#9 / July 2020

PENSION FUNDS LETTER

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Amundi ASSET MANAGEMENT

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Thierry ANCONA
Deputy Head of Institutional and Corporate Clients Coverage & Co-Head of Treasury business line at Amundi

EXECUTIVE SUMMARY

The Covid-19 crisis: two sides of the same coin for pension funds

From a long-term investment perspective, the unprecedented global crisis caused by the Covid-19 pandemic brings along both challenges and opportunities, which constitute two sides of the same coin for institutional investors such as pension funds.

Beyond the unavoidable market turmoil, the Covid-19 crisis will impact the future macroeconomic and societal state of the world, with tremendous implications for asset owners. From an economic point of view, they will need to adapt to a new era, characterised by the comeback of Central Banks' Quantitative Easing programmes, the increase of inflation volatility, if not inflation itself, and the threat of "deglobalisation". From a societal perspective, institutional investors will have to cope with the numerous uncertainties surrounding the low-carbon transition and the struggle against global inequalities.

To face all these challenges, pension funds and other institutions should equip themselves with the right investment tools. In particular, they should increase their allocation to bonds eligible for Central Banks' purchase programmes and boost their share of inflation-hedged securities. Last but not least, whatever the realised scenario for the low-carbon transition and for inequalities, institutional investors ought to intensify their commitments towards responsible investment by integrating climate and social risks into their investment frameworks and allocating more assets towards ESG funds, which have proven to be very resilient during the pandemic.

However, the coin of the Covid-19 crisis has another side, which pension funds could exploit to seize investment opportunities, in both the short and long-term. From a conjunctural standpoint, they may take advantage of credit risk premia embedded in the significant credit spread widening that has materialised during the crisis. By doing so, they would be able to hedge, at least partially, the negative outcome of the market turmoil on both sides of their balance sheet, especially if they abide by the IFRS or US GAAP frameworks. From a more structural perspective, the Covid-19 crisis also constitutes a source of opportunities for institutional investors with a long-term investment horizon. As far as asset classes are concerned, they may find interest in investing in European real estate securities in order to capitalise on their defensive features, including their ability to dampen volatility and bring portfolio diversification. When it comes to portfolio construction, pension funds might also harness the pandemic to fundamentally revisit their investment framework, moving from a traditional Strategic Asset Allocation model (SAA) towards a more agile Total Portfolio Approach (TPA). While this switch requires new skills and a profound change in governance, it will enable asset owners to better apprehend the complex environment driven by the Covid-19 situation.

Pascal BLANQUÉ
Group Chief Investment Officier

Jean-Jacques BARBÉRIS
Head of institutional and Corporate Clients Coverage

Sponsors of the new series of paper entitled "The Day After".

> *"Covid-19 is the perfect storm leading us towards a new era over the long run, but with some short-term implications in the meantime."*
>
> **Pascal Blanqué**

The post-Covid-19 world: what can be expected in the long run?

Covid-19 came as a completely unexpected and utter shock to ill-prepared societies, health systems, economies and governments worldwide. Even in business as usual periods, it is vital for long-term investors to perform forward-looking exercises and imagine how the world could look like in three, five or 10 years. In the critical circumstances we are currently living in, however, this kind of exercise becomes paramount. Leaders in the investment world (and outside of it) will need to make key choices that will end up having a profound influence on how the post-Covid world looks like.

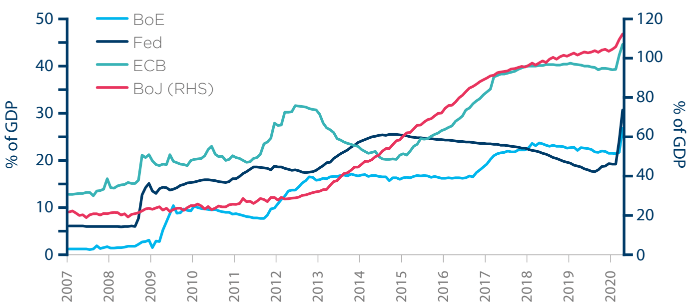
I. THE ECONOMIC PERSPECTIVE

a. Central banks' ammunition is far from being exhausted

One of the first monetary policy-related realisations to emerge from the pandemic is that central banks' leeway to deploy measures is far from limited, contrary to what some had previously thought.

The further reduction, when feasible, of interest rates and the reintroduction of quantitative easing (QE) policies were among the first measures undertaken by these institutions to support economies deeply impacted by the pandemic. Equipped with more flexibility than governments, central banks reacted quickly and extensively, with exceptional increases in the size of their balance sheets. Remarkably, some even implemented unprecedented policies, such as the decision from the Federal Reserve (Fed) to include "fallen angels", bonds that had slumped from investment grade to junk, in its asset purchase programme.

Graph 1: CB balance sheets, as a share of GDP



Source: Amundi, Bloomberg. Data as of 27 May 2020.

QE is a big umbrella that covers different kinds of policy measures, namely the "original" QE, i.e., public debt monetisation, the "fiscal" QE, i.e., the purchase of private sector securities (mainly corporate bonds but potentially also equities), and helicopter money, i.e., direct transfers from central banks to private economic agents. The last is perhaps the most controversial type of QE and has traditionally been considered an "economic taboo", but it is already a reality in Hong Kong, Singapore and the US, where the fear of delays in processing unemployment benefit claims brought about support for the measure[1].

In the long run, central banks are expected to continue with their extensive asset purchase programmes and to keep interest rates low as they aim to support governments in their fiscal expansion.

As unconventional monetary policies become more and more conventional, central banks will start exploring new horizons. These could include yield curve control (YCC), as implemented by the United States in the aftermath of the Second World War (WWII), or deeply negative interest rates, which have not been attempted in recent times by any central bank. The latter, commonly known as negative interest rate policies (NIRP), are outright rejected by many institutions, primarily the Fed, but they have the support of some economists and could eventually unfold if all other measures prove ineffective.

1. https://www.ft.com/content/abd6bbd0-6a9f-11ea-800d-da70cff6e4d3

Moreover, a full monetisation of debt, whether implicit or explicit, could materialise, with the potential to end the era of central banks' independence, especially in the United States.

The long-term economic consequences of "non-conventional" monetary policies are yet to be understood. The policies put in place after the 2008 crisis, established to support an economic recovery, sparked fears of bubbles, with yields of securities becoming increasingly disconnected from their fundamentals. The expansion in the scale of QE and the potential implementation of anomalous policies could deepen these fears even further.

b. Inflation risk back on the radar

The immediate impact of the pandemic seems to be disinflationary[2]. Headline inflation is expected to go down in 2020 and to start rising again from spring 2021, primarily due to the demand shock in most sectors and falling commodity prices. However, looking at specific industries, supply shocks due to countries' lockdowns will push up prices for products with a relatively inelastic demand, such as food supplies.

Over the long-term, the situation is naturally far less clear. Strong disinflationary expectations due to the strong credibility of monetary policies (the so-called "Volcker Revolution"), the surge in globalisation and competition from low-wage countries, households' preference for saving at the expense of consumption and technological advances are some of the main factors that have held inflation under control in the past. Some of these trends could potentially be reinforced by the Covid-19 crisis, leading to a risk of deflation.

However, other factors that the crisis has brought about could prove inflationary. First of all, the combination of extraordinary monetary and fiscal stimulus, with the appearance of "fiscal dominance", could contribute to a rise in inflation[3]. This argument is even more valid considering that the volumes deployed for both kinds of stimulus programmes are already larger than those utilised in the years after the Great Financial Crisis (GFC) and they will probably need to be maintained for a long time. One of the main reasons why non-conventional monetary policies did not spark inflation in the past decade was the limited time frame during which far-reaching fiscal stimuli were implemented in most developed economies; this might not be the case after the Covid-19 crisis. Moreover, with sterilisation, the expansion of central banks' balance sheets did not translate into a corresponding increase in transaction money, i.e., M1, thus containing inflation.

