Anthos Annual Investment Outlook 2023-2024

De-globalization: from efficiency to security in a new world order

Anthos Fund & Asset Management

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1 Key messages

Special topic: de-globalization

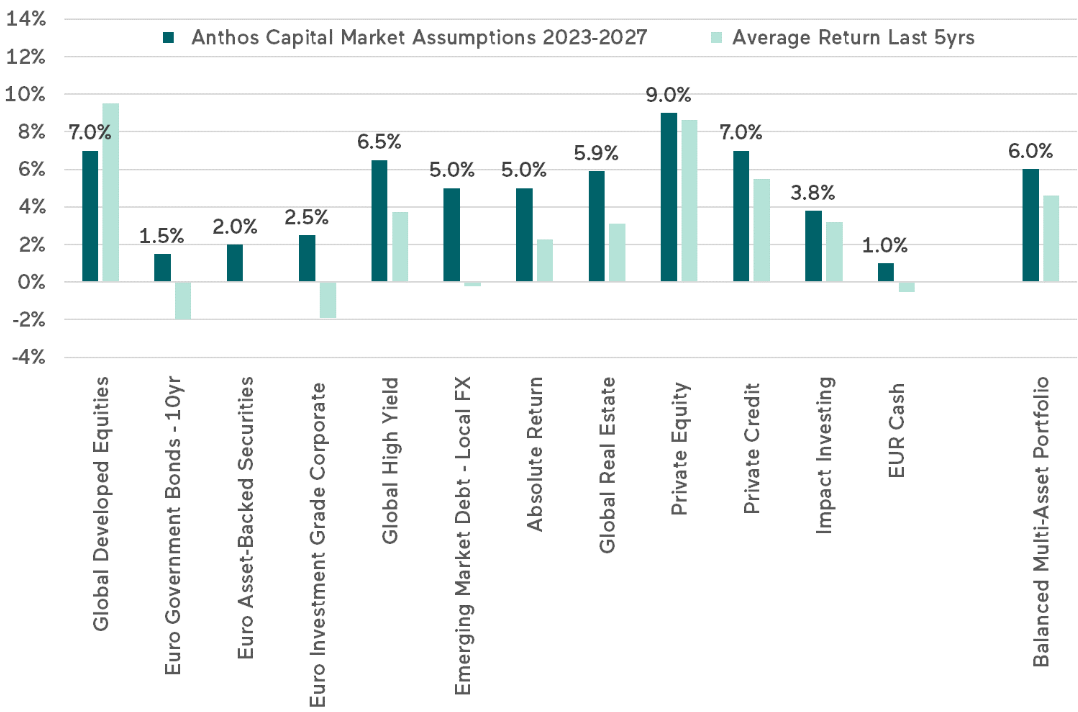
- The 2022 supply shock in product, labour, and commodity markets has shifted public policy preferences. Priorities will shift from economic efficiency to resilience and security of resources, technology and data flows. These trends were already underway but are accelerated by the COVID pandemic and the Russia-Ukraine war.
- We are witnessing a shift in the balance of power towards a multi-polar world in which national security becomes an important driving force of regional economic policies. To ensure resilience and security, supply chains will be re-aligned among like-minded partners: focus on just-in-case inventories rather than just-in-time deliveries. Geopolitical competition will also lead to increased scrutiny of technology, with the US-China tech conflict as a prime example.
- For all the talk about de-globalization, re-shoring and de-coupling of global supply chains, expect this to be a gradual process of re-arranging the balance of power, rather than an outright 'war for resources'. Within global flows, we observe a shift from trade flows in manufactured goods to flows driven by services, intangibles and data. Also, no region is close to being self-sufficient in essential resources and manufactured goods.
- An economic consequence of de-globalization is a regime shift to structurally higher inflation. If globalization facilitated free trade and investment and with that, low inflation, the new multi-polar world may do the reverse: create a regime of structurally higher inflation, globally.
- We expect more capital investment and the growth of "national champions" in areas of high priority in terms of security of (natural) resources and technology. Investment is required in three areas: defence, commodities (food & energy supply) and energy transition. Two common denominators in all these domains are: commodity intensity and capital intensity, which should provide for attractive investment opportunities for long-term investors.
- To the extent that corporates use a larger portion of internally generated cash flows for capital spending, lower corporate cash balances could mean lower volumes of M&A and share buybacks and thus less structural support for equity markets than seen in recent years. In an environment of structurally higher inflation, this could also limit (or even reverse) the outperformance of financial over real assets.

Economic and policy environment:

- The Russia-Ukraine war and its impact on inflation has quickly and completely changed central banks' policy priorities: rhetoric about inequality and climate change has made way for an aggressive monetary tightening campaign in which failure is not an option. Central bank tightening has been very aggressive this year, which means that overly tight policy is likely to trigger an economic recession in both Europe and the US next year.
- In the short-term, the global economy may enter a broad economic recession (with regional differences) next year on the back of tight financial conditions. Our longer-term outlook however, is that economic growth in the US and the Eurozone can stay above potential/trend growth, with inflation declining further but settling at higher levels than seen in the past 20 years and remaining above central bank targets.
- Central banks have been important contributors to low economic and financial market volatility in recent years, but are likely to remain a source of volatility going forward. With the supply side of the global economy more sticky due to de-globalization and the redesign of global supply chains, inflation may be driven more by demand fluctuations and is likely to be more volatile than during the Great Moderation, when central banks dampened the cycle with monetary policy.
- Our main conclusion is that there is significantly more uncertainty around our outlook for the global economy in 2023-2024 than would otherwise be the case, which makes our economic scenario framework even more relevant.

Investment environment:

- Given our expectation of structurally higher inflation and inflation volatility, assets that offer real returns could do well, e.g. with cash flows fundamentally linked to inflation, such as real estate, infrastructure, private credit (in certain sectors) or even forestry and farmland.
- Cyclically, corporate profit margins are likely to narrow on the back of rising input costs, wages and higher financing costs. At the same time, in an environment of strong nominal economic growth, corporate sales volumes can remain well supported. On balance, we expect that corporate margin compression is likely to reduce corporate risk taking.
- In line with the current late stage of the business cycle (tight labour markets and monetary policy), the credit cycle has moved from expansionary phase into contraction phase and the price and availability of credit are deteriorating. This means credit quality, asset coverage and an active approach to credit investing becomes more important. While the private credit market has grown significantly in size and depth in recent years, it has not experienced a high default cycle yet, which makes us cautious in the short-term. We also become more cautious towards private equity as deal flow and exits to strategic buyers and public equity markets (IPOs) stall.
- Economic policy risk is likely to remain amplified in the years ahead as the job of cushioning the business cycle in tough times shifts from monetary policy, run by technocrats currently suffering from a lack of credibility, to fiscal policy, run by politicians. Accordingly, market volatility is likely to stay elevated and risk premia should be materially higher across the risk curve.
- Diversification of global investment portfolios has been impaired by rising correlations across asset classes and regions, which in turn was driven by globalization and extreme central bank liquidity provision. With de-globalization, re-shoring and regionalisation, correlations can decline going forward, which may increase diversification potential.
- Taking investment risk is still rewarded in the medium-term. Indeed, the 2022 decline in valuations and increase in risk premia across most financial assets has improved the outlook for investment returns going forward. At current yield levels, most fixed income categories have again become a viable investment alternative for equities in strategic asset allocations. We expect a balanced multi-asset portfolio (moderate risk profile) with both traditional and non-traditional asset classes to deliver an average net return of around 6% over the next five years; well above the average return over the past five years.



Source: Anthos Fund & Asset Management. Anthos Capital Market Assumptions for 2023-2027 include an assumed USD/EUR return (based on PPP valuation & USDEUR forward premium/discount) of -1.8% per annum, applied to the USD exposure of relevant market indices. Balanced Multi-Asset Portfolio: 40% public equity, 25% private equity, 10% global real estate, 14% corporate & EM sovereign bonds, 8% absolute return, 2% impact investing and 1% cash.

2 Special topic: de-globalization, the shifting balance of power in resources & technology

2.1 Introduction

In this section, we single out an important trend that is likely to influence the macroeconomy and capital markets for the next five to ten years: de-globalization. The key message from last year's secular outlook for the global economy was one of **a gradual shift from secular stagnation to policy-driven nominal growth.** We signalled a 'bull market in politics' in which the 'invisible hand' of big government is tackling challenges such as inequality, market concentration, monopolistic pricing and climate change. We expected government policies to focus on a redistribution of (the benefits of) growth.

While we believe this 'state-sponsored capitalism' will remain an important economic theme over the next decade, the 2022 supply shock in product markets (gridlocked global supply chains), labour markets (recovering labour demand vastly outpacing shrinking labour supply) and commodity markets (energy crisis resulting from the Russia-Ukraine war) has shifted public policy preferences. **Priorities will shift from economic efficiency to resilience and security of resources and technology.** Driving these priorities are three secular trends that were already underway, but accelerated by the impact of the COVID-19 pandemic and the Russia-Ukraine conflict:

1. **Geopolitical shift towards a multi-polar world.** The continued rise of China as an international economic power (China's size of the economy will overtake the US in 2025) and the re-emergence of Russia as a military force (weaponizing its commodity exports to the rest of the world) are creating a multi-polar world, in which national security becomes an important driving force of regional economic policies. Political and cultural alignments lead to the formation of a few large core trading blocs.
2. **De-globalization and regionalization.** Realizing that the just-in-time globalized economy was not well prepared for an exogenous shock, countries are rewiring their trade, energy, tax and currency regimes in order to make each country and its partners more resilient. But this resilience will come at a price: higher inflation, lower productivity and -potentially- lower asset valuations. Globalization is not over, but international cooperation (including trade and foreign investment) will focus more on like-minded partners in the same region: regionalization.
3. **Securing food/energy/technology/supply chains.** To ensure resilience and security, supply chains will be re-aligned among like-minded partners: focus on just-in-case inventories rather than just-in-time delivery. Free trade of goods, labour, technology and commodities is being replaced by 'friend-shoring' and 'free but secure' trade with aligned partners. Geopolitical competition will also lead to increased scrutiny of international technology and data flows, with the US-China tech war as a prime example.

