

THEMATIC
GLOBAL VIEWS

Didier BOROWSKI,
Head of Global Views



Pierre BLANCHET,
Head of Investment Intelligence

Since the mid-1980s, the decline in macroeconomic volatility is due to both good policy and good luck

The end of the Great Moderation and the return of volatility

Since the mid-1980s, the macroeconomic volatility has declined to a post-war low. The Covid-19 crisis brought one of the largest economic shock in modern history and could mark the end of the Great Moderation i.e. a turning point with higher economic volatility and a shift to a higher inflation regime. Those factors are likely to lead to higher financial market volatility than in the previous two decades.”

Since the mid-1980s, the volatility of output growth and inflation has declined to a post-war low in most OECD countries. A number of factors have been put forward to explain this period, known as the “Great Moderation”.

First, many structural changes have taken place: (i) increasingly sophisticated computer technology has enabled companies to optimise inventory control; (ii) development and deregulation of financial markets have made it easier for companies to finance their investments; (iii) the transition in advanced countries from industrial to service economies has helped to smooth the business cycle; and (iv) the growth of global trade and the free movement of capital have increased the flexibility of economies, making them more stable.

Second, progress has been made in terms of economic policy. In particular, central banks have gained greater independence, which has enabled them to better fulfil their primary responsibility of ensuring price stability. Central banks have become more transparent in their operations and have improved their communication with the markets. The result of these developments has been a better anchoring of inflation expectations.

Finally, exogenous shocks have become rarer and less destabilising. In short, the decline in macroeconomic volatility is due to both “good policy” and “good luck”. Surprisingly, the great financial

crisis did not end the Great Moderation.

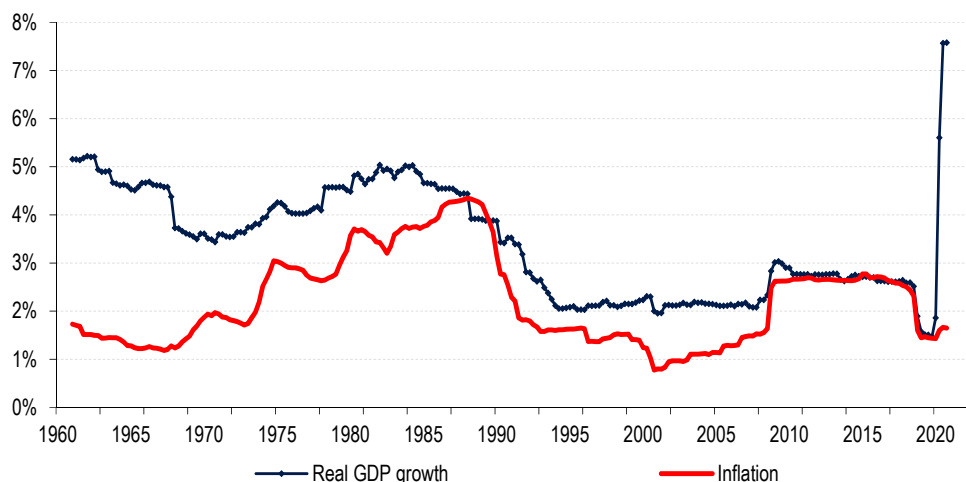
In the US, for instance, output volatility was never as low as in the 10 years preceding the Covid-19 crisis.

However, looking ahead, it is open to question whether some of the factors that led to the Great Moderation will act in the opposite direction: the reshoring of certain value chains in the wake of the Covid-19 crisis, the fragility of the service sector in the event of an epidemic, and the expected rise in inflation are all factors that are paving the way to bumper cycles.

This may lead to an unstable scenario of ‘fiscal dominance’, in which expansionist fiscal policies are combined with accommodative monetary policies to alleviate the debt burden. But such a situation would put central banks in a difficult position of having to contain inflationary pressures and maintain financial stability at the same time. At the end of the day, the ability of the policy mix to smooth out cyclical fluctuations as effectively as in the past is questionable.