Secondly, in line with the above, a new political and social "status quo" could lead to expectations of prolonged fiscal measures in favour of households' incomes. Workers in low-wage employment categories that were on the front line during the crisis, such as nurses or essential shop personnel, have been demanding and, in some cases, have already obtained special bonuses or salary increases. In addition, during the crisis, exceptional social protection schemes for temporary, independent or "seasonal" workers were implemented (e.g., for gig economy or migrant workers), as well as some forms of universal basic income (UBI).

Finally, a trend of "reshoring" the production activities of strategic sectors (e.g., the pharmaceutical or medical equipment production industries) to developed economies from emerging economies is on the radar. For instance, the US and Japan are incentivising domestic companies to repatriate their production. Moreover, while demand is expected to increase once lockdowns are lifted, the supply of goods and services will take some time to go back to "normal", mainly due to the current disruption of global supply chains. Both these elements could contribute to the inflationary trend.

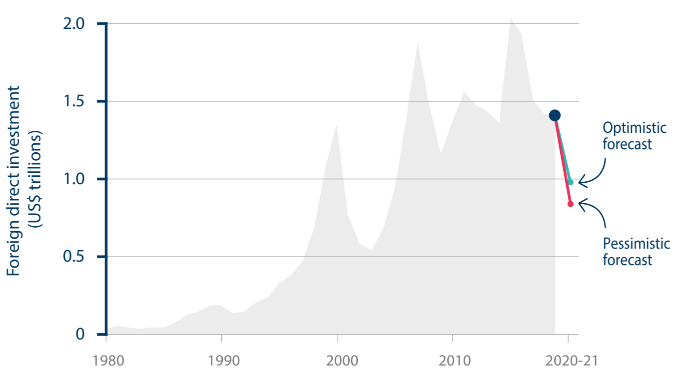
In any case, no matter which trend prevails, investors should expect higher inflation volatility in the years to come.

c. Deglobalisation could appear when it is least needed

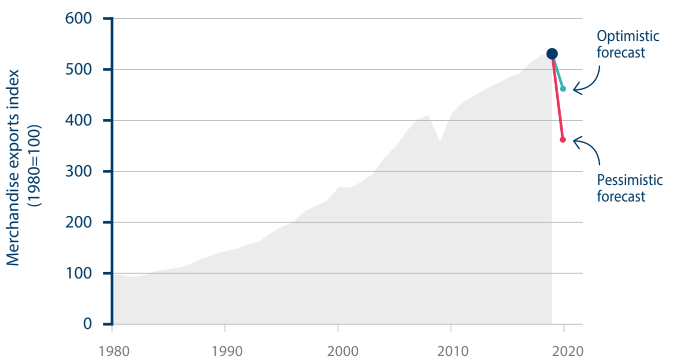
Passenger volumes at London's Heathrow Airport have plunged nearly 100% year-on-year, as have exports of Mexican cars. One-quarter of the containers expected to cross the Pacific Ocean during the month of May did not depart.

The World Trade Organization (WTO) estimates that the trade in goods will fall by 13-33% this year, with trade in commercial services experiencing an even stronger decline[4]. Foreign direct investment (FDI) is expected to plunge by 30-40%[5].

Graph 2: Investment flows



Graph 3: International trade volume



Note: Forecasts as of March-April 2020. FDI forecast pertains to 2020-2021.
Sources: WTO, UNCTAD, ICAO and Harvard Business Review (May 20, 2020).

2. https://www.piie.com/blogs/realtime-economic-issues-watch/high-inflation-unlikely-not-impossible-advanced-economies
3. https://www.ft.com/content/cdae43be-9901-11ea-adb1-529f96d8a00b
4. http://www3.weforum.org/docs/WEF_Challenges_and_Opportunities_Post_COVID_19.pdf
5. https://hbr.org/2020/05/will-covid-19-have-a-lasting-impact-on-globalisation

After decades of increasing globalisation, culminating in the 2010s, the GFC inverted this trend, with stagnating trade and foreign investment resulting in the so-called "slowbalisation"[6]. The US-China trade disputes, broad nationalist waves and an increasing bias towards domestic self-reliance are pushing towards the acceleration of this pre-existing tendency.

Globalisation, by definition, describes the "growing interdependence of the world's economies, cultures and populations, brought about by cross-border trade in goods and services, technology and flows of investment, people, and information"[7].

The deglobalisation trend will not impact all types of flows with the same intensity: goods and services trade, as well as capital flows, already on a declining route, will fall in 2020 and will continue falling, albeit probably to a lesser extent, in the following years. Furthermore, flows of people are heavily restricted around the world: even with the lifting of lockdowns, while international travel will resume, it is not expected to go back to 2019 levels until at least 2023[8]. At the same time, immigration policies seem to be set on a course of further restrictions, with the US and Brazil on the front line. On the plus side, the flow of ideas has improved, with scientists from all over the world collaborating on finding a vaccine and technological developments directed at addressing health equipment shortages[9].

In a nutshell, it is possible that "slowbalisation" could indeed turn into a real "deglobalisation". As Arjun Kapur[10] puts it, in a rather apocalyptic tone, "the virus's broader victim will be globalisation"[11].

What are the implications for investors?

Several implications may be derived from the above.

1 The hunt for yield will continue

Central banks are expected to continue their support to economies with all means at their disposal. Nominal interest rates will be low or even very low for the foreseeable future, and the "hunt for yield" will continue, with a progressive allocation to riskier assets. The latter's fair value could also be revised upwards.

Skyrocketing central bank's balance sheets will also have an impact on the overall capital markets structure, especially for bonds. For the latter, at least in the short term, eligibility for central banks' purchase programmes will have a strong influence on their attractiveness; companies whose debt cannot be purchased in the context of QE programmes will be at a higher risk of default.

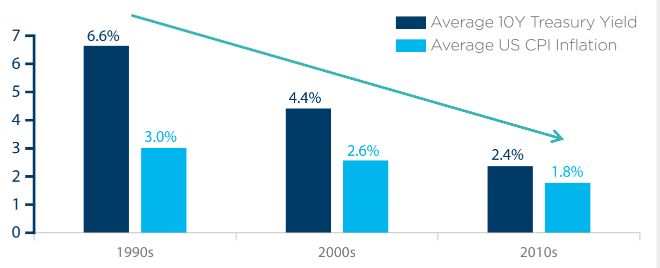
2 Anticipate changes in firms' attractiveness

Furthermore, the deglobalisation trend will cause a shift in the attractiveness of companies in the long-term. A rise in competitors focusing on a local or regional scope could challenge big global players, whose supply chains were heavily impacted by the crisis and which could be pressed by regulators to partially relocate back to their home countries. Strategic sectors such as the pharmaceutical or health equipment industry will be particularly affected; they took extensive advantage of the low production costs in developing countries and will need to reconsider their value chains entirely.

3 Reconsider inflation risk

A supportive investment environment has benefited investors for the past three decades, with the trends of low inflation and low interest rates having contributed especially to the exceptional fixed income market performance. The last decade was particularly impressive, with strong real returns and low volatility. Unluckily, higher degrees of volatility have suddenly reappeared in financial markets due to the effects of the global pandemic.

Inflation and Treasury yield dynamics over the last three decades



Source: Amundi on Bloomberg data. Data as of 31 December 2019.