An economic consequence of the trends outlined above is a regime shift to structurally higher inflation. If globalization facilitated free trade and investment and with that, low inflation, the new multi-polar world should do the reverse: create a regime of structurally higher inflation, globally. The next few paragraphs will describe these secular, medium-term trends in more detail.

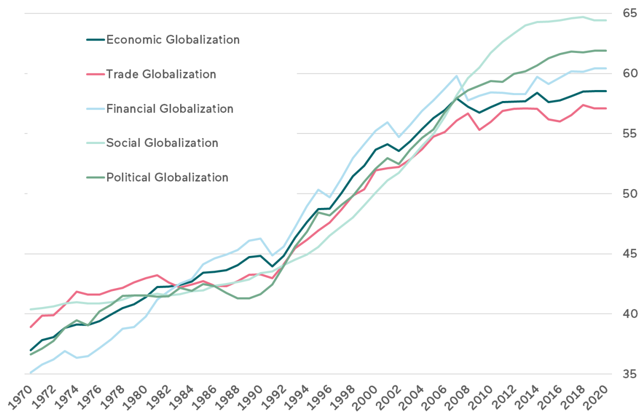
2.2 Geopolitics: shifting to a multi-polar world

We see a new international economic order emerging: from globalization and free trade/investment between developed markets (DM) and emerging markets (EM), to 'friend-shoring' and 'free but secure' trade with aligned partners. In this multi-polar world, national security becomes a driving force of the fragmentation of global trade and supply chains, next to economic efficiency. The problem for the West is that essential commodities, technology and transportation routes are dominated by states (Russia and China) that are in conflict with the West. A more aggressive scenario for this new economic order would be an economic war about the control of technology (chips), commodities (mostly energy) and production (supply chains). The West can deal with this new world order and regain control by using industrial policy. **Investment is required in three areas: defence, commodities (food & energy), and energy transition. Two common denominators in all these domains are commodity intensity and capital intensity, which should provide for attractive investment opportunities for long-term investors in the next few years.**

2.3 De-globalization has many different faces

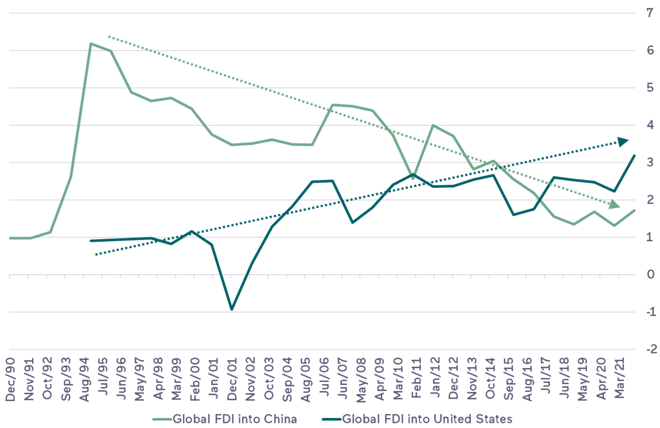
Even before the COVID pandemic and the Russian invasion of Ukraine, the world hit peak globalization a few years ago. The left chart below illustrates this well with various measures of globalization.[1] Another good measure of global markets' integration is foreign direct investment (FDI): investments from a company in one country into a company in another country with the intention of establishing a lasting and actively managed interest (as opposed to portfolio investment, where companies passively hold securities from a foreign country). Recent US legislation to limit the foreign acquisitions of US companies for national security reasons is a good example of a non-tariff barrier to globalization. The result has been a decline in bilateral US-China FDI from its peak in 2015, but also a gradual shift in global FDI from China to the US (see right chart below). To a certain extent this shift is another sign that the Chinese market is maturing, as domestic players become more prominent and competition intensifies. However, it seems that increasing US-China tensions in the areas of trade and technology also play a role here.

Peak globalization is behind us



Source: KOF Globalization Index

Global foreign direct investment into China and US (% of GDP)



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Other illustrations of de-globalization include:

- Globalization has been one of the main forces driving the structural increase in US corporate profit margins and decrease in the share of labour compensation in GDP since the early 2000s. Going forward, re-onshoring of production capacity away from China towards the higher-wage domestic US economy is likely to increase labour costs and narrow corporate profit margins: a trend that has already been progressing over the past 10 years (with most recent data heavily distorted by the collapse and subsequent recovery from the COVID pandemic).

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[1] Gygli, Savina, Florian Haelg, Niklas Potrafke and Jan-Egbert Sturm (2019): The KOF Globalisation Index – Revisited, *Review of International Organizations, 14(3), 543-574* https://doi.org/10.1007/s11558-019-09344-2.

- Re-shoring of manufacturing activity to the US also drives a decline in the share of foreign profits in total profits of US corporations, reflecting increased dominance of domestically-focused sectors in the economy. In addition, stocks of companies with greater domestic sales have been outperforming the overall market in recent years, notably in the resource-intensive capital goods sectors. Finally, manufacturing is moving back to the US and the number of unfilled jobs has been rising steadily since 2009, especially in the manufacturing sector.
- Decline in foreign official institutions' holdings of US Treasuries, most notably by China. It seems that China is blending geopolitical objectives into their foreign exchange management policies.
- Rise of digital service taxes; simply service sector taxes by another name. A large number of countries will apply digital services taxes to US tech giants, with potential retaliation by the US. This already feeds into inflation: Amazon, Google and Apple are already passing along the cost of these service taxes to their enterprise clients. The rise of digital service taxes is especially relevant because, in an increasingly digitized global economy, we would expect a continuation (if not acceleration) of the sectoral shift in global trade activity from goods to services and technology that we observed in recent years
- Several countries have announced plans to build up semiconductor production capacity domestically, in order to reduce reliance on Taiwan as a supplier. Also, citing national security concerns, countries such as Germany and the UK have recently toughened their stance towards Chinese investors interested in their local semiconductor industry: both inward and outward foreign direct investment by Chinese-owned or affiliated companies is being restricted.

We believe that globalization will evolve but not unravel: it's not easy to unwind decades of economic and capital markets integration. There is plenty of talk about 'reshoring' (returning production of goods back to a company's original country) but evidence is limited so far, partly because global supply chains are very complex and therefore hard to unravel. Also, no region is close to being self-sufficient in essential resources or manufactured goods. Finally, we observe a shift *within* global economic flows from trade in manufactured goods to services, intangibles and data (global services trade grew twice as fast as good trade since 2015, UNCTAD). We expect that countries will not suddenly stop trading with each other but are likely to focus more on like-minded partners in their region rather than countries with different (and sometimes conflicting) geopolitical and national security interests on the other side of the world. **Regionalization means that groups of countries are likely to retreat into their own spheres and the premise of a single global economy that optimizes utilization of resources will take a backseat.**

2.4 Security of food, energy and technology

The need to reduce dependence on Russia for agricultural and energy commodities has been well documented in recent months. Security of supply of essential resources has become a high policy priority in many regions across the world, most notably in Europe. However, in this section we zoom in on another structural trend: the rise of 'digital sovereignty' as a national security issue and public policy priority. To illustrate the complexity of re-designing global supply chains in the context of securing resources, we show how a highly integrated and complex global semiconductor supply chain makes different players dependent on each other, relying on positive geopolitical relationships to secure access to resources as well as revenues. While the semiconductor supply chain is an extreme case in point, the dynamics are similar in other industries. **Our key message is: for all the talk about de-globalization, re-shoring and de-coupling of global supply chains, expect this to be a gradual process of re-arranging the balance of power, rather than an outright 'war for resources'.** As US President Biden recently commented: 'We want competition with China, not confrontation'.

In an increasingly digitized globalized economy, data privacy and security and access to technology have attracted increased regulatory scrutiny by policy makers, with the US-China chip technology rivalry as a prime example. The stakes for all actors are high: semiconductor chips were the world's most traded product in 2020 (with 15% of global trade volume) and are used in almost every electronic device we use, including smartphones and cars. As Taiwan became the key global supplier of semiconductor chips (with a market share of 54% and a 90% market share for advanced chips), the US share in global semiconductor production fell by 65% between 1990 and today. Over the same period, China's production share increased from 1% to 15% (albeit mostly in low value-added stages of production: assembly, packaging and testing). Despite this growth, today China spends more money importing chips than it spends importing oil, which is why under its current five-year plan China aims to achieve 70% self-sufficiency in semiconductors by 2025. US companies are highly exposed to the Chinese market (30% of exports) while Taiwan (TSMC) and the Netherlands (ASML) only derive 10-15% of their revenue from China.

Three datapoints illustrate the complexity of the global semiconductor supply chain very well:

- There are more than 50 points across the semiconductor value chain where one region holds more than 65% of the global market share;
- If each region was to have a self-sufficient local supply chain (to meet current semiconductor consumption), each country would need to invest $1 trillion in incremental capital. This would increase semiconductor prices by 35% to 65%, according to the Semiconductor Industry Association;
- The lithography machine created by the Dutch company ASML have 4,000 suppliers of components, and their key component suppliers have hundreds of thousands of their own suppliers.

The US has recently released new rules prohibiting US companies from exporting technology, software and equipment used to produce advanced computing chips to China[2]. **These rules represent a US policy shift from outpacing Chinese technological advances to a targeted decoupling of the semiconductor supply chain.** However, the combination of America's new restrictions on exports of chip technology and China's control of critical materials is a lose-lose proposition for the semiconductor industry in the near- to intermediate- term. Innovation is likely to slow in both China and the U.S., and there will be many losers. The restrictions will also likely impact China's plans to become a lead innovator for AI and electric cars by 2030.

