the performance of real indicators. This presents a risk that could turn our core vision of 2018 into a risk scenario. The catalyst in this case would be a global liquidity shock increased and transmitted by poor monetary management and a pro-cyclical behavior of global investment portfolios.

Industry outlook

Global growth predicted for 2018 is likely to have a positive impact on the performance of the market worldwide. Solid growth led by worldwide trade and investment in equipment and housing is very positive for the insurance industry, the expansion of which is strongly linked to economic cycle performance. This impact will be seen in emerging economies in particular, since they will benefit from greater elasticity in the growth of the insurance business in a scenario of increased economic activity.

Economic growth in developed markets will be supported by monetary policies that will remain lenient. However, The U.S. Federal Reserve has already begun a process of raising interest rates and has drawn up a road map to decrease its balance sheet. Increases in interest rates have been discarded in the Eurozone before the end of 2019, although a timeframe for monetary tapering has been announced, consisting in reducing asset purchase volumes.

Once interest rate hikes become general practice in developed economies, they will be a major factor in the reactivation of the life insurance market (especially for the life savings and life annuities businesses), which have been harmed by prolonged low interest rates, particularly if these hikes can be transferred to long-term rates of the yield curve. However, there is a potential risk of overrating assets that could surface in this setting and negatively affect insurance industry results. On the other hand, the Life insurance segment in emerging markets is expected to grow by nearly two digits, due to the increase in economic activity and a more favorable interest rate environment.

Meanwhile, the natural disasters that occurred in the latter half of 2017 will not only have a profound effect on combined ratios and the profitability of reinsurers, but will also impact insurance rates and renewals of reinsurance contracts, in a market which in the absence of major disasters had become very competitive in terms of prices.

As regards regulatory trends, in November 2017 the Executive Committee of the International Association of Insurance Supervisors (IAIS) reached an agreement on a unified path to converge toward a capital standard for internationally active insurance groups (ICS Version 2.0), as an initial step in reaching its ultimate goal of applying a single worldwide capital standard.

Likewise, in November 2018 the Financial Stability Board (FSB) will revise the situation for systemic risk assessment in the insurance industry and identification of systemic institutions, depending on the proposal resulting from the activities being performed by the IAIS.

1. Economic outlook

1.1 The global economic outlook

Economic activity and inflation

Global growth is expected to approach 3.7 percent for 2018, a slight acceleration compared to the close of 2017 (around 3.6 percent). This figure exceeds last year's expectations, due to the verification that the global economy has gained traction and synchronicity across both developed and emerging markets. However, global economic dynamics also show signs of stabilizing; and we may perhaps be at the preliminary stages of a change of cycle to be materialized by late 2019.

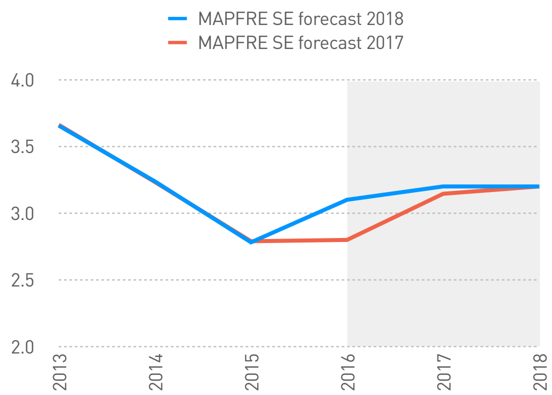
Both developed and emerging markets are expected to contribute to global growth in 2018. Thus, expectations foresee a renewal of developed market leadership, with an upturn of over 2 percent, as well as an increase in the pace of emerging market growth to approximately 4.9 percent, surpassing their growth in 2017.

Developed market growth can be largely explained by the gradual merging of reality and market optimism, as well as by continued lax global monetary regulations, despite initial tapering by the United States Federal Reserve and the warnings by the European Central Bank (ECB) along the same lines. To this we can add the global demand that was partially the result of fiscal expansion in Japan and China in 2017, and the significant boost from the tax cuts in the U.S., which will be effective from 2018 to 2020, as was forecast last year in this report.

Emerging markets will continue to be propped up by the stamina of the Chinese economy, the reactivation of significant emerging economies (Brazil and Russia) and, in general, by the effect of global demand. Trade growth is at a maximum, not seen since 2007, in the context of an upward trend in raw material and oil prices (Brent +60 USD/b on average in 2018), which will support growth of income and internal demand in exporting emerging markets.

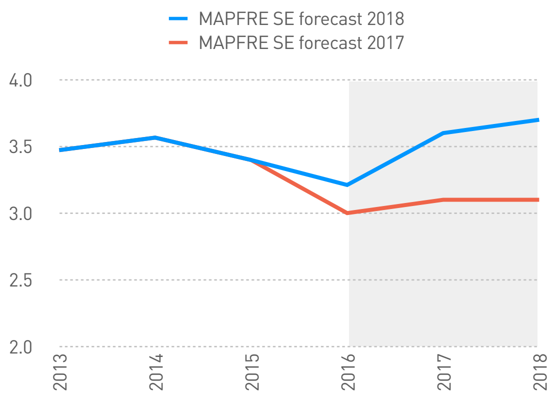
As a result, global growth will slightly exceed its long-term trend, to the level of potential global growth (3.6-3.8%). However, despite its intensity, growth will not be strong enough to trigger general upward inflation. The upturn in inflation in 2018 will be caused to a greater degree by the rise in oil prices than to higher salaries or

Chart 1.1-a
Global: inflation forecasts (%, CPI y-o-y), 2013-2018



Source: MAPFRE Economic Research

Chart 1.1-b
Global: growth forecasts (%, GDP y-o-y), 2013-2018



Source: MAPFRE Economic Research

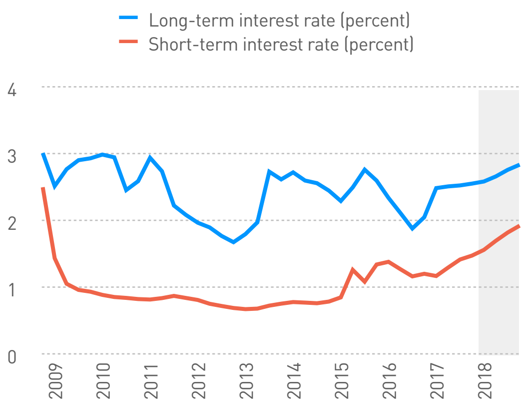
inflation expectations. Inflation conditions continue far from central bank goals, whether by defect (developed countries) or excess (emerging countries), fuelling the current debate about the loss of association between economic activity and inflation which undoubtedly poses monetary policy challenges worldwide.

The economic cycle and inflation targets will dictate worldwide monetary policy in 2018, during which only gradual increases are expected, in general terms. The benchmark interest rate will increase very gradually. Thus, in 2018 monetary policies will continue to exert an impact on global finances, characterized by abundant liquidity, appetite for risk, low interest rates and low premiums per term (See Chart 1.1-d), resulting in a stable exchange rate versus the euro at approximately 1.2 UDS/Euro and a slight increase versus emerging currencies. In financial terms, 2018 will be an extension of the preceding year.

On the other hand, the global economy continues to entail vulnerabilities that may diminish its capacity to deal with emerging risks. Increased corporate leveraging (in strong currencies) in emerging countries reveals their capacity to confront a foreseeable drain on global liquidity in dollars. In addition, developed economies are exhausting their economic policy instruments, either due to the context of low interest rates and reduced monetary policy maneuverability or due to excess public debt that limits the possibility of taking fiscal action. This is taking place in an environment of relative buoyancy in the prices of many assets (variable income, corporate debt, residential debt, crypto currencies, etc.), favored by a setting characterized by extreme liquidity. An inevitable change of course will have to be dealt with after 2018, given the eventual exhaustion of the U.S. economic cycle and when tapering of Federal Reserve and ECB monetary policies gain traction. In brief, 2018 may be the beginning of the end of a cycle, which will materialize at the end of 2019.

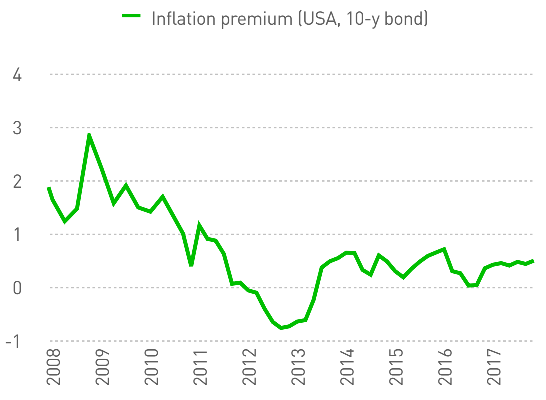
Dissimilar cycle times will condition the outlook of regional performance and the concurrent monetary policy. Along with China, the United States is the world's economy at the furthest point in the economic cycle; as such, it faces a process of monetary tapering and the withdrawal of stimuli to adjust the balance of the Federal Reserve over coming years (See Chart 1.1.-e). Plans contemplate the sale of 1.3 trillion dollars of assets in the balance and a gradual hike in interest rates of 2.57-3 percent in the long term. This adjustment, however, is considered too gradual. Benchmark interest rate and inflation are expected to be around 2 percent at the end of 2018, accompanied by nearly 2.7 percent growth, which takes into account an upturn in oil prices and the effect of the tax cuts approved in December in that country.

Chart 1.1-c
Global: short- and long-term interest rates (%), 2009-2018



Source: MAPFRE Economic Research (based on central bank data)

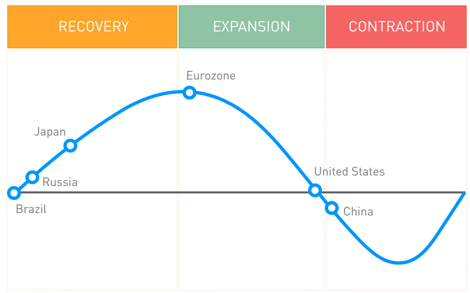
Chart 1.1-d
Global: inflation expectations (%), 2008-2017



Source: MAPFRE Economic Research (based on Federal Reserve data)

Europe has been (and will continue to be in 2018) the developed region with the highest growth. Its position in the economic cycle is a couple of years distant from that of the United States; therefore, monetary policy adjustment has not begun, although the ECB has reported the sequence it will follow (fewer purchases, deposit and interest rate hikes and sales of assets). This is taking place in a setting of the highest economic growth in a decade, but with obstacles to transfer it to inflation. Growth in 2018 is expected to be slightly lower than in 2017 (around 2 percent), although higher than its long-term trend. Inflation, on the other hand, will not reach the ECB target and the intervention rate will remain flat. The long-term interest rate in the Eurozone (Bund) will remain contained and will not close on the rate in the U.S., while the exchange rate will continue at approximately 1.2 USD/EUR, slightly above our balance estimate.

Chart 1.1-e
Global cyclical moment



Source: MAPFRE Economic Research

The forecasts for Spain indicate that the country will continue to lead growth in Europe, though it is unlikely to repeat the success it enjoyed in 2017. The maturity of the cycle and the cost of political turmoil put the predicted growth in 2018 at nearly 2.6 percent (compared to the anticipated 3.1 percent for 2017), which nevertheless still exceeds its long-term target. This prediction has an upside risk depending on whether the political mood improves and the structural reforms implemented in the past increase the growth margin. Spain's unemployment rate is now at the structural limit (nearly 16 percent), which in the absence of structural reforms poses challenges for an increase in economic activity. Spain will also register higher inflation (1.7 percent in 2018), slightly above the Eurozone average.

China will continue to register higher than potential growth, despite structured efforts to cool down the economy. Growth is expected to be nearly 6.3 percent in 2018, with a minor appreciation of the renminbi thanks to the prudent macro measures imposed by the Chinese government and the expectations that the current political scenario will consolidate significant reforms under the leadership of President Xi Jinping. The countries in Asia with a demographic bonus (Indonesia and the Philippines) will continue to grow, supported by domestic demand (over 5 percent in both cases), a loose monetary policy and the accumulation of certain diverse imbalances in both countries. However, they will enjoy high expectations versus successive adjustments to their credit qualifications by international agencies (first Indonesia, followed by the Philippines).

Economic growth in Latin America will accelerate to nearly 2 percent in 2018 as Brazil and Argentina exit recession and Mexico continues to show resilience. These exporting economies are also enjoying the current trade cycle and the rise in raw material prices. Brazil and Mexico are expected to grow nearly 2.4 percent in 2018, while growth expectations for Argentina hover around 3.5 percent. Regional currencies will continue depreciated, given the foreseeable lax monetary policies of their central banks (Mexico and Brazil) and the expected pre-electoral fiscal stimulus policy in the region. The political cycle has moved from developed countries in 2017 (Eurozone, U.S., Japan) to Latin America in 2018 (Argentina, Mexico, Brazil), which involves a certain emergency risk of populist positions associated with the potential implementation of unorthodox economic policies.

The main risks for the global economy in 2018 are focused on growing geopolitical tension between North Korea and the United States. Coupled with this risk are potential errors in the implementation of the economic policy in the U.S. and China, and at the domestic level the emerging political cycle might empower populist tendencies that are more reluctant to introduce major structural reforms, which would impair economic growth.

Inflation, liquidity and change in the economic cycle

In our review of the base scenario presented in the analysis of forecasts for 2017 there are series of particulars that determined the fulfillment of the scenario. There are six salient characteristics:

i) Growth continues its momentum

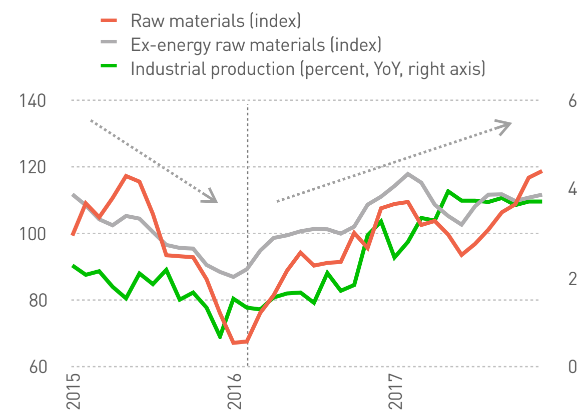
Global growth did not reach its maximum in 2016 but continued gaining traction in 2017, consolidating a more dynamic, universal and synchronous economic moment, characterized by:

a) Systematic upward revisions of global growth (The IMF revised its forecast by 0.3 percent between October 2016 and October 2017); the revision by MAPFRE Economic Research was 0.5 percent, primarily centered on the Eurozone and China).

b) An increasing contribution to growth by both developed and emerging markets, although the make-up was unexpected. Among developed markets, the unprecedented ten-year performance of the Eurozone compensated for the relative sluggishness of regions further along in the economic cycle. As regards emerging markets, the continuation of China's growth-oriented policies (prior to the XIX Congress of the Chinese Communist Party) encouraged global demand and the raw materials cycle that benefited exporting countries, particularly in Latin America.

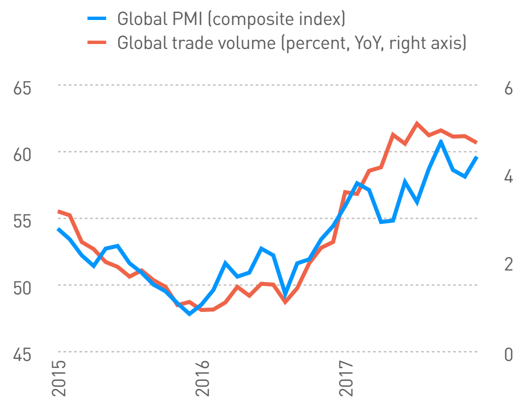
c) The slow but sure convergence between forecast and real indicators (animal spirits ex machina). The annual upturn of the Purchasing Managers' Index (PMI) was followed by a significant improvement in global trade indicators, retail sales and industrial production (especially intermediate goods). As a result, increased consumption was followed by a modest global improvement in capital expense, concentrated in the housing industry and in

Chart 1.1-f
Global: demand for raw materials and products, 2015-2017



Source: MAPFRE Economic Research (with IMF data)

Chart 1.1-g
Global: level of confidence and trade, 2015-2017



Source: MAPFRE Economic Research (based on IHS Markit data) concentrated in the housing industry and in inventory variations (See Chart 1.1-g).

These factors exceeded our initial growth forecast for 2017, signaling the prolongation of the current moment in the cycle and closure of the output gap.

ii) Incipient global reflation

At the same time, anticipated global reflation, long-term price trends and yield curve re-shaping have not materialized (partly due to the absence of tax policy intervention by the U.S. government in 2017). The very feeble increase in global inflation was more closely associated with the upturn in energy prices (See Chart 1.1-a) and other raw materials linked to global demand (cobalt, lithium, palladium) and supply difficulties in some emerging markets than with a recovery of underlying inflation in developed markets involving the recovery of long-term inflation prospects (See Chart 1.1-d).

iii) Continued optimism in financial markets

The year 2017 did not see the return of financial euphoria to levels compatible with the foreseeable change in the monetary and economic activity cycle. The context of low interest rates has contributed to maintaining a strong appetite for risk and very low financial volatility, increasing expectations beyond what was anticipated (unprecedented VIX trading, emerging sovereign spreads, EMBI, High Yield spreads, etc.). Despite the trend of converging reality and expectations, this has resulted in persistent excessive exuberance, which keeps the valuation of a large number of assets misaligned with their essential values (See Charts 1.1-h and 1.1-i).

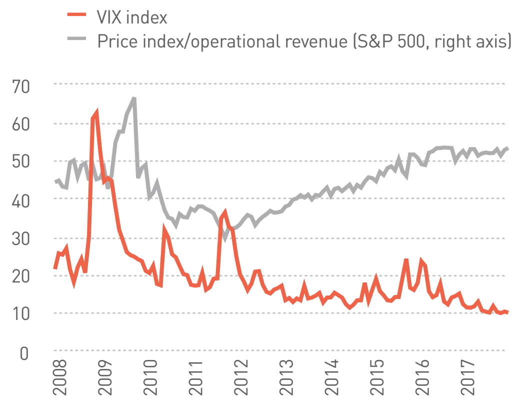
iv) The rally of expectations continues

Although the real effects of the anticipated reflation policy of the Trump administration in the United States has not yet materialized, the rally of expectations continues (underpinning credibility that may not be justified):

a) The tax reform of the Trump administration was approved at the last minute of the year and did not include an infrastructure expenditure package (consistent with the downward scenario presented in our 2017 report).

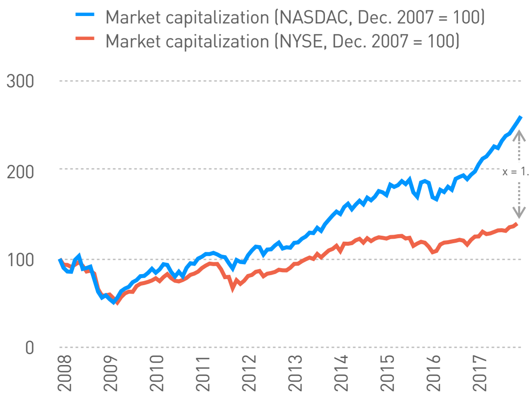
b) The weakness of the tax reform is that it is regressive and not ambitious enough for non-corporate sectors (SMEs and individuals); the reduction of the effective interest rate is insufficient, as well as the increase of the tax base, at the expense of other items. The fiscal stimulus resulting from the reform is estimated to be approximately a 0.2 percent increase in growth on average between 2018 and 2020.

Chart 1.1-h
Global: valuations and risk appetite, 2008-2017



Source: MAPFRE Economic Research (based on Federal Reserve and CBOE data)

Chart 1.1-i
Global: expectations of the digital economy, 2008-2017



Source: MAPFRE Economic Research (with CBOE data)

Box 1.1-a
Oil price expectations

Expectations for 2018

As anticipated a year ago, after two consecutive years of falls (2015/2016) in the price of oil, energy derivatives and metallurgical raw materials, the panorama of a depletion of the capacity surplus, combined with the collusion between producers, led to a renewed thrust in the prices of such raw materials.

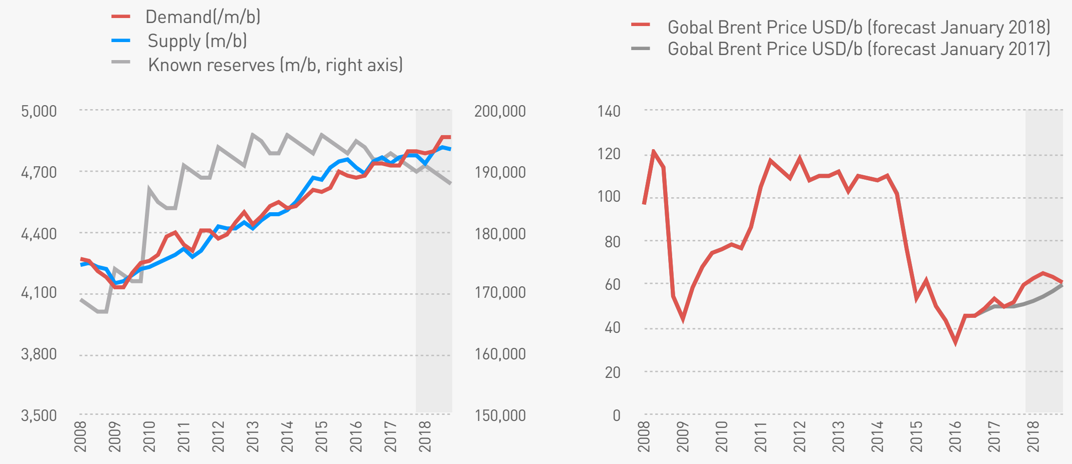
On the one hand, oil supply by the members of the Organization of the Petroleum Exporting Countries (OPEC) in 2018-2019 will foreseeably be limited following the agreements reached in 2017 while, on the other hand, the demand for oil will continue to be boosted by the sound rhythm of global economic growth. This situation may involve a flow of approximately 98 million daily barrels (m/db) on average during the coming two years, to affront a demand of 99 m/db, that is, a net reduction of inventories of around -1 m/db during this period.

This forecast regarding the performance of oil supply and demand is in line with our 2017 estimate, which anticipated a narrowing of the supply gap presented in previous years. At the same time, this reduction in inventories will cause a moderate rise in oil prices, which we situate at around 60 USD per barrel toward the end of 2018, which could be considered, in the current scenario, its long-term point of equilibrium.

Increased risks

The increased risks regarding oil prices however are high. With respect to demand, there is the possibility of increased economic growth on emerging markets (not belonging to the OECD). And with respect to supply, there is the effect of the cutbacks made in the past in capital expenditure to extend supply, and the impact of potential situations caused by geopolitical tensions.

As a result of the foregoing, it is possible to assign a high probability that, at least in the short term, there may be a certain overshoot in oil prices, which could reach 70 USD per barrel in the first half of 2018.



Source: MAPFRE Economic Research (based on International Energy Agency (IEA) data)

c) Although the effect of financial regulation adjustment and eventual reversal imposed after the financial crisis of 2008 brought high expectations for the non-depository banking business, it has not yet resulted in concrete events.

Therefore, there was no need to accommodate fiscal policy to a less lax monetary policy (consistent with more aggressive monetary tapering). The monetary and financial conditions in the U.S. continue to be extremely lax and in line with a naturally low interest rate, inherited from the hypotheses of the secular stagnation described in our global report for 2017.

v) Flat yield curve

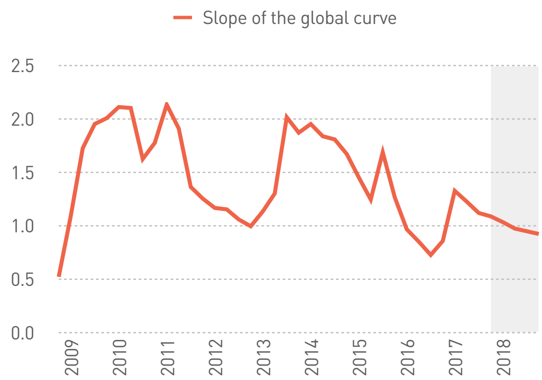
Flattening of the yield curve increased pressure (whether because if its duration, long-term liquidity pressure or very long-term asset purchases in view of the foreseeable deterioration of social security system capabilities). The slope of the global yield curve remains flat, resulting in lower appreciation of exchange rates and less return per term in the financial system, while increasing the search for higher returns and risk. In turn, this has led to lower temporary premiums of the mean curve in developed countries, particularly in the U.S.

This trend is expected to continue for as long as the reflation policy is not consolidated in the U.S. (within the most moderate scenario) and long-term expectations contemplate a downturn despite a rebound of economic activity. Along the same lines, a strong offer of monetary balances persists, as well as the accumulation of generational savings (2030+ outgoing cohorts that need to save to supplement the social security distribution system in developed countries where life expectancy is higher) channeled toward very long-term assets via institutional players (pension funds and insurance companies).

vi) Tail risks that have not materialized

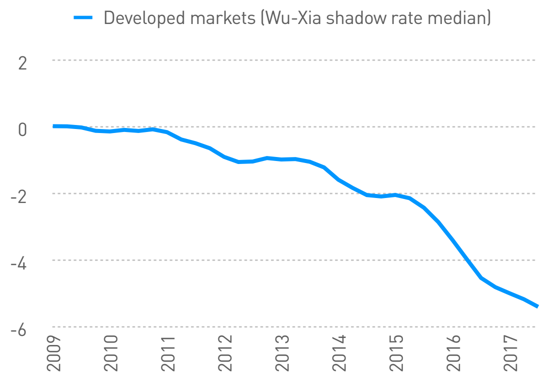
Fortunately, the tail risks expected in 2017 have not come to pass. Certain short-term risks have diminished thanks to the current economic cycle stage, liquidity and the construction of buffers, but long-term risks remain:

Chart 1.1-j
Global: slope of the interest rate curve (%), 2009-2018



Source: MAPFRE Economic Research (based on Federal Reserve data)

Chart 1.1-k
Developed markets: equivalent interest rate of the balance sheet expansion policy (%), 2009-2017



Source: MAPFRE Economic Research (based on Atlanta Federal Reserve data)

a) The risk of cyclical contraction headed by the U.S. has been transferred to 2019 due to expected continuation of extremely relaxed financial conditions (slow interest rate increase, unchanged policies by the new Chairman of the Federal Reserve, a timeframe for smooth balance tapering and the absence of any need to accommodate tax policies). The cycle stage is prolonged despite closure of the output gap and current accumulation of imbalances.

b) The risk of adjusting payment balances in emerging markets that are vulnerable on the external end (negative current account, net debtor position in international investment, leveraging in dollars and erosion of reserves) has not occurred. Lax monetary policies in developed markets maintain a net output of flows and carry trade toward emerging fixed income instruments. However, a sharp increase in the risk premium of emerging markets, coupled with a poorly calibrated adjustment in the monetary policy of the Federal Reserve could produce effects similar to the Taper Tantrum of 2013 and the subsequent deterioration of nominal variables in emerging markets, reducing their payment capacity in a setting characterized by lower liquidity and diminished access to wholesale markets.

c) Fortunately, global geopolitical risks continue to be threats rather than facts; however, the tension (U.S.-North Korea-Japan-China and Saudi Arabia-Iran[1] conflicts and the third Intifada in Israel, among others) and the growing participation of Russia and China in international politics in detriment of United States and European influence, are risk factors that cannot be ignored. From a regional viewpoint, the sovereign financial risk derived from populist movements in Europe has been sifted (Brexit accepted and the political cycle exhausted), but is resurfacing with strength in Latin America with the upcoming elections in Mexico, Argentina and Brazil, along with the increasing instability in Venezuela and, to a lesser degree, Ecuador.

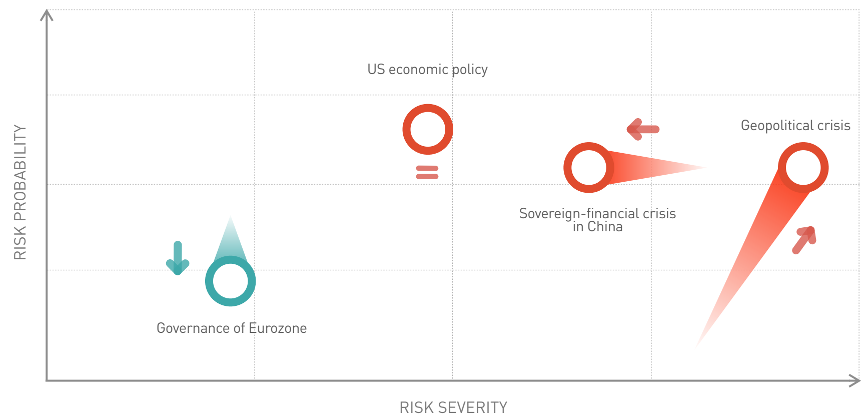
d) Risks of global financial adjustment have not made their appearance but their probability has increased, given the disparity between expectations and reality in a context of exuberant asset valuation. Together with swollen emerging corporate debt, this may potentially generate conditions for a global adjustment resulting from small changes in financial markets (referred to as the "Minsky Moment"[2]). A series of trends, which illustrate assessments removed from essentials) appear to confirm the situation described above: the market value of the SP500 is higher than the value recorded immediately before the crisis of 2008 and consistent with a process of asset inflation. The United States is living through the second longest equity rally in its history. The High Yield debt spread is at a historic low. Corporate debt cost is much lower than the cost of equity (which explains repurchasing of stock using system liquidity). Poor perception of credit risk is persistent (credit risk spreads of automobile and credit card loan portfolios are extremely low, despite relatively high default). Purchases of high-risk assets that offer higher yield have increased (real estate market and private equity, among others). Finally, the risk of a financial adjustment in China has not come to pass despite high leveraging and low corporate returns (See Chart 1.1-l).

On the other hand, there are three factors that appear to explain the characteristics of the base scenario originally proposed.

A change in the composition of growth

To begin with, there was a significant boost to global growth, but consisting of unexpected factors, such as the fiscal momentum originating in China's economy (rather than in the U.S.), while global liquidity was maintained for a year longer (See Chart 1.1.-m).

Chart 1.1-l
Vulnerabilities and global risks*

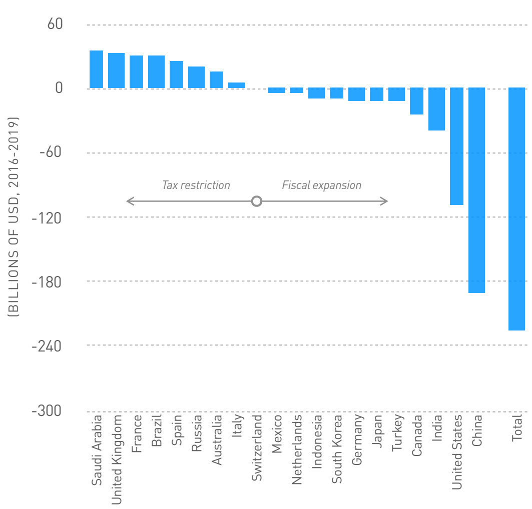


Source: MAPFRE Economic Research

*The arrow indicates the observed bias of the risk

The most recent pro-growth policy efforts (to meet the targets set forth in the 15-year plan before the XIX Congress of the Communist Party) by the Chinese authorities renewed the fiscal stimulus, direct financial intervention in monetary markets and a partial delay in applying prudential macro policies. As a result, there was an increase in capital expense in traditional industries, loans to State-controlled and supported strategic public companies and capital controls, which generated a global demand shock and channeling of liquidity had to be adjusted to domestic needs. It is estimated that in the second half of 2017, the Chinese "final burst" contributed more than 0.3 percent to global GDP growth through trade (global trade grew, affecting the Eurozone especially) and the demand for raw materials from emerging markets (See Charts 1.1-n and 1.1.o). The growth stimulus by the Chinese economy also partially explains the increase in the price of oil, as explained in the corresponding section (See Box 1.1-a).