In the coming years, inflation risk could also make a comeback. Long-term investors seeking income, such as pension funds, should consider dedicating an investment bucket to hedge inflation risk with a high allocation to short-term bonds (inflation-linked), real assets, commodities and gold. "Traditional" assets such as government bonds, credit and equities tend to be more challenged in periods of unexpected inflation.

4 Fear a financial deglobalisation

The deglobalisation trend provides an element of support towards inflationary trends, as well as towards financial crises. In fact, we could be returning to a situation whereby we have only a moderate degree of financial globalisation, similar to the period spanning from 1890 to the beginning of WWI. Worryingly, a mild level of financial globalisation has been found to be correlated with a higher risk of financial contagion, i.e., "a significant increase in cross-market linkages after a shock" (Accominotti *et al.*, 2020). Thus, in crisis time, one would hope for extreme financial globalisation, which is not really the outlook envisioned at present.

6. https://www.economist.com/leaders/2020/05/14/has-covid-19-killed-globalisation - 7. https://www.piie.com/microsites/globalisation/what-is-globalisation
8. https://www.iata.org/en/iata-repository/publications/economic-reports/covid-19-outlook-for-air-travel-in-the-next-5-years/
9. http://www3.weforum.org/docs/WEF_Challenges_and_Opportunities_Post_COVID_19.pdf
10. Chief of Staff to the Global Chief Investment Strategist at the BlackRock Investment Institute (BII) - 11. https://www.ft.com/content/ecb64b78-737a-11ea-ad98-044200cb277f

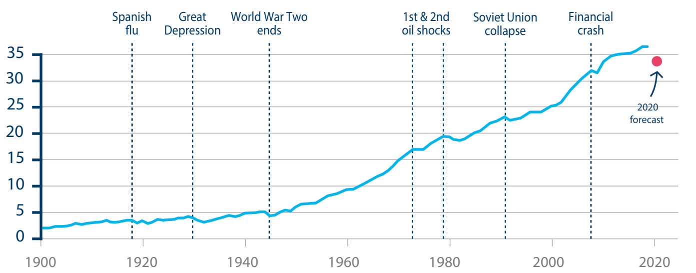
II. THE SUSTAINABILITY PERSPECTIVE

a. The path towards a low-carbon transition will be impacted by the pandemic

Shutting down economies has led to a very large drop in greenhouse gas (GHG) emissions, which are down 17% compared with April last year and are expected to be 8% lower in 2020 compared with 2019, according to estimates by the International Energy Agency (IEA). As with the 2008 financial crash, this is very likely to be only a one-off reduction. If estimates prove correct, this would be the biggest emissions plunge since WWII, but it would still be insufficient to align with the 1.5 degrees objective of the Paris Agreement. Indeed, the carbon dioxide levels in the atmosphere reached a new peak in May[12].

In terms of recovery measures, some governments have been trying to "green" their Covid-19 bailouts. Examples are France where Air France, the country's flag carrier, has been told to abandon domestic routes to favour high-speed trains[13], and Canada, where the government has established the annual filing of climate-related disclosure reports in line with the Task Force on Climate-related Financial Disclosures (TCFD) as a necessary pre-condition to receive Covid-19 bailout funding[14].

Graph 4: Global CO2 emissions, 1900-present
(Billion tonnes of CO2 per year)



Source: Global Carbon Project, CDIAC & IEA. BBC.

In the long-term, three possible scenarios have been identified, on the basis of the different possible responses emanating from the private and public sectors.

In **the optimistic scenario**, climate change is integrated into the decision-making processes of both public and private sector stakeholders. Leveraging on enhanced international cooperation, recovery plans include subsidies to entities investing in projects with high climate impacts and economic multipliers. At the European level, the Green Deal is pushed through, with particular attention to delivering a "Just Transition" that leaves no one behind. Corporates from various sectors align themselves more closely with the objectives of the Paris Agreement. Hence, the drop in emissions and pollution is not a one-off. Climate change becomes more manageable, but certainly does not disappear.

When it comes to **the pessimistic scenario**, short-term objectives such as growth in gross domestic product (GDP), boosting employment and balance sheet protection overshadow the fight against climate change. Covid-19 brings about protectionist trends that undermine and delay the global coordination of moves towards decarbonisation and the European Green Deal is, at least temporarily, abandoned. Additionally, shortsighted recovery policies include subsidies and bailouts without any prior environmental assessment. High debt-to-GDP ratios restrict governments' willingness and ability to allocate budgets for tackling climate change. Corporates aim to compensate for the financial damage of Covid-19 by focusing on their short-term survival needs rather than the long-term resiliency and sustainability of business plans.

Under **the status quo scenario**, the risks induced by climate change are not fully integrated into recovery plans and internalised by the private sector. Although the international community continues to struggle to deliver tangible progress, international cooperation resumes in 2021. Public policies vary widely in their integration of climate change concerns; for instance, the European Green Deal is slowed down but not relinquished. Resilient economies integrate sustainability features into their policies, whereas economies under heavy stress give way to more short-term goals such as stimulating employment and economic growth. Corporates' top priority is the current pandemic and they push back on more stringent climate regulations. Some structural economic shifts do benefit lower emissions, such as changes in consumer habits (e.g., less travel) and localised supply chains relying on more carbon-efficient technologies in developed economies.

b. Global inequality could be worsened by the crisis

The Covid-19 crisis has put the inequality issue in the spotlight in terms of access to healthcare and basic services. In addition, the most disadvantaged regions and parts of the populations are being hit the hardest.

While initially the virus had spread from China only towards Europe and the US, which are fairly well equipped to impose broad lockdowns, it is now tearing through emerging markets, with potentially devastating effects for populations and economies. As an example, India reopened shopping malls and places of worships on June 8 after a two-month lockdown, with nearly 10,000 new cases daily and no sign of the infection curve flattening[15]. African countries have also been seeing their cases increase substantially over the past few weeks.

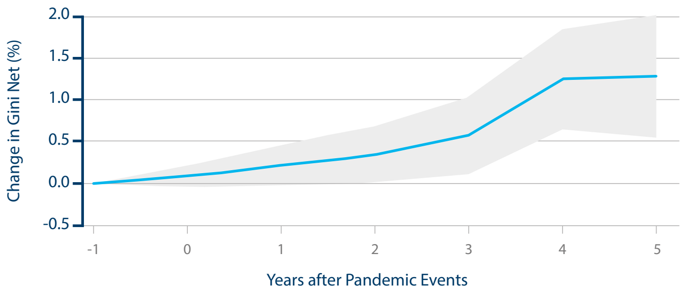
In the short run, relative inequalities are expected to increase, with rising unemployment worldwide. For example, Oxford Economics predicts a Covid-19-related loss of 28 million jobs and an unemployment rate of 17% in the US[16]. Moreover, the job losses will be concentrated on low-wage positions. It is currently happening and it is also in line with what materialised after previous pandemics. While the employment prospects

12. https://www.ft.com/content/b3f309a3-ed87-474f-9ea0-d39bf4a5b246 - 13. https://www.economist.com/leaders/2020/05/21/the-covid-and-climate-crises-are-connected
14. https://www.environmental-finance.com/conten.t/news/canadian-firms-must-file-tcfd-reports-to-get-covid-19-bailout.html
15. https://www.theguardian.com/world/2020/jun/06/global-report-indias-covid-19-case-total-surpasses-italy
16. https://eu.usatoday.com/story/money/2020/05/07/unemployment-benefits-3-2-million-file-jobless-claims/5175161002/

of workers with advanced degrees of education are nearly unchanged in the long-term, employees with a basic education level are severely affected (i.e., after a pandemic, the employment-to-population ratio for the latter group can fall by more than 5% in the medium term).

