Are you ready for four paradigm shifts?

Potential macroeconomic impact of the Covid-19 crisis

NN investment partners

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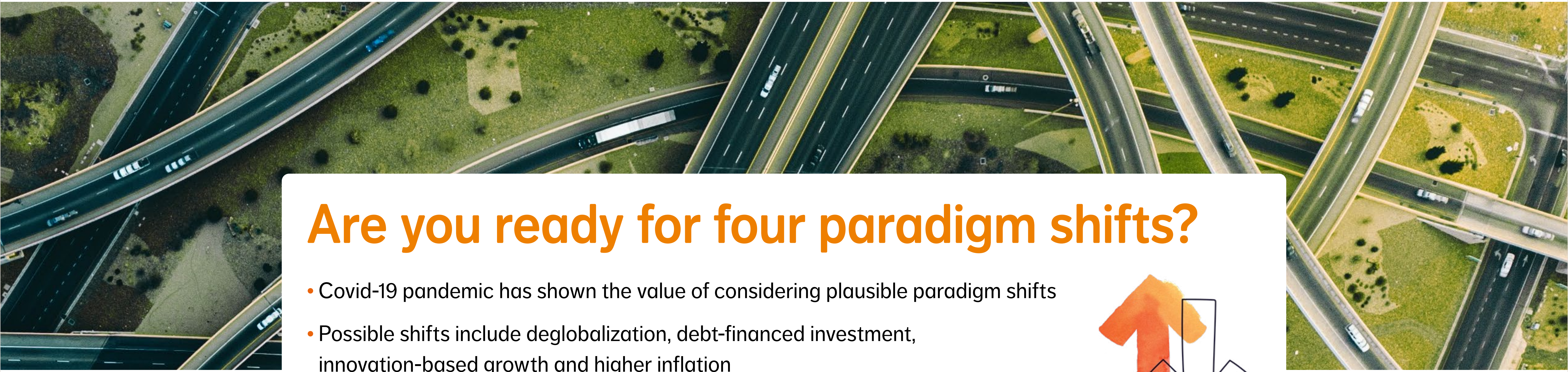

Are you ready for four paradigm shifts?

- Covid-19 pandemic has shown the value of considering plausible paradigm shifts
- Possible shifts include deglobalization, debt-financed investment, innovation-based growth and higher inflation
- Many investors don't consider a high-inflation scenario plausible

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New reality in the making

Imagine what it would take for economies, businesses and societies to get back to where they were before the Covid-19 crisis. Markets would have to ignore the fact that mainly due to new borrowing, debt-to-GDP ratios in the world's advanced economies will rise by 17 percentage points from 2019 to 2021, following years of relative stability. Voters would have to forget how their governments handled one of the biggest crises in living memory. All the large and small businesses that went bankrupt in the past few months, and all the jobs that were lost with them, would somehow need to come back.

Isn't it more likely that there will be no returning to the pre-pandemic state of affairs, and that this crisis will act as an accelerator of existing trends and catalyst of new trends? Shouldn't we be asking ourselves what fundamental shifts might actually take place? In other words, isn't the crisis likely to turn the world upside down in various respects?

NN Investment Partners initiated the UpsideDown series to explore the future from four points of view: the economy, responsible investing, business and governments. The series started off with an online event featuring US entrepreneur Peter Diamandis and NN IP's Chief Investment Officer Valentijn van Nieuwenhuijzen. They discussed, among other things, four economic unknowns for the coming decade: deglobalization, fiscal policy, growth and inflation. We continued the discussion of the four unknowns at local events in the Netherlands, Belgium, France and Germany.

This publication looks at the four unknowns and discusses four potential paradigm shifts that might result from them. The final section includes survey results from the events in Belgium and France to give an impression of what investors think about the paradigm shifts.

Nature of paradigm shifts

There are three ways to deal with potential paradigm shifts. First, investors might simply ignore them. This option is more rational than it might sound at first. The problem with potential paradigm shifts is that it is hard to know not only whether a shift will actually happen, but even what the probability of such a change is. Understandably, investors often choose to be reactive.

Second, investors might adopt strong and impassioned views about the future. A case in point is John Paulson, a hedge fund manager who rose to fame during the financial crisis. Paulson's fund earned an estimated USD 15 billion in a single year by betting on the collapse of the US mortgage market. His strong views and concentrated bets paid off during this period, but in the subsequent years his fund lost money on bets on pharmaceuticals, healthcare and gold. Paulson closed his fund this year to outside investors.

This story shows that strong views about the future paradigm shifts can be impressive – as long as one gets it right.

The third option is a balanced approach, whereby the investor prepares for paradigm shifts and adapts over time to the new realities. The Covid-19 crisis shows that a number of leading international organizations have chosen this adaptive mindset. The pandemic taught us the value of considering paradigm shifts that are plausible but not necessarily probable. Even though this is the first global pandemic in more than 100 years, governments around the world were not entirely unprepared. The World Economic Forum's global risk report had for years included pandemics as a major risk, while the World Health Organization and numerous countries had pandemic plans in place. The different ways of handling the crisis depended on the available resources and the willingness to execute the plans.

