



CFA Institute

COVID-19, ONE YEAR LATER

Capital Markets Entering Uncharted Waters

June 2021





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Results of a membership survey conducted by CFA
Institute

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COVID-19, ONE YEAR LATER

Capital Markets Entering Uncharted Waters

Results of a membership survey conducted by CFA Institute

June 2021

This research paper constitutes the second edition of our work on the impact of the COVID-19 crisis for capital markets and the investment management industry.

It is based on a survey of the global CFA Institute membership, conducted in March 2021.

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1. Executive Summary

CFA Institute has conducted a survey of its global membership to analyse the effects of the current economic crisis caused by the COVID-19 epidemic on financial markets and the investment management industry. The survey was run worldwide from 8 to 28 March 2021.

This research constitutes the second iteration of our work on the effects of the COVID-19 crisis. The first survey results were released in June 2020 and were based on the survey run worldwide from 14 to 24 April 2020.¹

Our first report was accomplished with the desire to clarify the events that were unfolding globally as a result of the health measures put in place to address the epidemic. We already had declared that the 2020 crisis was an unprecedented event compared with previous historical crises. It has forced policy makers, governments, regulators and monetary authorities to carefully consider the level of intervention that would be required in the face of the economic lockdown that had been decided. What all of these parties seemed to agree on was that they would stand ready to do whatever it takes to prevent another dislocation of liquidity in credit and money markets, akin to what occurred during the 2007–2009 Global Financial Crisis.

Our purpose was to make use of the long history of CFA Institute and the varied experience of its members to help decipher the complex input coming from the economy and financial markets. In so doing, we painted a comprehensive picture of the crisis, in the midst of it, and to question the membership on the type of recovery that would emerge, the effects of volatility, the interventionism of public authorities, the regulatory response, professional ethics in times of crisis, the role of financial markets in such circumstances, and the impact on employment in the financial sector.

For this second report, we benefitted from some hindsight into the development of the crisis.

Governments and central banks in advanced economies have implemented robust and comprehensive plans and have taken a coordinated approach to fiscal and monetary stimulus, which was a novel and potentially controversial stance on central bank independence. This influx of liquidity into the system clearly tamed the risks of market dislocation and helped bridge the gap—at least partially—for market participants, workers, regulators, policy makers, and investors directly affected by the economic shutdown measures.

¹See CFA Institute, *Is the Coronavirus Rocking the Foundations of Capital Markets?* (Charlottesville, VA: June 2020), <https://www.cfainstitute.org/research/survey-reports/is-the-coronavirus-rocking-the-foundations-of-capital-markets>.

Concerns are rising, however, as to the eventual unintended consequences of this liquidity infusion by central banks and government relief programmes, including questions regarding a multispeed recovery, inflationary pressures, addiction to monetary stimulus, taxes, emerging regulatory risks, and the actual financial health of corporates.

These considerations formed the framework for our second research paper on the subject of the COVID-19 crisis.

In particular, we sought to explore the socioeconomic consequences of the crisis and that of the stimulus measures as they may be having distortion effects. As part of this effort, we have tried to focus on the “S” in environmental, social, and governance (ESG) and to extract some high-level observations on societal developments at large, including how the various socioeconomic categories may have experienced the crisis differently.

The research paper is based both on the results from our membership survey and on an external literature review to provide explanatory context for the survey results.

The themes that this research explores are as follows:

■ **The shape of the economic recovery**

One year after the start of the crisis, the recovery that is forming could be taking a K shape, where different parts of the economy, markets, and social categories are affected in materially different ways.

■ **Equity markets and the real economy**

We show that equity markets are perceived to have progressed out-of-pace with the real economy as a result of monetary stimulus.

■ **Inflation may be back on the agenda**

Input prices have been the first to show nervousness in connection with the output gap generated by the crisis. The question will be whether this is temporary or structural.

■ **The structural consequences of the crisis on the economy**

We may be observing structural transformations to the traditional economic balance, with the rise of central bank interventions and a larger role for governments, Big Tech as the clear winners, and ESG as a forceful trend in financial services.

■ **The financing of economic relief programmes**

How the government economic relief programmes will be paid for is a key question with taxes and debt monetisation under consideration.

■ **Monetary stimulus by central banks**

The question should now switch to whether it will be possible to normalise monetary policy while authorities are wondering how to coordinate money supply and fiscal policy.

■ **The socioeconomic consequences of the stimulus measures**

Authorities should consider the effects of economic and monetary stimulus on the fragile balance among the various socioeconomic strata.

■ **Regulators and the crisis**

Regulators fared well during the crisis, but a key question now is about the major risks they should be focusing on.

■ **Corporates**

In the short-term, it would appear that the risk of corporate credit default risk is on the rise, but it could normalise over the longer term. In the meantime, corporates should provide investors with more forward-looking information to enable them to assess the impact of the crisis more precisely.

2. Methodology

About CFA Institute

CFA Institute is the global association of investment professionals that sets the standard for professional excellence and credentials. The organisation is a champion of ethical behaviour in investment markets and a respected source of knowledge in the global financial community. Our aim is to create an environment where investors' interests come first, markets function at their best, and economies grow. There are more than 170,000 CFA® charterholders worldwide in 162 markets. CFA Institute has nine offices worldwide and supports 158 local societies. For more information, visit www.cfainstitute.org or follow us on Twitter at @CFAINstitute and on Facebook.com/CFAINstitute.

Why we are Performing this Research

CFA Institute continues to be of the view that there is a great deal of misunderstanding and misinterpretation about how the current crisis is being analysed and commented on. Through its global and professional membership, our organisation is uniquely positioned to participate in the ongoing debate about the potential effects of the crisis on capital markets and investment management.

Our aim is to provide an honest and unbiased perspective on how our membership views the key outcomes of this period, from various regional and factual viewpoints. We also endeavour to bring context to these survey results where possible and where causality can be established, to propose a rational explanation for the opinions expressed by the membership.

Notably, to avoid undue speculation, we strive to separate our opinion from facts when interpreting the results.

Survey Details and Methodology

The survey was fielded to the global membership of CFA Institute across all regions and jurisdictions where the organisation has representation. The survey was sent on 8 March 2021 and closed on 28 March 2021.

A total of 150,024 individuals received an invitation to participate. Of those, 6,040 provided a valid answer, for a total response rate of 4%. The margin of error was +/-1.2%. See Appendix 1 for a detailed review of the survey's demographics.

3. Highlights

Key highlights and statistics from the survey include:

■ **On the shape of the economic recovery**

Some 44% of respondents globally see the economy of their region recovering in the form of a K-shape, which is an economic course that affects different categories of people, businesses, regions, and industries in varying ways. Another 32% of respondents are optimistic as they believe the economy is already on a steady recovery path and will return to its pre-pandemic pace within one to three years. Some regions are more pessimistic than others—in particular, only 27% of Europeans responded optimistically compared with 36% of respondents in the United States.

■ **On equity markets**

A plurality of respondents globally expressed the view that equities in their respective markets (45%) and global developed markets in general (43%) have recovered too quickly from the market slump in February–March 2020 and are due for a correction within the next one to three years. In all configurations, the proportion of respondents who believe that equities are properly valued is low in all regions (2–16%). Overall, the view seems to be that global developed market equities are more overvalued than those in emerging markets.

■ **On volatility**

A large plurality of 48% of respondents globally think market volatility did not have a material effect on their asset allocation strategy or investment process. Compared with last year's survey (32% on that answer), we can see that the decisive actions of governments and central banks to tame potential market dislocation may have had a stabilising result.

■ **On inflation**

A large majority of 65% of respondents globally believe that an accommodative monetary policy combined with supply side constraints will cause inflationary pressure over the next one to three years. Those respondents, however, appear to be split equally on whether this inflation will cause central banks to restrict monetary policy as a result (31% think central banks will switch to a restrictive policy and 34% think not).

■ On the structural consequences of the crisis for the economy

At a global level, 58% of respondents agree that the role of government will broaden as a result of the crisis and that the share of government spending in GDP will structurally and materially rise, as will taxes. In addition, 40% agree that the Build Back Better movement and the trend toward sustainable investment products is strong (58% in Europe versus 33% in the United States). These respondents believe that ESG-compliant products will dominate the financial landscape within the next 10 years. Also, 34% agree that the crisis has resulted in a growing and consolidated dominance of a small number of Big Tech companies.

■ On the financing of economic relief programmes

A large majority of 65% of respondents believe there will be a rise in the general level of taxation to finance governments' economic relief programmes. In addition, 51% agree that governments and monetary authorities will tolerate higher levels of inflation and therefore engage in debt monetisation to finance public deficits. In contrast, 43% are of the view that the economic recovery will permit a gradual repayment of debt over time through growth. There is regional dichotomy on this question between advanced and emerging economies, where the former show a higher level of concern about tax rises, inflation, and debt monetisation than the latter group.

■ On unorthodox monetary policy measures

At a global level, respondents are split on whether the current extraordinary cycle of accommodative monetary policy should start being restricted (51%) or whether it should be continued to support people and businesses until the economy is sufficiently stable (43%). On this question, there is a divide between Europe and the United States, with the latter showing a marked preference for a swift exit strategy by central banks and a return to a normalised monetary policy. On the form that an exit planning strategy should take if central banks decide to reverse course, 70% think interest rates should be gradually realigned with the economic cycle and inflation expectations. On the question of the importance of central bank's independence, 35% would support a coordination of monetary and fiscal policy, whereas 29% think it is a bad idea because central banks should operate independently from the Treasury. Finally, on the market impact to be expected if central banks were to plan an exit strategy, the story is clearly about value stocks versus growth stocks—49% of respondents think value stocks would be the most positively affected asset class, whereas 41% think growth stocks would be the most negatively affected.

■ **On the socioeconomic consequences of the stimulus measures**

At a global level, 44% of respondents believe the stimulus measures have created a goldmine for the investor class, widening the wealth gap with the working class. In addition, 41% believe that the stimulus measures were necessary and that they have benefitted society at large, even if the various relief programmes could have been better targeted. In addition, 39% believe that a combination of asset inflation and economic hardship during the crisis has created the conditions for a large new set of risk-taking and uninformed investors to be active in capital markets—or the gamification of capital markets. Also important, 37% of respondents agree that the current accommodative monetary policy and financial support measures have resulted in a significant financial asset bubble.

■ **On regulators' role in the crisis and key risks for them to consider**

Globally, a majority of respondents (51%) agree that regulators have overall properly addressed the situation in line with their mandate. A quarter of respondents (26%) think that the measures enacted were excessive—that is, over and beyond what was necessary to stabilise the system. On the question of key risks regulators should now focus on, 40% agree that systemic risk and “too-big-to-fail” institutions in risk of distress should be a concern for regulators, 36% think regulators should focus on the risk of pension systems undergoing severe stress as a result of the crisis, 34% support the view that regulators should address the risk of a breakdown in credit and money markets, and 30% are worried about the risk of regulatory overload. Interestingly, ESG featured among the least-identified risks, with only 18% thinking regulators should focus on ESG matters.

■ **On corporate credit risk and financial reporting priorities**

A majority of 56% of respondents globally think credit default risk has increased in the short term (1–3 years), compared with 43% who think so in the medium term (5 years) and 32% over the long term (10 years), which may indicate that respondents expect the market to stabilise progressively. Emerging market economies show a higher level of concern over corporate credit risk than advanced economies. On the question related to financial reporting priorities as we emerge from the crisis, 23% of respondents agree that forward-looking information is the most important aspect to focus on, to help assess the impact of the crisis on companies' anticipated results. Another 20% feel the priority should be to show the impact of the crisis on estimates, including goodwill, loans, and intangibles.

4. Key Messages for Governments, Policy Makers, and Regulators

Our research on the effects of the COVID-19 crisis and that of the response measures crafted to address the resulting economic fallout is showing that government intervention, public policy, and regulation are not an easy and linear mechanism to use with predictable outcomes.

In a world that is globalised in nature, the complexity of economic and financial crises could easily be analysed through the prism of chaos theory or the butterfly effect.² Policies are often double-edged swords that may have unintended consequences on the existing socioeconomic or financial equilibrium. CFA Institute believes these potential effects should be analysed and considered as part of the response to future crises.

Set forth below are the key messages our research has highlighted, for the attention of governments, policy makers, and regulators:

- If it in fact materialised, a K-shape economic recovery could signal a structural inflection point for the economy in general, but also for the series of economic agents that would be affected in materially different ways. Authorities should pay attention to the sectors, workers, and populations who may not be prepared for a redesigned economic landscape.
- It is important to ask whether it is realistic for equity markets to stay ahead of, or be out of sync with, the real economy for a prolonged period of time. In such a context, the potential effect of an abundance of liquidity in financial markets may be distorting

² US mathematician and MIT Professor Edward Lorenz (1917–2008) was a pioneer of chaos theory. This theory was first applied to weather predictions and Lorenz observed that there was a cyclical nonlinear nature to weather; however, he remarked that the profession continued to apply linear statistical models in meteorology. In 2004, French mathematician Benoit Mandelbrot applied concepts of chaos theory and complexity to the behaviour of financial markets to challenge the notion that financial markets are efficient or predictable. In his *Misbehavior of Markets* (2004), Mandelbrot argues that financial markets follow patterns (fractals) that repeat themselves in large or small scales, exposed to unpredictable events. This idea is indirectly used as well by financier and author Nassim Nicholas Taleb in his seminal works, *Black Swan* (2007) and *Antifragile* (2012). The butterfly effect is related to chaos theory in that it represents “the idea that some complex dynamical systems exhibit unpredictable behaviors such that small variances in the initial conditions could have profound and widely divergent effects on the system’s outcomes” (Jamie L. Vernon, “Understanding the Butterfly Effect,” *American Scientist* 105, no. 3 (2017): 130). Our thesis is that economic crises have evolved over the years into more chaotic systems in the sense described by chaos theory and the butterfly effect.

the natural creative destruction mechanism of the free-market economy, as a vector of iterative innovation. It is also possible that the current situation may be the source of bigger crises in the future, as the natural cleansing process will not have taken place. The phenomenon of zombie companies should be analysed.

- If materialising, the rise of government as an economic agent responsible for a growing share of GDP could have consequences for the free-market economy. We should not necessarily assume that this transition will be smooth for the typical processes involved in price formation, debt management, capital raising, innovation, or research funding.
- Authorities should pay attention to the risk that a continued accommodative monetary policy may undermine faith in fiat currencies. In parallel, economic agents may be shifting their trust onto cryptocurrencies, which could be benefitting from the belief that these means of payment are kept clear of government intervention. Ultimately, if materialising, such a development could reduce the capacity of monetary authorities to effect policy efficiently.
- It is possible the continued drive of accommodative monetary policy since the 2007–2009 Global Financial Crisis may have altered the traditional readjustment mechanisms between asset classes according to the economic cycle. In particular, the typical risk-on and risk-off cycles between value-oriented and growth-oriented stocks have been disrupted. Such a phenomenon could have consequences in the future on capital allocation and investor risk appetite. Policy makers should stay alert to such potential distortionary side effects of monetary policy.
- Authorities should consider the potential unintended consequences of monetary stimulus on the socioeconomic equilibrium. In connection with the K-shape economic recovery, a widening of the wealth gap could become a disincentive to entire categories by discouraging engagement in economic activity. In parallel, if a financial asset bubble is emerging, such a phenomenon could further destabilise socioeconomic aggregates.
- The question of the gamification of financial markets should be analysed in terms of its potential structural effects on the following: price formation, prudent investing rules, retirement planning, and risk appetite. It is possible that the crisis, combined with an accommodative monetary policy cycle, may have favoured the rise of a new class of uninformed day traders taking on more risk than would be warranted by their investor profile.

- When designing future economic relief programmes and monetary stimulus measures, authorities should consider integrating accountability and impact metrics as part of the plan. The current approach may have aggravated the level of asymmetric risk and moral hazard in the system, where large financial institutions continue to benefit from a risk-reward paradigm that works in their favour. Such a framework is not conducive to reconciling the general public with financial markets.
- Regulators should continue to focus on systemic risk in financial markets. Short-term funding and money markets are showing that they continue to require the assistance of the government and central banks in times of stress, which would demonstrate that the system at large has not yet reached the desired state of resilience that was aimed for in the aftermath of the 2007–2009 Global Financial Crisis.
- The impact of the crisis on the viability of pension systems should be considered by regulators. The theme of pensions and the accumulation of long-term savings is rising as a key structural risk, alongside the known secular changes to demographics and economics that are affecting the sustainability of pension systems. Given the size of the economic aggregates that pensions represent, stress in this sector could have ramifications in broader financial markets.
- Regulators also should consider the risk of regulatory overload, as firms are grappling with a regulatory framework whose breadth and depth has accelerated markedly since the 2007–2009 Global Financial Crisis. The risks related to regulatory overload include subdued innovation, industry consolidation, reduced investment choices, focus on costs rather than on quality, and reduced access to quality advice.

5. Details of Results

5.1 A K-shape Economic Recovery: Are we Engineering A Post-pandemic World Made up of Clear Winners and Losers?

CFA Institute asked our membership this very question regarding the shape of a potential recovery in an April 2020 survey.

At that time, our conclusion had been that the CFA Institute membership appeared to be more conservative than the positive and optimistic commentaries heard in a series of industrial sectors, including technology and banking. Indeed, close to 80% of respondents were of the view that the economy would be slow or stagnant over the short term (two to three years), before eventually picking up in the medium term—the so-called hockey stick or slow U-shape recovery.

One difficulty of assessing this recovery resides in measuring the true inflection point past which we can confidently say that the economy is on an upward trajectory and will recuperate from the crisis. This point may have been reached toward the end of 2020, at least in certain parts of the world as we will discuss, yet the annual impact now measured for the whole of 2020 is known, and it is severe. These trend cycles work on a rolling basis, so any analysis of the impact of the crisis must be executed with caution and over longer periods of time to measure true momentum. The whole story, indeed, will be discovered gradually over the next few years.

Data from the International Monetary Fund (IMF) provide a quick snapshot of the real impact of the crisis between 2019 and 2020 on the global economy:

- The global economy shrank by 3.3% in 2020.
- On a global scale, the 2020 crisis has been the worst experienced by the world economy since the 1930 Great Depression.
- A large majority of countries experienced a technical recession over the period.
- The only major economy to avoid a recession and register a growth in real GDP was China, at 2.3%.

- Most countries have experienced a rise in unemployment figures despite government support measures (e.g., from 3.7% to 8.9% of the active population in the United States, 3.8% to 5.4% in the United Kingdom, 5.7% to 9.7% in Canada, and 11.9% to 13.4% in Brazil). The impact has been variable, however, depending on government programmes, and other jurisdictions have been able to contain at least part of the impact. It is also possible we are not yet seeing the true structural impact of the crisis and the output gap that has resulted. In this context, France's unemployment rate had increased only marginally from 8.5% to 8.9% at the end of 2020, while Germany's rate increased from a low level of 3.1% to 4.3% and Japan also increased from a low point of 2.4% up to 3.3%.
- Also worrying at the end of 2020 was the level of advertised job vacancies. In most countries, although gradually improving after the crash of spring 2020, the level of new vacancies was still below the level observed in 2019 at the same time.

Nevertheless, the IMF now expects the world economy to expand by 6% in 2021. At a local level, it projects that the United States will see a real GDP growth of 6.4% over the same period, while the European Union is expected to see growth of 4.4% and Japan of 3.3%.

In this environment, the question is now shifting to the real risk or possibility that the recovery takes different forms and degrees of momentum in different parts of the world, for different industries, and importantly, for various classes of socioeconomic agents.

This scenario is described as a K-shape recovery.

And this also happens to be the picture that the IMF is starting to paint about the world economy in its latest *World Economic Outlook, Managing Divergent Recoveries*.³ In a way, this is a shift in the IMF's stance on the long-term impact of the crisis since its previous, and much more sombre, outlook in October 2020.

The view seems to now be one in which the massive recovery packages, relief programmes, and monetary stimulus enacted in advanced economies were largely successful at bridging the pre- and post-pandemic situations. The IMF today predicts the output loss by 2024 in advanced economies will be limited to 1%, as compared with pre-pandemic assumptions.

Two arguments are advanced to explain this intellectual shift.

³See International Monetary Fund, *World Economic Outlook, Managing Divergent Recoveries* (Washington, DC: IMF, April 2021), <https://www.imf.org/en/Publications/WEO/Issues/2021/03/23/world-economic-outlook-april-2021>.

First, as we also explained in the first survey research, this 2020 crisis was not the result of pre-existing problematic signs of weakness in economic or financial factors, as was the case for the 2007–2009 Global Financial Crisis. The economic fundamentals were reasonable, and there was no immediate threat to financial stability. As such, the economic crisis was self-inflicted as a political measure enacted to address the health crisis. We have also argued that there are unresolved systemic imbalances in money markets and short-term funding markets that can cause credit seizure in times of liquidity stress, but these issues are not what directly caused the 2020 crisis. The Systemic Risk Council (Sponsored by CFA Institute) recently addressed this lingering issue in its April 2021 response to the SEC consultation on the reform of money funds in the United States in light of the March 2020 turmoil in US short-term financing markets.⁴

Second, as the IMF and other economic circles are pointing out, the bridging of advanced economies—as well as the resulting recovery that is now being observed early in 2021—was based on three factors, or levers, that have been coordinated at an international level:

- A gradual adaptation of work and society to a state of lockdown.
- The “whatever-it-takes” approach to government relief programmes and central bank monetary stimulus, through debt and fiscal deficit.
- The quicker-than-expected and international development of vaccines.

It now appears, however, that emerging and developing economies did not necessarily have access to these three levers, which is causing a recovery that is now showing signs of differing speeds depending on local governments’ access to international funding, the stability and operational efficiency of civil society, and access to vaccines.

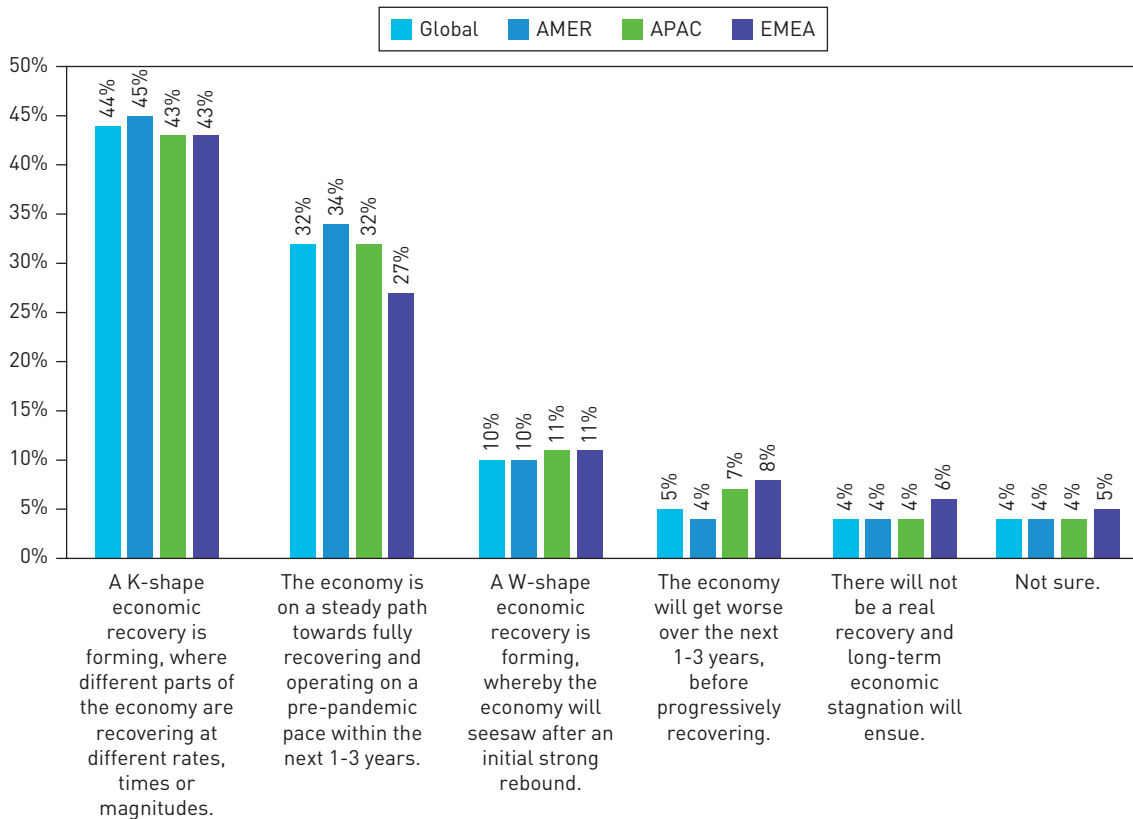
Then, even in advanced economies, we face the question of jobs actually lost, especially for low-skilled workers, and whether this cohort will be able to emerge from the crisis in decent condition. This question is of particular relevance right now, given that it would appear that world leaders are aiming for the recovery to take a particular colour, that is, green and digital. How fast can a generation of workers adapt to a top-down mandate to transform the very fabric of the economic system on vastly different terms?

⁴See SRC, “Systemic Risk Council Responds to Securities and Exchange Commission Consultation on Reform of Money Funds and Other Open-Ended Funds,” The Systemic Risk Council, 12 April 2021, <https://www.systemic-riskcouncil.org/2021/04/systemic-risk-council-responds-to-securities-and-exchange-commission-consultation-on-reform-of-money-funds-and-other-open-ended-funds/>.

On the market side of the equation, industries and economic sectors have clearly experienced the crisis in differing ways. The US Chamber of Commerce produced an interesting analysis in September 2020⁵ of the ways in which different industries fared during the various lockdown periods. It concluded that while industries such as travel, entertainment, hospitality, and food services had clearly slumped, others had actually flourished, including technology, retail, and software services.

FIGURE 1. MEMBERSHIP SENTIMENT ABOUT THE CURRENT ECONOMIC RECOVERY

Please choose the statement that best characterizes your sentiment about the current economic recovery in your market:



Source: CFA Institute Global Membership Survey, COVID-19, One Year Later (March 2021).

⁵See Suzanne Clark, “What Is the K-Shaped Recovery?” US Chamber of Commerce, 3 September 2020, <https://www.uschamber.com/series/above-the-fold/what-the-k-shaped-recovery>.

Figure 1 shows how our global membership answered the question on the shape of the recovery, in March 2021 (one year after the first survey).

The plurality of respondents globally favour a K-shape economic recovery, as discussed earlier. This would validate the current thesis that we should be prepared for a recovery that affects people, regions, and industries in different ways.

The responses seem to be reasonably homogeneous at a regional level. Yet, an interesting observation would be that specific regions appear to be less optimistic than others. In particular, Europe is among those subregions that are marginally less keen to believe that the economy is already on a steady path to full recovery. Only 27% of European respondents chose that option compared with 34% in North America (36% in the United States) and 36% in South Asia.

One explanation for this variation could be that it is taking European governments and the European Union significant time and effort to agree and enact the technical aspects of the Recovery and Resilience Facility programme, originally entered into force in February 2021. The EUR700 billion recovery fund, financed through a much-debated mutualisation of EU debt, is tied to negotiations on national recovery and resilience plans, alongside requested structural reforms, including on pension systems, sustainability, and how to bring back public deficits in line with Maastricht Treaty rules. Commentators have argued that the EU's recovery could be delayed as a result.