Re-arranging the balance of power in technology may imply the formation of three international blocs: US and allies, China and allies, and the rest of the World. Given the dominance of Taiwan in the global semiconductor supply chain, the country is at the heart of US-China tensions. Both the US and China will also want to reduce their dependence on Taiwan because it is located in one of the most tectonically complex regions of the world: a natural disaster in Taiwan would disrupt the entire industry[3]. However, given the capex intensity of semiconductor production and the technological advantage Taiwan already has, the same cost efficiency will be hard to achieve. So while the need to reduce dependency and increase resilience is clear (just like it is in many other, more natural production resources), the path to achieving it is likely to be long and characterized by healthy competition between regions. **We conclude that all parts of the global semiconductor supply chain have a strong interest to prevent an outright 'tech war' by keeping all lines of communication open: all countries (most notably the US and China) are simply too intertwined to countenance a new cold war.**

[2] For all the concerns about the aggression and unpredictability of former US President Trump's trade war with China, this decision by President Biden may turn out to be much more consequential for US-China (and thereby global) geopolitical and trade relations.
[3] The impact of the semiconductor shortages resulting from the COVID pandemic on industries ranging from car makers to the building of 5G networks, provides a good illustration of what such a scenario would look like.

2.5 Investment implications of de-globalization: regime shift to structurally higher inflation and capital spending

The investment implications of de-globalisation and the focus on security of scarce resources and strategically important national assets are global and wide-ranging. **De-globalization removes a key disinflation driver of the past four decades: labour arbitrage – the ability of offshore labour to keep wages low.** In an economic environment of higher input costs (resources, labour and financing costs) and weakening aggregate demand, we would expect corporate profit margins to narrow going forward. The current cyclical pressure of higher wage growth comes on the back of rising labour costs due to re-shoring production capacity from low-labour cost regions (the beneficiaries of globalization) back to Western countries where wages and other input costs are typically higher. The tightness of the labour markets is pushing up wage growth, which over time will increase employees' bargaining power, allowing them to earn a bigger share of the economic pie at the expense of profit margins (see left chart below, where trends since 2015 have been distorted by the 2020 pandemic but we expect them to continue going forward).

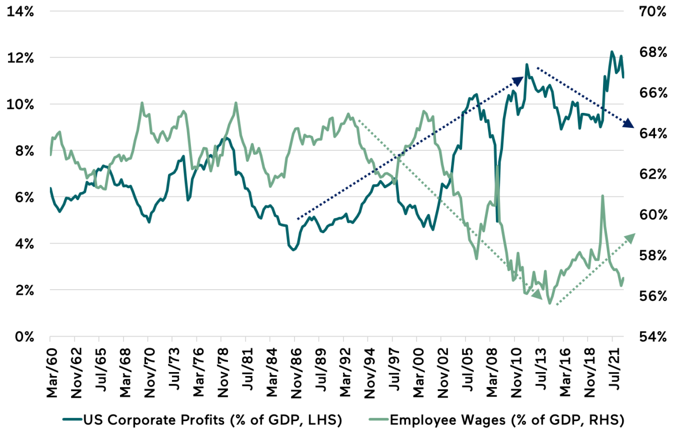
In general, we expect significantly more capital investment and the growth of "national champions" in areas of high-priority in terms of security of (natural) resources and technology. More specifically, this capex will be geared towards 1) building out domestic semiconductor production capacity, 2) sectors of national security interest, such as aerospace and defence, 3) renewable energy infrastructure, and 4) achieving greater energy efficiency. From a macro perspective, this implies higher budget deficits, inflation and tighter employment conditions. We question the general economic argument that higher capital spending automatically translates into higher productivity and thereby lower inflation, simply because much capital spending will be geared towards developing new technologies and infrastructure. History shows that economic efficiency is mostly achieved in later development stages when new technologies are integrated into traditional business models and processes.

Higher capital spending may also translate into lower corporate cash balances, as corporates use a larger portion of internally generated cash flows for capital spending. **In turn, lower corporate cash balances could mean lower volumes of M&A and share buybacks and thus less structural support for equity markets than seen in recent years. In an environment of structurally higher inflation, this could also limit (or even reverse) the outperformance of financial over real assets** (see right chart below).

For a view on what to expect in terms of impact on the broader economy and corporate sectors in particular, the 1970s can give some guidance: outperforming sectors were industrial goods, construction, energy, food and telecom. Interestingly, these equity sectors are overrepresented with the 'value' part of the equity market (i.e. not growth stocks). It is also interesting to note that the spike in energy prices in the 1970s unleashed a wave of more energy efficient goods and materials in the 1980s, as capex became more economically viable at high energy prices. In turn, this led to a sustained decline in energy intensity (tons of CO_2 generated per unit of economic growth).

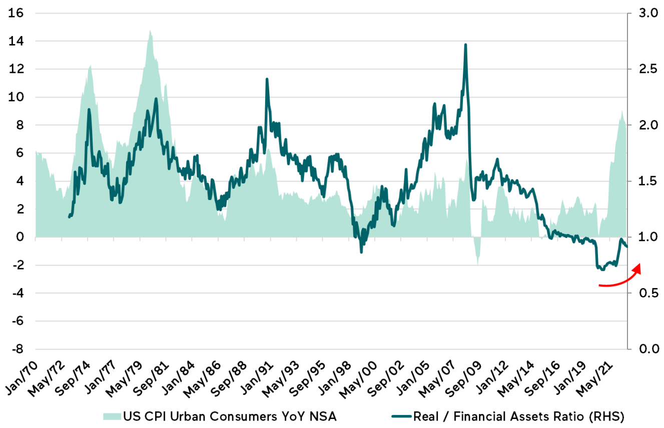
Security needs are now added to the de-carbonization ambitions of the energy transition. So, beyond capital investment into climate solutions (renewable energy, batteries & storage, EVs and energy efficiency) we see the need to build more resilient and secure transportation (pipelines, power grids, etc). This could create a capex super-cycle in the next decade, offering interesting investment opportunities for asset owners with long-term capital. These investment opportunities are a.o. in: renewable energy (infrastructure/networks and storage), transportation (energy logistics, maritime, containers, aircraft) and commodities linked to the energy transition (aluminium, copper, lithium, zinc) and food security.

Who gets a share in the economic pie?



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Outperformance of financial over real assets may be ending



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

3 Secular outlook for growth and inflation

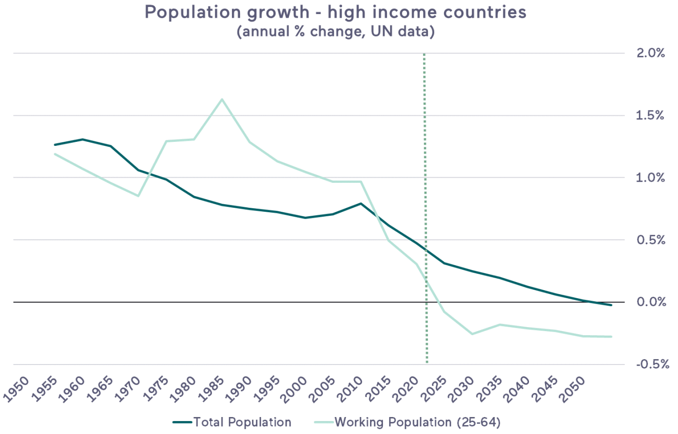
As we highlighted in last year's Annual Investment Outlook, in an environment of state-sponsored capitalism, higher nominal economic growth is the way forward. To be sure, this can be achieved by either higher real growth or higher inflation, or a combination of both. To which degree policy makers are able to engineer this regime change will determine where we are in the context of our macro-economic scenario framework (more on this in section 5). But first we outline our secular 5-10 year outlook for economic growth and inflation in this section 3.

3.1 Demographics, productivity, China's structural slowdown in economic growth

In the long run, the growth potential of any economy is determined by the available resources and the efficiency with which these resources are deployed. Simplified: population growth and productivity growth. For our secular 5-10 year outlook period, the United Nations expects developed economies' population growth to be around 0.25% while the working-age population will actually shrink going forward. The declining contribution of the workforce to economic growth and, with that, the return on investment is hardly debated. This is different however, for the second term of our growth equation: productivity growth. Following the boom of the late 1990s and early 2000s, labour productivity has been in decline, with an acceleration since the 2008 financial crisis. Since 2016, it has shown revival with the manufacturing recovery following the pandemic leading to particularly strong productivity growth (more production, but with less workers).

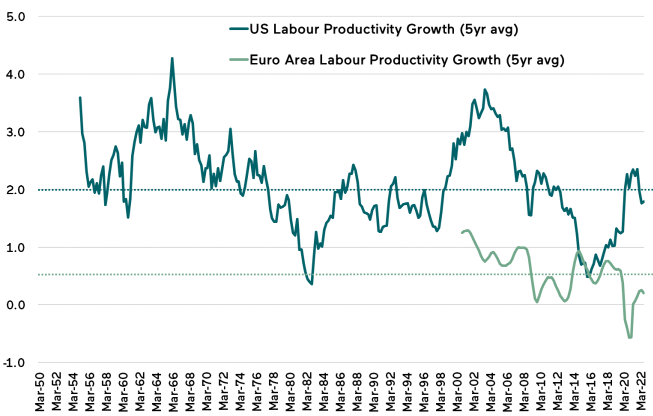
Throughout history, productivity growth tends to follow regimes or longer-term trends and these regimes cluster around major economic events. This means that the previous regime provides little information about the next and the safest bet may be to assume that productivity growth will revert to its long-term mean (around 2% per annum in the US and 0.8% in the Eurozone, see chart below). As for China, the country is facing a structural, not cyclical, slowdown as it has hit the constraints of investment-led growth. It's labour cost advantage over the West has disappeared and the government-sponsored property bubble is slowly but surely bursting. The allocation of a larger share of credit and investment to infrastructure and housing led to lower returns to capital, a rapid build-up in debt, and higher risks to economic growth. Economic reform, more efficient allocation of capital and accelerated adoption of new technologies and innovation are important conditions for China to be able to reverse its decline in productivity growth (currently around 1.5% p.a.).