Rising public debts and inflation could be an obstacle to stabilisation policies. Private and public debt levels have reached new heights with the Covid-19 crisis, surpassing previous peaks reached at the end of World War II. Looking ahead, rising debt levels are likely to dampen domestic demand. While inflation is welcome in facilitating deleveraging, it can also put central banks in

1/ US: macroeconomic volatility (10-y rolling standard deviations)



THEMATIC
GLOBAL VIEWS

Bumpier business cycles would inevitably be accompanied by a resurgence of volatility in financial markets

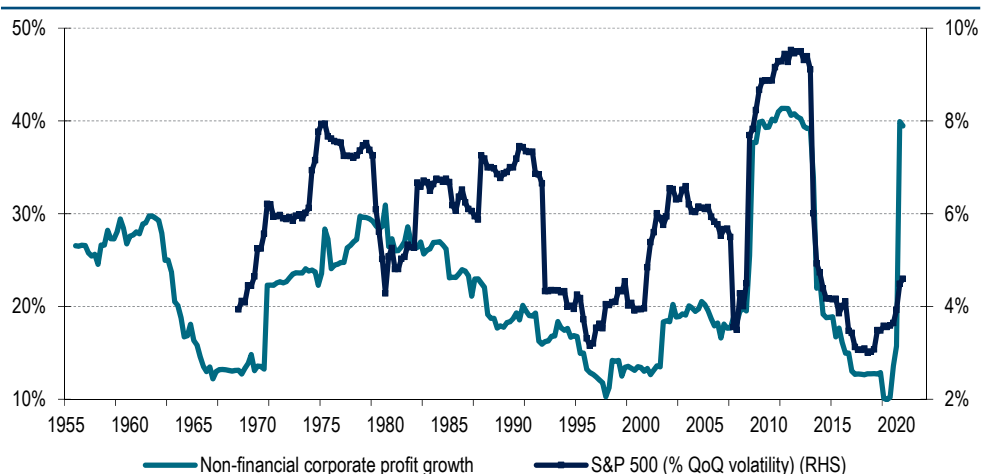
trouble, especially if inflation expectations are not well anchored.

Debt accumulation is a complete game changer from a macro-financial standpoint. Too sharp a tightening of monetary conditions (an increase in short- and long-term interest rates) would inevitably lead to a risk asset correction and trigger a “balance-sheet recession”. Not to mention the fact that economies may face more exogenous shocks in the future (such as epidemics, climate shocks, and conflicts). **In a nutshell, both “good policies” and**

“good luck” may disappear at the same time.

The recent surge in output volatility has been accompanied by an equally large increase in corporate earnings volatility, while inflation volatility has remained contained at this stage. Market volatility has so far been contained, thanks to the ultra-expansionist policy mix and the absence of inflation. This may not last. Bumpier business cycles would inevitably be accompanied by a resurgence of volatility in financial markets.

2/ US: corporate profits vs equity-market volatility (5-y rolling standard deviations)



Source: Eikon-Datastream, Amundi Research as of April 2021 (quarterly data available until Q4 20)

Is market volatility likely to stay low or move higher going forward?

Financial markets went through a phase of extreme volatility last year. Stock markets fell by over 30% in a month, and implied volatility moved to levels not seen since the Global Financial Crisis, with the VIX above 80%. The selloff was followed by a strong rebound, which brought indices back to pre-crisis levels by the end of the year. Bond markets have been very volatile, too. Sovereign bonds rallied strongly at the peak of the crisis, followed by a bear market. As a reference, the Bloomberg Barclays US Long Treasury, which aggregates Treasury bonds maturing over 10 years or more, is down by 26% year-on-year. Credit spreads have moved up and down quite significantly over the same period. The oil price deserves an award in the volatility contest, with the 1-month WTI contract moving from \$50 to \$15 in one month and actually turning negative (-\$40), due to an unprecedented glut at the Cushing hub for a couple of days. Did these extreme asset price movements reset market volatility higher for a prolonged period?