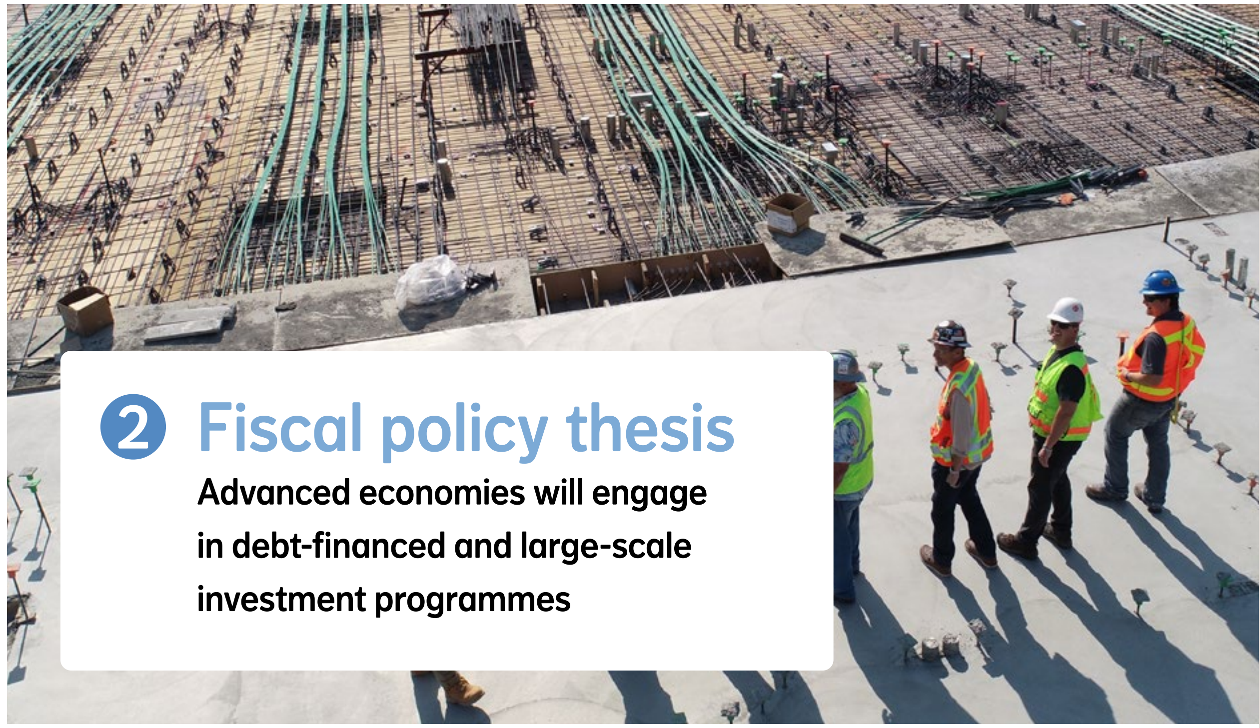
The four paradigm shifts in this piece are not forecasts. They are meant to be thought-provoking hypotheses about how the crisis might change the world in the coming decade. Investors should be prepared and ready to adapt to potential changes over time. In the following pages we discuss each of the four potential paradigm shifts.

Marco Willner
Head of investment strategy

Are you ready for four paradigm shifts?

1 Deglobalization thesis

The world will fall apart into multiple economic and political regions



2 Fiscal policy thesis

Advanced economies will engage in debt-financed and large-scale investment programmes

3 Growth thesis

New technologies and new business models will lead to a decade of high growth

4 Inflation thesis

Inflation in the advanced economies will rise to levels not seen since the 1970s

Conclusion

❶ Deglobalization thesis

The world will fall apart into multiple economic and political regions

"Globalization" is the term used to describe the growing integration of the global economy through international trade, foreign investment and migration. This process enabled multinational companies to improve profitability by arbitraging worldwide labour markets, goods markets and tax systems. An export-led growth model enabled China to become a superpower.

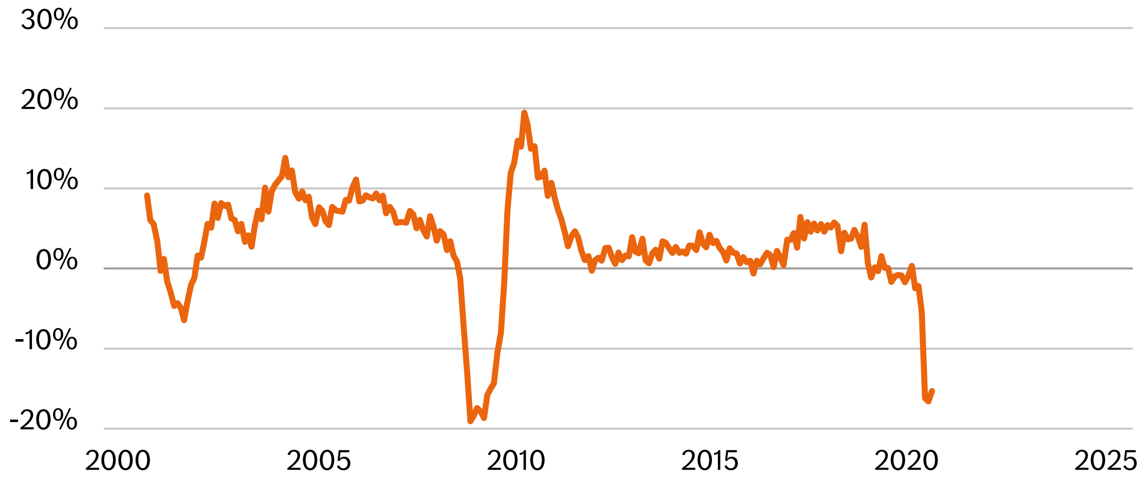
One of the most telling economic indicators for the globalization process was the high growth of world trade. Globalization came under pressure in the aftermath of the 2008 financial crisis. International trade stagnated and even began to shrink in the wake of the US's trade conflicts with China and Europe. Since coming to power in 2012, Chinese President Xi Jinping has adapted to this trend by shifting the focus of China's economy from investments to consumption and hence reducing its dependency on exports.