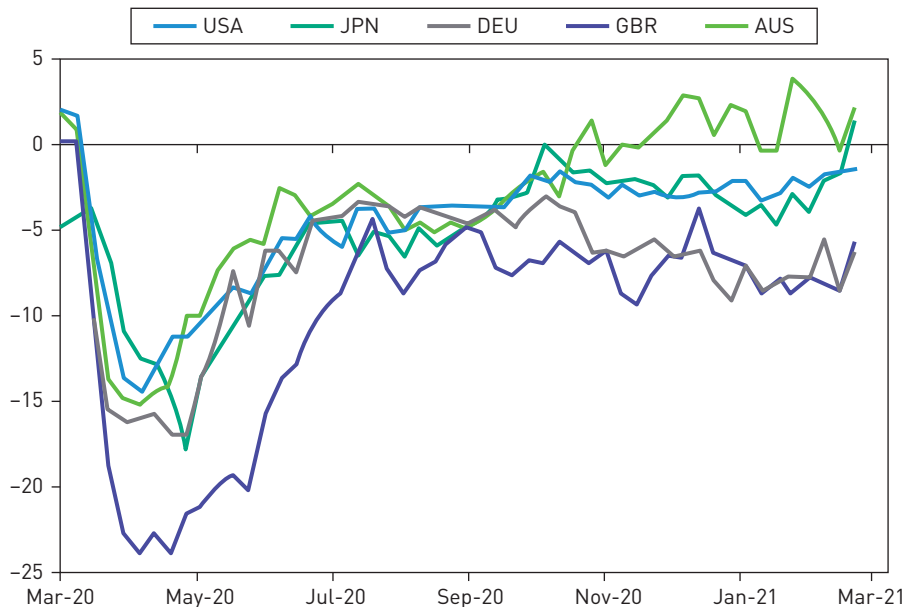
As we have sought to highlight, in general, emerging and developing economies appear to be less optimistic about the economic recovery. Only 23%, 25%, and 27%, respectively, of respondents in Latin America, Middle East, and Africa believe their economy is already on a steady path to recovery. They also believe in higher proportion (7%, 9%, and 8%) that a real economic recovery will not occur and that long-term stagnation will ensue.

5.2 Equity Markets and the Real Economy: Are They Out of Sync?

The debate continues to rage about the pace of the economic recovery and whether equity markets have been riding a wave of their own. This recovery perhaps reflects monetary stimulus rather than economic fundamentals.

When considering actual real GDP progression numbers, several advanced economies seem to be on a steady path to reaching levels last seen in February 2020, immediately before the March slump. This trend is evidenced in the latest Organisation for Economic Co-operation and Development (OECD) *Economic Outlook* released in March 2021 (Figure 2).⁶

FIGURE 2. OECD WEEKLY GDP TRACKER (% CHANGE YEAR ON YEAR)

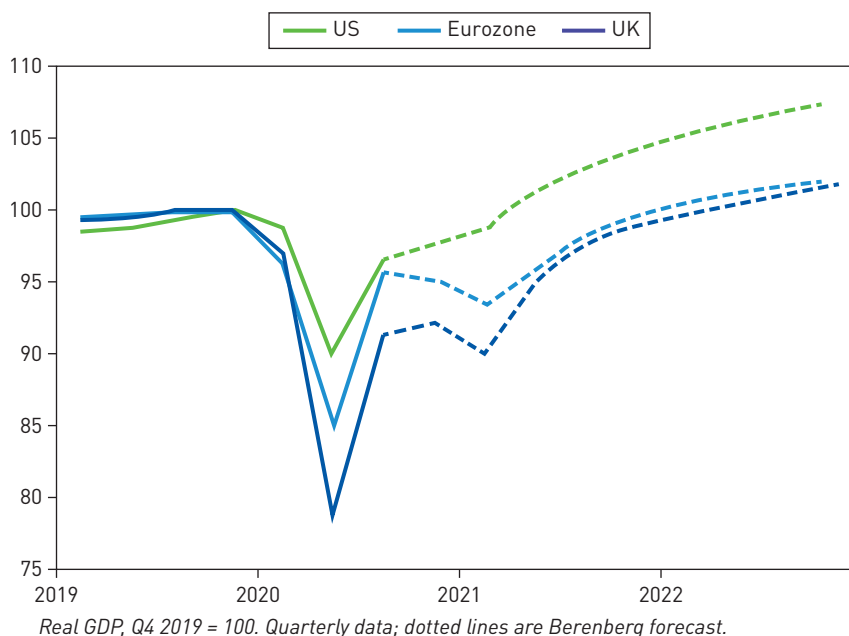


Source: OECD, *Economic Outlook* (March 2021).

⁶See OECD, *Economic Outlook, Interim Report March 2021, Strengthening the Recovery: The Need for Speed* (Paris: OECD Publishing, March 2021), https://www.oecd-ilibrary.org/economics/oecd-economic-outlook/volume-2020/issue-2_34bfd999-en.

In terms of projections, Berenberg Bank developed interesting anticipation trends toward the end of 2020, using data from Eurostat, the UK Office for National Statistics (ONS), and the US Bureau of Economic Analysis (BEA) (Figure 3).

FIGURE 3. OUTLOOK FOR REAL GDP IN ADVANCED ECONOMIES (Q4 2019 = 100)

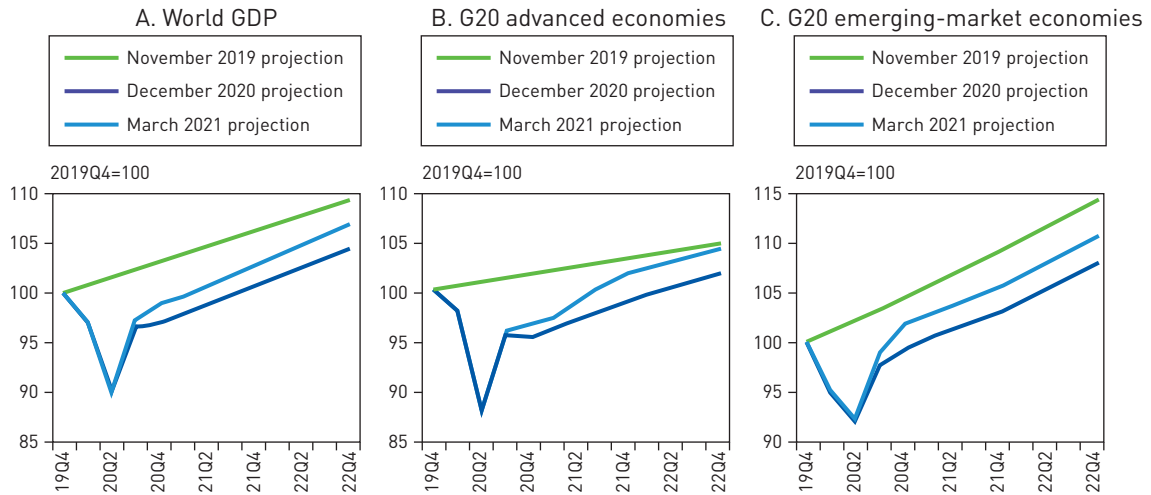


Source: Berenberg, Eurostat, ONS, and BEA.⁷

As shown in Figure 3, Berenberg Bank was predicting that the United States would return to real GDP levels observed before the pandemic slump as early as in Q1 2021.

The OECD outlook report showed interesting projected real GDP trends for advanced and emerging economies (Figure 4). Notably, those trends have improved compared with mid-2020 levels.

⁷Christian Bettinger et al., *Horizon, Q3 2020* (Hamburg: Berenberg, June 2020), https://www.berenberg.de/fileadmin/web/asset_management/news/horizonte/Horizon_2020-Q3.pdf.

FIGURE 4. GLOBAL GROWTH PROSPECTS

Source: OECD, *Economic Outlook* (March 2021).

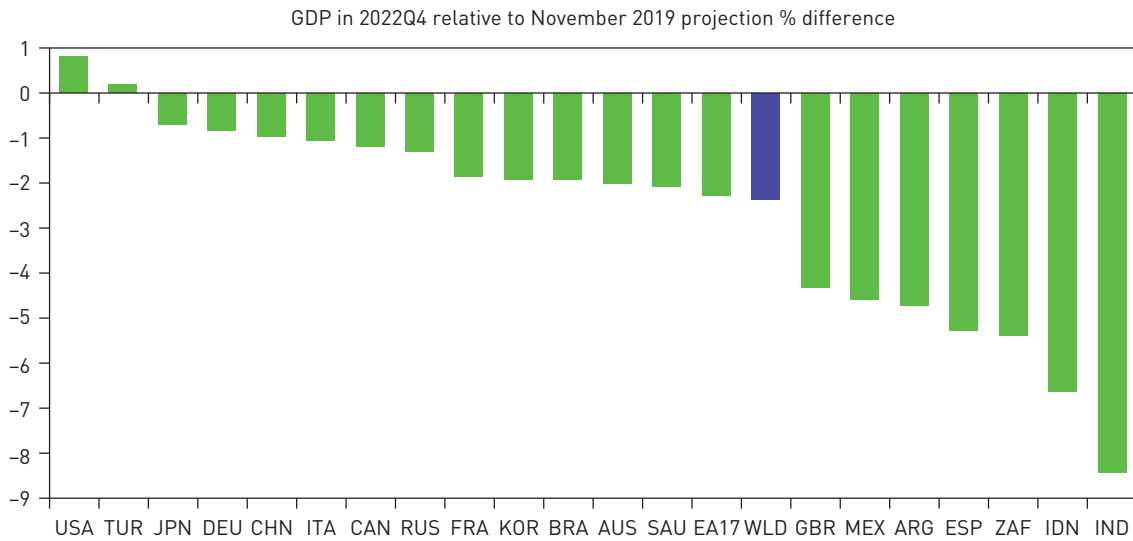
Yet, as we explained in the first chapter, the structural impact of the crisis on medium-term economic growth trends measured in terms of the output gap compared with pre-pandemic levels could be much higher, in general, in emerging or developing economies than in advanced economies (Figure 5).

As discussed, these trends and projections seem to be related, in part, to a simple analysis of the pace of vaccine rollout per jurisdiction.

In the meantime, compared with previous crises, world equity markets have recovered at a quicker pace than usual (Figure 6).

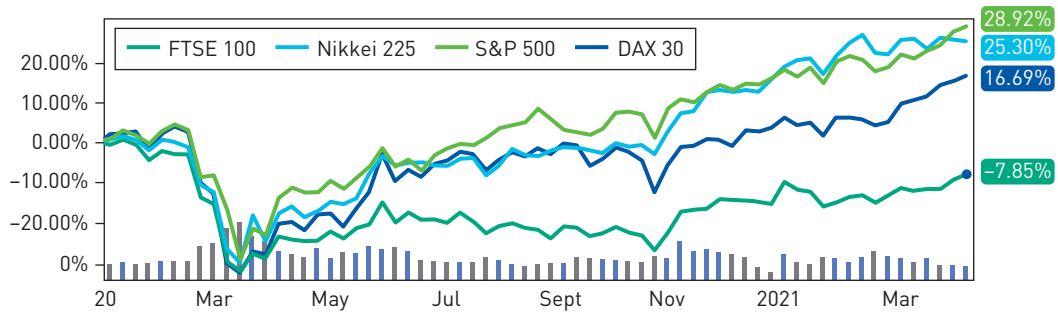
Global equities had reached an all-time high in April 2021, as measured by the market cap weighted index MSCI World (Figure 7).

FIGURE 5. PROJECTED MEDIUM-TERM COSTS FROM THE PANDEMIC



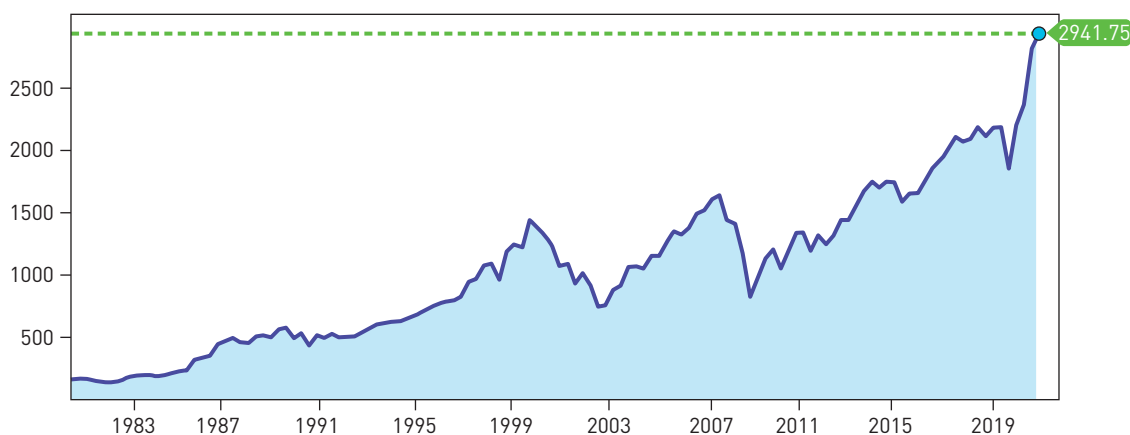
Source: OECD, *Economic Outlook* (March 2021).

FIGURE 6. WORLD EQUITY INDICES PROGRESSION SINCE 31 DECEMBER 2019 (US: S&P 500, GERMANY: DAX 30, JAPAN: NIKKEI 225, UK: FTSE 100)



Source: Data from Yahoo Finance, FactSet⁸

⁸Yahoo Finance, FTSE 100, <https://uk.finance.yahoo.com/quote/%5EFTSE?p=%5EFTSE&guccounter=1>; Nikkei 225, <https://uk.finance.yahoo.com/quote/%5EFTSE?p=%5EFTSE&guccounter=1>; S&P 500, <https://uk.finance.yahoo.com/quote/%5EGSPC/history?p=%5EGSPC>; DAX Performance-Index, <https://uk.finance.yahoo.com/quote/%5EGDAXI/history?p=%5EGDAXI>.

FIGURE 7. MSCI WORLD INDEX (PRICE) SINCE 1980, US DOLLARS

Source: MSCI All Country World Index, MSCI.com.

The Buffet Indicator can be used to actually measure whether the recovery of equity markets has been out-of-sync with the real economy. This metric tracks the ratio of stock market capitalisation to GDP. CFA® charterholder Dhruv Goyal released a piece in February 2021 on this metric, precisely to measure whether the relationship between economic growth and equity markets performance had changed.⁹

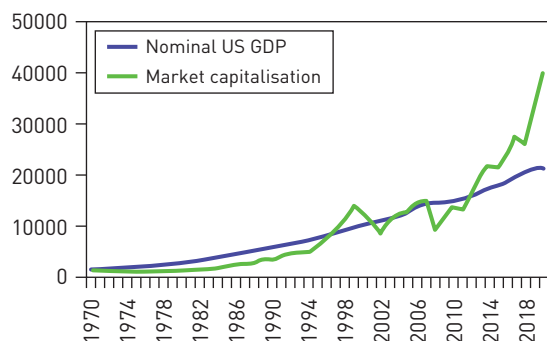
His findings revealed that the indicator had reached an all-time high in the third quarter of 2020. Observing that part of this result was due to a higher share of the private sector's growth in the economy over the past 40 years, he also depicted how the increase in money supply—and therefore monetary stimulus—may have played a role in this decoupling (Figures 8 and 9).

To assess our membership's opinion, we asked them what they thought about equities in their respective market, as well as in global developed market equities and in global emerging market equities. The results are shown in Table 1.

A plurality of members globally expressed the view that equities in their respective markets (45%) and global developed markets in general (43%) have recovered too quickly and are due for a correction expected within the next one to three years.

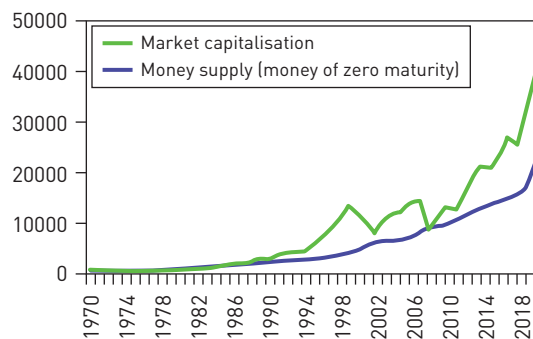
⁹See Dhruv Goyal, "Beware the Bubble? The US Stock Market Cap-to-GDP Ratio, *Enterprising Investor*," *Enterprising Investor*, 2 February 2021, <https://blogs.cfainstitute.org/investor/2021/02/02/beware-the-bubble-the-us-stock-market-cap-to-gdp-ratio/>.

FIGURE 8. US STOCK MARKET CAPITALIZATION VERSUS NOMINAL GDP, IN US DOLLARS (BILLIONS)



Source: Data from St. Louis Fed, BEA, Earthen Street Capital. Courtesy of Dhruv Goyal, CFA.¹⁰

FIGURE 9. US STOCK MARKET CAPITALIZATION VS. MONEY SUPPLY, IN US DOLLARS (BILLIONS)



Source: Data from St. Louis Fed, BEA, Earthen Street Capital. Courtesy of Dhruv Goyal, CFA.¹¹

This is an interesting result as it could show that CFA Institute members believe there is a true disconnect between economic growth fundamentals and capital markets caused in part by monetary stimulus, which will be corrected in a not too distant future.

With 21% of responses globally opting for Not Sure, there still seems to be significant uncertainty about the status of emerging market equities.

Whatever the configuration, the proportion of respondents who believe that equities are properly valued is low in all regions (between 2% and 16%).

Several regional variations and cross-factorial differences are worth pointing out:

- Respondents in North America (the United States, in particular), at 50%, are more worried about a correction than Europeans (40%), which can be explained by the pace of equity markets in both regions.
- A correlation exists between expressed pessimism on the shape of the recovery (Question 1) and the view that equities in general are overpriced.

¹⁰ This chart originally appeared in Goyal, “Beware the Bubble?” *Enterprising Investor*.

¹¹ This chart originally appeared in Goyal, “Beware the Bubble?” *Enterprising Investor*.

TABLE 1. MEMBERSHIP OPINION ON THE EQUITY MARKETS IN RESPONSE TO COVID-19

Please choose the statement that best characterizes your sentiment about the following equity markets, after the economic shock caused by COVID-19:

		Global	AMER	APAC	EMEA
Equity markets have recovered too quickly on the impulse of monetary stimulus; they are now out of pace with the real economy and a correction is to be expected within the next 1-3 years.	Equities in your market	45%	48%	43%	38%
	Global developed market equities	43%	35%	55%	51%
	Global emerging market equities	25%	21%	34%	29%
Equity markets are correctly priced; they properly reflect fundamentals or economic expectations.	Equities in your market	7%	6%	8%	9%
	Global developed market equities	7%	9%	3%	5%
	Global emerging market equities	10%	12%	5%	10%
Equity markets will stay on their current upward trend for a prolonged period of time as monetary stimulus is unlikely to be waned.	Equities in your market	16%	17%	13%	18%
	Global developed market equities	16%	16%	13%	19%
	Global emerging market equities	18%	19%	14%	18%
Equity markets will gradually stabilize in line with the real economy while monetary policy progressively normalises.	Equities in your market	26%	25%	33%	26%
	Global developed market equities	25%	28%	22%	18%
	Global emerging market equities	26%	26%	28%	24%
Not sure	Equities in your market	6%	4%	4%	9%
	Global developed market equities	9%	12%	6%	5%
	Global emerging market equities	21%	23%	18%	18%

Source: CFA Institute Global Member Survey, *COVID-19, One Year Later* (March 2021).

- A correlation exists between inflation expectations (which will be analysed in forthcoming sections) and views about equity valuation. Respondents who do not think inflation pressures will manifest over the next one to three years also believe that a continuing expansionary cycle of monetary policy will keep equity prices on an upward trend.

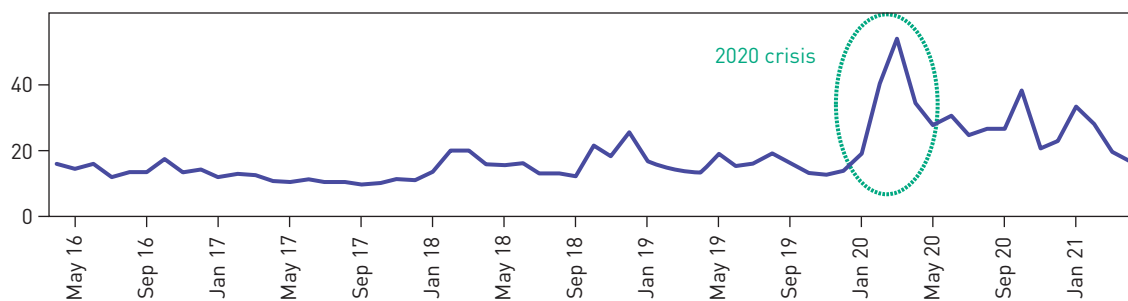
- Respondents in emerging markets appear more optimistic that equities in their own market and in global emerging markets in general will gradually stabilise.
- The overall view seems to be that global developed market equities are more overvalued than those in global emerging markets. This could make sense given the variations in monetary stimulus and government relief programmes enacted in different parts of the world.

The Impact of Market Volatility

Then we considered the question of market volatility. We wanted to see if our members' position on this question had changed from a year ago.

Equity volatility in US markets as measured by the CBOE VIX Index appears to have retreated to levels generally seen between 2012 and 2020 (Figure 10).

FIGURE 10. CBOE VOLATILITY INDEX (VIX)



Source: MarketWatch.¹²

When asked if market volatility in the 2020 crisis had had an impact on their professional activity and asset allocation choices, the responses between the two surveys compared in the following ways (Figure 11):

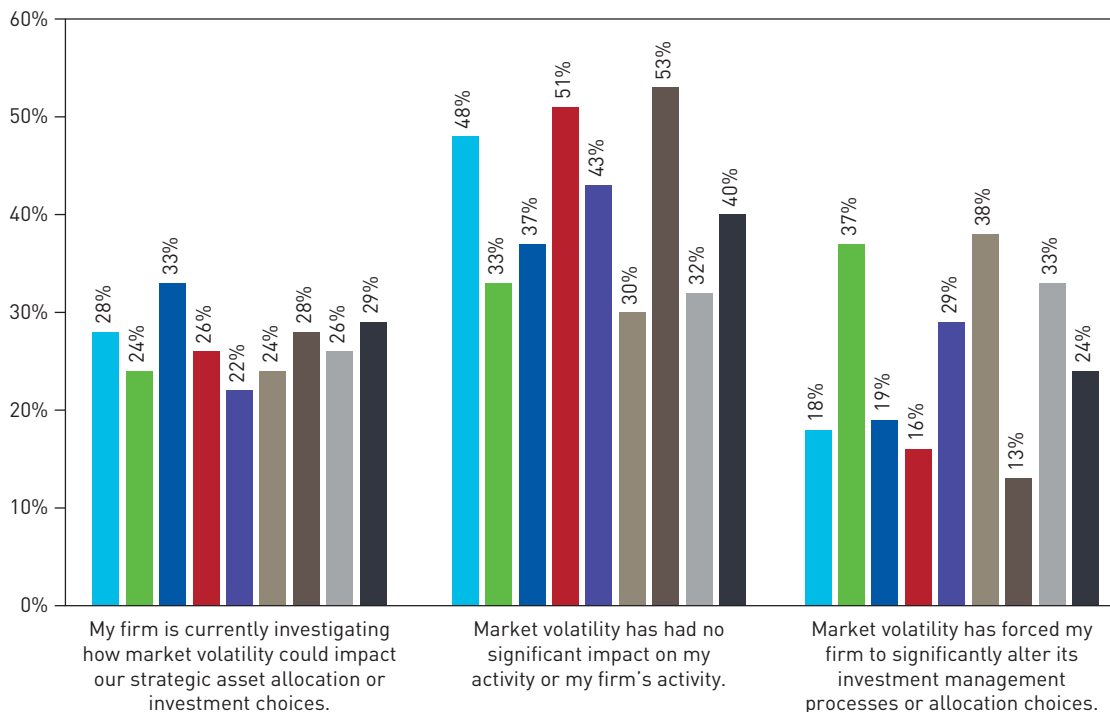
Respondents were largely circumspect in response to the April 2020 survey, but a large plurality of 48% globally now think volatility did not have a material impact on their activity or that of their firm. This opinion could be in line with the decisive actions of authorities to tame potential market dislocation through public intervention and monetary stimulus. In

¹²MarketWatch, CBOE Volatility Index, <https://www.marketwatch.com/investing/index/vix/download-data?startDate=12/31/2015&endDate=5/20/2021>.

FIGURE 11. COMPARISON OF MEMBER RESPONSES TO IMPACT ON PROFESSIONAL ACTIVITY

(a) March 2021

Market volatility has moved sharply since the worldwide emergence of the COVID-19 crisis, for global equities and fixed income instruments. Select the statement that best describes how you feel about market volatility in your local market:



Note:

"Not relevant for me" response option excluded from analysis.

"Not sure" response option not displayed.

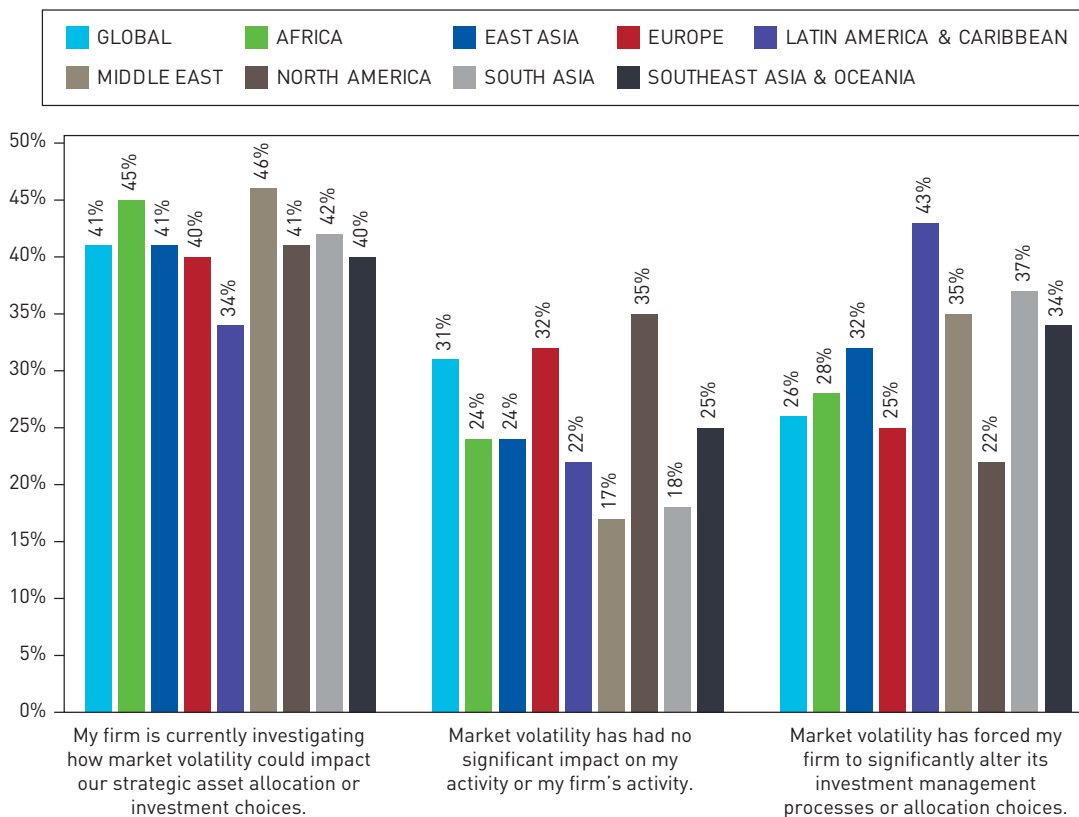
(Continued)

effect, the proportion of respondents who have indicated that volatility had had an impact has fallen in all regions (from 26% to 18% globally). Exceptions here concern emerging markets in Africa and the Middle East, who have seen an increase in the proportion of respondents who indicated market volatility had had a significant impact.