In fact, they did not. Although bond market volatility remained high in the first quarter of 2021, due to higher-than-expected growth and inflation prospects on the

back of US stimulus plans and accelerated vaccination rollouts, **equity and credit volatility came down sharply.**

Previous market moves over the past two decades have generated short-term spikes in asset price volatility but have not changed the volatility regime and average levels over longer periods. For example, in the European context, Brexit or the Euro crisis triggered volatility spikes but both realised and implied volatility came down quickly soon afterwards across asset classes, including sterling or Eurozone periphery bonds. Therefore, **these shocks in isolation have not been enough to reset market volatility higher**, largely because the “whatever it takes” fiscal and monetary response managed to calm investor fears.

Last year, asset price volatility was the consequence of an economic crisis, which deserves all superlatives. Yet if cross-asset volatility has come down very quickly, it is because the fundamental backdrop does not allow otherwise or because market participants believe that the “Great Moderation” regime is still prevalent. Therefore, the Covid-19 crisis will be a turning point towards a higher volatility regime only if one or several factors, which define this regime (and drive volatility) change post-crisis.

THEMATIC
GLOBAL VIEWS

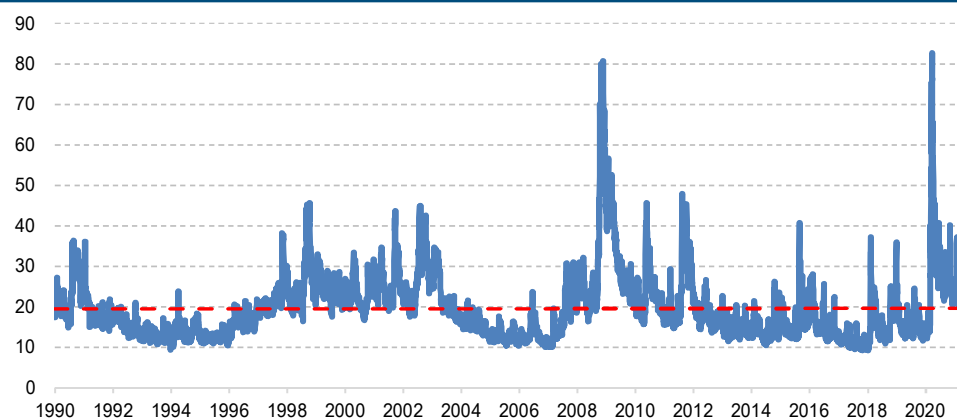
Over the past decades, various shocks have generated temporary spikes but have not been enough to reset market volatility higher, largely thanks to fiscal and monetary responses

Asset prices in aggregate could be more volatile than in the “Great Moderation” regime going forward for at least two reasons: (1) shorter and /or more volatile economic cycles; and (2) lower diversification across the asset classes.

1. If “good luck and good policies” disappear at the same time with no strong-enough rebalancing mechanism, we should expect **shorter, more volatile and even desynchronised economic cycles**. One consequence would be **unstable bond**