The deglobalization thesis asserts that the world will fall apart into multiple economic and political regions. At the centre is the assumption that the strategic competition between the US and China will intensify and that the economic cooperation between the US-led bloc and the China-led bloc will become increasingly strained. China will try to increase its influence along the Belt & Road region, while the US will continue its political and military rollback, at least initially. Following the 2015 creation of the Asian Infrastructure Investment Bank, Beijing might consider creating more international institutions under Chinese leadership. Eventually, both superpowers will increasingly use containment measures to increase pressure on their allies and scale back cooperation with the other bloc.

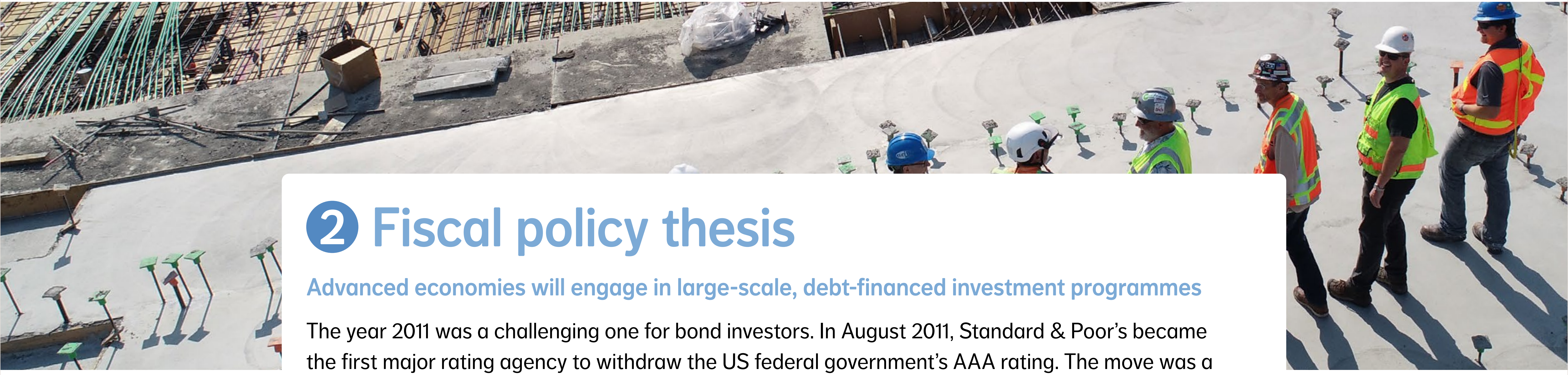
Countries will find export growth increasingly difficult. They will face more tariffs and mounting domestic political pressure to create jobs at home. The economic impact would go far beyond a further stagnation in world trade. In such an environment, multinational companies may be less able to benefit from international labour and goods markets. The integration of global financial markets might also stall. Free access to the Chinese equity and fixed income markets cannot be taken for granted in this environment.

We asked the participants in our events in Belgium and France which they found plausible: the deglobalization thesis, or a continuation of a globalized world. We allowed them to opt for both options in order to capture the tail risks that are relevant for investors. The outcome was that 60% of the participants in Belgium and 61% in France found the deglobalization thesis plausible. At the same time, 80% in Belgium and 55% in France thought that globalization might continue. The results show that investors can imagine a wide range of outcomes, which is an absolutely valid view that simply reflects the nature of structural uncertainty.

Figure 1: Global trade volume (year-on-year change)



Source: CPB, Bloomberg, NN Investment Partners



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❷ Fiscal policy thesis

Advanced economies will engage in large-scale, debt-financed investment programmes

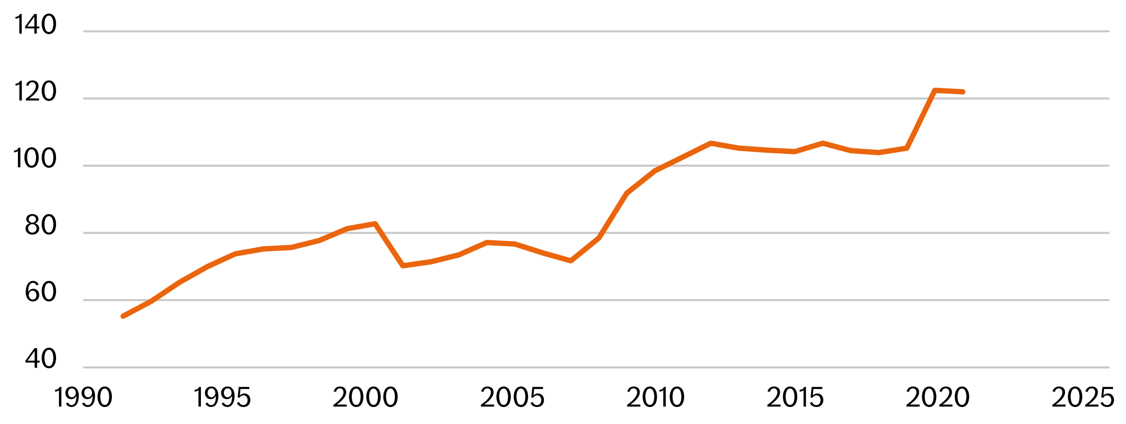
The year 2011 was a challenging one for bond investors. In August 2011, Standard & Poor's became the first major rating agency to withdraw the US federal government's AAA rating. The move was a strong signal to the Obama administration that there were limits to the government's spending plans. In Europe, the sovereign debt crisis was gathering pace and forced governments in Ireland, Spain and Italy out of office; the resolution involved the creation of institutions like the European Financial Stability Facility and the European Stability Mechanism, which carried far-reaching conditionalities. Even countries like Germany and the UK, which were not in the focus of the crisis, had introduced austerity mechanisms in the aftermath of the financial crisis.