FIGURE 11. COMPARISON OF MEMBER RESPONSES TO IMPACT ON PROFESSIONAL ACTIVITY (CONTINUED)

(b) April 2020

Market volatility has moved sharply since the worldwide emergence of the COVID-19 crisis, for global equities and fixed income instruments. Select the statement that best describes how you feel about market volatility:



Note:

"Not relevant for me" response option excluded from analysis.

"Not sure" response option not displayed.

Source: CFA Institute Global Member Survey, *Is the Coronavirus Rocking the Foundations of Capital Markets?* (April 2020); CFA Institute Global Member Survey, *COVID-19, One Year Later* (March 2021).

Regional variations, however, are showing yet again that emerging markets have experienced market volatility differently, which may be explained by the differing levels of public support in those regions. Respondents in Africa (37%), Latin America (29%), Middle East (38%), and South Asia (33%; including India and Pakistan) continue to show a more significant level of impact from volatility on their investment processes and asset allocation choices.

5.3 Inflation is Showing Up: But will it Last?

It is possible to view the current debate on inflation as one of timing and cycles. As much as inflation is an economic factor that is difficult to predict, we recognise that different forces are at play over the short and the long term. Interestingly, the long-term structural data tends to point to continued deflationary pressures.

Foremost, an ageing population and the globalisation of exchanges are both factors that are acting against a marked increase in consumer prices. The role of technology advances warrants further analysis in terms of its interplay with productivity. In essence, classical economics have taught us that GDP growth comes from a combination of the growth in the labour force and that of labour productivity. It is fair to say that the role of labour force growth has diminished over the years since the post-World War II economic expansion phase.¹³ In other words, the resulting growth in real GDP that was attained probably was due to two factors: (1) productivity growth, although the gains observed have been moderate in the industrial world until the 2008 crisis; and (2) it can be argued that GDP has been able to grow in real terms thanks to an increasing role of retail consumption fuelled by an economy largely based on an expansion of credit, especially in the United States. This latter idea was developed by historian Clarence Carson as early as 1985.¹⁴ Figures 12 and 13 show the progression of the US federal debt and household debt over the years.

Over the short and medium term, however, the story looks different.

The question is whether the massive monetary stimulus and economic relief programmes decided by governments will have an impact on consumer prices. As this report is being written, we are starting to see inflationary pressures on input and producer prices (Figure 14).

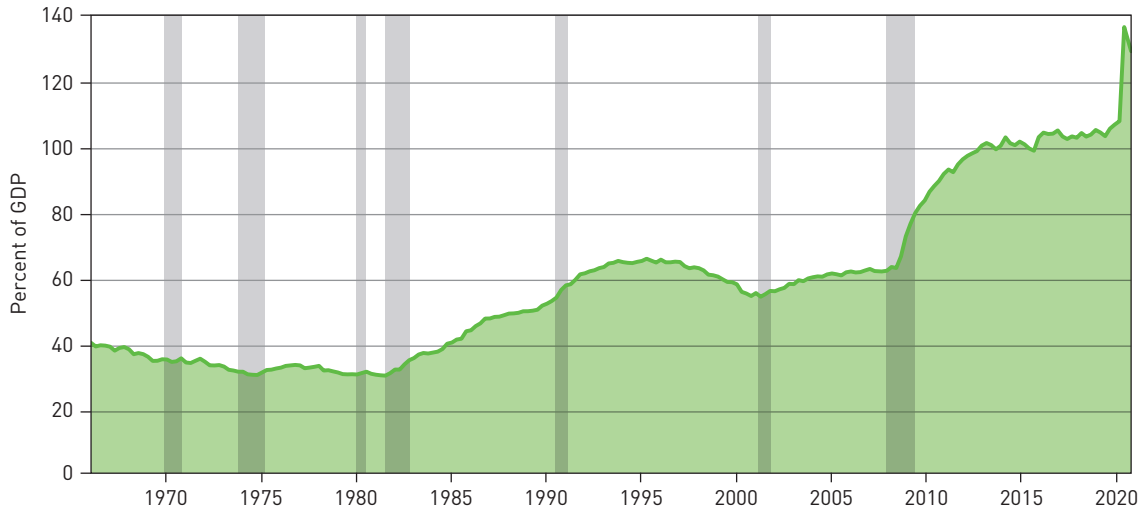
In the United States, the annual inflation rate (measured using the Consumer Price Index [CPI]) has been on the upside since May 2020, along with the relief and stimulus programmes (Figure 15). In March 2021, the inflation rate reached 2.6% on a rolling annual basis, returning to levels seen before the crisis hit in February and March 2020. Then, in May, the figure reached 5.0%, a level last seen in 2008 and before that at the end of the 1980s.

Several factors need to be considered to determine whether inflation is going to rise to unsustainable levels and for a prolonged period of time:

¹³See Peter Bisson, Elizabeth Stephenson, and S. Patrick Viguerie, “The Productivity Imperative,” McKinsey & Company, 1 June 2010, www.mckinsey.com/featured-insights/employment-and-growth/the-productivity-imperative.

¹⁴See Clarence Carson, “A Credit Expansion Economy,” Foundation for Economic Education, 1 March 1985, <https://fee.org/articles/a-credit-expansion-economy/>.

FIGURE 12. TOTAL PUBLIC DEBT (FEDERAL) IN THE UNITED STATES AS A PERCENTAGE OF GDP

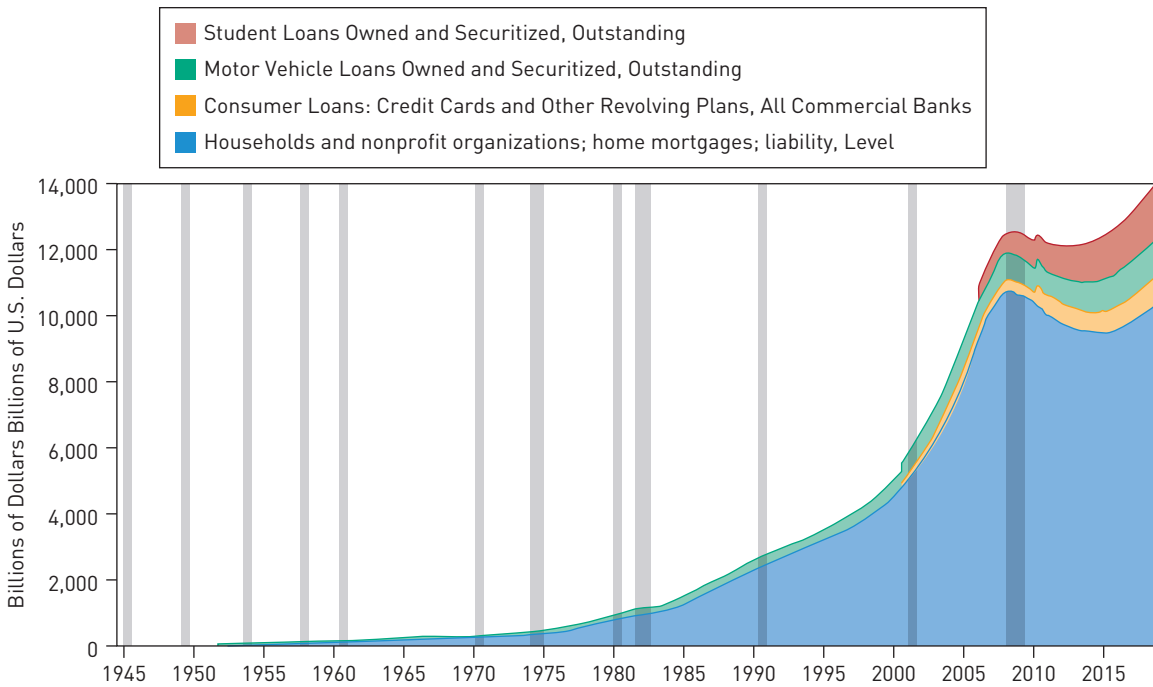


U.S. recessions are shaded; the most recent end date is undecided. Sources: OMB; St. Louis Fed fred.stlouisfed.org

Source: Federal Reserve Economic Data (FRED).¹⁵

- Pent-up demand. It is possible we will see a rise in consumption of services (catering, hotels, travel) as economies open up. It is also possible this adjustment will have only a temporary effect on inflation.
- Savings rate. Especially in the United States, where savings rates tend to be lower than in Europe, the question will be whether individual consumers spend or save the money they receive from the relief programmes. Evidence also suggests that the personal savings rate has increased significantly as a result of the crisis. Such an effect would tend to reduce inflationary pressures (Figure 16).

¹⁵FRED, “Federal Debt: Total Public Debt at Percent of Gross Domestic Product,” <https://www.marketwatch.com/investing/index/vix/download-data?startDate=12/31/2015&endDate=5/20/2021>.

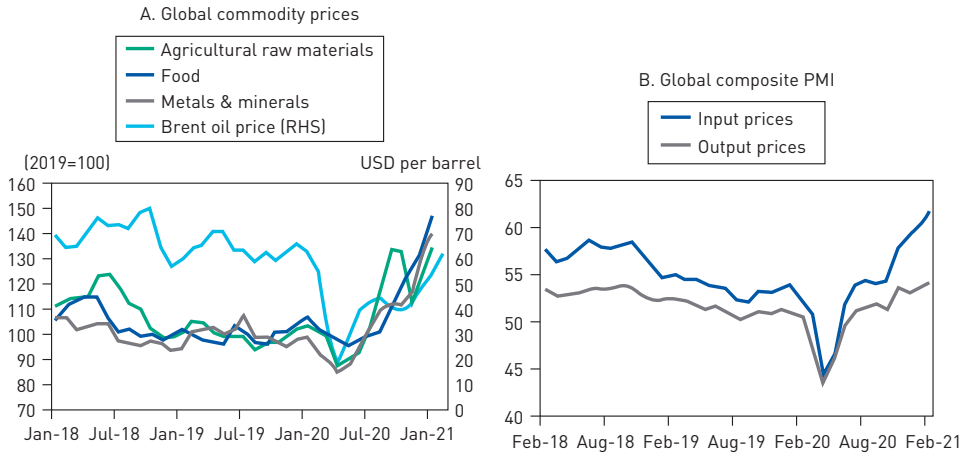
FIGURE 13. UNITED STATES TOTAL HOUSEHOLD DEBT SINCE 1945 (IN US DOLLARS)

Source: Federal Reserve Economic Data (FRED).¹⁶

- Output gap. In an article released in February 2018, economist Olivier Blanchard of the Peterson Institute explained the risk that the magnitude of economic relief programmes may exceed the actual size of the output gap, which will be measured over

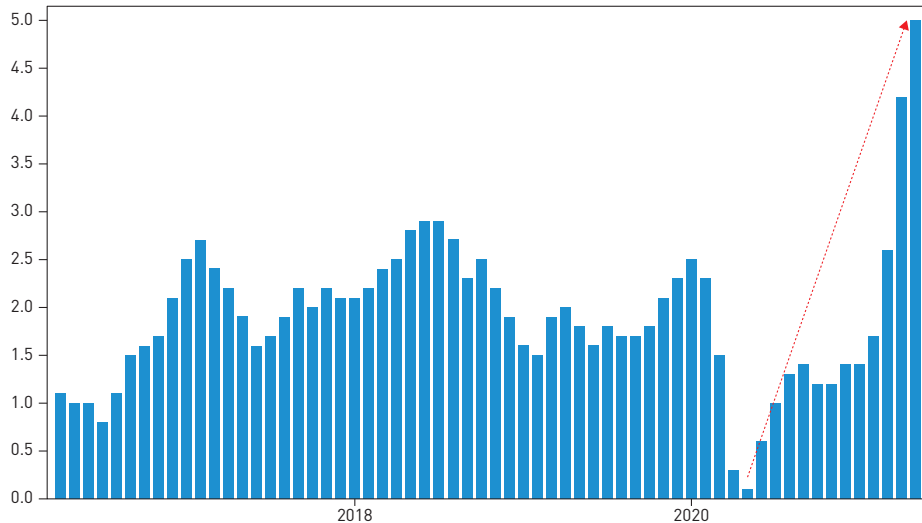
¹⁶FRED, “Motor Vehicle Loans Owned and Securitized, Outstanding,” <https://fred.stlouisfed.org/series/MVLOAS>; “Households and Nonprofit Organizations; One-to-Four-Family Residential Mortgages; Liability, Level,” <https://fred.stlouisfed.org/series/HHMSDODNS>; “Student Loans Owned and Securitized, Outstanding,” <https://fred.stlouisfed.org/series/SLOAS>; “Consumer Loans: Credit Cards and Other Revolving Plans, All Commercial Banks,” <https://fred.stlouisfed.org/series/CCLACBW027SBOG>.

FIGURE 14. PROGRESSION OBSERVED IN INPUT PRICES SINCE THE 2020 CRISIS



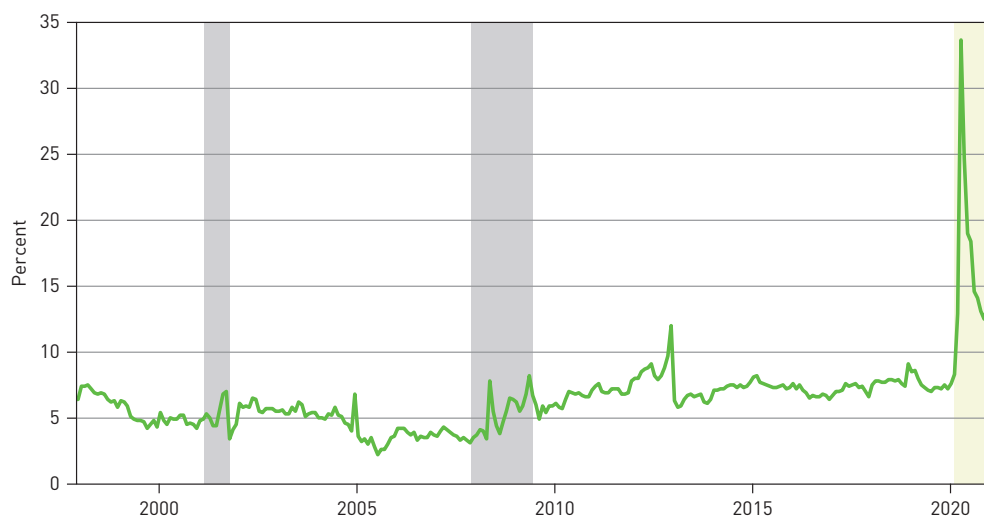
Source: OECD, *Economic Outlook* (March 2021).

FIGURE 15. US INFLATION RATE BASED ON CPI (PERCENTAGE CHANGE ON AN ANNUAL ROLLING BASIS, MONTHLY FREQUENCY)



Source: Data from TradingEconomics.com, US Bureau of Labor Statistics.¹⁷

¹⁷TradingEconomics, “United States Inflation Rate,” <https://tradingeconomics.com/united-states/inflation-cpi>.

FIGURE 16. PERSONAL SAVINGS RATE IN THE UNITED STATES

Source: Federal Reserve Economic Data (FRED), US Bureau of Economic Analysis.¹⁸

the next few years.¹⁹ As discussed above, the output gap may prove to be smaller in advanced economies than previously estimated. In such a context, economic stimulus measures may become a source of inflationary pressure.

- Level of productivity gains. The growth in labour productivity has suffered significantly since the 2008 crisis, globally (Figure 17). Lower productivity levels, if sustained, could also affect consumer prices and wages.

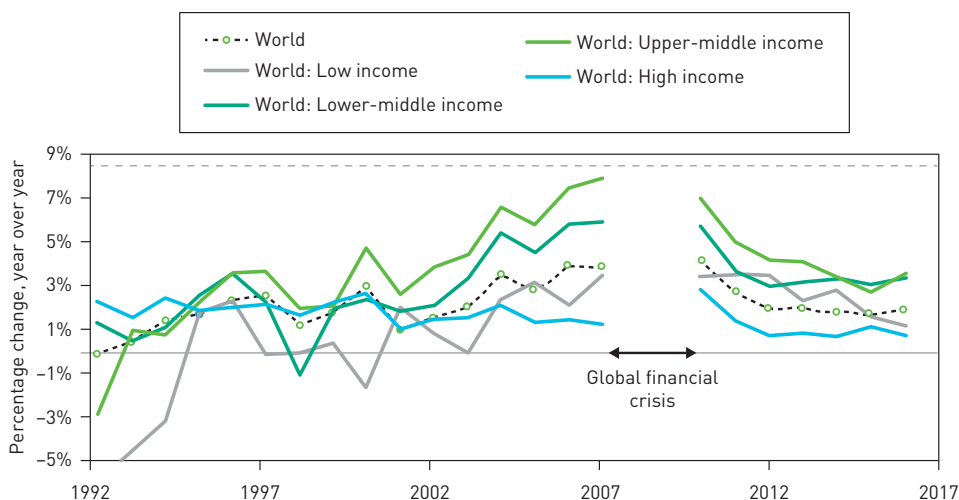
In this context, we asked our global membership how they would characterise the potential inflationary pressures in their market over the next one to three years. We linked this question to the potential reaction of monetary authorities if faced with the prospect of inflation. Following are the results (Figure 18).

At a global level, a large majority of 65% of respondents believe there will be inflationary pressures over the next one to three years, caused by the combination of an accommodative monetary policy and constraints on the supply side. This cohort, however, is then split almost equally as to whether or not this inflationary pressure will cause central banks in

¹⁸FRED, “Personal Saving Rate,” <https://fred.stlouisfed.org/series/PSAVERT>.

¹⁹See Olivier Blanchard, “In Defense of Concerns Over the \$1.9 Trillion Relief Plan” Peterson Institute for International Economics, 18 February 2021, <https://www.piie.com/blogs/realtime-economic-issues-watch/defense-concerns-over-19-trillion-relief-plan>.

FIGURE 17. PRODUCTIVITY GROWTH IN VARIOUS REGIONS OF THE WORLD



Source: Deloitte, International Labour Organization.²⁰

their market to switch to a restrictive monetary policy. Of these responses, 31% think central banks will be forced to raise interest rates, whereas 34% think is unlikely.

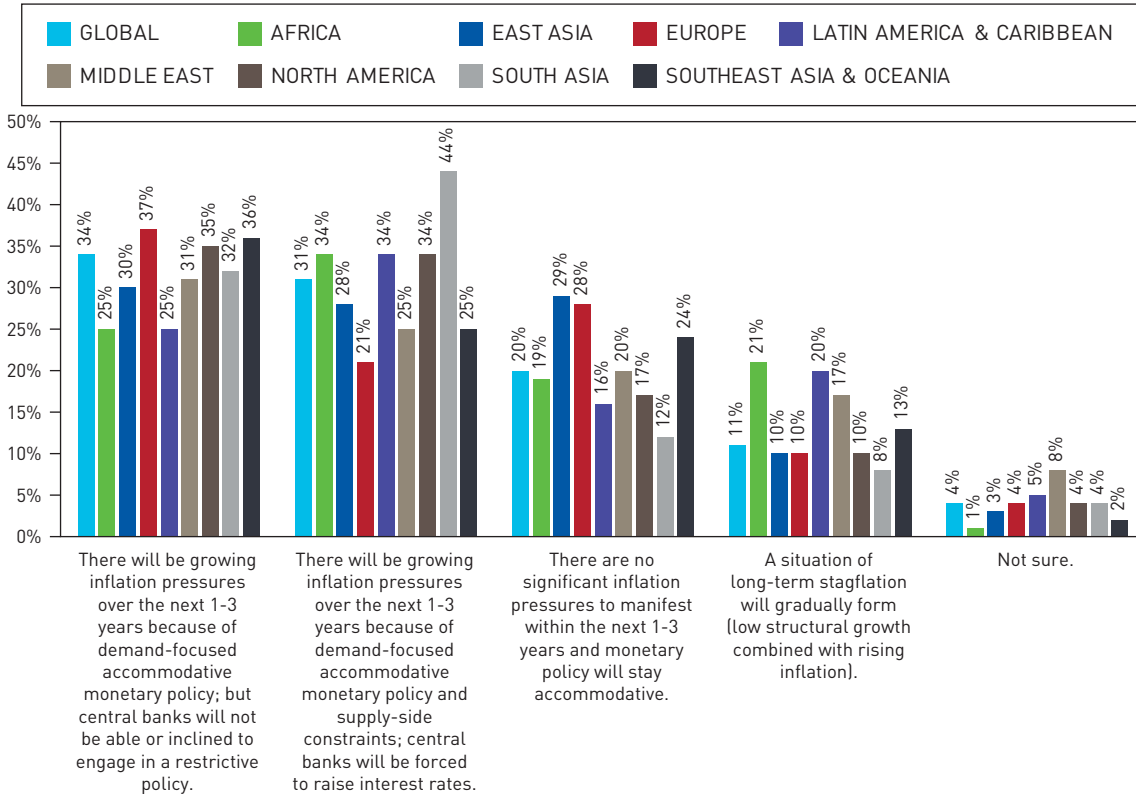
At a regional level, several observations are clear:

- In general, Europe seems to be less concerned with inflation than North America, in terms of the risk that this situation could force central banks to switch to a restrictive monetary policy. European respondents think either that inflation will materialise yet will not result in a restrictive policy (37%), or that there is no inflationary pressure at all (28%). Only 21% think that inflation will force central banks to restrict monetary conditions.
- In comparison, 34% of US respondents think that inflationary pressure will force central banks to restrict monetary conditions. And only 17% think that there is no inflationary pressure.
- In Europe, UK respondents were mostly of the view that although inflationary pressures will materialise, central banks will not be in a position to restrict monetary policy (46%). Conversely, respondents in the Netherlands most often indicated that inflation will not materialise (43%).

²⁰Rumki Majumdar, “Understanding the Productivity Paradox: Behind the Numbers, October 2017,” Deloitte, 27 October 2017, <https://www2.deloitte.com/us/en/insights/economy/behind-the-numbers/decoding-declining-stagnant-productivity-growth.html>.

FIGURE 18. MEMBERSHIP SENTIMENT ABOUT INFLATION EXPECTATIONS

Please choose the statement that best characterizes your sentiment about inflation expectations in your market:



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

- Perhaps unsurprisingly, respondents in Japan most often indicated that inflation will not materialise (58%).
- Respondents in South Asia (India and Pakistan) appear disproportionately worried that inflationary pressure will result in a restrictive monetary policy in their market (44%).
- Interestingly, emerging economies seem to be proportionately more worried about the risk of long-term stagflation, a situation in which inflation is rising while economic growth remains subdued. This was identified by 21% of respondents in Africa, 20% in Latin America, and 17% in the Middle East. In comparison, only 10% of respondents in Europe and North America identified this risk.

5.4 The Crisis May Catalyse Structural Transformations to the Economy: A Rise in the Role of Government, Big Tech, and ESG are Key Trends

Whenever a severe crisis destabilises the global economy and capital markets, the question that arises is whether the crisis constitutes an inflection point past which the very structure of the socio-economic-financial ecosystem can be considered to have been altered.

We wanted to know whether CFA Institute members felt the 2020 crisis, and perhaps even more important, the response from authorities, had changed the traditional equilibrium that governs socioeconomic and financial market forces.

We determined a number of potential options from our own reading of what is animating discussions in economic and financial circles. As part of this exercise, we asked respondents to choose up to three responses from a list of seven choices, to identify what they think the structural consequences of the crisis could be, including the possibility that the crisis will not have any material or structural impact. Following are the results (Figure 19).

We consider each of the main results in order of importance.

The Potential Rise in the Role of Government

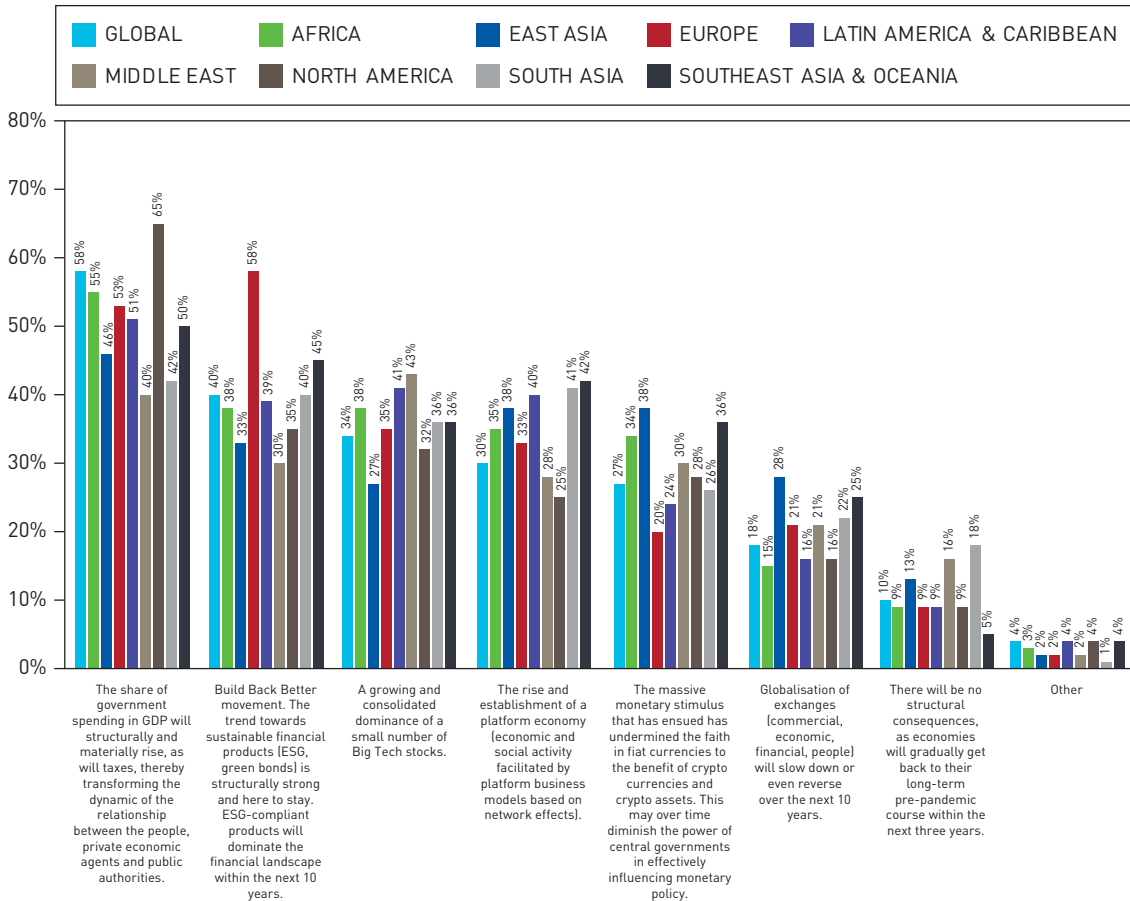
Globally, 58% of respondents agree the share of government spending in GDP will materially rise, along with taxes. This view indicates a strong belief that the dynamic of the relationship among citizens, private economic agents, and the public authorities will change.

In most advanced economies, the role of the government as a factor in the real GDP equation already had been rising over the years, but it did so at different paces depending on the region and their historical economic culture. The share of government spending traditionally has been smaller in Anglo-Saxon economies than in the Latin or Southern European region (Figures 20 to 23).

For historical purposes, Figure 20 shows a long-term perspective on government spending in the United States over time to highlight the acceleration that has taken place since the 1930s Great Depression.