Chart 1.1-m
Selected economies: fiscal impulse
(change projected in tax balances)



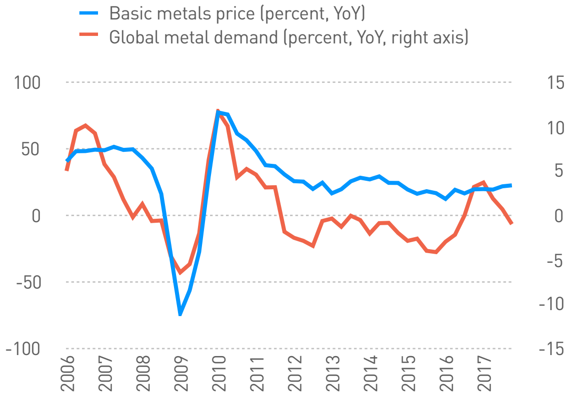
Source: MAPFRE Economic Research

To the contrary, the U.S. economy kept to the path it began on at the start of 2017; a dynamic path favored by the financial markets (expectations) but not accelerating as suggested by the more optimistic scenario of the Trump's administration tax proposals. Even more significant, the moderate momentum of the U.S. economy was accompanied by continued increases in employment (the economy is practically at full employment). However, this did not translate into substantial increases in underlying inflation.

Prevalent lax
monetary policy and global liquidity

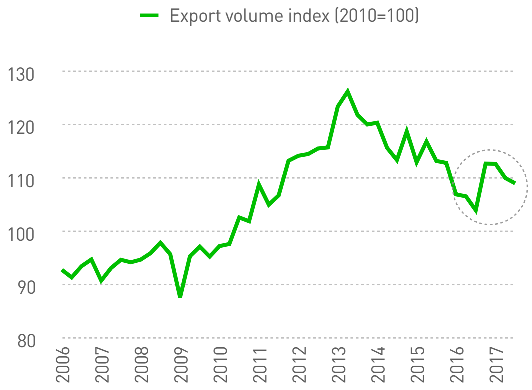
Secondly, the U.S. has maintained a lax monetary policy during the dawn of a cycle change, thereby increasing global liquidity. The absence of salary tensions that pressure

Chart 1.1-n
Global: metal demand, 2006-2017



Source: MAPFRE Economic Research (based on CRB data)

Chart 1.1-o
Eurozone: exports of capital goods, 2006-2017



Source: MAPFRE Economic Research (based on Eurostat data)

inflation expectations despite job market momentum allowed the Federal Reserve to adjust its market expectations even further toward monetary policy tapering. Three events confirm the above:

a) Expectations of interest rate hikes were mitigated, more in line with hikes expected by the market than those foreseen by the Federal Reserve (See Chart 1.1-p), which has made it necessary to revise our predictions of interest rate hikes downward compared to last year (a total hike of 50 bps less between 2017 and 2019).

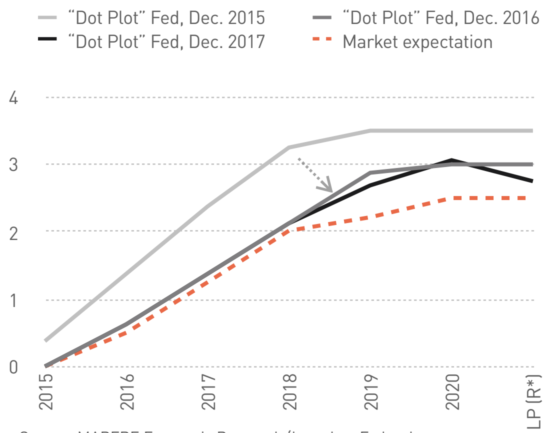
b) Tapering the size of the Federal Reserves balance (QE Tapering) was much more nuanced, by reducing assets valued at approximately 2 percent of annual GDP, less than needed to return the balance from the current 23 percent of GDP to 10 percent by 2024, as was originally conceived.

c) The Federal Reserve is expected to follow a compromising pathway. The indications are the resignation of the Vice-Chairman of the Federal Reserve, Stanley Fisher (H3) and the scheduled replacement of Janet Yellen by Jerome Powell, a Chairman who will continue lax monetary policy (D4). There also continue to be three vacancies in the Federal Reserve Board of Directors and the market awaits a majority that will not interfere with the current lax tendency; in other words, the Board will be under pressure to favor low interest rates and moderate QE tapering.

The foreseeable downward profile of the Federal Reserve ensured abundant liquidity and relatively low interest rates in 2017 and the same is expected in 2018[5]. This causes significant wealth effects in family and business balance sheets (due to the increase in the value of their financial and real assets), generating greater household consumption (using savings or loans, since income growth is limited) and a higher number of re-purchases of equity and real risk investment (which explains SP500 values, High Yield spread contraction, etc.).

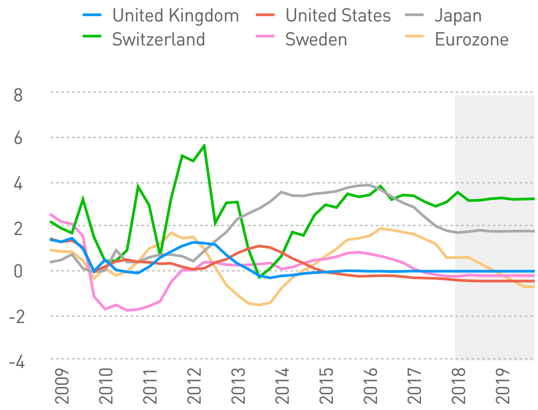
Furthermore, all this is taking place at the beginning of a change in economic cycle in the U.S., considering not only the maturity of indicators such as employment (full employment, 4.1 percent) and the output gap (0 percent), but also the maturity of values of assets such as housing and the gradual flattening of the country's yield curve (even though long-term interest rates rebounded +20 bps since December to 2.6 percent). In other words, the setting continues to be one of ample global liquidity with significant effects on economic activity, despite the foreseeable upcoming change in the U.S. economic cycle.

Chart 1.1-p
United States: Federal Reserve expectations vs market expectations, 2015-2020



Source: MAPFRE Economic Research (based on Federal Reserve and Bloomberg data)

Chart 1.1-q
Global: variation in assets in the balance sheet of central banks (% of the GDP), 2009-2019



Source: MAPFRE Economic Research (based on central bank data)

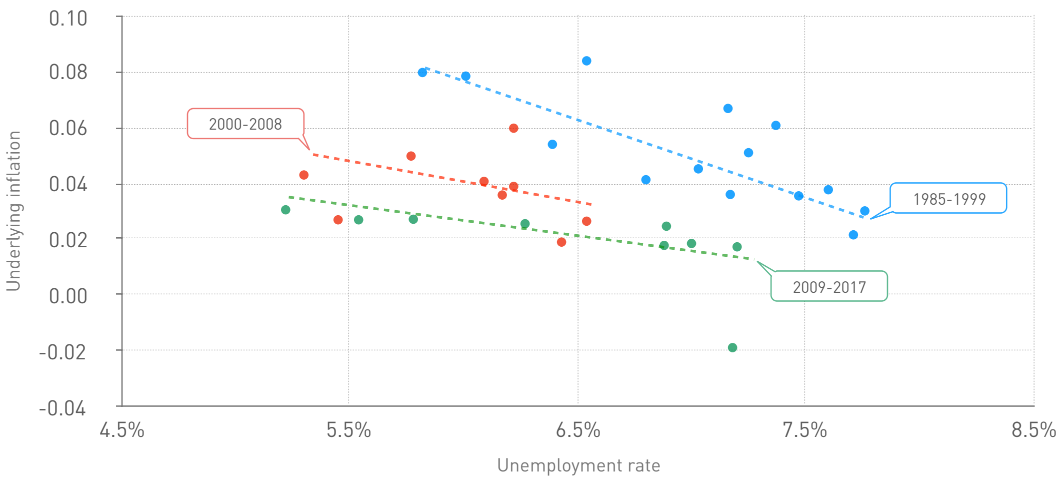
Disconnection between economic activity and inflation

Thirdly, global inflation is ambiguous. Most of the central banks in the largest emerging markets (China, India, Indonesia, Russia and Brazil) consider that underlying inflation is within their comfort zone, or even slightly higher[6]. The situation is different in developed markets, where inflation metrics remain notably lower than levels acceptable to central banks[7]. This amounts to a paradigm in the U.S. and the Eurozone. General inflation (PCE) in the U.S. was 1.8 percent in December, while underlying inflation was only <1.5 percent, much lower than mandated by the Federal Reserve to guarantee core inflation of 2 percent. Federal Reserve reports since the middle of the year constantly emphasized the need to return to the path outlined by economic theory, especially given the context of frictional unemployment. Although with certain subtle distinctions, this is also true of the Eurozone, where countries such as Germany, Italy or France find that their inflation continues to be highly conditioned by persistent low underlying inflation, despite the unprecedented acceleration in their economic activity.

This disconnection between activity and inflation has crystallized as an international debate on whether the Phillips curve (See Box 1.1-b) has ceased to be dependable. The debate surged from verification that the curve slope, which associates variations between inflation and economic activity[8], has been flattening out for the last three decades, to the point where elasticity between inflation and economic activity has all but disappeared (See Chart 1.1-r).

There are multiple reasons (though not mutually exclusive) why this relationship between activity and inflation may be fading; in fact, it has not always been true[9]. A look at Chart 1.1-r and Box 1.1-b shows a list of these reasons and brings up questions as to whether the worrisome factor is not reduced inflation but its causes. There is increasing consensus that inflation is decreasing and ceasing to respond to variations in economic activity because the expectations concerning inflation are falling relentlessly. Although this hypothesis is partisan[10], it is consistent with the argument of secular stagnation that continues to permeate the economic debate and that we referred to in our 2017 report.

Chart 1.1-r
G7: Phillips curve, 1985-2017



Source: MAPFRE Economic Research

Effects of reduced long-term inflation expectations

Reduced inflation expectations are a long-term risk that, as mentioned above, could be associated with a natural decrease in the interest rate, consistent with the secular stagnation theory. In this case, monetary policy will forego its room for maneuver to back an exit from the cycle of economic activity, especially in the event of liquidity traps (which derive from secular stagnation). A reduction in inflation expectations will lead to a downward trend in inflation that will border with deflation (as occurred in Japan in the eighties); in a setting of subpar growth, this can generate explosive debt dynamics that severely impede debt service payment, even in the context of low interest rates.

The drop in inflation expectations would be transferred over the entire yield curve to long terms, thereby flattening the curve due to temporary premium compression. This would result in the following consequences: a) problems for banks by altering their term transforming function needed to offer credit; b) problems for guaranteed long-term investment instruments used by the insurance industry and social security; c) lower production investment returns, resulting in crowding out, less investment and economic activity; and d) distorted asset valuation, wealth effects on consumption and nominal imbalances (excess credit, effects on real estate prices, corporate debt cost, etc.).

This long-term risk is especially significant in the current context, dominated by three exceptional factors:

1) The aforementioned change in the economic cycle of the U.S. and its equivalent in the Eurozone, which may be expected for 2019-2020.

2) The potential reversal of excess optimism which is common immediately before a change in the economic cycle (Lehman Brothers, DotCom crisis, Asian crisis, etc.), which could lead to sudden nominal adjustments to correct this complacency (See Chart 1.1-s). For example: changes in agents' capacity to make payments, adjustments in credit spreads in line with levels of default, effects on the valuation of balance sheet assets that are counterparty to liabilities, higher costs and funding limits for corporate leveraging and sudden contraction of recurring revenue leading to the generation of buffer limits caused by lower economic activity, real and financial returns in all sectors.

3) The beginning of a gradual but change-sensitive process to adjust global liquidity, given the scheduled balance correction initiated by the Federal Reserve and followed by the ECB. Worldwide central banks hold 15 billion dollars

Box 1.1-b
Monetary policy: inflation expectations and Phillips curve

The Phillips curve is the conceptual framework used since the middle of the last century to represent the relationship between inflation and the level of economic activity, with the inflation metric being the variation between the underlying consumer price index (CPI) and the output gap (yt - yt*) activity and/or cyclical unemployment (ut - u*), without distinction.

It takes its name from William Philips, who proposed such empirical relationship at the end of the fifties, although it was mainly developed by Samuelson and Solow in the sixties and seventies, and by Calvo, Gali and Gertler in their New-Keynesian version at the end of the nineties.

The Phillips curve is, together with the IS curve (the relationship between aggregated demand and interest rates) and the Taylor Rule (which links the monetary policy interest rate with its natural rate, inflation and the output gap), the basic conceptual framework on which most of the central banks based their monetary policy decisions.

A New-Keynesian version of the Phillips curve is currently used. It includes an expectations generation mechanism that captures the hysteresis that is empirically found in inflation:

$$\pi_t = \alpha E\pi_{lp} - k(u_t - u^*) + \varepsilon_t \qquad (1)$$

$$E\pi_{lp} = (1 - \beta)\pi_{t-1} + \beta(\pi^*) \qquad (2)$$

With regard to the foregoing expressions, (1) is the relationship between current inflation (π_t), the (u_t - u^*) activity and inflation expectations ($E\pi_{lp}$), whose formation is governed by a law (2) that uses the experience of past inflation (π_{t-1}) and the inflation target of the central bank (π^*).

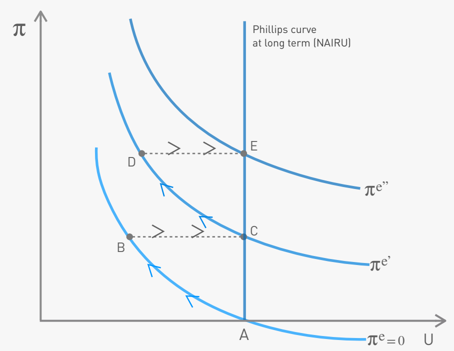
As can be seen in the graph, there are different linear relationships between inflation and the level of activity for each level of expected inflation. This means that, for equal levels of activity, an economy has very high or very low inflation depending on the credibility of the central banks in their aim to keep inflation under control.

Accordingly, the credibility of the monetary policy is crucial to anchor inflation to the targets of central banks. High credibility means that inflation has little hysteresis ($\beta \to 1$; $E\pi_{lp} \to \pi^*$) and the Taylor rule is reduced to fluctuations around the target inflation arising from increased activity. If the opposite occurs ($\beta \to 0$; $E\pi_{lp} \to [1/\beta]\pi^*$), inflation becomes persistent and explosive with the growth in economic activity. The lack of credibility makes us move between the different rules represented in the graph, which means that the expectations end up being converted into current inflation and this, in turn, conditions the expectations in the following price formation process. As illustrated in the Phillips curve diagram, at long-term, the activity in equilibrium has to live with the growing levels of inflation.

A paradigmatic case of this process was the experience lived during the stagnation period with inflation lived globally during the sixties. Then cyclical unemployment was extensive, and one lived with growing rates of inflation at identical low levels of activity.

In recent times, however, and in a more visible manner since the recovery commenced after the 2008 economic crisis (although the process commenced earlier), it has been verified that the growing levels of activity do not necessarily correspond with rising increases in inflation. According to Robeica and Jagdosinzki (2017), there are local and global reasons arising from the monetary policy to explain this process.
Among the local reasons, the secular fall in inflation can be explained by the loss of negotiating power of the labor unions, which

Phillips curve



Box 1.1-b (continued)
Monetary policy: inflation expectations and Phillips curve

imposes pressure downward on the growth of actual salaries or the commercial dumping of new market players that export lower inflation. At global level, the explanation is related with the integration of new producers into the global value chains, the automation that reduces unitary costs and the growing weight of the "zero marginal cost" industry on the economy, as is the whole development of digitalization (Rifkin 2016).

The deepest debate lies however in the attribution to monetary policy of responsibilities on the deflationary process and the union with the secular stagnation discourse, which remains in force. The secular stagnation thesis is apparently irreconcilable with the monetary policy action on the fall in inflation, since it is built on the hypothesis that monetary activity is neutral and harmless with respect to actual variables and, therefore, to the natural interest rate (R*). Consequently, the relationship between economic activity and inflation is automatic and self-adjustable in equilibrium. From this point of view, there is a relationship between activity and inflation which, following that which is verified empirically, seems to be diluting itself. That is, accepting the assumption of secular stagnation (that effectively the potential and natural interest rate fall in a secular manner for actual structural reasons) must be done by also accepting that the relationship between activity and inflation is being lost.

This paradox is resolved with the New-Keynesian approach; the expectations play a fundamental role, generating inflation and nominal interest rates at different terms. In this situation, the credibility of monetary authority (as explained before) could be that which was causing tendential falls in expectations, inflation and the exchange rate in itself, and these (the inflation expectations) would be the nexus to explain the apparent current dysfunctionality of the Phillips curve, monetary policy and the paradigm of secular stagnation.

Source: MAPFRE Economic Research

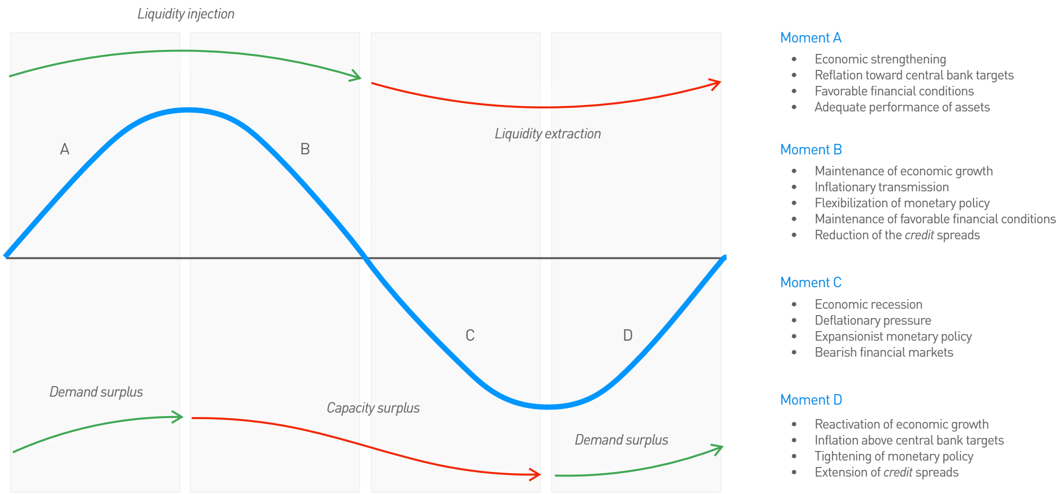
in long-term fixed income assets (mostly sovereign) in dollars or euros. Nearly two-thirds of these are in the U.S Federal Reserve and in the ECB. According to the stated time schedule, both central banks will drain approximately a third of strong currency liquidity over the next five years. This could exacerbate current symptoms of complacency and the excesses described above, thereby initiating a crisis due to a lack of liquidity caused exclusively by financial events. Potential generation of a global risk shock is increased by current management practices of portfolios with a significant volume of high-risk assets, as well as asymmetric information concerning their latent risks, which increase cycle influence in their value given the increase in liquidity tension.

From the baseline scenario to the risk scenario

For the purposes of this report, our core vision of macroeconomic performance is a scenario where 2018 will be a point of inflection and 2019 will involve the beginning of a gentle and orderly slowdown of economic activity and inflation. This will be followed by an increasingly gentle slope in the global yield curve, but with moderate appreciations of strong currencies versus emerging currencies.

Nonetheless, a global risk shock combined with inadequate economic policy management could transform this base scenario into a risk scenario. Experience confirms that the beginning of

Chart 1.1-s
Interaction between economic and financial cycles



Source: MAPFRE Economic Research

economic crises are almost always associated with problems of liquidity, which end up becoming solvency problems. In a situation such as the current one, where expansion of liquidity has delayed the correction of global imbalances, while both the global political and economic cycles may be nearing exhaustion, we envision a significant probability that our baseline scenario of gradual cycle adjustment after 2018 may become a scenario driven by a global risk shock that initiates and intensifies an early global financial adjustment. These are the characteristics of our alternative or global risk scenario, shown in the tables of the appendix to this report. A scenario such as this would essentially lead to adjustments in global fixed income, detrimental feedback among sovereign and financial tensions and corporate solvency difficulties.

1.2 Overall forecasts and risk balance in selected economies

The global economy grew 3.6 percent in 2017, due to a more synchronized cycle that saw an acceleration in both developed and emerging economies. This reveals stable global growth supported by continued lax monetary policies effected by the central banks of the G4 (United States, Japan, Eurozone and United Kingdom), although the U.S. Federal Reserve is already in the process of raising interest rates and has drawn up a road map to reduce its balance and the ECB has announced its timeframe toward monetary normalization.

Given the robustness of the global economy, worldwide growth for 2018 may repeat the rhythm of 2017, around 3.7 percent, with increased contribution from developed markets (already above 2 percent) and emerging market growth (around 4.9 percent) with the latter headed by resilient growth in China and thanks to Russia and Brazil having left recession behind. In general, a convergence between real indicators and expectations can be seen, where the main drivers are world trade, equipment investment and, in certain countries, residential investment.

In 2017, the dynamics of the United States and the Eurozone corresponded to those of developed countries (2.3 and 2.4 percent, respectively), while China continued its schedule of controlled slowdown to approximately 6.5 percent on average between 2017 and 2018. The contexts of the other emerging markets vary, depending on the global setting (especially as regards U.S. monetary policy) and the idiosyncratic factors of the corresponding political and geopolitical environment. Politics played an essential role in developed countries in 2017, but the political cycle in emerging countries (particularly Latin America) will reach its peak in 2018 with elections in Argentina, Brazil and Mexico. In addition, cyclic recovery was consolidated in Brazil and Russia.

The least positive indicator in the global setting is that inflation (which accelerated in developed market during the first semester of the year) appears to be losing traction due to a slowdown in underlying inflation and salary expectations. Although, they have been partially compensated by a renewed upturn in oil prices, their effect is still inadequate. For now, employment vitality in developed countries has not yet translated into real salary increases, raising monetary policy concerns since it places the relationship between growth and inflation at risk. Global inflation was around 3.5 percent at the end of the fourth quarter in 2017, raising the average over 3 percent for the entire year, recorded at nearly 2 percent in developed markets and 4.5 percent in emerging markets.

The U.S. Federal Reserve increased interest rates in December, raising the high end of the target rate to 1.5 percent. The renewal of the chairman and board of directors of the Federal Reserve indicates a continuation of the policy to raise rates gradually in the future. More importantly, the Federal Reserve has set the timeframe to normalize its balance sheet, which although gradual (approximately $1.3 trillion in three years, equivalent to a third of the stock accumulated since the crisis), will have repercussions on liquidity and global financial costs. Moreover, in October the ECB announced a nine-month extension of its asset purchasing program (until September 2018) but lowered purchases to 30 billion euros. The timeframe for monetary normalization in Europe, during which no increase in interest rates before the end of 2019 is contemplated, is also in the foreseeable future.

In addition, divergence between countries continues as regards emerging market monetary policy. An equal or less restrictive skew of monetary policy is expected by the central bank Mexico, given the anticipated improvement of the inflation outlook. Nonetheless, the need to accommodate political uncertainty and the trade negotiations with the United States, along with the potential extraordinary fiscal stimulus in response to the earthquakes last September and the elections in 2018 may alter this forecast. In Brazil, lax monetary policy continues in place, given low inflation and yet nascent economic activity, with a drop in the interest rate of 50 bps in December to its lowest level in recent history (7.0 percent). Meanwhile, Turkey once again raised the marginal funding rate to control its currency, currently significantly depreciated to approximately 3.8 TRL/USD.

1.2.1 United States

The inertia of momentum in the prelude to cycle change

United States GDP growth in the fourth quarter (3.1 percent) confirmed the robustness of the economy, so it is expected to close the year with growth at around 2.3 percent, driven by private consumption and investment (See Charts 1.2.1-c and 1.2.1-d and Table 1.2.1). The information as of November indicates that employment continues on the rise, with an unemployment rate of 4.1 percent and sub-unemployment under 8 percent. However, despite the strength of the job market, it should be noted that growth

United States

- Dynamism supported by consumption and capital expenditure. Highly optimistic markets.
- Despite the absence of idle capacity and a labor market with full employment, inflation does not gain strength. Underlying inflation continues to deteriorate.
- The administration of the President D. Trump has partially delivered its promised campaign policies, and the risks associated with the breach of the pending matters have not materialized either..
- The risks are decreasing, linked to political and economic management in a climate that anticipates the change in economic cycle.

of the job market, it should be noted that growth of nominal and real total payroll was moderate.

Thus, available income rose only slightly and consumption was mainly dependent on savings (the savings rate is nearly 4 percent). Despite sustained growth, a variety of indicators (employment, corporate profits, curve slope, etc.) indicate the beginning of a change in cycle for the U.S. economy.

Despite the convergence between real indicators and expectations, it is still significant that indicators such as industrial production (+2.9 percent YoY) or capacity used (77 percent) is still far from the exuberance found in the Purchasing Managers' Indexes (PMI), which continue rising, maintained by the expectation that the government will implement a reflationary monetary policy.

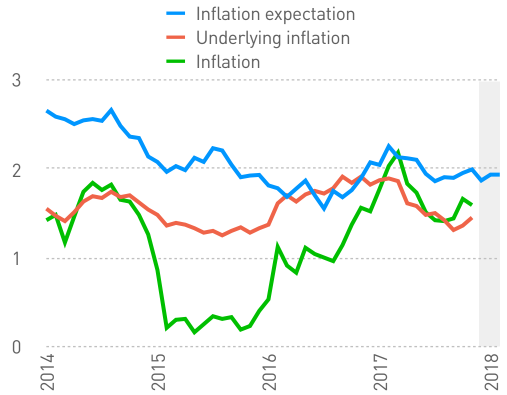
Expected reflation generated at the beginning of the year by President Trump's tax proposals has not yet materialized and the markets have not changed their appetite for risk despite this. Besides the executive orders on immigration, regulations and border policies, the negotiation with NAFTA is still ongoing and the transformation of the Healthcare Law has not taken place.

Fiscal policy has materialized in a reform that, as anticipated, has been partial and regressive and insufficient to a certain extent, since it does not expand the tax base. The tax reform does not include new expenses for infrastructure (nearly 400 billion dollars had been mentioned) and only reduces the effective rate moderately (from 19 percent to 17 percent, although corporate tax has been lowered from 35 percent to 21 percent). The tax reform confers less revenue for the Government, which should be borne in mind, given the high public debt that has brought on the need for an eventual restraint of the statutory debt ceiling.

Inflation rebounded in November to 2.2 percent, but underlying inflation slowed to 1.7 percent, providing new evidence of salary moderation and the downturn in price expectations. The current guidelines ("guidance") show that the Federal Reserve is aware of this; monetary policy (which is tightening although still at expansive levels) shows caution regarding low inflation.

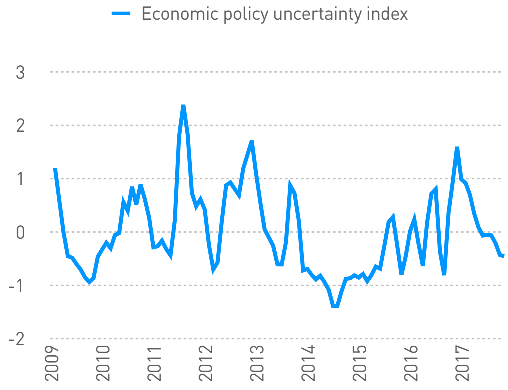
In its meeting in October 2017, the Federal Open Market Committee announced the amounts and timeframe for the Federal Reserve's process to normalize the balance, which is expected to reduce balance assets by a third ($1.3 trillion) during the next three years from October. Although in its December meeting the Federal Reserve hiked interest rates +25 bps, up to 1.50 percent, the narrative from its reports and the continuation of the same policies under its new Chairman (Jerome H. Powell) evidence that gradual increases will be the norm. Thus, two additional interest rates hikes are expected in 2018.

Chart 1.2.1-a
United States: base and underlying inflation (% y-o-y), 2014-2018



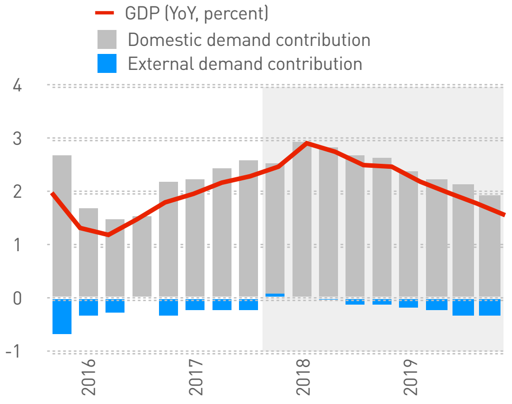
Source: MAPFRE Economic Research (based on Federal Reserve data)

Chart 1.2.1-b
United States: index (normalized) of uncertainty of economic policy, 2009-2017



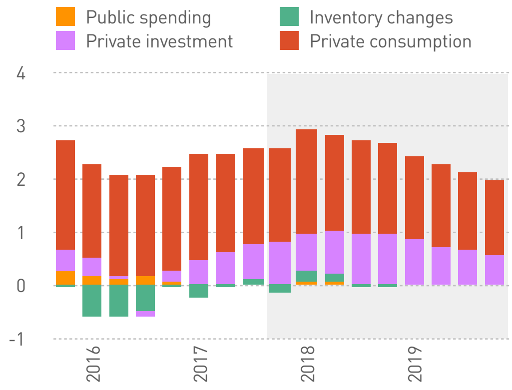
Source: Bloom, et.al. 2017

Chart 1.2.1-c
United States: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on Federal Reserve data)

Chart 1.2.1-d
United States: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on Federal Reserve data)

Table 1.2.1
United States: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	1.7	2.6	2.9	1.5	2.3	2.7	1.9
Domestic demand contribution	1.4	2.3	3.6	1.7	2.4	2.8	2.2
External demand contribution	0.3	0.3	-0.7	-0.2	-0.1	-0.1	-0.3
Private consumption contribution	1.0	1.9	2.5	1.9	1.9	1.8	1.5
Investment contribution	0.6	0.6	0.7	0.1	0.6	0.9	0.7
Public expenditure contribution	-0.4	-0.1	0.2	0.1	0.0	0.1	0.0
Domestic demand (% y-o-y, average)	1.3	2.7	3.5	1.7	2.3	2.7	2.1
Total consumption (% y-o-y, average)	0.8	2.3	3.2	2.4	2.2	2.2	1.8
Private investment (% y-o-y, average)	3.0	4.8	3.6	0.6	3.1	4.2	3.3
Exports (% y-o-y)	3.5	4.3	0.4	-0.3	3.2	3.6	2.8
Imports (% y-o-y)	1.1	4.5	5.0	1.3	3.4	3.2	4.0
Unemployment rate (%, end of period)	6.9	5.7	5.0	4.7	4.1	3.9	4.1
Inflation (% y-o-y, end of period)	1.2	1.2	0.4	1.8	2.1	1.9	1.6
Tax balance (% GDP)	-5.4	-4.8	-4.4	-5.0	-4.4	-4.6	-4.8
Trade balance (% GDP)	-4.4	-4.5	-4.4	-4.2	-4.3	-4.4	-4.5
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	-2.1	-2.1	-2.4	-2.4	-2.5	-2.8	-3.1
Official interest rate (end of period)	0.13	0.13	0.17	0.42	1.50	2.00	2.50
Short-term rate (end of period)	0.24	0.24	0.41	0.92	1.45	2.47	2.86
Long-term rate (end of period)	2.75	2.28	2.19	2.13	2.39	2.85	3.06
Exchange rate vs US dollar (end of period)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Exchange rate vs Euro (end of period)	1.36	1.25	1.10	1.08	1.20	1.20	1.20
Private credit (% y-o-y, average)	7.7	7.7	2.3	3.5	5.3	5.3	4.9
Family credit (% y-o-y, average)	0.8	2.4	2.4	2.6	3.6	5.9	5.8
P.S. non-financial credit (% y-o-y, average)	3.3	4.8	5.7	5.6	6.1	6.1	4.6
P.S. financial credit (% y-o-y, average)	2.2	2.9	2.2	4.1	3.2	2.3	1.5
Savings rate (%, average)	5.0	5.7	6.1	4.9	3.5	3.8	3.7

Source: MAPFRE Economic Research (based on Federal Reserve data)
Forecast end date: December 19, 2017.

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10-year yields are below 2.4 percent, but the yield curve is expected to flatten gradually due to increased compression of term premiums caused by the absence of core inflation and the persistence of duration risk. As a result, the dollar depreciated in comparison with the previous year, slightly above our forecast of 1.2 USD/EUR. Essentially, this is due to narrowing the gap between long-term differentials with the Eurozone.

