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BEA Wise

1st Quarter 2022

Against the
Wind and Tide



Image source: Unsplash



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Preface

The Bank of East Asia | BEA Wise | 1st Quarter 2022

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The Chinese New Year is approaching. First of all, I wish everyone good health and prosperous investments this year.

The theme for this quarter is “Against the Wind and Tide”. Whether they are tapering bond purchases or raising interest rates, central banks globally intend to spend 2022 stemming the liquidity that has been flowing for many years, which is a headwind in any market. This quarter, we analyse historical data and the latest market information to forecast the performance of each market and provide corresponding investment strategies.

The re-emergence of the pandemic has disrupted global economic recovery, and the volatility of asset prices last quarter is expected to continue into this quarter. US interest rate hikes are inevitable. Historically the market takes time to digest the impact of the first rate hike, posing both risks and opportunities for investors. The November US midterms are the most noteworthy of the national elections taking place this year, and the campaign process will affect markets globally. Countries are suffering from pandemic-related fatigue and are paralysed by news of virus variants. Strong market demand for recovery strategies and vaccines will persist in the short term.

On the macroeconomic front, national economies benefited from the lifting of the COVID-19 lockdown measures, but the early stages of recovery have so far been unstable. The Chinese government has signaled that economic stability will be at the centre of its mandate, with GDP expected to grow 5.3% this year alongside inflation of 2.2%. Unlike in the United States, Hong Kong will unlikely see an interest rate hike this year, helping maintain stability in the property market. Compared to the 2013 taper tantrum, Asian economies are expected to rely more on foreign exchange reserves as a buffer to reduce the impact of capital flight.

The looming interest rate hike will impact overpriced stocks but have a relatively short-lived effect on the broader equity market which is focused on changes in real rates rather than the number of rate hikes. The US midterm elections will further affect Sino-

US relations and reignite “national tide” investments. In terms of environment-related strategies, the trend has shifted from “green” investments and finance to sustainable solutions to ESG.

As the United States embarks on rate hikes, the decision-making of other G10 central banks will be affected, while, if history is anything to go by, the impact on emerging markets will be magnified by multiples. Bond indices are generally weak before rate hikes, but divergences become more pronounced over time. Asian bond markets are relatively less volatile and less sensitive to developed market policies in terms of interest rate hikes and index performance.

Meanwhile, high inflation in the United States is expected to remain supportive of a stronger dollar this quarter. There is no chance of interest rate hikes in Europe and Japan, but they may turn slightly more hawkish in the wake of Fed tightening. China’s monetary policy remains accommodative to promote economic stability. While the renminbi might adjust, there is little chance of a sharp decline.

The gold market failed to benefit from the volatility of virtual currencies and the rise in risk aversion, while interest rate hikes also offset the positive effect of high inflation on gold prices. However, a rise in strong demand for real gold suggests there is little room for gold prices to fall. In addition, the oil market is likely to be very volatile as the trend in oil prices loses steam with supply and demand forecast to balance next quarter, coupled with OPEC’s idle production capacity and the return of non-OPEC supply. Renewable energy is becoming increasingly developed and attractive, and is believed to be a rising star in the commodity universe.

The late US President Roosevelt famously said: “The only thing we have to fear is fear itself.” Only when the wind is behind us is it a good wind, and only when the wind rises and the clouds are blowing do we cherish the sun even more. Face the headwind bravely, take a breath, and break through boundaries into a new world.

Let’s work together.

Summary



Fiscal Policy

- As the midterm elections approach, Biden may adopt a tougher stance on China to gain support.
- Environmental protection has become a crucial global demand, China and the United States have clearly defined climate policy goals.
- The US is using tax hikes to limit share buybacks, which is expected to indirectly weigh on European and US equity markets.



Monetary Policy

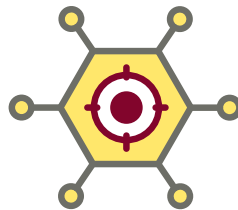
- Central banks around the world will follow in the Fed's footsteps regarding tighter liquidity.
- The base case is that the Fed will raise interest rates twice this year (in March and June), and three times if the economy performs well.
- Structural inflation is driven by supply issues, and monetary policy may not be an effective remedy.

Economic Growth and Inflation Forecast



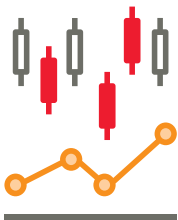
- Accelerating inflation, the Omicron outbreak, and supply chain disruptions continue.
- China's GDP is expected to grow by 5.3% year-on-year in 2022, and property prices could fall in the short term.
- Hong Kong's interest rate is likely to remain unchanged this year, while property prices could rise given a shortage of supply.

Economic Forecast



Macro Strategy

- If the mortality rate of the latest coronavirus variant can be maintained at 2% or lower, the pandemic's impact on the stock market will fade.
- Global equity market volatility will increase as central banks around the world increasingly tighten liquidity.
- The Fed's failure to clearly communicate its policy stance to the market is a future risk.