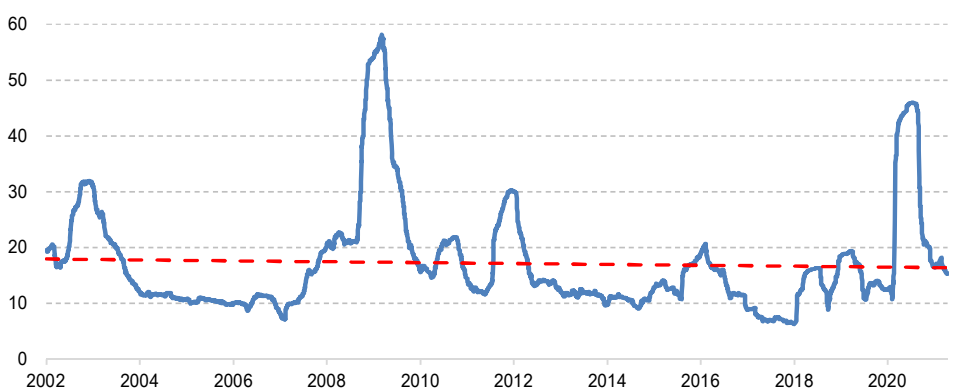
yield curves, with shorter steepening and flattening cycles, and therefore an unstable discount factor. Shorter economic cycle’s means more **volatile corporate earnings**, and companies will find it more difficult to issue long maturity bonds as investors will ask for a higher premium to hedge against a shorter default cycle. In this context it’s probably the volatility of volatility that could be higher.

3/ VIX - S&P500 short term iVol



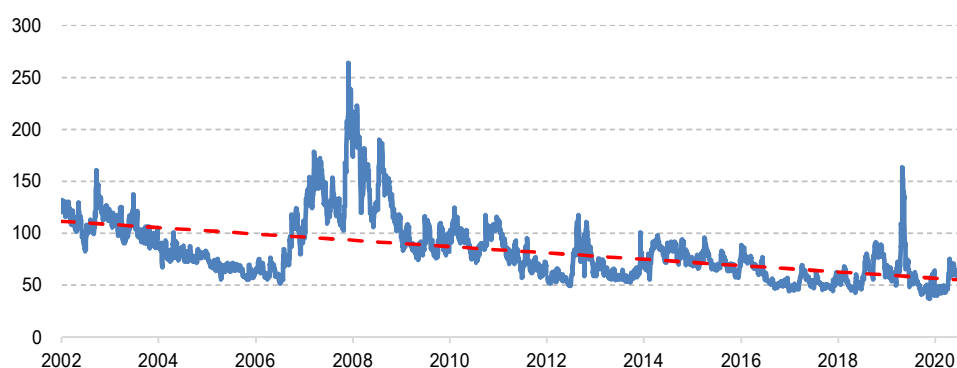
Source: Refinitiv, Amundi Research as of 30th April 2021

4/ S&P500 Volatility 6 Months since 2002



Source: Refinitiv, Amundi Research as of 30th April 2021

5/ MOVE - UST10y short term iVol



Source: Refinitiv, Amundi Research as of 30th April 2021

THEMATIC
GLOBAL VIEWS

Unstable bond yield curves and unstable equity/bond correlation would be the main consequences

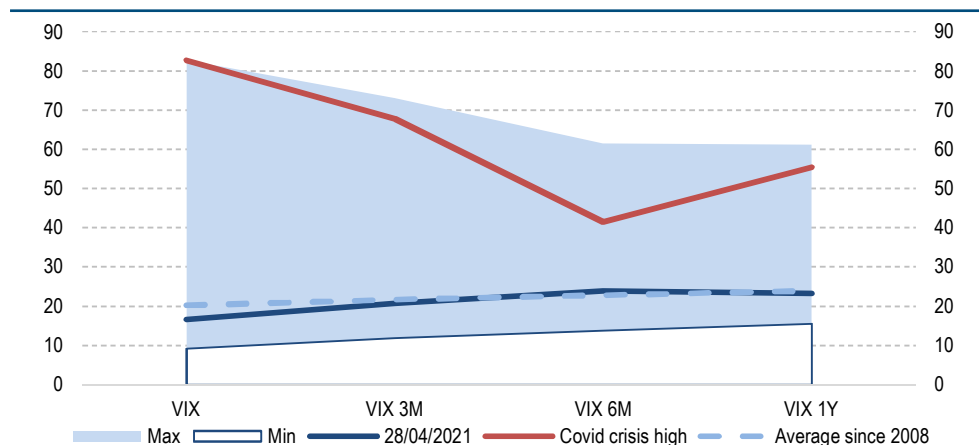
2. The second changing factor could be **lower diversification**. The main source of diversification across financial markets is the negative correlation between sovereign bonds and equities. This negative correlation established since the middle of the 1990s acts like a shock absorber. Central banks emphasise this absorbing mechanism in lowering policy rates and buying long-term bonds via QE. But both the negative bond/equity correlation and monetary easing are possible in a low inflation regime where inflation expectations are well anchored within a long term deflationary trend. The end of the "Great Moderation" could be an environment where inflation is higher than the past two decades and inflation expectations unanchored. In this environment, **the correlation between bonds and equities is close**

