THIS MONTH'S TOPIC

Where will the next financial crisis come from? Are we ready to confront it?

PHILIPPE ITHURBIDE, Global Head of Research

Finalised on 22/03/2018

The essential

The world is not yet fully out of the aftermath of the 2007-2008 financial crisis, when the question is already raised on the risk of another crisis. The question is whether it is possible to move from a regime of growth without inflation and with low rates to one of higher volatility, inflation and interest rates without a financial crisis or any macro-economic shock... Such are the stakes for 2018. The excessively low bond yields, the credit bubble in China or the so-called "excessive" valuation of some equity markets are generally referred to as risky segments, while a badly perceived monetary policy decision or a sudden rise in inflation expectations appear as the most credible crisis-triggering factors, via a repricing of risk premiums. Do not underestimate the crisis-accelerating factors, currently significant, that are potentially the low liquidity of the fixed income markets, the concentration of the positions and the mimicry of investors. However, it is very difficult to bet on a major financial crisis, such as the ones that prevailed in 2000 or 2008. Among the reassuring criteria are the good health of banks, a favourable macroeconomic situation, economies with lower sensitivity to inflation than before, and central banks still credible, predictable, good communicators.

The scenario that seems most likely for 2018 is not a crisis scenario, but rather more nervousness. The market context has indeed evolved. Interest rate policies have reached their limit, the " era of low interest rates forever" is over, the great period of disinflation has ended, and QE programmes will gradually disappear... All this means that the repricing of risk premiums will inevitably result in phases of greater volatility, short and long-term interest rates increases, wider credit spreads, and no doubt regular shocks in the equity markets.

The world is not yet completely out of the 2007-2008 financial crisis, but the risk of a new crisis already arises. The theme of "regime shift" (volatility, interest rate, inflation, etc.) has resurfaced, which led to a marked correction in financial markets in January – February. **With sudden change in regime, the traditional ingredient of a financial crisis is excess liquidity that leads to a credit bubble**: the stock and the evolution of private debt (in particular China) and public debt, as well as the low deleveraging since the 2008 crisis remain a concern. Economic history also teaches that financial crises are seldom anticipated, or more precisely, it teaches us that measures to avoid them are never taken in time.

In reality, crises have all been preceded by often very clear signals, but they have been ignored or underestimated (by regulators, by central banks, investors...). Who really thought in the 1990's that the tech bubble would not eventually burst? Who really believed that the continuing overhang would not create strong economic and financial turmoil in the 1990s? How seriously consider that subprimes and abnormal risk aversion would not turn into deep problems in the middle of the 2000s? As a CEO of a big US bank ironically mentioned as an excuse following the crisis, "as long as music played, we all kept dancing". Similarly, who still believes that the regime of low volatility, low inflation, low rates and excessive valuation of assets can last indefinitely? In other words, to see financial markets change, once again, constitutes a real threat.

Two types of "crises" should be highlighted: **market shocks** (for example, 10% drop) are frequent and most generally salutary, because they allow 'purge' excess positions, or correct excess valuations. These corrections are not alarming for the continuity of the regime. **Financial crises**, on the other hand, often represent real questioning of the existing regime, or even the overall functioning of financial markets and the economy (they are also seen as crises of capitalism and its excesses). Financial crisis usually follow periods of excessive valuations or, even worse, bubbles.

The question is whether it is possible to move from a growth regime without inflation and at low interest rates to one of (even moderately) higher volatility and inflation and higher interest rates without a financial crisis or a macro-economic shock ... that's the whole issue of 2018.

Where do bubbles come from?

The factors that can develop (and burst) excessive bubbles/valuations are quite well identified:

- **Rationality**: the justification is often found in the underlying macroeconomic situation;
- **Opportunism**: the attractiveness of the corresponding market;
- **(The excess of) confidence**: it is most often provided by the attitude of the central banks (low rates forever", explicit forward guidance, QE programmes when refer to the recent past);
- **Complacency**: it leads to an exaggeration of the existing trends;
- **Mimesis**: when common views and common positions to the largest number of players drive the markets;
- **The sentiment that the period is atypical ("this time is different"):** this sentiment gives some comfort to exaggeration.

Are there markets at risk?