Overall, the austerity narrative has been continuous and pervasive over the past decade. Figure 2 shows that the gross debt ratio of advanced economies remained rather stable around 105% of GDP in the decade before the Covid-19 crisis; admittedly, part of the debt consolidation was due to falling interest rates. The figure also shows that the consolidation period was a response to the sharp rise in indebtedness throughout the 2007-2010 financial crisis period, when the debt ratio rose from 72% to 98%.

Will today's costly bailout programmes be followed by an era of austerity, as happened after the financial crisis? Not necessarily. The negative experience with populist and liberal governments might pave the way for a different trajectory, and electorates may put their faith in a new generation of progressive leaders who are focused on programmes that create equal opportunities and promote inclusion.

The likely targets of new investment programmes could be in sectors that are already in the focus of election campaigns, such as healthcare, environment, infrastructure and education. Joe Biden, the US Democratic Party's presumptive presidential candidate, is calling for a USD 1.3 trillion infrastructure programme, while the European Green Deal seeks to invest EUR 260 billion to achieve its 2030 climate targets. What if these programmes are implemented and even mark the beginning of an investment-led decade? The World Economic Forum estimates the worldwide annual investment gap at

Figure 2: Gross debt as % of GDP in advanced economies



Source: IMF (forecast for 2020/2021), NN Investment Partners

0.7% of global GDP until 2040, which includes the capital needed to achieve the United Nations' Sustainable Development Goals. The idea of ramping up investment expenditures is not new, but the corona crisis might serve as an catalyst for a new social contract.

New progressive governments could finance these programmes in three ways. They might raise taxes, a realistic option in view of the widespread discontent with austerity and inequality. And with low interest rates, even as low as zero, they could also accept higher indebtedness. The third possibility is that additional investments might actually prove to be effective and generate economic growth beyond the initial investment. Higher GDP would imply a lower debt ratio and should also increase tax receipts. In reality, the likely outcome would be a mix of the three effects.

If new debt is used to finance the investment programmes and additional expenditures, countries' credit ratings might come under pressure and new debt crises like that of 2011 cannot be ruled out. At the same time, the higher government debt will most likely be matched by additional fiscal repression, and central banks might find themselves in an awkward position: any move away from zero rates will derail the fiscal position of their governments. Hence, low rates might turn out to be a stable equilibrium – at least as long as inflation does not flare up.

A large majority of the participants at the two events considered large-scale and debt-financed investments plausible in the future: 95% in France and 100% in Belgium. The level of belief in an austerity-led future was much lower, at 75% in Belgium and only 11% in France.

❸ Growth thesis

New technologies and innovative businesses will lead to a decade of high growth

A quick look at the economic history of the US since World War II shows a golden era of high growth in the 1950s and 1960s. This was followed by economic turbulence in the 1970s, growth spikes in the late 1980s and around the year 2000 and the weak recovery from the financial crisis after 2008.

Figure 3 shows per capita growth in US GDP since 1950, rolling over a five-year window. This indicator can be thought of as a smoothed measure of US productivity growth, which also summarizes the economic history of the post-war era.

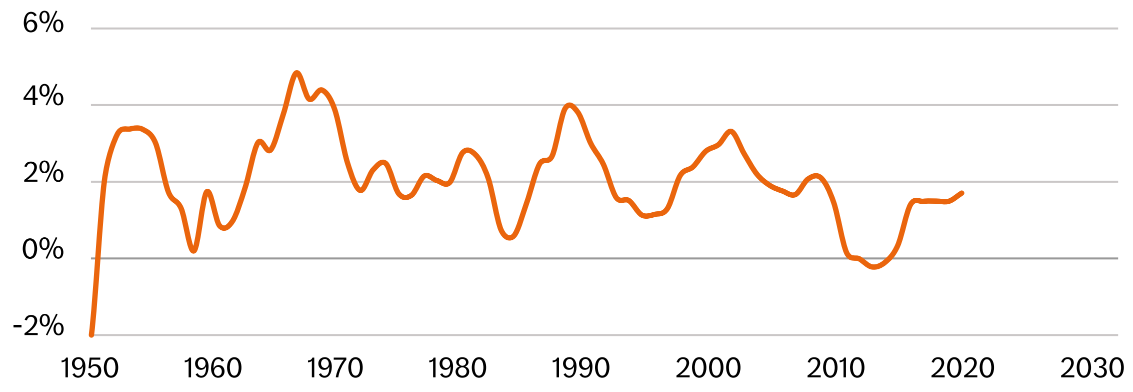
The low productivity growth of the past decade, not only in the US but also in Europe, has triggered a discussion among economists about whether the advanced economies are suffering from secular stagnation. Economists including Lawrence Summers argue that the combination of ageing societies, low inflation rates, limited need for investments and a global savings glut create an environment of structurally low growth rates. Similarly, Professor Robert Barro argues that the innovations since the 1970s simply have not enhanced human productivity as much as the inventions of the century preceding 1970. What would the future look like if the advanced economies escape secular stagnation?