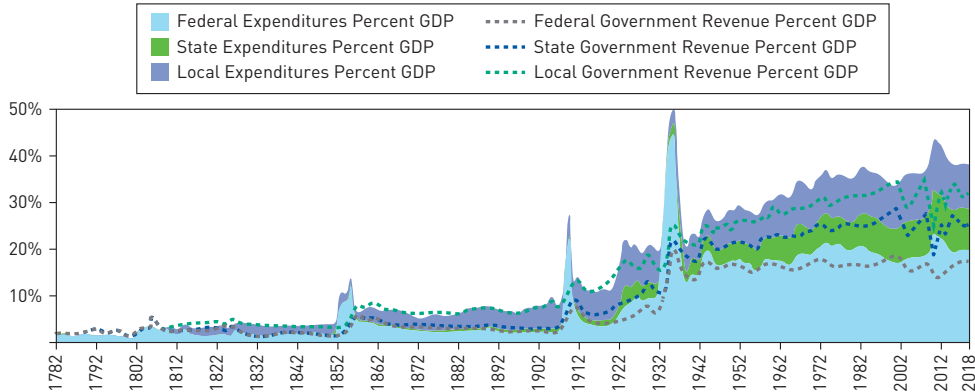
FIGURE 19. MEMBERSHIP SENTIMENT ABOUT STRUCTURAL CONSEQUENCES

What are the main structural consequences on the economy and financial markets caused or intensified by the COVID-19 crisis? (Select up to three)



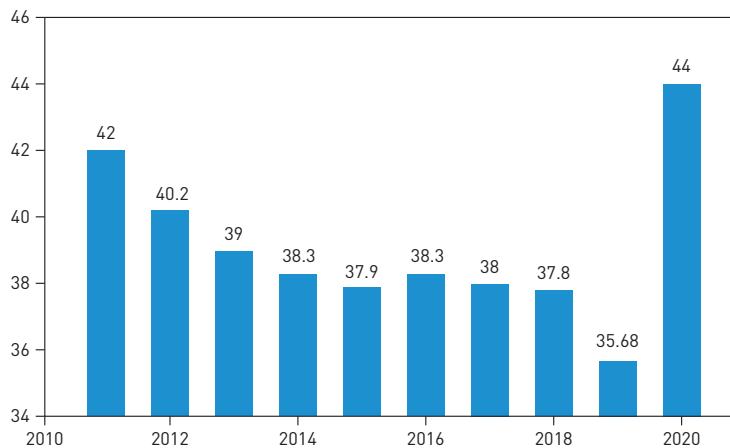
Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

FIGURE 20. TOTAL GOVERNMENT SPENDING AND REVENUE AS A PERCENTAGE OF GDP, UNITED STATES



Source: Data from USGovernmentRevenue.com.²¹

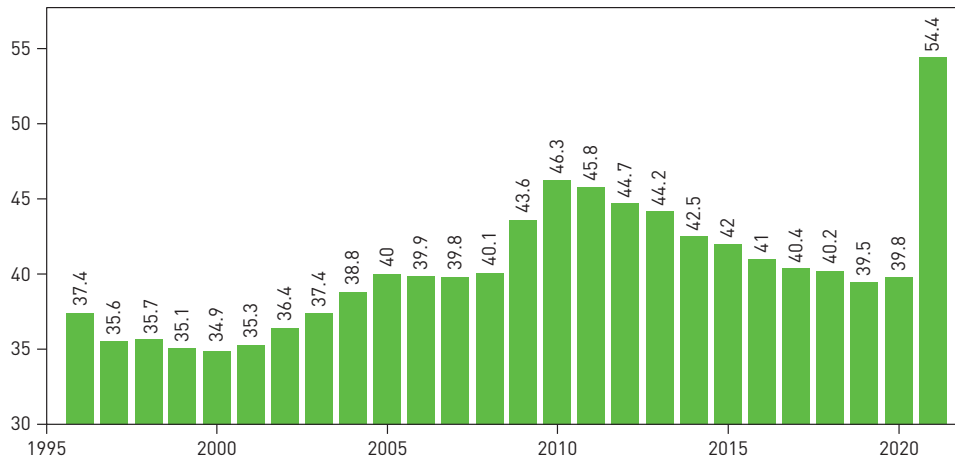
FIGURE 21. TOTAL GOVERNMENT SPENDING AS A PERCENTAGE OF GDP SINCE 2011, UNITED STATES



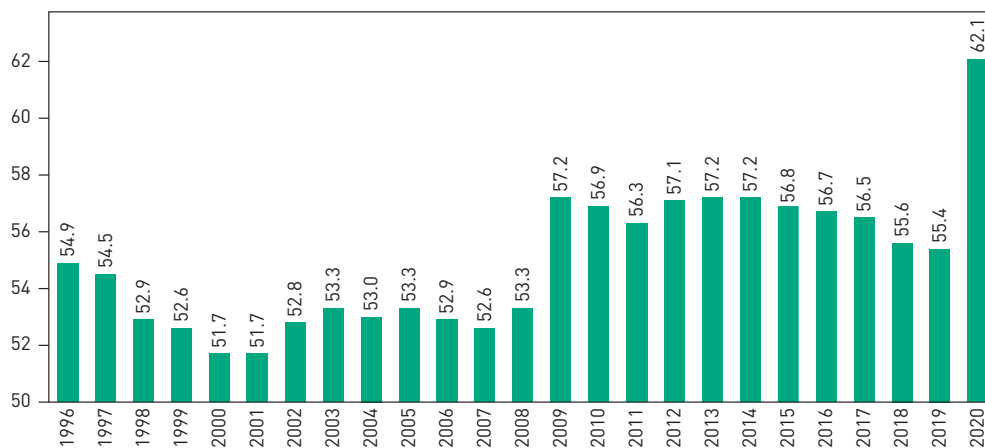
Source: Data from TradingEconomics.com, US Bureau of Economic Analysis.²²

²¹US Spending, “Government Spending Chart,” https://www.usgovernmentsspending.com/spending_chart_1850_2021USp_22s2li011lcnY_F0fF0sF0l; “Total US Government Spending,” <http://www.usgovernmentsspending.com>; “Federal Government Tax and Revenue Chart,” http://usgovernmentrevenue.com/revenue_chart_1850_2021USp_22s1li001mcny_F0fF0sF0l.

²²TradingEconomics, “United States Government Spending to GDP,” <https://tradingeconomics.com/united-states/government-spending-to-gdp>.

FIGURE 22. TOTAL GOVERNMENT SPENDING AS A PERCENTAGE OF GDP, UNITED KINGDOM

Source: Data TradingEconomics.com, Office for Budget Responsibility UK.²³

FIGURE 23. TOTAL GOVERNMENT SPENDING AS A PERCENTAGE OF GDP, FRANCE

Source: Data from TradingEconomics.com, Eurostat.²⁴

²³TradingEconomics, “United Kingdom Public Sector Total Spending to GDP,” <https://tradingeconomics.com/united-kingdom/government-spending-to-gdp>.

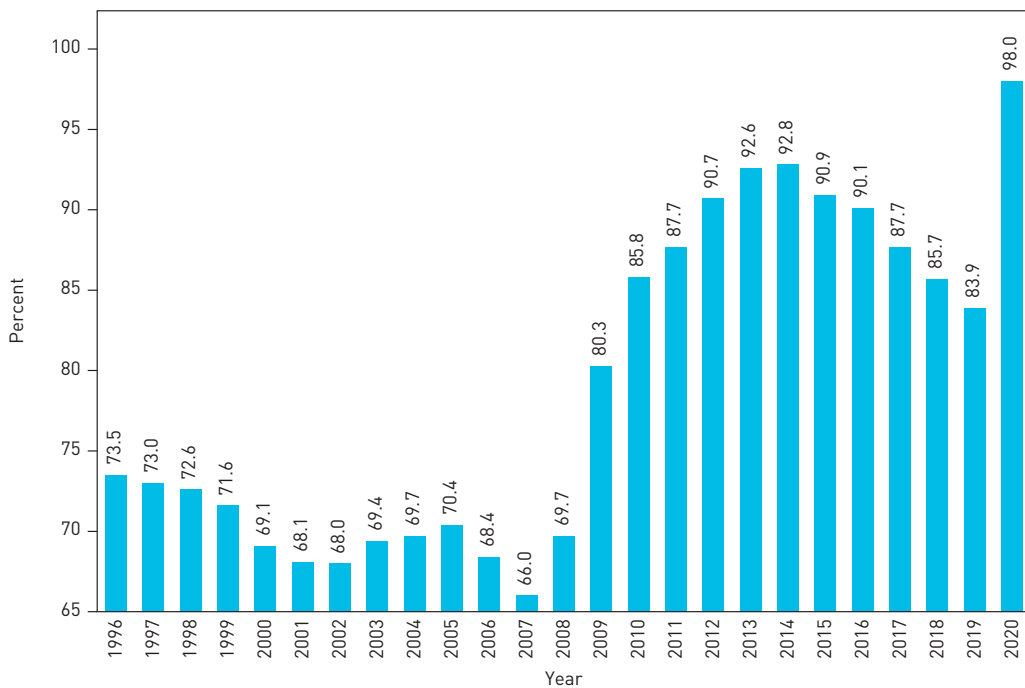
²⁴TradingEconomics, “France Government Spending to GDP,” <https://tradingeconomics.com/france/government-spending-to-gdp>.

Arguably, a joint and combined rise in the share of government spending in GDP financed through a higher level of taxation and national debt is bound to alter significantly the nature of the relationship among the different economic actors in any given society. We could refer to an alteration (evolution?) of the social contract or to the social bargaining agreement among citizens, private economic agents, and the central government.

As shown next, the level of government debt to GDP also is rising significantly as a result of the crisis, as well as in historical terms, in most regions (Figures 24 and 25).

In the United States, it is estimated that the total amount of federal government debt outstanding as of March 2021 had reached USD28 trillion.²⁵ This would correspond to about 129% of GDP, compared with 91% in 2010 and 55% in 2000.

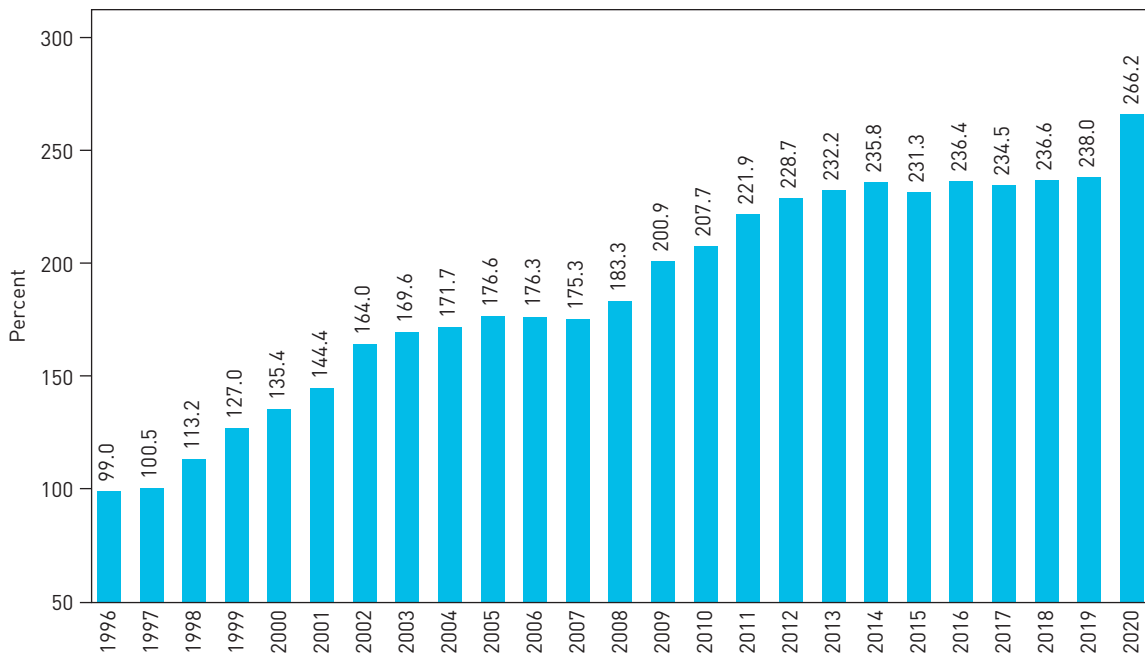
FIGURE 24. TOTAL GOVERNMENT DEBT AS A PERCENTAGE OF GDP, EURO AREA



Source: Data from TradingEconomics.com, Eurostat.²⁶

²⁵See The Balance, www.thebalance.com; and FiscalData, US Department of the Treasury, fiscaldata.treasury.gov.

²⁶TradingEconomics, “Euro Area Government Debt to GDP,” <https://tradingeconomics.com/euro-area/government-debt-to-gdp>.

FIGURE 25. TOTAL GOVERNMENT DEBT AS A PERCENTAGE OF GDP, JAPAN

Source: Data from TradingEconomics.com, Ministry of Finance Japan.²⁷

We identified regional variations among member responses to this question:

- North America (65%) is the region most concerned about the increase in the share of government spending in GDP (67% in the United States).
- In Europe, northern nations seem to be more concerned about the increase in government spending than southern European nations, with the Netherlands at 64%, the United Kingdom at 56%, Germany at 51%, and France at only 37%.

²⁷TradingEconomics, “Japan General Government Gross Debt to GDP,” <https://tradingeconomics.com/japan/government-debt-to-gdp>.

The Build Back Better Movement is a Strong Impetus for ESG Products

In October 2020, consultancy group PwC produced a research report on the progress made by environmental, social, and governance (ESG) products and expectations over the next five years.²⁸ According to PwC, assets under management in European ESG products (investment funds, exchange-traded funds) could rise to between EUR5.5 trillion and EUR7.6 trillion by 2025, or 41% to 57% of total fund assets in Europe. Such levels would compare to about 15% at the end of 2019, according to the same research. Notably, by 2019, European investment funds already represented about 70% of ESG assets globally.

Our survey tends to corroborate this optimistic stance on the growth potential of ESG investment products. As a matter of course, respondents seem to support the idea that the 2020 crisis is going to be a catalyst for ESG growth.

Some 40% of respondents globally agree that the trend toward sustainable financial products is structurally strong. These respondents believe ESG-compliant products will dominate the financial landscape within the next 10 years.

We also noted interesting regional variations:

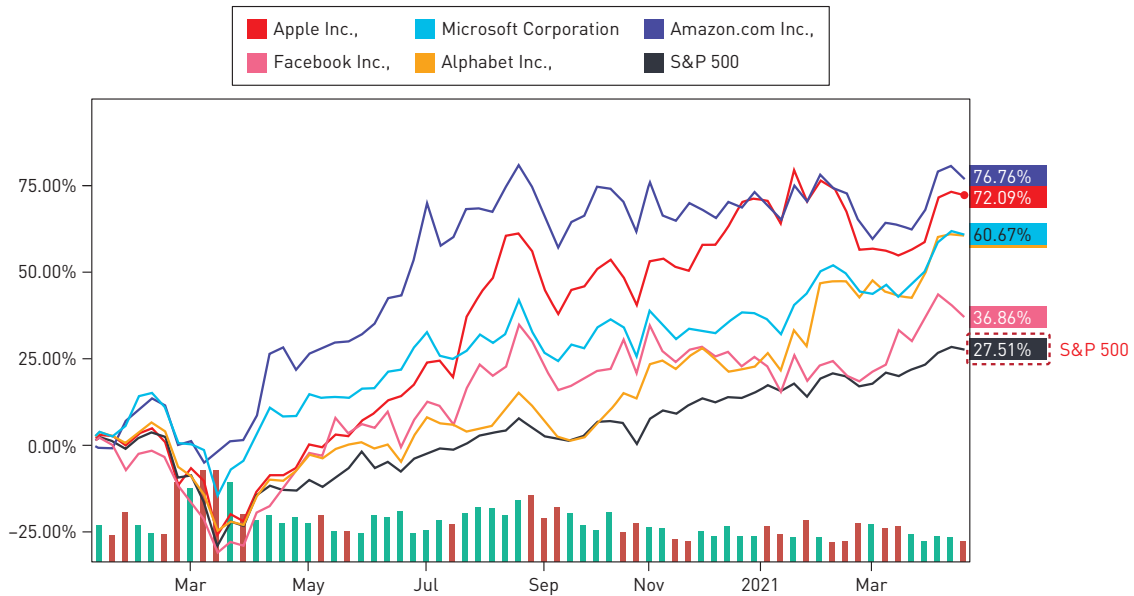
- It will not come as a surprise that European respondents were the most enthusiastic about choosing this option (58%). European institutions have made it clear they would like the European Union to be the global thought leader and standard setter in the field of sustainable finance.
- Within Europe, the most positive responses came from members in France (75%), Switzerland (66%), the Netherlands (64%), and the United Kingdom (62%).
- The least enthusiastic responses came from members (In the mainland of China, CFA Institute accepts CFA® charterholders only) in China (23%), Pakistan (29%), the United States (33%) and the Middle East region (30%).

Big Tech Is A Clear Winner In the Crisis

Clearly, when simply comparing stock prices for different industries and companies in the United States since pre-crisis December 2019, Big Tech stocks appear to have had a very prosperous time (Figures 26 and 27).

²⁸See Olivier Carre and Steven Libby, *2022 The Growth Opportunity of the Century* (PwC Luxembourg, 2020), <https://www.pwc.lu/en/sustainable-finance/docs/pwc-esg-report-the-growth-opportunity-of-the-century.pdf>.

FIGURE 26. STOCK PRICE PROGRESSION SINCE DECEMBER 2019 FOR S&P 500, APPLE INC., ALPHABET INC., MICROSOFT CORPORATION, AMAZON.COM INC., AND FACEBOOK INC.



Source: Data from Yahoo Finance, FactSet.²⁹

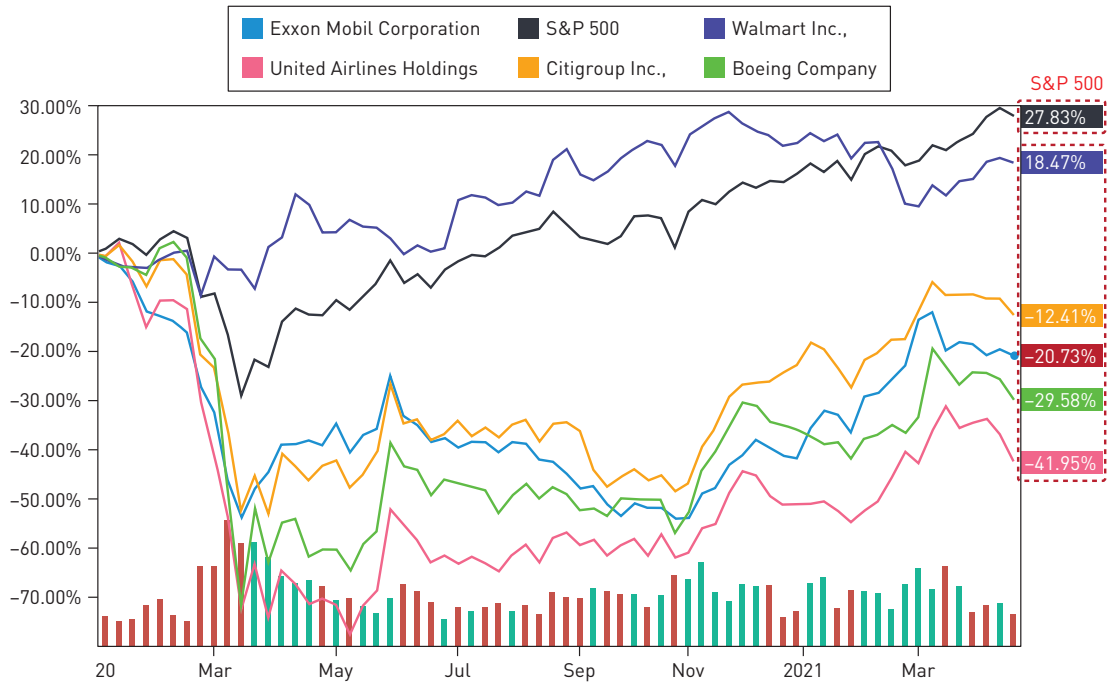
The survey results showed that 34% of respondents globally believe that the crisis has resulted in a growing and consolidated dominance of a small number of Big Tech companies.

We again identified interesting regional variations:

- Emerging economies identified the consolidated dominance of Big Tech more often than advanced economies, with members in the Middle East (43%), Latin America (41%), and Africa (38%) identifying this concern the most.

²⁹Yahoo Finance, Exxon Mobile Corporation, <https://uk.finance.yahoo.com/quote/XOM/history?p=XOM>; S&P 500, <https://uk.finance.yahoo.com/quote/%5EGSPC/history?p=%5EGSPC>; Walmart Inc., <https://uk.finance.yahoo.com/quote/WMT/history?p=WMT>; United Continental Holdings, Inc., <https://uk.finance.yahoo.com/quote/UAL/history?p=UAL>; Citigroup Inc., <https://uk.finance.yahoo.com/quote/C/history?p=C>; The Boeing Company, <https://uk.finance.yahoo.com/quote/BA/history?p=BA>.

FIGURE 27. STOCK PRICE PROGRESSION SINCE DECEMBER 2019 FOR S&P 500, EXXON MOBIL CORPORATION, WALMART INC., BOEING COMPANY, UNITED AIRLINES HOLDINGS, AND CITIGROUP INC.



Source: Data from Yahoo Finance.³⁰

- At 54%, the United Arab Emirates identified this concern most often.
- At 14%, Japan was the economy to report this concern least often.

³⁰Yahoo Finance, Exxon Mobile Corporation, <https://uk.finance.yahoo.com/quote/XOM/history?p=XOM>; S&P 500, <https://uk.finance.yahoo.com/quote/%5EGSPC/history?p=%5EGSPC>; Walmart Inc., <https://uk.finance.yahoo.com/quote/WMT/history?p=WMT>; United Continental Holdings, Inc., <https://uk.finance.yahoo.com/quote/UAL/history?p=UAL>; Citigroup Inc., <https://uk.finance.yahoo.com/quote/C/history?p=C>; The Boeing Company, <https://uk.finance.yahoo.com/quote/BA/history?p=BA>.

Is the Crisis Facilitating the Establishment of a Platform Economy?

In 2018, consultant group McKinsey already was reporting that, according to their research, USD60 trillion worth of annual revenue could be redistributed across the economy by 2025 through the interplay of the digital platforms built by the high tech, media, and telecom sector.³¹

Digital platforms are essentially transforming what used to be linear value chains between producers and consumers into technology-driven adaptable models with a wider product offering tailored to client needs. McKinsey describes this new ecosystem as the “integrated network economy.”

The platform economy captured 30% of survey votes on a global basis, making it the fourth most identified factor.

- At a regional level, the same variations can be observed as that for Big Tech dominance. Emerging economies seem to believe they are more affected than respondents in advanced economies. This tentatively could be explained by the variations in the development cycles of digital services in the different regions of the world. The advances in financial technology services in emerging economies, for example, have accelerated the level of access to financial services to populations who previously struggled to access basic traditional banking facilities.
- At a local level, the regions demonstrating the highest response rate were Germany (44%), India (41%), and China (40%).
- At the other end of the spectrum, the advanced nations demonstrating the lowest response rate were Canada (22%), Australia, (24%) and the United States (26%).

Monetary Stimulus may be a Double-edged Sword and Undermine the Faith in Fiat Currencies as Crypto Assets Raise in Prominence

The fifth most chosen response pertained to the rise of cryptocurrencies and crypto assets as a result of monetary stimulus.

³¹See *Winning in Digital Ecosystems* (Digital McKinsey Insights, January 2018), <https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/digital%20mckinsey%20insights%20number%203/digital-mckinsey-insights-issue-3-revised.pdf>.

Globally, 27% of respondents felt that the monetary stimulus set by authorities to tackle the 2020 crisis had undermined faith in fiat currencies to the benefit of cryptocurrencies and crypto assets. Respondents indicated that this development, over time, may diminish the power of central governments in effectively enforcing monetary policy.

This is an interesting question as both the Chinese government and the EU authorities recently announced their plans to consider digital versions of their national currencies.

In January 2021, the Bank for International Settlements (BIS) was releasing the results of a late-2020 survey of 60 central banks around the world. It found that 86% of surveyed institutions were “exploring the benefits and drawbacks of central bank digital currencies.”³²

It is still too early to determine the timing of such developments or their magnitude, but governments and institutions are worried about losing control over the means of exchange used by their populations.

The question of monetary stimulus and its actual impact on the economy or its economic agents is rooted in the opposition between the classical view on money (classical economics) and the Keynesian view on money. In the classical view, money plays no active role in the economy. It is purely a medium of exchange, and the quantity of money supply should follow or anticipate the growth in the economy to facilitate the fluidity of exchanges, not the other way around. In contrast, the Keynesian approach believes that money supply can actively affect key real economic variables, such as interest rates, employment level, and the level of output or income. The key relationship in Keynesian economics is the impact of money supply on aggregated demand and the elasticity of aggregate output.

From this standpoint, the question becomes whether the extraordinary monetary stimulus decided in advanced economies as a response to the 2020 crisis will have an impact on inflation (as discussed earlier) and the faith that people have in the quality of fiat currency as a store of value. The results from our survey could indicate that a sizeable portion of respondents believe that economic agents will deport their faith away from traditional currency onto new digital means of exchanges, which elude government control and distortion, at least in theory or for the time being.

Here again, we identified a regional divide:

³²See Codruta Boar and Andreas Wehrli, “Ready, Steady, Go? Third BIS Survey on Central Bank Digital Currency” (BIS Paper No. 114, Bank for International Settlements, January 2021).

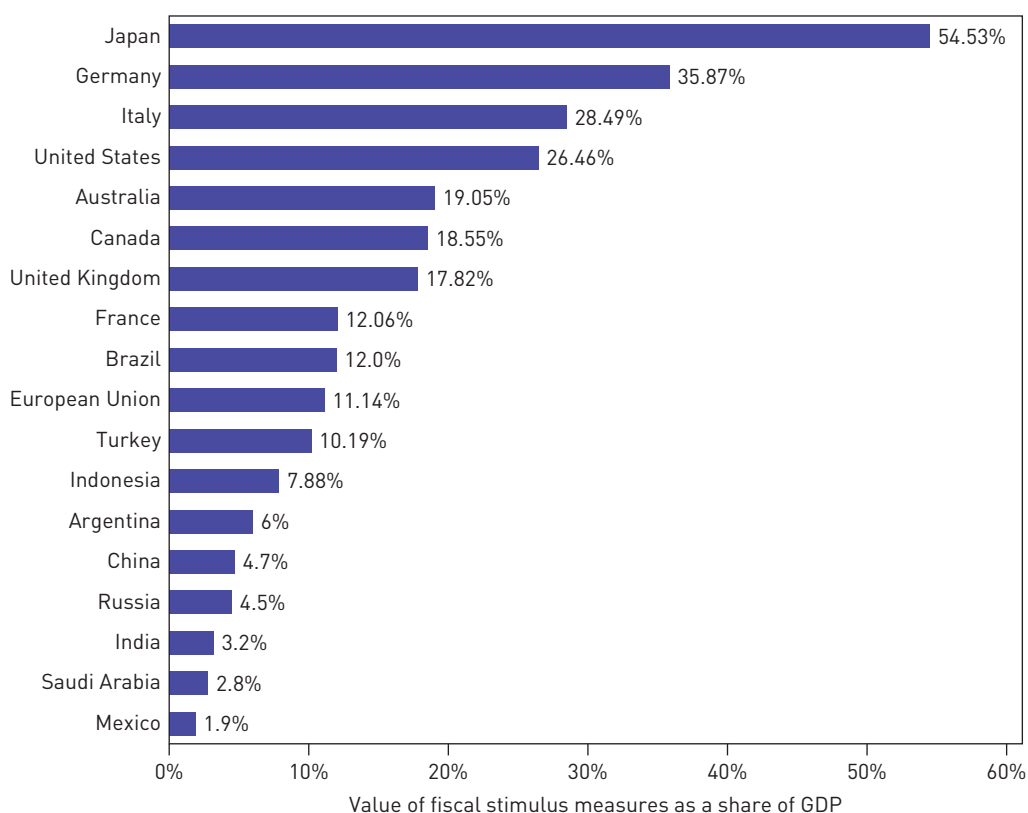
- Although emerging economies have benefitted from less monetary support, these regions expressed concern that monetary stimulus will undermine faith in fiat currencies in higher proportion compared with advanced economies, with response rates of 38% in East Asia (including mainland China, Japan, Hong Kong SAR, Taiwan, South Korea), 36% in Southeast Asia, and 34% in Africa. On this question, we could refer to the Asian currency crisis of 1997 and to generally more volatile currencies in the emerging world as reasons that could explain this difference with advanced economies.
- At a local level, the nations most worried about the potential for monetary stimulus to undermine faith in fiat currencies were China (51%), South Africa (40%), and Singapore (40%).
- The nations least worried about monetary stimulus and the rise of crypto assets were France (14%), Germany (17%), and the United Kingdom (18%).