Equity

- Risks persist in the form of high valuations of US and European equities, the ongoing pandemic, and international relations.
- US stocks are expected to fluctuate sharply ahead of the Fed interest rate hike, with declines of around 10 to 15%.
- Friction between China and the United States has boosted the popularity of "patriotic" brands as well as domestic digital, clothing and beauty, and automobile industries.
- Environmental protection is a buffer for deteriorating Sino-US relations.



FX

- Expectations of central bank rate hikes have increased the momentum of the USD, GBP, NZD, and CAD.
- PBOC policy is stable, and the two-way volatility of the renminbi is expected to increase.
- As their pace of tightening lags that of the US, the euro, yen, and Australian dollar will be under pressure.

Alternatives



- Gold prices are expected to hover in a narrow 5% range around USD 1,800.
- Traditionally, interest rate hikes hurt gold, but US interest rates are expected to remain within 1% in the first half of the year, which will have a limited impact on gold prices.
- Expect WTI crude oil futures to peak at USD 85 and hover around USD 75 per barrel.
- Energy markets will see excess supply at the end of the quarter, hindering oil price gains.

Market Forecast



Bond

- European bond yields will perform similarly to those of US bonds last year, rising in an orderly manner.
- Emerging market debt will be more volatile as the US raises interest rates.
- According to historical data, US MBS, US high yield, and global high yield bonds are most bullish ahead of rate hikes.
- Entering the market early in the rate hike cycle and holding until around six months after the first rate increase offers a high likelihood of positive returns.

Against the Wind and Tide

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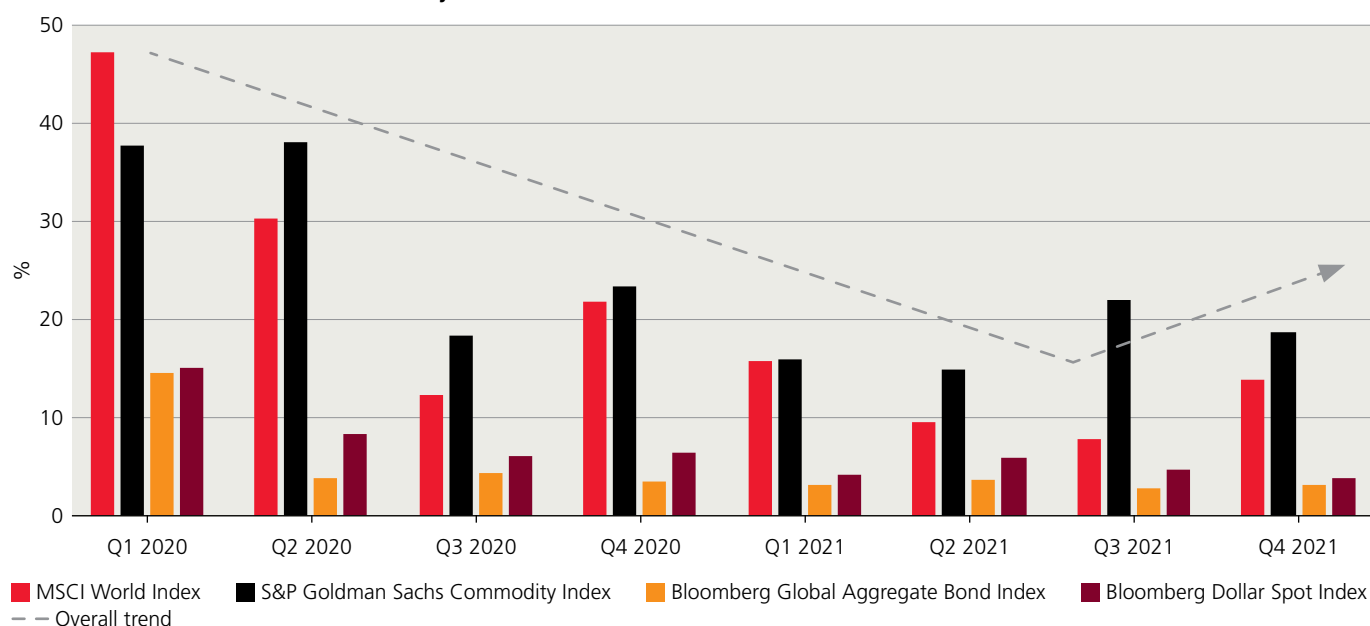
Against the Wind and Tide

The title of last quarter's outlook was "Endless". At the time, expectations were that local governments would continue fighting the pandemic using a "coexistence" or "zeroing" approach in laying down a path for future economic development. However, economic recoveries have diverged, especially between mature and emerging markets. Meanwhile, inflation is set to hit all economies due to supply chain disruptions, thus central banks are expected to speed up the tightening of liquidity. In addition, some countries tried to enforce "coexistence" when underlying conditions were not yet suitable, such as in India where the Delta variant spread rapidly. It was only a matter of time before another mutation arose. Past forecasts are roughly in line with today's results.