Working population set to shrink as of 2025



Source: Anthos Fund & Asset Management. United Nations

Labour productivity to revert to long-term historical average

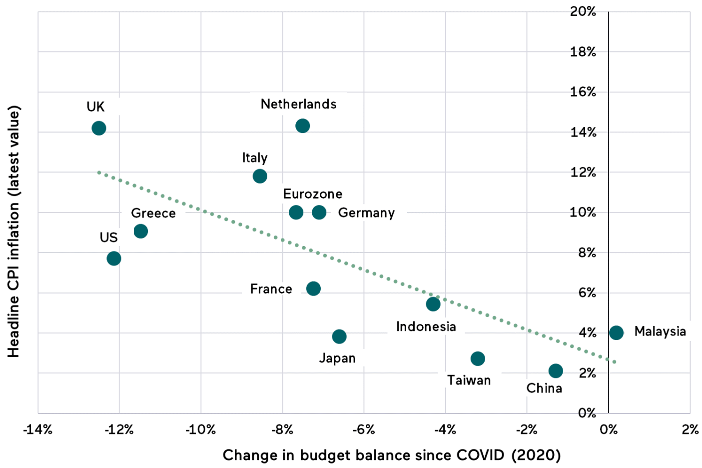


Source: Anthos Fund & Asset Management. Bloomberg Finance LP

3.2 Fiscal stimulus in tight labour and product markets creates inflation

De-globalization removes a key disinflation driver of the past four decades: labour arbitrage – the ability or offshore labour to keep wages low. If globalization facilitated free trade and investment and with that low inflation, the new multi-polar world may do the reverse: create a regime of structurally higher inflation, globally. Our conclusion is that the next 5-10 years are likely to witness more inflationary fiscal policies which – when partly offset by the ongoing deflationary pressures of limited private demand, technology and increased debt levels – create a moderate upward pressure on inflation in both the US and Europe. In short, it is the importance of government spending relative to private investments that would create a structurally higher level of inflation going forward. The chart below provides a good illustration of this dynamic: with a sticky supply side of the economy, countries with the highest increase in fiscal spending during the COVID-19 pandemic (predominantly in the West), show the highest headline inflation.

Fiscal spending with sticky supply is inflationary



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Our expectations for real GDP growth and core inflation for the 5-10 year secular outlook are summarized in the table below:

% annualized	5-10 year outlook**	Average since 2008 Great Financial Crisis
US Real GDP Growth	2.0	1.8
US Core PCE Inflation	2.5	1.9
Eurozone Real GDP Growth	1.4	0.9
Eurozone Core Inflation	2.0	1.1

** Based on the Survey of Professional Forecasters from the Philadelphia Fed and the ECB, respectively.

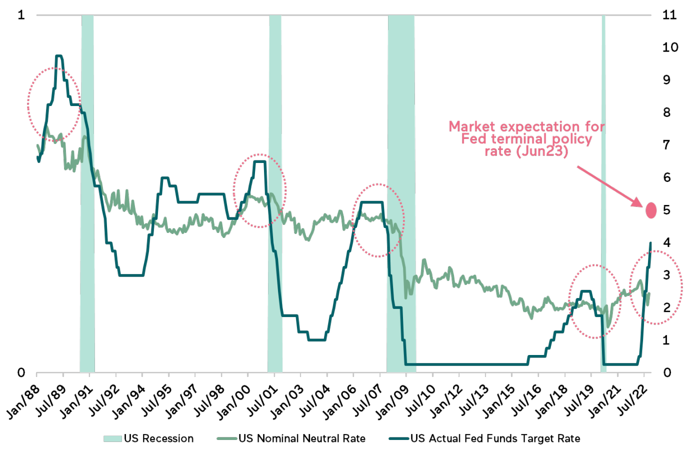
3.3 Secular outlook for interest rates

From a fundamental macro perspective, we see two long-term drivers of (nominal) interest rates: nominal GDP growth and the balance between savings and investments. In the long run, nominal interest rates should move in line with nominal economic growth. If rates are sustainably higher than economic growth, the resulting economic contraction provides a deflationary force bringing rates back down, and vice versa. Also, excess savings by consumers and corporations imply excess supply of money available for investment while demand for capital is limited: the price of money (interest rates) will have to fall to remove the imbalance. Softening demographic growth trends, technological efficiencies and higher savings by wealthy consumers with less propensity to spend remain structural factors that indeed suggest a lower long-term “resting spot” for interest rates in the long term.

Following the COVID-19 pandemic, we noted that addressing shortfalls in aggregate demand was an important public policy priority. In this ‘state-sponsored capitalism’, we saw central banks being less concerned about an outbreak of inflation and more concerned with inequality and climate change. **However, the Russia-Ukraine war and its impact on inflation has quickly and completely changed central banks’ policy priorities: rhetoric about inequality and climate change has made way for an aggressive monetary tightening campaign in which failure is not an option.** Central bank tightening (both realized and market expectations of the so-called ‘terminal policy rate’) has been very aggressive this year, which means that overly tight policy is likely to trigger an economic recession in both Europe and the US next year.

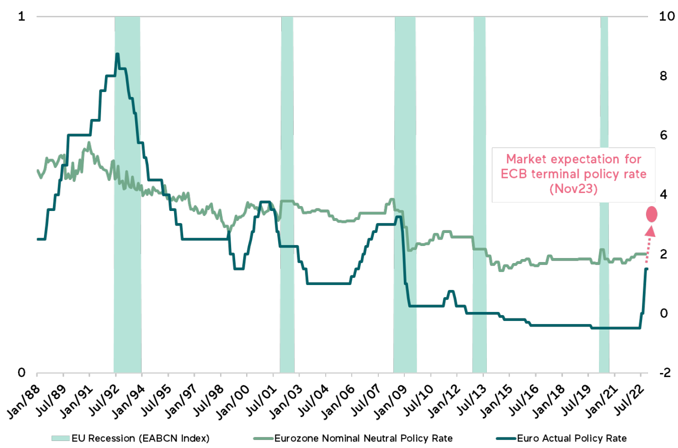
The two charts below plot the Federal Reserve and ECB policy rates (and market expectations about the peak ‘terminal policy rate’) against the so-called ‘neutral rate’: the policy rate which creates inflationary nor deflationary pressures in the economy. The charts show that almost every recession in history has been preceded by a material tightening of monetary policy, as reflected in policy interest rates rising above the so-called ‘neutral rate’. **This is the monetary policy error we have been highlighting since early 2022: central banks are pressing ahead with monetary tightening to create demand destruction (and bring down inflation) despite instability in financial markets, and with that risk triggering a severe economic and profit recession somewhere in the next two years.** Indeed, the tightening of financial conditions seen so far in 2022 is in line with the deep recession following the 2008 financial crisis.

Federal Reserve policy rate is already well above neutral [4]



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

ECB is also on a path to creating an economic recession



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

The future path of interest rates will very much depend on the occurrence and the depth of an economic recession. In a deep recession, central banks now have plenty of room to lower interest rates and are likely to do so. In more positive economic scenarios where growth remains resilient and core inflation continues to decline although not below central bank’s targets, interest rates could well remain around current levels. Should nominal long-term interest rates (i.e. 10-year bond yields) settle in line with nominal economic growth, this would imply about 4.5% in the US and 3.5% in the Eurozone (see table on the previous page). We discuss our macro-economic scenario framework in section 5.

[4] Nominal neutral rate = real neutral rate (Anthos estimate) + long-term inflation expectations (average of survey & market forecasts).

4 Secular investment outlook

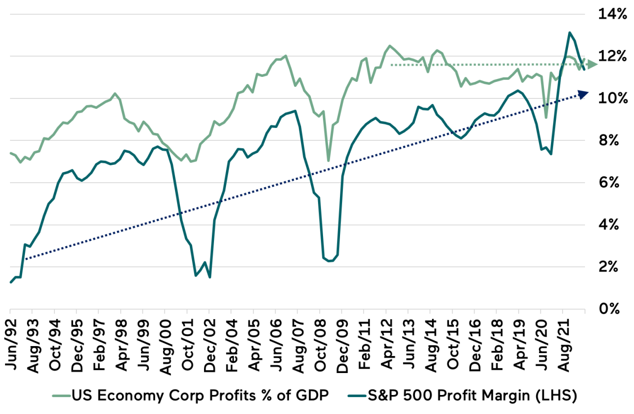
The regime change towards structurally higher inflation and interest rates we have been talking about for several years now, has happened much faster than we (and many other investors) had anticipated. In the short-term, the global economy may enter a broad economic recession (with regional differences) next year on the back of tight financial conditions. **Our longer-term outlook however, is that economic growth in the US and the Eurozone can stay above potential/trend growth, with inflation declining further but settling at higher levels than seen in the past fifteen years and remaining above central bank targets. In essence, this means higher nominal growth which should be good for corporate sales volumes and can provide a structural support for asset prices.**

In a time of state-sponsored capitalism, nominal GDP growth may increase faster than nominal corporate profits, which implies that the profit share of the economic pie declines. On the back of increased corporate capital investment and government spending, we would expect the supply-driven inflation of the past two years to gradually be replaced by a more structural and demand-driven inflation over the 5-10 year horizon of our secular outlook. With the supply side of the global economy more sticky due to de-globalization and the redesign of global supply chains, inflation should be driven more by demand fluctuations and is likely to be more volatile than during the Great Moderation, when central banks dampened the cycle with monetary policy. **We also expect economic policy risk to remain amplified in the years ahead as the job of cushioning the business cycle in tough times shifts from monetary policy, run by technocrats currently suffering from a lack of credibility, to fiscal policy, run by politicians.**

4.1 Corporate profit cycle: margin compression to reduce corporate risk taking

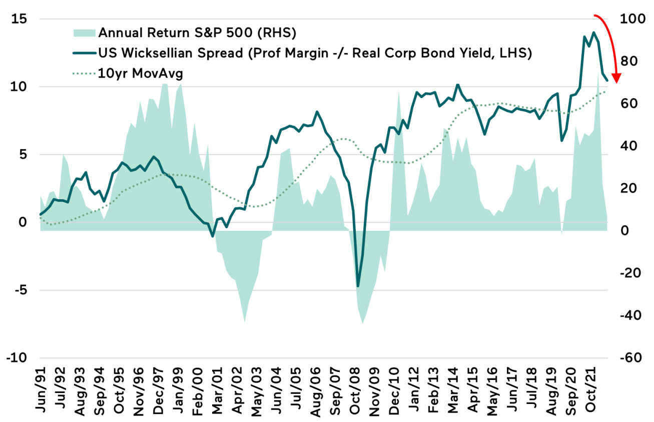
Corporate profit margins are likely to narrow on the back of rising input costs, wages and higher financing costs. As consumer demand weakens further in 2023, pricing power is set to decline across the board although in some sectors dependent on commodities and semi-conductors we may continue to see tight product markets, allowing for strong pricing power. From a macro perspective, we expect US corporate profit margins to decline to their pre-COVID 19 peak of around 10% (see chart below). However, the longer-term trend of S&P 500 profit margins is still upwards due to changes in sector composition, corporate financing rules and capital structures (higher balance sheet leverage). Also, in an environment of strong nominal economic growth, corporate sales volumes can remain well supported.