Notably, only 10% of respondents globally thought the crisis would have no major structural impact.

Some 18% of respondents felt that the crisis would trigger a contraction of global exchanges. Time will tell if globalisation will recede on the pressure to re-insource and re-localise processes after the trauma of the COVID-19 crisis.

5.5 The Financing of Economic Relief Programmes or How Keynes Called It: Should We Get Ready for Tax Rises and Debt Monetisation?

FIGURE 28. VALUE OF COVID-19 FISCAL STIMULUS PACKAGES IN G-20 COUNTRIES AS OF MARCH 2021 (PERCENTAGE OF GDP)



Source: International Monetary Fund (IMF), Statista.³³

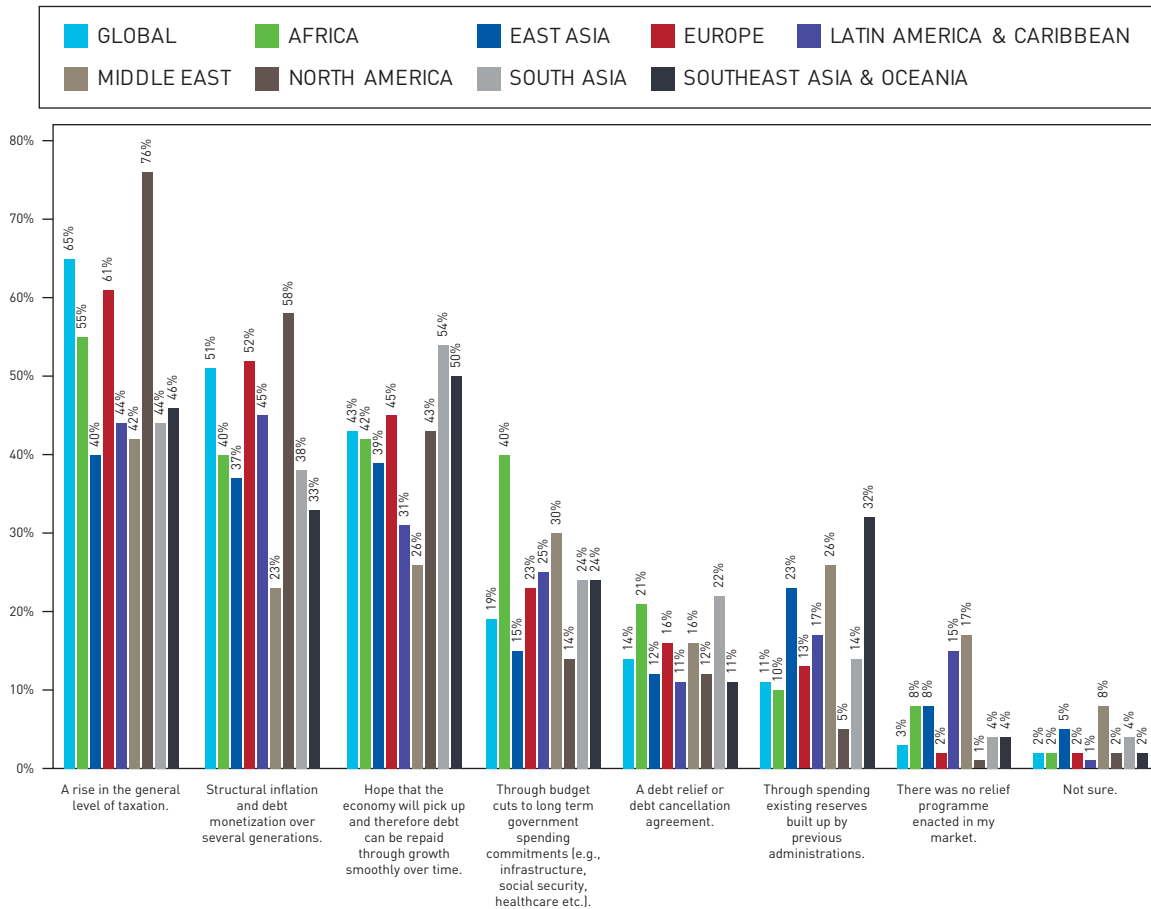
³³Statista, “Value of COVID-19 Fiscal Stimulus Packages in G20 Countries as of May 2021, as a Share of GDP,” <https://www.statista.com/statistics/1107572/COVID-19-value-g20-stimulus-packages-share-gdp/>.

Figure 28 summarises the total value of the fiscal stimulus packages engaged by various countries around the world as a response to the crisis induced by COVID-19. The data are presented as of March 2021 and as a percentage of annual GDP.

The magnitude of the stimulus packages begs the question of how they will be financed. The variations among the top 20 economies of the world (advanced versus emerging, richer versus poorer) is another interesting factor.

FIGURE 29. MEMBERSHIP SENTIMENT ABOUT ECONOMIC RELIEF PROGRAMMES

How do you think the economic relief programmes enacted in your market will be paid for? Select all that apply



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

At the time this report is being written, a significant consensus remains among international organisations, governments, and regulators that priority must be given to health measures and financial support brought to citizens and businesses as a bridge toward achieving a post-pandemic normalised situation. As such, financial orthodoxy is not yet back on the agenda.

In early January 2021, International Monetary Fund (IMF) Managing Director Kristalina Georgieva presented the IMF's key priorities for the year:

1. Focus on getting the health situation under control, by ramping up vaccination programmes at a global level.
2. Pursue a sustainable and inclusive recovery, by focusing on the digitisation and greening of the economy. Priority should still be given to fiscal policy support until the recovery is deemed to be sufficiently strong.
3. Address the issue of a diverging recovery between rich and poor countries.

According to the IMF, rich nations have been able to enact fiscal support policies reaching or exceeding 20% of GDP, whereas poor nations have managed to mobilise only 2% of their GDP on average. The IMF also has noted the burden of debt that is building and the potential debt restructuring programmes that could become necessary in specific cases. The priority, however, is still to tackle the health crisis.

We asked our members how they thought the economic relief programmes enacted in their respective market would be paid for. Following are the results (Figure 29).

A large majority of the global membership (65%) believes there will be a rise in the general level of taxation. This response rate likely reflects a dose of realism given the recent talks of tax hikes in several advanced economies.

A little over half of the respondents (51%) also think that governments and monetary authorities will tolerate higher levels of inflation and therefore engage in debt monetisation to finance the public deficits.

Less than half of the respondent (43%) think that the economic recovery will permit a gradual repayment of debt over time through growth. This option would correspond to the most reasonable and stable policy option, in the sense that it technically assumes there will not be significant changes to public policy and socioeconomic policies.

We observed an interesting correlation between the level of optimism showed by respondents on the first question of the survey related to the shape of the recovery and this question about the financing of relief programmes. More than half (58%) of those who thought economic stagflation would emerge also believed relief programmes would be financed through inflation and debt monetisation. Conversely, 49% of those who thought the economy is on a steady path to recovery also thought relief programmes would be paid for through economic growth.

Consider the following noteworthy regional variations:

- Advanced economies are significantly more prone to be concerned about a rise in taxation levels, with 61% in Europe and 76% in North America.
- At the country level, the markets most concerned about taxation rise are the United Kingdom (80%), the United States (76%), Canada (75%), and Singapore (62%).
- Advanced economies are also, in general, more worried about deficits being financed through inflation and debt monetisation. The countries most concerned are Germany (63%), the United Kingdom (62%), and the United States (60%).
- Brazil is an exception for emerging economies, as respondents in the country showed a high level of concern about deficit funding through inflation, at 71%.
- South Asia and Southeast Asia appeared to be the most optimistic regions regarding the capacity of their economies to recover and finance relief programmes through normal growth, in particular, Australia (66%), India (60%), and China (52%).
- Emerging economies are generally more worried about governments resorting to budget cuts to finance relief programmes. Africa is disproportionately more concerned about this prospect at 40% for the region (48% in South Africa).
- Southeast Asia specifically is a region disproportionately of the view that existing reserves built by their governments (through current account excess balances or commodities) would be put to contribution to help finance relief programmes, led by Singapore (64%) and Hong Kong SAR (42%).

5.6 Central Banks and Unorthodox Monetary Policy Measures: Can Monetary Conditions ever be Normalised?

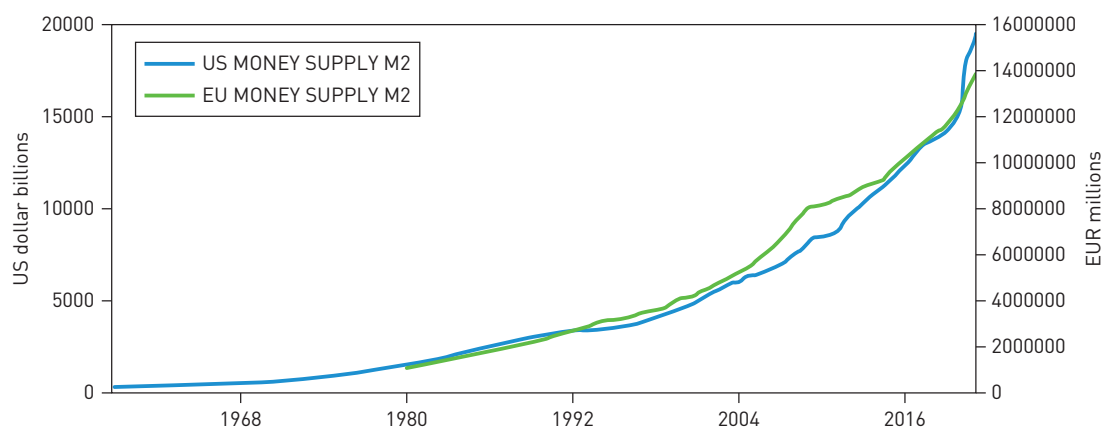
The relationships among money supply, inflation, economic growth, and productivity are complex, and these relationships vary depending on which side of the macroeconomic theory spectrum one is sympathetic to.

Regardless of sympathies, the level of monetary stimulus, as measured by money supply, provided by central banks in advanced economies over time has changed markedly.

Figure 30 shows the evolution of M2 since the 1960s in the United States and the Euro Zone. The indicator M2 measures the amount of money in circulation through coins and notes, short-term money equivalents, short-term time deposits in banks, and certain money market funds.

The impact of the response measures enacted by the US Federal Reserve to counter the severe economic effects of the 2020 crisis is particularly significant (Figure 31).

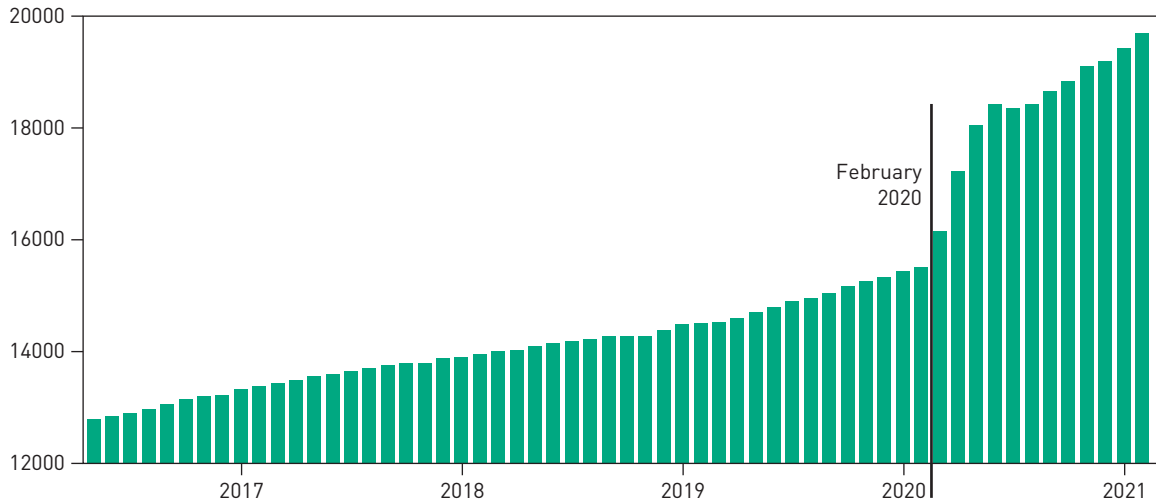
FIGURE 30. EVOLUTION OF THE M2 AGGREGATE IN THE UNITED STATES AND THE EURO ZONE (LHS: US DOLLAR BILLIONS; RHS: EUR MILLIONS)



Source: Data from TradingEconomics.com, Federal Reserve, EuroStat.³⁴

³⁴TradingEconomics, “United States Money Supply M2,” <https://tradingeconomics.com/united-states/money-supply-m2>.

**FIGURE 31. EVOLUTION OF THE M2 AGGREGATE IN THE UNITED STATES SINCE 2017
(US DOLLAR BILLIONS)**

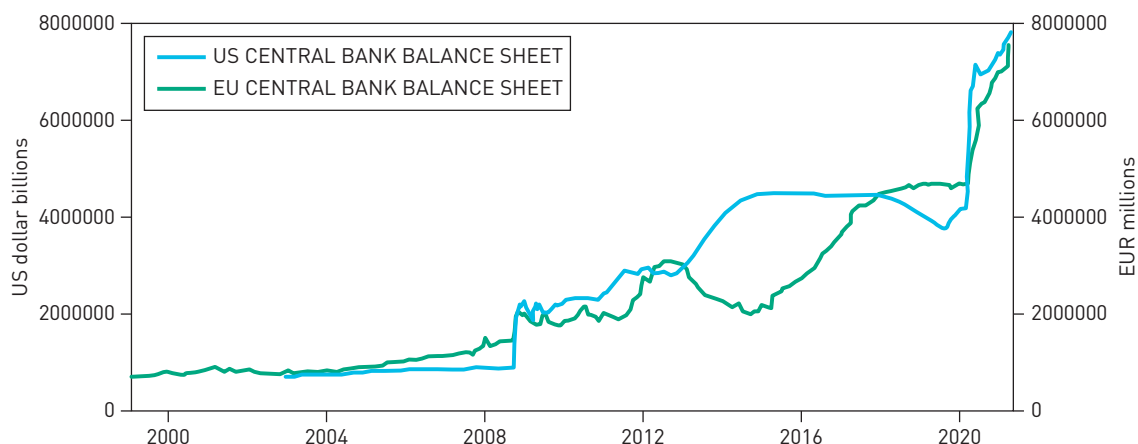


Source: Data from TradingEconomics.com, Federal Reserve.³⁵

In such a context, the question is now shifting to whether central banks should initiate a planned retraction (tapering) of this accommodative monetary policy cycle. There is potential danger or at least a risk in crystallising the idea that central banks should play a structural role as lender and market maker of last resort for money markets, short-term funding markets, and even parts of the secondary corporate fixed-income market. We explore this idea later in this research paper.

Figure 32 shows that the historical inflection point for monetary stimulus probably was the 2007–2009 Global Financial Crisis. This crisis marked the beginning of the notion that central banks should do “whatever it takes” to safeguard financial stability and the liquidity of credit markets, even through unconventional measures, such as quantitative easing. Since then, considerations for financial orthodoxy and inflation control have gradually faded in favour of the need to maintain sufficient velocity in the economy, driven by the faith that economic agents have in the notion that the central bank will step in if credit markets observe tension.

³⁵TradingEconomics, “United States Money Supply M2,” <https://tradingeconomics.com/united-states/money-supply-m2>.

FIGURE 32. EVOLUTION OF THE CENTRAL BANK BALANCE SHEET IN THE UNITED STATES AND THE EURO ZONE (LHS: US DOLLARS BILLIONS; RHS: EUR BILLIONS)

Source: Data from TradingEconomics.com, Federal Reserve, EuroStat.³⁶

After a brief attempt at stabilising their balance sheets in the aftermath of the 2008 crisis, the 2020 crisis is proving that central banks have not yet reached or declared an upper limit to their capacity to pump liquidity in the system.

On this question, an interesting body of research to consider is the December 2020 working paper released by the Bank of England: “The Central Bank Balance Sheet as a Policy Tool: Past, Present and Future.”³⁷ The paper discusses the effectiveness of quantitative easing at affecting the level of interest rates, although its impact on macroeconomics will diminish over time as the marginal effect from the newest rounds of quantitative easing reduces. The paper provides the view that central bank balance sheets may be used in times of severe market dysfunction as a “state contingency.” Finally, the authors prudently propose a framework of analysis for how monetary policy may oscillate between “scarcity” and “overabundance” as well as when it should normalise after a fast-paced interventionist cycle in which the impact should be maximised through a range of possible measures.

³⁶TradingEconomics, “United States Central Bank Balance Sheet,” <https://tradingeconomics.com/united-states/central-bank-balance-sheet>; Euro Area Central Bank Balance Sheet, <https://tradingeconomics.com/euro-area/central-bank-balance-sheet>.

³⁷See Andrew Bailey, Jonathan Bridges, Richard Harrison, Josh Jones, and Aakash Mankodi, “The Central Bank Balance Sheet as a Policy Tool: Past, Present and Future” (Staff Working Paper No. 899, Bank of England, December 2020).

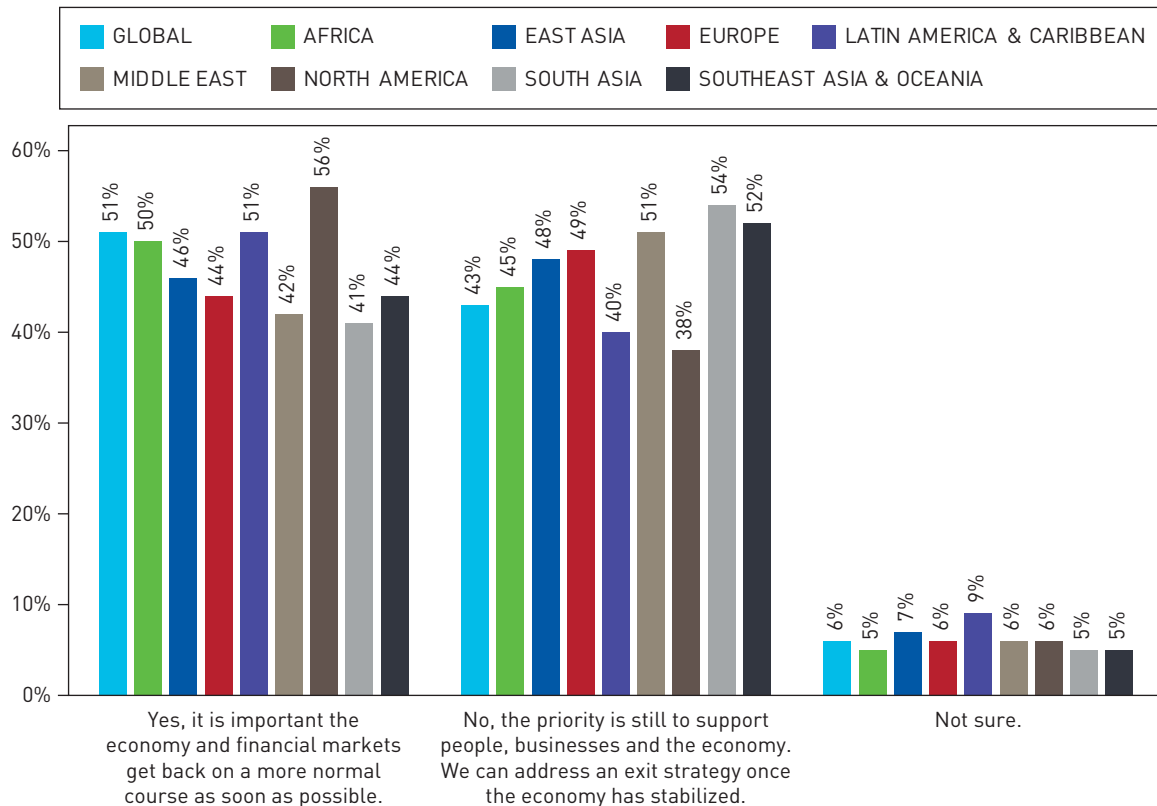
One thesis underpinning the study is that central bank balance sheets should be managed in a “countercyclical” fashion.

Should Central Banks Prioritise an Exit Strategy from the Current Cycle of Accommodative Monetary Policy?

We asked the CFA Institute membership if they thought central banks should now prioritise an exit strategy from this unprecedented accommodative monetary policy drive. The results are set forth in Figure 33.

FIGURE 33. MEMBERSHIP SENTIMENT ABOUT PRIORITISING AN EXIT STRATEGY FOR CENTRAL BANKS

Do you think central banks should now prioritise an exit strategy from this unprecedented accommodative monetary policy drive?



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

The membership appears to be largely split on this question: 51% believe that monetary policy should be normalised as soon as possible, whereas 43% disagree and think the priority still should be to support the people, businesses, and the economy. For this second cohort, monetary policy should be normalised only once the economy has stabilised.

Regional variations demonstrate that:

- North America is showing a higher level of concern for a return to financial orthodoxy than Europe.
- In general, emerging economies believe it is important for monetary policy to continue to support the recovery. The exception is Latin America, which is showing a similar stance on this question as North America.
- At the country level, the markets that are most in favour of a normalisation of monetary policy are Brazil (60%), United States (58%), and South Africa (58%).
- At the country level, the markets that are most in favour of a continuation of the accommodative monetary cycle are France (60%), United Kingdom (60%), Pakistan (59%), and Japan (57%).

If Central Banks Normalise their Policy, What form Should this Process Take?

We next asked the membership what form an exit plan should take, if central banks decide to normalise monetary policy (Figure 34).

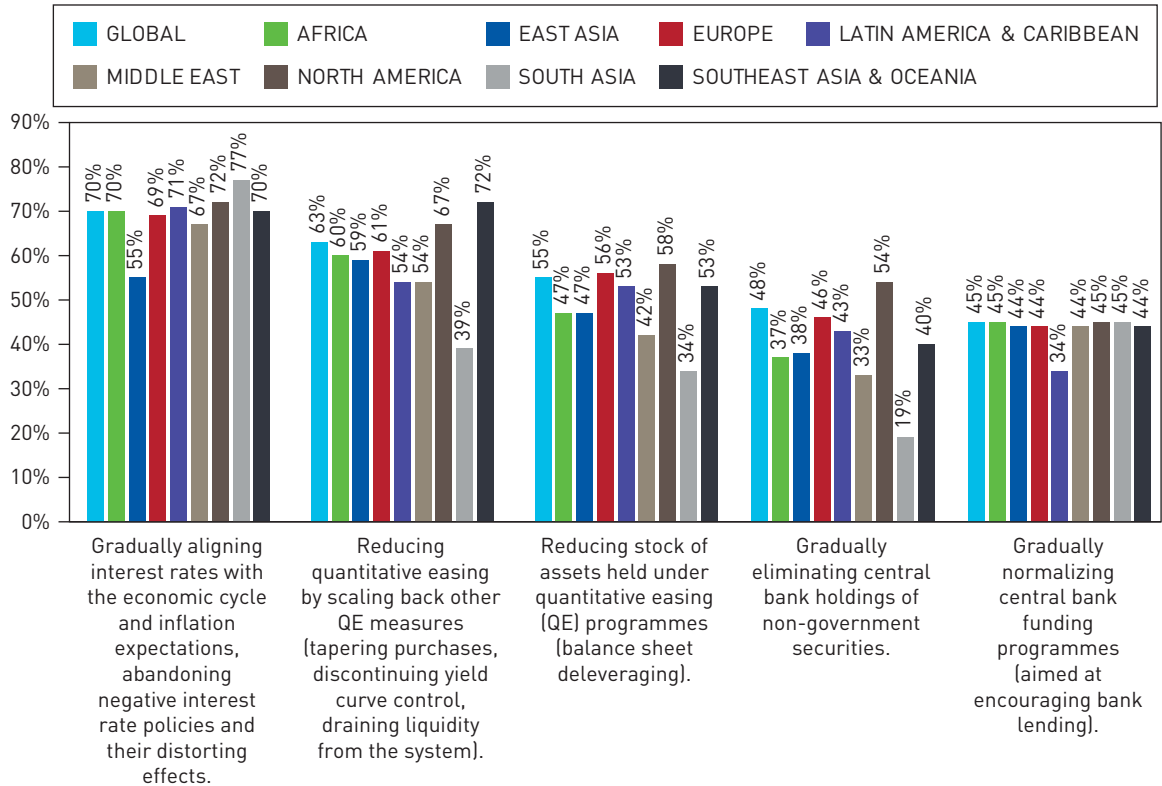
As we have discussed, central banks over the years have resorted to unorthodox policy tools, beyond the traditional lever of key interest rates levels.

The responses are reasonably well distributed across the different options, which demonstrates the breadth of actions that have been undertaken by central banks in effecting an accommodative monetary policy.

A majority of respondents indicate that normalising monetary policy should be achieved through a realignment of interest rates to accommodate the economic cycle (70%), a reduction in quantitative easing programmes (63%), and even a deleveraging of central bank balance sheets (55%).

FIGURE 34. MEMBERSHIP SENTIMENT ABOUT EXIT PLANNING

If enacted, what form(s) should exit planning by central banks take? Select all that apply



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

The highest rate of respondents who are in favour of balance sheet deleveraging are from North America and Europe, which is not surprising given the size of the stimulus programmes we have discussed.

Are Central Banks Still Independent Entities?

We also asked the membership about the important question of central bank independence.

The novelty in the approach taken by authorities in responding to the 2020 crisis has been the coordination of monetary stimulus and fiscal policy measures. Although the

effectiveness of this joint approach has yielded results in the face of the severity of the economic crisis at hand, it begs the question of whether the central banks still have sufficient independence to apply the monetary policy that is deemed the most appropriate for their primary mandate, which is to preserve financial stability and control inflation. Remember, however, that the US Federal Reserve has the dual mandate of maximising employment and keeping prices stable (including moderate long-term interest rates). In this context, the Federal Open Market Committee has approached its mandate by defining a target inflation rate (low and stable) estimated to be consistent with both price stability and employment maximisation objectives.

For the time-being, the long-term structural effect on the economic and financial ecosystem of central banks acting in tandem with (or under the mandate of?) the Treasury remains unclear. Officials should consider the risks related to people's faith in the currency and the potential effect on inflation.

We also wanted to know whether CFA Institute members felt coordinating monetary and fiscal policy was an objective worth pursuing, or whether they thought it should be avoided (Figure 35).