Short-term risk balance is stable. The most significant risks appear to surface from President Trump's rhetoric, although more importantly from a potential error in monetary policy in yielding to market pressures. The latter could cause a risk shock and the reappreciation of private balances (companies and families), affecting investment and consumption. This is especially relevant in the current setting, where after 8 years of financial cycle upturn, private financial balances account for more than 3 percent of the wealth (this was 1.5 percent in the pre-Lehman era).

1.2.2 Eurozone

The boom of the European economy in 2017

The eurozone GDP is visibly gaining traction, on growing at a rate of 2.6 percent in the third quarter, which places the estimate for the whole of 2017 at around 2.4 percent (y-o-y) with Spain and Germany leading growth, while increased activity was also observed in France and Italy (see Charts 1.2.2-a and 1.2.2-b and Table 1.2.2).

The synchronized recovery of the world economic cycle and the monetary stimuli in the eurozone are clearly producing positive results. With regard to 2018, a rise in the GDP of slightly more than 2 percent is estimated. Exports are contributing decisively to growth following the investment rally in the third quarter, while consumption remained somewhat apathetic and still has a margin to improve. Average inflation in 2017 was estimated at around 1.4 percent and underlying inflation was below the ECB objective.

This was highlighted by the confidence indicators and by the real data (the December Manufacturing PMI +0.5 pp up to 60.6) reflecting the depletion of the economy's capacity excess with unemployment at minimum levels since the crisis and the used capacity at almost 84 percent. That indicates that the output gap is closing and the market anticipates new expense cycles in capital and increases in salary demands. The Euro Stoxx 50 index was up almost 10 percent in 2017, reflecting the good expectations of the 2017 boom.

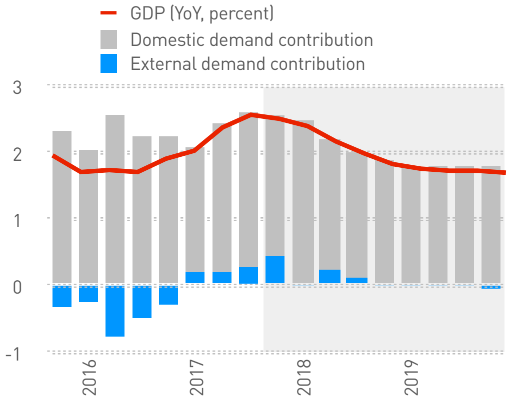
The ECB values the results obtained in terms of growth in the eurozone, but given that inflation continues without coming close to the target, it has decided to extend the program of purchasing assets until September 2018, although reducing the rate from 60 to 30 billion euros. At the moment, despite having announced the monetary standardization chronogram, there is still no talk of a balance sheet reduction or an interest rate rise. It is envisaged that interest rates will only begin to rise once the purchasing program has been completed and the deposit rate has been normalized (second half of 2019).

Although economic activity continues to be solid, risks exist that could change the scenario rapidly. Some of them were mitigated (such as a disorderly exit of the United Kingdom from the European Union now that a commitment has been reached regarding exit costs in December), others persist (such as the possible resurge of the "convertibility risk[11]" tied to the Italian elections and to the negotiations for Greek debt relief that must be recommenced in 2018) and others are consolidated (such as that arising from the scant underlying inflation, even in a

Eurozone

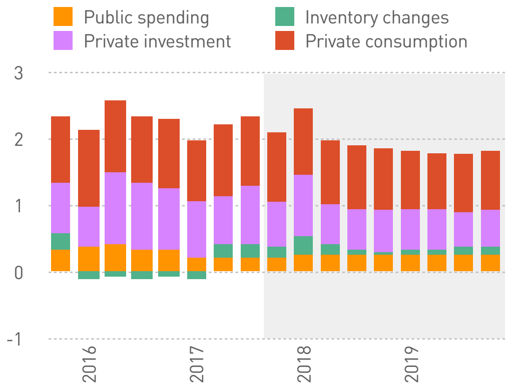
- **Expectations become reality; economic activity is situated in its cyclical maximum.**
- **Economic dynamism is supported in the foreign sector and in investment (which begins to substitute consumption).**
- **Cumulative investment needs, low interest rates, ample demand and confidence and low financial costs support expansion.**
- **Inflation continues to be contained, avoiding greater erosion of income, but also moderating salary growth.**

Chart 1.2.2-a
Eurozone: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on ECB data)

Chart 1.2.2-b
Eurozone: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on ECB data)

Table 1.2.2
Eurozone: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	-0.2	1.4	2.0	1.8	2.4	2.1	1.7
Domestic demand contribution	-0.6	0.8	1.9	2.3	2.1	2.0	1.8
External demand contribution	0.4	0.6	0.1	-0.5	0.3	0.1	0.0
Private consumption contribution	-0.3	0.5	1.0	1.1	1.0	1.0	0.9
Investment contribution	-0.5	0.1	0.6	0.9	0.8	0.7	0.6
Public expenditure contribution	0.1	0.2	0.3	0.4	0.2	0.3	0.2
Domestic demand (% y-o-y, average)	-0.6	1.3	1.9	2.3	2.2	2.1	1.9
Total consumption (% y-o-y, average)	-0.3	0.8	1.7	1.9	1.6	1.6	1.5
Private investment (% y-o-y, average)	-2.4	1.9	3.0	4.5	3.8	3.3	2.7
Exports (% y-o-y)	2.2	4.6	6.2	3.3	4.8	4.4	3.5
Imports (% y-o-y)	1.4	4.9	6.5	4.7	4.6	4.6	3.9
Unemployment rate (%, end of period)	11.9	11.4	10.5	9.7	8.8	8.3	7.9
Inflation (% y-o-y, end of period)	0.8	0.2	0.2	0.7	1.4	1.7	1.5
Tax balance (% GDP)	-3.0	-2.6	-2.1	-1.5	-1.0	-0.8	-0.9
Trade balance (% GDP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fiscal impulse (% GDP)	-0.2	0.1	0.3	0.6	1.2	1.3	1.1
Checking account balance (% GDP)	2.2	2.4	3.1	3.3	3.2	3.1	3.0
Official interest rate (end of period)	0.37	0.05	0.05	0.00	0.01	0.00	0.00
Short-term rate (end of period)	0.24	0.08	-0.09	-0.31	-0.33	-0.22	-0.26
Long-term rate (end of period)	2.96	1.50	1.19	0.92	1.11	1.52	1.81
Exchange rate vs US dollar (end of period)	1.36	1.25	1.10	1.08	1.20	1.20	1.20
Exchange rate vs Euro (end of period)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	-0.7	-0.2	0.8	1.5	2.4	3.0	3.3
P.S. non-financial credit (% y-o-y, average)	-0.5	0.3	7.5	1.4	1.1	1.6	2.3
P.S. financial credit (% y-o-y, average)	-3.5	7.1	16.3	3.3	0.0	0.9	1.9
Savings rate (%, average)	12.5	12.7	12.4	12.1	12.1	12.0	12.0

Source: MAPFRE Economic Research (based on ECB data)
Forecast end date: December 19, 2017.

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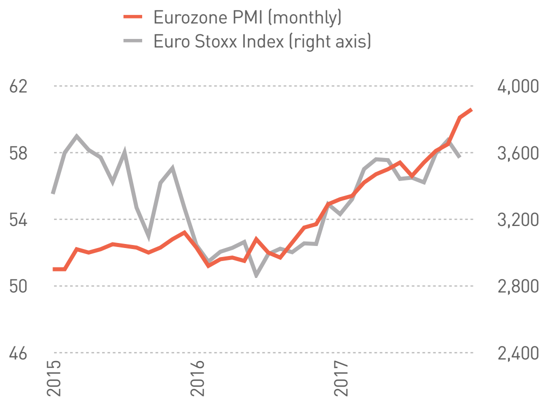
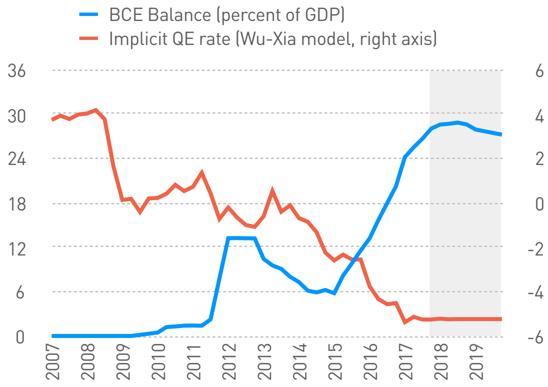
Chart 1.2.2-c
Eurozone: PMI and Euro StoXX, 2015-2017



Source: MAPFRE Economic Research (based on IHS Markit data)

Chart 1.2.2-d
Eurozone: monetary conditions and quantitative expansion (QE), 2007-2019



Source: MAPFRE Economic Research (based on ECB and Atlanta Federal Reserve data)

scenario of vigorous activity such as the current one which, among other implications, takes away a margin of maneuver from monetary policy).

1.2.3 Spain

Toward a path of more moderate growth

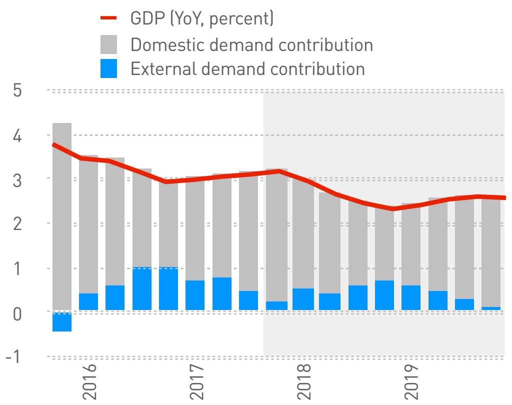
Spain continues to lead growth among the main eurozone economies. After reporting growth of 3.1 percent (y-o-y) in the third quarter of 2017, we estimate growth in the whole of the year of the same magnitude. The factors that contributed to this strength were consumer and investor confidence, lax monetary conditions and the creation of employment (unemployment dropped 16.3 percent in the third quarter). Exports and investment are the most dynamic components (see Charts 1.2.3-a and 1.2.3-b, and Table 1.2.3). It is of note that residential investment begins to rally thanks to the reactivation of mortgage credit and institutional investment in the real estate market. Consumption remained strong although it has decelerated; to rally, it would require higher gains of actual available income through salary increases or a certain tax boost and not only resorting to savings.

With regard to 2018, a deceleration in the growth of the Spanish economy is expected, which would be around 2.6 percent. This deceleration would be determined, among other motives, by the impact that the instability in Catalonia is having on investor and consumer confidence (estimated effect of between -0.2 percent and -0.5 percent bps in growth), obliging certain investment decisions to be postponed, together with the rise in oil prices that will eat away available income. These factors, however, will be offset with the still strong dynamism of foreign demand, and which will continue to be a significant driving force of expansion, despite the appreciation of the euro. The checking account will continue to have a surplus (from a deficit of 10 percent in 2007 to a surplus of 2.5 percent in 2017), which will partially relieve the pressure on the country's external investment, a necessary factor to contain the risk premium and to ensure that debt financing costs do not continue to rise (public debt was stabilized at 99 percent of the

Spain

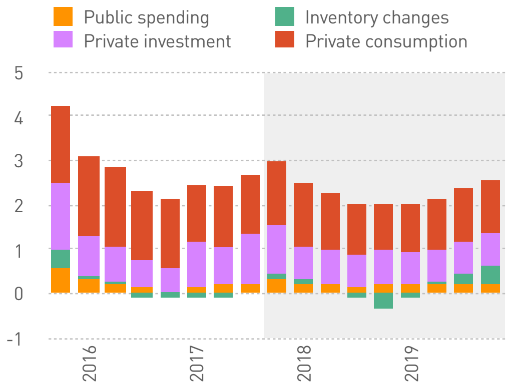
- **2018-2019 will mark the transition toward more moderate but differential growth with respect to the eurozone. Spain will continue to be the economy that is most expanding in the area.**
- **The raw materials cycle anticipates higher inflation, an erosion of income and the containment of consumption. The salary dynamics will continue to be very moderate.**
- **The political uncertainty could reduce activity by over 0.3 percent in 2018.**

Chart 1.2.3-a
Spain: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on Spanish National Statistics Institute data)

Chart 1.2.3-b
Spain: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on Spanish National Statistics Institute data)

Table 1.2.3
Spain: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	-1.7	1.4	3.4	3.3	3.1	2.6	2.6
Domestic demand contribution	-3.1	1.3	3.8	2.5	2.6	2.1	2.2
External demand contribution	1.4	0.1	-0.3	0.7	0.5	0.5	0.4
Private consumption contribution	-1.7	0.8	1.7	1.7	1.3	1.2	1.1
Investment contribution	-0.7	0.5	1.3	0.7	1.0	0.8	0.7
Public expenditure contribution	-0.4	-0.1	0.4	0.2	0.2	0.2	0.2
Domestic demand (% y-o-y, average)	-3.1	1.9	3.9	2.6	2.7	2.2	2.3
Total consumption (% y-o-y, average)	-2.8	1.0	2.8	2.4	2.1	1.9	1.8
Private investment (% y-o-y, average)	-3.4	4.7	6.5	3.3	4.8	3.5	3.4
Exports (% y-o-y)	4.3	4.3	4.2	4.8	5.3	4.7	4.1
Imports (% y-o-y)	-0.5	6.6	5.9	2.7	4.1	3.5	3.6
Unemployment rate (%, end of period)	25.7	23.7	20.9	18.6	16.3	14.7	13.8
Inflation (% y-o-y, end of period)	0.1	-0.5	-0.3	1.0	1.5	1.7	1.5
Tax balance (% GDP)	-7.1	-6.0	-5.3	-4.6	-3.1	-2.5	-2.1
Trade balance (% GDP)	-1.4	-2.2	-2.1	-1.6	-1.9	-1.4	-1.0
Fiscal impulse (% GDP)	-4.1	-3.1	-2.6	-2.0	-0.8	-0.4	0.0
Checking account balance (% GDP)	1.5	1.0	1.1	1.9	1.8	1.3	1.3
Official interest rate (end of period)	0.37	0.05	0.05	0.00	0.01	0.00	0.00
Short-term rate (end of period)	0.24	0.08	-0.09	-0.31	-0.33	-0.22	-0.26
Long-term rate (end of period)	4.16	2.00	1.71	1.31	1.71	2.16	2.45
Exchange rate vs US dollar (end of period)	1.36	1.25	1.10	1.08	1.20	1.20	1.20
Exchange rate vs Euro (end of period)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	-5.1	-4.9	-3.8	-2.2	0.0	3.5	3.4
P.S. non-financial credit (% y-o-y, average)	-9.6	-4.6	-2.6	-2.8	-0.2	1.3	2.3
P.S. financial credit (% y-o-y, average)	-14.7	-1.6	-8.0	-27.5	-13.4	-13.0	-12.7
Savings rate (%, average)	9.9	9.3	8.8	7.9	6.6	6.1	5.9

Source: MAPFRE Economic Research (based on Spanish National Statistics Institute data)
Forecast end date: December 19, 2017.

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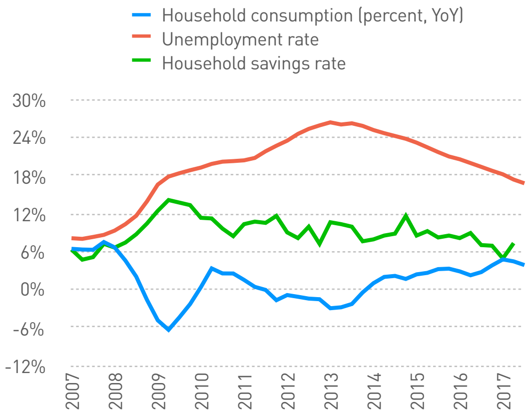
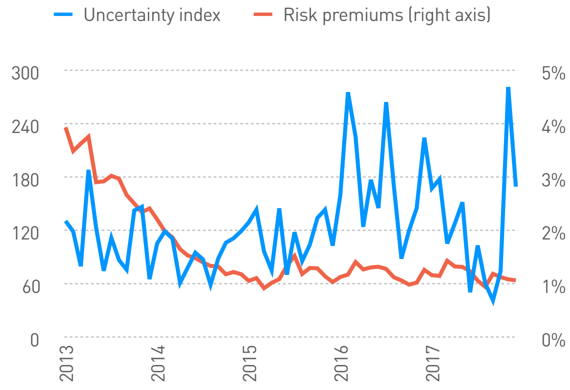
Chart 1.2.3-c
Spain: consumption, economic activity and savings, 2007-2017



Source: MAPFRE Economic Research (based on Spanish National Statistics Institute data)

Chart 1.2.3-d
Spain: index (normalized) of uncertainty of economic policy and risk premium, 2013-2017



Source: MAPFRE Economic Research (based on Bloom, et. al. 2017 and ECB data)

(public debt was stabilized at 99 percent of the GDP).

The most evident risks for the Spanish economy appear to be those arising from regional conflicts, especially the Catalonia crisis which, beyond the volatility to which it is associated, could have consequences on the current political stability, together with the correct approval and execution of the Spanish State Budgets.

1.2.4 Germany

Renewing leadership

The German economy ended the third quarter of 2017 with marked dynamism ((2.8 percent y-o-y), as anticipated by the sentiment indicators and some early indicators. Accordingly, we estimate that growth will be 2.5 percent for the whole of 2017. The vigor of domestic demand was observed in investment and imports (see Charts 1.2.4-a and 1.2.4-b, and Table 1.2.4). In light of data on consumer confidence and on the investment and employment intentions of employers that control increasingly higher adjustments of installed capacity and difficulties to recruit, we anticipate that 2018 will have a growth projection of around 2.4 percent.

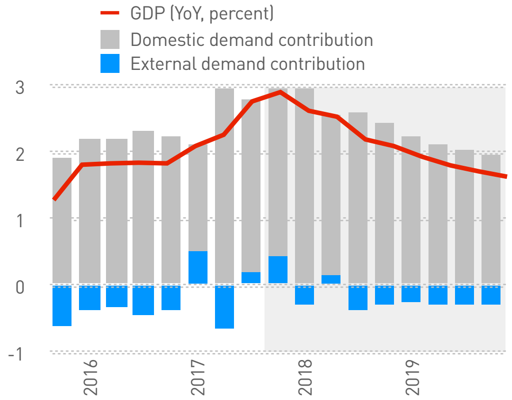
The German economy is set to maintain its still large checking account surplus (over 7 percent of GDP in our horizon), which will reinforce its robust international position, attract capital flows and keep long-term interest rates below the rest of the eurozone.

From a political standpoint, the two large German parties have outlined an agreement in principle to form a government after over three months since the last elections. Regardless of this, without urgent matters for the Government and with a favorable economic panorama, an extremely limited impact of this political environment is expected on economic growth.

Germany

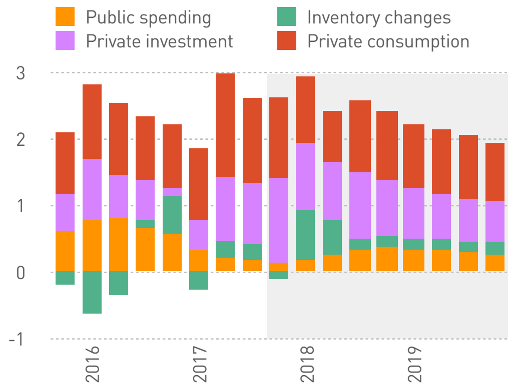
- **The dynamism of the German economy was maintained in the third quarter of 2017. Global demand generates new needs to extend the production plant and the workforce.**
- **The external sector will maintain such dynamism, swelling the checking account surplus and contributing to lower long-term interest rates than in the rest of the eurozone.**
- **There is a risk of over-heating; German inflation will be higher than that of the EMU.**

Chart 1.2.4-a
Germany: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on DESTATIS data)

Chart 1.2.4-b
Germany: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on DESTATIS data)

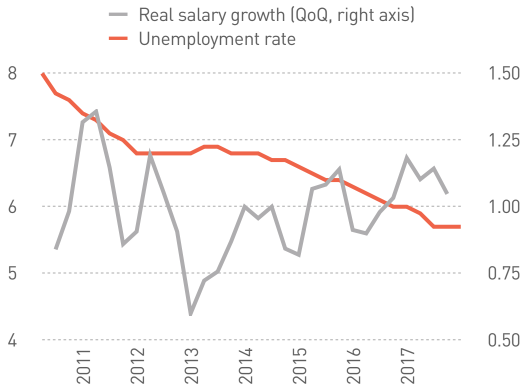
Table 1.2.4
Germany: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	0.6	1.9	1.5	1.9	2.5	2.4	1.8
Domestic demand contribution	0.9	0.8	1.4	2.2	2.4	2.6	2.1
External demand contribution	-0.3	1.1	0.2	-0.4	0.1	-0.2	-0.3
Private consumption contribution	0.4	0.6	0.9	1.0	1.3	1.0	0.9
Investment contribution	-0.2	0.4	0.2	0.6	0.9	0.9	0.7
Public expenditure contribution	0.3	0.3	0.5	0.7	0.2	0.3	0.3
Domestic demand (% y-o-y, average)	1.0	1.3	1.5	2.4	2.6	2.8	2.2
Total consumption (% y-o-y, average)	0.9	1.2	1.9	2.3	2.0	1.7	1.7
Private investment (% y-o-y, average)	-1.1	3.7	1.0	2.9	4.5	4.6	3.3
Exports (% y-o-y)	1.9	4.5	4.7	2.4	4.9	5.4	4.1
Imports (% y-o-y)	3.1	3.5	5.2	3.8	5.4	6.7	5.3
Unemployment rate (%, end of period)	6.8	6.6	6.3	6.0	5.7	5.5	5.4
Inflation (% y-o-y, end of period)	1.3	0.5	0.3	1.1	1.8	2.0	2.1
Tax balance (% GDP)	-0.1	0.3	0.6	0.8	1.4	0.9	0.3
Trade balance (% GDP)	7.6	7.8	8.5	8.5	8.2	7.7	7.4
Fiscal impulse (% GDP)	1.4	1.6	1.7	1.7	2.1	2.1	1.3
Checking account balance (% GDP)	6.8	7.5	8.6	8.2	8.0	8.4	8.0
Official interest rate (end of period)	0.37	0.05	0.05	0.00	0.01	0.00	0.00
Short-term rate (end of period)	0.24	0.08	-0.09	-0.31	-0.33	-0.22	-0.26
Long-term rate (end of period)	1.80	0.78	0.57	0.11	0.44	0.84	1.12
Exchange rate vs US dollar (end of period)	1.36	1.25	1.10	1.08	1.20	1.20	1.20
Exchange rate vs Euro (end of period)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	0.8	1.1	1.9	2.8	3.3	4.4	5.0
P.S. non-financial credit (% y-o-y, average)	4.3	2.2	1.3	2.5	4.7	4.4	4.0
P.S. financial credit (% y-o-y, average)	-7.7	-8.6	7.4	2.8	0.6	3.7	4.0
Savings rate (%, average)	8.9	9.3	9.6	9.8	9.8	9.9	9.6

Source: MAPFRE Economic Research (based on DESTATIS data)
Forecast end date: December 19, 2017.

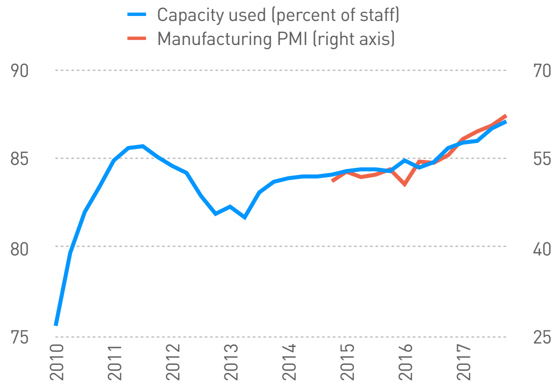
Click here to access the interactive version of this information

Chart 1.2.4-c
Germany: Unemployment rate and growth actual salary, 2010-2017



Source: MAPFRE Economic Research (based on DESTATIS data)

Chart 1.2.4-d
Germany: capacity used and confidence index (Manufacturing PMI), 2010-2017



Source: MAPFRE Economic Research (based on DESTATIS and IHS Markit data)

1.2.5 Italy

Elections and end of the ECB purchasing program

The Italian economy consolidates its recovery, with growth of 0.4 percent q-o-q in the third quarter of 2017 (1.7 percent y-o-y), which causes us to review growth for the whole year to 1.6 percent. The main drivers of the level of activity are consumption (+1.3 percent), exports (+5.2 percent) and private investment (+3.2 percent). Exports have benefited from a weak euro at the beginning of the year, but that favorable factor (which is normally accompanied by a time difference) will be lost due to the recovery of the euro in the second half of the year. Consumer and business confidence improved in the second half of the year, boosting consumption and investment (see Charts 1.2.5-a and 1.2.5-b, and Table 1.2.5).

Certain structural reforms have been implemented at legislative level, but at a slow rate. The tax deficit (-2.5 percent of the GDP) is being reduced, although not as quickly as expected by the European authorities. Accordingly, the level of debt (132 percent of the GDP) will continue to rise. The most complicated matter is that in 2018 the sovereign bond purchasing program by the ECB will probably end, and Italy will have to find private demand for its bond renewals. An improved credit rating will only be observed if the structural reforms gained traction and a reduction in the level of debt began to be seen.

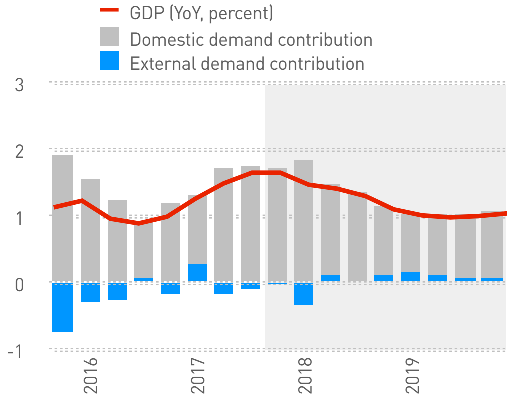
Thus, the favorable winds for the Italian economy appear to be waning: the end of the quantitative easing (QE), the strengthening of the euro and a banking sector still being restructured means that credit to the private sector continues to be depressed.

The legislative elections in Italy will be held on March 4, and the party in the Government (Democratic Party) has lost its leadership position in the polls in favor of the Five-Star Movement. Everything indicates that a highly fragmented parliament will be formed, which will hinder structural reforms and tax consolidation. This would be negative for bond

Italy

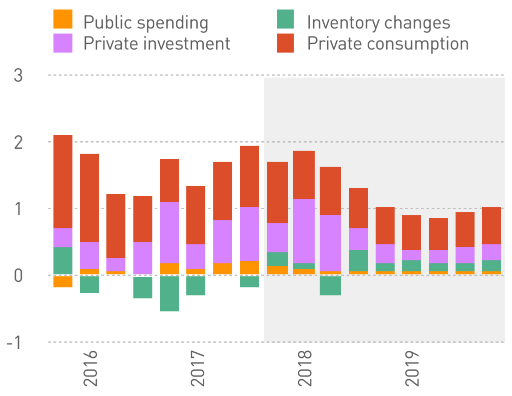
- **The Italian economy is in a positive moment, with expected growth of 1.6 percent in 2017.**
- **In March 2018, elections will take place, which could lead to a fragmented parliament, with problems to continue the structural reforms and secure growth and tax consolidation.**
- **The foreseeable end to ECB stimuli in 2018 will oblige Italy to find substitutive demand for its bonds in the private sector.**

Chart 1.2.5-a
Italy: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on the Italian National Statistics Institute data)

Chart 1.2.5-b
Italy: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on the Italian National Statistics Institute data)

Table 1.2.5
Italy: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	-1.7	0.2	0.9	1.1	1.6	1.4	1.0
Domestic demand contribution	-2.6	0.0	1.4	1.2	1.6	1.4	0.9
External demand contribution	0.8	0.2	-0.5	-0.2	0.0	0.0	0.1
Private consumption contribution	-1.5	0.1	1.2	0.9	0.9	0.6	0.5
Investment contribution	-1.2	-0.4	0.3	0.5	0.6	0.6	0.2
Public expenditure contribution	-0.1	-0.1	-0.1	0.1	0.2	0.1	0.1
Domestic demand (% y-o-y, average)	-2.6	0.3	1.4	1.2	1.6	1.4	1.0
Total consumption (% y-o-y, average)	-1.9	0.0	1.4	1.2	1.3	0.9	0.8
Private investment (% y-o-y, average)	-6.6	-2.1	1.7	2.9	3.2	3.4	1.2
Exports (% y-o-y)	0.9	2.4	4.2	2.6	5.2	4.1	3.4
Imports (% y-o-y)	-2.3	3.1	6.6	3.3	5.6	4.4	3.3
Unemployment rate (%, end of period)	12.4	12.7	11.5	11.8	11.0	10.5	10.2
Inflation (% y-o-y, end of period)	0.6	0.1	0.2	0.1	0.9	2.1	1.6
Tax balance (% GDP)	-3.0	-3.0	-2.6	-2.5	-2.1	-1.8	-1.4
Trade balance (% GDP)	1.8	2.6	2.5	3.0	2.7	2.6	2.9
Fiscal impulse (% GDP)	1.8	1.4	1.4	1.3	1.5	1.8	2.1
Checking account balance (% GDP)	1.0	1.9	1.5	2.7	2.6	2.1	1.9
Official interest rate (end of period)	0.37	0.05	0.05	0.00	0.01	0.00	0.00
Short-term rate (end of period)	0.24	0.08	-0.09	-0.31	-0.33	-0.22	-0.26
Long-term rate (end of period)	4.16	2.25	1.59	1.76	2.24	2.44	2.82
Exchange rate vs US dollar (end of period)	1.36	1.25	1.10	1.08	1.20	1.20	1.20
Exchange rate vs Euro (end of period)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	-1.4	-1.0	-0.3	0.4	1.2	2.7	3.8
P.S. non-financial credit (% y-o-y, average)	-3.9	-2.7	-1.8	-2.1	1.0	4.8	3.3
P.S. financial credit (% y-o-y, average)	-28.7	-27.6	-1.1	-0.1	14.1	6.2	5.8
Savings rate (%, average)	9.9	10.9	10.6	10.1	9.8	9.7	9.8

Source: MAPFRE Economic Research (based on the Italian National Statistics Institute data)
Forecast end date: December 19, 2017.

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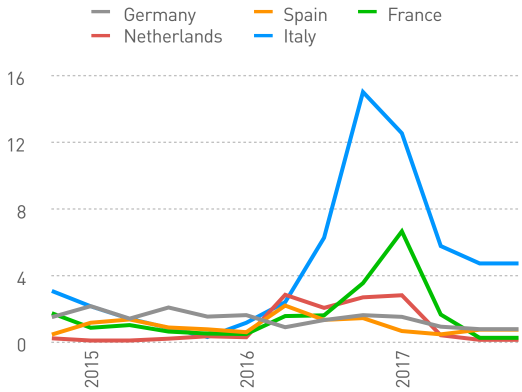
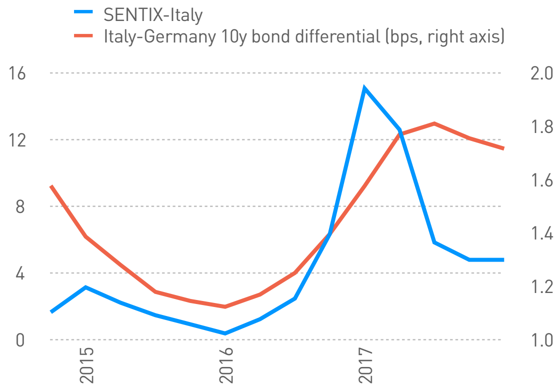
Chart 1.2.5-c
Italy: comparative study of the perception of the break with the Euro based on the SENTIX index, 2015-2017



Source: MAPFRE Economic Research (based on SENTIX data)

Chart 1.2.5-d
Italy: SENTIX index and risk premium, 2015-2017



Source: MAPFRE Economic Research (based on Bank of Italy and SENTIX data)

consolidation. This would be negative for bond demand in Italy.