US corporate profit margins to decline to pre-COVID 19 peak



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Margin compression to reduce corporate risk taking



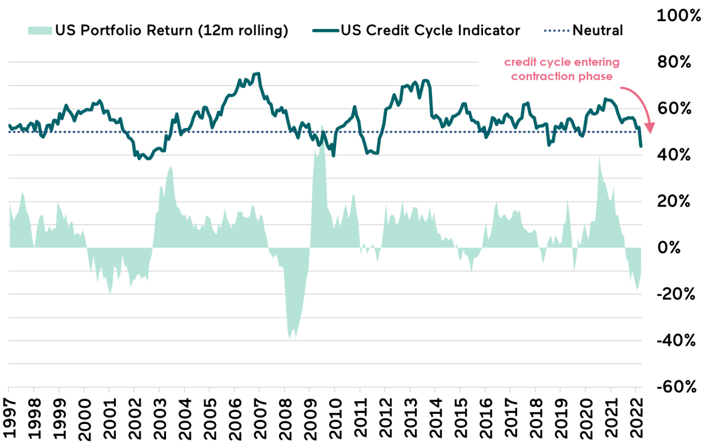
Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Narrowing profit margins can also dampen corporate risk-taking, whether in the form of M&A/buyback activity or fixed investment. The so-called *Wicksellian spread* is a way of assessing the environment for corporate risk-taking (and thereby the broader investment environment), by looking at the excess return on invested capital above the cost of funding those investments. As a proxy, the right chart above plots the spread between corporate profit margins (S&P 500) and real corporate bond yields. As this spread widens and is above historical averages, better profit opportunities should stimulate corporate investment (economic risk taking) and thereby future earnings growth, which should translate into higher equity market returns. Conversely, if the spread contracts (due to strong wage growth & rising financing costs) and business opportunities in the real economy are still muted (like today), corporations may drastically reduce their financial risk-taking: reduce investment of excess cash in financial markets (like today, where multinationals are large investors in corporate bond markets and engage in share buybacks and M&A). **This reduction in corporate risk-taking removes an important support for prices of risky assets. Indeed, historically, whenever the *Wicksellian spread* drops below its 10-year average, equity returns decline** (see right chart above).

4.2 Credit cycle has entered the contraction phase

In line with the current late stage of the business cycle (tight labour markets and monetary policy), the credit cycle has moved from expansionary phase into contraction phase on the back of a slowdown in economic growth and corporate profit margins, increasing corporate financing costs, a decline in corporate risk appetite (share buybacks, M&A volumes), a decline in asset valuations (lowering credit collateral values) and tightening bank lending standards. The chart below shows how our US Credit Cycle Indicator has entered the contraction phase, which historically has been a less supportive investment environment for risky assets (the chart below plots our proprietary credit cycle indicator against the annual return on a balanced portfolio of equities and corporate bonds). **We expect a negative credit cycle to be reflected in ratings downgrades and eventually rising default rates, although current yield levels on corporate bonds can provide a good buffer to absorb credit losses in such an environment** (more below).

US credit cycle indicator has entered contraction phase



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

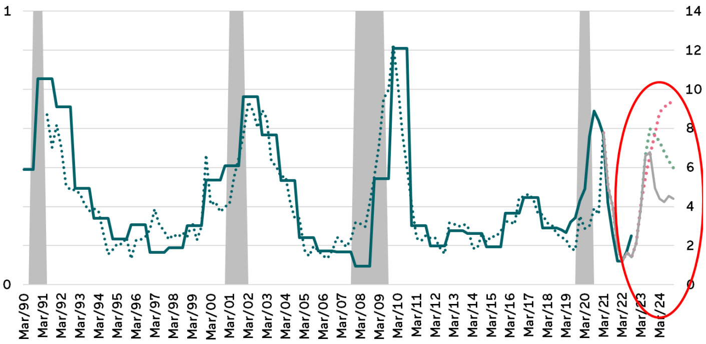
- The credit/profit cycle reflects corporate risk appetite, and thereby it provides an often ignored link between business cycle (momentum in economic growth & inflation) and asset returns. It may not move turning points in the business cycle, but will increase its amplitude.
- Key concept is the reflexive nature of credit (Soros): collateral values determine the availability of credit. Collateral values are driven by investor's expectations about fundamentals (growth, earnings, cash flows) and risk appetite (reflected in the discount rate used for asset valuation), both of which are, in turn, impacted by the availability and use of credit.
- Our credit cycle indicator (CCI) is a composite index of a broad set of indicators covering macro, market, credit availability and corporate risk appetite. Indicator levels are shown as a percentile versus its historical average, i.e. between 0-100% (with 50% neutral level).

4.3 Corporate default cycle: tightening financial conditions to lead defaults higher

In the context of our macro-economic scenarios, we have also updated our default cycle model, which gives us estimates for credit losses in each of our scenarios. These serve as inputs for our 5-year capital market assumptions, as well as for expected returns for corporate credit markets in each of the economic scenarios. Our model for forecasting default rates is based on macro conditions (profit cycle & real policy interest rates), bank lending conditions and credit fundamentals (interest coverage). The three economic scenarios we have run through our default cycle model are:

1. **Low for Longer (bull case):** profit margins widen marginally on productivity gains and lower cost of capital in 2024; bank lending conditions loosen from current tight levels; Fed real policy rate remains firmly negative and supportive for economic growth and corporate profits
2. **Latest consensus forecasts:** corporate profit margins broadly unchanged; moderate tightening of bank lending conditions from current very tight levels; real policy interest rate slightly higher but remains negative.
3. **Recession/Stagflation (bear case):** profit margins decline by 5% points; significant tightening of bank lending conditions; real policy rate rises quickly and become positive; tightening financial conditions.

US high yield default rates in three scenarios (%)



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Credit losses set to increase in most scenarios

Annual, in %	Low for Longer	Latest Consensus	Recession/ Stagflation
Average default rate	5.0	6.6	8.1
Peak default rate (date)	6.8 (Sep 2023)	8.0 (Sep 2023)	9.5 (Sep 2024)
Recovery rate *	44%	38%	23%
Average credit loss	2.8	4.1	6.2
Peak credit loss	3.8	4.9	7.3

Source: Anthos Fund & Asset Management. Default rate forecasts cover period 2023-2024.
* Recovery rate estimates are based on historical average recovery rates during different phases of the default cycle. Low for Longer: bottom-default cycle average, Latest Consensus: through-the-cycle average, Recession: peak-default cycle average

In the Low for Longer economic scenario, after an initial spike in default rates, easier financial conditions, recovering profit margins and strong credit collateral values will bring default rates and credit losses back to around historical averages. Even though financial imbalances will continue to rise gradually in this scenario, it is the interaction of low balance sheet leverage with sufficient income supporting that debt (i.e. debt servicing capacity) that is more relevant for the default outlook: credit losses remain low. Based on the latest consensus forecasts (our second scenario), default rates are expected to rise to 8% by the end of 2023, with credit losses around 4%. After that, we see a rapid decline driven by current market expectations of lower policy rates in 2024. In our (negative) Recession and Stagflation scenarios, default rates rise even more on the back of a collapse in profit margins and bank lending conditions. Lower asset valuations and tight lending conditions also lead to lower recoveries in case of defaults, which feeds back into credit markets by widening credit spreads, further tightening financial conditions. Credit losses in US high yield markets rise above 6% p.a. in these two bearish scenarios.

4.4 Higher risk premia required but taking investment risk is still rewarded

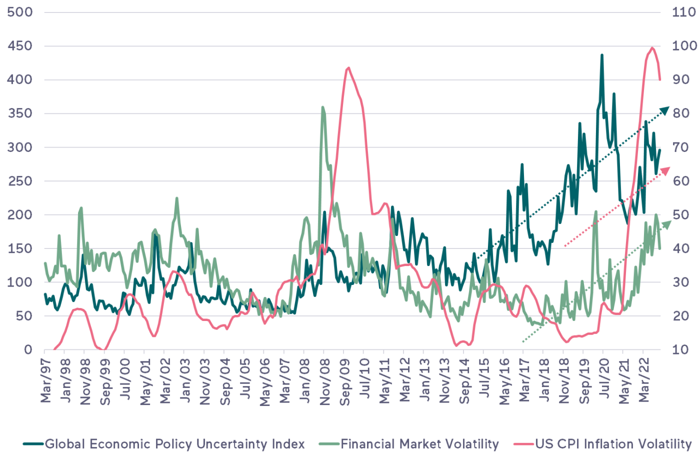
Short-term, fiscal spending is likely to increase driven by a desire to support corporates' and households' energy bills, the energy transition and more accommodative fiscal policy in general. Medium-term (over the next 5 years), inflation will decline from current peak levels but will settle at levels higher than the past 15 years. **In addition, we expect both inflation and economic growth to be more volatile that the past 15 years, when policy interventions prevented economic recessions and both cyclical and structural factors kept inflation muted both in terms of levels and volatility. Elevated macro risk requires higher risk premia across the curve.**