For the first quarter of 2022, the title is "Against the Wind and Tide", which highlights that even in the face of certain headwinds, it is important to maintain a positive outlook, break through blind spots in stormy waters, and move forward courageously. Since the fourth quarter of last year, volatility in global markets has continued to rise – equity, bonds, foreign exchange, and commodity markets have not been spared.

According to trends in standard deviations, the annualised standard deviations of various asset indices have gradually declined since the first and second quarters of 2020 when the world was first hit by the pandemic. Only in the last quarter did volatility rebound, particularly in global equity and commodity markets.

Annualised standard deviations of major asset indices



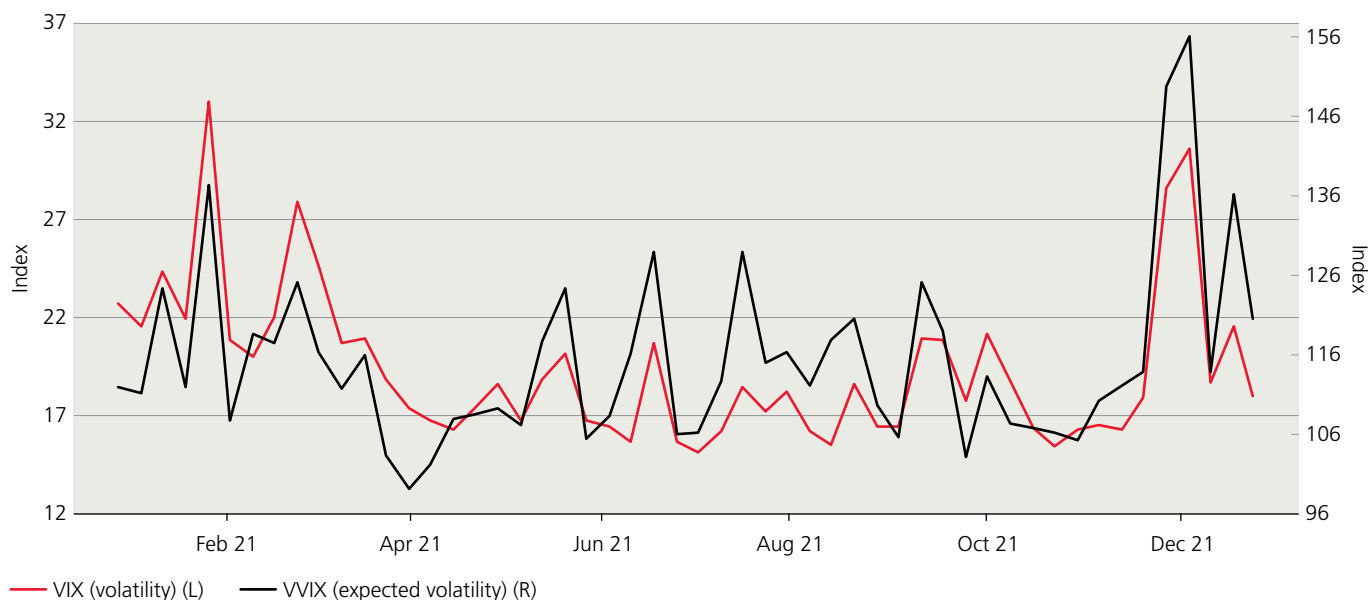
Source: Bloomberg, data as of 24th December, 2021

Moreover, the Volatility Index ("VIX") fell to an annual low of 15.01 at the end of October last year before rising sharply to 31.12 on 1st December. The change reflects a volatility surge in US equities. Meanwhile, the expected volatility index ("VVIX") rose sharply in November, reaching an annual high of 156.1 on 3rd December. This suggests VIX will post relatively large changes in the future and that US stocks will experience large fluctuations.



Macro Strategy

VIX and VVIX indices



Source: Bloomberg, data as of 23rd December, 2021

The sharp rise and fall of asset prices in the short term is expected to continue into the first quarter of 2022 for three main reasons:

1. International election year: Polls indicate that support is low for the governing Democratic Party in the United States. In addition to a focus on Sino-US relations and the risk they may deteriorate further, the ruling party's governance is expected to be challenged by the Republican Party on many fronts. Elections will also be held in France, South Korea, and Hong Kong, creating market instability.
2. Gap in policy expectations: The US Federal Reserve ("Fed") has accelerated liquidity tightening, foreshadowing multiple interest rate hikes. Major central banks have followed suit. However, some central banks are hesitant, which may give rise to disorderly tightening. Whether monetary policy can solve structural inflation globally is doubtful, and economic forecasts show that worldwide growth is subject to many variables. Meanwhile, capital market performance suggests it is unlikely that central banks can raise interest rates multiple times as scheduled. Unclear information and gaps in expectations will contribute to market volatility.
3. Pandemic outbreak: The Omicron variant is milder than previous strains but highly contagious. Countries have been forced to retighten pandemic prevention measures, hampering international trade and travel. Given that emerging markets with low vaccination rates will be hit harder than mature markets, more outbreaks are expected to appear this quarter. However, breakthroughs in vaccine

research and development will offset the impact of the outbreak, the extent of which depends on how global vaccine coverage compares to transmission rates.