1.2.6 United Kingdom

Brexit continues to define the economic context

On December 8, the United Kingdom and the European Union reached an agreement on the "exit bill". The next phase will not be easier. The United Kingdom wishes to ensure a transition period of at least two years after March 2019, which would be the new negotiations phase. An agreement is expected to be reached before the end of 2018 to ensure a gentle transition. It is already taken for granted that these transition years are essential to define the definitive commercial relationship and other aspects of the relationship between the United Kingdom and the European Union.

Meanwhile, the political climate in the United Kingdom remains complicated with the conservative party divided over the manner in which to address Brexit, and a Labor party that is seeing its position rise in the surveys. A government without an absolute majority and the need to vote agreements in the Parliament grants it less margin for maneuver than it would desire. It is too soon to anticipate it, but the probability of new elections would rise to the extent that the political situation continues to grow taut.

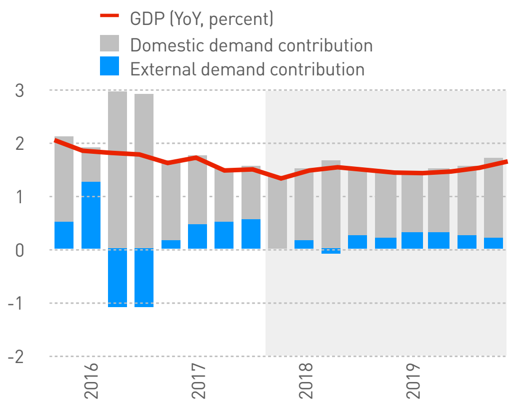
Economic growth in the third quarter of 2017 was 1.5 percent y-o-y (+0.4 percent q-o-q), with weakened private consumption (+1.6 percent y-o-y in the third quarter), and with a GDP supported by exports (+4.6 percent y-o-y in the third quarter of the year). Investment generated a surprise in a backdrop of uncertainty, rising by 1.8 percent. For the whole of 2017, we envisage economic growth of 1.5 percent, as in 2018 (see Charts 1.2.6-a and 1.2.6-b, and Table 1.2.6).

The inflation data of 3.9 percent published in November was due to the inflationary impact of sterling depreciation on imports. We envisage

United Kingdom

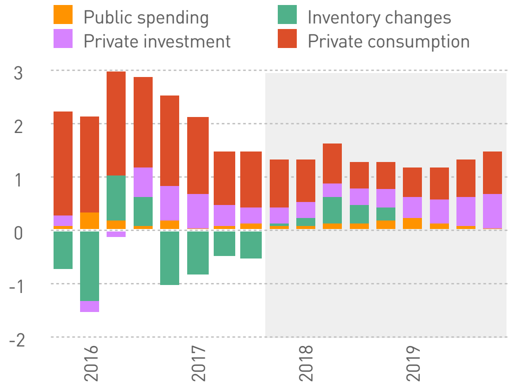
- On December 8, the United Kingdom and the European Union reached an agreement on the "exit bill", which opens the new phase of negotiations on the transition period.
- Economic growth of 1.5 percent for 2017 was conditioned by weaker private consumption, but also by export and investments - a source of surprise, due to their strength, and which are compensating weak consumption.
- Growth of 1.5 percent is envisaged for 2018, with a certain weakening of consumption and a moderation of investment and exports.

Chart 1.2.6-a
United Kingdom: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on Office for National Statistics data)

Chart 1.2.6-b
United Kingdom: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on Office for National Statistics data)

Table 1.2.6
United Kingdom: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	2.1	3.1	2.3	1.8	1.5	1.5	1.6
Domestic demand contribution	1.9	2.4	2.4	2.0	1.2	1.4	1.3
External demand contribution	0.1	0.7	-0.1	-0.2	0.4	0.1	0.3
Private consumption contribution	1.2	1.4	1.7	1.8	1.1	0.6	0.7
Investment contribution	0.5	0.7	0.5	0.2	0.4	0.3	0.5
Public expenditure contribution	0.0	0.5	0.1	0.2	0.1	0.1	0.1
Domestic demand (% y-o-y, average)	1.9	3.2	2.5	2.0	1.2	1.4	1.3
Total consumption (% y-o-y, average)	1.5	2.2	2.2	2.5	1.5	1.0	1.0
Private investment (% y-o-y, average)	3.5	7.2	2.8	1.4	2.4	1.8	3.0
Exports (% y-o-y)	0.9	2.7	5.0	1.1	4.7	2.8	3.4
Imports (% y-o-y)	3.1	4.5	5.1	4.3	2.9	2.3	2.4
Unemployment rate (%, end of period)	3.8	2.6	2.2	2.2	2.3	2.2	2.1
Inflation (% y-o-y, end of period)	2.1	0.9	0.1	1.2	3.1	1.9	1.4
Tax balance (% GDP)	-5.6	-5.7	-4.3	-3.3	-2.3	-1.9	-1.4
Trade balance (% GDP)	-6.8	-6.7	-6.3	-6.9	-6.7	-6.6	-6.3
Fiscal impulse (% GDP)	-4.0	-4.2	-3.0	-1.9	-0.9	-0.8	-0.3
Checking account balance (% GDP)	-5.5	-5.3	-5.2	-5.9	-4.4	-3.4	-2.5
Official interest rate (end of period)	0.50	0.50	0.50	0.25	0.41	0.53	0.68
Short-term rate (end of period)	0.51	0.53	0.57	0.38	0.44	0.62	0.78
Long-term rate (end of period)	2.80	2.11	1.92	1.30	1.39	1.90	2.28
Exchange rate vs US dollar (end of period)	1.62	1.58	1.52	1.24	1.33	1.39	1.41
Exchange rate vs Euro (end of period)	1.19	1.27	1.39	1.15	1.13	1.16	1.17
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	1.2	2.1	2.9	4.1	4.2	2.7	2.6
P.S. non-financial credit (% y-o-y, average)	-1.2	-3.3	-2.3	2.6	7.3	2.6	2.4
P.S. financial credit (% y-o-y, average)	3.7	-9.3	-13.2	7.0	10.9	3.4	4.5
Savings rate (%, average)	8.7	8.4	9.2	7.1	5.0	5.3	5.6

Source: MAPFRE Economic Research (based on Office for National Statistics data)
Forecast end date: December 19, 2017.

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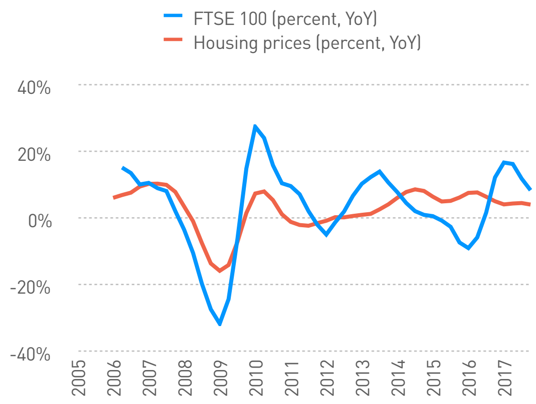
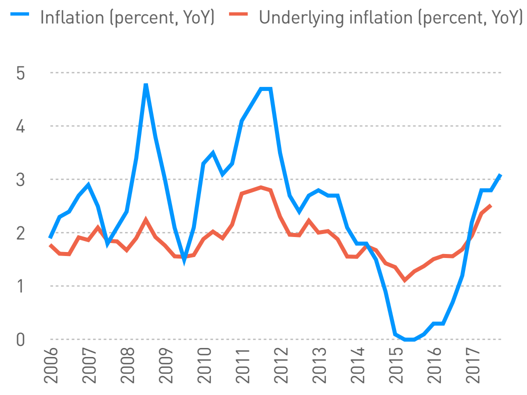
Chart 1.2.6-c
United Kingdom: price of assets and wealth, 2005-2017



Source: MAPFRE Economic Research (based on Nationwide Building Society data)

Chart 1.2.6-d
United Kingdom: behavior of inflation, 2006-2017.



Source: MAPFRE Economic Research (based on Bank of England data)

final inflation for 2017 of 3.1 percent, tapering off to 1.9 percent in 2018. The Bank of England raised rates to 0.50 percent at its meeting in November, leaving them stable at its December meeting, to see the impact of this rise on moderating inflation. The pound sterling recovered with respect to the euro in September and remained stable at around 1.13 EUR/GBP in the last quarter. Such stabilization will contribute to moderate inflation in 2018.

1.2.7 Japan

Continuism of economic policy following the elections

The Japanese economy grew by 2.1 percent y-o-y in the third quarter of 2017, which anticipates growth of close to 1.8 percent for the whole of the year. Such growth was driven mainly by consumption and private investment. The PMI and business confidence indicators anticipate that the dynamism will be maintained in the fourth quarter of that year (see Charts 1.2.7-a and 1.2.7-b, and Table 1.2.7).

Exports are projected to continue to be the main driver of growth in the future, while public spending will support consumption due to the extensive fiscal program approved last year. Both factors will help sustain the pace of growth in economic activity over the next two years.

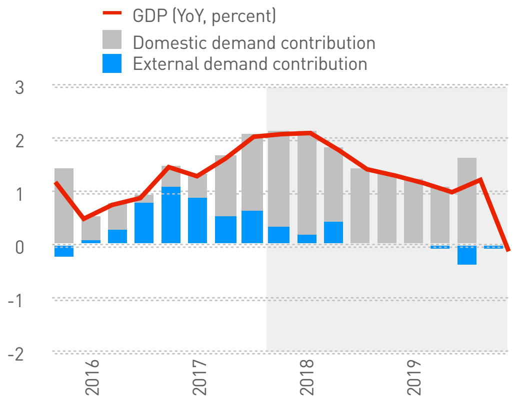
The global economic and trade cycle, the growth recovery and the recent trade agreement with the European Union will also be decisive factors of support . Accordingly, we foresee an average rise of over 1.7 percent in the GDP in 2017 and 2018, with a contraction in 2019, due to the effect of increased taxes on consumption scheduled for October of that year.

Also, the dynamic of job creation and economic activity is maintained. However, for the time being, and until growth gains traction, such dynamic does not appear to be leading to wage inflation for structural reasons. Moreover, household deleveraging and the population dynamic is moderating

Japan

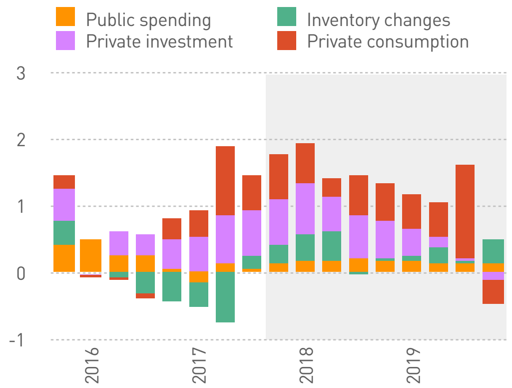
- **The victory of Shinzō Abe in the last elections provides stability to Japan's economic policy, providing continuity to the positive dynamics of the previous quarter.**
- **Although limited, Japan's economic prospects remain favorable as a result of external demand, the fiscal thrust of 5 percent of the GDP and the depreciation of the yen.**
- **The most immediate risk for Japan's economy appears to reside in the geopolitical tensions with North Korea.**

Chart 1.2.7-a
Japan: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on Statistics Bureau data)

Chart 1.2.7-b
Japan: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on Statistics Bureau data)

Table 1.2.7
Japan: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	2.0	0.3	1.4	0.9	1.8	1.7	0.9
Domestic demand contribution	2.4	-0.3	1.0	0.4	1.2	1.5	1.0
External demand contribution	-0.4	0.6	0.4	0.6	0.6	0.2	-0.1
Private consumption contribution	1.4	-0.5	0.0	0.0	0.7	0.5	0.5
Investment contribution	1.1	0.4	0.4	0.3	0.7	0.6	0.1
Public expenditure contribution	0.3	0.1	0.3	0.3	0.0	0.2	0.1
Domestic demand (% y-o-y, average)	2.4	0.3	1.0	0.4	1.2	1.5	1.0
Total consumption (% y-o-y, average)	2.1	-0.6	0.4	0.4	0.9	0.9	0.9
Private investment (% y-o-y, average)	5.0	3.0	1.8	1.1	2.8	2.6	0.5
Exports (% y-o-y)	0.9	9.3	3.0	1.3	6.2	4.6	3.0
Imports (% y-o-y)	3.3	8.4	0.7	-1.9	2.6	3.0	3.7
Unemployment rate (%, end of period)	3.9	3.5	3.3	3.1	2.8	2.6	2.5
Inflation (% y-o-y, end of period)	1.5	2.5	0.2	0.3	0.3	1.0	1.8
Tax balance (% GDP)	-7.6	-5.4	-3.5	-4.6	-5.0	-5.5	-4.9
Trade balance (% GDP)	-1.7	-2.0	-0.2	1.0	1.0	1.1	1.0
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	0.9	0.8	3.1	3.7	4.1	4.0	3.9
Official interest rate (end of period)	0.07	0.06	0.08	-0.04	-0.04	0.01	-0.05
Short-term rate (end of period)	0.14	0.11	0.08	-0.04	-0.04	0.02	-0.04
Long-term rate (end of period)	0.64	0.45	0.31	0.00	0.05	0.11	0.09
Exchange rate vs US dollar (end of period)	100.43	114.55	121.44	109.45	112.91	114.69	116.33
Exchange rate vs Euro (end of period)	136.75	142.83	133.01	118.01	135.51	137.67	139.68
Private credit (% y-o-y, average)	3.6	1.6	2.1	0.0	4.0	3.5	3.0
Family credit (% y-o-y, average)	1.1	0.9	1.5	1.6	1.5	1.0	0.4
P.S. non-financial credit (% y-o-y, average)	-0.1	0.8	1.1	2.2	5.3	3.5	1.8
P.S. financial credit (% y-o-y, average)	3.9	8.5	7.7	-0.5	5.5	1.1	2.3
Savings rate (%, average)	0.3	-0.4	0.7	2.5	3.0	3.0	3.0

Source: MAPFRE Economic Research (based on Statistics Bureau data)
Forecast end date: December 19, 2017.

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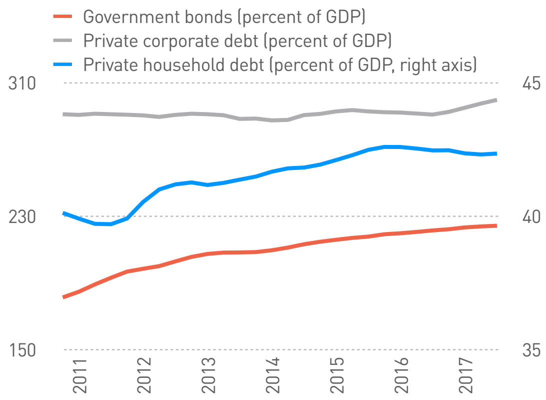
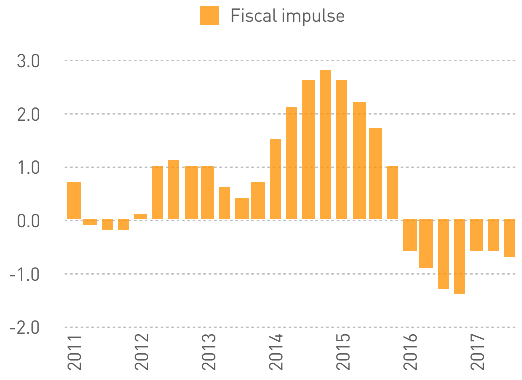
Chart 1.2.7-c
Japan: public debt (percent of GDP), 2011-2017



Source: MAPFRE Economic Research (based on Bank of Japan data)

Chart 1.2.7-d
Japan: fiscal impulse (change in primary deficit), 2011-2017.



Source: MAPFRE Economic Research (based on Bank of Japan data)

and the population dynamic is moderating inflation.

Hence, monetary policy will remain expansionary in the absence of inflationary pressure (with inflation dropping for the sixth month in a row), aimed at pushing the term premium on the sovereign yield curve firmly back into positive territory. Accordingly, Japan will continue with its heterodox monetary policy (focusing on the interest rate curve and not on the inflation objective), in order to protect its financial system. Although the current cycle generated a fleeting appreciation of the yen, it is expected to depreciate once again to around 115 yens per dollar during 2018.

1.2.8 Turkey

End of promoted growth

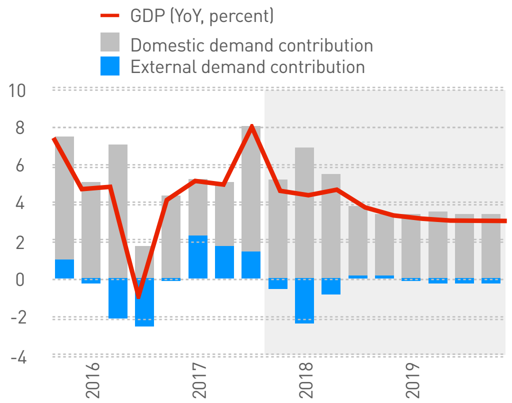
The Turkish economy reported sustained growth as a result of stimulation policies and, particularly, the credit provision guaranteed by the State, keeping the rate of growth of the quarterly GDP above 2 percent until the third quarter of 2017 and, although a moderate slowdown began to be observed, growth in the GDP was added for the whole of the year of over 5 percent. Next year, however, growth is expected to be moderated due to the abatement of the public sector impulses and the slowdown of credit growth, as a result of the straggling effect of the current tightening of monetary policy with respect to markets. In 2018, growth is expected to drop to around 4.1 percent, mainly as a result of lower total public and private consumption and a slowdown in investment, especially residential (see Charts 1.2.8-a and 1.2.8-b, and Table 1.2.8).

Inflation remained in double figures (13 percent general and 12 percent underlying), doubling the central bank's target. This meant that, although the official interest rate remained at 8 percent,

Turkey

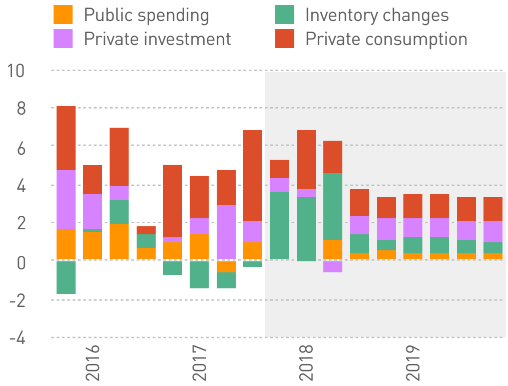
- **The economic dynamism induced by the Government in 2017 will give way to normal growth in 2018, when the demand policies lose validity.**
- **Inflation has reached record levels, especially underlying inflation. The central bank will do everything required to stop it.**
- **The fiscal and monetary thrusts will have certain resilience in 2018, but increased economic and political uncertainty could counteract a significant part of their effect.**
- **The departure of portfolio flows arising from the normalization of the United States Federal Reserve's monetary policy and from the local problems will weigh on the exchange rate in 2018, which will remain**

Chart 1.2.8-a
Turkey: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on TURKSTAT data)

Chart 1.2.8-b
Turkey: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on TURKSTAT data)

Table 1.2.8
Turkey: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	8.5	5.3	6.0	3.3	5.8	4.1	3.2
Domestic demand contribution	10.3	3.4	5.5	4.6	4.6	4.9	3.4
External demand contribution	-1.8	1.9	0.5	-1.3	1.2	-0.7	-0.2
Private consumption contribution	4.9	1.9	3.4	2.2	2.5	1.8	1.3
Investment contribution	3.8	1.3	2.7	0.7	1.4	0.5	1.0
Public expenditure contribution	1.1	0.4	0.5	1.3	0.4	0.5	0.4
Domestic demand (% y-o-y, average)	10.1	3.2	5.4	4.5	4.5	4.8	3.4
Total consumption (% y-o-y, average)	7.9	3.0	5.1	4.7	3.9	3.1	2.4
Private investment (% y-o-y, average)	14.0	5.5	9.1	2.4	4.6	1.7	3.6
Exports (% y-o-y)	1.4	8.3	4.3	-1.7	11.1	3.0	1.7
Imports (% y-o-y)	8.0	-0.3	1.8	3.7	5.1	5.9	2.6
Unemployment rate (%, end of period)	9.3	10.7	10.5	12.1	11.7	11.2	10.9
Inflation (% y-o-y, end of period)	7.5	8.8	8.2	7.6	12.0	8.8	7.8
Tax balance (% GDP)	-1.1	-1.1	-1.1	-1.3	-2.1	-2.4	-2.2
Trade balance (% GDP)	-8.4	-6.8	-5.6	-4.7	-6.5	-6.7	-5.7
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	-6.7	-4.7	-3.7	-3.8	-4.9	-5.5	-4.7
Official interest rate (end of period)	4.50	8.25	7.50	7.71	8.01	8.13	6.84
Short-term rate (end of period)	7.90	9.97	11.28	9.35	13.21	13.15	10.30
Long-term rate (end of period)	9.16	8.55	10.24	10.68	12.01	11.35	9.96
Exchange rate vs US dollar (end of period)	2.03	2.26	2.91	3.28	3.70	3.71	3.62
Exchange rate vs Euro (end of period)	2.75	2.82	3.19	3.53	4.44	4.46	4.35
Private credit (% y-o-y, average)	28.8	23.2	23.0	12.8	20.3	11.9	10.7
Family credit (% y-o-y, average)	24.0	16.3	12.5	7.1	17.4	18.1	18.5
P.S. non-financial credit (% y-o-y, average)	31.1	30.1	29.9	14.7	21.3	7.8	10.2
P.S. financial credit (% y-o-y, average)	24.3	22.4	26.4	9.0	24.8	6.0	10.6
Savings rate (%, average)	17.9	20.5	20.3	22.7	21.3	20.6	19.9

Source: MAPFRE Economic Research (based on TURKSTAT data)
Forecast end date: December 19, 2017.

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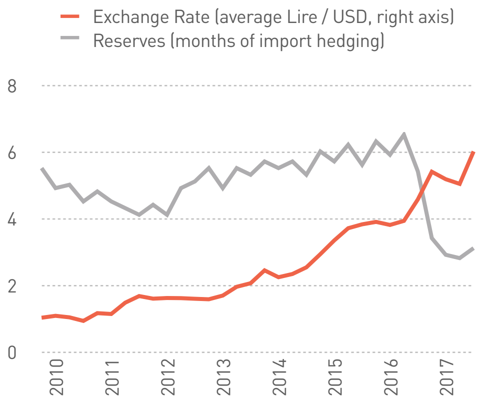
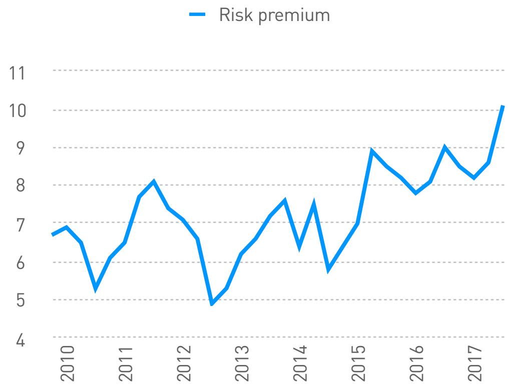
Chart 1.2.8-c
Turkey: risk premium on debt in USD and international reserves, 2010-2017



Source: MAPFRE Economic Research (based on CBRT data)

Chart 1.2.8-d
Turkey: risk premium (Turkish 10-year rate - T-Bill), 2010-2017



Source: MAPFRE Economic Research (based on CBRT data)

the cost of capital in fact rose once again with the increase (lower than expected) of the marginal liquidity rate (+50 bp until 12.75 percent, December data).

The Turkish economy is under pressure from the markets due to the lack of appetite of foreign investors for bonds from this country. The 10-year bond has a yield of 12 percent, while the interest rate curve of bonds in local currency continues to be inverted. This is due, among other factors, to a complex internal political climate, and to increased tension with the EU and the USA, leading Turkey to withdraw from joint military maneuvers with NATO in November. In this context, the Turkish lira accelerated its depreciating tendency to the immediate figure of 4 TRY/USD since depreciation was recently corrected.

1.2.9 Mexico

Continuism until the elections

The Mexican economy shrunk by -0.3 percent in the third quarter of 2017, canceling out the growth of +0.3 percent reported in the previous quarter. This leads to an estimate for the whole of the year that is slightly lower than its long-term growth, of around 2.3 percent (see Charts 1.2.9-a and 1.2.9-b, and Table 1.2.9).

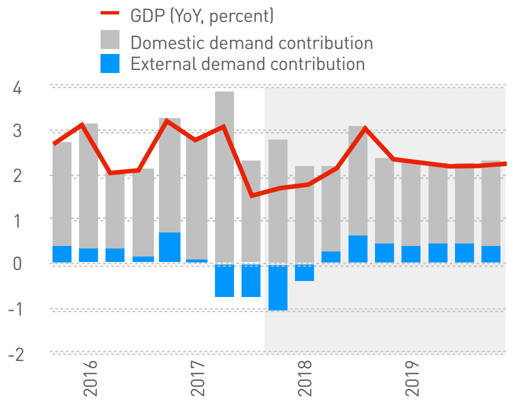
One of the causes of this slowdown in economic activity was a decrease in the manufacturing sector (oil, construction and textile) and a deferment of investment as a result of the uncertainty related to the apparent stagnation in commercial negotiations between Mexico, the United States and Canada (NAFTA), which could be extended until after the July elections.

Inflation was 6.6 percent in November, up on the previous month and slightly above market expectations. Energy, housing, public services and food were the most volatile components. The central bank expects inflation to remain above the target of 3-4 percent in 2017, and that it

Mexico

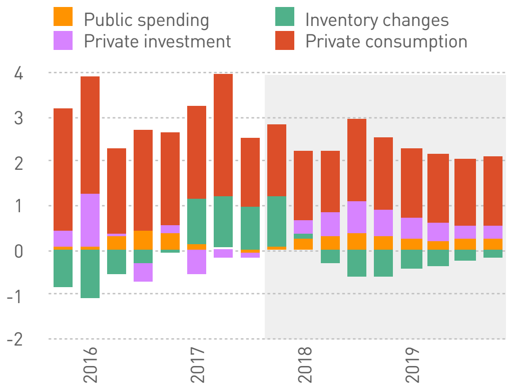
- The subpar growth of the Mexican economy was prolonged, although it only decelerated moderately despite the political and external backdrop.
- Inflation is still far from falling within the Bank of Mexico's target ranges. The central bank, conditioned by the monetary normalization of the US Federal Reserve and by the need to preserve its credibility, increased interest rates to 7.25 percent.
- Negatively biased risks have their main origin in the local political cycle and in the performance of the NAFTA negotiations.

Chart 1.2.9-a
Mexico: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on National Statistics and Geography Institute data)

Chart 1.2.9-b
Mexico: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on National Statistics and Geography Institute data)

Table 1.2.9
Mexico: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	1.6	2.8	3.3	2.7	2.3	2.4	2.3
Domestic demand contribution	2.0	2.0	2.5	2.3	2.9	2.1	1.9
External demand contribution	-0.4	0.9	0.8	0.4	-0.6	0.2	0.4
Private consumption contribution	1.3	1.4	2.2	2.2	2.0	1.6	1.5
Investment contribution	-0.7	0.3	1.1	0.2	-0.2	0.6	0.4
Public expenditure contribution	0.1	0.4	0.2	0.3	0.1	0.3	0.2
Domestic demand (% y-o-y, average)	2.0	2.6	2.5	2.3	2.9	2.1	1.9
Total consumption (% y-o-y, average)	1.8	2.2	3.1	3.2	2.6	2.4	2.2
Private investment (% y-o-y, average)	-3.3	3.0	5.1	1.2	-0.9	2.7	1.9
Exports (% y-o-y)	1.3	6.9	8.6	3.5	4.7	4.2	4.2
Imports (% y-o-y)	2.6	5.9	6.0	2.4	6.5	3.4	3.0
Unemployment rate (%, end of period)	4.6	4.4	4.2	3.5	3.6	3.9	4.0
Inflation (% y-o-y, end of period)	3.7	4.2	2.3	3.2	6.5	3.6	3.2
Tax balance (% GDP)	-2.3	-3.1	-3.4	-2.5	-1.5	-1.9	-2.2
Trade balance (% GDP)	-0.1	-0.2	-1.2	-1.2	-1.2	-1.6	-1.1
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	-2.4	-1.8	-2.5	-2.1	-1.8	-2.0	-1.8
Official interest rate (end of period)	3.57	3.00	3.04	5.09	7.25	6.70	5.56
Short-term rate (end of period)	3.85	3.30	3.40	5.60	7.35	6.95	5.96
Long-term rate (end of period)	6.15	5.88	6.06	6.81	7.20	6.56	6.07
Exchange rate vs US dollar (end of period)	13.02	13.90	16.76	19.84	18.99	18.00	18.00
Exchange rate vs Euro (end of period)	17.72	17.37	18.36	21.39	22.80	21.60	21.61
Private credit (% y-o-y, average)	13.9	10.8	13.6	16.3	11.2	6.3	5.7
Family credit (% y-o-y, average)	9.1	8.2	8.4	12.8	9.8	6.2	5.6
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	15.4	9.8	-11.4	3.5	-2.5	16.0	13.4
Savings rate (%, average)	15.0	13.8	14.7	13.0	10.6	10.4	10.4

Source: MAPFRE Economic Research (based on National Statistics and Geography Institute data)
Forecast end date: December 19, 2017.

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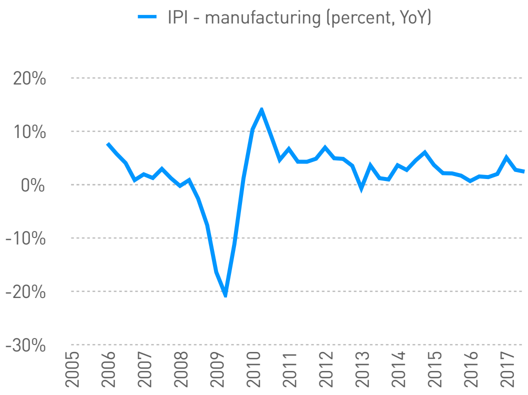
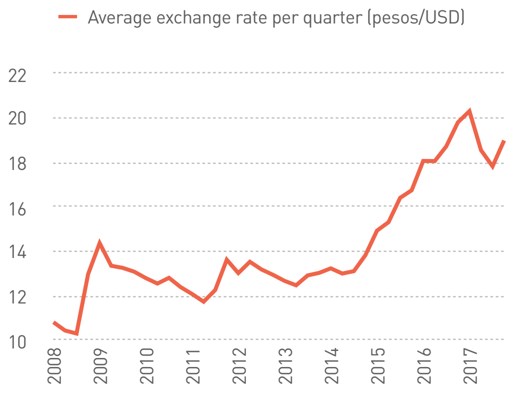
Chart 1.2.9-c
Mexico: production of goods, 2005-2017



Source: MAPFRE Economic Research (based on National Statistics and Geography Institute data)

Chart 1.2.9-d
Mexico: exchange rate vs USD, 2008-2017



Source: MAPFRE Economic Research (based on Bank of Mexico data)

converges in this target band by the end of 2018. However, this will depend, to a great extent, on the stability of the peso in 2018.

The political uncertainty associated with the formal commencement of the electoral process and the complex negotiation around the NAFTA led to a new depreciation of the peso to 19.0 MXN/USD (as compared with 17.7 MXN/USD in the previous quarter). In the absence of further shocks, the exchange rate is expected to remain at 18-19 MXN/USD throughout 2018, with a greater margin for depreciation as the NAFTA negotiations progress toward their conclusion and the presidential elections approach.

In this regard, the Bank of Mexico (which had maintained rates stable at 7 percent since June) increased its monetary policy rate by 25 bp to 7.25 percent at its December meeting. The decision was justified by the monetary authorities due to the need to anchor inflation expectations at medium and long term, and to "reinforce the low inflation tendency toward its objective". We believe however that this could have been the maximum rise and that from here onwards the central bank could begin to reduce interest rates in line with the expected deceleration of inflation, although that will also depend on the normalization of the monetary policy in the USA, on the final balance of the commercial negotiation of the NAFTA and on the results of the election in the middle of the year.