In the long run, income inequality is expected to rise significantly considering the results of the major pandemics of this century, such as SARS (2003) or Ebola (2014). The Gini coefficient, the most widely used metric for income inequality, had increased, on average, by 1.25% five years after the onset of the pandemic. The negative effects on inequality were found to be even more significant when the pandemic brought a powerful economic contraction in the analysed countries[17].

Graph 5: Impact of pandemics on inequality



Source: VoxEU. Notes: The figure shows the impulse response (and 90% confidence bands) of the net Gini to a pandemic for five years after the event for 175 countries over the period 1961-2017. The baseline specification includes two lags of the dependent variable and current and two lags of the pandemic dummy variable. Gini coefficients are from the Standardized World Income Inequality Database. See Furceri et al. (2020) for details.

However, given the situation, a political and economic response to reduce inequality can be foreseen and is likely to be directed toward the most vulnerable groups within populations. Examples of this are social transfers, a return of higher progressivity in income taxation regimes and a relative rise in wealth and corporate taxes. A more systematic adoption of universal basic income could also materialise. However, preliminary assessments of certain government measures seem to suggest that the wealthiest will in fact benefit the most.

Another aspect that could be specifically addressed post crisis is the decline in the labour share, i.e., the percentage of national income that is distributed to labour versus capital. While being stable during most of the 20th century, it started declining from the 1980s and stabilised at a low level in Continental Europe, while the drop has been even more pronounced in the United States.

After a prolonged period of "supremacy" of capital over labour, the post-Covid-19 policies could tend to relatively redistribute the value added in favour of labour by trying to build back the positive transmission mechanism from economic growth to labour wages. This will also depend on the extent to which inflation causes financial assets to fall in value in the coming years. It must be underlined that the mere drop in value of the latter will not be enough to sharply decrease inequality: in fact, returns from capital accumulation and high labour incomes have progressively converged.

However, the scope and the pace with which these "pro-equality" measures will be implemented is yet to be seen and will greatly vary from one country to another.

17. https://voxeu.org/article/covid-19-will-raise-inequality-if-past-pandemics-are-guide

What are the implications for investors?

1 ESG funds have proved their resiliency

As documented by several recent studies[18], even before the Covid-19 pandemic, the share prices of companies with better environmental, social and governance (ESG) performance have been increasing more than their competitors.

As discussed, the pandemic will bring about changes in ESG-related risks and opportunities. ESG funds have been very resilient in the midst of the pandemic: while the MSCI World index dropped by 14.5% in May, 62% of large-cap ESG funds outperformed this index[19]. This outperformance partly stems from the exposure of these funds to sectors less affected by containment and social distancing measures (e.g., technology and telecom).

On the exchange-traded funds (ETFs) side, a similar phenomenon was observed in the US market: the growth of ESG ETF shares outstanding relative to conventional ETF shares in the first months of 2020 had more than tripled compared with the past decade.

2 React with a deeper integration of climate change-related risks

Focusing on individual ESG pillars, the climate change impact on portfolios will heavily depend on which of the scenarios discussed above unfolds.

In the pessimistic scenario, on one hand, the materialisation of physical and transition risks could accelerate, with a strong "inevitable policy response" from governments to follow later. A deeper integration of climate change-related risks and opportunities with an increase in low-carbon investments and engagement activities are potential actions for investors to react to in both this and the "status quo" scenario.

On the other hand, in the optimistic scenario, clear roadmaps from regulators, enhanced international collaboration and better ESG data disclosure will make investing in line with the Paris Agreement easier and more standardised. Investors should expect ESG factors to materialise more and more in assets' performances and they should aim at capitalising on this.

3 Acknowledge the need to incorporate social risk

As far as inequality is concerned, a stronger integration of the social ("S") pillar had already been observed prior to the pandemic. In fact, after lagging behind the other two factors in the past years, the social factor was the stronger "ESG contributor" in North American portfolios in the first months of 2020.

Looking ahead, investors ought to integrate into their decision-making process the fact that pro-equality measures could be introduced and that companies could be increasingly scrutinised based on their contribution, whether positive or negative, to all societal stakeholders.

To conclude, uncertainty remains as to which climate change scenario will occur or whether inequality will in fact rise after the crisis, but time comes to be ready to face developments in these global challenges, which are set to shape the years to come.

Article written by Sofia Santarsiero,
Business Solutions and Innovation at Amundi

18. See, for example: https://research-center.amundi.com/page/Publications/Discussion-Paper/2020/ESG-Investing-in-Recent-Years-New-Insights-from-Old-Challenges?search=true
19. https://www.ft.com/content/46bb05a9-23b2-4958-888a-c3e614d75199

the day after

Papers & podcasts

In the new series of papers entitled "The Day After", we share with our clients our thinking on what the long-term implications of the current, unprecedented crisis on the investment landscape could be.

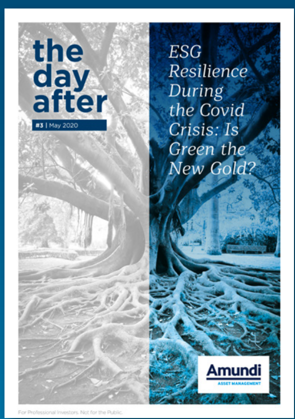
#1

To start "The Day After" series, the first paper highlights the key reasons the current crisis could be the trigger for a regime shift that could, in the long run, lead to a new equilibrium with features similar to those seen in the '70s.

The road back to the '70s will take time to travel and will not be straight. In the journey along this road, investors will need to stay active and rethink their investment approaches around some key principles, which combined represent the new toolbox for the 2020s.

In this note, through the lens of a long-term investor, we have tried to give a broad perspective on the most relevant post-crisis elements that need to be considered to make informed decisions.

#2



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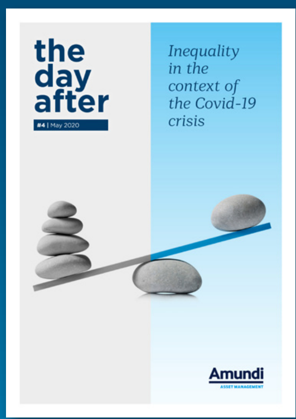

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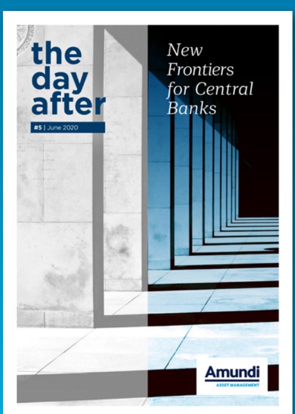

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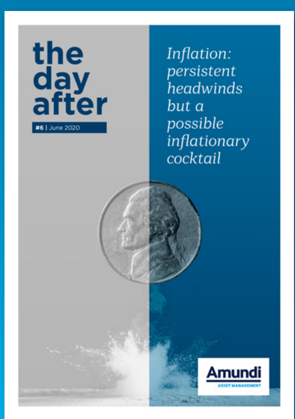

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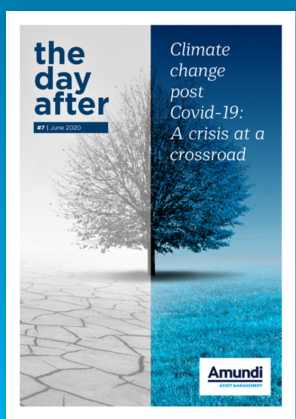


#7

Read the paper online

Listen to the podcasts online

Jean-Xavier BOURRE
Senior oCIO Advisor at Amundi

The current crisis – not equally bad for everyone

Pension funds play a critical role in the economy and society at large. While being of systemic importance, they are also particularly exposed to systematic (or market) risk, both on the asset and liability side. The recent market turmoil triggered by the coronavirus has clearly illustrated this point: most pension funds have been severely hit by the market shock, experiencing a sharp decrease in the value of their assets and, at the same time, an increase in their liabilities. In order to mitigate these asset liability management (ALM) risks, pension funds are subject to many prudential rules dictated by regulators and accounting standard-setting bodies. In light of the current crisis, some of these rules, in particular under the US GAAP and IFRS frameworks, may have been beneficial to those pension funds that could actively manage the credit risk premia and thus hedge their exposure to systematic risk, at least partially.