International election year: Contributing to market instability

US midterm elections: Historical data unfavourable to ruling party

The US midterm general elections will be held on 8th November this year. In the past 10 midterm elections, the results tended to be unfavourable towards the president's political party. This suggests that President Biden's Democratic Party is less likely to maintain the "blue wave" over the following two years.



Results of the last 10 US midterm elections and the then-presidents				
Year	President	Party	Control of House of Representatives after midterm elections	Control of Senate after midterm elections
1982	Reagan	Republican	Democrat	Republican
1986	Reagan	Republican	Democrat	Democrat
1990	George HW Bush	Republican	Democrat	Democrat
1994	Clinton	Democrat	Republican	Republican
1998	Clinton	Democrat	Republican	Republican
2002	George W Bush	Republican	Republican	Republican
2006	George W Bush	Republican	Democrat	Democrat
2010	Obama	Democrat	Republican	Democrat
2014	Obama	Democrat	Republican	Republican
2018	Trump	Republican	Democrat	Republican

Source: US Senate and House of Representatives websites^{1,2}, data as of 24th December, 2021

As of 23rd December, Biden's approval and disapproval ratings stood at 43.3% and 51.5% respectively, according to US polling website FiveThirtyEight³. The figures represent a net negative approval of 8%. Compared to the previous six presidents' ratings during the past 10 midterm elections, Biden's net support for his first 338 days in power is lower than four of his predecessors (Ronald Reagan, George HW Bush, George W Bush, and Barack Obama) but higher than Donald Trump. Although historical data does not bode well for the ruling Democratic Party, fortunately the polls are better than that of the previous government, lending some optimism to the Democratic Party's continued control of both the House of Representatives and Senate. Biden is expected to campaign more aggressively than ever in the coming months.

US midterm elections: A familiar pattern

As reported by the Wall Street Journal on 7th December⁴, a poll conducted by Monmouth University found Americans' most pressing concerns are the pandemic, inflation, and daily expenditure. Most respondents believe the government's

performance on these issues has been disappointing. The poll results are in keeping with the trend in Biden's approval ratings. Since the current president's support fell into net negative territory on 30th August, inflation and the pandemic have worsened, further weighing on the net negative approval.

After all, deep-seated domestic problems cannot be resolved overnight. With less than a year until the midterm elections, the issue that can most quickly attract the attention of voters is believed to be foreign policy. Thus, Sino-US relations are expected to be a key focus of the upcoming election. This approach is not unfamiliar. When President Trump took office, he vigorously promoted the strategies of "America First" and "Make America Great Again". Although they were at odds with the views of European allies and NATO, Trump's heavy-handed anti-China tactics received domestic support. Tensions between China and the US have become an investment weather vane in recent years, impacting global equities most heavily and containing both opportunities and risks for investors (for details, see "Equity").

¹ See the US Senate website: <https://www.senate.gov/history/partydiv.htm>

² See the US House of Representatives website: <https://history.house.gov/Institution/Party-Divisions/Party-Divisions/>

³ See the FiveThirtyEight website: <https://projects.fivethirtyeight.com/biden-approval-rating/?cid=rrpromo>

⁴ See the Wall Street Journal website: <https://www.wsj.com/articles/wsj-poll-biden-leadership-economy-midterms-11638888384>

Macro Strategy

Highlights of the Trump administration's China policy

Date	Impact area	Policy overview
June 2018	Trade: tariffs	The countries impose tariffs on each other, leading to WTO arbitration
August 2018	Technology: communications	US government agencies prohibited from using China's Huawei and ZTE
May 2019	Technology: communications	Huawei intentionally excluded from the SD Memory Card Association, Wi-Fi Alliance, and JEDEC Association (Solid State Technology Association)
August 2019	Finance: exchange rates	China labelled a currency manipulator
February 2020	Technology: hardware	Restrictions placed on Chinese firms' access to chip technology
May 2020	Technology: hardware	Prohibition of the sale of semiconductor products containing US technology to certain entities
July 2020	Trade: Hong Kong	US revokes Hong Kong's special trade status
August 2020	Technology: software	TikTok downloads and updates banned in the US and ByteDance required to leave TikTok within 90 days
November 2020	Finance: securities	US investors prohibited from trading in Chinese securities
November 2020	Technology: hardware	Restrictions placed on Chinese procurement of aerospace products and technologies
December 2020	Cultural exchange	Five Sino-US exchange programmes terminated
January 2021	Technology: hardware	Eight Chinese mobile apps banned in the US
January 2021	Finance: securities	Large Chinese telecommunication companies urged to delist from the New York Stock Exchange

Source: Comprehensive website information, data as of 24th December, 2021

Since Biden took office, he has hardly changed the Trump administration's strategic framework for China. Now with midterm elections looming and given Biden's net negative support, anti-China policies could become tougher than during the Trump era. Investment areas that may be impacted include scientific and technological research and development, finance, and business operations.