to zero or positive (except in phases of equity market sell-offs). Central banks will not be able to keep loose monetary policies over long periods, and balanced portfolios will be less protected by their bond parts. Therefore, investors will tend to switch *on* and *off* their equity positions using cash to reduce risk, which leads to higher volatility of the equity market.

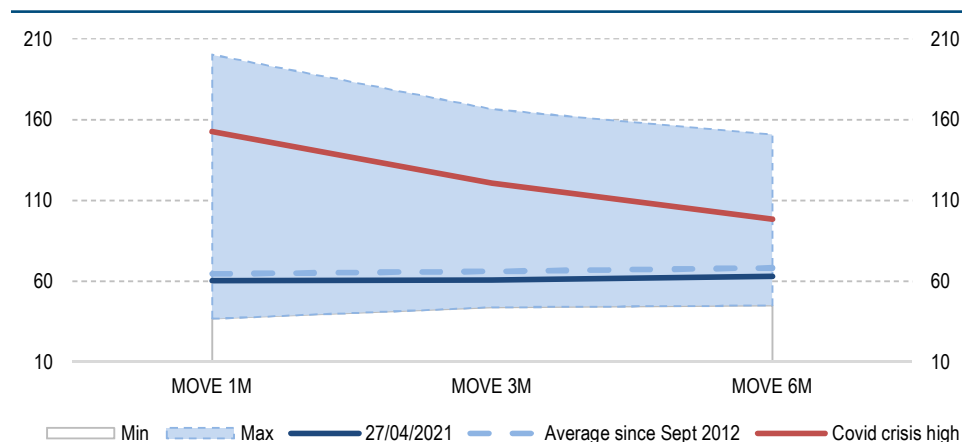
The Covid-19 crisis could be a turning point towards higher volatility of the economic cycle and/or a shift to a higher inflation regime. Those factors are likely to lead to higher financial market volatility than in the previous two decades. However, until the shift is confirmed, investors will remain in the "Great Moderation" paradigm, bringing asset price volatility back to its low average levels.

Finalised on 30 April 2021

6/ S&P500 iVol term structure since Jan 2008



7/ UST10y iVol term structure since 2012



Amundi Research Center



Find out more about
Amundi publications
research-center.amundi.com

Emerging Private Equity
Money Markets Find Monetary
Foreign Top-down Policies
Exchange Corporate Equities
Sovereign Bonds Forecasts
ESG Fixed Income Yield Real Estate
Quant Investment Asset
Strategies Allocation

DISCLAIMER

The MSCI information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.mscibarra.com).