Rightly or wrongly, according to usual comments, three markets may trigger a major shock or a crisis:

- **The first segment of the market that is at risk is undoubtedly the bond market**. There is no price inflation, but asset inflation. Interest rates are 'too low' due to ultra-expansionary monetary policies and QE, excess liquidity in central banks and lower market liquidity. In the bubble situation, prices are far from equilibrium, and this is the problem
- **The second market segment at risk is the credit market in China (Graph 2)**. China's economy continued to grow strongly following the 2008 financial crisis, and the Chinese government is doing its utmost to maintain a growth rate of more than 6%. But this has led to higher domestic debt (government debt, corporate and household debt). A rise in interest rates globally would therefore be significantly detrimental to the Chinese economy. The risk is great to see a difficult decline in China's bubble: it could be poorly controlled by the central authority, the result dependent on its management capacity. Its mismanagement of the stock-market bubble, which it caused and then corrected in 2015, or its management of the Yuan in 2015 and early 2016, may not bode well.
- **The third segment at risk is the US stock market**, which is regarded – sometimes with the wrong arguments - by many investors as being highly overvalued ... but whose growth is justified in the strength of the economic activity (higher than potential growth), the lack of inflation, the return of profits, the tax measures, but also the still accommodative monetary policy.

Crisis triggering factors vs crisis- accelerating factors

Within markets suddenly bearish and affected by fire sales, **we must not confuse crisis triggering factors** (change of monetary policy stance, geopolitical shock...) **and crisis-accelerating factors** such as mimesis (reversals of portfolio positions when they are all positioned in the same direction), concentration or the low liquidity... 1994 recalls that there is no need for a significant shock to cause a market drop or even a real crash.

What would trigger the next crisis (if any)?

Several factors are likely to play this role.

(1.) A "repricing" of risk premiums would result in phases of higher volatility, higher short and long term interest rates, wider credit spreads, and without any doubt about frequent equity market drops, except if further expansion of the growth cycle and profit prospects.

(2.) An inflationary shock: Inflation rates are everywhere - or almost - below the target of the Central Bank. Apart from an oil shock or a political will leading to a radically different wage policy, it is difficult to believe that inflation will suddenly and sharply rise. Rather, the current functioning of labour markets is in the opposite direction, but we are not immune to publication of poor inflation indicators or simply rising inflation expectations.

(3.) A monetary policy shock: Monetary policy is often the trigger for financial crises. In February 1994, it was a monetary policy event that triggered the bond crash. In the mid-1990s, the Fed's monetary laxity created a bubble, and then its collapse in 2000. This crisis had even led to a global recession: massive corporate deleveraging, loss of confidence, lower stock markets and negative wealth effects... From 2002 to

2007, it was once again the low rates that, together with abnormally low risk premiums, caused the housing bubble to rise, with the development of a sometimes dubious securitisation. This resulted in the major financial crisis of 2007/2008 (sub-prime crisis, Lehman Brothers bankruptcy...). In 2013, the announcement of the end of the US QE programme (and the effective end of asset purchases in 2014) caused market declines and recession in some emerging countries.

(4.) A disappointment on growth - inflation... financial markets might overestimate both inflation and growth rates. The current economic recovery (with growth above potential, accommodative monetary policies, low inflation, low rates, low volatility, "great moderation") will not become a "new standard" and a return of growth to its potential is highly probable, which will also reduce inflationary risks. The risk is lower today as central banks prepare the ground and never take markets by surprise.

(5.) Some loosening of financial regulations would undoubtedly lead to excessive risk- taking, and even greater complacency than currently prevailing.

(6.) A political or geopolitical shock: There is no shortage of tension areas (Korea, Turkey, Saudi Arabia - Iran, Brexit, rise of populism...), and an unexpected and/or big shock would likely create what is feared, i.e. a repricing of risk premia. Add that an increase in oil prices, as the result of tension in The Middle East, would probably be, as regard a rise in inflation expectations, a more possible trigger factor than an increase in wages.

(7.) An increase in protectionism and self-centrism, would be presumably disastrous … especially if it leads to a currency war and a fall in globalisation. This will worsen the economic downturn and create a vicious circle that will lead to a new crisis, a much more severe crisis than the 2008 one. It could be an economic, financial and political crisis.