As pension funds are of systemic importance and are particularly exposed to systematic risk, regulators and accounting standard-setting bodies have defined strong prudential rules.

As a critical pillar of societal prosperity, pension funds represent a systemic risk for many countries. The size of these funds is in the order of magnitude of, if not multiples of, the GDP of some countries (e.g. Netherlands, Australia, Switzerland, US, UK, Canada and Finland). In many of these countries, defined benefit plans, and their associated specific risks, also represent a large share of the sector. As a consequence, and because the pension fund industry has been challenged by some epic failures such as Maxwell or Enron, pension funds have been under regulatory scrutiny to ensure their ALM gives comfort regarding the fulfillment of their long-term commitments.

While the actuarial analysis of pension funds' balance sheets has shown that they are exposed to a variety of risks, such as mortality or inflation, systematic risk appears to be of particular importance as it can affect both their assets and liabilities. Among the critical metrics, the level of funding or funding ratio is determined by the value of plan assets relative to the value of liabilities. As such, the declining interest rate regime over the last decades has been putting constant pressure on funding levels from two angles: while the low-yield environment has affected the outlook for asset returns on the one hand, the present value of pension liabilities has fundamentally increased on the other hand. The recent statistics for defined benefit pension funds show that a majority of plans are not fully funded. A consequence of this underfunded status is the necessity for pension funds to either provide additional funding with new contributions or try to harvest additional risk premia on the asset side in order to accumulate excess returns vis-à-vis liabilities.

In order to monitor and manage the exposure of pension funds to systematic risk, regulators and accounting standard-setting bodies have defined strong prudential rules. One of these rules relies on the actualisation of a pension fund's liabilities. Although rules can differ from one country to another (refer to page 11), the idea is to be able to capture the impact of interest rate risk on the value of liabilities. The rules are defined around two main pillars:

1. **Definition of the yield curve**, which is generally reflecting a reasonably low-risk fixed income investment where the pension fund would find shelter if it were asked to drastically reduce market exposure to secure liabilities servicing. The yield curve may be a **credit yield curve or a swap rate curve**;
2. **Smoothing rules**, so as to smooth the impact of rate changes on liabilities over a predefined period. Given liabilities are usually long-term, this potentially leaves some time for pension funds to absorb any market volatility.

During this period of market turmoil, some of these rules may have represented a way for pension funds to partially hedge their exposure to systematic risk.

The coronavirus crisis has negatively impacted pension funds as the exposure to systematic risk has led to lower values of assets and higher levels of liabilities.

The current coronavirus market environment and its economic implications have put pressure on the valuations of risky assets. In this context, many pension plans have suffered from poor performances of their risky assets: in March, equities markets were down some 30% from their peak, while the credit market has been volatile, reaching market conditions close to 2009 levels despite central banks' actions, especially their acceptance of higher yield securities as collateral for their liquidity injections (which is having an indirect impact on pension funds as well). This phenomenon has been worsened by the poor liquidity experienced in traditional asset classes.

This has generally impaired the value of pension funds' assets, although for some that had a more risk-averse profile, the sudden drop in government bond yields, especially in the US, has supported the fixed income asset class. Table 1 gives an idea of the magnitude of the shock endured by pension funds in March 2020. In addition, pension funds' allocations have often been increased to real and alternative assets, whose valuations still need to fully integrate the impact of the crisis. There may be latent surprises on this side.

Table 1: Illustrative asset allocation performance, YTD as of end-March 2020

Asset class	Illustrative performance YTD (end-Marche 2020)	Illustrative asset allocation			
		The US	The UK	The Netherlands	Germany
Equity	-21%	50%	35%	35%	20%
Fixed income (Citi GBI)	+8% UK and US. +2% EUR	22%	53%	49%	58%
Cash	0%	3%	2%	0%	0%
Others (e.g. illiquid and real assets)	-15%	26%	11%	16%	22%
Pension fund's performance YTD		**-12.6%**	**-4.8%**	**-8.8%**	**-6.3%**

Source: Willis Towers Watson – GPAS 2020, Amundi.

On the other side, funds' liabilities have also been impacted by the interest rate volatility.

Table 2: Illustrative impact of sovereign yield decreases on liabilities, YTD as of end-March and June 11, 2020

Country	Change in 10y sovereign interest rates YTD		Illustrative impact for a 20y duration	
	YTD as of end-March	YTD as of June 11	YTD as of end-March	YTD as of June 11
The US	-125bps	-120bps	+25%	+24%
The UK	-47bps	-55bps	+9.4%	+11%
Germany	-29bps	-20bps	+5.8%	+4%

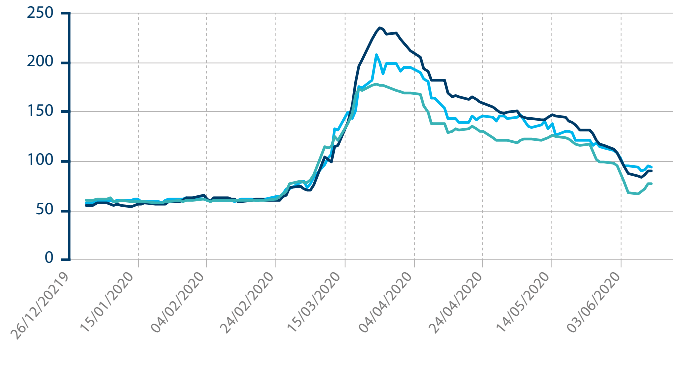
Source: Amundi.

As a consequence, both sides of the balance sheet have potentially been negatively impacted by market conditions.

Pension funds may, however, have partially compensated for this negative outcome, especially under the IFRS or US GAAP framework, by capturing the credit risk premia embedded in the significant widening of the credit spread.

Many accounting and regulatory frameworks are valuating liabilities on a corporate credit curve. This curve can be decomposed as government bond plus credit spread (representing the credit risk of the reference instruments used to build the curve). As shown in Graph 1, this spread has considerably widened in March 2020, illustrating the sharp increase in credit risk premia, as investors are pricing in the fact that the current crisis is likely to have a significant impact on default rates in the coming months.

Graph 1: Historical AA spread Jan-June 2020



Source: Bloomberg.

As can be seen in the above graph, **spreads have widened by 20-30bps since January 2020** (up to 175bps at peak). From an IFRS or US GAAP point of view, where the mark-to-market (MtM) value of liabilities is computed using an AA corporate credit curve, this move in credit spreads has directly impacted the present value of pension liabilities. Considering a typical plan, with long-dated liabilities of 20y duration, this would have contributed **to a decrease in the MtM value of liabilities of between 4-6%** (up to 35% at peak). Depending on the current funding status of the plan, this could have partially compensated for the decreases in asset prices described in Table 1, potentially even momentarily improving the funding ratio for some pension funds.

It has to be pointed out, however, that these results remain very generic, as the exact impact depends on the asset allocation of each pension fund, the current funding ratio, the jurisdiction, and last but not least, the specific accounting rules. In particular, **the impact is clearly more significant for pension funds following the IFRS or US GAAP principles since both frameworks are pushing for an immediate recognition of the change in the MtM value of liabilities** in other comprehensive income (OCI).