The credit cycle has moved from expansionary to contraction phase: the price and availability of credit are deteriorating. Credit quality, asset coverage and an active approach to credit investing becomes more important: this favors a decent allocation to private credit in diversified portfolios. Private debt instruments are predominantly floating-rate and tend to have strong covenants and good asset coverage (with the private nature of the lending relationship allowing for more flexibility and control than in public bond markets). In addition, the private market for high yield issuers is now almost as large as the public high yield bond market, with good depth and breadth in terms of sectors, regions, instruments, capital structures. As for credit fundamentals, balance sheet leverage is much lower and interest coverage much higher than towards the end of previous credit cycles. **However, due to strong recent growth of the private credit markets, many market participants and financing structures have not experienced a full credit cycle yet, which makes us cautious in the short-term.**

We also become more cautious towards private equity as deal flow and exits to strategic buyers stall. The low interest rate regime of the past years allowed private firms to complete multiple rounds of capital raising at ever higher valuations. However, the jump in the cost of capital this year has lowered the valuation of both public and private companies and the impact has been particularly severe for fast-growing firms that typically comprise a significant share of annual initial public offerings (IPO) volume. This market has essentially frozen this year and, given higher financing costs and the weak economic growth outlook, CEO confidence, and corporate risk appetite (see section 4.2), it may take considerable time for the IPO market to recover. **In line with this cautious view, we have lowered the expected risk premium of private over public equity from 3% to 2%.**

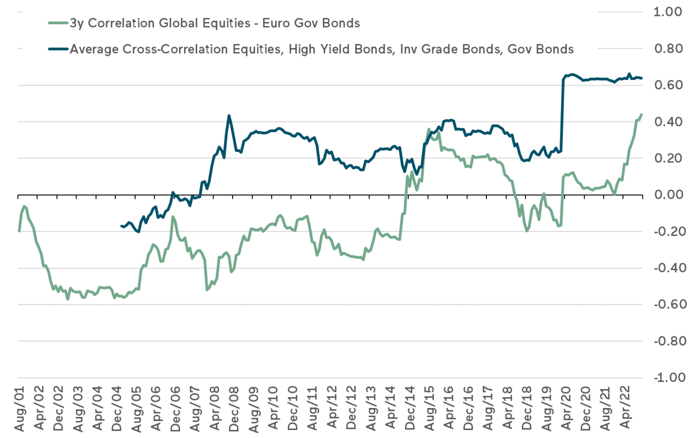
In an environment of structurally higher inflation and inflation volatility, investment assets that offer real returns, e.g. with cash flows fundamentally linked to inflation, such as real estate, infrastructure, private credit (in certain sectors) or even timber and farmland, can be expected to do well. Furthermore, uncertainty about the future path of a gradually de-globalizing economy is likely to remain high and, reflecting such uncertainty and large dispersion in investor opinions, financial market volatility is likely to stay elevated (see left chart below[5]) and risk premia should be materially higher.

Policy uncertainty, inflation and market volatility to remain elevated



Source: Anthos Fund & Asset Management, Bloomberg Finance LP

Peak correlations impair portfolio diversification



Source: Anthos Fund & Asset Management, Bloomberg Finance LP

[5] http://www.policyuncertainty.com/gpr.html. Financial market volatility: average of equity, fixed income and G7 currency volatility. Source: Bloomberg Finance LP

Market interest rates will be structurally higher, driven by higher neutral policy rates and by higher risk premia (on the back of higher inflation volatility). At current high yield levels, most fixed income categories have become a viable investment alternative for equities in strategic asset allocations. With higher inflation and interest rate volatility and the risk of interest rates rising (nominal US 10-year bond yield above 4%, Eurozone 10-year yield above 2% and core inflation above 3%), the stock-bond correlation may occasionally turn positive. This means that traditional asset class diversification will be less effective.

Indeed, globalization (over the past few decades) and active monetary policy stimulus (since the 2008 Great Financial Crisis) have increased correlations across asset classes and regions within asset classes, with notable spikes during the COVID outbreak and the 2022 monetary tightening cycle (see right chart above). This has impaired diversification of global investment portfolios. Within the observed trend of de-globalization and regionalization, global macro-economic linkages and corporate exposures may decline and any reduction in correlations between regions and/or sector can increase diversification potential in global investment portfolios. Also, re-shoring of manufacturing activity drives a decline in the share of foreign profits in total profits of multi-national corporations, reflecting increased dominance of domestically-focused sectors in the economy. Indeed, stocks of companies with greater domestic sales have been outperforming the overall market in recent years, notably in the resource-intensive capital goods sectors (see chart below[6]).

We conclude that in an environment of de-globalization/regionalization, investors may also have to look for other sources of diversification in portfolios: less diversification *across* asset classes and more regional and sectoral diversification *within* asset classes. Also, alternative investments and absolute return strategies can continue to deliver uncorrelated sources of return and, with that, contribute to portfolio stability.

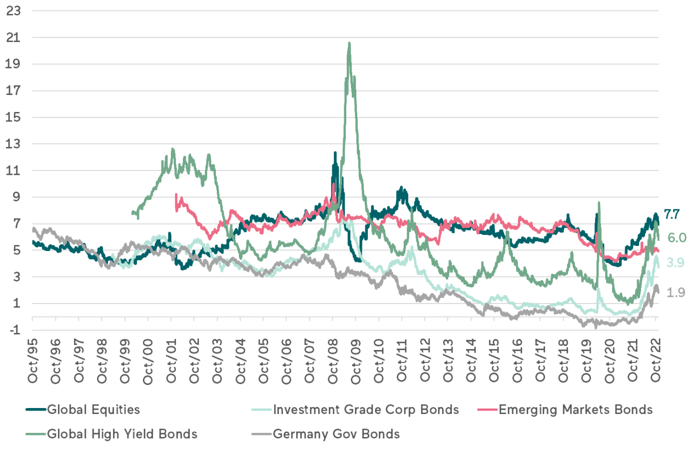
Reshoring drives outperformance of domestic champions

Source: Piper Sandler

In terms of our preferred investment strategy, we observe that risk-taking is generally still rewarded as current yields and risk premia (expected excess return over cash) on a balanced multi-asset portfolio of traditional and non-traditional asset classes are in line with their historical average. Given relative risk premia across asset classes, we continue to prefer equities over corporate credit bonds. Indeed, as the right chart below shows, given the extremely low real (inflation-adjusted) yield on corporate bonds (now into negative territory), equities will need to fall by about 25% over the next five years before they start underperforming corporate bonds.

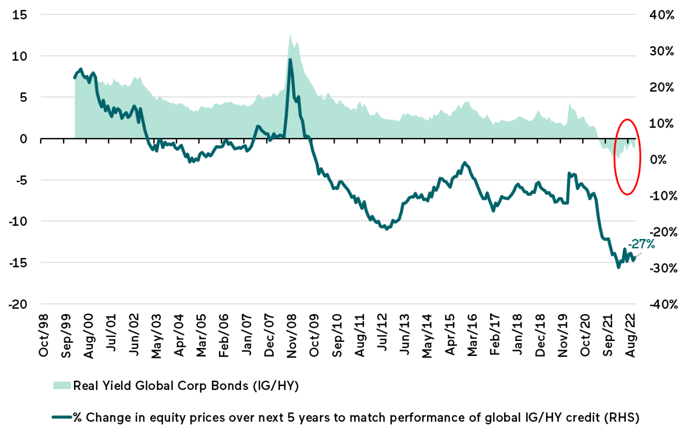
[6] Performance (ratio) of S&P 1500 capital goods companies with high domestic US sales, relative to overall index. Source: Piper Sandler.

Taking investment risk is still rewarded



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Equities need to fall a lot before underperforming bonds



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

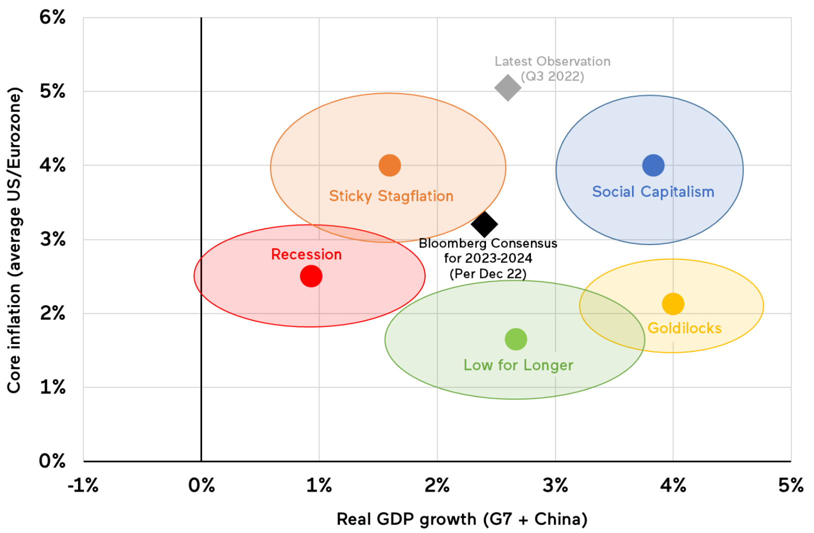
5 Macro-economic scenarios 2023-2024

While the previous sections focused in the secular 5-10 year horizon, this section looks at the shorter-term cyclical horizon (2023-2024) and introduces our economic scenario framework. After two decades of below-target inflation, it will be structurally higher in the coming years. The speed with which this economic regime change will take place, will determine where we are in the context of our macro-economic scenario framework. **Also, within any fundamental regime change, the room for policy errors is large and such potential errors are important swing factors for moving from one macro scenario to the other.**

Global economic growth slowed materially in 2022 as the reopening boost from fiscal policy subsided, as the monetary tightening that we expected to happen gradually was brought forward and 'squeezed' within a six-month time frame, as China's zero-COVID policy and property slump slowed down an important growth engine, and as the energy crisis resulting from the Russia-Ukraine war hit Europe hard. **We expect core inflation in both the US and Europe to decline from current peak levels, but to settle at a higher level than seen in the past fifteen years.** We see three main drivers of this new inflation regime: excess policy stimulus, higher geopolitical risks, and sticky supply side constraints (the result of fragmentation of global trade and investment). As for interest rates, while secular trends maintain their downward pressure on real interest rates, nominal rates (and risk premia) may need to rise further and are likely to stay higher for longer. The associated credit tightening will have a negative impact on economic growth and could trigger a broad economic recession in both the US and Europe.