Given the variability of responses, the membership appears to be divided on this question.

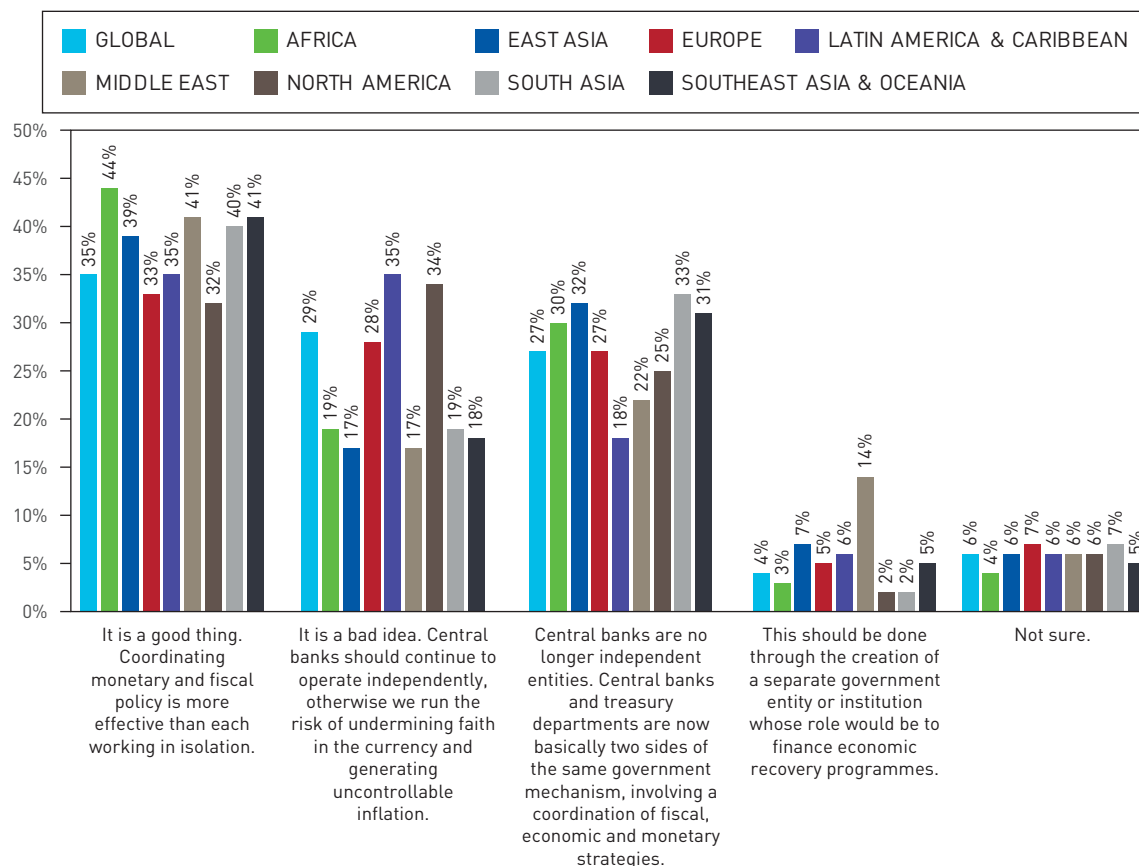
Globally, 35% support the idea of coordinating monetary and fiscal policy as it is more effective, but 29% of respondents disapprove of this coordination and think central banks should operate independently. In turn, 27% think central banks are already no longer independent and, as such, that they form a unified tool for the government to enact its economic and fiscal plan.

Here are our regional observations:

- We observed a divide between certain emerging and advanced economies. Emerging economies are more prone, in general, to accept and support the notion that monetary and fiscal policy should be coordinated. Conversely, in relative terms, respondents in Europe and North America show a higher propensity to declare that such coordination would be a bad idea. An exception is Latin America, which takes a position close to that of North America.
- Interestingly, emerging economies are more prepared to admit that central bank independence is already over than advanced economies.

FIGURE 35. MEMBERSHIP SENTIMENT ABOUT WHETHER MONETARY POLICY AND FISCAL POLICY SHOULD BE COORDINATED

What do you think of the idea that monetary policy and fiscal policy should be coordinated to enact economic stimulus measures?



Source: CFA Institute Global Member Survey, *COVID-19, One Year Later* (March 2021).

- In Europe, nations that have been traditionally keen on financial orthodoxy are clearly showing their disapproval for monetary and fiscal policy coordination. Respondents from the Netherlands, for example, expressed this view 42% of the time, as did 41% of the respondents from Germany.
- The nations most in favour of coordination are Pakistan (50%), Singapore (47%), Brazil (46%), United Arab Emirates (41%), and Japan (40%).

How Would Different Asset Classes be Affected if Central Banks Normalised Monetary Policy?

We asked our membership, among a series of different asset classes, which ones would benefit or suffer the most from central banks reverting monetary policy and normalising interest rates.

In our April 2020 survey on COVID-19, we had asked the membership if they thought the crisis increased the chances of asset mispricing, specifically as it related to the stress markets were experiencing at the time. Nearly all respondents (96%) thought asset mispricing was a real risk. On the question of the likely reason for this mispricing, 38% thought this would happen because of a liquidity dislocation and 36% identified distortion effects caused by monetary and fiscal stimulus to the natural price formation mechanism.

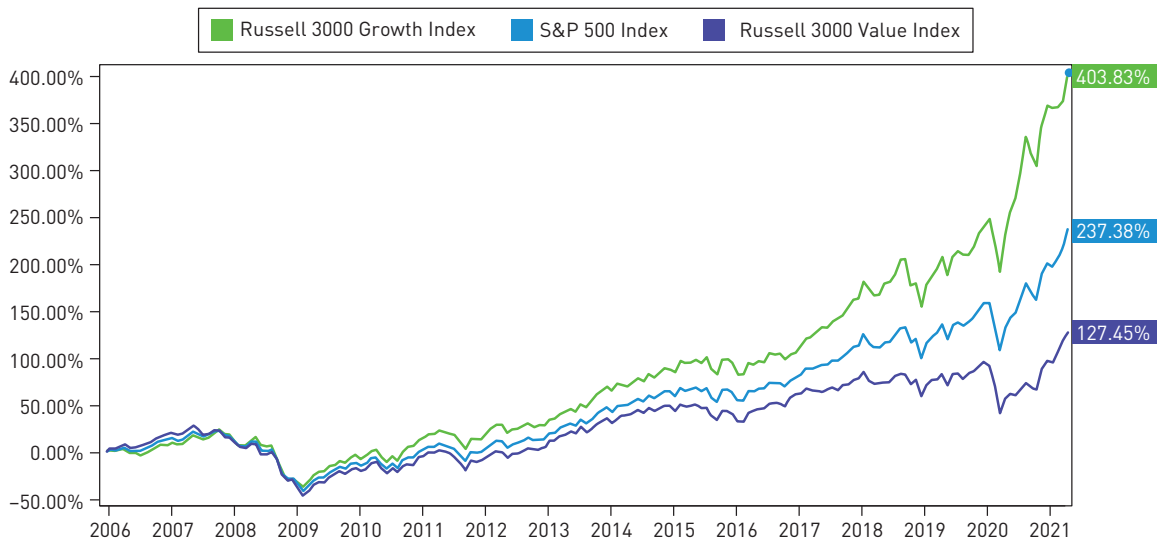
One of the most significant stories of asset classes behaviour since the 2007–2009 crisis has been that of growth stocks versus value stocks. The classical theory normally entails that growth stocks perform better in a rapid growth environment, whereas value stocks tend to protect capital in times of economic deceleration or crisis because of the natural resilience of their cash flows. That theory has been invalidated and turned on its head over the past 10 to 12 years. A possible way to interpret this phenomenon is to draw a parallel with the starting point of monetary authorities intervening in markets to protect financial stability and liquidity through quantitative easing in 2008 and 2009. As we discussed earlier, monetary policy has not yet returned to normal. In such a context, growth stocks may have benefitted from this belief that central banks would act as a backstop to any sign of distress on the liquidity and availability of short-term credit funding, which would smooth the normal retreat from growth sectors in times of stress.

Figure 36 illustrates this progressive desynchronization of growth and value stocks in the United States since the mid-2000s using the Russell 3000 Index series. As shown in this figure, the magnitude of the decoupling accelerated in the 2020 crisis.

Figure 37 compares the survey results for assets most positively and most negatively affected.

At a global level, the membership clearly estimates that value stocks would benefit from a normalisation of monetary policy, but growth stocks would suffer. The US dollar would naturally benefit from a tighter monetary policy, which is validated by the survey results.

FIGURE 36. GROWTH STOCKS (RUSSELL 3000 GROWTH INDEX), VALUE STOCKS (RUSSELL 3000 VALUE INDEX) AND THE S&P 500 INDEX SINCE DECEMBER 2005 (US DOLLARS)



Source: Data from Yahoo Finance, FactSet.³⁸

On the negative side, as we discuss later in this research paper, the membership seems to be worried about the level of corporate credit risk in an environment in which monetary conditions would become tighter. High-yield credit would be the second-worst-affected asset class, if central banks reversed monetary policy.

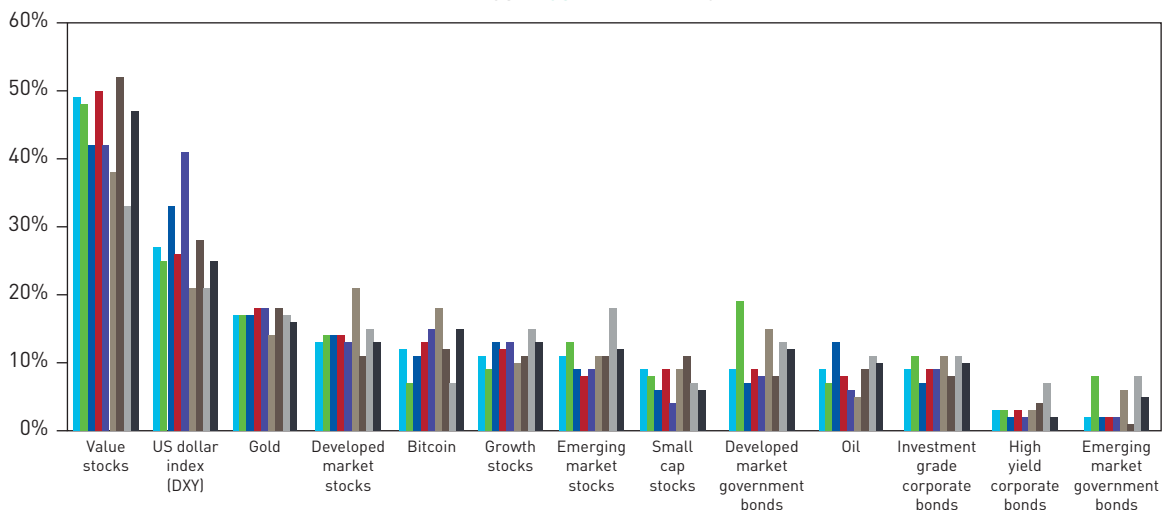
Respondents also note that developed market stocks would suffer significantly less than emerging market stocks from tighter monetary policy.

³⁸Yahoo Finance, Russell 3000 Growth, <https://uk.finance.yahoo.com/quote/%5ERAG/history?p=%5ERAG>; S&P 500, <https://uk.finance.yahoo.com/quote/%5EGSPC/history?p=%5EGSPC>; Russell 3000 Value, <https://uk.finance.yahoo.com/quote/%5ERAV/history?p=%5ERAV>.

FIGURE 37. MEMBERSHIP SENTIMENT ABOUT MONETARY POLICY REVERSAL: (A) MOST POSITIVELY AFFECTED AND (B) MOST NEGATIVELY AFFECTED

(a) How do you think a monetary policy reversal by the major central banks (i.e. tighter policy) will affect the following assets?

MOST POSITIVELY AFFECTED

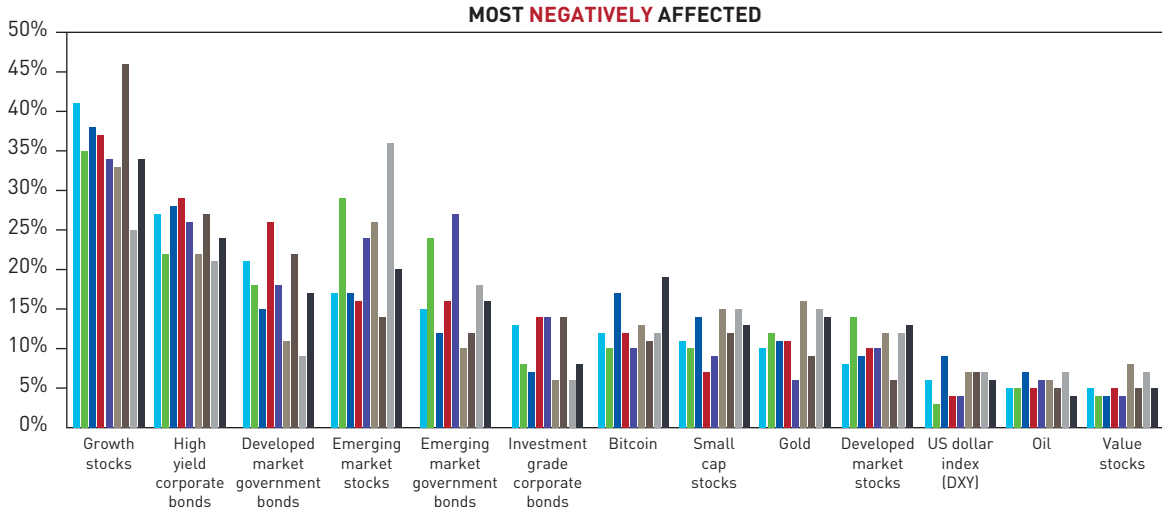


	Value stocks	US dollar index (DXY)	Gold	Developed market stocks	Bitcoin	Growth stocks	Emerging market stocks	Small cap stocks	Developed market government bonds	Oil	Investment grade corporate bonds	High yield corporate bonds	Emerging market government bonds
Global	49%	27%	17%	13%	12%	11%	11%	9%	9%	9%	9%	3%	2%
AFRICA	48%	25%	17%	14%	7%	9%	13%	8%	19%	7%	11%	3%	8%
EAST ASIA	42%	33%	17%	14%	11%	13%	9%	6%	7%	13%	7%	2%	2%
EUROPE	50%	26%	18%	14%	13%	12%	8%	9%	9%	8%	9%	3%	2%
LATIN AMERICA & CARIBBEAN	42%	41%	18%	13%	15%	13%	9%	4%	8%	6%	9%	2%	2%
MIDDLE EAST	38%	21%	14%	21%	18%	10%	11%	9%	15%	5%	11%	3%	6%
NORTH AMERICA	52%	28%	18%	11%	12%	11%	11%	11%	8%	9%	8%	4%	1%
SOUTH ASIA	33%	21%	17%	15%	7%	15%	18%	7%	13%	11%	11%	7%	8%
SOUTHEAST ASIA & OCEANIA	47%	25%	16%	13%	15%	13%	12%	6%	12%	10%	10%	2%	5%

(Continued)

FIGURE 37. MEMBERSHIP SENTIMENT ABOUT MONETARY POLICY REVERSAL: (A) MOST POSITIVELY AFFECTED AND (B) MOST NEGATIVELY AFFECTED (CONTINUED)

(b) How do you think a monetary policy reversal by the major central banks (i.e. tighter policy) will affect the following assets?



	Growth stocks	High yield corporate bonds	Developed market government bonds	Emerging market stocks	Emerging market government bonds	Investment grade corporate bonds	Bitcoin	Small cap stocks	Gold	Developed market stocks	US dollar index (DXY)	Oil	Value stocks
Global	41%	27%	21%	17%	15%	13%	12%	11%	10%	8%	6%	5%	5%
AFRICA	35%	22%	18%	29%	24%	8%	10%	10%	12%	14%	3%	5%	4%
EAST ASIA	38%	28%	15%	17%	12%	7%	17%	14%	11%	9%	9%	7%	4%
EUROPE	37%	29%	26%	16%	16%	14%	12%	7%	11%	10%	4%	5%	5%
LATIN AMERICA & CARIBBEAN	34%	26%	18%	24%	27%	14%	10%	9%	6%	10%	4%	6%	4%
MIDDLE EAST	33%	22%	11%	26%	10%	6%	13%	15%	16%	12%	7%	6%	8%
NORTH AMERICA	46%	27%	22%	14%	12%	14%	11%	12%	9%	6%	7%	5%	5%
SOUTH ASIA	25%	21%	9%	36%	18%	6%	12%	15%	15%	12%	7%	7%	7%
SOUTHEAST ASIA & OCEANIA	34%	24%	17%	20%	16%	8%	19%	13%	14%	13%	6%	4%	5%

Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

5.7 The Unintended Socioeconomic Consequences of the Stimulus Measures: Have they Widened the Wealth Gap and Favoured the Investor Class?

In the previous chapter, we discussed how the CFA Institute membership is divided on the merits or the dangers of coordinating monetary and fiscal policies as a solution to a widescale economic crisis. It probably will take more time before we are in a position to judge effectively the consequences of the current response to the crisis induced by COVID-19.

The sheer scale of the stimulus programmes enacted in advanced economies and that are still being rolled out in 2021 is forcing the typical actors of the free-market economy to wonder whether we are not entering uncharted waters for capital markets and the economy at large. Sections 5.5 and 5.6 have presented the magnitude of the support programmes, both fiscal and monetary.

We asked the membership what they thought the consequences would be of this unprecedented drive of accommodative monetary policy and financial support.

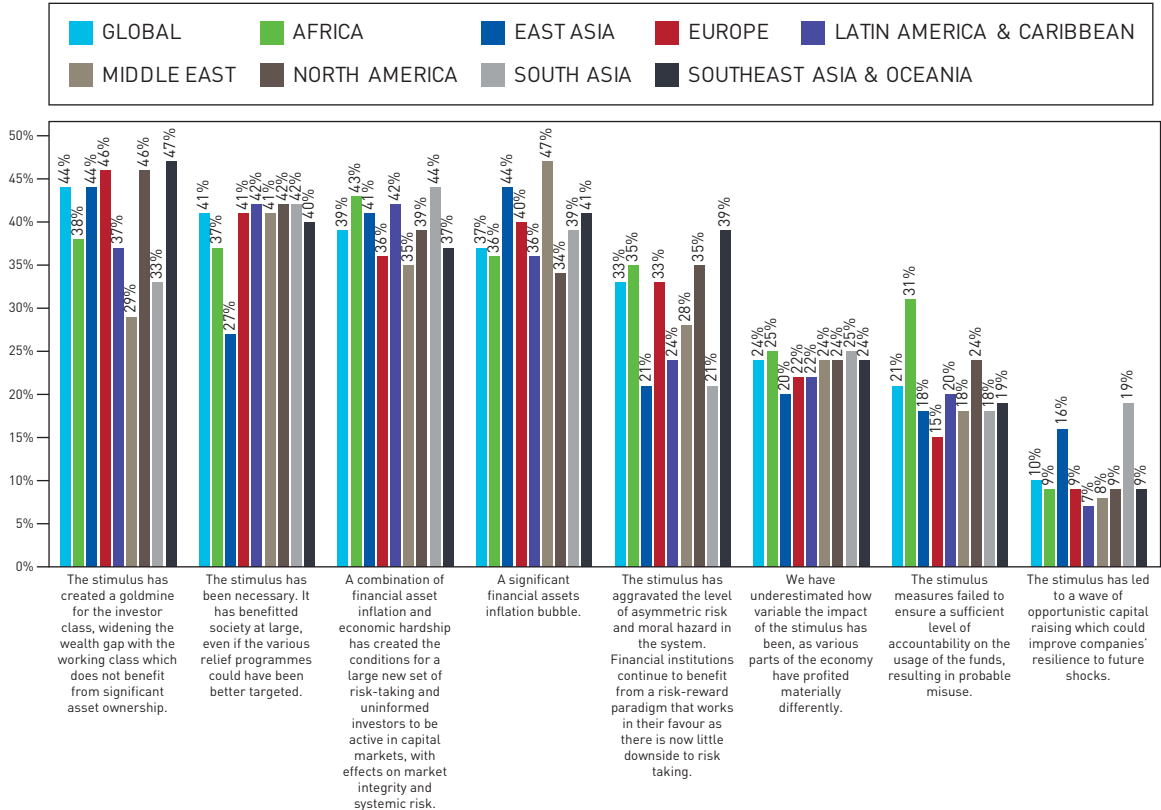
Figure 38 shows the results, presented in order of the responses chosen most often.

The "S" of ESG: The Paradox of Monetary Stimulus is that it may be Aggravating the Wealth Gap in Society

On this question, it behoves any financial analyst to consider the work of French economist and professor Thomas Piketty. In his seminal 2013 book *Capital in the Twenty-First Century*, Piketty critiques capitalism's tendency to generate inequality when the return on capital is higher than economic growth. His thesis is that the former has been consistently higher than the latter in advanced economies. As a consequence, Piketty argues that wealth inequality will rise in the future.

FIGURE 38. MEMBERSHIP SENTIMENT ABOUT THE CONSEQUENCES OF MONETARY POLICY AND FINANCIAL SUPPORT

What do you think the consequences of this unprecedented drive of accommodative monetary policy and financial support have been? (Select up to three)

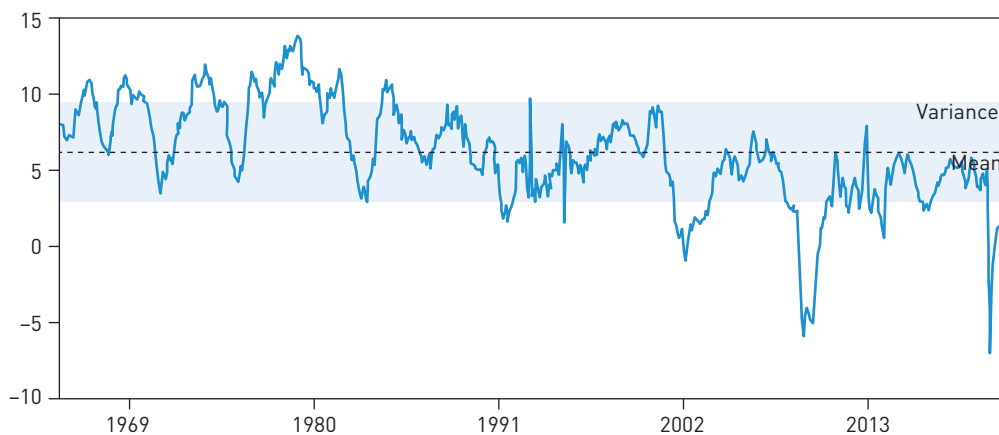


Note: "Other" response option not displayed.

Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

A historical look at wage growth statistics can provide a simple illustration of the trends observed in the return on labour over time. Figure 39 shows the evolution of wage growth in the United States since 1965. As can be seen in the chart, the trend is pointing downward and shows a growing frequency of monthly rates appearing under the mean and the lower half of the variance since the early 1990s.

FIGURE 39. EVOLUTION OF THE MONTHLY WAGE GROWTH IN THE UNITED STATES SINCE 1965 (IN %)



Source: Data from TradingEconomics.com, US Bureau of Economic Analysis.³⁹

In a research report released in July 2020, CFA Institute showed the result of a survey of the US membership on the stimulus programmes enacted by the administration and the Federal Reserve.⁴⁰ A most interesting conclusion was that a large majority of respondents had serious concerns about oversight and accountability of the stimulus programmes.

Seen differently, the question is about how those funds are actually being used and which economic agents are benefitting the most from taxpayer largesse.

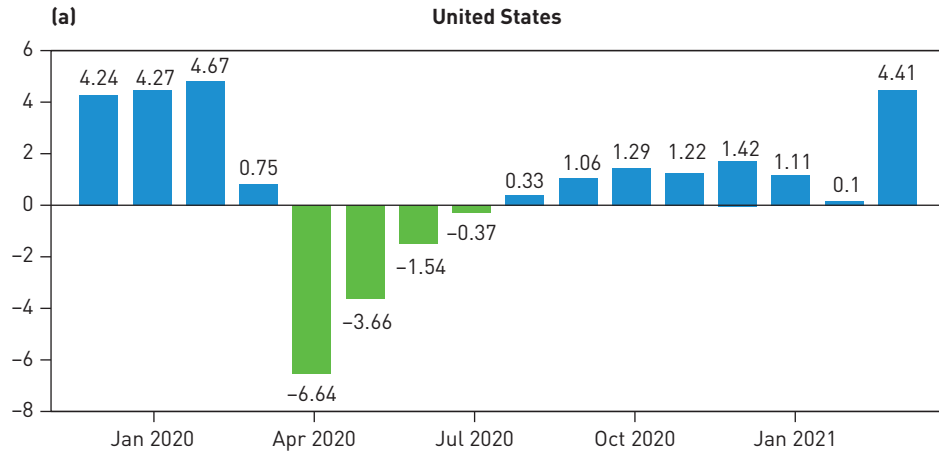
Figure 40 shows the same monthly indicator of wage growth presented this time since just before the 2020 crisis, in December 2019.

Figure 40 shows that wage growth has recovered since the severe slump observed in the spring of 2020. As noted in earlier chapters, however, this recovery has been much slower than that of equity markets.

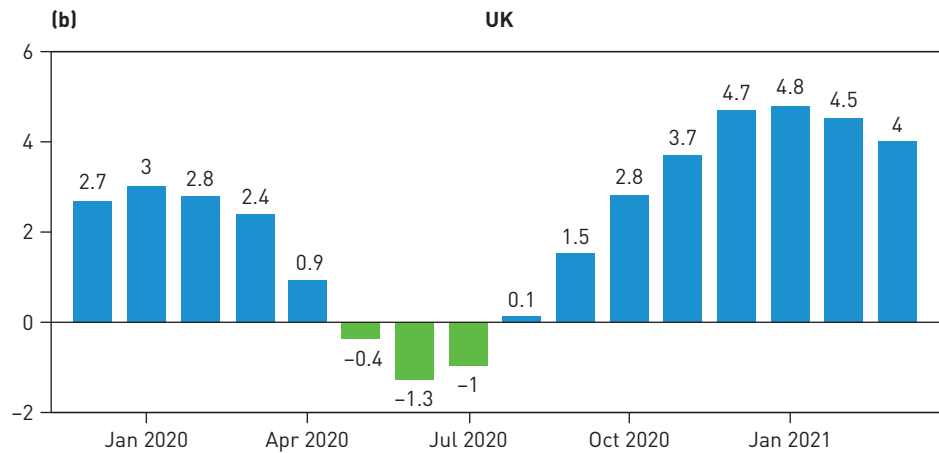
³⁹TradingEconomics, “United States Wages and Salaries Growth,” <https://tradingeconomics.com/united-states/wage-growth>.

⁴⁰See CFA Institute, *Survey Report for COVID-19 Stimulus Accountability—Commentary on CARES Act Funding* (Charlottesville, VA: CFA Institute, July 2020), <https://www.cfainstitute.org/research/survey-reports/covid19-stimulus-accountability>.

FIGURE 40. EVOLUTION OF THE MONTHLY WAGE GROWTH IN THE UNITED STATES AND THE UK SINCE DECEMBER 2019 (IN %)



Source: Data from TradingEconomics.com, US Bureau of Economic Analysis.⁴¹



Source: Data from TradingEconomics.com, Office for National Statistics.⁴²

⁴¹TradingEconomics, "United States Wages and Salaries Growth," <https://tradingeconomics.com/united-states/wage-growth>.