With rare exceptions, contagion effects are inevitable

The magnitude of contagion is mainly linked to economic and financial globalisation, but also to the nature of the crisis. If it concerns a country or zone, and if non-residents have invested little in that country or zone, then contagion remains low. A "simple" repricing of risk premiums, resulting in a moderate rise in interest rates would be less damaging to the real spheres, as interest rates would remain objectively low at the end. But the question of the impact of the financial sphere on the real sphere has always to be raised.

Financial crises: origins and contagion effects

Event	Origin of the crisis	Contagion
1929 market crisis	US stock market	Economic and financial spheres of the developed world
Crisis in the developing countries of the 1980	Mexican sovereign debt crisis	Contagion to all Latin American countries
1987 stock market crash	US stock market	European and Japanese equity markets mainly
Japanese banking crisis 1990	Real estate	Japanese economic and financial spheres
1994 bond crash	US bond market	Global bond markets
Mexico's 1994 currency crisis	Foreign exchange market	Contagion to all Latin American countries (tequila effect), Argentina and Brazil
Thailand's currency crisis 1997	Foreign exchange market	Contagion to all emerging and transition economies (Asia, Latin America, Europe), all economic and financial sectors
April 2000 crash	US stock market	Contagion to all stock markets and real sectors of developed countries
Great Financial Crisis of 2008 (GFC)	US property market (sub-prime)	Contagion to all financial markets and real sectors of developed and emerging countries

Are we ready to confront a crisis?

The capacity to cope with an eventual financial crisis can be assessed against several criteria.

(1.) The vulnerability of countries: What can be said is that emerging countries are currently much less vulnerable than they were at the time of the 2008 Great Financial Crisis or at the time of the Fed's QE tapering: stronger growth, more growth engines, better current account and fiscal balances, higher FX reserves, inflation rates below inflation targets (except in countries like Malaysia and Turkey...).

(2.) The existence - or not - of fiscal and tax room of maneuver: Some countries have been able to rebuild flexibility, such as Germany, for example... but this are isolated cases. For the rest of the Eurozone or for the United States, this is much less secure. At the global level, debt is growing faster than GDP. The debt was considered excessive in 2008: what should we say today? How would financial markets react to rising interest rates?

(3.) The existence - or not - of room of maneuver for monetary policies: we have seen the central banks of the major advanced economies lagging the cycle (Graph 1), the Bank of Japan more than the ECB, and the ECB much more than the Fed. With very low rates, new QE programmes are plausible if, should central banks have to curb a financial crisis and/or to fight threats to the economic activity.

(4.) Financial markets: investors' positioning and liquidity. The more the positions are consensual and / or liquidity is low, and the greater the risk of collapse. No need for a significant shock to cause a market drop or even a real crash. **When liquidity declines, prices become much less powerful in terms of information** as they move away from their fundamentals. **Contagion and volatility risks also tend to increase, while less liquid markets have less shock absorption capacity. Lower liquidity means greater handling capacity**. In total, we can see the issue of liquidity and market positioning in the current context.

(5.) The state of the economy: The situation is good at present, and this is undoubtedly a positive factor in the current circumstances. All growth engines are active: consumption, investment, world trade and fiscal, tax and monetary policies are rather accommodative. In the Eurozone, Japan, the US or China, growth is above potential.

(6.) Debt constraint: It is now clear that the level of debt forces - or even influences - economic policies, including monetary policies. While the debt service has changed little since 2005 (it has even declined in some countries), nominal debt has risen steadily (it roughly doubled in just over 10 years). In other words, a rise in interest rates would raise new issues on the solvency of the States/companies with high levels of leverage. On this point, the world economy is probably not prepared to face a financial crisis (Graph 3).

Three scenarios at play

Scenario # 1: 2018, another year of "great moderation", with low(er) volatility, stability of growth and inflation, low(er) inflation and low(er) interest rates *(probability: 10%)*

2018 will not look like 2017, because the economic situation is changing strongly. The output gaps will be closed in the coming months, unemployment rates go back to structural levels... all of this is to say that growth will not accelerate (the less one can say), and that inflation risks - even moderate - are clear. A situation that is likely to allow central banks, the Fed in lead, to continue to rebuild room of maneuver. The environment of "great moderation" (stability of major economic aggregates, such as growth and inflation), but also low volatility and low interest rates are gradually wiped out.