The growth thesis asserts that new technologies and a boom in responsible investment projects and innovative businesses could lead to a decade of high growth. Klaus Schwab, the founder of the World Economic Forum, and Nicholas Davis, a former member of the forum's executive board, identify 12 technology clusters that will shape the Fourth Industrial Revolution[1]. The list of technologies includes artificial intelligence, robotics, additive manufacturing, neurotechnologies, biotechnologies, augmented realities, advanced materials and energy technologies. The growth thesis implicitly asserts that the sum of all these technologies will spur productivity sufficiently to generate a high-growth decade. In addition, the investment programmes implied by the fiscal policy thesis will build the necessary prerequisites for technological advances, such as 5G networks and state-funded research projects, and will add another stimulus.

At the business level, the adoption of new technologies and invention of profitable new business models should clearly foster growth. However, there is much to be gained from the seemingly mundane implementation of best management practices. Researchers Raffaella Sadun, Nicholas Bloom and John Van Reenen[2] ranked more than 8,000 firms in 20 countries, scoring them on a five-point scale in terms of their adoption of 18 basic management practices. They found that a one-point improvement of the management score was associated with a 23% increase in productivity. More than 30% of the US businesses assessed did not exceed a value of 3; hence, there are plenty of productivity gains left to be harvested.

A high-growth scenario would help governments stabilize their indebtedness and enable central banks to return to "normal" interest rates. To that end, this is the best of all scenarios, but the implication on the equity side

Figure 3: US real per capita GDP (five-year rolling growth per annum)



Source: Bergeaud and Lecat (2016), NN Investment Partners

is not entirely straightforward. Tech companies like Google, Facebook and Amazon[3] have come to dominate their respective market segments; a winner-take-all market structure made them highly profitable. Assuming that the business of the future can also achieve such a dominant market position, the high-growth scenario would be beneficial for equity investors. However, the progressive zeitgeist might also come with more anti-trust policies and higher taxes, which would make the outlook for equities less positive.

New investments and new business strategies could give rise to significant growth potential. Our polls show that 83% of the Belgian participants but only 45% of the French participants found the innovation-led growth thesis plausible. In contrast, 73% of the French and 67% of the Belgian respondents could imagine a period of secular stagnation.

1 "Shaping the Future of the Fourth Industrial Revolution", 2018, Penguin Random House.
2 "Does Management Really Work?", November 2012, Harvard Business Review.

3 All companies mentioned are for illustration purposes only. Company name, explanation and arguments are given as an example and do not represent any recommendation to buy, hold or sell the stock.

Photo by Michael Steinberg from Pexels

4 Inflation thesis

Inflation in the advanced economies will rise to levels not seen since the 1970s

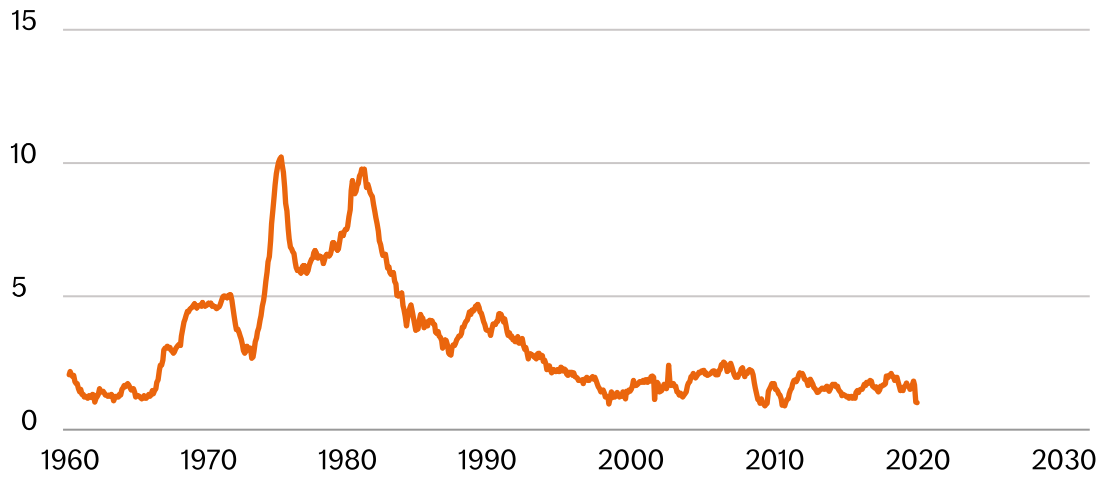
Inflation trends in the post-war era can be subdivided into three periods. The first covers the years from 1960 until the outbreak of the first oil price shock in 1973. High economic growth in this period was accompanied by relatively moderate inflation rates below 5%. The second period ran from the 1973 oil price shock until the beginning of Paul Volcker's chairmanship of the US Federal Reserve in 1980. During that time, the inflation rate ranged mostly between 5% and 10%. The third and final period, which began in 1980, includes what is commonly known as the "Great Moderation" and describes the long decline in the inflation rate from roughly 10% to, most recently, only 1%.