The further decoupling between China and the United States will become an unpredictable factor and is expected to dampen investment sentiment. Possible strategies include:

- Reduce holdings of companies that are listed on both stock exchanges simultaneously, have profits in both countries, rely heavily on technology, and have a relatively high proportion of overseas profits.
- Look to businesses where the upstream/midstream/downstream of the company are all in the same place of origin, i.e. adopt the so-called "pure Chinese" or "pure US" corporate positions.
- Civil sector development will be an important pillar in US economic recovery. It can also reduce reliance on foreign investment, as well as benefit related sectors such as infrastructure, raw materials, and industry. REITs are a more conservative investment option.
- As Sino-US relations intensify, capital and sector rotation will become more intense, and portfolios must be more agile and decisive.
- Biden is expected to try win over friends and allies. Risks will be more widespread, so portfolio diversification and balance are increasingly important.

US midterm elections: International wars may not favour election conditions

More extreme risks during the election period include international warfare. Historically, wars of various magnitudes have occurred during the second year of the then-president's administration. However, of the past 10 US midterms, only in 2002 were George W. Bush and the Republican Party able to sweep the presidency and both houses in the post-9/11 midterm elections. Although the war helped unite American voters and support the then-ruling party, it had little benefit in retrospect. Coupled with the high financial and social costs of today's war, the Biden administration is unlikely to make a clean sweep in the short term.

US midterm elections: The short-term impact of the two-party dispute

Around the world, elections seem to have become a hallmark of the United States, with political parties competing regularly and often chosen by means of a consensus. However, the friction between the two parties intensified since the previous administration, with decisions often still unclear a few days or even hours before a vote. Animosity between the parties affects the current investment market. Examples include the debt ceiling, Trump's impeachment case, and Biden's "Build Back Better" bill. These reflect the impact of political disputes on the market that are not purely economic in nature. The status of these tensions will be integral in pushing US stocks to record highs in the short term. In addition, if the Biden administration loses control of one of the houses, governance and implementation will be more difficult, directly affecting the economy and corporate profits.

Other international elections: Regional risks that cannot be ignored

In addition to the United States, other elections are being held all over the world in 2022. The prolonged pandemic and the long-term gap between rich and poor are detrimental to ruling party support. Change-seeking mentalities will influence current policies, indirectly affecting the distribution and flow of capital in investment markets and increasing investment risks outside the United States.

Schedule of key international political elections in 2022

Country or region	Election	Date of election
South Korea	Presidential	9th March
Hong Kong	Chief executive	27th March
France	Presidential	10th April
Hungary	Congressional	May (date depends on pandemic)
Philippines	Presidential	9th May
United States	Congressional midterms	8th November

Source: Comprehensive website information, data as of 24th December, 2021

- Following the South Korean election, sitting President Moon Jae-in's international relations, especially the role of China and the US in diplomatic relations with North Korea, may change. The election results will affect stability in Northeast Asia.
- The election of Hong Kong's chief executive will directly affect the development of Hong Kong over the next five years, including people's livelihoods, the economy, and the integration of China and Hong Kong.
- France's upcoming presidential election is very important. Germany's "Merkel era" has come to an end, but many issues remain that need to be resolved by the new government. When German policy is unclear, investor focus is on France. According to the polls as of 12th December last year, French Republican presidential candidate Valérie Pécresse will have 52% of voters' support if she enters the second round of the election (more than President Macron's 48%) and could become France's first female president.
- The results of the election in the Philippines will impact the region, especially in terms of maritime disputes with China, and will directly affect investment sentiment in the region.

For details of investment opportunities and risks, see "Equity" and "Bond".

⁵ See CNN website: <https://edition.cnn.com/2021/12/19/economy/goldman-sachs-joe-manchin-build-back-better/index.html>