In conclusion, given the current asymmetry of interest rate risk, the **IFRS and US GAAP accounting rules are actually allowing pension funds to benefit from a partial hedge** as the decrease in value of some assets can be, at least partially, offset by the contingent widening of the AA spread, while government bonds only have limited upside. This partial hedge mainly exists when two conditions are met: liabilities are discounted on a credit yield curve and liabilities are valued at MtM. In most jurisdictions, the impact is smoothed, or less significant, if based on swap rates, which have been very resilient recently. In this context, the benefit is only of second order vis-a-vis the sharp and immediate deterioration of asset values.

Pension funds that are able to benefit from the partial hedge could use the current peculiar situation in several ways. For example, on the asset side, they could increase the yield of the hedging portfolio by adding credit or they could try to benefit from the market dislocation and inject additional funding, if available. Another option, on the liability side, could be to immunise the credit sensitivity to preserve the funding ratio going forward if spreads tighten again. Meanwhile, today's volatile market environment offers a good opportunity for pension funds to revisit their LDI approach and proactively take advantage of market dislocations.

Regulatory and accounting rules differ from one country to another

1 Regulatory rules are usually based on specific smoothing rules

For example:

- **In the US**, Pension Protection Act rules, revised under the 2012 MAP-21 bill, use high quality (AAA-A) market-weighted corporate bond yields as a discount curve (with anchoring rule for long tenors), and allow smoothing of MtM up to 25 years;
- **In the Netherlands**, the ultimate forward rate (UFR) methodology is based on a swap curve, anchoring long tenors to long-term inflation expectations.

2 National accounting rules, generally defined in consistency with the regulatory framework, can be more or less proactive in recognising the MtM of liabilities

For example:

- **In France**, +/-10% corridor rules can be applied to reduce the MtM volatility impact, and changes in value can be spread over the expected residual length of the contributions of beneficiaries;
- **In Germany**, VAG regulation requires that pension fund accounting use the average of zero swap rates and the AA corporate spread published by the Bundesbank (averaged over a seven- or 10-year period), adjusted by the ZRR (additional interest rate reserve), which makes use of a corridor-like method;
- **In the UK**, different ways of discounting coexist, but they are usually based on the gilt and spread, with the spread being fixed and the gilt changing over time.

Pedro Antonio ARIAS
Global Head of Real
and Alternative Assets

Covid-19 provides short-term pain, but long-term opportunities for European real estate

The Covid-19 crisis now appears to be deeper and more widespread than initially estimated by financial markets, and it is placing a huge strain on the global economy. In this new and evolving context, real estate is likely to share the economic pain in the short run, but could prove resilient in the longer term given its defensive features, including its ability to dampen volatility and bring diversification to portfolios.

Investors are already aware of real estate's added value. The asset class has enjoyed impressive success over the last decade. Real estate markets have been growing strongly, bolstered by the low-rates environment and the subsequent 'hunt for yield' among investors. This growth should continue once the worst of the Covid-19 crisis is over, with government bond yields trending even lower across developed markets.

Investment flows have been boosting real estate markets all over Europe in the past few years: investment markets have proved healthy and valuations have benefited from a lack of supply that has pushed yields downward in the most sought-after locations. For leasing markets, office rentals have been supported by healthy labour dynamics across Europe. As the global economy suffers from the fallout of the pandemic in the coming months, there may be some upward pressure on yields, in particular for real estate segments and locations considered less resilient.

On a longer-term perspective, real estate's defensive features and its well-known benefits for investors are likely to provide some immunisation from the crisis. Real estate's dynamics are driven by deep-rooted societal and demographic changes, including the rising focus on climate change. The high visibility of rental cash flows, especially for properties on long-term leases, is appealing to institutional investors. In addition, the persisting low interest rates have created a significant premium over most fixed income securities. Finally, should the current crisis lead to higher inflation, real estate may offer a good hedge as rents are indexed in most geographies and sub-asset classes.

A lot of uncertainties remain around the impacts of the Covid-19 crisis on the economy and financial markets, and also on real estate. However, it is our conviction that ESG investing is a long-term trend that is much valued by investors in real estate. Today, the environmental aspect of ESG is a must-have, with the integration of carbon footprint measurements coming on the back of high demand for climate change. The Covid-19 crisis could play a significant part in highlighting the importance of the 'S' pillar for social matters in ESG investing, including building new types of workplaces that aim to preserve employees' health and improve employees' networking.

Real estate remains attractive in the longer term

Despite the current uncertainty, the European real estate market offers some advantages to investors:

- **Income visibility:** when the asset is on a long-term lease, rental cash flows are highly predictable – though tenant risk has to be taken into account.
- **Inflation hedge:** as pointed out in a recent *paper*, a regime shift towards higher inflation is possible over the next decade; real estate dampens the effects of inflation as rents are usually indexed.
- **Yield premium:** the current yield premium between real estate and many government bonds is significantly high. This could continue, given the expected lower-for-longer interest rate environment.

"The current situation highlights the importance of portfolio diversification to limit the impact of market risks, in particular idiosyncratic risks."

INVESTMENT INSIGHTS
BLUE PAPER JUNE 2020

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Éric TAZÉ-BERNARD
Chief Allocation Advisor

Matteo GERMANO
Head of Multi-Asset

Multi-Asset – a solid total portfolio approach for a complex world

An increasing number of institutional investors have adopted a total portfolio approach (TPA) as a response to the weaknesses of more traditional strategic asset allocation (SAA)-based methodologies. The current crisis will reinforce this trend, as it is probably marking a paradigm shift in financial markets. This shift could be as important as the change in US monetary policy brought in by former Federal Reserve Chairman Paul Volcker at the beginning of the 1980s, which led to a long period of disinflation, lower interest rates and high asset returns. The new equilibrium, brought about by the Covid-19 crisis, will be very different from the one we were used to in the last decade.

In addition, the frontiers between monetary and budgetary policies are being blurred and ballooning budget policies are likely to lead to some form of debt monetisation later on. As a result, we are probably entering a new regime, one characterised by a higher probability of inflationary scenarios and increased asset volatility. This means investors need to question long-accepted risk and correlation patterns and it calls for agility on their part. Moving to TPA as a holistic, essentially goal-based, total return-oriented and flexible approach is one way to adapt the institutional portfolio construction framework to this new environment. Three arguments are in favour of this method.

Allocating along factors

One well-recognised feature of TPA is its focus on factors rather than the traditional segmentation of the investment universe by asset classes, regions or sectors. As we move into a new financial regime, rather than relying on backward-looking methodologies, identifying the most likely long-term macroeconomic scenarios and their impact on asset prices will be key in generating returns. This will justify adopting a factor approach to portfolio construction, with a focus on factors such as growth, inflation and global risk appetite. This will be a useful way to position portfolios strategically in some scenarios with obvious benefits, for instance, for pension funds whose liabilities are linked to inflation. Recent market trends also emphasise the importance of integrating liquidity as a factor in the construction of asset allocation. In addition, there is a large family of other factors that can be used as building blocks to construct a portfolio, or, on an ex-post basis, to analyse its performance. In the equity space, the most widely researched and used are value, size, quality, volatility and momentum, among others.

> *"Implementing fully-fledged TPA can be facilitated by the use of factors as drivers of asset allocation, which will contribute to the use of a common language between different investment professionals."*

Governance and culture: key elements in the success of TPA

Governance and cultural issues will be all the more important in tomorrow's world, where adaptability to changing market circumstances, as well as the capacity to integrate innovative portfolio construction methodologies, will be badly needed. In a recent report, NBIM[20] stated that the ability to change their mind was one of the most important qualities of skilled portfolio managers. During the 2008 crisis and the subsequent market recovery, it was those able to turn their portfolios around that stood out. This will probably be the case again following the Covid-19-related disruption.