Figure 4 shows US inflation since 1960 in terms of annual changes in personal consumption expenditure prices.

The inflation hypothesis asserts that, in the coming decade, we might observe a structural break in this decline and the return of high inflation rates of 5% or more. Under what circumstances could such a scenario materialize?

Most central banks have a mandate to maintain price stability, which generally implies an implicit or explicit inflation target

Figure 4: US inflation rate (PCE ex food and energy, YoY %)



Source: St. Louis Federal Reserve, NN Investment Partners

of around 2%. Central banks raise interest rates if inflation pressures build, and Volcker was forced to hike the federal funds rate to about 20% to overcome the high-inflation regime of the 1970s. In doing so, he credibly asserted that the Fed would do what it takes to maintain price stability. This credibility fostered the notion that the Fed "anchors inflation expectations" around the target level. A return of high inflation rates would imply that the Fed (or the ECB) had failed to take sufficient action to anchor inflation. In other words, it would take a policy mistake on the part of the central banks to return permanently to high inflation.

This leads to the next question. Under which circumstances might the Federal Reserve be tempted to defend price stability only half-heartedly? It could happen if the Fed's other explicit or implicit mandates – the achievement of full employment and financial stability – were called into question.

Imagine that inflation rebounds from the currently low level. Deglobalization could push prices on the good markets higher and the shortage of labour and new progressive policies might boost wages. We can also add the possibility of a much higher US debt burden as collateral damage from the large-scale investment programmes.

Now, assume a traditional inflation shock, like a steep rise in the oil price. Would a future Fed chair feel comfortable hiking rates, say from 2% to 4%, if such a move could derail the fiscal position of the US government and even push the economy into a recession? Under the "anchored inflation" notion, the answer would be yes. But the risk is that the policy response might be insufficient. The same situation might also arise in the Eurozone, where the debt situation of the economically weaker member states might create even a tougher policy trade-off.

At the moment, there is no reason to doubt that inflation expectations are well-anchored in the US and in the Eurozone. However, the results of our polls show that such a scenario is not on most investors' radar screen: 40% of the Belgian investors find the high-inflation scenario plausible, and the corresponding number in France is only 33%. Is this a correct reflection of the current situation, or would it be helpful to think through the implications of such a scenario? Conversely, the deflation scenario is plausible for about 60% of investors in both countries.

Conclusions

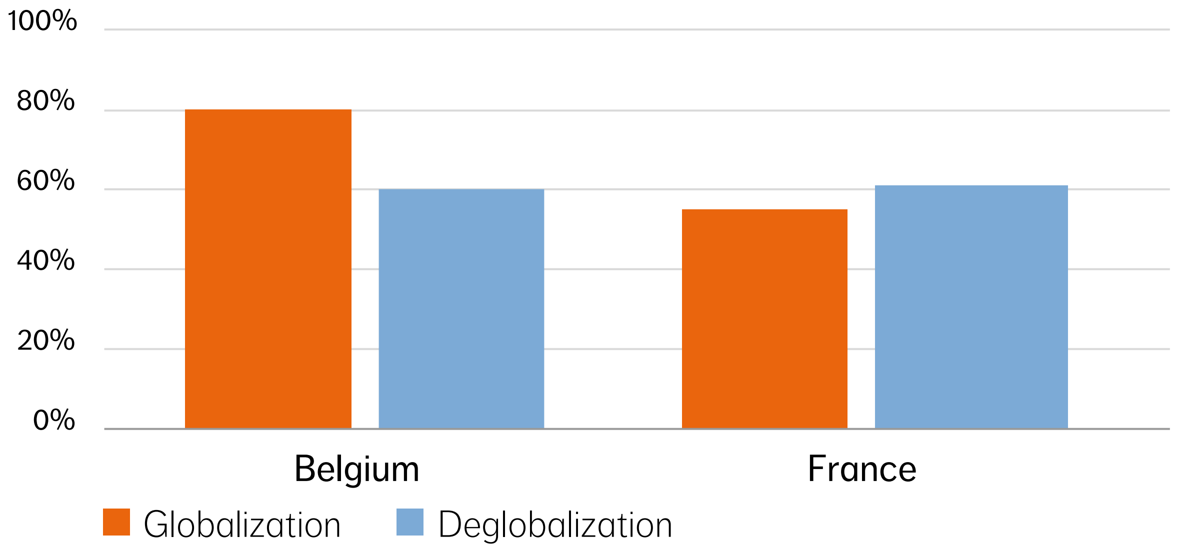
This publication presents four potential paradigm shifts for the coming decade: **deglobalization, debt-financed investment programmes, innovation-led growth** and **high inflation**. As mentioned in the introduction, these shifts are not forecasts, but are meant to be thought-provoking theses that can prepare us to expect the unexpected. As such, they do not represent a single scenario, but they are reasonable building blocks for constructing various scenarios.