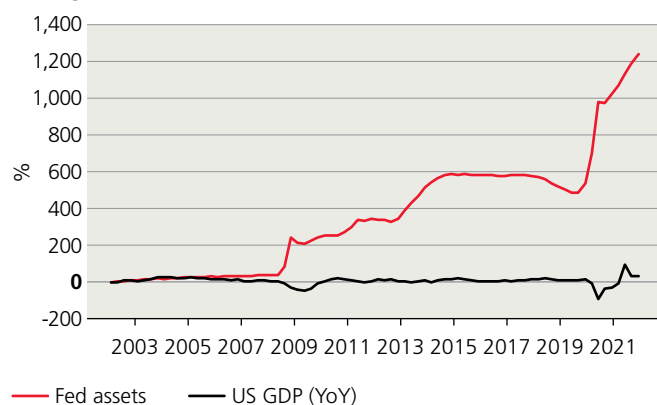
Macro Strategy

Gap in policy expectations: The importance of central bank and market consensus

Policy reversal: The end of the cycle

Since 2008 when the global economy encountered large-scale headwinds, central banks around the world have relied on loose monetary policies, hoping to prevent economic recessions through large-scale liquidity as well as take advantage of the wealth effects of investment markets to curb the spread of risks and buy time to find other solutions. Over the past two decades, the Fed's assets have risen almost 12-fold, from less than USD 800 billion to around USD 9 trillion today. During this period, US GDP has only grown by about 30%. This raises doubts regarding the effectiveness of liquidity in promoting real economic growth.

Change in Fed assets and US GDP



Source: Bloomberg, data as of 28th December, 2021

As the marginal effectiveness of loose monetary policy worsens, the side effects are becoming more apparent. Due to widening inequality and imported inflation, investment markets distort asset functions and pricing systems. Traditionally, bonds are viewed as stable interest-bearing instruments, but equity investments have become interest-bearing securities amid the low-interest rate environment. Excess liquidity stimulates speculative activities and high valuations, contributing to a high-premium market, creating investment risks, and producing a variety of high-risk alternative investments.

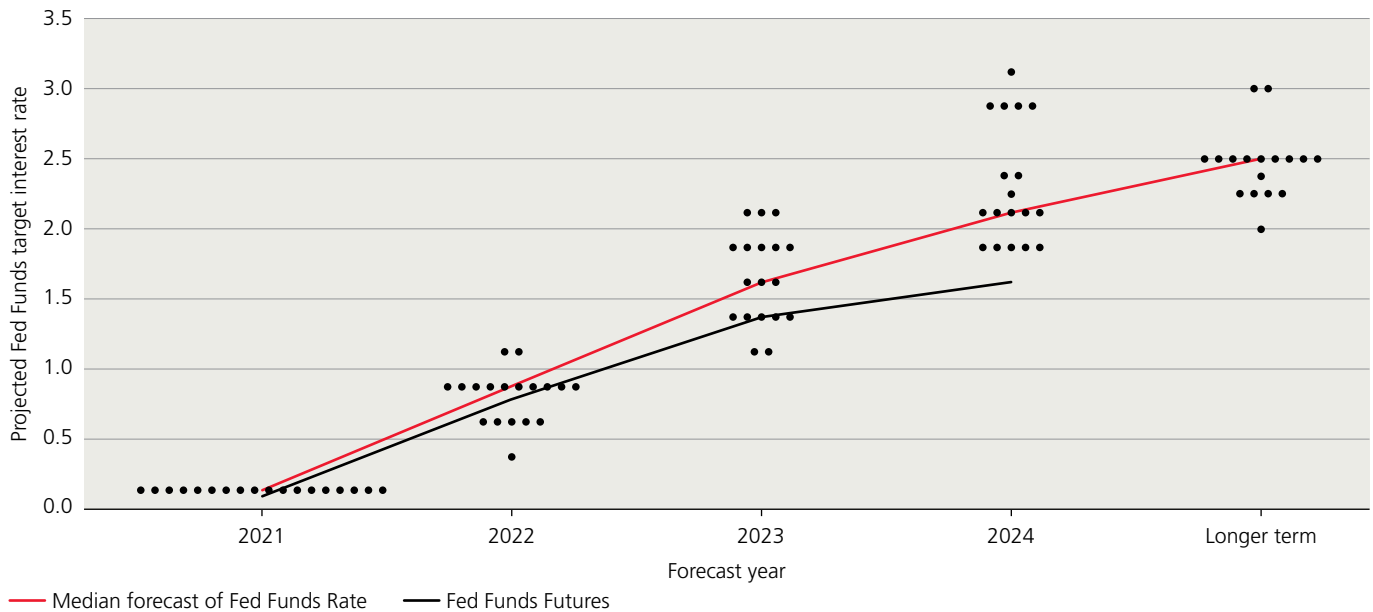
Life has its ups and downs. The Fed established a tighter monetary policy at the interest rate meeting last quarter, the first step in a cycle of interest rate hikes that could last for several years and have a profound impact on the medium and long-term investment environment. Mean reversion will see trends in asset prices reverse and liquidity-dominated capital markets will come to an end. Meanwhile, long-term investment strategies focused on fundamental value will take precedence. Attention should be paid to friction caused by large-scale cyclical reversals, which will become an investment risk over the coming few years.