Fostering cooperation within the investment organisation – a key feature of TPA – will also be important to better understand the new environment. This means organising cognitive and character diversity, as well as complementarity, within the investment team, where all participants will be expected to contribute to a collective decision instead of fighting for their area of expertise. This also relies on the development of a culture of truth, openness, challenge and cooperation that is not always natural in organisations used to segmentation by asset class or area of expertise.

20. Investing with External Managers, The 20 year overview, Norges Bank Investment Management, April 2020.

Implementing fully-fledged TPA could be facilitated by the above-mentioned use of factors as drivers of asset allocation, which would contribute to the use of a common language between different investment professionals. Likewise, global investment committee meetings should start with an analysis of the factors currently driving markets, in contrast with the traditional approach, which tends to start from monetary policy, before moving down to interest rates and then equity markets. As well as bringing transversal topics, setting common risk indicators across different assets could also be an efficient way to break silos and ensure that investment experts cooperate towards a common goal.

Sustainability as a key element of TPA

Another federating element of an investment organisation is the integration of ESG criteria. The potentially huge social impact of the current crisis, the increased awareness of the consequences of climate change and the relevance of governance as a key element of the quality of a company will reinforce the integration of sustainability in institutions' investment approach. A TPA framework appears well suited to the implementation of a sustainable investment approach. There are indeed common features to TPA and sustainability:

- **Holistic:** investing along ESG criteria, which is a way of applying a sustainability approach, proceeds from an institution's investment philosophy within a long-term and holistic approach. ESG represents a broader way for investors to look at their portfolios, potentially leading to the evaluation of a portfolio according to a balanced scorecard, including sustainability targets and the mitigation of long-term risks, in addition to purely financial criteria.
- **Long-term:** environmental, social and governance risks are often expected to materialise in the long-term, prompting institutions applying a sustainable approach to establish long-term scenarios and to reflect on the consequences of their actions over such a horizon. As an illustration, institutions should ask themselves to what extent their investment activities contribute to mitigating the fallout of climate change.
- **Total return-oriented:** applying a sustainable investment approach is more suitable to the total return framework that is recommended within TPA. As an example, the sustainability policy defined by an institution may lead to the exclusion of certain securities or significant portfolio biases against certain sectors or types of companies. This will unavoidably lead to sizeable divergences from standard market references that would be difficult to accept within a strongly benchmark-driven investment approach.

Moving to a sustainability approach may be a long process but institutions should define a roadmap over several years, with intermediate steps and targets, as well as some yardsticks to evaluate the achievement of their objectives.

> *"The potentially huge social impact of the current crisis, the increased awareness of the impact of climate change and the relevance of governance as a key element of the quality of a company will reinforce the integration of sustainability in institutions' investment approach."*

TPA is a state of mind

TPA responds to the need – for both asset managers and asset owners – to adopt a new language through which investors sift all asset classes and break down any silos that appear in large organisations. The timing looks appropriate in the current market context. The increasing interest in alternative assets and the integration of ESG in the standard allocation framework are strong additional incentives. A TPA mindset allows for increased openness to opportunities outside of conventional asset class buckets and for more consistency at the portfolio level by reducing the frontiers between asset classes and organising teams in a more fluid and collaborative way. Difficult challenges lie in the way though. Investors will need to develop new tools to analyse their portfolios along additional angles and be able to apply a multi-dimensional approach to risk analysis and portfolio construction. Moving to TPA also requires important cultural changes, and needs to be defined as a genuine long-term journey with intermediate steps and indicators to measure success in the implementation of change.

Table 1: The spectrum of portfolio construction approaches

Source: TPA White Paper, Thinking Ahead Institute.

	SAA	TPA	
Performance assessed	Benchmarks	Fund goals	
Success measured by	Relative value added	Total fund return	Better decision framing
Opportunities for investment defined by	Asset classes	Contribution to total portfolio outcome	
Diversification principally via	Asset classes	Risk factors	Better decision making
Asset allocation determined by	Board-centric process	CIO-centric process	
Frequency of change	Infrequent, calendar meeting-based	Continuously monitored, changes made in real time	Greater dynamism
Portfolio implemented by	Multiple teams competing for capital	One team collaborating together	

What is TPA?

TPA is usually characterised by the following features:

1 TPA starts with goals that are clearly stated, and these goals are a continuous focus that is shared among all teams

Different return and income streams all combine to concur to one single objective. In fact, rather than considering portfolio components at the level of asset classes, TPA views them as risk and return streams and takes into account the risk/return features of these components. A factor approach to investing is therefore better suited to TPA than the traditional asset class-based approach.

2 There is one joined-up process whereby all investment opportunities compete for capital at the fund level, but only the best ideas actually make it into the portfolio

Each investment opportunity is therefore assessed to determine how it fits into the overall portfolio. TPA approaches also have **a clear total return focus**, which helps remove the 'anchoring' bias created by SAA.

3 TPA is dynamic and operates in real-time governance

It limits any rigidities linked to a strong centralisation of investment decisions within a board or a lack of clarity in terms of governance for these decisions.

Therefore it appears as a more holistic approach than traditional portfolio construction methods insofar as it sees the portfolio as a collection of interrelated parts managed with a common objective that together make a whole, rather than a series of sub-portfolios that are managed independently.

Even though TPA relies on technical competence, it does also have profound implications in terms of governance. This often translates into a need to rethink the existing structures and their ways of interacting, with a clear split of responsibilities between the board, in charge of defining the risk appetite, and the CIO/executive team, which make actual investment decisions. It also implies a cultural change towards more collaboration across teams, which may take time and even require a significant degree of staff turnover or training.

INVESTMENT INSIGHTS BLUE PAPER
JUNE 2020

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Multi-Asset Forecast

OUR HIGH CONVICTIONS IDEAS ON MULTI-ASSET (SHORT TERM VIEWS)

Market euphoria clouding the need for caution

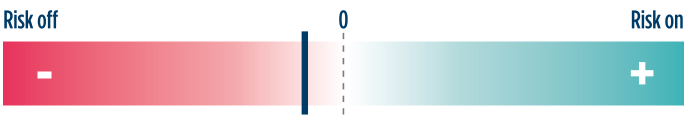
Over the past month, we have witnessed changes on two key fronts:

1. An orderly reopening of economies;
2. A strong fiscal support in the US and important policy actions in Europe, where we believe that the EU Recovery Fund and national fiscal interventions could prove to be a short-term game changer. However, there are no signs of improvement on a third front, the sustainability of corporate earnings.

Consequently, we maintain our defensive, balanced and diversified risk stance, and believe investors could play some tactical rotation opportunities in the value and cyclicals sectors, green themes and the US consumer area, which remains supported by fiscal plans. Liquidity buffers are paramount at this stage.

Overall risk sentiment

Prioritise liquidity, and stay active and balanced, amid the lack of visibility on earnings growth and the deteriorating default outlook.



Overall risk sentiment is a qualitative view of the overall risk assessment of the most recent global investment committee.

“We remain conservative as markets, especially equities, are pricing in perfection.”

Amundi Cross-Asset Convictions

	---	--	-	0	+	++	+++
Equities			■				
Credit					■		
Duration					■		
Oil				■			
Gold					■		

Source: Amundi. The table represents a cross-asset assessment on a 3-6 month horizon, based on views expressed at the most recent global investment committee. The outlook, changes in outlook and opinions on the asset class assessment reflect the expected direction (+/-) and the strength of the conviction (+/++/+++). This assessment is subject to change. June 2020

GLOBAL INVESTMENT VIEWS
JULY 2020

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Multi-Asset Forecast

OUR ASSET CLASS RETURN FORECASTS (MEDIUM & LONG-TERM VIEWS) - 1/2

In our analysis released at the beginning of the year, we laid out our medium-term outlook as a correction of the business cycle, including an economic slowdown, yield curve inversion, a return to lower bound policy rates, and subdued inflation prints.