⁴²TradingEconomics, "United Kingdom Average Weekly Earnings Growth," <https://tradingeconomics.com/united-kingdom/wage-growth>.

Data from nongovernmental organisations Oxfam and the International Labour Organisation (ILO) provide useful statistics on the impact the 2020 crisis has had on workers (labour) as compared with the world's wealthiest individuals (capital).⁴³ Consider the following:

- Overall and global job losses in 2020 have resulted in a combined earnings loss of USD3.7 trillion.
- In turn, the combined wealth of the world's billionaires has increased by USD3.9 trillion from 18 March 2020 to the year-end.

A different angle on this question can be that of the impact on employment as such (Figure 41). A July 2020 study by the University of Chicago showed that the lowest-income group of workers in the United States had been hit the hardest by job losses,⁴⁴ even as all income group jobs have since been recovering steadily.

Against this background, the results from our survey seem to confirm the risk that stimulus measures may be having unintended socioeconomic consequences. These consequences need to be considered by authorities along the way toward a full recovery and as we design policies for future crises. The question of accountability and the targeted impact of measures should be addressed.

Some 44% of respondents overall agree that the stimulus has created a goldmine for the investor class, widening the wealth gap with the working class, as the latter does not benefit from significant financial asset ownership.

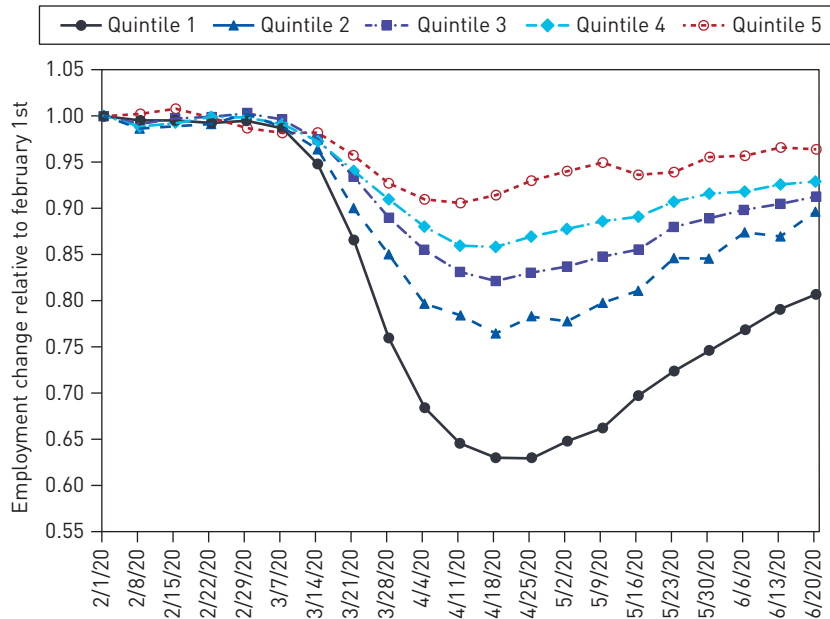
We observed the following regional and factorial variations:

- This problem appears to be more of an issue in advanced economies. Overall, advanced economies expressed this view 47% of the time, compared with 36% for emerging economies.
- In particular, the jurisdictions most worried about this problem are Switzerland (53%), the Netherlands (51%), Germany (51%), and the United Kingdom (50%).

⁴³See International Labour Organisation, "ILO Monitor: COVID-19 and the World of Work, Seventh Edition, Updated Estimates and Analysis" (ILO, Geneva, Switzerland, 25 January 2021).

⁴⁴See Tomaz Cajner, Leland D. Crane, Ryan A. Decker, John Grigsby, Adrian Hamins-Puertolas, Erik Hurst, Christopher Kurz, and Ahu Yildirmaz, "The U.S. Labor Market During the Beginning of the Pandemic Recession" (Working Paper No. 2020-58, Becker Friedman Institute, University of Chicago, July 2020), https://bfi.uchicago.edu/wp-content/uploads/HurstBFI_WP_202058_Revision.pdf.

FIGURE 41. EMPLOYMENT CHANGES BY INITIAL WAGE QUINTILE (BASE 1.00 IN FEBRUARY 2020)



Source: Becker Friedman Institute, University of Chicago (July 2020).⁴⁵

- Conversely, the nations least worried about this problem are Pakistan (23%) and Brazil (28%).
- We might want to be careful with how we word this since we do not take into account any other factors such as race for example. Also we are looking at a population in the finance industry which is not reflective of the population in general.

Although the Stimulus Measures Lacked Accountability and Targeting, they were Necessary

A large proportion of global respondents (41%) agree that the stimulus was necessary. They think that it has benefitted society at large, even if the various relief programmes could have been better targeted.

⁴⁵Cajner et al., “The U.S. Labor Market During the Beginning of the Pandemic Recession.”

As we discussed earlier, the membership is questioning the accountability of the programmes and the ability to measure their efficiency.

Globally, regions appear to have a homogeneous opinion on whether the stimulus measures were a necessity, although respondents in Africa and East Asia are exceptions as they show lower levels of agreement. In particular, China (24%) and South Africa (26%) have the lowest rates of agreement at a country level.

The Gamification of Capital Markets on the Impulse of Monetary Stimulus in the Context of an Economic Crisis

The GameStop and Robinhood saga has been amply commented upon, since the January 2021 run of the GME stock.

It is possible to view this market event as the confluence of a series of factors, some of which were already at play, while the 2020 crisis may have acted as a catalyst:

- The rise of financial technology makes it easier to engage in markets, even without financial literacy.
- The rise of low-cost or even zero-commission brokerage and trading reduces the complexity of the decision making from a theoretical and simple cost-benefit analysis standpoint.
- The 2020 crisis has resulted in significant economic hardship for the lower income classes, at least temporarily.
- The investor class has benefitted from monetary stimulus, which has lowered the costs of borrowing and helped maintain capital markets.
- These factors have resulted in further resentment towards banks and financial institutions, which are perceived to be benefitting from an asymmetry of risk.
- The rise of social media has made it possible and easy to coalesce the views of parts of the population on a particular project, which is then made possible through fintech.
- All in all, the gamification of capital markets is potentially changing the rules of price formation.

According to various market studies, gamification of trading was a market worth about USD6–7 billion in annual revenue in 2019 globally. The market is expected to rise to USD37 billion by 2027.⁴⁶

Our survey shows that 39% of respondents globally believe that a combination of financial asset inflation and economic hardship has created the conditions for a large new set of risk-taking and uninformed investors to be active in capital markets. This may have an impact on market integrity and systemic risk.

The regional variations are not drastic, but we do see that several emerging economies are more concerned about this trend than advanced economies. This concern could be related to the reduced level of access to banking services in the latter group. In fact, fintech has been a vector for better access to financial services in emerging economies, bypassing the traditional banking channel.

At a country level, the highest response rates expressing this concern are from respondents in Brazil (48%), India (48%), and Switzerland (44%). The lowest rates are from respondents in France (24%) and Australia (26%).

A Financial Asset Inflation Bubble

We discussed in other chapters how financial assets from specific economic sectors benefitted from the liquidity influx generated by the stimulus measures, perhaps in a manner that outpaced the real economy.

- Globally, 37% of respondents agree with the view that the current accommodative monetary policy and financial support measures have resulted in a significant financial asset bubble.
- The countries most worried about this development are China (51%), the Netherlands (49%), Singapore (45%), and Germany (45%).
- The countries least worried about this development are Pakistan (32%), Canada (33%), and the United States (34%).

⁴⁶See, for example, Market Research Report, June 2020, www.fortunebusinessinsights.com.

The Stimulus is Linked to the Asymmetry of Risk in the Financial System

The notion of the asymmetry of risk between financial institutions and individual taxpayers came to the fore in the 2007–2009 Global Financial Crisis. The current crisis and the monetary stimulus may be furthering this state of asymmetry.

Globally, 33% of respondents believe that the stimulus measures have aggravated the level of asymmetric risk and moral hazard in the system. They think financial institutions continue to benefit from a risk-reward paradigm that works in their favour because now there is little downside to risk-taking.

This issue will continue to unfold over the years and could affect the normal price formation mechanism as well as financial stability. As such, it should remain on the mind of policy makers and regulators.

Other Results

Other notable results include the following:

- Linked to the K-shape recovery, 24% of respondents globally agree that the impact of the stimulus has been variable across the economy and these effects are underestimated.
- Globally, 21% of respondents agree that the stimulus measures failed to ensure a sufficient level of accountability on the usage of the funds, resulting in probable misuse.

5.8 Regulators have done well in the Crisis: They Should now Consider Systemic Risk, Pension Viability, and Money Markets as Key Concerns

As we have discussed, the role of regulators has been a bit peculiar in this crisis. As such, the 2020 crisis did not materialise because of a fundamental imbalance in underlying financial conditions or a major dysfunction caused by a market event, such as a liquidity dislocation. The measures decided by governments to counter the health crisis are the root cause of the economic seizure and the resulting unrest in financial markets.

In such conditions, the role expected of prudential and conduct regulators has been a difficult one to determine.

As part of the first iteration of our research on the effects of COVID-19 (April 2020), we already had asked the membership what they thought regulators' role should be in this crisis and what they should be focusing on. The key results from one year ago include:

- A majority (50%) of respondents thought regulation on market conduct should not be relaxed to encourage trading and liquidity.
- A large majority (69%) thought regulators should take a proactive role and consult with firms on possible solutions to the crisis.
- A large majority (94%) thought regulators should focus on educating the public about the risk of fraud in times of crisis.
- A large majority (82%) thought regulators should focus on market surveillance and proceed with rulemaking and enforcement.

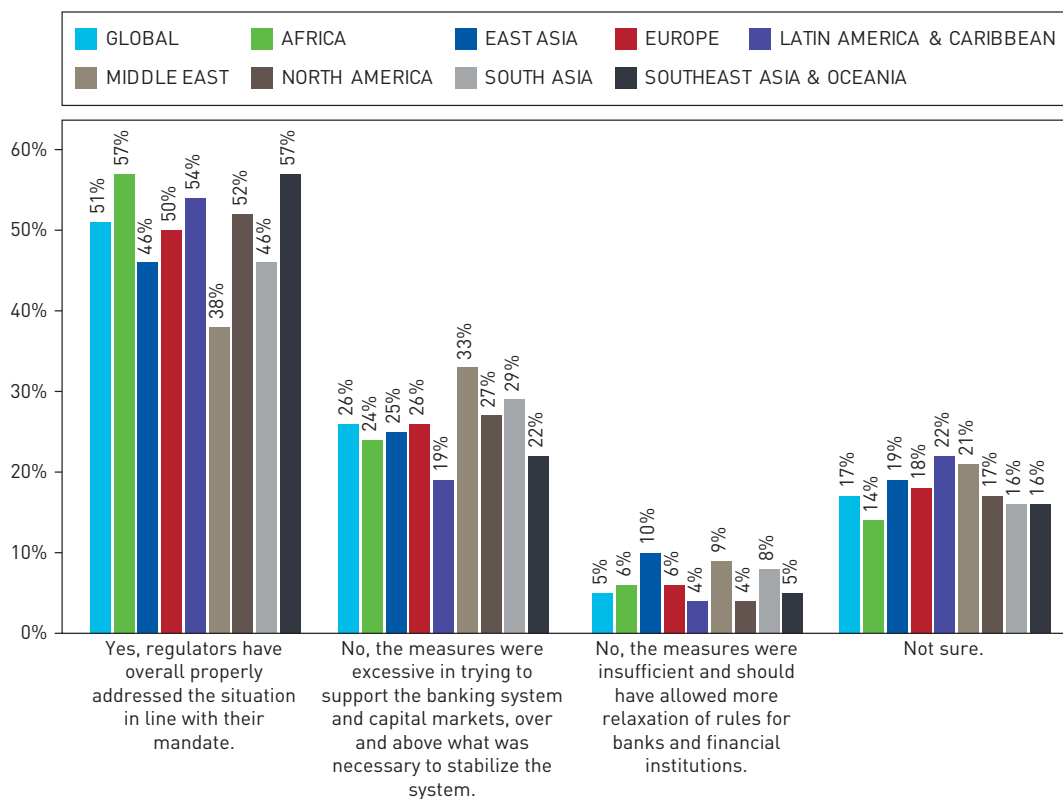
In reacting to the 2020 crisis, regulators have taken various actions depending on whether they were concerned with prudential risk (capital requirements and financial stability) or securities markets risk (market conduct).

- For prudential regulators, this has meant money market and short-term credit funding markets support, liquidity support, restrictions on dividends and share buybacks, temporary reliefs on bank capital requirements, postponement of stress testing, debt moratorium framework, and guidance on financial reporting.

- For securities markets and conduct regulators, this has meant guiding companies on financial reporting to take account of COVID-19 effects, focusing surveillance efforts and communication to investors on fraud risk, monitoring and reporting market risk (liquidity, stress testing), clarifying the conditions and scope for money market fund support, and monitoring credit rating trends.

FIGURE 42. MEMBERSHIP SENTIMENT ABOUT REGULATORY RESPONSE

Prudential regulators have included notably money market and liquidity support, temporary relief on capital requirements or the postponement of stress testing, while securities markets regulators have focused on financial reporting guidance, particular surveillance of fraud risk or also credit rating trends. Do you think this response was appropriate?



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

Has Regulators' Response been Appropriate to Address the 2020 Crisis?

In this March 2021 survey, we asked the membership if they thought regulators' response so far had been appropriate. Following are their responses (Figure 42).

A majority of respondents globally (51%) agree that, overall, regulators have properly addressed the situation in line with their mandate.

A minority of respondent globally (26%) globally think the measures were excessive in trying to support the banking system and capital markets, over and beyond what was necessary to stabilise the system.

An interesting result is the relatively high proportion of respondents (17%) who were unsure whether regulators properly addressed the situation. This response could indicate the continued uncertainty in the analysis of the crisis's impact and that of the authorities intervention. It could be interesting to measure if this response will change over a longer period of time, perhaps the next few years.

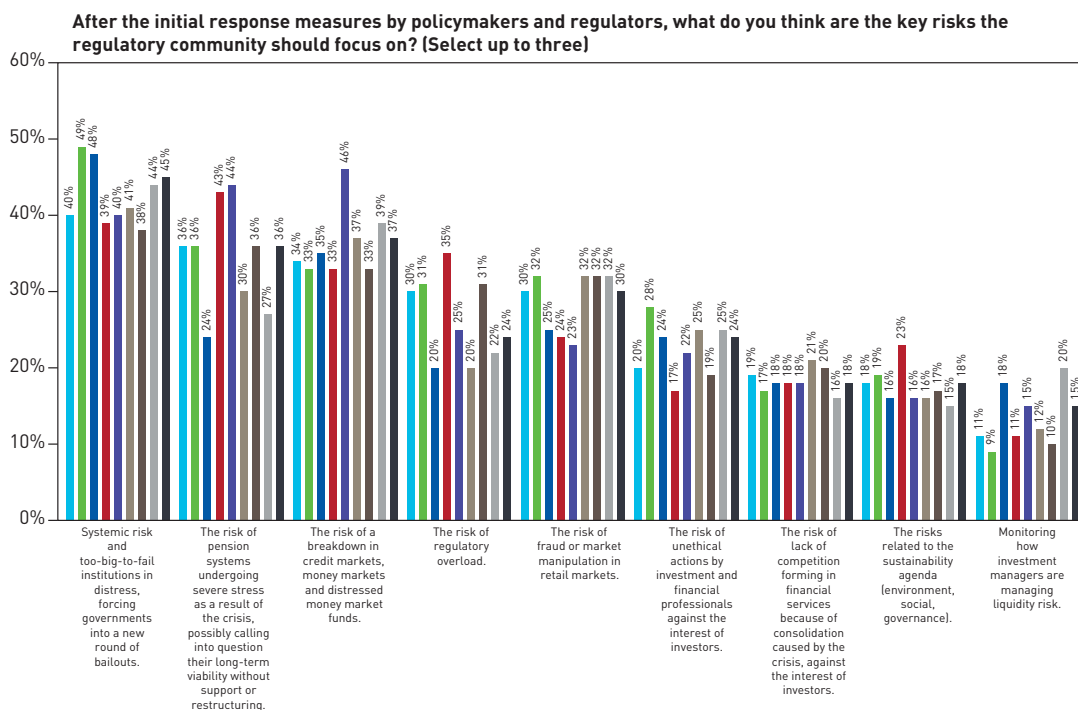
It is difficult to analyse with enough scrutiny the regional differences in these results, as local regulators have adapted their actions to their respective jurisdictions. A case in point may be that of the Middle East, which seems much more conservative about its views of response measures in their region, with 33% believing the regulators' intervention had been excessive. In November 2020, CFA Institute released a special report on the response measures in the MENA region (Middle East and North Africa),⁴⁷ which analysed regional variations. The report shows that the region has enacted a strong fiscal support response, even as compared with advanced economies in certain cases. This may have played a role in how respondents in the region answered the question, as they perhaps see structural risk rising (debt, inflation, corporate credit risk) as a result of the high level of public interventionism to support the economy.

What Key Risks Should Regulators be Focusing On?

The next question we asked the membership was to assess the key risks that regulators should now be focusing on, after their initial batch of response measures. Following are the results (Figure 43).

⁴⁷See Sviatoslav Rosov, "COVID-19 Response Measures in the MENA Region" (Advocacy FMI Series No. 1, CFA Institute, November 2020), <https://www.cfainstitute.org/advocacy/policy-positions/covid19-response-measures-in-MENA-region>.

FIGURE 43. MEMBERSHIP SENTIMENT ABOUT KEY REGULATORY RISKS



	Systemic risk and too-big-to-fail institutions in distress, forcing governments into a new round of bailouts.	The risk of pension systems undergoing severe stress as a result of the crisis, possibly calling into question their long-term viability without support or restructuring.	The risk of a breakdown in credit markets, money markets and distressed money market funds.	The risk of regulatory overload.	The risk of fraud or market manipulation in retail markets.	The risk of unethical actions by investment and financial professionals against the interest of investors.	The risk of lack of competition forming in financial services because of consolidation caused by the crisis, against the interest of investors.	The risks related to the sustainability agenda (environment, social, governance).	Monitoring how investment managers are managing liquidity risk.
GLOBAL	40%	36%	34%	30%	30%	20%	19%	18%	11%
AFRICA	49%	36%	33%	31%	32%	28%	17%	19%	9%
EAST ASIA	48%	24%	35%	20%	25%	24%	18%	16%	18%
EUROPE	39%	43%	33%	35%	24%	17%	18%	23%	11%
LATIN AMERICA & CARIBBEAN	40%	44%	46%	25%	23%	22%	18%	16%	15%
MIDDLE EAST	41%	30%	37%	20%	32%	25%	21%	16%	12%
NORTH AMERICA	38%	36%	33%	31%	32%	19%	20%	17%	10%
SOUTH ASIA	44%	27%	39%	22%	32%	25%	16%	15%	20%
SOUTHEAST ASIA & OCEANIA	45%	36%	37%	24%	30%	24%	18%	18%	15%

Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

We address the key results to this question in the order of their significance for the respondents.

Systemic Risk and "Too-Big-To-Fail" is Back on the Agenda

Perhaps surprisingly given the set of choices available, a plurality of respondents (40%) globally felt regulators should be concerned with the level of systemic risk and too-big-to-fail institutions in distress, which could force governments into a new round of bailouts.

Both the Financial Stability Board (FSB)⁴⁸ and the International Organisation of Securities Commissions (IOSCO)⁴⁹ have identified systemic risk of non-bank financial institutions as a key risk they would be focusing on as part of their current work programme. The issue of particular concern is the potential chain reaction effect of liquidity tension or default to materialise in a series of identified underlying vectors, including money market funds, open-ended investment funds, the dynamic at play with central clearing counterparties (including margining practices) and cross-border US dollar funding. IOSCO also adds specific details about the risks in corporate debt markets and leveraged finance as well as liquidity risk management practices in investment funds.

On this question, respondents in specific emerging economies (Africa and Asia) appear materially more worried than those in other regions. China (59%) and South Africa (52%) are the two jurisdiction most worried about this risk.

Conversely, the nations least worried about this risk are France (28%), United Arab Emirates (28%), and Switzerland (31%).

Pensions and Long-term Savings Could be Significantly Affected by the 2020 Crisis

The risk to long-term retirement savings to support people's needs has been difficult for governments and authorities to tackle, given by definition, its cross-generational nature.

⁴⁸See Financial Stability Board, *FSB Work Programme 2021* (Basel, Switzerland: FSB, 20 January 2021), <https://www.fsb.org/2021/01/fsb-work-programme-for-2021/>.

⁴⁹See International Organisation of Securities Commissions, "IOSCO Board Priorities: Work Program 2021-2022," 26 February 2021, <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD673.pdf>.

It is becoming clearer, however, that the ageing of population combined with a stagnation of the workforce numbers will necessitate strong policy actions to overcome this growing systemic issue.

In the European Union, the subject of retirement has become a major stake in the development of the Capital Markets Union (CMU). In its CMU Action Plan released in September 2020,⁵⁰ the European Commission clearly identifies the need to raise people's awareness on this question (Action n.9) and to monitor the development of a third pillar of long-term retirement planning through individualised savings and targeted investment products.

The impact of the 2020 crisis on pensions and long-term savings plans is not yet clear, but it should be monitored. Important factors will include the effect of monetary stimulus on inflation and interest rates, transforming or challenging the typical logic of a sound 60–40 allocation to equities and bonds as a reasonable choice to attain long-term objectives. Another structural issue is the rise of public deficits and the effect this may have on governments' capacity to keep pay-as-you-go systems sustainable with or without structural reforms.

Globally, 36% of respondents agreed that regulators should focus on the risk of pension systems undergoing severe stress as a result of the crisis, possibly calling into question their long-term viability without support or restructuring.

The regional variations on this question are not evident.

European nations, however, did appear among the list of those most worried about this risk, with Switzerland (59%), Germany (46%), and France (44%) expressing the most concern. Brazil (44%) also showed a reasonably high degree of concern for this risk.

Short-term Credit Funding Markets are a Continued Worry in Times of Stress

On 12 April 2021, the Systemic Risk Council (SRC, sponsored by CFA Institute) authored a letter to the US Securities and Exchange Commission (SEC) to respond to the SEC's request for comment on potential money market fund reform measures in the

⁵⁰See European Commission, "Capital Markets Union 2020 Action Plan: A Capital Markets Union for People and Businesses, 24 September 2020, https://ec.europa.eu/info/business-economy-euro/growth-and-investment/capital-markets-union/capital-markets-union-2020-action-plan_en.

President's Working Group report. In its preamble assessment of the situation, the SRC wrote:

A decade ago, after the federal government had rescued the money-fund industry, the Systemic Risk Council (SRC) strongly urged the Securities and Exchange Commission (SEC) to act to ensure money funds did not again jeopardize financial stability. Some measures were taken. Within a decade, along with other parts of finance, the industry has been rescued again—this time during the market volatility and disorder of March 2020, when the implications of COVID-19 were suddenly grasped. It turns out that taxpayer bailouts were not a once in a lifetime event but, rather, twice in a generation, so far. This is not a sensible course if financial services are to find a sustainable, legitimate place in the market economy.⁵¹

The respondents to our survey appear to agree that credit and money markets present a systemic problem for regulators.

Globally, 34% support the view that regulators should focus on the risk of a breakdown in credit markets, money markets, and distressed money market funds.

The regional results were reasonably homogeneous, yet some nations stood out. The jurisdictions most worried about this risk are Brazil (47%), Australia (44%), and China (42%).

Regulatory Overload Should be Considered as a Potential Risk as we Emerge from the Crisis

Globally, 30% of respondents have expressed the view that they were worried about the risk of regulatory overload.

This view was particularly shared in Europe, with 35% agreeing in the region. The jurisdictions expressing the highest level of worry about this point are the Netherlands (52%), Germany (39%), and Switzerland (37%).

⁵¹See SRC, "Systemic Risk Council Responds to the SEC Consultation on Reform of Money Funds and Other Open-Ended Funds," The Systemic Risk Council, 12 April 2021, <https://www.systemicriskcouncil.org/2021/04/systemic-risk-council-responds-to-securities-and-exchange-commission-consultation-on-reform-of-money-funds-and-other-open-ended-funds/>.

On this question, a divide by sex is worth mentioning: 31% of male respondents have expressed a concern about regulatory overload, in line with the global average, whereas only 23% of female respondents shared this concern.

Sustainability is not Identified as a Key Risk Regulators should Focus on

This result about sustainability could sound surprising, given the media and industry focus about ESG. It also comes, however, as a counterbalance to the respondents' answer to the question about the structural consequences of the crisis, to which 40% agree that ESG products will dominate the financial landscape within 10 years as part of the Build Back Better movement.

Only 18% globally agree that regulators should focus on the risks related to the sustainability agenda (ESG).

In other words, one could interpret these results as follows. Respondents seem to recognise that the rise of ESG products is structural and will gradually shape the financial industry. Yet, they do not think that sustainability is a key risk for regulators.

Perhaps unsurprisingly, Europe stands out on this question, as 23% of respondents in the region have identified this option as a key risk for regulators. In particular, the Netherlands (31%) and France (30%) selected this response most often.

At the other end of the spectrum, jurisdictions least concerned about this risk are China (12%), India (12%), and Brazil (12%).

Other Notable Results Include the Following:

- 30% of global respondents agree the risk of fraud in retail markets is significant. This is particularly true in the United Arab Emirates (44%) and Canada (36%).
- 20% of global respondents agree the risk of unethical actions by investment professionals is a concern. This is particularly true in the United Arab Emirates (53%).

In this respect, the United Arab Emirates is showing a disproportionate level of concern for risks that are related to professional ethics and fraud affecting retail investors in times of crisis.

5.9 Corporate Credit Risk has been Affected by the Crisis: How Investors need Better Forward-looking Information in their Impact Analysis

For this second edition of our analysis of the effects of the COVID-19 crisis, we wanted to assess member perception of the corporate sector. We took two perspectives:

- Credit risk and whether the crisis would have an effect
- Financial reporting and the information that matters to investors in a crisis context

We asked our members about those two dimensions as part of the survey.

The Consequences of the Crisis on Corporate Credit Default Risk Should be Considered by Authorities

We already had reported in the first study on the evolution of credit risk as measured through corporate spreads. At the time, in May 2020, we were showing that credit risk had risen sharply in February and March 2020, before receding quickly on the impulse of government intervention and monetary stimulus, which were aimed at avoiding a credit dislocation.

This picture is now getting confirmed, as we observe market behaviour as of mid-May 2021. In effect, the level of credit risk priced by the market has mirrored the intervention of authorities.

Figures 44 and 45 present the evolution of credit risk as measured using the ICE Bank of America (BofA) US Corporate Index Option-Adjusted Spread (OAS) indicator. The values represented on the charts are the calculated spreads between a computed OAS index of the rating category we are interested in and a spot Treasury yield curve. In this case, we are considering bonds that represent US dollar-denominated investment grade corporate debt publicly issued in the US domestic market.