Policy reversal: Doubts declared after Fed meeting

Since July last year, inflation in the United States has been on the rise, but Fed Chairman Powell repeatedly stated that inflation is "transitory" and avoided the topic of interest rate hikes. The Fed's September dot plot showed interest rates were expected to rise once or twice in 2022, and some committee members still had reservations. However, in December, all members agreed that rates will increase two to four times over the year. The median trend is more aggressive than the Federal Funds Futures forecast. In addition, Powell avoided the word "transitory" in his post-meeting statement but did not explain the reason for his about-turn over the three-month period. The speed and magnitude of the proposed hikes are rare in recent years, and thus investors have lost their bearings.



The Fed's December dot plot



Source: Bloomberg, data as of 24th December, 2021

In terms of economic forecasts, the Fed is more optimistic than the market about economic performance this year. Not only are Fed estimates of real GDP growth higher than market forecasts, core personal consumption expenditure is expected to plummet from 4.6% in December last year to 2.7%, suggesting that today's market concerns about runaway inflation will disappear. The unemployment rate forecast is even more optimistic, falling from 4.2% in December to 3.5%, the lowest level in the past 20 years.

US economic forecasts for 2022			
Organisation	Real GDP (%)	Core personal consumption expenditure (%)	Unemployment rate (%)
Federal Reserve	4.0	2.7	3.5
Bloomberg composite forecast	3.9	3.3	3.9

Source: Federal Reserve, Bloomberg, data as of 26th December, 2021

However:

- On what basis is the Fed so optimistic? What data or opinions are being ignored by the market?
- If the economy is so prosperous and inflation is falling, why is there a need for multiple interest rate hikes?
- On the contrary, does a drop in prices following a series of rate hikes imply that structural inflation can be resolved by raising interest rates?
- Why are unemployment forecasts so aggressive? Can structural unemployment – including the decline in the labour force searching for work, the suspension of low and medium-paying jobs due to high risk of infections, the increase in the proportion of temporary workers, the low labour force participation rate, and job mismatches – be resolved by raising interest rates?

Macro Strategy

Structural inflation: Monetary policy is not a panacea

Generally, inflation stems from excess demand and lack of supply, leading to higher prices. Tighter monetary policy can reduce liquidity and cool consumption and investment sentiment, thereby suppressing inflation.

However, structural inflation does not stem from surplus demand, but from supply shortages owing to reduced productivity caused by issues such as the pandemic. Over time, it becomes cost-push inflation and, ultimately, structural inflation. Such is the case today. The gap between the US Producer Price Index ("PPI") and Consumer Price Index ("CPI") is at a 30-year high, reflecting that high inflation is not driven by demand but by supply, especially supply-chain tensions.

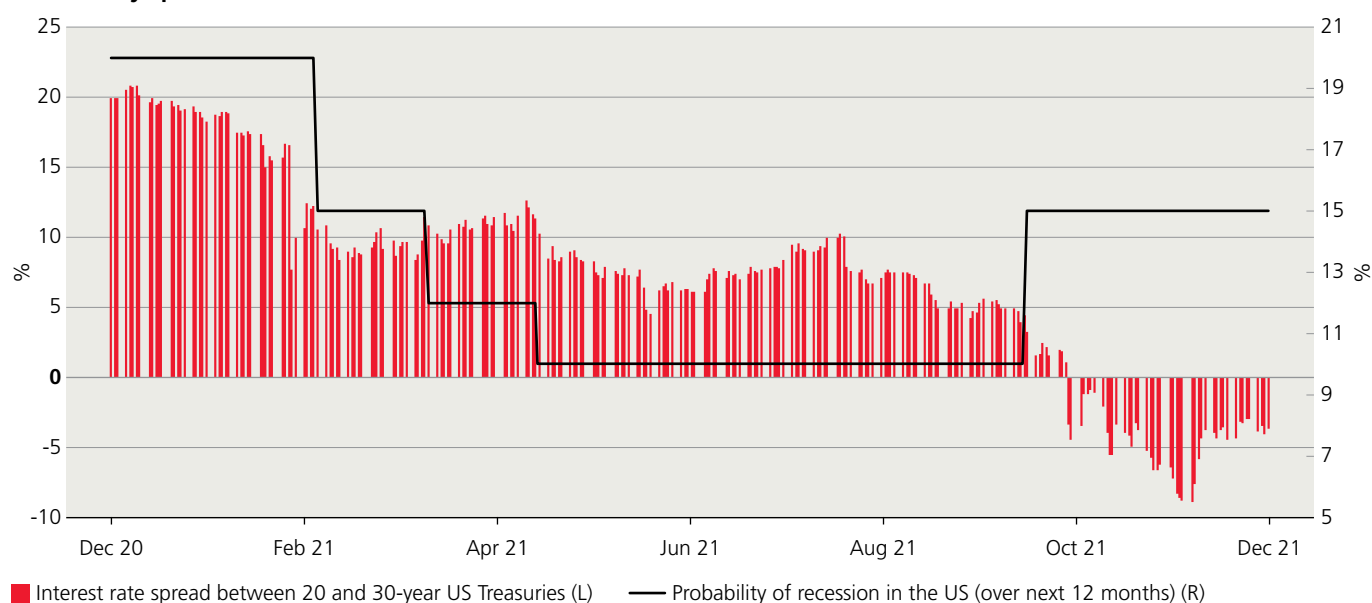
According to the Organisation for Economic Co-operation and Development ("OECD")⁶, inflationary pressures in the world economy are predominantly due to growth in commodity demand and supply bottlenecks. Inflation risks may last longer than was predicted a few months ago, and the global economic rebound is losing momentum.