In the European Union, this document is only for the attention of "Professional" investors as defined in Directive 2004/39/EC dated 21 April 2004 on markets in financial instruments ("MIFID"), to investment services providers and any other professional of the financial industry, and as the case may be in each local regulations and, as far as the offering in Switzerland is concerned, a "Qualified Investor" within the meaning of the provisions of the Swiss Collective Investment Schemes Act of 23 June 2006 (CISA), the Swiss Collective Investment Schemes Ordinance of 22 November 2006 (CISO) and the FINMA's Circular 08/8 on Public Advertising under the Collective Investment Schemes legislation of 20 November 2008. In no event may this material be distributed in the European Union to non "Professional" investors as defined in the MIFID or in each local regulation, or in Switzerland to investors who do not comply with the definition of "qualified investors" as defined in the applicable legislation and regulation. This document is not intended for citizens or residents of the United States of America or to any "U.S. Person", as this term is defined in SEC Regulation S under the U.S. Securities Act of 1933. This document neither constitutes an offer to buy nor a solicitation to sell a product, and shall not be considered as an unlawful solicitation or an investment advice. Amundi accepts no liability whatsoever, whether direct or indirect, that may arise from the use of information contained in this material. Amundi can in no way be held responsible for any decision or investment made on the basis of information contained in this material. The information contained in this document is disclosed to you on a confidential basis and shall not be copied, reproduced, modified, translated or distributed without the prior written approval of Amundi, to any third person or entity in any country or jurisdiction which would subject Amundi or any of "the Funds", to any registration requirements within these jurisdictions or where it might be considered as unlawful. Accordingly, this material is for distribution solely in jurisdictions where permitted and to persons who may receive it without breaching applicable legal or regulatory requirements. The information contained in this document is deemed accurate as at the date of publication set out on the first page of this document. Data, opinions and estimates may be changed without notice.

You have the right to receive information about the personal information we hold on you. You can obtain a copy of the information we hold on you by sending an email to info@amundi.com. If you are concerned that any of the information we hold on you is incorrect, please contact us at info@amundi.com.

Document issued by Amundi Asset Management, "société par actions simplifiée" - SAS with a capital of €1,086,262,605 - Portfolio manager regulated by the AMF under number GP04000036 - Head office: 90 boulevard Pasteur - 75015 Paris - France - 437 574 452 RCS Paris - www.amundi.com
Photo credit: ©MDelporte - iStock/Getty Images Plus - marcutti

Chief editor

BLANQUÉ Pascal, *Group Chief Investment Officer*

Editor

DEFEND Monica, *Global Head of Research*

With Global Research contributors

AINOUZ Valentine, *Deputy Head of Developed Markets Strategy Research, CFA*
BELLACHE Mickael, *Fixed Income and Credit Research Strategist*
BERARDI Alessia, *Head of Emerging Macro and Strategy Research*
BERTONCINI Sergio, *Senior Fixed Income Research Strategist*
BLANCHET Pierre, *Head of Investment Intelligence*
BOROWSKI Didier, *Head of Global Views*
CESARINI Federico, *Cross Asset Research Strategist*
DELBO' Debora, *EM Macro Strategist*
DI SILVIO Silvia, *Macro Strategist*
DROZDZIK Patryk, *EM Macro Strategist*

With the Amundi Insights Unit contribution

BERTINO Claudia, *Head of Amundi Investment Insights Unit*
CARULLA POL, *Amundi Investment Insights Unit*

Conception & production

BERGER Pia, *Research*
PONCET Benoit, *Research*

Deputy-Editors

BLANCHET Pierre, *Head of Investment Intelligence*
BOROWSKI Didier, *Head of Global Views*

GEORGES Delphine, *Senior Fixed Income Research Strategist*
HERVÉ Karine, *EM Macro Strategist*
HUANG Claire, *EM Macro Strategist*
LEONARDI Michele, *Cross Asset Research Junior Analyst*
MIJOT Éric, *Head of Developed Markets Strategy Research*
PERRIER Tristan, *Global Views*
PORTELLI Lorenzo, *Head of Cross Asset Research*
STRENTA Aurelien, *Emerging Market Analyst (V.I.E)*
USARDI Annalisa, *Senior Economist Cross Asset Research*
VARTANESYAN Sasi, *Sovereign Analyst, Emerging Macro & Strategy Research*

FIOROT Laura, *Deputy Head of Amundi Investment Insights Unit*
DHINGRA Ujjwal, *Amundi Investment Insights Unit*
PANELLI Francesca, *Amundi Investment Insights Unit*