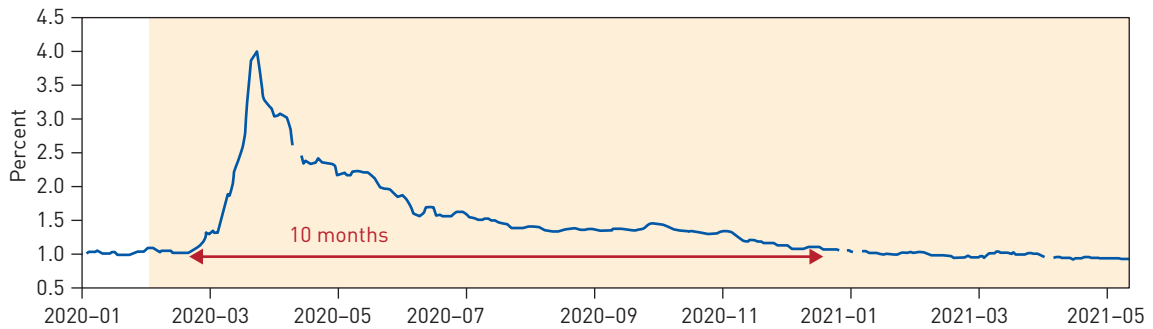
Figure 45 shows the swiftness of markets' reaction to the countermeasures of monetary authorities. The return to pre-crisis levels was quicker than for the 2008 crisis, even considering the fact that the magnitude of the stress on credit markets was lower.

FIGURE 44. ICE BOFA US CORPORATE INDEX OAS, SINCE DECEMBER 2006 (IN %)



Source: Data from Federal Reserve Economic Data (FRED), ICE Data Indices LLC.⁵²

FIGURE 45. ICE BOFA US CORPORATE INDEX OAS, SINCE DECEMBER 2019 (IN %)



Source: Data from Federal Reserve Economic Data (FRED), ICE Data Indices LLC.⁵³

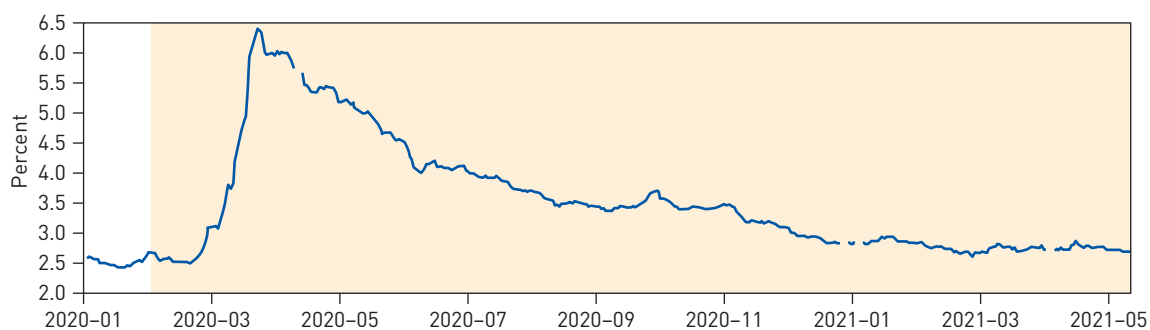
Figure 46 shows a similar picture for emerging markets, in this case using an index that measures investment grade and non-investment-grade issuances outside of the G-10 economic group.

In this context, we asked our global membership if they thought the risk of corporate credit default had changed in their respective markets over the short (1-3 years), medium (5 years), and long term (10 years). Table 2 shows the results.

⁵²FRED, “ICE BofA US Corporate Index Option-Adjusted Spread,” <https://fred.stlouisfed.org/series/BAMLC0A0CM>.

⁵³FRED, “ICE BofA US Corporate Index Option-Adjusted Spread,” <https://fred.stlouisfed.org/series/BAMLC0A0CM>.

FIGURE 46. ICE BOFA EMERGING MARKETS CORPORATE PLUS INDEX OAS, SINCE DECEMBER 2019 (IN %)



Source: Data from Federal Reserve Economic Data (FRED), ICE Data Indices LLC.⁵⁴

TABLE 2. MEMBERSHIP SENTIMENT ABOUT THE RISK OF CORPORATE CREDIT DEFAULT

In your opinion, what has happened to the risk of corporate credit default at companies in your market over the following time periods?

		Global	AFRICA	EAST ASIA	EUROPE	LATIN AMERICA & CARIBBEAN	MIDDLE EAST	NORTH AMERICA	SOUTH ASIA	SOUTHEAST ASIA & OCEANIA
Short term (1-3 years)	Increased	56%	81%	65%	69%	77%	84%	44%	72%	65%
	Stayed the same	23%	16%	22%	17%	17%	10%	27%	17%	23%
	Decreased	21%	3%	13%	14%	6%	6%	29%	11%	13%
Medium term (5 years)	Increased	43%	54%	36%	51%	53%	59%	40%	39%	37%
	Stayed the same	50%	41%	57%	45%	41%	35%	51%	55%	56%
	Decreased	7%	6%	7%	5%	6%	6%	9%	6%	7%
Long term (10 years)	Increased	32%	35%	23%	30%	33%	36%	35%	25%	21%
	Stayed the same	58%	55%	63%	62%	54%	56%	56%	62%	63%
	Decreased	10%	10%	15%	9%	13%	8%	9%	13%	17%

Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

⁵⁴FRED, "ICE BofA Emerging Markets Corporate Plus Index Option-Adjusted Spread," <https://fred.stlouisfed.org/series/BAMLEMCBPIOAS>.

It is interesting to see that members appear to factor greater credit default risk in the short term than in the medium and longer term, in all markets. A majority of 56% globally thinks credit default risk has increased in the short term, compared with 43% over the medium term and 32% over the longer term.

On this question, emerging economies show more concern in general over credit default risk in the short term than advanced economies. The jurisdictions where this concern is the highest are the United Arab Emirates (89%), China (77%), South Africa (76%), India (70%), and Brazil (69%). The regions least worried are the United States (41%), Japan (46%), Australia (51%), and Canada (52%).

The medium- and long-term pictures progressively normalise the viewpoints on credit risk across markets. The global view that credit default risk is staying the same increases from 23% in the short term, to 50% in the medium term, and then to 58% in the long term. This could indicate that, globally and overall, members expect markets to gradually normalise and stabilise. It could be interesting to further analyse the actual reason for this view, whether it is because of monetary policy or market forces.

We also identified an apparent correlation between the view that corporate credit default risk will increase in the short term and the following two factors:

- A pessimistic view of the economic recovery (Section 5.1)
- A higher level of concern over volatility as a driver of changes to asset allocation and investment decisions (Section 5.2)

Corporates Should Report more Forward-looking Information to Reflect the Impact of the Crisis on Anticipated Results

Financial reporting is an important aspect we wanted to consider as part of our analysis of the 2020 crisis's impact on capital markets.

Given the potentially profound consequences of the crisis and the stimulus measures on economic conditions and the performance of companies, it is important to assess if investors and our members can obtain the information they need to conduct their analysis.

The International Accounting Standards Board (IASB) has released a series of guidance, commentaries, and advice pieces on how to apply various IFRS Standards in this time of crisis. Notably:

- On IFRS 9—Financial Instruments, in March 2020, IASB clarified the requirements companies should be considering as regards the crisis’s effect on how they account for expected credit losses (ECL).⁵⁵
- On IFRS 16—Leases, in May 2020, IASB established that lessees do not need to reassess their leasing contracts for accounting purposes where a lessor varies lease payments to take account of the pandemic, which would ease the burden on lessees.⁵⁶
- IASB also released an article in October 2020 that summarised the financial reporting considerations the organisation recommended for preparers, auditors, investors, and regulators as part of the complex situation caused by the COVID-19 crisis.⁵⁷ The article was written following an interdisciplinary panel discussion, “Applying IFRS Standards in 2020—Impact of COVID-19,” which took place in September 2020. The key points the panel focused on were as follows:
 - What entities need to consider when developing assumptions in preparing financial statements in times of heightened uncertainty.
 - What information should be disclosed about the assumptions used.

The key messages included the following:

- Users of financial statements (users) expect entities to base their estimates in financial statements on assumptions consistent with management’s expectations of business performance and the operating environment at the reporting date.
- These assumptions should be developed using reasonable and supportable information available to management.
- Users expect transparency into the key assumptions used. Entities should provide unbiased and clear information about the key assumptions.

⁵⁵See IFRS, “IFRS 9 and COVID-19—Accounting for Expected Credit Losses Applying IFRS 9 Financial Instruments in the Light of Current Uncertainty Resulting from the COVID-19 Pandemic,” 27 March 2020, <https://cdn.ifrs.org/content/dam/ifrs/supporting-implementation/ifrs-9/ifrs-9-ecl-and-coronavirus.pdf>.

⁵⁶See IFRS, “COVID-19-Related Rent Concessions beyond June 2021,” 31 March 2020, <https://www.ifrs.org/news-and-events/news/2021/03/iasb-extends-support-COVID-19-related-rent-concessions/>.

⁵⁷See IFRS, “Applying IFRS Standards in 2020—Impact of COVID-19,” *In Brief*, October 2020, <https://www.ifrs.org/content/dam/ifrs/news/2020/inbrief-covid19-oct2020.pdf>.

We designed our questions to our members in part based on such considerations.

In turn, the International Auditing and Assurance Standards Board (IAASB) released a publication in May 2020, to alert auditing firms of the potential impact of the crisis on their audit review and what they should be focused on. In particular, the document highlights the following aspects:

- Modification of audit opinion in case of misstatement or if information is deemed insufficient.
- Uncertainty related to going concern.
- Inclusion of key audit matters.

Also noteworthy, in April 2020, the International Organisation of Securities Commissions (IOSCO) released a statement re-establishing the importance of high-quality accounting standards and the importance of their proper application in times of crisis.⁵⁸ The organisation was keen to reassert the link between investor trust, investor protection and quality reporting by companies:

“The application of accounting standards must result in issuers providing clear, reliable, transparent and useful information to allow investors to make informed investment decisions.”⁵⁹

In its statement, the organisation was keen to encourage firms to consider the effects from governmental economic relief programmes on the measurement of credit risk.

In this context, we asked our membership which areas of financial reporting they thought regulators should encourage more granularity or more detailed information, as a response to the crisis. Following are the results (Figure 47).

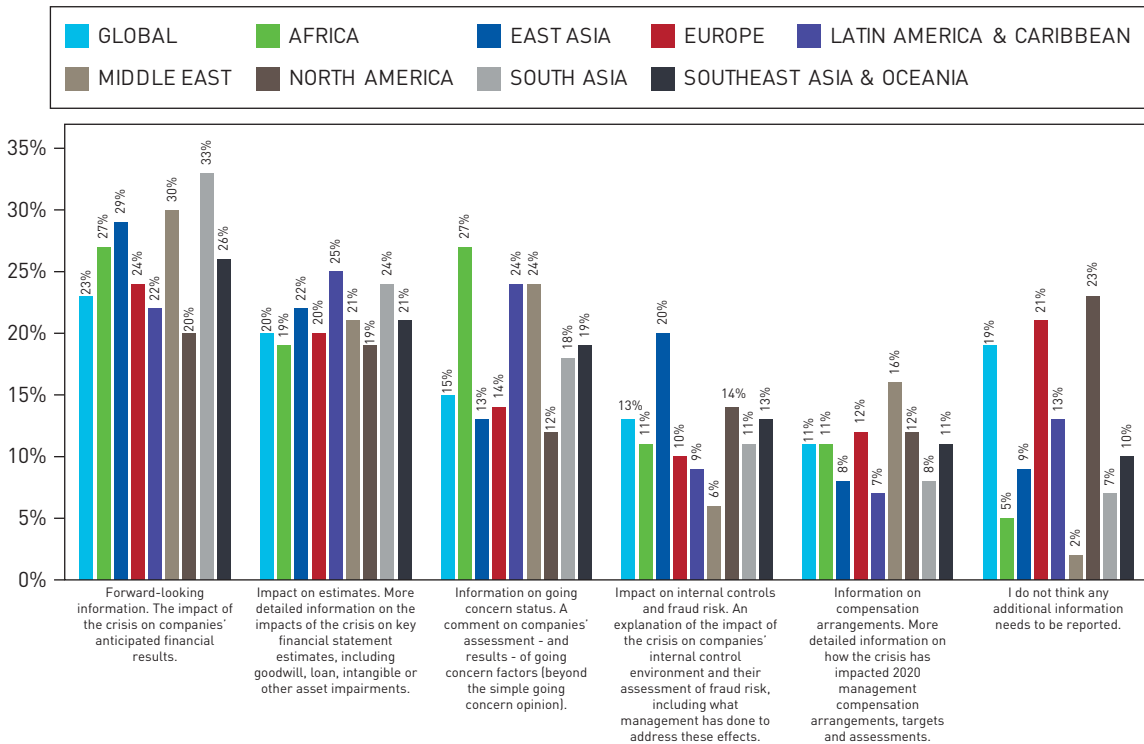
The results do not show a definite winner in terms of an area that should warrant more attention as such. Yet, there appears to be a hierarchy:

⁵⁸See IOSCO, “Statement on Application of Accounting Standards during the COVID-19 Outbreak,” media release, 3 April 2020, <https://www.iosco.org/news/pdf/IOSCONEWS561.pdf>.

⁵⁹See IOSCO, “Statement on Application of Accounting Standards during the COVID-19 Outbreak.”

FIGURE 47. MEMBERSHIP SENTIMENT ABOUT KEY AREAS OF FINANCIAL REPORTING

As it relates to financial reporting, given the impact of COVID-19 and considering the information you have seen reported by companies to date, please select the area where you think regulators should encourage further information be provided to investors:



Source: CFA Institute Global Member Survey, COVID-19, One Year Later (March 2021).

- 23% of respondents globally agree that forward-looking information is the most important aspect to focus on, which would help assess the impact of the crisis on companies' anticipated financial results.
- 20% think that the priority should be to disclose the impact on estimates, including goodwill, loan, intangible or other asset impairment.

- 15% want to prioritise the information on going-concern status. This choice presented a clear dichotomy between emerging and advanced economies. The keenest jurisdictions on this option were usually found in Africa, Latin America, Middle East and Asia. One notable exception here is France (29%), which stood out from other European nations.
- 13% globally want to prioritise internal controls and fraud risk.
- 11% globally want to prioritise information on compensation arrangements, as they demand more details of how the crisis has impacted 2020 compensation arrangements, targets and assessments.

Interestingly, a relatively high proportion of 19% do not feel any additional information was warranted by the crisis. In particular, this view was held by advanced economies in Europe and North America. At a country level, the jurisdictions who express this opinion most often are Switzerland (36%), Netherlands (28%), and the United States (25%).

6. Conclusion

With this second research paper on the effects of the COVID-19 crisis, CFA Institute has endeavoured to use the expertise of its membership to illustrate the important learning outcomes most notable for the investor community, regulators, and policy makers.

CFA Institute wishes to play its role as a trust-worthy intermediary between its core constituency of market practitioners and the policymaking sphere that designs the system of rules within which the investment industry operates. A crisis like we witnessed in 2020 forces the various actors of financial markets to consider how this system of rules and practices is being affected and to evaluate whether adjustments are necessary to make it more resilient to future situations of stress.

We also want to caution policy makers to avoid underestimating the potential unintended consequences of changes to public policy, monetary policy, and fiscal policy. These consequences also should be considered from the perspective that different regions around the world and different socioeconomic categories have experienced the crisis sometimes in materially different ways.

In this study, the themes that we have approached were all related, ultimately, to the role that financial markets play in their interaction with the economy, its diverse agents and the wider society, which stands at the core of the overarching mission of CFA Institute: “to lead the investment profession globally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of society.”

These key themes were as follows:

- To monitor how the economy is recovering from the crisis and whether there will be imbalances to consider from various regional and socioeconomic perspectives.
- To determine whether equity markets were out-of-sync with the real economy and whether volatility had forced portfolio managers to adjust their asset allocation.
- To have a view on inflation and whether it could affect the course of monetary policy.
- To consider the potential structural consequences of the crisis on the economy.
- To discuss the financing of economic relief programmes.

- To address the unprecedented nature of the monetary stimulus committed by central banks and the potential socioeconomic consequences of those measures.
- To analyse how regulators have reacted to the crisis, their actions, and the key risks that they should now focus on.
- To scrutinise the impact of the crisis on corporates, default risk, and financial reporting priorities.

7. Appendix 1. Survey Demographics

FIGURE A1-1. RESPONDENT GEOGRAPHIC DISTRIBUTION

RESPONDENT DISTRIBUTION

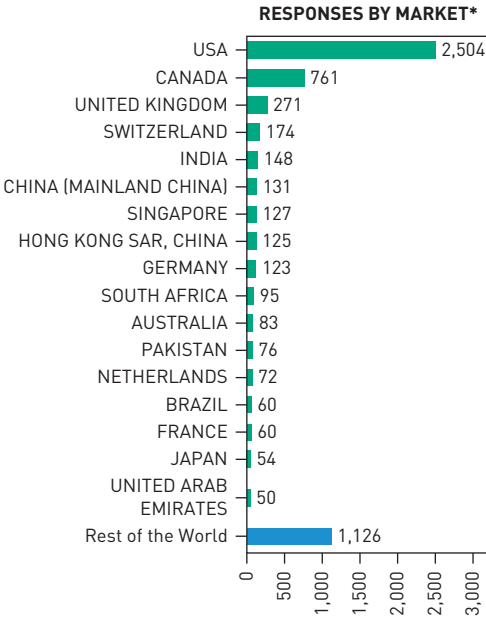
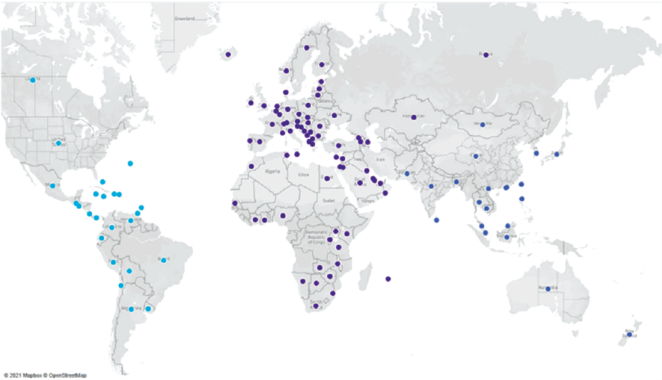


FIGURE A1-2. RESPONDENT DISTRIBUTION BY OCCUPATION TYPE

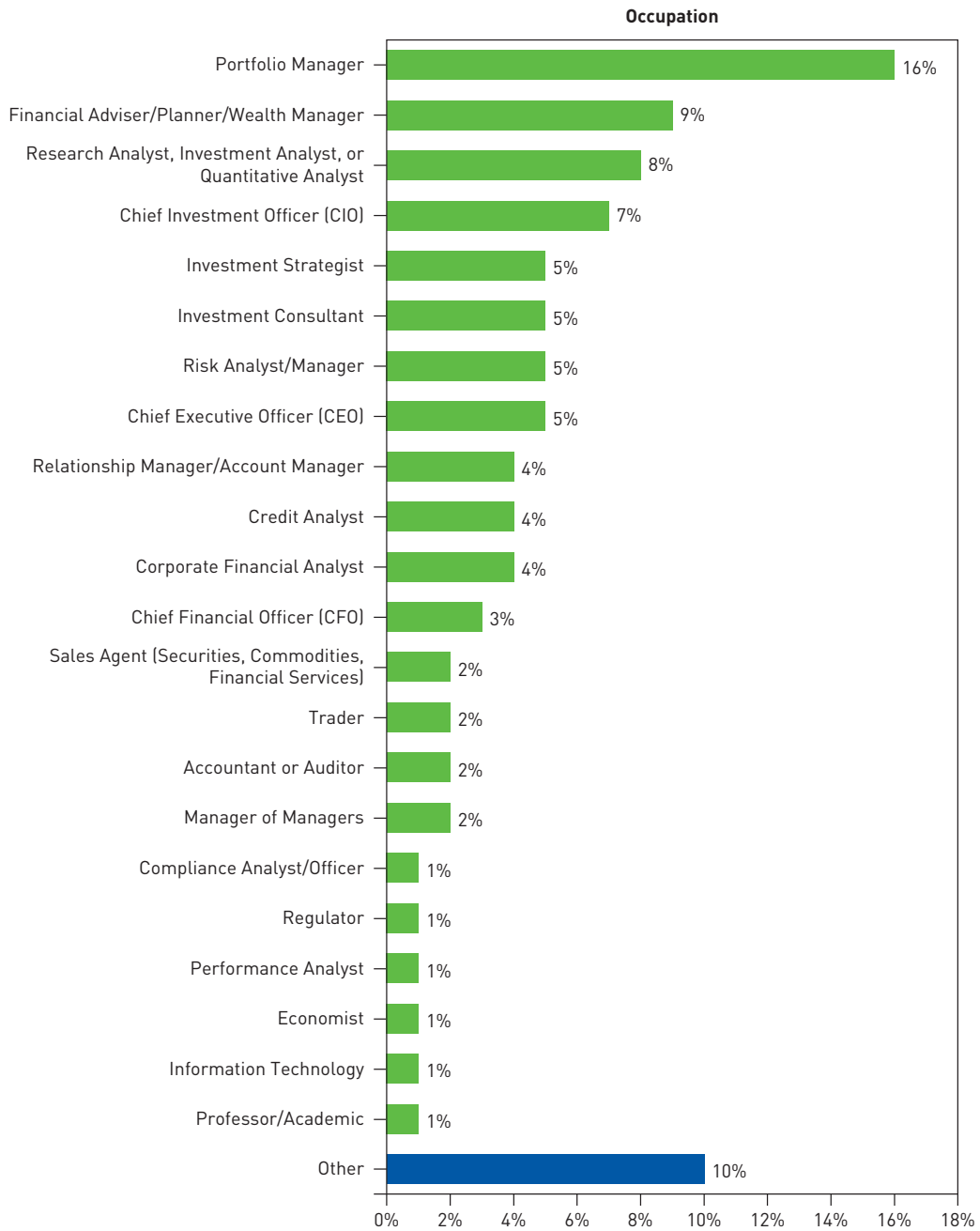


FIGURE A1-3. RESPONDENT DISTRIBUTION BY FIRM TYPE AND SIZE

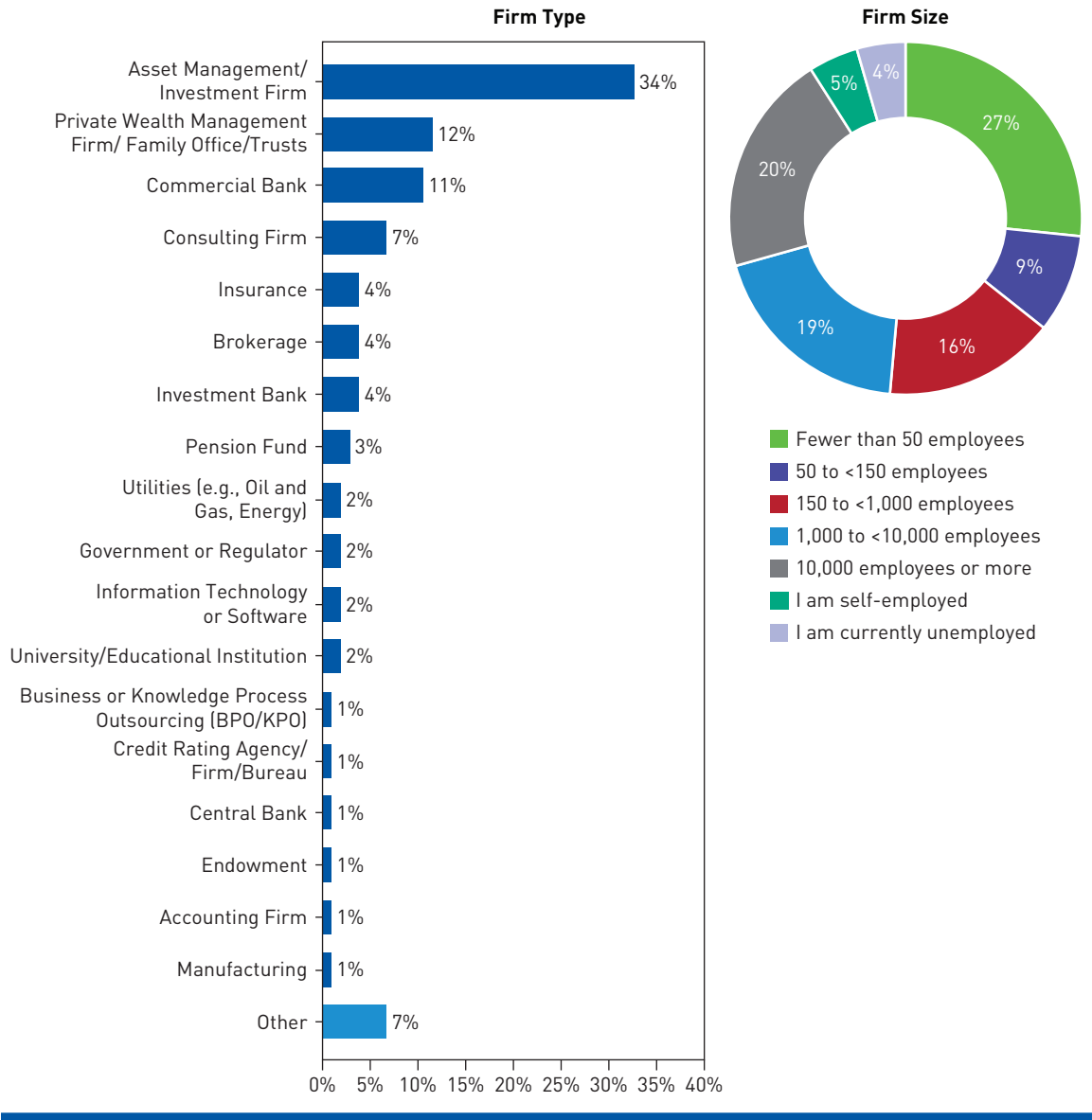
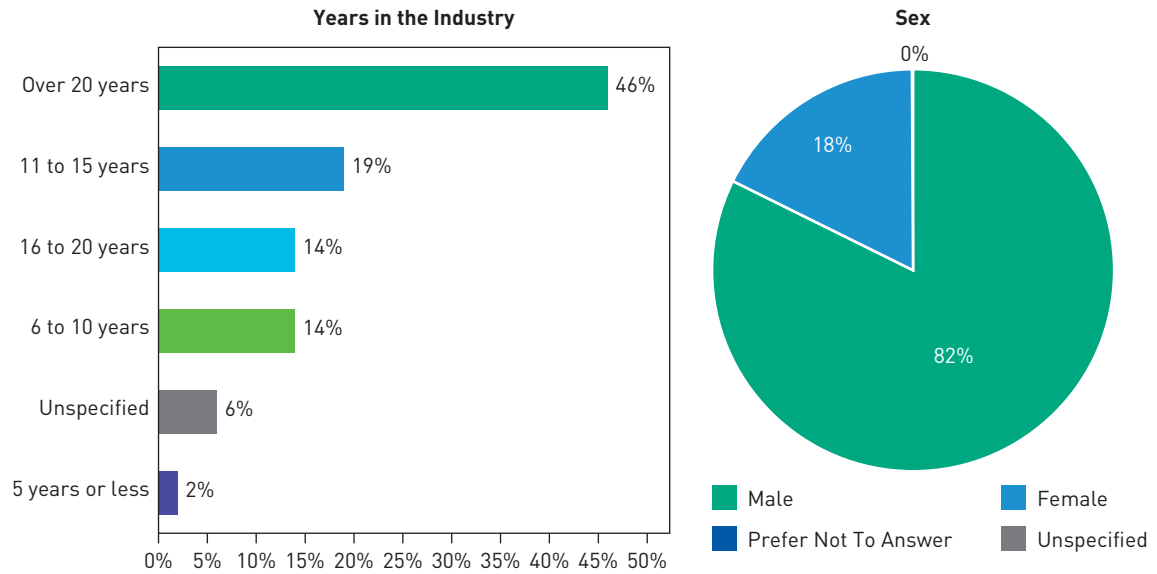


FIGURE A1-4. RESPONDENT DISTRIBUTION BY TENURE AND SEX



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