Scenario # 2: 2018, a year of higher volatility, with regularly hectic financial markets *(probability: 75%)*

It is difficult to bet on a major financial crisis, like that that prevailed in 2000 or 2008. Among the reassuring criteria:

- The health of banks, well-capitalised, reasonably leveraged, and more stable revenues. Banks now give greater weight to retail activities (as was the case in the wake of the emerging markets crisis in the late 1990s);
- A favourable macroeconomic situation;
- Moderate inflation;
- A lower sensitivity of the economies to inflation;
- A low neutral interest rate, which means that closing the gap with these rates is easier or that interest rate policies are less ultra-accommodative than it seems (this is true for the US, but much less for the Eurozone);
- Central banks still credible, predictable, with still a good capacity to communicate.

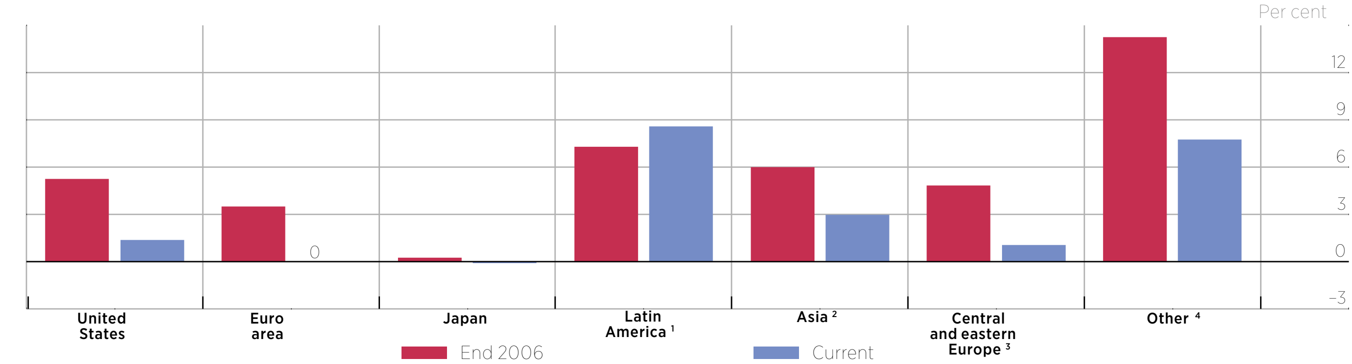
However, the market environment has changed: (i) conventional monetary policies (interest rate policies) have reached their end... and "the era of low rates forever is over", (ii) the great period of disinflation is finished; (iii) unconventional monetary policy (QE) programmes fade slowly. All of this means that the "repricing" of risk premia will inevitably lead to periods of greater volatility, with higher short and long term interest rates, wider credit spreads, and no doubt of regular shocks in equity markets.

Scenario # 3: a major crisis year (*probability: 15%*)

Nothing is impossible, and the possibility of a significant financial crisis cannot be totally ruled out. It is not our central scenario, though. It should be noted that low liquidity and similar positioning of many portfolios provide additional risk to financial markets in the event of a crisis / shock. We have also seen little room of maneuver for central banks, while government debt and government deficits will constrain policies. Clearly, monetary policies in most advanced countries are not in a position to support economies and financial markets in the event of crisis... except to reopen new QE programmes.

Annex

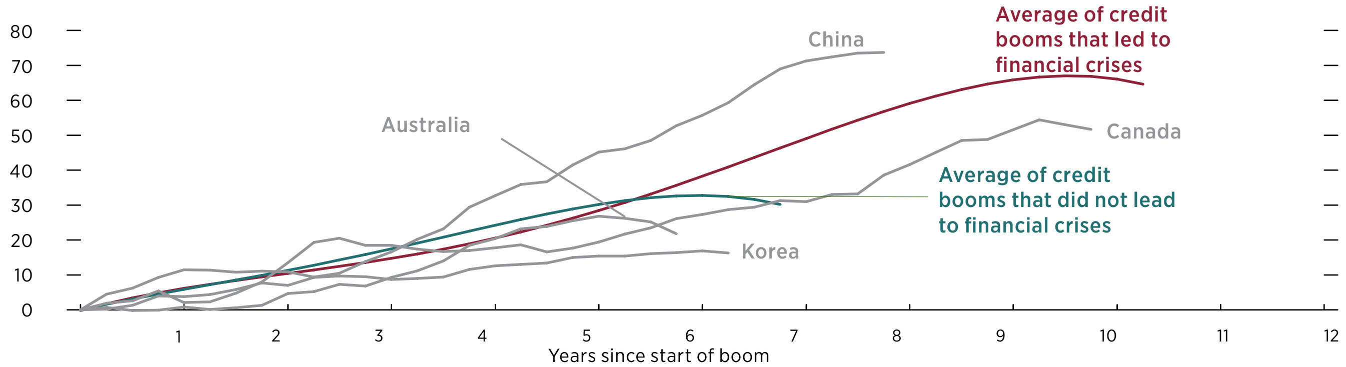
1/ Monetary policies: key rate in 2006 and in 2016