Similar growth is expected for the Mexican economy in 2018, but the risks are reduced given the translation effects of the exchange rate on consumption and the moderate growth of salaries. Investment will maintain its current pulse, although it will also face delays given the trade uncertainty associated with the renegotiation of the NAFTA. External demand will contribute more as a result of the depreciation of the peso and the country's new trade links. Likewise, a certain upturn in public expenditure is foreseeable (in the period prior to the election) from the end of the second quarter of the year. Accordingly, we expect growth of 2.4 percent in 2018, similar to that reported this year.

Lastly, one of the main risks for the Mexican economy in 2018 originates from the political cycle, with the possibility of electoral success of the leftwing currents more inclined toward a heterodox economic policy. The other source of uncertainty is the renegotiation of the NAFTA in a possible institutional context for Mexico different to the current one.

1.2.10 Brazil

Opportunities in the middle of challenges

In Brazil, the GDP rose by 0.1 percent (q-o-q) in the third quarter of 2017, confirming the exit from economic recession. Accordingly, the average growth forecast for the year would be 0.8 percent a quarter (1.1 percent y-o-y), supported by the improved performance of consumption and investment, although both continued to be dragged down by idiosyncratic factors. For 2018 and 2019, the growth forecast is substantially higher (2.5 percent and 3.3 percent, respectively), assuming that domestic demand continues to exit the recession at a normal rate (see Charts 1.2.10-c and 1.2.10-d, and Table 1.2.10). Hence, following a period in 2015-2016 with sudden falls in GDP growth (-3.6 percent and -3.4 percent, respectively), the positive prospects of taking advantage of the potentialities of this economy are renewed.

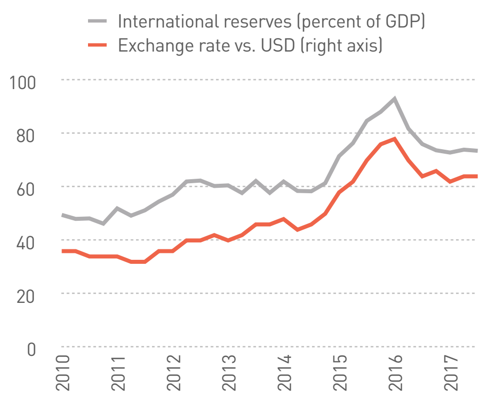
The progress reported by the Brazilian economy has been supported by a gradual process of normalization of its fundamentals. The re-activation of activity levels and the improvement in its balance of payments position (the checking account deficit was reduced from -4.2 percent of the GDP in 2014 to an estimated deficit of -0.6 percent in 2017) was accompanied by a sustained reduction in inflation (2.7 percent year-on year in October, which contrasts with the two-digit levels reported in 2015), and which enabled the central bank to reduce interest rates seven times over 2017, placing the SELIC (intervention interest rate) at 7 percent in December. Accordingly, if inflation continues to moderate itself, the Brazilian central bank is expected to maintain interest rates very close (although below) that 7 percent in 2018, leading to greater monetary laxity.

However, Brazil needs to continue to implement structural reforms to progress in the purpose of balancing public accounts, making them sustainable and strengthening their credit

Brazil

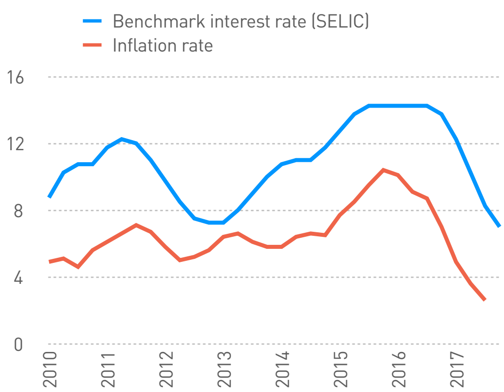
- A more gentle economic recovery than anticipated is being consolidated, although the Brazilian economy is expected to accelerate in 2018 and 2019.
- The significant deceleration of inflation led the central bank to considerably reduce the official interest rate.
- The monetary policy will be more lax in 2018. The real is expected to remain stable, although depreciated against the dollar.
- Although the administration of the President M. Temer is committed to structural reform, the political climate will hinder them. Without reform, fiscal sustainability would be hard to achieve.

Chart 1.2.10-a
Brazil: external vulnerability and exchange rate, 2010-2017



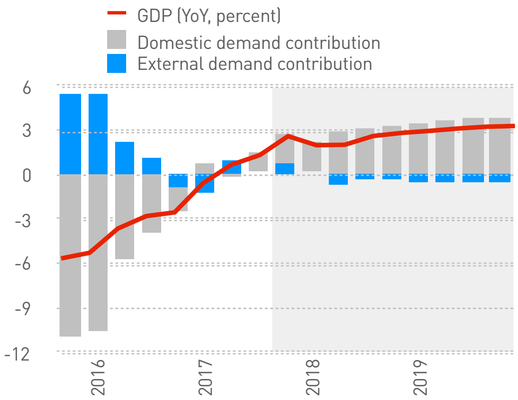
Source: MAPFRE Economic Research (based on Central Bank of Brazil data)

Chart 1.2.10-b
Brazil: inflation and intervention rates (SELIC), 2010-2017



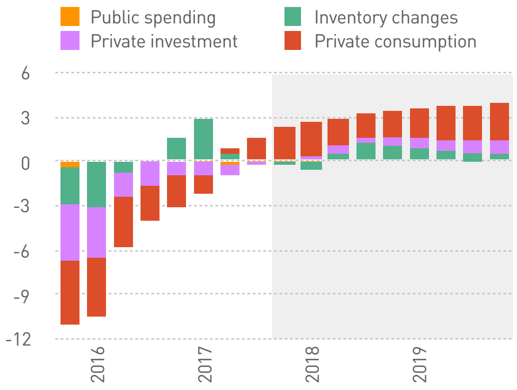
Source: MAPFRE Economic Research (based on Central Bank of Brazil data)

Chart 1.2.10-c
Brazil: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on data from the Brazilian Geography and Statistics Institute)

Chart 1.2.10-d
Brazil: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on data from the Brazilian Geography and Statistics Institute)

Table 1.2.10
Brazil: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	3.0	0.5	-3.6	-3.4	1.1	2.5	3.3
Domestic demand contribution	4.0	0.4	-7.1	-5.4	1.0	2.8	3.7
External demand contribution	-1.0	0.1	3.6	2.0	0.1	-0.3	-0.5
Private consumption contribution	2.3	1.5	-2.2	-3.0	0.7	1.8	2.3
Investment contribution	1.2	-0.8	-2.9	-1.9	-0.4	0.5	0.9
Public expenditure contribution	0.3	0.1	-0.2	0.0	-0.1	0.0	0.1
Domestic demand (% y-o-y, average)	3.8	0.2	-6.7	-5.2	1.0	2.8	3.7
Total consumption (% y-o-y, average)	3.1	2.0	-2.8	-3.5	0.7	2.2	2.7
Private investment (% y-o-y, average)	5.8	-4.1	-14.0	-10.1	-2.5	3.0	5.3
Exports (% y-o-y)	2.6	-0.8	6.9	1.9	6.6	5.1	3.8
Imports (% y-o-y)	7.0	-1.9	-14.1	-9.5	5.2	6.7	6.0
Unemployment rate (%, end of period)	6.2	6.5	9.0	12.0	12.1	12.0	10.0
Inflation (% y-o-y, end of period)	5.8	6.5	10.4	7.0	2.9	4.4	4.0
Tax balance (% GDP)	-3.0	-6.0	-10.2	-9.0	-8.6	-7.7	-6.3
Trade balance (% GDP)	0.0	-0.3	1.0	2.5	3.1	2.6	2.6
Fiscal impulse (% GDP)	1.7	-0.5	-1.8	-2.4	-2.5	-2.3	-1.4
Checking account balance (% GDP)	-3.0	-4.2	-3.3	-1.3	-0.6	-1.1	-1.2
Official interest rate (end of period)	9.63	11.32	14.25	13.97	7.33	6.78	8.00
Short-term rate (end of period)	9.52	11.22	14.15	13.86	7.23	6.68	7.90
Long-term rate (end of period)	12.09	12.10	15.41	11.55	9.95	9.41	8.95
Exchange rate vs US dollar (end of period)	2.28	2.55	3.84	3.29	3.23	3.37	3.59
Exchange rate vs Euro (end of period)	3.10	3.19	4.21	3.55	3.88	4.05	4.31
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	16.4	14.1	10.0	4.3	4.7	10.8	15.4
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Savings rate (%, average)	22.9	20.3	18.2	17.8	18.4	18.3	18.8

Source: MAPFRE Economic Research (based on data from the Brazilian Geography and Statistics Institute)
Forecast end date: December 19, 2017.

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rating. The most pressing reforms concern the pension and tax system, which are crucial to decrease the deficit and for debt sustainability.

In October 2018, there will be presidential elections in Brazil, so no reforms are expected before this date. In spite of this, the administration of the president Michel Temer has managed to approve other structural reforms which, although less far reaching, have been important in increasing confidence in the country.

1.2.11 Argentina

Realistic economy and electoral cycle

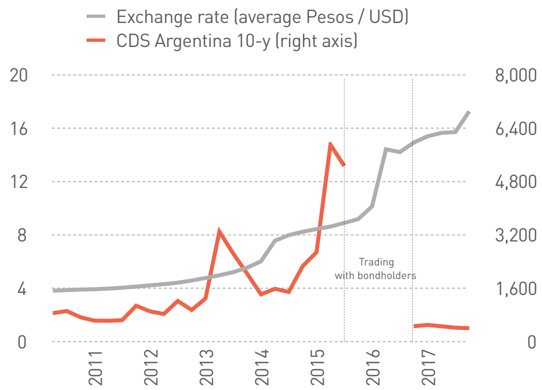
The Argentine economy expanded by 2.7 percent year-on-year in the second quarter of 2017, following an upward review in growth of 0.4 percent in the previous period. It was the highest growth rate since the third quarter of 2015. With this data, it is highly possible that growth rates exceeding 2.5 percent are obtained in 2017. The growth impulse is supported by domestic demand. Both public and private consumption were accelerated to 3.8 percent and 2.9 percent, respectively, once the gross fixed capital formation expanded by 7.7 percent (see Charts 1.2.11-c and 1.2.11-d, and Table 1.2.11). Data confirmed a pick up in activity in the first half of 2017, enabling Argentina to officially leave behind the recession mainly due to the recovery in primary sector activities and investment. Investment and consumption (as a result of the growth in real income) continue to be the main driver of growth (especially in agriculture, renewable energy, public infrastructure, and sales of cement), pointing to growth of 3.5 percent in 2018.

Political risks remain significant for the Argentine economy, especially given the dissatisfaction among certain sectors of society due to the persistent erosion of disposable income and a widening of the social divide. The electoral risks are evident, even more so since the primary elections. The analysts interpret the

Argentina

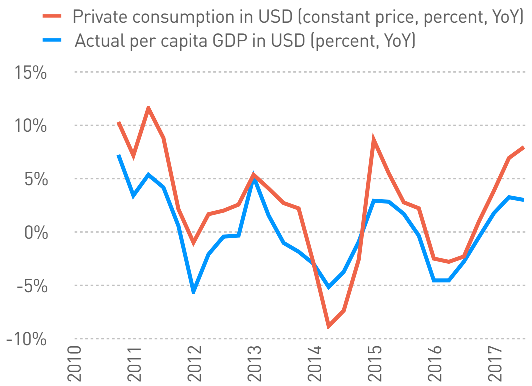
- The growth forecast for the Argentine economy was reviewed upward with increasing reasons to be sustainable.
- Investment and the external sector, increasingly being replaced by private consumption (due to higher real income), could be in danger if inflation runs out of control again.
- Risks are still tilted to the downside and relate to domestic factors. The 2018 elections are an element to follow because they can determine the maintenance of the current system of political economy.

Chart 1.2.11-a
Argentina: exchange rate and financial risk, 2010-2017



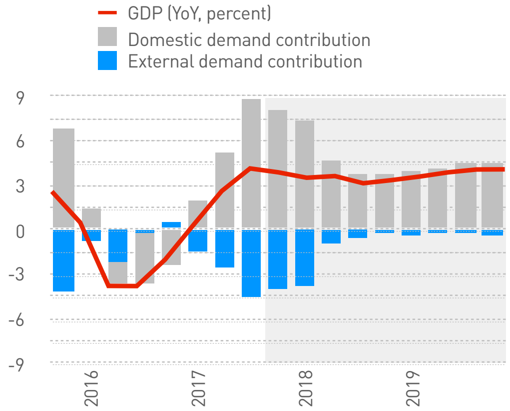
Source: MAPFRE Economic Research (based on Central Bank of the Argentine Republic data)

Chart 1.2.11-b
Argentina: growth in income and consumption, 2017-2017



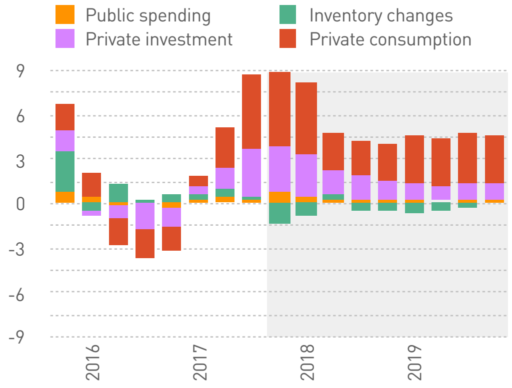
Source: MAPFRE Economic Research (based on Central Bank of the Argentine Republic data)

Chart 1.2.11-c
Argentina: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on National Statistics and Census Institute data)

Chart 1.2.11-d
Argentina: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on National Statistics and Census Institute data)

Table 1.2.11
Argentina: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	2.4	-2.5	2.6	-2.2	2.8	3.5	4.0
Domestic demand contribution	4.1	-4.2	4.1	-1.5	6.0	4.9	4.2
External demand contribution	-1.8	1.7	-1.5	-0.7	-3.2	-1.4	-0.3
Private consumption contribution	2.6	-3.1	2.4	-1.0	3.5	3.0	3.2
Investment contribution	0.5	-1.2	0.7	-1.0	2.1	1.9	1.1
Public expenditure contribution	0.6	0.4	0.9	0.0	0.4	0.3	0.2
Domestic demand (% y-o-y, average)	4.0	-3.8	4.0	-1.4	5.6	4.4	3.8
Total consumption (% y-o-y, average)	3.9	-3.2	4.0	-1.1	4.5	3.7	3.9
Private investment (% y-o-y, average)	2.5	-6.6	3.8	-5.0	10.9	9.4	5.3
Exports (% y-o-y)	-3.6	-6.8	-0.6	4.3	-1.2	4.2	5.9
Imports (% y-o-y)	4.1	-11.2	5.9	6.1	10.8	7.7	4.8
Unemployment rate (%, end of period)	6.4	6.9	7.0	7.6	7.7	7.1	6.6
Inflation (% y-o-y, end of period)	26.2	39.0	24.9	43.5	23.3	18.0	12.4
Tax balance (% GDP)	-3.5	-4.8	-6.0	-5.9	-6.1	-5.4	-4.6
Trade balance (% GDP)	0.8	1.1	-0.1	0.8	-0.9	-1.2	-1.3
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	-2.1	-1.5	-2.7	-2.7	-4.4	-4.3	-4.1
Official interest rate (end of period)	16.37	26.35	36.33	27.42	26.02	23.42	15.58
Short-term rate (end of period)	16.37	19.85	23.80	19.87	19.52	16.90	12.65
Long-term rate (end of period)	11.29	9.58	7.26	6.87	6.15	6.62	6.48
Exchange rate vs US dollar (end of period)	6.05	8.51	10.04	15.44	17.43	19.74	21.45
Exchange rate vs Euro (end of period)	8.24	10.64	10.99	16.65	20.92	23.69	25.75
Private credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Family credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Savings rate (%, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: MAPFRE Economic Research (based on National Statistics and Census Institute data)
Forecast end date: December 19, 2017.

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result of the elections in Buenos Aires, as proof of the acceptance with reservations of the policy of the President M. Macri.

Meanwhile, a difficult path toward fiscal consolidation, popular discontent and tensions in the bond market could have new repercussions for capital markets, pointing to possible further depreciation of the Argentinian peso against the dollar.

1.2.12 China
The second term of the President Xi Jinping will pledge for greater stability

As foreseen by the consensus, the Chinese economy expanded by 6.8 percent year-on-year in the third quarter of 2017, following growth of 6.9 percent in the previous two quarters. The data make it plausible to end 2017 with a growth rate of 6.8 percent, as has been anticipated since the middle of last year. The performance of the economy was due mainly to domestic demand, both through consumption and investment, with emphasis on public investment in infrastructure as a result of the inertia of demand stimulation policies activated in preparation for the XIX Congress of the Chinese Communist Party (see Charts 1.2.12-a and 1.2.12-b, and Table 1.2.12). Until now, China has therefore achieved the objective of decelerating the growth of its economy extremely gradually, in tandem with changing the source of such growth to a more consumer-based model, productive investment in greater value added products and integration in the global value chains (and less in direct exportation and traditional industry). The advanced indicators and the pulse of global activity make us foresee that the trend of the year is maintained until the beginning of 2018.

Taking into account that the policy of tax laxity (in the form of investment in infrastructures financed with the growing use of public deficit) will begin to lose prominence faced with the gradual implementation of prudential macro measures to moderate credit and cool the economy, we expect gentle decelerated growth in 2018 close to 6.3 percent; more consistent growth with the implicit growth rate that could be inferred from the five-year schedule set forth by the President Xi Jinping during his re-election on October 14.

Chinese inflation will end 2017 very close to 2.1 percent. However, we expect that increased oil prices, salary improvements in new industries and the elimination of subsidies to public companies will release more inflation in 2018, the year in which such indicator may end up around 2.6 percent.

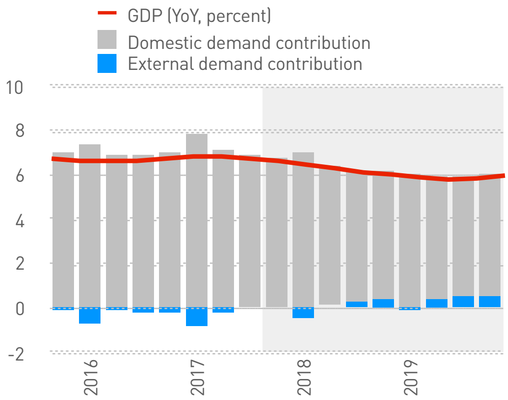
It is anticipated that the renewed presidency of Xi Jinping will not permit a new phase of volatility on money markets, or greater speculative freedom in the unregulated financial system (shadow banking). For such purpose, the over three billion dollars of reserves will continue to be managed with an iron hand, together with controlled increases in interest rates to maintain control over its checking account and its exchange rate. We think that the official rate will rise to neutral ground, and that the renminbi will remain very close to current levels over the next two years.

Risks for China remain tilted to the downside, both for growth and inflation. China still has to deal with a high level of corporate leverage which makes it vulnerable to interest and exchange rate risks, and despite government efforts, nominal growth continues to outpace nominal GDP growth. This risk could generate perverse effects when combined with other vulnerabilities such as

China

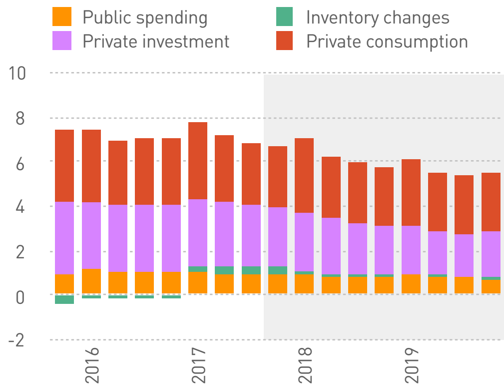
- **The stimuli induced by the Government appear to cede in a new economic cycle more focused on stability. The implicit growth target of the Chinese economy is now lower.**
- **The risks stemming from the relationship between the imbalances of the residential sector and excessive credit (credit and financial stability risks) continue.**
- **The strength of the President Xi Jinping ensures the most rapid implementation of structural reforms that reduce the country's financial vulnerability.**

Chart 1.2.12-a
China: breakdown
and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on PRC Official Gazette data)

Chart 1.2.12-b
China: breakdown and
forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on PRC Official Gazette data)

Table 1.2.12
China: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	7.8	7.3	6.9	6.7	6.8	6.3	5.9
Domestic demand contribution	7.9	5.7	6.9	7.0	7.1	6.2	5.6
External demand contribution	-0.1	1.6	0.0	-0.3	-0.3	0.0	0.3
Private consumption contribution	3.0	3.1	3.1	3.0	3.0	2.9	2.7
Investment contribution	4.2	2.2	3.4	3.0	2.8	2.4	2.0
Public expenditure contribution	0.6	0.4	0.9	1.1	0.9	0.8	0.8
Domestic demand (% y-o-y, average)	8.1	7.2	7.1	7.2	7.2	6.3	5.7
Total consumption (% y-o-y, average)	7.2	7.1	8.0	8.2	7.7	7.2	6.8
Private investment (% y-o-y, average)	9.3	6.9	7.4	6.6	6.2	5.4	4.4
Exports (% y-o-y)	8.3	5.4	0.5	1.8	6.6	4.2	5.1
Imports (% y-o-y)	10.6	7.7	0.6	3.8	8.8	5.8	5.3
Unemployment rate (%, end of period)	4.1	4.1	4.1	4.0	4.0	4.0	4.0
Inflation (% y-o-y, end of period)	2.9	1.5	1.5	2.2	2.1	2.6	2.2
Tax balance (% GDP)	-1.8	-1.8	-3.4	-3.8	-4.3	-4.4	-4.4
Trade balance (% GDP)	3.7	4.2	5.3	4.4	3.6	3.2	3.4
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	1.5	2.3	2.8	1.8	1.1	0.9	1.2
Official interest rate (end of period)	4.71	3.53	2.33	2.48	3.04	3.89	3.09
Short-term rate (end of period)	6.10	4.67	3.02	3.31	4.88	4.56	3.47
Long-term rate (end of period)	4.36	3.70	3.05	2.91	3.86	4.30	3.79
Exchange rate vs US dollar (end of period)	6.09	6.15	6.39	6.83	6.62	6.45	6.46
Exchange rate vs Euro (end of period)	8.29	7.68	7.00	7.37	7.95	7.74	7.76
Private credit (% y-o-y, average)	15.4	13.4	14.8	13.3	10.9	10.7	9.6
Family credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Savings rate (%, average)	39.8	39.7	39.3	38.6	38.1	37.3	36.8

Source: MAPFRE Economic Research (based on PRC Official Gazette data)
Forecast end date: December 19, 2017.

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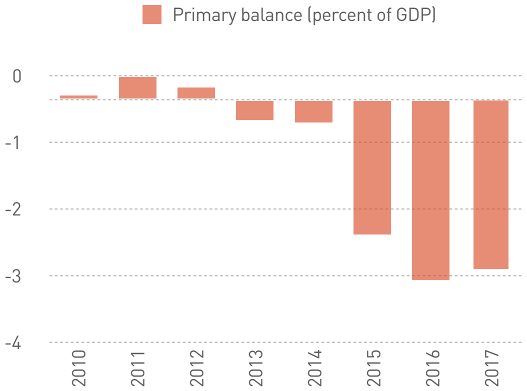
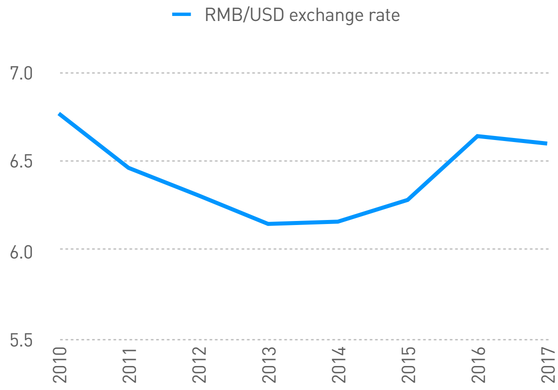
Chart 1.2.12-c
China: primary balance (% of GDP), 2010-2017



Source: MAPFRE Economic Research (based on PRC Official Gazette data)

Chart 1.2.12-d
China: exchange rate RMB/USD, 2010-2017



Source: MAPFRE Economic Research (based on PRC Official Gazette data)

(residential) asset price imbalances, the deceleration in profitability of public companies, and liquidity and funding problems in capital markets due to public control. Meanwhile, political tensions with the United States could resurface over the handling of the North Korean crisis, with potential repercussions for global international trade as well as the raw materials cycle, especially affecting Latin American exporters.

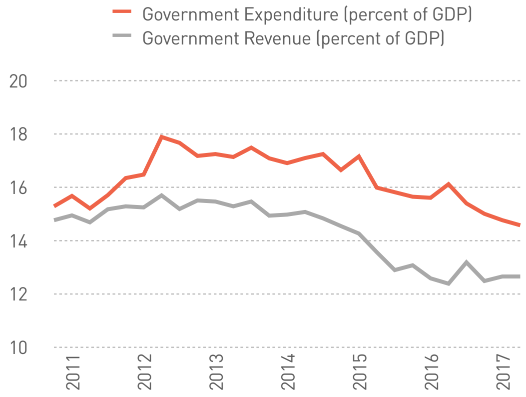
Despite the fact that the Chinese economy is hugely vulnerable (if we exclude Hong Kong), its systemic risk on a global scale is limited, in accordance with the studies performed by the Bank for International Settlements (BIS). That is, despite the fact that the level of corporate debt in China is currently triple that of the United States prior to the crisis. Some sources consider that an unorderly deceleration of China would lead to a fall in the global GDP of between half and one percentage point. The strength of the President Xi Jinping, however, ensures the most rapid implementation of structural reforms that reduce the country's financial vulnerability.

1.2.13 Indonesia
Growth supported by domestic factors

The Indonesian economy expanded by 5.1 percent year-on-year in the third quarter of 2017, continuing with the similar growth reported in the previous quarters. The expansion was boosted by a slight rally in public expenditure, while fixed investment and private consumption continued their firm rise, while net trade contributed positively to economic growth.

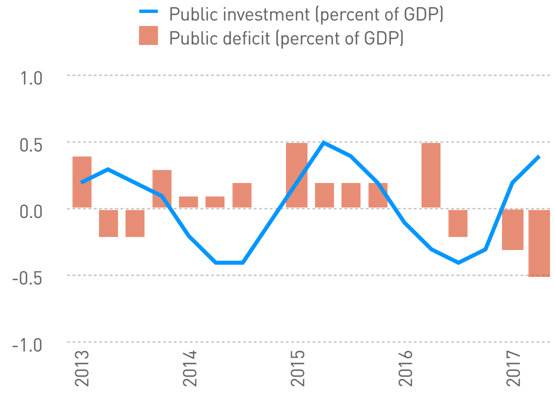
Hence, Indonesia reaffirms its growth at around 5 percent which, given the country's population bonus status, places it close to (although still below) its potential (see Charts 1.2.13-c and 1.2.13-d, and Table 1.2.13).

Chart 1.2.13-a
Indonesia: financing gap, 2011-2017



Source: MAPFRE Economic Research (based on Central Bank of Indonesia data)

Chart 1.2.13-b
Indonesia: public investment and deficit, 2013-2017



Source: MAPFRE Economic Research (based on Central Bank of Indonesia data)

The Indonesian government has considered that the country's economic growth must exceed 5 percent. But for the moment, it prefers to focus its economic policy efforts on meeting the public deficit target of 3 percent (see Chart 1.2.13-b). Accordingly, we forecast a deficit of below this threshold in 2017 and 2018.

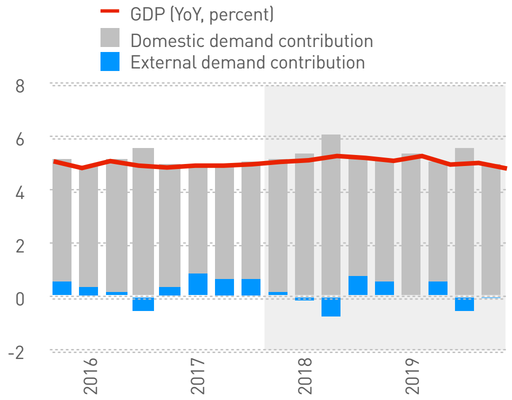
Noteworthy, however, is the State's scant capacity to generate financial resources (see Chart 1.2.13-a). Indonesia only has 11 million actual taxpayers with a population of 260 million people. Accordingly, the Government is not in a position to call for the use of demand stimuli, and the financing gap is supported by wholesale sovereign financing (which, in turn, is based on the degree of investment obtained by the country).

Also, inflation in 2017 ended below 4 percent (within the central bank's target range), but a certain acceleration in price increases is foreseeable in 2018, in view of the depreciation of currency and the growth in domestic demand. The foregoing suggests the possibility of a very gradual rise of interest rates toward neutrality throughout 2018.

Indonesia

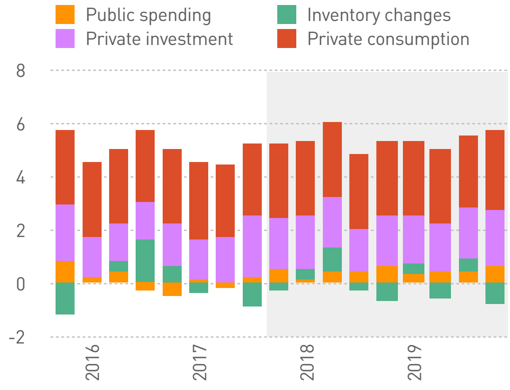
- Economic growth remains around 5 percent, although below its long-term potential. This appears to reveal structural problems that prevent higher growth cycles.
- The current relatively lax monetary policy supports consumption and investment; despite this, inflation remains relatively under control. The effects will be perceived in 2018 and, where appropriate, monetary policy must vary accordingly.
- External portfolio flows are supported by global risk appetite and by Indonesia's investment grade. Changes in global liquidity could affect the country's financing capacity.
- The main risk in the country appears to be its scant ability to generate public income that provides a space to implement the fiscal policies of demand.

Chart 1.2.13-c
Indonesia: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on Indonesian Central Bureau of Statistics data)

Chart 1.2.13-d
Indonesia: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on Indonesian Central Bureau of Statistics data)

Table 1.2.13
Indonesia: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	5.6	5.0	4.9	5.0	5.1	5.3	5.1
Domestic demand contribution	5.0	4.6	3.9	4.9	4.4	5.2	5.1
External demand contribution	0.6	0.4	1.0	0.1	0.6	0.1	0.0
Private consumption contribution	3.0	2.9	2.7	2.8	2.8	2.8	2.8
Investment contribution	1.6	1.0	1.6	1.5	1.8	1.9	1.9
Public expenditure contribution	0.6	0.1	0.5	0.0	0.2	0.4	0.5
Domestic demand (% y-o-y, average)	5.0	5.3	3.9	5.0	4.5	5.3	5.2
Total consumption (% y-o-y, average)	5.6	4.7	4.9	4.4	4.7	5.1	5.2
Private investment (% y-o-y, average)	5.1	4.5	5.0	4.5	5.7	5.8	5.8
Exports (% y-o-y)	4.1	1.3	-2.1	-1.7	9.5	5.9	5.2
Imports (% y-o-y)	2.0	2.2	-6.3	-2.3	7.1	6.0	5.7
Unemployment rate (%, end of period)	5.7	5.9	5.8	5.5	5.4	5.3	5.0
Inflation (% y-o-y, end of period)	8.0	6.5	4.8	3.3	3.7	4.5	4.0
Tax balance (% GDP)	-2.2	-2.2	-2.6	-2.5	-2.7	-2.4	-2.4
Trade balance (% GDP)	0.6	0.8	1.6	1.7	2.1	2.4	2.6
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	-3.2	-3.1	-2.0	-1.8	-1.4	-1.2	-1.2
Official interest rate (end of period)	6.14	6.37	6.25	4.81	4.25	4.65	4.66
Short-term rate (end of period)	7.45	7.43	8.42	7.06	5.22	6.94	7.20
Long-term rate (end of period)	8.12	7.98	8.71	7.53	6.60	7.18	7.57
Exchange rate vs US dollar (end of period)	11,552	12,252	13,769	13,259	13,501	13,607	13,897
Exchange rate vs Euro (end of period)	15,721	15,312	15,081	14,296	16,203	16,334	16,687
Private credit (% y-o-y, average)	21.9	15.2	10.6	7.8	8.2	9.3	9.7
Family credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	16.9	4.4	32.0	10.1	6.8	6.5	9.4
Savings rate (%, average)	17.1	17.0	17.0	17.0	17.1	17.6	17.8

Source: MAPFRE Economic Research (based on Indonesian Central Bureau of Statistics data)
Forecast end date: December 19, 2017.