Below we outline our macro-economic scenario framework and describe the individual scenarios in more detail.

Macro-economic scenario framework for 2023-2024



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

Scenario likelihood (%)

%	AIO 2023	AIO 2022	AIO 2021
Low for Longer	15	30	50
Goldilocks	5	30	10
Social Capitalism	20	20	10
Recession	30	10	25
Sticky Stagflation	30	10	5

Source: Anthos Fund & Asset Management.

From the current high level of core inflation in the US and Europe (around 5%, see grey diamond in left chart above), Bloomberg consensus forecasts see inflation decline to about 3% by mid-2024. Given the current downbeat consensus forecasts for global economic growth but sticky core inflation in both the US and Europe, we will most likely be between the Sticky Stagflation and Social Capitalism scenarios during our two-year scenario horizon from 2023-2024 (see chart above). More aggressive government policies focused on re-distribution of income/wealth could provide a further growth stimulus while also leaving inflation on a rising trend (due to stronger for longer wage growth): our Social Capitalism scenario. But with higher taxes (needed to finance increased government spending) and wages eating into corporate profit growth, we end up with higher prices but lower economic growth: our Stagflation scenario. A key risk factor to the economic outlook is the monetary policy error we have highlighted since the start of 2022: overly tight monetary policy (given financial markets' addiction to easy money) creates destruction of aggregate demand. Combined with a further contraction of the Chinese credit cycle, this has the potential to trigger our early Recession scenario. We note that the (negative) Recession and Stagflation scenarios combined have an estimated likelihood of 60%. However, if central banks are successful in fighting inflation without bringing the economy to a stand-still (i.e. a soft landing), we enter our Low for Longer economic scenario. This would imply a gradual return to the pre-pandemic are of growth around trend and inflation around central banks' targets.

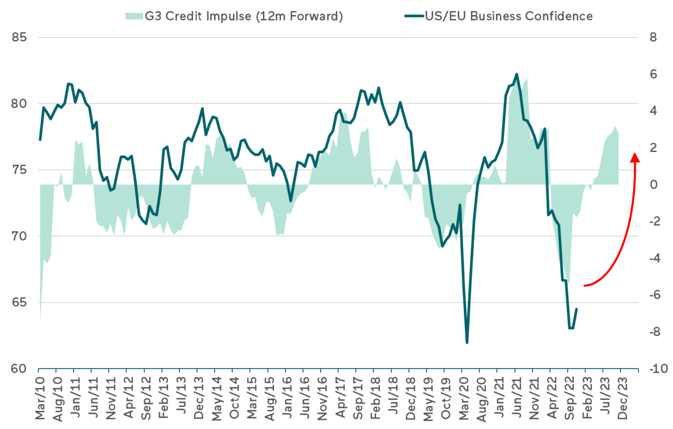
Below we describe these economic scenarios in more detail and also provide our estimates of their likelihood of occurring over the next two years: 2023-2024.

5.1 'Low for Longer' scenario (likelihood 15%):

- Gradual return to secular stagnation of the pre-pandemic era: growth slowing down to trend. Following a strong recovery in the past two years, the global economy settles around trend economic growth but will not enter a recession.
- De-globalization and geopolitical tensions. Following the COVID-19 crisis, countries re-evaluate the risks and benefits of ever closer integration of global trade, services, and technology. De-globalization and restructuring of global supply chains will dampen global trade and economic activity and will reverse the deflationary impact of the global outsourcing trend of recent decades. The combination of negative credit growth in China and, more structurally, regulatory pressure and China renewed US-China tensions (illustrating the next phase of globalisation: onshoring and supply chain rationalisation), put the synchronised nature of the global economic recovery at risk.
- Demand destruction does its job: in the US, unemployment rises and the labour market become less tight. Wage growth falls to becomes more consistent with central banks' target inflation: wage growth of 3.5% -/- productivity growth of 1.5% = 2%
- Return to pre-pandemic environment with 2% real GDP growth, 2.0-2.5% inflation and policy rates around 3% in the US and 2% in Europe: Low for Longer.
- Important conditions for this economic scenario are: 1) solution of the Russia/Ukraine conflict, 2) de-escalation of the economic war between Russia, China and the West, 3) end to the supply-driven inflation/commodity price shock.
- Monetary policy remains behind the inflation curve: this means that central banks will continue to keep nominal interest rates low even as inflation gradually starts rising: real interest rates remain negative. The strategy to reflate is based on holding nominal interest rates below nominal GDP and, over time, inflate debt liabilities away.
- Recovery in corporate profit margins. With wage growth falling and corporate financing costs remaining low, profit margins can continue to widen. As the re-opening of economies continues, sales can also recover which provides a further support to corporate earnings.
- Household sector financial balances (income -/- spending) remain positive, both in the US and Europe. However, for the corporate and government sectors, the increase in leverage in the overall economy (credit-to-GDP ratio) rises further: credit growth continues to outpace economic growth.

5.2 'Goldilocks' scenario (likelihood 5%):

- Turning points in the G3 credit impulse (new credit growth as % of GDP) tend to lead turning points in global economic growth. In our Goldilocks scenario, a recovery in the credit cycle combines with a monetary policy pivot in the US/Europe to support global economic growth (see chart below).



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

- Supply side revolution: G7 & China GDP growth remains above potential, strong capex spending supports further job growth and productivity gains. Labour shortages further sustain productivity growth for the remainder of our two-year scenario horizon. This will keep unit labour costs – the single most important driver of core inflation - tame.
- Productivity boom and ongoing demand stimulus create higher nominal growth, but without the excesses of a debt boom or runaway (out-of-control) inflation. With inflation in check, this gives central banks room to pivot from their tightening path and keep an accommodative stance (negative real interest rates across the curve). This extends the business cycle for several more years.
- De-globalization trend comes to a halt: economies begin the process of re-globalization, as: (1) China and the US (under the new Biden administration), having concluded that a prolonged trade/tech war is universally harmful, reverse protectionist policies; (2) ever-growing pressure upon governments to accelerate the energy transition promotes greater international cooperation; (3) new leadership in the EU takes measures to stabilize the Euro and stimulate demand.
- In both the US and the Eurozone, core inflation falls towards central bank targets around 2%.
- Monetary policy remains accommodative: positive supply shocks (high productivity growth) and corresponding lower core inflation allow central banks to remain behind the curve and keep monetary policy loose relative to the late stage of the business/credit cycle.
- Low inflation enables further fiscal stimulus: Higher tax revenues combined with low inflation encourages governments to shift towards fiscal policy. Government spending leads to "virtuous cycle" where initial stimulus leads to increased consumption, raising corporate earnings and capital expenditure. The resulting productivity gains supress inflation and allows central banks to maintain and accommodative policy stance.
- Corporate profit margins widen further on productivity gains and a low cost of capital. Earnings per share rise further on a) strong share buybacks, b) return-on-capital well above the cost of capital and c) rising balance sheet leverage.
- Credit cycle turns upward again: 'animal spirits' and corporate risk appetite recover from its recent bottom. Strong corporate bond issuance, easy bank lending standards and strong private lending activity keep financing conditions favourable for M&A activity, corporate investments (including foreign direct investment) and real estate/property investments.

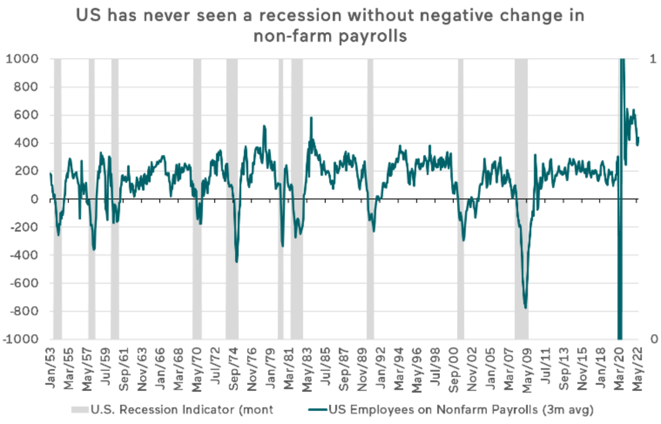
- On the back of strong 'animal spirits', non-USD risky assets such as EM and European equities can outperform the US, and global risk premia (credit spreads) narrow further. Market volatility remains low on average, but with occasional spikes driven by investor sentiment reversals.