The global shocks resulting from the eruption of the coronavirus pandemic have significantly altered the sequence of economic and financial phases, shortened their timeframe and expanded the scale of the ripple effect. Certainly, global trade will decline as fault lines along the supply chain surface and whole economies come to a standstill. Monetary authorities have acted swiftly to assuage the markets, having learned lessons from the GFC. The insidious deflation risk has become a reality because of the freefall of oil prices. Even if the main reason has been the oil producers' price war, it is in itself having a meaningful impact in energy and financial sectors worldwide.

In that light and weighting carefully the depth of the crisis, in the short to medium term we foresee prolonged, "whatever it takes" dovish and expansive policies, as well as disinflationary risk. As detailed in Amundi's Blue Paper, "Covid-19: the invisible hand pointing investors down the road to the 70s", we need to evaluate carefully the inflationary risk, looking at the medium to long-term, and also the strong challenges to current economic systems. The big questions are about the structural impacts of the crisis:

1. modified production functions;
2. different sectors, regions and countries' balances (and/or imbalances);
3. a new inflationary regime;
4. debt sustainability and so on.

Further investigation and analysis are required to understand and quantify the answers to those questions, so for the time being we are relying on the long-term assumptions we refined at the beginning of the year, while we look at further guidance linked to the evolution of the crisis. Thus, the continuous recalibration of our working assumptions (i.e., starting points, short- and medium-term trajectories, and long-term equilibrium levels) in our estimation process reflects the still unfolding events and fallout affecting every aspect of the markets.

For further details, please refer to Asset Class Return Forecasts (Q2-2020)

GOVERNMENT BONDS

The global fiscal and monetary reaction to the onset of coronavirus has been swift and coordinated. In response, interest rates in the UK and US have shifted downwards over the past quarter. On the other hand, the yield curves in the Euro area and Japan have been relatively stable, reflecting aspects of the different policy implementations. Going forward, we expect these policies to persist as the economic fallout from ongoing events becomes clearer, leading to stable and low interest rates worldwide.

For UK and US fixed income instruments, the downward yield shift and increased interest rate risk translates to lower expected returns with respect to the last quarter, though still outperforming EU and Japanese bonds over the medium- and long-term horizon. For the EU periphery, we expect improved performance in the medium term under the assumption that flexible policies will act as a ceiling to their yields and a backstop to credit downgrades.

We remain vigilant, however, on debt sustainability (periphery). The expected returns on government bonds will be lower in the 10-year horizon as a result of the starting point and the slow normalisation path.

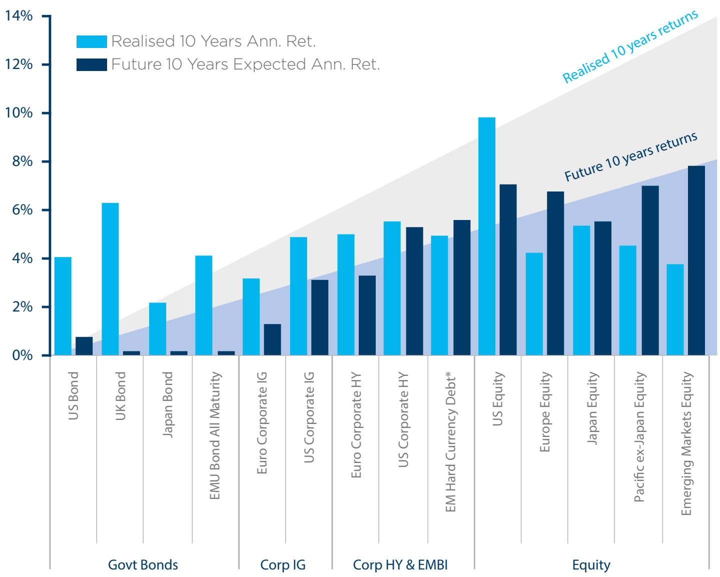
In EM debt, whereas the fundamentals points to tighter yields (and spreads) over the medium term and result in higher ex-ante returns, we expect higher volatility and possible deterioration, owing to oil price instability and country vulnerability. Thus, the final assessment is more balanced on the basis of risk-adjusted figures.

Multi-Asset Forecast

OUR ASSET CLASS RETURN FORECASTS (MEDIUM & LONG-TERM VIEWS) - 2/2

CREDIT	Over the medium term, we expect the credit markets in both the US and EU to be dominated by opposing forces due to the coronavirus pandemic: on the positive side, the ever-expanding asset purchase programmes, and on the negative side, increasing default and credit downgrades, particularly in the energy industry. Our expectation is that the willingness of both the ECB and the Fed to expand balance sheets will override liquidity concerns and give support to expected returns in the medium term, albeit with a higher volatility. As the starting points of the credit markets are significantly higher than a quarter ago with a slow normalisation process, we estimate higher carry and overall returns for EU credit. While on the US side, the picture is less sanguine due to the prominence of the energy industry, with improved returns distributed along a longer time horizon. We expect default trends to be consistent with our updated macro and financial scenario, strongly penalising the performance of high yield during the crisis, with the US being the most affected. Afterwards, default probabilities could normalise, and moving to the medium term the expected returns could improve.
EQUITIES	Short-term equity returns imply a contraction in earnings growth. In the medium term equities could recover, delivering returns above their long-term averages, but this overshoot will disappear in the long-term with the normalisation of all of the factors involved. Looking at relative preference, higher-beta regions (such as EM and the Eurozone) could perform better in the short to medium term. Over a 10-year horizon, the US could recover its position among developed markets. We expect higher returns than last quarter, owing to the lower starting points and better entry points from a valuation point of view as a result of the equity turmoil due to the coronavirus crisis. Equity markets will inherit high volatility from the current environment, leading to higher downside risks in our models.

Realised 10 years vs future 10 years returns



The strong impact of the global shock on financial crisis has eroded the past performance of risky assets by around 2-3% on annualized basis, while government bonds have further strengthened their performance

On the **10 yr horizon** returns on **risky assets could be a bit higher** than before by starting from more favourable valuations. The opposite is true for returns of developed country governments.

Our long-term scenario assumes lower growth rates (related to decreasing population growth and stagnant productivity), lower short-term interest rates, less steep curves than historically, lower inflation rates (close but below the range of central bank targets) and lower long-term earnings growth.

Source: Amundi Asset Management CASM Model, Amundi Asset Management Institutional Advisory and Research Teams, Bloomberg. Data as of the 20th of April 2020. Local currency. Historical performance from 31/03/10 to 31/03/20.

To go further: The Amundi Research Center

Research Center

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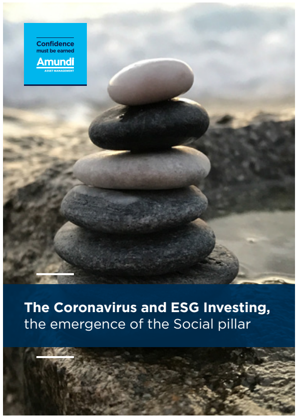

The Coronavirus and ESG Investing, the emergence of the Social pillar by Takaya Sekine, Fréderic Lepetit

Revisiting the global high yield outlook in the wake of the COVID-19 pandemic

Trajectory Monitoring in Portfolio Management and Issuer Intentionality Scoring

Covid-19: the invisible hand pointing investors down the road to the 70s

H2 2020 Investment Book
Investing during a de-freezing cycle

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