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1.2.14 The Philippines
Robust growth: Demand and foreign investment policies

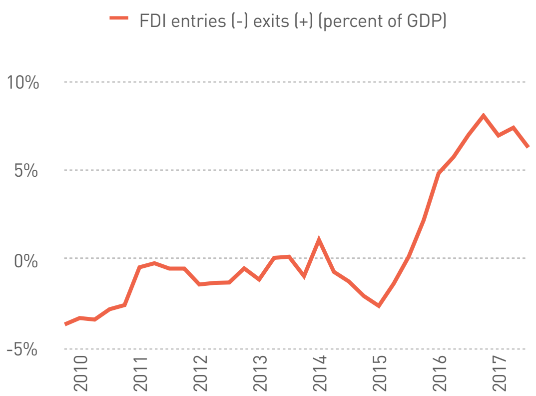
The Philippines economy grew by 6.9 percent year-on-year in the third quarter of 2017, above the market consensus (6.5 percent). It was the strongest growth since the third quarter of 2016, since the governmental expense rose at a quicker rhythm, while private consumption, investment and exports increased even more. Demand is robust, especially internal demand (70 percent of the GDP), which remained strong despite the rise in inflation (3.5 percent year-on-year in October). Household expenditure improved, backed by increased remittances (10 percent of the GDP), a more adjusted labor market and the expansion of credit (net loans increased by 19 percent year-on-year). External demand also supported economic growth, with an annual increase of 12 percent. Direct foreign investment flows (DFI) increased by 61.8 percent y-o-y in September (for the fifth consecutive month), while remittances remained robust.

The extensive stimulation of demand policies arises from the plan to reconstruct public infrastructure. The gross fixed capital formation increased by 11 percent in the first nine months of the year, the highest level in the Asia Pacific region. The administration of the President R. Duterte plans to increase expenditure to a new record in 2018, and investment in infrastructure will represent 6 percent of the GDP in the coming year. This means that our forecast for 2018 (of a moderation in growth) will have increasing risks.

The Philippines

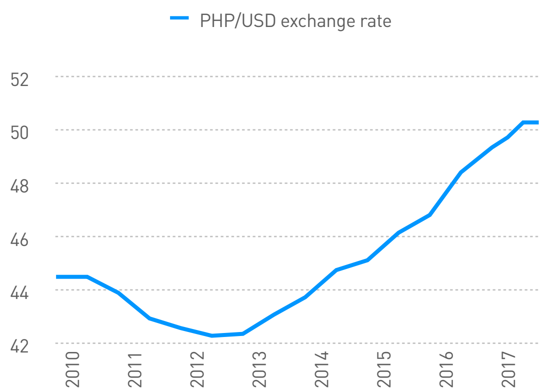
- The Philippine economy appears to present one of the most promising growth panoramas of the ASEAN region.
- Its growth is supported by domestic demand with recourse to public expenditure and to direct foreign investment flows.
- The country's improved credit rating granted by the main agencies supported the growth policies of the administration of the President R. Duterte, but a note of caution is required faced with the signs of an over-heating of the economy.

Chart 1.2.14-a
The Philippines: net flow of direct foreign investment (DFI), 2010-2017



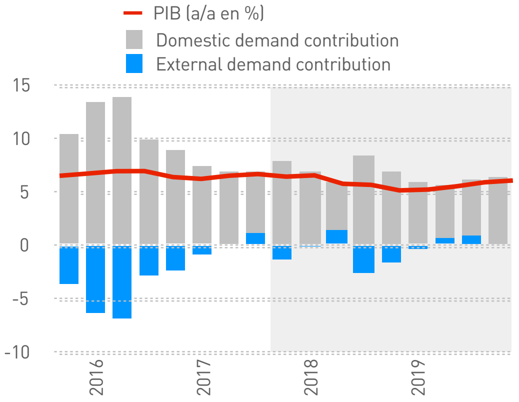
Source: MAPFRE Economic Research (based on Bangko Sentral ng Pilipinas data)

Chart 1.2.14-b
The Philippines: exchange rate PHP/USD, 2010-2017



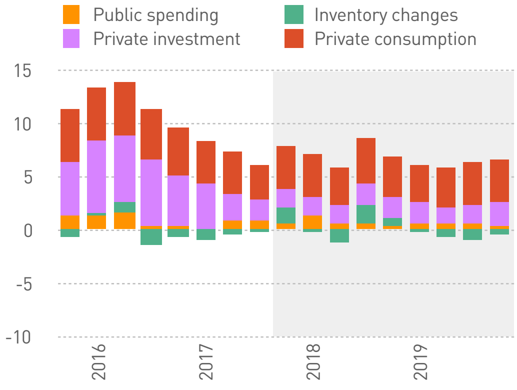
Source: MAPFRE Economic Research (based on Bangko Sentral ng Pilipinas data)

Chart 1.2.14-c
The Philippines: breakdown and forecasts of the GDP, 2015-2019



Source: MAPFRE Economic Research (based on PSA data)

Chart 1.2.14-d
The Philippines: breakdown and forecasts of domestic demand, 2015-2019



Source: MAPFRE Economic Research (based on PSA data)

Table 1.2.14
The Philippines: main macroeconomic aggregates, 2013-2019

	2013	2014	2015	2016	2017	2018	2019
GDP (% y-o-y, average)	7.1	6.1	6.0	6.9	6.6	6.0	5.9
Domestic demand contribution	9.8	4.8	9.1	11.5	6.9	6.7	5.6
External demand contribution	-2.7	1.3	-3.0	-4.6	-0.3	-0.8	0.3
Private consumption contribution	4.0	3.9	4.4	4.8	3.8	3.9	3.8
Investment contribution	2.4	1.1	3.6	6.0	2.6	1.8	1.9
Public expenditure contribution	0.6	0.3	0.8	0.9	0.6	0.7	0.4
Domestic demand (% y-o-y, average)	9.9	5.0	9.0	11.2	6.4	6.3	5.2
Total consumption (% y-o-y, average)	5.6	5.2	6.5	7.2	5.4	5.9	5.3
Private investment (% y-o-y, average)	12.0	7.2	16.6	25.7	9.5	6.4	6.7
Exports (% y-o-y)	-0.6	12.6	8.7	10.8	17.5	9.5	9.1
Imports (% y-o-y)	4.5	10.1	14.6	18.8	15.8	9.5	7.7
Unemployment rate (%, end of period)	6.4	6.0	5.6	4.7	5.2	5.0	4.7
Inflation (% y-o-y, end of period)	3.5	3.6	1.0	2.5	3.4	3.8	3.7
Tax balance (% GDP)	-1.4	-0.6	-0.9	-2.4	-2.3	-2.6	-2.9
Trade balance (% GDP)	-6.5	-6.1	-8.0	-11.7	-12.6	-13.7	-11.9
Fiscal impulse (% GDP)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Checking account balance (% GDP)	4.2	3.8	2.5	-0.3	-0.5	-2.1	-1.0
Official interest rate (end of period)	3.50	4.00	4.00	3.00	3.02	3.61	3.95
Short-term rate (end of period)	2.02	2.56	2.53	2.51	2.77	3.59	3.54
Long-term rate (end of period)	3.72	4.24	3.91	4.43	4.97	5.62	5.71
Exchange rate vs US dollar (end of period)	43.62	44.81	46.87	49.11	50.98	51.20	50.46
Exchange rate vs Euro (end of period)	59.36	56.01	51.33	52.95	61.19	61.46	60.58
Private credit (% y-o-y, average)	16.6	18.0	13.2	15.3	16.0	10.4	9.1
Family credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. non-financial credit (% y-o-y, average)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P.S. financial credit (% y-o-y, average)	6.0	8.8	2.6	8.7	9.3	9.4	9.8
Savings rate (%, average)	8.3	9.3	7.7	8.0	8.6	9.1	9.7

Source: MAPFRE Economic Research (based on PSA data)
Forecast end date: December 19, 2017.

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The solid economic performance in the third quarter of 2017, led Fitch to improve the sovereign rating of the Philippines. The rating of long-term debt denominated in foreign currency was raised to BBB with a stable outlook. With this move, the rating agencies assigned the Philippines a "BBB" rating (S&P BBB, Moody's Baa2), in tandem with Italy and above Indonesia.

At the helm of the monetary policy, the appointment of the governor of the central bank, Nestor Espenilla, brought continuity and backed the credibility of the monetary policy. The Bangko Sentral ng Pilipinas (BSP) has not modified rates since May 2016, maintaining borrowing costs at low levels and abundant liquidity,

However, a note of caution is advisable. The rapid growth and highly flexible policies (both monetary and fiscal) have nurtured the risks of an over-heating of the economy and a deterioration in the rating of assets, an aspect that must be addressed in 2018 in order to avoid checking account tension that generates significant currency depreciation and a deterioration of finance costs.

2. Industry outlook

2.1 The economic environment and its impact on the demand for insurance

2.1.1 Global markets

With regard to the insurance industry, the global growth predicted for 2018, of around 3.7 percent, provides an economic outlook that anticipates a positive impact on the performance of the market worldwide. The global economy grew by 3.6 percent in 2017, due to a more synchronized cycle that saw an acceleration in both developed and emerging economies (above 2 percent and around 4.9 percent, respectively). Such data evidence solid global growth led by worldwide trade, investment in capital goods and, in some countries, housing, which is very positive for the insurance industry, the expansion of which is strongly linked to the performance of the economic cycle.

Global economic growth is supported by still lax monetary policies of the central banks of the United States, the eurozone, Japan and the United Kingdom. However, the U.S. Federal Reserve is already immersed in the normalization of its monetary policy, which involves a gradual process to raise interest rates, and it has drawn up a road map to decrease its balance sheet. The ECB announced its monetary normalization chronogram, extending its asset purchasing program for nine months (until September 2018), but lowering purchases to 30 billion euros.

Once interest rate hikes become general practice, they could help to re-activate the life savings and life annuities businesses, which have been affected in the developed countries by prolonged low interest rates, particularly if these hikes can be transferred to long-term rates of the yield curve. In the eurozone, taking into account the monetary normalization time frame envisaged by the ECB, an interest rate rise has been ruled out before the end of 2019. Reductions in the purchasing programs could lead to a possible over-valuation of assets which, in the climate, could have a negative effect on insurance industry earnings.

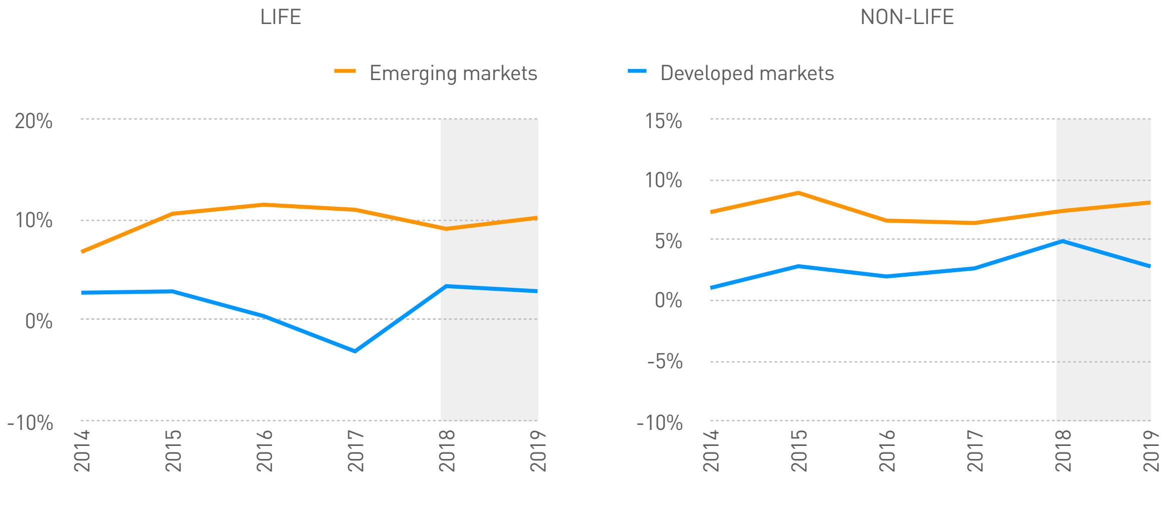
In this climate, in 2018, life insurance premiums on developed markets may increase by around 3.4 percent while, on the emerging markets, they would experiment increases of over 9 percent. The dynamic of life insurance premiums on developed markets, hand in hand with the generalization of monetary normalization, would be maintained in 2019 (with growth of around 2.9 percent). With regard to non-life insurance premiums in 2018, the global insurance markets will maintain the dynamic observed in 2017, with positive growth on developed markets, of around 4.9 percent, but especially on emerging markets, of around 7.4 percent (see Chart 2.1.1 and Box 2.1.1, and Tables B-1 and B-2 in the appendix to this report).

2.1.2 Eurozone

With regard to 2018, economic growth of around 2 percent for the eurozone is estimated. The strong performance of the GDP in 2017 (the highest in the last seven years with estimated values of nearly 2.4 percent) is welcome news for the eurozone's insurance industry, especially the non-life and life risk businesses. Germany and Spain lead that growth of economic activity in the EMU, although in France and Italy, increased activity is already being observed, which must have a positive reflection on the performance of their respective insurance markets in 2018.

Although economic activity continues to be solid, certain risks persist that could change the scenario. These include a disorderly exit of the United Kingdom from the European Union, and the possible although unlikely, resurge of the

Chart 2.1.1
Insurance markets: outlook for Life and Non-Life markets



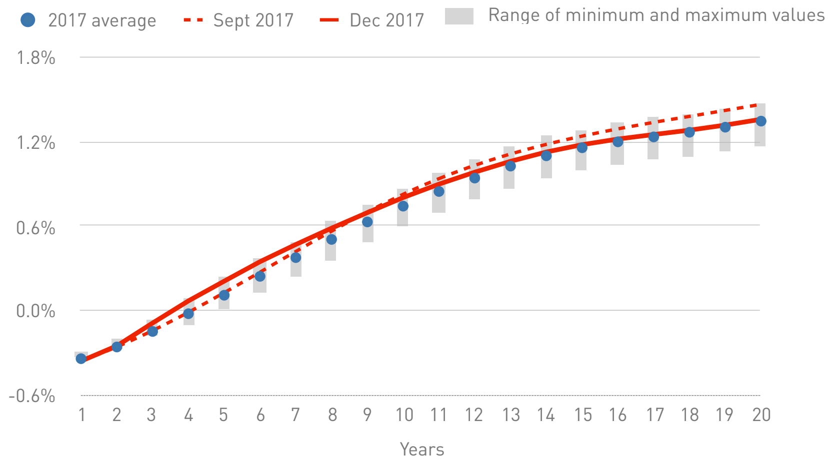
Source: MAPFRE Economic Research

Source: MAPFRE Economic Research

"convertibility risk" tied to the Italian elections and the Greek debt relief negotiations (which must be recommenced in 2018). In spite of the slowdown in economic growth for the coming year, the climate continues to be favorable for the development of the non-life insurance market, for which positive growth will be maintained (around 2.7 percent).

With regard to the life savings and life annuity businesses, the ECB values the results obtained in terms of economic growth in the eurozone, but given that inflation continues without coming close to the target, it has decided to extend the program of purchasing assets until September 2018, although reducing the rate from 60 to 30 billion euros. At the moment, despite having announced the monetary standardization chronogram, there is still no talk of a balance sheet reduction or an interest rate rise. It is envisaged that interest rates will only begin to rise once the purchasing program has been completed and the deposit rate has been normalized (second half of 2019). The most recent risk-free interest rate curves for the euro, published by the European Insurance and Occupational Pensions Authority (EIOPA), are stabilized around average values presented

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



Source: MAPFRE Economic Research (based on EIOPA data)

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Box 2.1
Forecast model for demand in insurance markets: technical considerations

Conceptual Framework

Conceptually, to the extent that the demand for insurance is the demand for a service, and that it is intended to mitigate financial risk of economic agents on present and future income, its dynamics respond to various essential theories that affect the demand from the point of view of income, risk, consumption and savings.

First of all, demand for insurance is consumption and as such it is acceptable to consider that it is governed by the Permanent Income Hypothesis (Milton Friedman, 1957). This hypothesis establishes that people's consumption is determined in a stable relationship proportional to the value of discounted future salary and non-salary income flow. So the agent plans consumption and savings in accordance with this. For this reason, a relationship between consumption (of insurance services) and income, capital cost (interest rates) and inflation, among other variables, is always expected to be conditional to the existing initial endowment of this consumption (in this case, the level of penetration measured as the premiums/GDP relationship).

Furthermore, since the objective of the consumption of insurance services is to reduce contingencies on income and wealth, it would be conditioned by two additional paradigms. Firstly, the demand for insurance seeks the completeness of the agents' balance sheets, that is that the latter have assets which enable them to be covered under any contingency of this nature (Arrow/Debreau, 1959), while agents will be more inclined to incorporate more of these protection services in accordance with their degree of aversion to risk, which is intrinsically related to the relative level of income and wealth for each one of them. In this way, risk aversion grows with income and wealth levels.

In accordance with these two principles, demand for insurance will also be affected by aversion to risk per se, because of the equity in income and wealth distribution, because of the relative prices of insurance compared to the rest of the products, and because of the savings rate, among other factors.

These two theories affect the demand for insurance in general as an element for risk coverage and as a component of consumption, affecting with greater or lesser intensity risk-oriented insurance business (Life and Non-Life) and purely savings-oriented insurance (assimilated herein in Life business). The latter is also an instrument that tries to dilute the inter-temporal volatility of income, and so is also understood to be subject to another essential theory: the life-cycle hypothesis (Modigliani, Miller 1966, and more recently Blanchard 1985), closely related to Friedman's Permanent Income Hypothesis, according to which the agent attempts to structure consumption and savings throughout his/her life, on which he/she depends on credit when young and without income, on income during maturity when he/she is working and on savings in old age. Therefore, the demand for insurance is linked to income, credit, age structure, financial costs and savings rate.

The data

For the effect of forecasts for insurance demand included in this report, an empirical framework analysis was used, developed by MAPFRE Economic Research. This analytical framework is based on two elements: (i) a global database, and (ii), a model based on panel data estimation for dynamic variables (Panel VAR).

The database used reflects the dynamics of insurance demand through the growth rate of premiums in the Life and Non-Life segments for the period from Q1 1980 to Q4 2016. The data for each line of business were extracted from different sources (Axco, SwissRe and directly from the information provided by the supervisory bodies for the different markets analyzed). The data are quarterly and validated with the data provided by the respective supervisory bodies.

The database includes data for 38 markets (14 developed and 24 emerging). In the case of Latin America, the information focuses on 14 of its 19 markets (Argentina, Brazil, Chile, Colombia,

Box 2.1 (continued)
Forecast model for demand in insurance markets: technical considerations

Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Panama, Peru, Dominican Republic, Uruguay and Venezuela). With regard to Emerging Europe, this comprises 3 countries (Poland, Russia and Turkey). The model also provides information on Asian markets (Thailand, Philippines, Hong Kong and South Korea) and other potential economies in the emerging region (Saudi Arabia and South Africa). The model also extends its sample to developed markets with 8 countries in the European Union (Austria, France, Germany, Italy, Malta, Holland, Portugal and Spain) and 4 countries designated as Other Developed (Australia, Canada, United Kingdom and Denmark). To this regional division we should also add the individual effects of the insurance markets in the United States, Japan and China.

The model

The framework used in the analysis of the dynamics of the sector is fully consistent with the essential economic laws affecting the insurance industry. It tries to capture the interaction of insurance premiums with income and wealth using gross domestic product (GDP), inflation and long-term interest rates, as well as idiosyncratic sources of variations in income such as the price of the oil.

To capture the differential effects imposed by the starting point, the model also considers the penetration level for insurance in the different economies (premiums/GDP). So the approach is not unrelated to the perception of risk and, therefore, its differential effect is introduced through the risk-country premium in emerging markets.

Furthermore, given that risk aversion and propensity to save and consume are linked to the distribution of income, the model also uses the Gini indexes of wealth concentration to measure inequality. The savings rate, employment and credit are key to sustaining the life cycle hypothesis, and have also been included. In addition, other structural variables are used to capture particular dynamics. In this case, the education level, population and urbanization rate have also been included.

The model used is estimated using panel data with fixed effects for dynamic variables (VAR Panel). This methodology was necessary because geographical and dynamic particularities of different countries and regions needed to be captured, and only this methodology allowed it. In this regard, the model is an extension and improvement of the one found in Dragos (2014), "Life and Non-life insurance demand: the different effects of influence factors in emerging countries from Europe and Asia",which uses a panel data model to show the relationship between both insurance businesses and the growth of income, the level of urbanization, education and financial inclusion. In addition, the metrics and forecasting results outside the sample of the model used support the robustness of its specification. The model captures differential dynamics of different geographical areas through the use of dummies. The dummies used segment the database by groups of developed and emerging markets, and within the latter distinguish between China, the rest of Emerging Asia, Emerging Europe and Latin America.

In the analysis presented in this report results are compared by emerging regions, developed markets and some of the more important countries (see Chart 2.1.1 and Tables B-1 and B-2). The model was estimated with similar regressors for the Non-Life and Life model, although it is expected that the parametric results will be different in accordance with the laws that govern consumption, risk and savings.

Furthermore, a check was made to verify that the elasticities of the different variables to the model were consistent with the hypothesis. The income elasticity included here by the GDP is positive and high in all regions and for both businesses; it was also verified that it is slightly higher in those regions where penetration is lower, as is appropriate for convergence in the sector. The sensitivity of premiums to inequality is negative and stronger in emerging countries, where income distribution is more asymmetric.

The model also captures the nature of the business under consideration. For example, it attributes negative elasticities to taking out Life Insurance at the savings rate (because savings Life Insurance is a substitute for monetary savings), and neutral or in some cases positive in

Box 2.1 (continued)
Forecast model for demand in insurance markets: technical considerations

Net model elasticities

	Non-Life								
	Developed markets	United States	Eurozone	Spain	Emerging markets	Latin America	Europe	Asia (excl China)	China
Constant	0.01				0.31				
GDP (y/y)		0.91	0.78	0.78		0.91	0.55	0.44	0.42
Inflation (y/y)	0.00			0.00	0.00				
Interest rates		0.00	0.00	0.00		0.02	-0.10	-0.06	-0.03
Risk premium					-0.03				
Brent price	-0.01			-0.01	-0.01				
Oil producer					-0.12				
Brent Price (if oil)					-0.10				
Savings rate		-0.02	0.00	0.00		0.06	0.16	0.00	-0.15
Gini index		-0.05	-0.04	-0.04		-0.12	-0.03	-0.12	-0.12
Private credit	-0.02			-0.02	-0.02				
Penetration rate	-0.07			-0.07	-0.07				
Dependence rate	-0.80			-0.80	-0.80				
Urbanization rate	0.11			0.11	0.11				
Tax revenues									
Employment (y/y)	0.41			0.41	0.41				

	Life								
	Developed markets	United States	Eurozone	Spain	Emerging markets	Latin America	Europe	Asia (excl China)	China
Constant	0.02				0.42				
GDP (y/y)		1.24	0.68	0.68		0.50	0.69	0.47	1.09
Inflation (y/y)	-0.01			-0.01	-0.01				
Interest rates		0.00	0.00	0.00		-0.03	0.01	0.03	-0.04
Risk premium					-0.24				
Brent price	-0.01			-0.01	-0.01				
Oil producer					0.30				
Brent Price (if oil)					-0.25				
Savings rate		0.05	-0.07	-0.07		-0.37	-0.37	-0.21	-0.62
Gini index		-0.04	-0.10	-0.10		-0.26	-0.27	-0.18	-0.24
Private credit									
Penetration rate	-0.09			-0.09	-0.09				
Dependence rate									
Urbanization rate	0.06			0.06	0.06				
Tax revenues	-0.03			-0.03	-0.03				
Employment (y/y)	0.22			0.22	0.22				

Box 2.1 (continued)
Forecast model for demand in insurance markets: technical considerations

the case of Non-Life insurance (since it is related to consumers' wealth and therefore proportionally to their degree of aversion to risk). In the same way, the demand for Non-Life Insurance (which excludes risk Life Insurance), is negatively sensitive to the rate of dependence because of the question of incomes.

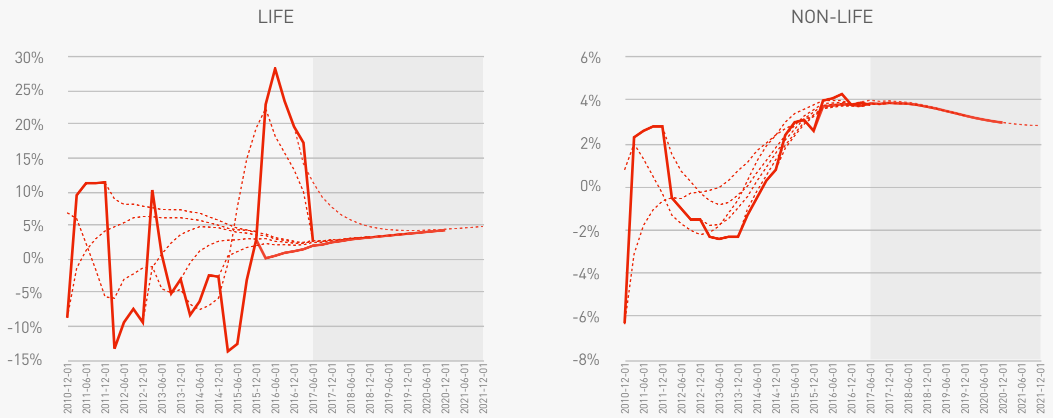
To analyze the reliability of the model, a number of models were used which assess the precision of the results: the THEIL statistic and the Cross-Validation technique. The THEIL statistic measures the forecasting capacity of the model outside the sample, comparing the data observed with the results obtained. The value of this index is defined as between 0 and 1. The nearer this index is to 0, the better the quality of the forecasts; on the other hand, if the index approaches one, the proposed model is not suitable for forecasting.

The THEIL statistic used to analyze the quality of the forecasts for the Non-Life line for emerging and developed countries was 0.15 and 0.29 respectively. Therefore this model is a good forecaster for Non-Life insurance premiums for these regions. As for Life insurance, satisfactory results were also obtained, with a THEIL index of 0.16 for the emerging region.

As for the Cross-Validation technique, this consists of analyzing whether the forecasts for a known period are in line with the actual observations for this period. This is done by representing the results on a graph to observe the different sections which forecast the path of insurance premiums.

In the case of Spain (taken here as an example), it is observed that the forecasts are in line with path of Non-Life insurance premiums, providing Spain with a reliable model. In Spain Non-Life insurance premiums closed the second half of 2017 with a growth of 3.8 percent; the forecast is that growth in 2018 will be 3.7 percent. This will tend toward 2.8 percent over the next four years (as can be seen in the Cross-Validation Graph), which would correspond to the long-term growth of nominal consumption.

Spain: off-sample forecasts



Source: MAPFRE Economic Research

throughout 2017, with low volatility levels. The prospect is that, for the time being, interest rates will remain low and the points of the curve maturing under four years will continue presenting negative values (see Graph 2.1.2, which shows minimum, average and maximum levels reached in 2017, together with the level of the recent curves published by EIOPA for September and December 2017).

Consequently, the problems will persist for the traditional life savings and life annuity products and for insurance companies that have life insurance portfolios on their balance sheets with high guaranteed rates and a mismatch of flows with regard to the assets that support the obligations derived from their insurance contracts, whose solvency position would continue to be gradually eroded as the flows from investments in their portfolios are reinvested. Nonetheless, the interest rate curve is upward sloping with rates increasing over longer maturities, which could give impetus to this type of products, as occurs in certain eurozone markets.

2.1.3 Spain

Spain continues to lead growth among the main eurozone economies. However, a deceleration of growth is anticipated in 2018, to around 2.6 percent (3.1 percent in 2017), among other motives, as a result of the rise in oil prices that will eat away disposable income, and of the impact that political instability has had on investor and consumer confidence (estimated effect of between -0.2 percent and -0.5 percent on growth).

The factors that contributed to the strength of the economy in 2017 were consumer and investor confidence, lax monetary conditions and the creation of employment (unemployment dropped to 16.4 percent in the third quarter). Exports and investment were the most dynamic components of aggregated demand. It is of note that residential investment is rallying following the reactivation of mortgage credit and institutional investment in the real estate market. All these factors are positive for the performance of the insurance market in relation to the non-life and life risk business lines.

Meanwhile, the enduring low interest rate environment will continue to hamper the traditional life savings and life annuity businesses. However, the negligible or non-existent return offered by bank deposits, which continue to face a negative deposit facility rate, is mitigating the impact of low rates on the life insurance market, together with a pick up in the long end of the risk-free rates (see Graph 2.1.2) and certain tax advantages associated with these types of products. Likewise, innovation in the insurance industry toward products in which the policyholder assumes the investment risk are providing certain impetus to the life savings market.

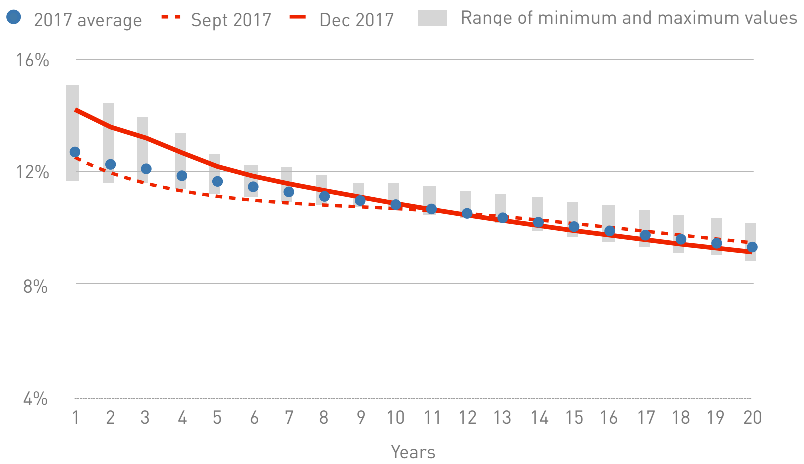
2.1.4 Turkey

The Turkish economy reported sustained growth as a result of stimulation policies and, particularly, the credit provision guaranteed by the State, maintaining a sustained growth of the GDP over the year and, although a moderate slowdown began to be observed, growth in the GDP was added for the whole of the year of over 5 percent, which may fall to around 4 percent in 2018.

However, the Turkish economy is under pressure from markets as a result of the lack of appetite of foreign investors for bonds from this country due, among other factors, to a complex internal political climate, and to increased tension with the EU and the USA, leading Turkey to withdraw from joint military maneuvers with NATO in November. In this context, the Turkish lira accelerated its depreciating tendency to around 4 TRY/USD, although depreciation was recently corrected, and could become stabilized in that climate. Inflation remains outside the central bank's target (which is 5 percent), reaching 12.9 percent in November.

The economic climate therefore becomes an also complex environment for the non-life and life risk insurance businesses. The rigidity in the adaptation of premiums following the

Chart 2.1.4
Turkey: risk-free yield curve
(%)



Source: MAPFRE Economic Research (based on EIOPA data)

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introduction of a price controlling system in compulsory automobile insurance is an additional problem that could affect the technical performance of this business line. Furthermore, the spike in inflation to levels that are well above the central bank's target (+12.9 percent against a 5 percent target), together with the possible depreciation of the Turkish lira, will have a negative impact as a result of a knock-on increase in the cost of claims.

Meanwhile, highly volatile interest rates and, especially, an inverted risk free interest rate curve for the Turkish lira are detrimental to the life savings and life annuity businesses (see Chart 2.1.4).