The results of our survey of 49 Belgian and French clients are presented on the following page. They seem to indicate, among other things, that the inflation scenario is not foremost among investors' concerns. This is remarkable, because the inflation thesis rests on three arguments: some inflation pressures might build up in the wake of the deglobalization process; the occurrence of secular stagnation might leave governments struggling with their debt burdens; and rising debt might create a challenging trade-off for central bankers, once inflation starts to rise. The poll results show that the three pre-conditions are seen as plausible in isolation. Hence it might be worth thinking about alternative outcomes for inflation in the coming decade. It might also be useful to prepare a "pandemic plan" for the potential paradigm shifts. Such a thought process might lead to timely enhancements of the investment process, the use of new solutions and the monitoring of new risk factors.

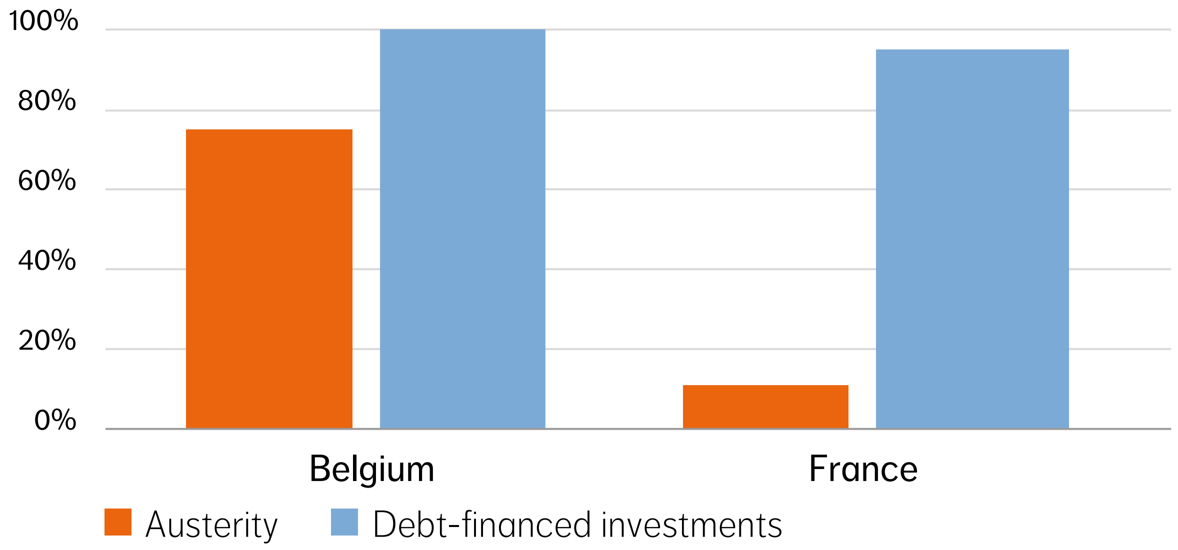
Feel free to reach out to NN Investment Partners if you would like to discuss your thoughts about these or your own unknowns for the future.

Which outcomes are plausible in the coming decade?

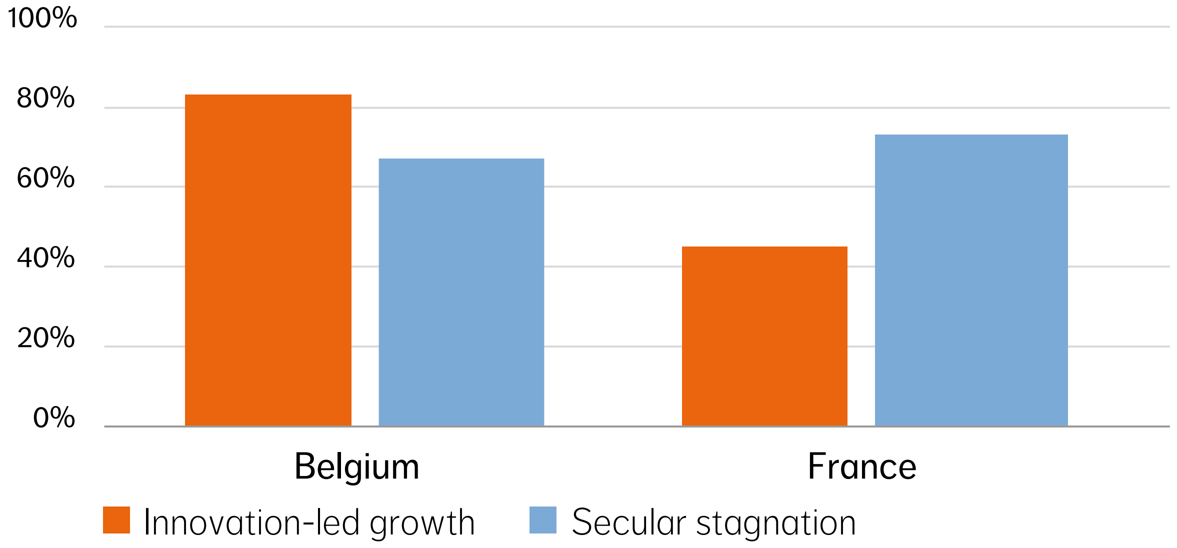
Poll 1: Globalization or deglobalization?