1. Argentina, Brazil, Chile, Colombia, Mexico and Peru.
2. China, Hong Kong, SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.
3. Czech Republic, Hungary and Poland.
4. Russia and Turkey

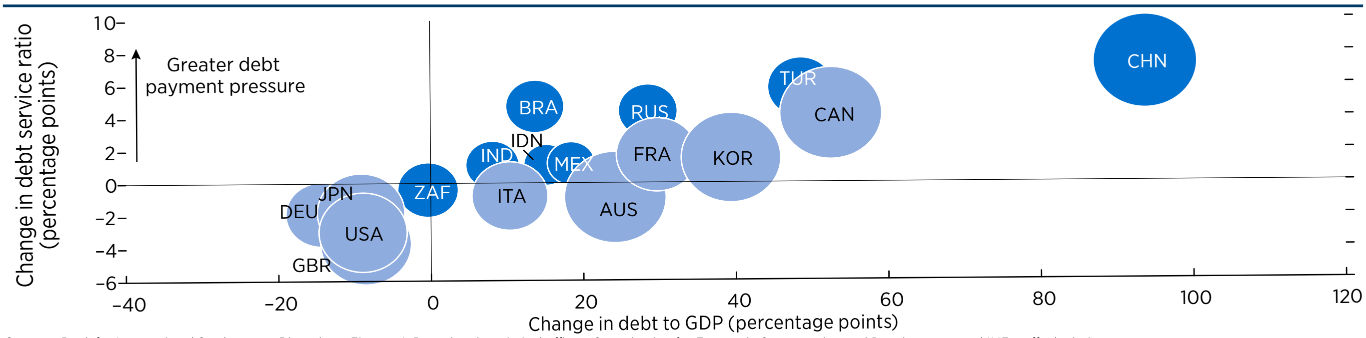
Sources: Datastream; national data; BIS calculations.

2/ Change in Credit-to-GDP Ratio (Percentage points)



Sources: Bank for International Settlements; Bloomberg Finance L.P.; national statistical offices; Organisation for Economic Co-operation and Development; and IMF staff calculations.

3/ Change in Private Non financial Sector Debt and Debt Service ratios, 2006 - 2016



Sources: Bank for International Settlements; Bloomberg Finance L.P.; national statistical offices; Organisation for Economic Co-operation and Development; and IMF staffcalculations.
Note: Debt service ratios are defined as annualized interest payments plus amortizations as a percentage of income, as calculatedby the Bank for International Settlements. In panel 1, the size of the circles is proportional to debt to GDP in 2016. In panel 2, income is gross disposable income plus interest payments (plus dividends paid for firms). Panel 3 shows Group of Twenty economies with higher demeaned nonfinancial private sector debt service ratios and debt levels against past booms. Past booms are for a sample of 43 advanced and emerging market economies where the credit-to-GDP gap rose above 10 percent. The start and end dates of the booms are defined as periods when the credit gap was above 6 percent. Financial crisis dates were taken from Laeven and Valencia 2012. Data labels in the figure use International Organization for Standardization (ISO) country codes.

Amundi ASSET MANAGEMENT
RESEARCH STRATEGY & ANALYSIS

April 2018 # 04

Chief editor: BLANQUÉ Pascal
Editor: ITHURBIDE Philippe

Editor
ITHURBIDE Philippe, Global Head of Research

Deputy-Editors
BOROWSKI Didier, Head of Macroeconomic Research
DEFEND Monica, Head of Strategy, Deputy Head of Research

Conception & production
BERGER Pia, Research, Strategy and Analysis
PONCET Benoit, Research, Strategy and Analysis