2.1.5 United States

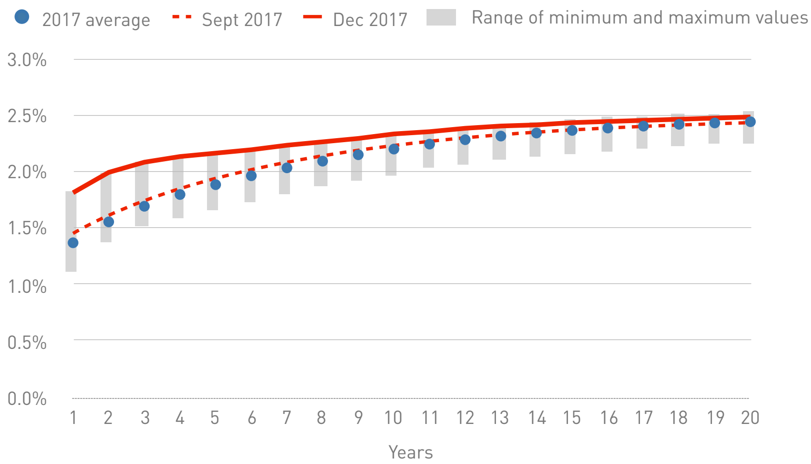
Economic growth in the United States for 2018 is estimated at around 2.7 percent. GDP growth in the fourth quarter of 2017 confirmed the robustness of the economy, so it is expected to close the year with growth of 2.3 percent, driven by private consumption and investment. Employment continues to rise (with an unemployment rate of 4.1 percent), although growth in the wage bill was moderated both in nominal and real terms. In any case, the positive vision of economic activity in the United States in 2017 will be favorable for insurance industry performance, particularly for the non-life and life risk businesses, strongly tied to economic growth.

Also, there is a tightening of monetary policy as the normalization process implemented by the Federal Reserve progresses, although it is still lax and shows caution regarding low inflation. At its meeting in October, the Federal Open Market Committee (FOMC) announced the amount and time frame for the Federal Reserve's process to normalize the balance, which is expected to reduce balance sheet assets by a third (1.3 trillion USD) during the next three years from October.

The risk free interest rate curves for the US dollar published by the EIOPA (see Chart 2.1.5) reflect the latest rate rises, which are being transferred to the first tranches of the curve, showing the foreseeable inclination, although it is undergoing a certain flattening in the medium and long tranches, and does not end up transferring the Federal Reserve rate rises to long rates on the curve. This situation could limit the development of the life savings and life annuity businesses, on not permitting guaranteed rates to be offered on larger long-term savings products, and improve the situation of companies in terms of the appropriate matching of durations in their portfolios.

As interest rates rise and they are transferred to the long end of the curve as part of this country's monetary normalization process, the growth of business in the life segment could be limited, in the meantime, creating a less favorable environment despite the sound performance of the US economy.

Chart 2.1.5
United States: risk-free yield curve
(%)



Source: MAPFRE Economic Research (based on EIOPA data)

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2.1.6 Brazil

In Brazil, the economic growth forecast for 2018 would be around 2.5 percent (1.1 percent in 2017), mainly backed by the improved performance of consumption and investment. This climate will hence be positive for the non-life and life risk businesses in 2018, strongly tied to economic behavior, whose technical performance will also be supported by a decrease in inflation to the extent that it contains costs arising from claims. The low level of insurance penetration in Brazil also means that the elasticity of growth in insurance demand as a result of economic growth is greater than in other more developed economies, meaning that weak or modest GDP growth may lead to higher growth in insurance premiums.

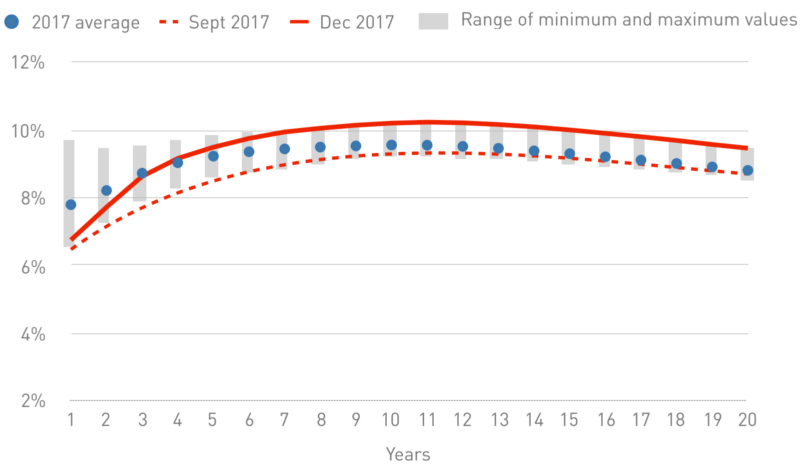
However, the Brazilian economy requires continuous structural reforms to balance public accounts, make them sustainable and strengthen their credit rating. The most pressing reforms concern the pension and tax system, which are crucial to decrease the deficit and for debt sustainability.

In 2018 there will be elections, so no reforms are expected before this date. In spite of this, the current administration has managed to approve other structural reforms which, although less far reaching, have been important in increasing confidence in the country.

Meanwhile, the sustained decrease in inflation to 2.7 percent YoY in October enabled the Central Bank to reduce interest rates six times in 2017, leaving the SELIC (main interest rate) at 7.0 percent in December. If the inflation rate continues to fall, it is expected that the Central Bank will maintain interest rates at around 7 percent in 2018.

These cuts can be clearly seen in the risk-free interest rates for the Brazilian Real published by

Chart 2.1.6
Brazil: risk-free yield curve
(%)



Source: MAPFRE Economic Research (based on EIOPA data)

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EIOPA, with a curve which has a sharp positive rise in the mid-section, which is very favorable for the development of savings Life Insurance and annuities (see Chart and 2.1.6).

2.1.7 Mexico

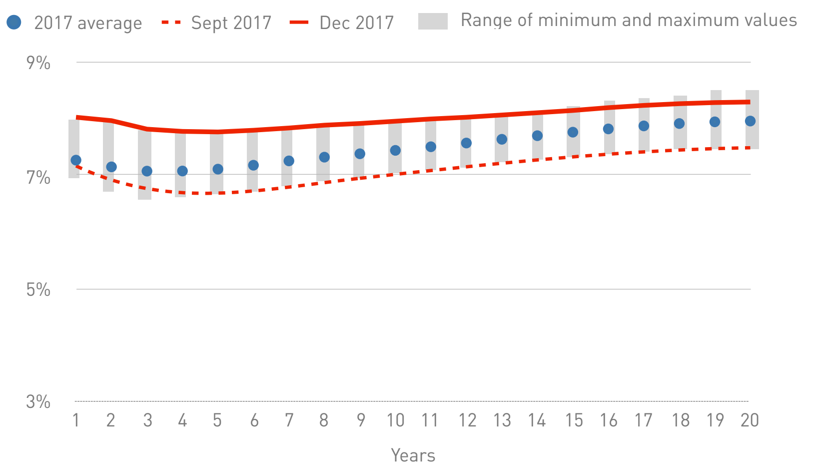
The behavior of the Mexican economy in the second half of the year has led to an expected growth of around 2.4 percent for 2018 (similar to the forecast for 2017). The economy underwent a slowdown in the third quarter which contributed to a decrease in the manufacturing sector (oil, construction and textile) and a deferment of investment as a result of the uncertainty related to stagnation in commercial negotiations with the United States and Canada (NAFTA).

In spite of the slowdown, the forecasts for economic growth are still favorable for the development of the Mexican insurance market as far as Non Life and Life Risk Insurance business is concerned. The low level of insurance penetration in Mexico means that growth elasticity is greater than in developed economies, enabling weak or moderate growth in GDP to be translated into higher demand for insurance.

Furthermore, there has been a further depreciation of the Peso to 19.0 MXN/$ (as opposed to 17.7 for the previous quarter). While in the absence of further shocks the exchange rate is expected to remain at 18-19 MXN/$ throughout 2018, there may be further depreciation as the NAFTA negotiations progress toward their conclusion and the presidential elections approach. Inflation stands at 6.6 percent as of November (from 6.7 percent in August), taking up part of the depreciation of the Peso, but also the impact of local adjustment to the price of gasoline and the result of the effects of second-round salary talks. This may be detrimental to profitability in Non Life business lines due to the increase in costs arising from claims and the impact on the cost of reinsurance contracts negotiated in Dollars.

The outlook for the savings Life Insurance Business and life annuities in Mexico could improve following the latest interest rate hikes and expectations that the Bank of Mexico will keep interest rates on hold. However, as can be seen in the risk-free yield curves for the Mexican Peso published by EIOPA, for the moment the increases in interest rates do not appear to be affecting the longer sections of the curve, which has a slightly negative slope and which could have an adverse effect in the short term on the above mentioned businesses, since it would not allow higher guaranteed rates to be offered on long-term savings products or for the situation to be improved in insurance companies which operate in this type of product in terms of the appropriate matching of

Chart 2.1.7
Mexico: risk-free yield curve
(%)



Source: MAPFRE Economic Research (based on EIOPA data)

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in terms of the appropriate matching of durations in their portfolios (see Chart 2.1.7).

2.1.8 China

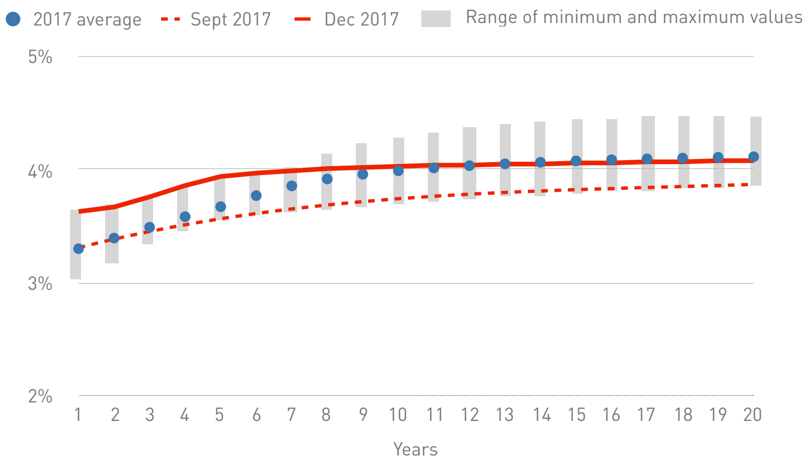
The Chinese economy is maintaining its agenda of controlled slowdown in economic activity. The forecast for the Chinese economy is for growth in the GDP of around 6.3 percent in 2018 (6.8 percent in 2017), based on domestic demand through consumption and investment, which anticipates the maintenance of a favorable economic environment for the development of the Non-Life and Life-risk insurance business, very sensitive to the dynamics of economic growth and especially to consumption in homes and businesses.

This performance will also be boosted by the still low rate of insurance penetration in China, which is typical for emerging economies and generates a greater elasticity of premium growth to GDP growth. Indeed, one of the Chinese government's explicit objectives for insurance activities is to increase the rate of penetration. The moderate outlook for inflation (around 2.6 percent) and the prospect of moderate currency appreciation are also good news for the future development of claims costs facing insurers in the coming months.

However, the economic context resulting from the high levels of leverage and the planned tightening of conditions for access to the purchase of homes could partly offset the favorable outlook for the insurance market. This tightening of conditions is beginning to have an impact with a decrease in mortgage lending for house purchases in large cities. Along these lines, house prices in large and even medium-sized cities are contracting, while prices in small cities are increasing.

In terms of the Life saving and life annuities business, the risk-free yield curves published by EIOPA for the Chinese renminbi point to a small increase in rates in the medium section of the yield curve and a slight flattening in the long-term section for maturities of over eight years. In any case, interest rate volatility is low and the yield curve is upward sloping - at least in the middle part, which together with positive economic developments creates a favorable environment for these business lines (see Chart 2.1.8).

Chart 2.1.8
China: risk-free yield curve
(%)



Source: MAPFRE Economic Research (based on EIOPA data)

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2.1.9 Reinsurance

In the second half of 2017 there were a series of important natural disasters, the most notable being hurricanes Harvey, Irma and Maria in North America and the Caribbean, and the earthquakes which took place on 7 and 19 September in Chiapas and Puebla, in Mexico, which together with the fires in California had an impact on the balance sheets of insurance and reinsurance companies. These disasters are having and will have a profound effect not only on the combined ratios and the profitability of the reinsurance companies' equity but also on insurance rates and renewals of reinsurance contracts, in a market which in the absence of major disasters had become very competitive in terms of prices (soft market). The total volume of losses from natural disasters and those caused by man was preliminarily estimated by Swiss Re at 306 billion Dollars in 2017 (188 billion Dollars in 2016). Of these losses, the estimated total amount insured added up to 136 billion $, the third highest loss recorded by this company [12].

2.2 Regulatory trends

2.2.1 Global trends

The global capital standard of the IAIS

In November 2017 the Executive Committee of the International Association of Insurance Supervisors (IAIS) reached an agreement on a unified path to converge toward a capital standard (International Capital Standard, ICS) for internationally active insurance groups (ICS Version 2.0), as an initial step to reach its ultimate objective of applying a single worldwide capital standard, for which a specific date has not yet been set.

This standard would be applicable to Internationally Active Insurance Groups, (IAIGs), with a minimum volume of international activity, in accordance with three criteria: (i) that they have at least 50,000 million Dollars in assets or 10,000 million Dollars in premiums; (ii) that they undertake activities in at least three jurisdictions, and (iii) that at least 10 percent of the premiums are underwritten outside the original jurisdiction.

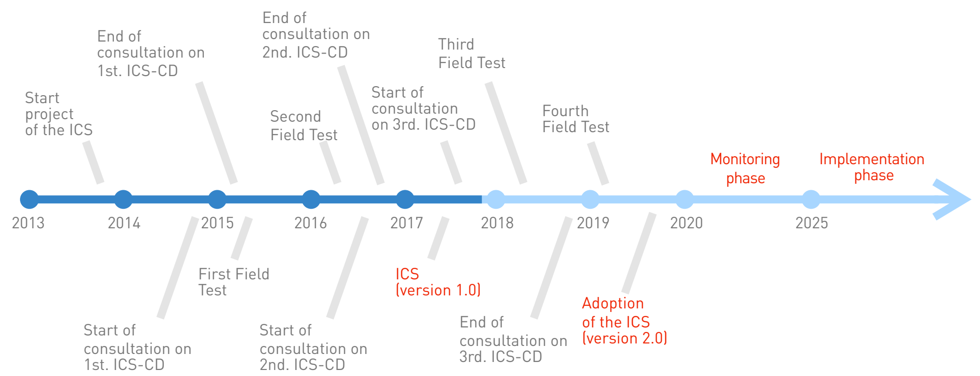
The adoption of ICS Version 2.0 (drawn up based on ICS Version 1.0) is programmed for the end of 2019 and still has some options which will be subject to field analysis before taking a final decision[13]. Once adopted, implementation will be undertaken in two phases: a first five-year monitoring phase which will last throughout the 2020-2025 period, followed by a second implementation phase starting in 2026 (see Chart 2.2-a).

Finally, it is important to highlight the announcement made by the Executive Committee of the IAIS belonging to the United States with regard to the development of an aggregate calculation of group capital for this country, which, based on the data gathered during the monitoring phase, would enable the analysis of whether the calculation would provide results comparable with those of the ICS[14].

Designation of globally systemic companies

On November 21, 2017 the Financial Stability Board, (FSB), issued a statement to say that, after consultations with the IAIS, it had decided not to publish a new list of Global Systemically

Chart 2.2-a
ICS time line for the IAIS



Source: MAPFRE Economic Research (based on IAIS information)

Important Insurers, (GSIIs), so the regulatory measures affecting these groups will continue to apply to the companies included in the list in November 2016[15].

In this statement, the FSB encourages the IAIS to continue working to develop an approach based on activities to establish the condition of systematically important companies. In November 2018 the FSB will review the situation in accordance with progress made, estimating that the new approach may have significant implications in the valuation of systemic risk in the insurance industry and in the identification of systemic companies.

So the list will remain valid in 2018 until it is reviewed in November and includes the following companies: Aegon N.V., Allianz SE, American International Group, Inc., Aviva plc, AXA S.A., MetLife, Inc., Ping An Insurance (Group) Company of China, Ltd., Prudential Financial, Inc. and Prudential plc.

Regulation in accounting matters: IASB - IFRS 17

In 2018 the programs envisaged by the International Accounting Standards Board, (IASB), will continue so as to enable the suitable transition for the implementation of International Financial Reporting Standard 17 on insurance contracts, which will replace the current IFRS 4.

After more than ten years work, on May 18, 2017, the IASB published International Financial Reporting Standard (IFRS 17) on Insurance Contracts[16], which is applicable for drawing up the consolidated accounts for 2021 in the above mentioned insurance companies. In those countries where national accounting standards are adapted to the IFRS, there will also be an impact at the individual accounts level. The cost and effort for its implementation will be considerable (especially for those insurance groups with a significant Life Insurance business component).

The effective enforcement dates for both IFRS 17 and IFRS 9 (on financial instruments) have been aligned to January 1, 2021 for those insurance companies that chose to defer the application of IFRS 9. Companies that decided not to delay this application will be able to apply IFRS 17 in advance.

Although a large number of significant securities markets at a global level require the application of the IFRS to present the consolidated accounts for the companies quoted, there are still markets where they are not applicable. The most notable exception is the United States, where domestic companies are required to follow local accounting standards (U.S. GAAP), developed by the Financial Accounting Standards Board (FASB), which are the only standards recognized by the Securities and Exchange Commission (SEC). It remains to be decided whether they will move to bring their standards into line with the new IFRS 17, which would facilitate full comparability of reporting on both sides of the Atlantic.

In the European Union, for the IFRS 17 standard to become a mandatory requirement for large European insurance groups it still has to be adopted through European Commission Regulation and published in the Official Journal of the European Union, after prior consultation with the European Financial Reporting Advisory Group (EFRAG). The EFRAG expects to issue a technical report at the end of 2018, which may be delayed until 2019[17].

2.2.2 United States

In 2018 in the United States' market, it will be possible to make an initial assessment of the impact of the new accounting standard coming into force on the valuation of the obligations arising from insurance contracts, which has already been accepted by most of the States and applied for the first time in 2017. Only the States of Alaska, Massachusetts and New York (together with Puerto Rico) have not adopted it and continue to be subject to the previous valuation standard[18].

The new standard, which is coming into force gradually, will be able to introduce dynamism into the markets in which it is adopted, especially with regard to Life Insurance, given that the calculation of provisions under a system based on principles ("principle-based valuation") will enable more competitive prices to be offered, since it will enable provisions to have a better forecast and a more finely tuned risk margin than the previous system. It is important to point out that the new standard will only be applied to accounting insurance obligations for new business, so portfolios valued in compliance with previous standards will remain for quite some time[19].

2.2.3 European Union

SCR for the major European groups

The deadline for presenting the next Solvency and Financial Condition Report (SFCR) for European insurance groups ends in June 2018. The first of these reports, since Solvency II came into force, was presented in July 2017. The solvency ratios published by the 15 main insurance groups in the European Union in the 2017 report (referring to the 2016 financial year) can be seen in Chart 2.2-b. Table 2.2-a shows the main figures declared in the different SFCR by the above mentioned insurance groups, as well as the method for calculating the mandatory solvency capital requirement (SCR) used by each of them.

None of the analyzed groups applies a purely internal model for calculating mandatory solvency requirements (SCR). As illustrated in Table 2.2-b, all the groups which perform some type of modeling have chosen, with due authorization by their supervisors, to apply partial internal models combined with the calculation of the standard formula for establishing modules with internal models for certain categories of risk.

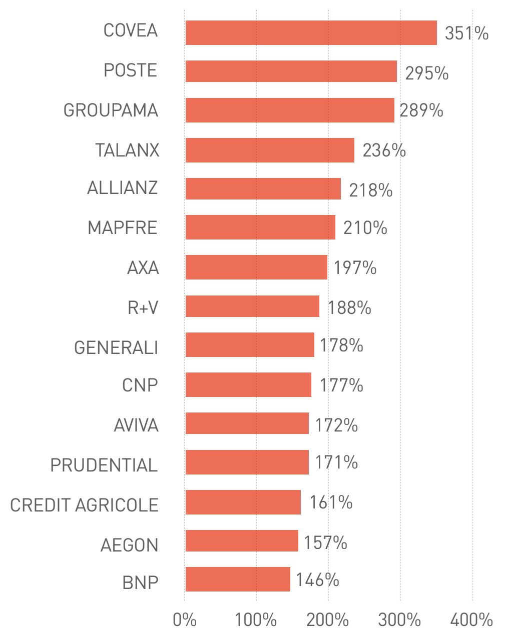
As regards the quality of admissible shareholders' equity (FPA) available to each of the insurance groups to cover their capital requirements, at the aggregate level 84 percent were Tier 1 (highest quality), 14 percent were Tier 2, and 2 percent were Tier 3. The details for each of them appear in Table 2.2-c. Another significant metric which reveals the profile in terms of the operational and financial structure of these insurance groups is the comparison of FPA with regard to three significant dimensions for the balance sheet and the business: assets, technical provisions and premiums, which appear in Chart 2.2-c.

An important aspect included in the SFCRs for insurance groups in the European Union is the effect arising from the measures introduced in the Solvency II Directive to ease the potential burden from the entry into force of the new regime on business involving products with long-term guarantees. These measures take into account the nature of long term institutional investors which this type of companies and their groups have and who are able to deal with an exaggerated level of volatility in financial markets without the need to make forced disposals (volatility adjustment), the suitable management of asset-liability risks (adjustment by matching), as well as a transitory regime which enables gentle transition toward the requirements of the new system, for those who decide to make use of the same, applicable only to portfolios existing at the time the system comes into force (transitory measures for technical provisions).

The impact on admissible shareholders' equity and on mandatory solvency (published in the SFCR for each of them), where the measures referred to have not been applied, is shown in Chart 2.2-d[20], while Tables 2.2-d and 2.2-e provide details of the respective figures.

Finally, to illustrate the composition with regard to the SCR for the insurance groups analyzed as a whole, Chart 2.2-e and 2.2-f show the

Chart 2.2-b
European insurance groups:
Solvency ratio, 2016



Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Table 2.2-a
European insurance groups: Main financial and solvency figures, 2016
(millions of euros)

	Technical provisions	Premiums	Admissible own funds	Required SCR	Solvency ratio	Calculation method
COVEA	84,866	16,411	21,506	6,135	351%	SF
POST	107,977	19,820	8,063	2,737	295%	SF
GROUPAMA	74,231	13,128	11,577	4,000	289%	PIM
TALANX	101,269	31,107	19,676	8,346	236%	PIM
ALLIANZ	548,030	119,916	75,338	34,580	218%	PIM
MAPFRE	34,577	22,813	9,616	4,582	210%	SF
AXA	491,724	93,876	57,905	29,389	197%	PIM
R+V	73,659	14,573	10,043	5,356	188%	SF
GENERALI	421,497	67,189	41,308	23,222	178%	PIM
CNP	361,858	32,526	23,713	13,402	177%	SF
AVIVA	418,827	30,962	34,720	20,131	172%	PIM
PRUDENTIAL	256,132	47,440	37,948	22,203	171%	PIM
CREDIT AGRICOLE	307,300	30,247	21,427	13,303	161%	SF
AEGON	146,873	24,556	18,119	11,563	157%	PIM
BNP	173,896	21,117	10,446	7,163	146%	SF

Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

* Standard Formula (SF); Partial Internal Model (PIM)

aggregate composition of the different modules and the other components of the SCR, in the first case for those groups following the standard formula, and in the second case for those applying partial internal models. With regard to the impact of the adjustments resulting from the capacity for absorbing the losses of the technical provisions and deferred taxes, it should be pointed out that in the case of companies applying internal models it is only showing the effect of the adjustments that have been modeled but not incorporated into other components of the SCR.

Solvency II

On January 5, 2018 the deadline ended for sending comments about the second EIOPA technical report to the European Commission for the review of the parameters and factors applicable in the calculation of regulatory capital under the standard formula in Solvency II[21]. This technical report corresponds to the request made by the European Commission as the basis for a future reform, with the aim of updating some of the above mentioned parameters and factors in 2018 and introducing simplifications, where appropriate. This reform is envisaged by the Delegated Regulation (EU) 2015/35 on access to the

Table 2.2-b
European insurance groups:
SCR calculation using partial internal models, 2016

	Market	Credit	Underwriting	Operational	Others
GROUPAMA			✔		
TALANX	✔	✔	✔		
ALLIANZ	✔	✔	✔	✔	✔
AXA	✔	✔	✔	✔	✔
GENERALI	✔	✔	✔		
AVIVA	✔	✔	✔	✔	✔
PRUDENTIAL	✔	✔	✔	✔	✔
AEGON	✔	✔	✔		✔

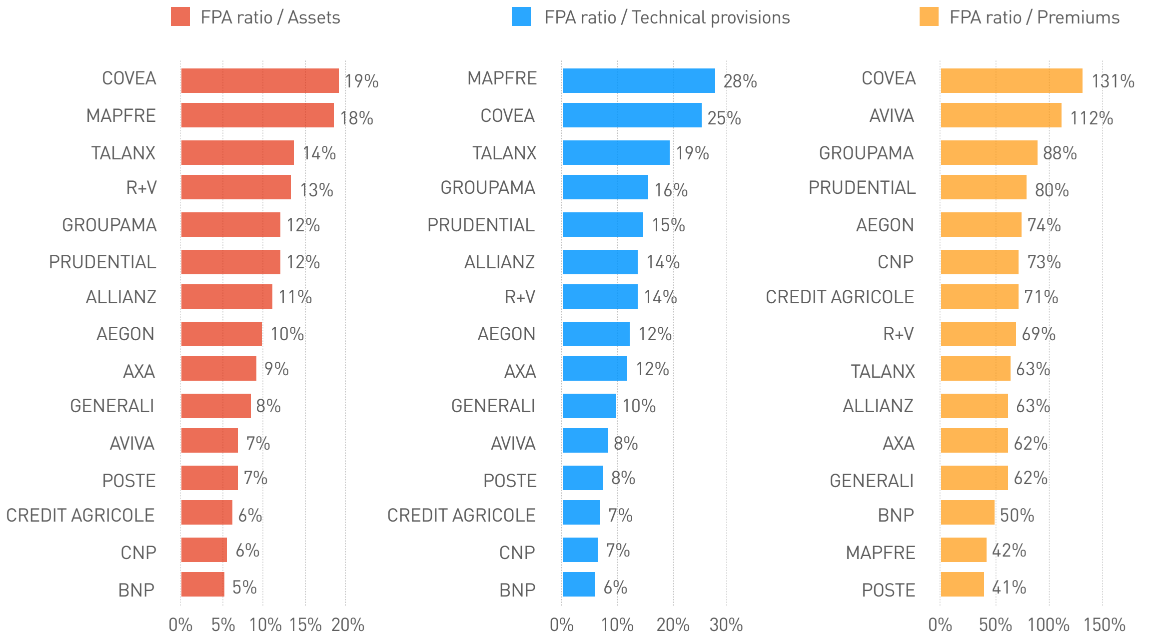
Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Table 2.2-c
European insurance groups: quality of admissible shareholders' equity, 2016
(million euros and percentages)

	Admissible own funds	Tier 1		Tier 1r		Tier 2		Tier 3	
		amount	(%)	amount	(%)	amount	(%)	amount	(%)
COVEA	21,505.6	21,453.0	99.8%	47.0	0.2%	6.0	0.0%	-	-
POST	8,063.0	7,044.5	87.4%	-	0.0%	1,018.4	12.6%	-	-
GROUPAMA	11,576.9	9,048.7	78.2%	1,664.5	14.4%	833.3	7.2%	30.3	0.3%
TALANX	19,676.1	17,952.3	91.2%	383.1	1.9%	1,340.7	6.8%	-	-
ALLIANZ	75,337.6	59,768.8	79.3%	4,747.2	6.3%	9,456.1	12.6%	1,365.5	1.8%
MAPFRE	9,615.6	9,009.1	93.7%	-	0.0%	606.5	6.3%	-	-
AXA	57,905.5	37,306.1	64.4%	8,173.9	14.1%	8,889.6	15.4%	3,535.8	6.1%
R+V	10,043.4	10,027.7	99.8%	15.7	0.2%	-	0.0%	-	-
GENERALI	41,308.5	32,025.0	77.5%	3,735.8	9.0%	5,406.5	13.1%	141.2	0.3%
CNP	23,713.2	15,899.7	67.0%	2,792.6	11.8%	4,025.5	17.0%	995.4	4.2%
AVIVA	34,720.2	22,884.4	65.9%	3,680.2	10.6%	7,651.2	22.0%	504.5	1.5%
PRUDENTIAL	37,947.8	29,423.2	77.5%	1,089.5	2.9%	6,878.9	18.1%	556.3	1.5%
CREDIT AGRICOLE	21,426.9	14,522.6	67.8%	1,990.9	9.3%	4,889.1	22.8%	24.3	0.1%
AEGON	18,119.5	10,655.8	58.8%	2,517.2	13.9%	3,308.7	18.3%	1,637.8	9.0%
BNP	10,446.1	6,262.0	59.9%	1,006.4	9.6%	2,882.6	27.6%	295.1	2.8%
TOTAL	401,405.7	303,282.9	75.6%	31,844.1	7.9%	57,193.1	14.2%	9,086.1	2.3%

Source: MAPFRE Economic Research with data from the SFCRs published by the companies indicated

Chart 2.2-c
European insurance groups: comparison of the amount of admissible own funds (FPA) in relation to some of the significant dimensions in the balance sheet, 2016



Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Chart 2.2-d
European insurance groups: Impact of transitional and adjustment measures on own funds and SCR, 2016
(millions of euros)

Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Table 2.2-d
European insurance groups: Impact of transitional and adjustment measures on own funds 2016
(millions of euros)

	Admissible own funds	Impact on own funds from transitory CB adjustment	Impact on own funds from adjustment due to volatility	Impact on own funds from adjustment due to matching
COVEA	21,505.6	-	-	-
POST	8,063.0	-	-381.7	-
GROUPAMA	11,576.9	-3,900.0	-292.8	-
TALANX	19,676.1	-4,129.3	-127.7	-
ALLIANZ	75,337.6	-	124.1	-
MAPFRE	9,615.6	-836.0	-68.4	-470.2
AXA	57,905.5	-	-2,038.7	-
R+V	10,043.4	-	-	-
GENERALI	41,308.5	-	-1,265.9	-
CNP	23,713.2	-	-628.9	-
AVIVA	34,720.2	-5,843.2	-714.3	-11,549.8
PRUDENTIAL	37,947.8	-3,005.0	-391.7	-5,136.3
CREDIT AGRICOLE	21,426.9	-	-888.0	-
AEGON	18,119.5	-84.1	-651.8	-107.2
BNP	10,446.1	-	-372.8	-

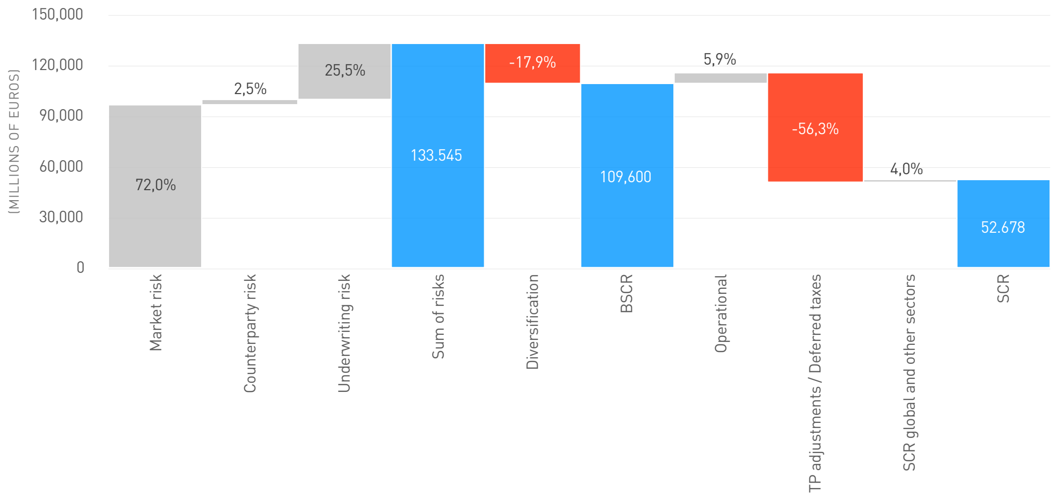
Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Table 2.2-e
European insurance groups: Impact of transitional and adjustment measures on required SCR, 2016
(millions of euros)

	SRC required	Impact on own funds from transitory CB adjustment	Impact on own funds from adjustment due to volatility	Impact on own funds from matching adjustment
COVEA	6,135.1	-	-	-
POST	2,737.1	-	29.4	-
GROUPAMA	4,000.1	1,146.8	187.8	-
TALANX	8,346.5	9.3	2,135.4	-
ALLIANZ	34,580.2	-	3,688.1	-
MAPFRE	4,582.2	-	0.4	-170.9
AXA	29,389.4	-	6,022.7	-
R+V	5,355.6	-	-	-
GENERALI	23,221.8	-	6,841.3	-
CNP	13,402.2	-	493.5	-
AVIVA	20,131.1	638.0	268.3	7,953.8
PRUDENTIAL	22,202.9	556.8	201.4	5,577.0
CREDIT AGRICOLE	13,303.2	-	766.5	-
AEGON	11,563.2	0.4	1,636.2	104.5
BNP	7,162.7	-	296.7	-

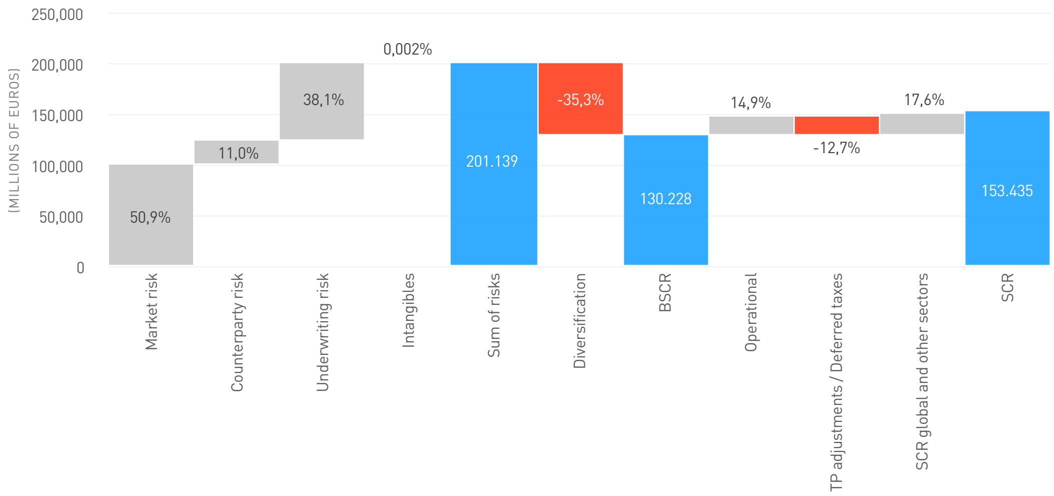
Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Chart 2.2-e
European insurance groups: relative weight of the different SCR components for groups using the standard formula, 2016
(million euros and percentages)



Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

Chart 2.2-f
European insurance groups: relative weight of the different SCR components for groups using partial internal models, 2016
(million euros and percentages)



Source: MAPFRE Economic Research (with data from the SFCRs published by the companies indicated)

insurance and reinsurance activity and the exercise thereof.