5.3 'Social Capitalism' scenario (likelihood 20%):

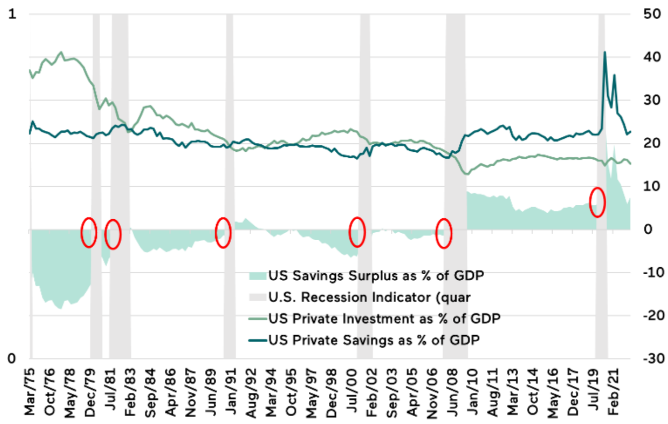
- State-sponsored capitalism. Politicians become more aggressive in fiscal/income policies, tax policies, financial regulation and environmental regulation. While fiscal stimulus supports growth in the short run, income redistribution policies ultimately depress economic growth, capital spending and corporate aggression.
- Populism provokes fiscal policy stimulus: nationalist agendas promote inward looking strategies. Demand-side policies become mainstream. Governments keen to demonstrate economic growth, yet unable to use monetary tools to stimulate the economy, continue to engage in aggressive fiscal spending, among others to support the energy transition to counter climate change. Austerity is out, larger deficits are in, and more payments are likely to be direct.
- This scenario combines higher short-term economic growth with high inflation from fiscal spending to support real consumer incomes. Another driver of this fiscal spending is the West dealing with the new economic world order described above: investment is required in three areas: defence, commodities (food & energy), and energy transition. One common denominator in all these domains (commodity intensity) makes the spending especially inflationary.
- Productivity fails to counterbalance inflation: without the benefits of a positive supply-side shock (more capex leading to higher labour productivity – see 'Goldilocks' scenario), labour markets continue to tighten putting further pressure on wages. Combined with higher commodity prices, this leads to higher inflation, staying well above central bank's targets.
- Core inflation will settle around 4% in this scenario, which is higher than current 2022-2023 Social Capitalism scenario because we start at higher level and tighter product & labour markets. The main difference with the Stagflation scenario is higher economic growth from fiscal stimulus.
- House price boom. Given tight housing supply, low interest rates and the shift to working from home are fuelling housing demand and create a house price boom in Western economies (more than 7% per year, since the 2008 GFC – BIS data). This adds to both core inflationary pressures (especially in the US where shelter inflation contributes about 30% to core inflation and 40% to headline inflation), as well as a further increase in financial imbalances in the household sector.
- Profit decline puts pressure on balance sheets: Given highly leveraged corporate balance sheets, credit markets start discounting higher corporate defaults and credit spreads widen. This raises the real cost of capital closer to the return on invested capital which, in turn, hurts business investment activity. Although sales growth remains strong on the back of strong nominal GDP growth, rising interest rates, higher wage growth and higher taxes put pressure on corporate profit margins. Nominal GDP grows faster than nominal profits, which means that the corporate profit share of GDP declines (and employees/wages take a bigger share of the economic pie).
- Corporate & financial market risk appetite declines. Following an initial boom in M&A, share buybacks and other financial engineering activities, markets start anticipating higher interest rates. This tightens financial conditions and puts pressure on asset valuations.

5.4 'Recession' scenario (likelihood 30%):

- In both the US and Europe, the recession is likely to be policy-driven. In the US, with fiscal stimulus ending but inflation to remain sticky, monetary policy needs to be restrictive to destroy demand. But in Europe, facing an energy crisis, monetary policy is not the right policy tool to deal with a supply shock; there, fiscal policy and reduced energy consumption should be the main focus.
- US recession is likely to be mild and the unemployment rate may rise only slightly (less than 2%-points):
    1. In the current extremely tight labour market, a high level of job openings provides a 'buffer' to absorb any negative demand shock before unemployment starts to rise (new jobs will decline before lay-offs start). Wage growth can decline before unemployment rate rises --> provides more room for the Fed to hike rates
    2. US has never seen a recession without a negative change in non-farm payrolls (see left chart below)
    3. Excess demand + inelastic supply (at high activity levels) in overheated labour, product, and housing markets, means that a decline in demand will have a bigger negative impact on prices than on output/volume: inflation can decline rapidly, with economic activity remaining fairly stable
    4. If easing labour market coincides with lower headline inflation, real disposable income may actually rise, with a positive impact on consumer spending
    5. Strength of private sector balance sheets will dampen negative effect of decline in real incomes on spending. This is the first time in US history when savings surplus was positive going into a recession (see right chart below)
- The risk of a deep recession in the US increases with more sticky inflation (more aggressive Fed policy) or additional negative supply shocks



Source: Anthos Fund & Asset Management. Bloomberg Finance LP



Source: Anthos Fund & Asset Management. Bloomberg Finance LP

The situation in Europe is very different due to the energy crisis: a recession could be deep and long-lasting:

- Europe faces a major contraction this winter because it will not have enough energy to run its economy. Interest rates cannot deal with this supply shock, so fiscal policy will need to take the lead
- Amount of industrial demand destruction needed to meets energy storage targets for the winter: 10-15% compared to long-term five-year average. If energy consumption is reduced by this amount, the potential direct hit to economic growth would be 1-2% (excluding second-order effects on consumer/business confidence and spending)
- A complete stop of gas flows from Russia would trigger a decline in real GDP down of 1-2.5% for the Eurozone as a whole and 2-4% for Germany and Italy (which are more reliant on Russian gas). Inflation would remain elevated around current levels (headline inflation: 10%, core inflation: 5%)
- A return to the 2008 peak oil price would make more than 10% of European companies unprofitable and bring many of them on the brink of default.

- Policy response in Europe: reduced energy consumption and fiscal policy needed to deal with effects of energy supply shock. Policy response in US: tightening financial conditions needed to deal with demand shock (from excessive monetary & fiscal stimulus)

5.5 'Sticky Stagflation' scenario (likelihood 30%):

- There are three areas of continued supply constraints: wages (mostly in the US), housing (mostly in the US, but also in other parts of the world), and commodities (with oil & gas supply constraints mostly in Europe). Also, the new economic world order described above add to the inflationary pressures in this scenario.
- US labour market/wage growth is main driver of core inflation. Unemployment will need to rise a lot (to 6.5%) to slow down wage growth and, historically, the average lead time from a decline in labour markets to lower wage growth is about two years. However, vacancies/job openings will need to be removed before unemployment starts increasing. This means that the labour market will remain tight for longer.
- Economic growth settles below trend growth around 1.5% and core inflation remains around 4%
- Federal Reserve will allow for a much higher unemployment rate (above 6%) and the terminal policy rate (the rate at which the Federal Reserve is expected to pause its rate hiking cycle) will be higher. Powell: "Reducing inflation will require a sustained period of below-trend growth". In other words: short-term pain to achieve long-term gain
- For restrictive policy (i.e. a positive real interest rate) and core inflation around 4%, the terminal nominal rate needs to be above 4%. Current estimates for the terminal rate are around 5%. US real bond yields are in the 1-2% range, which means the nominal yield is in the 5-6% range; this is 1-2% above current market pricing
- Initially, the Fed pauses (or even reverses) their current tightening cycle while the ECB remains well behind the curve (too little too late). This causes stagflation to be sustained for longer and requiring a second tightening cycle in order to bring inflation back into their tolerance zone. This second tightening cycle is not priced in financial markets, so both bonds and risky assets will struggle in this scenario (repeat of H1 2022)
- Due to political instability, food & energy supply/demand imbalances, and the risk of policy errors, financial market volatility and liquidity continue to create a challenging market environment in this Sticky Stagflation scenario. Risk premia should be structurally higher than the pre-pandemic period.
- Asset allocation: with core inflation at 4% and US nominal bond yields above 5%, the stock-bond correlation is likely to become/stay positive: equities and bonds sell-off at the same time and government bonds are not (yet) a reliable hedge for exposure to risky assets.

5.6 Expected returns in economic scenarios

The table below shows our expected returns for the various asset classes that we monitor. We show our capital market assumptions for the 5-year period from 2023-2027, as well as the shorter-term expected return per asset class in each of our macro- economic scenarios. We also show the expected return on a traditional investment portfolio of 60% public equities and 40% government bonds, and a more diversified balanced multi-asset portfolio including alternative investments.

		Expected Returns in Scenarios AIO 2023-2024, EUR unhedged				
Asset Class	**Anthos Capital Market Assumptions 2023-2027**	**Low for Longer**	**Goldilocks**	**Social Capitalism**	**Recession**	**Sticky Stagflation**
Global Developed Equities	7.0%	14.0%	18.0%	8.5%	-13.0%	-6.0%
Euro Government Bonds - 10yr	**2.0%**	**9.3%**	**6.6%**	**-0.6%**	**6.7%**	**-0.3%**
US Government Bonds - 10yr	2.0%	5.5%	6.6%	-2.3%	2.3%	1.9%
Euro Asset-Backed Securities	**3.0%**	**2.8%**	**2.8%**	**3.1%**	**3.5%**	**3.0%**
EUR Investment Grade Corporate	3.5%	10.5%	9.8%	5.3%	5.1%	5.0%
Global High Yield	**6.5%**	**11.4%**	**12.1%**	**3.9%**	**-0.1%**	**1.6%**
Emerging Market Debt - Local FX	5.0%	7.4%	13.6%	-2.4%	0.7%	-6.8%
Absolute Return	**5.0%**	**6.0%**	**6.0%**	**7.0%**	**4.0%**	**5.0%**
Global Real Estate - Unlisted	5.9%	2.5%	5.5%	3.5%	1.0%	-1.0%
Global Listed Infrastructure	**6.5%**	**10.5%**	**15.0%**	**5.5%**	**-5.0%**	**1.0%**
Private Equity	9.0%	10.0%	20.0%	10.0%	-7.0%	-2.0%
Private Credit	**7.0%**	**10.0%**	**15.0%**	**8.0%**	**0.0%**	**3.0%**
Impact Investing	3.8%	4.8%	7.3%	3.4%	4.3%	1.0%
Euro Aggregate Bonds	**2.6%**	**9.8%**	**7.9%**	**1.7%**	**6.0%**	**1.8%**
EUR Cash	1.0%	0.3%	0.5%	0.7%	1.3%	0.3%
60/40 Portfolio	5.0%	12.1%	13.4%	4.9%	-5.1%	-3.7%
Balanced Multi-Asset Portfolio	6.0%	8.0%	11.6%	6.0%	-3.3%	-1.3%

Source: Anthos Fund & Asset Management.

Anthos Capital Market Assumptions for 2023-2027 include an assumed USD/EUR return (based on PPP valuation & USDEUR forward premium/discount) of -1.8% per annum, applied to the USD exposure of relevant market indices. Balanced Multi-Asset Portfolio: 40% public equity, 25% private equity, 10% global real estate, 14% corporate & EM sovereign bonds, 8% absolute return, 2% impact investing and 1% cash.

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