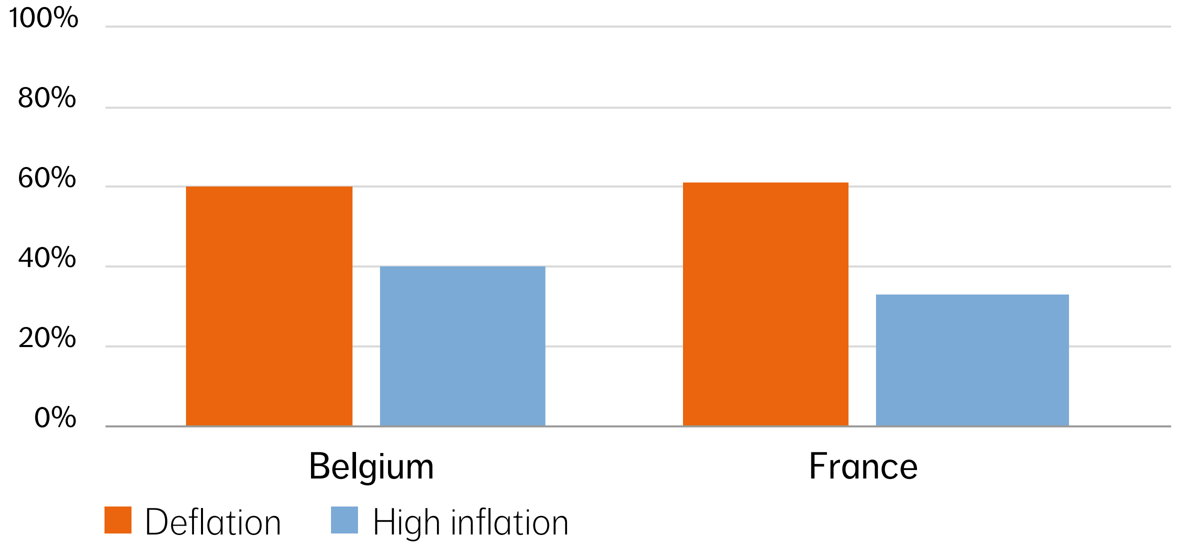
Poll 2: Fiscal austerity or debt-financed investments?



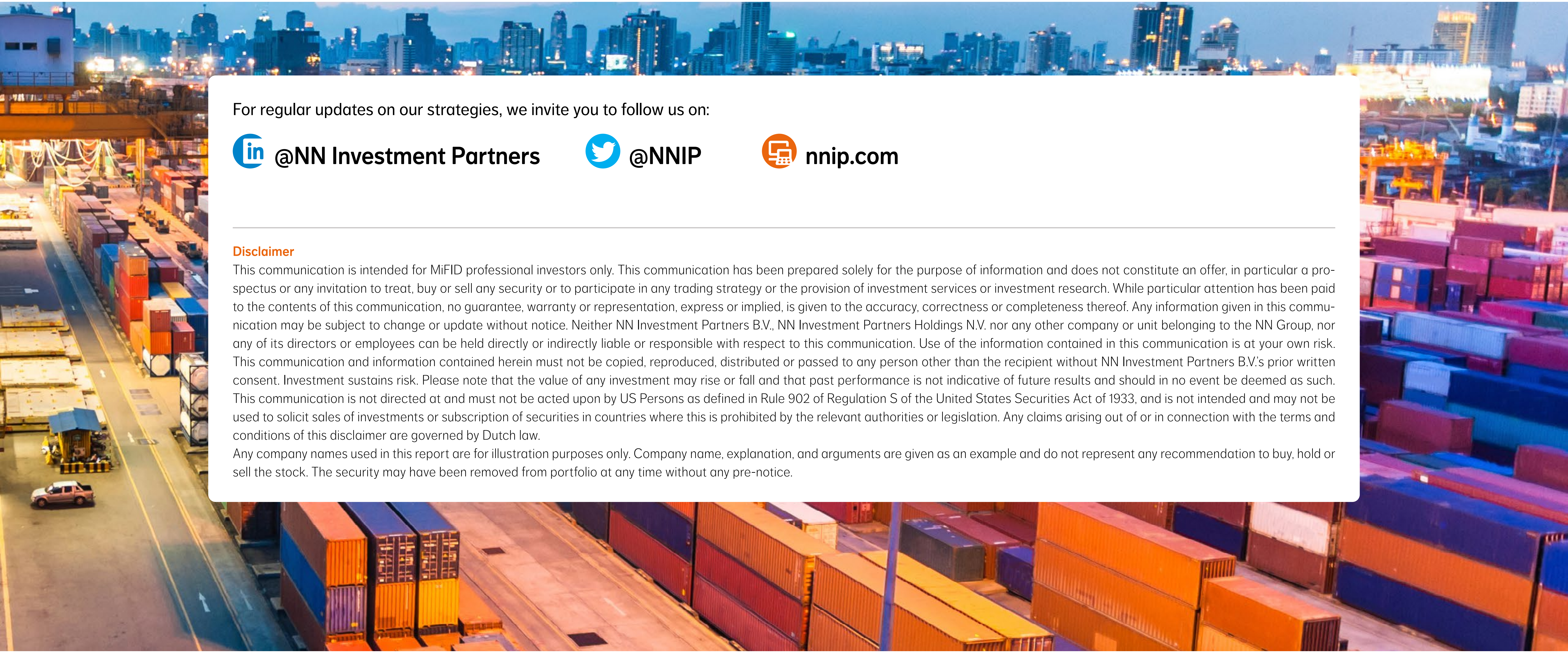
Poll 3: Innovation-led growth or secular stagnation?



Poll 4: Deflation or high inflation?



Source: NN Investment Partners



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