The proposal is in the public consultancy phase and, once the time limit is reached, EIOPA should analyze all the answers received before drawing up the definitive report to send to the European Commission. With regard to this request by the Commission, EIOPA decided to separate the issues on which the technical report was requested. So on October 30, 2017 a first part was sent concerning the topics on which enough information was available to be able to issue the report[22].

Progress in the digital environment

In the seventh annual EIOPA conference held in Frankfurt in November, this authority revealed that adaptation to a digital environment is a process which not only affects companies but also the institutions responsible for regulating the sector. In this regard, it revealed that it had been aware for a number of years of the importance of the change in approach which prevailed within the industry so it had been decided to give it a strategic character for the coming years.

The plans will address the different aspects of the so-called InsurTech with greater intensity, new processes and services resulting from the application of information technology to the insurance activity. As explained by Gabriel Bernardino, President of EIOPA, "the growing use of new technologies, digitalization, big data and automatic training have a great potential for significantly changing the value chain of insurance, generating new opportunities for improving client experience and reducing costs, but also producing new risks", and therefore the need for the European supervisor to place this matter on his/her agenda, especially with regard to the use of "big data" by insurance companies, cybernetic risks and supervisory approaches applied to the areas of innovation (see Box 2.2).

Distribution of insurance

In 2018 work should finish relating to the transposition of the new insurance Distribution Directive which came into force in February 2016 and for which Member States should have completed the transposition during this year. As this directive does not imply maximum harmonization, it may give rise to different regimes in different countries so as to adapt to the idiosyncrasy of the distribution models existing in the different markets.

Unlike the previous directive, it also applies to the distribution made by the insurance companies themselves and to other players like travel agents, car rental companies and car dealers, etc for complementary insurance relating to products or services sold, always providing the price of the insurance exceeds certain amounts which still need to be determined in the transposition regulations. The new regime could give rise to substantial changes in distribution channels such as bancassurance and in the amount of the penalties for non-compliance with the new regulations.

The European Commission proposed delaying until October 1, 2018 the implementation of the Directive and Delegated Regulations[23] which make up the new framework applicable to the distribution of insurance[24]. The final decision still needs to be taken by European Council and Parliament.

Private pensions and pension funds: stress test on Institutions for Occupational Retirement Provisions

In December 2017 EIOPA presented the results of the study for the stress test on Institutions for Occupational Retirement Provisions, IORP (administrators or companies directly). This test is applied regularly to assess the strength of these institutions when facing unfavorable market developments. This analysis takes the previous one made in 2015 as a reference, going further into understanding the second-round effects of an unfavorable scenario on financial stability and on the actual economy. The test analyzes the impact of the unfavorable scenario in the defined and hybrid service plans (PD/hybrids) on the contributions which the promoters (companies) should make and on the possible reduction in services.

One of the new features in the analysis for this year was the inclusion of the defined contribution (DC) plans, assessing the impact of the unfavorable scenario, recognizing that in the case of DC plans commitments move in line with

Box 2.2
Risk environment in 2018 for the insurance industry

Trends and associated risks

In addition to the economic environment in which the insurance industry will be working in 2018, the macro-economic atmosphere will remain which we identified in our report corresponding to 2017[25]. In conceptual terms, this environment of large business trends will also involve developments in certain traditional risks as well as the emergence of other new ones.

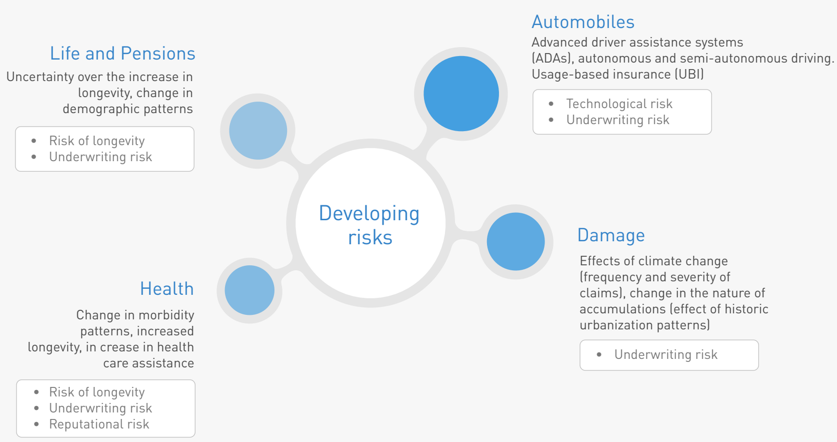
Developing risks

Firstly, there is a set of risks associated with the insurance industry's traditional operation which will undergo a quick process of transformation (developing risks). These include those linked to automobile insurance, as a result of the effect on the claims ratio and premiums arising from gradual proliferation in the use of advanced driver assistance systems (ADAs), the greater use of autonomous and semi-autonomous driving systems, and the demand for use-based insurance (UBI) by certain market segments. This growing trend will affect the risk profile for underwriting in automobile insurance, and give a new dimension to the technological risks which will face insurance companies specializing in this line of insurance.

In the case of insurance against damages, the effect of climate change on the frequency and severity of claims, as well as the change in the nature of accumulations as a result of historical urbanization patterns, will continue to be a factor affecting underwriting risk for this type of insurance.

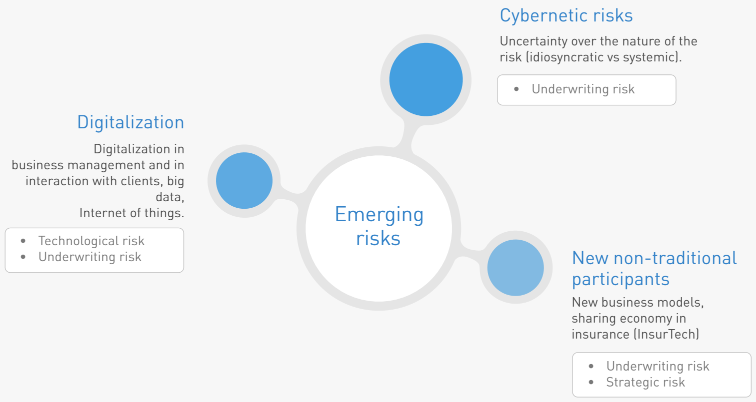
Furthermore, in health insurance, underwriting risks will continue their trend to develop as a result of the effect of changes in morbidity patterns, increased longevity and increased costs in health care caused by technological progress applied to health care, broadening the challenge to the insurance industry with regard to increased detailing in this type of protection while at the same time maintaining its affordability (reputational risk).

Finally, as far as Life Insurance and pension insurance (life annuities) are concerned, increased longevity will continue to transform the underwriting risk dimension for insurance companies (positively in the case of Life risk insurance, and negatively in that relating to traditional life annuities), given the increased uncertainty over the possibilities for increased longevity in the medium and long term, as well as the change in demographic patterns, especially those linked to the migration



Source: MAPFRE Economic Research

Box 2.2 (continued)
Risk environment in 2018 for the insurance industry



Source: MAPFRE Economic Research

phenomenon in certain emerging regions toward developed societies.

Emerging risks

Furthermore, the developing risks environment will be complemented in 2018 by the effect of emerging risks as a whole.

It is accepted that an emerging risk is one for which, in spite of being deemed significant by insurance companies, we have relatively limited knowledge, not only regarding its technical nature but also in terms of price for its coverage, the technical provisions that would need to be constituted to support compliance with the services agreed in the insurance policies, and the capital consumption involved. For this reason, emerging risks may have a very significant impact on the insurance industry.

In this category there are three significant trends which will continue to develop in 2018. First of all, cybernetic risks should be highlighted. In spite of the fact that demand for this type of protection will continue to grow, there is still uncertainty regarding its nature in terms of whether it is possible to undertake an idiosyncratic type of compensation for cybernetic risk, or whether it is a risk of a systemic nature, which would worsen underwriting risk for insurance companies who get involved in this type of coverage.

Risks arising from the so-called digitalization environment may also be included in this category. This is a trend which will continue to grow in 2018, but it will also involve the emergence of new risks for insurance companies, such as those relating to automation in business management and interaction with clients (operational risk), with the massive use of data employing "big data" techniques (underwriting, technological and legal risks) and the so-called internet of things (technological and underwriting risks).

Finally, the emerging risks category could also include the emergence of new business models in the traditional insurance industry, based on the mutualization principle and on the use of the sharing economy (the so-called InsurTech). This trend involves rethinking underwriting risk and, simultaneously, the strategic risk involved for established insurance companies by the arrival of a new type of non-traditional participant on the market.

assets, since the risk of variations is assumed by the participants. The stress test was made applying the unfavorable scenario both to the balance sheets for the pension plans in each country as well as to the aggregate for all members, including the analysis of 19 countries (with assets exceeding 500 million Euros) plus Iceland which took part voluntarily.

The scenarios

The basic (or pre-stress) scenario uses the balance sheets for the close of 2016, reflecting current market conditions, including the high price of the shares with regard to the first analysis in 2014, and low levels of interest rates in fixed income. The results in the analysis for PD/hybrid plans showed levels of share shortfall similar to the first stress test (2014).

The unfavorable scenario (stressed), simulates a shock (fall) in European Union stock markets, combined with a fall in fixed income prices (increase in performance and differentials) and in other risk assets, resulting in an impairment of the financial situation in the institutions (IORP's). The simulation was made by applying a momentary shock to the balance sheet as of December 31, 2016 to the PD/hybrid plans or to the assets in the case of MD plans.

Results in the plans
for Defined Service and Hybrids

According to the results of the test, European IORPs with PD/hybrid plans have, on aggregate, a shortfall of assets in their base scenario to meet their pension commitments equivalent to 3 percent of the same, in other words, they have a coverage of 97 percent, valued at 49 billion Euros. In the case of an unfavorable scenario (stressed), this coverage deceases to 79 percent, in other words, 21 percent shortfall on commitments, valued at 301 billion Euros.

The financial situation and assessment standards vary according to the country. Most of the countries value assets at market prices ("mark-to-market"), while technical provisions (liabilities) are valued at discounted rates which are often insensitive to variations in market conditions.

To be able to compare and present a valid analysis for the whole of the European Union, EIOPA prepared the so-called "common balance sheet". To do this it valued both sides of the balance sheet with the market-price methodology ("market-consistent") and included all the guarantee mechanisms (promoter support, pension protection diagrams), service types (unconditional, conditional, discretionary), as well as potential reductions in services. This methodology guarantees a consistent and transparent view of commitments for pensions. The first result from using this method was that obligations are 16 percent higher than those calculated based on the methodologies for each of the countries (based on officially fixed discount rates in each country).

The result using this methodology, applied to the common balance sheet for all the countries analyzed in the base scenario, shows a shortfall in assets to cover provisions which stands at 20 percent of commitments, for an amount valued at 349 billion Euros. In the case of an unfavorable scenario (stressed), the shortfall rises to 38 percent of commitments for an amount valued at 702 billion Euros. 24 percent of the responsibility for covering this 38 percent deficit lies with the promoter (445 billion Euros) and 14 percent (262 billion Euros) with the participants through a decrease in services.

Impact on the promoters and beneficiaries

National prudential mechanisms usually allow the promoters' extra contributions or reductions in services to be extended over long periods of time, among other reasons to cover the possibility of a recovery in the value of the assets, and this effect reduces the sense of urgency for covering these deficits.

This EIOPA analysis compared the value of the deficits with the market value (capitalization) of the promoter companies and concluded that a large number of companies could not deal with the scale of contributions that would be required, or at least not totally. In a quarter of the companies analyzed, the pension deficit exceeded 42 percent of their capitalization and 66 percent in an unfavorable scenario. Furthermore, in 10 percent of the companies these contributions rose to 169 percent and 266 percent of their capitalization in both cases. In the case of financial companies these deficits are not so severe, but even so in 10 percent of the companies it reached 28 percent and 51 percent respectively, requiring more detailed scrutiny given the greater propensity of these companies to cause shocks in the financial system.

According to the EIOPA analysis, vulnerabilities in the pensions sector may contaminate the economy itself, in that the promoters would have to make contributions and therefore limit their resources for growth and investment with possible negative implications for economic growth and employment. Furthermore, significant reductions in services to beneficiaries could have a similar effect as this would lead to a decrease in domestic income, consumption and confidence in the private pensions system.

Results in Defined Contribution Plans

The DC plans sector represents about 16 percent of pensions assets in Europe. In an unfavorable scenario, the value of the assets would fall by 15 percent with regard to the base scenario. If the unfavorable scenario were to persist, this would lead to a reduction in the contributions of the participants. The report studied the impact on three different age bands.

Those closest to retirement would be more affected by an unfavorable scenario, since the younger ones would have more time to recover their level of assets. The impact of this downturn on the actual economy in the short term would depend on the extent to which participants (in the contribution phase) changed their decisions regarding consumption and investment.

Second-round effects and impact on financial stability

The effect on financial stability may be direct or indirect. According to the EIOPA report, the direct effect would be the bankruptcy of one or more companies causing a domino effect. The pension institutions sector does not appear to have an impact on financial stability in the same way or to the same extent as banks or other non-banking financial companies. So the assessment made is that the impact would be less significant. However, the analysis indicates that adverse effects on promoters (companies) and participants would have indirect effects which would have an impact on the economy itself. It should also be considered that pension institutions are significant investors in financial markets.

Tables: macroeconomic forecast scenarios

Table A-1
Baseline and Risk scenarios: gross domestic product (GDP)
(annual growth, percent)

	Baseline Scenario					
	2014	2015	2016	2017	2018	2019
United States	2.6	2.9	1.5	2.3	2.7	1.9
Eurozone	1.4	2.0	1.8	2.4	2.1	1.7
Germany	1.9	1.5	1.9	2.5	2.4	1.8
France	0.6	1.3	1.2	1.4	1.7	1.7
Italy	0.2	0.9	1.1	1.6	1.4	1.0
Spain	1.4	3.4	3.3	3.1	2.6	2.6
United Kingdom	3.1	2.3	1.8	1.5	1.5	1.6
Japan	0.3	1.4	0.9	1.8	1.7	0.9
Emerging markets	4.7	4.3	4.3	4.6	4.9	5.0
Latin America[1]	1.2	0.1	-0.9	1.2	1.9	2.4
Mexico	2.8	3.3	2.7	2.3	2.4	2.3
Brazil	0.5	-3.6	-3.4	1.1	2.5	3.3
Argentina	-2.5	2.6	-2.2	2.8	3.5	4.0
Emerging European[2]	3.9	4.7	3.1	4.5	3.5	3.3
Turkey	5.3	6.0	3.3	5.8	4.1	3.2
Asia Pacific[3]	6.1	5.9	6.2	6.2	5.8	5.6
China	7.3	6.9	6.7	6.8	6.3	5.9
Indonesia	5.0	4.9	5.0	5.1	5.3	5.1
Philippines	6.1	6.0	6.9	6.6	6.0	5.9
World	3.6	3.4	3.2	3.6	3.7	3.7

	Risk Scenario					
	2014	2015	2016	2017	2018	2019
United States	2.6	2.9	1.5	2.3	1.1	0.1
Eurozone	1.4	2.0	1.8	2.4	1.4	1.3
Germany	1.9	1.5	1.9	2.5	1.8	1.2
France	0.6	1.3	1.2	1.4	1.7	1.7
Italy	0.2	0.9	1.1	1.6	0.7	0.6
Spain	1.4	3.4	3.3	3.1	1.6	2.2
United Kingdom	3.1	2.3	1.8	1.5	1.0	1.0
Japan	0.3	1.4	0.9	1.8	1.0	-0.1
Emerging markets	4.7	4.3	4.3	4.6	4.9	5.0
Latin America[1]	1.2	0.1	-0.9	1.2	1.9	2.4
Mexico	2.8	3.3	2.7	2.3	0.4	0.6
Brazil	0.5	-3.6	-3.4	1.1	2.0	2.4
Argentina	-2.5	2.6	-2.2	2.8	3.1	3.5
Emerging European[2]	3.9	4.7	3.1	4.5	3.5	3.3
Turkey	5.3	6.0	3.3	5.8	3.6	0.9
Asia Pacific[3]	6.1	5.9	6.2	6.2	4.5	4.1
China	7.3	6.9	6.7	6.8	4.9	4.0
Indonesia	5.0	4.9	5.0	5.1	4.3	3.5
Philippines	6.1	6.0	6.9	6.6	4.3	4.8
World	3.6	3.4	3.2	3.6	3.7	3.7

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)

[1]Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela; [2]Russia, Turkey, Community of Independent States (CIS) and Central Europe; [3]Association of Southeast Asian Nations (ASEAN)
Forecast end date: December 19, 2017.

Table A-2
Baseline and Risk scenarios: inflation
(end of period, percent)

	Baseline Scenario					
	2014	2015	2016	2017	2018	2019
United States	1.2	0.4	1.8	2.1	1.9	1.6
Eurozone	0.2	0.2	0.7	1.4	1.7	1.5
Germany	0.5	0.3	1.1	1.8	2.0	2.1
France	0.1	0.3	0.7	1.4	1.3	1.7
Italy	0.1	0.2	0.1	0.9	2.1	1.6
Spain	-0.5	-0.3	1.0	1.5	1.7	1.5
United Kingdom	0.9	0.1	1.2	3.1	1.9	1.4
Japan	2.5	0.2	0.3	0.3	1.0	1.8
Emerging markets	4.7	4.7	4.2	4.5	4.2	4.2
Latin America[1]	5.0	6.2	4.6	4.2	3.6	3.5
Mexico	4.2	2.3	3.2	6.5	3.6	3.2
Brazil	6.5	10.4	7.0	2.9	4.4	4.0
Argentina	39.0	24.9	43.5	23.3	18.0	12.4
Emerging European[2]	3.4	3.9	4.2	5.7	5.9	5.3
Turkey	8.8	8.2	7.6	12.0	8.8	7.8
Asia Pacific[3]	3.8	2.4	2.6	3.1	3.6	3.3
China	1.5	1.5	2.2	2.1	2.6	2.2
Indonesia	6.5	4.8	3.3	3.7	4.5	4.0
Philippines	3.6	1.0	2.5	3.4	3.8	3.7
World	2.9	2.9	3.1	3.2	3.2	3.4

	Risk Scenario					
	2014	2015	2016	2017	2018	2019
United States	1.2	0.4	1.8	2.1	2.1	2.1
Eurozone	0.2	0.2	0.7	1.4	1.2	1.0
Germany	0.5	0.3	1.1	1.8	1.7	1.4
France	0.1	0.3	0.7	1.4	1.3	1.7
Italy	0.1	0.2	0.1	0.9	1.5	0.7
Spain	-0.5	-0.3	1.0	1.5	1.2	1.3
United Kingdom	0.9	0.1	1.2	3.1	1.6	0.8
Japan	2.5	0.2	0.3	0.3	0.4	1.9
Emerging markets	4.7	4.7	4.2	4.5	4.2	4.2
Latin America[1]	5.0	6.2	4.6	4.2	3.6	3.5
Mexico	4.2	2.3	3.2	6.5	5.7	5.5
Brazil	6.5	10.4	7.0	2.9	4.2	3.9
Argentina	39.0	24.9	43.5	23.3	18.3	12.5
Emerging European[2]	3.4	3.9	4.2	5.7	5.9	5.3
Turkey	8.8	8.2	7.6	12.0	8.0	6.8
Asia Pacific[3]	3.8	2.4	2.6	3.1	3.0	3.8
China	1.5	1.5	2.2	2.1	2.8	2.7
Indonesia	6.5	4.8	3.3	3.7	3.8	4.1
Philippines	3.6	1.0	2.5	3.4	2.6	4.7
World	2.9	2.9	3.1	3.2	3.2	3.4

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)

[1]Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela; [2]Russia, Turkey, Community of Independent States (CIS) and Central Europe; [3]Association of Southeast Asian Nations (ASEAN)
Forecast end date: December 19, 2017.

Table A-3
Baseline and Risk scenarios: 10-year government bond yield
(end of period, percent)

	Baseline Scenario					
	2014	2015	2016	2017	2018	2019
United States	2.28	2.19	2.13	2.39	2.85	3.06
Eurozone	1.50	1.19	0.92	1.11	1.52	1.81

	Risk Scenario					
	2014	2015	2016	2017	2018	2019
United States	2.28	2.19	2.13	2.39	1.15	1.16
Eurozone	1.50	1.19	0.92	1.11	1.18	1.48

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)
Forecast end date: December 19, 2017.

Table A-4
Baseline and Risk scenarios: exchange rates
(end of period, percent)

	Baseline Scenario					
	2014	2015	2016	2017	2018	2019
$-EUR	0.80	0.91	0.93	0.83	0.83	0.83
EUR-$	1.25	1.10	1.08	1.20	1.20	1.20
GBP-$	1.58	1.52	1.24	1.33	1.39	1.41
$-JPY	114.55	121.44	109.45	112.91	114.69	116.33
$-CNY	6.15	6.39	6.83	6.62	6.45	6.46

	Risk Scenario					
	2014	2015	2016	2017	2018	2019
$-EUR	0.80	0.91	0.93	0.83	0.80	0.81
EUR-$	1.25	1.10	1.08	1.20	1.24	1.23
GBP-$	1.58	1.52	1.24	1.33	1.43	1.44
$-JPY	114.55	121.44	109.45	112.91	110.12	111.57
$-CNY	6.15	6.39	6.83	6.62	6.51	6.58

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)
Forecast end date: December 19, 2017.

Table A-5
Baseline and Risk scenarios: benchmark official interest rate
(end of period, percent)

	Baseline Scenario					
	2014	2015	2016	2017	2018	2019
United States	0.13	0.17	0.42	1.50	2.00	2.50
Eurozone	0.05	0.05	0.00	0.01	0.00	0.00
China	3.53	2.33	2.48	3.04	3.89	3.09

	Risk Scenario					
	2014	2015	2016	2017	2018	2019
United States	0.13	0.17	0.42	1.16	0.13	0.13
Eurozone	0.05	0.05	0.00	0.01	0.00	0.00
China	3.53	2.33	2.48	3.04	2.98	2.01

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)
Forecast end date: December 19, 2017.

Tables: insurance market forecasts

Table B-1
Insurance markets: outlook for the Life market
(%)

	2014	2015	2016	2017	2018	2019
Emerging markets[1]	6.8%	10.6%	11.5%	11.0%	9.1%	10.2%
Latin America[2]	6.1%	16.1%	15.6%	10.7%	9.5%	11.6%
Asia emerging (excl-China[3]	2.0%	9.7%	5.3%	7.3%	9.3%	10.0%
Developed markets[4]	2.7%	2.9%	0.4%	-3.1%	3.4%	2.9%
Eurozone[5]	2.4%	0.4%	-4.2%	-3.2%	-1.0%	1.1%
United States	-0.2%	5.2%	3.3%	4.5%	7.0%	7.3%
Other developed markets[6]	10.5%	3.2%	4.2%	-0.1%	-0.0%	0.9%

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)
Forecast end date: December 19, 2017.

1/ includes: Argentina, Brazil, Chile, Mexico, Poland, Russia, Turkey, Thailand, Philippines, Hong Kong and South Korea.
2/ includes: Argentina, Brazil, Chile and Mexico.
3/ includes: Thailand, Philippines, Hong Kong and South Korea.
4/ includes: Austria, France, Germany, Italy, Malta, Holland, Portugal, Spain, Australia, Canada, United Kingdom, United States and Japan.
5/ includes: Austria, France, Germany, Italy, Malta, Holland, Portugal and Spain.
6/ includes: Australia, Canada and United Kingdom.

Table B-2
Insurance markets: outlook for the Non-Life market
(%)

	2014	2015	2016	2017	2018	2019
Emerging markets[1]	7.3%	8.9%	6.6%	6.4%	7.4%	8.1%
Latin America[2]	14.4%	14.4%	8.5%	6.0%	6.7%	8.0%
Asia emerging (excl-China[3]	2.9%	5.3%	1.9%	3.7%	6.3%	6.9%
Developed markets[4]	1.0%	2.8%	2.0%	2.6%	4.9%	2.8%
Eurozone[5]	0.0%	2.5%	1.7%	2.5%	2.7%	2.8%
United States	2.0%	3.8%	3.8%	4.5%	4.0%	3.5%
Other developed markets[6]	3.0%	2.3%	4.5%	3.3%	2.5%	2.6%

Source: MAPFRE Economic Research (with information from national statistics centers and the IMF)
Forecast end date: December 19, 2017.

1/ includes: Argentina, Brazil, Chile, Mexico, Poland, Russia, Turkey, Thailand, Philippines, Hong Kong and South Korea.
2/ includes: Argentina, Brazil, Chile and Mexico.
3/ includes: Thailand, Philippines, Hong Kong and South Korea.
4/ includes: Austria, France, Germany, Italy, Malta, Holland, Portugal, Spain, Australia, Canada, United Kingdom, United States and Japan.
5/ includes: Austria, France, Germany, Italy, Malta, Holland, Portugal and Spain.
6/ includes: Australia, Canada and United Kingdom.

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References

1/ The recent increase in crude oil prices (currently up to 68 $/barrel) is part of the reason for this stress.

2/ Minsky is important for his view of the transmission of monetary policy to the real sector through the correct/incorrect transmission of the Central Bank's expectations to the markets.

3/ (H) "Hawkish" favoring of a monetary policy which avoids excesses of liquidity and overheating and therefore inclined to more frequent interest rate hikes.

4/ (D) "Dovish" the opposite of Hawkish·

5/ Not only is the benchmark interest rate (1.25-1.50 percent) below neutrality (according to Taylor's rule), but the equivalent shadow rate on which the system is financed (expressed in the WU-XIA rate) is still below 0 percent. Proof that political expectations in the United States are on a downward slant, this may be appreciated in spite of the fact that the system's shadow rate is (almost but below) the neutral zone, and the European rate is clear on negative ground (reflection of the difference in *monetary stance* between them), the dollar has depreciated universally. Specifically, against the Euro it is close, although depreciated in the face of what is considered to be its level of balance (1.15 EUR/$).

6/ With the visible exception of Argentina, Turkey, Mexico and Philippines; in that order.

7/ To the point where some central banks, like the Federal Reserve in the United States, are reconsidering the replacement of this objective with an alternative.

8/ *Output gap* (and/or distance to the structural employment rate) vs inflation.

9/ As indicated by the Bank for International Settlements (BIS) in its recent report (Borio, BIS, December 2017), this relationship is only empirically established during the period which runs from the end of Bretton Woods (which marks the end of the gold standard) to the accession of centrally planned economies to the global market economic order which occurred with the fall of the Soviet Union and the end of the Mao era in China.

10/ It is prejudiced because you need to place yourself to one side of economic theory. Those who defend it do not believe that inflation is a purely monetary process and therefore transitory, but that it is intimately linked to the real sector through monetary policy and the mechanism of expectations.

11/ The European Commission and the Eurozone countries are aware of the defects in the Monetary Union's design, which may put the survival of the Euro at risk. For this reason, Germany and France are at the forefront of a project to achieve greater fiscal, political banking and regulatory union. This involves, among other things, having a common banking supervisor, a single mechanism for resolving banking affairs, a deposit guarantee fund, fiscal harmonization, an increasingly common budget and the possibility of issuing Eurobonds.

12/ http://www.swissre.com/media/news_releases/nr20171220_sigma_estimates.html

13/ ICS Version 1.0: https://www.iaisweb.org/page/supervisory-material/insurance-capital-standard//file/67651/ics-version-10-for-extended-field-testing

Technical specifications ICS Version 1.0: https://www.iaisweb.org/page/supervisory-material/insurance-capital-standard//file/67655/public-2017-field-testing-technical-specifications

14/ https://www.iaisweb.org/news/press-release-iais-announces-unified-path-to-convergence-on-ics-version-20

15/ http://www.fsb.org/2017/11/review-of-the-list-of-global-systemically-important-insurers-g-siis/

16/ Notice of IFRS 17 publication - IASB

17/ https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FMeeting%20Documents%2F1606211133536726%2F07.01%20-%20IFRS%2017%20project%20plan.pdf

18/ http://www.naic.org/store/free/MDL-820.pdf and http://www.naic.org/store/free/MDL-808.pdf (see the list of states which appear at the end of the "Standard Valuation Law", updated to the second quarter of 2017).

19/ http://www.naic.org/store/free/MDL-820.pdf

20/ In the case of AVIVA and Prudential the average Pound Sterling/Euro exchange rate for 2016 has been taken.

21/ https://eiopa.europa.eu/Publications/Consultations/EIOPA-CP-17-006_Consultation_Paper_on_Second_set_of_Advice_on_SII_DR_Review.pdf

22/ https://eiopa.europa.eu/Publications/Consultations/EIOPA-BoS-17-280_First_set_of_Advice_on_SII_DR_Review.pdf

23/https://ec.europa.eu/info/law/insurance-distribution-directive-2016-97-eu/upcoming_en

24/ https://ec.europa.eu/info/law/insurance-distribution-directive-2016-97-eu_en

25/ See: MAPFRE Economic Research, *Economic and industry outlook 2017*, Madrid, Fundación MAPFRE, January 2017, pages 57-59.

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Fundación
MAPFRE

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

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Paseo de Recoletos, 23
28004 Madrid