Coupled with the recent surge of COVID-19 cases around the world, rising infections in the shipping industry, diverging customs and clearance requirements, and cargo deterioration or destruction have exacerbated supply chain problems⁷.

In addition, US Treasury Secretary Yellen has repeatedly stated that tariffs up to 25% on Chinese imports worth hundreds of billions of dollars each year have led to higher prices. Although lowering tariffs will not completely change the status quo, it will help ease inflationary pressures in the United States⁸.

The core of structural inflation stems from supply rather than demand. The impact of higher interest rates on supply is minor. However, rate hikes will discourage credit consumption, stifle corporate and fixed investment by increasing financing and mortgage costs, and affect market sentiment. The consequences of higher rates are far-reaching and broad, and the disruptive repercussions may ultimately outweigh the gains.

US Treasury spreads and recession risk



Source: Bloomberg, data as of 30th December, 2021

⁶ See the OECD website: <https://www.oecd.org/economic-outlook#inflation>

⁷ See the Yahoo News website: <https://news.yahoo.com/expect-more-shipping-chaos-omicron-210000336.html>

⁸ See the Reuters website: <https://www.reuters.com/markets/rates-bonds/yellen-says-cutting-some-tariffs-chinese-goods-could-ease-price-pressures-2021-12-02/>

Expectation gap: Communication is key

The Fed's recent policy changes have affected market perceptions:

- The debt tapering schedule was announced at the November meeting, but a month later the Fed reported the speed would double, with total monthly reductions increasing from USD 15 billion to USD 30 billion.
- Before November, the central bank insisted inflation was "transitory" but dropped the label in December.
- The Fed's September dot plot showed the committee was divided on whether to raise rates this year, but the December dot plot indicated they all agree that interest rates should increase in 2022.

In psychology, the "expectation gap" is when actual results deviate from expectations, often leading to a negative emotional response. The reaction in investment markets following the Fed's most recent post-meeting statement reflected an expectation gap.

Bloomberg combines global economic forecasts with the views of economists to predict the probability of a US recession in the next 12 months. On 30th December, the odds had risen from 10% at the end of September to 15%. Although it has not reached a worrying level, the upward trend runs counter to the Fed's optimistic economic forecast. In addition, long-term US Treasury yields have been inverting since October, reflecting doubts in the capital market regarding the Fed's bullish outlook.

The risk ahead is not the number of interest rate hikes but the Fed's lack of communication with the markets or a clearer orientation of monetary policy. As well as affecting policy decisions of other central banks, a lack of Fed guidance leaves investors alone in having to interpret the turbulent flows of international capital that have caused asset price fluctuations. The greater risk is today's overly optimistic economic forecasts. If corrections are necessary under the influence of negative factors (such as another surge in the pandemic), it will undermine the credibility the Fed has built over the years.

The stability and reliability of policies offered by the central bank are the bedrock of the market. A loss of confidence or credibility in the monetary authorities exacerbates the costs of governance, adding more uncertainty and volatility to the investment market.

For details on investment opportunities and risks, see "Bond".

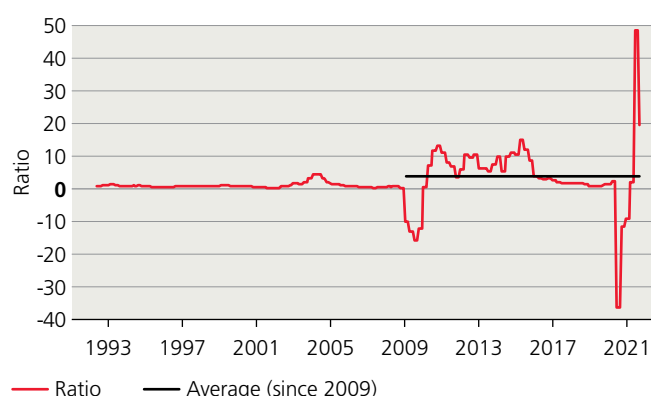
Interest rate hike forecast: Base case is two rate increases

The median of the Fed's most recent dot plot indicates three rate hikes in 2022, with more aggressive members predicting four increases. However, the base case is that rates will rise twice this year and the best case is that they will increase a third time. In terms of timing, the first hike is expected in March or May, the second in June or September, and the third (if any) in December.

Official interest rates are fixed in proportion to local GDP, with rates rising when growth is increasing and vice versa. Over the last 30 years, the ratio of US GDP (YoY) to the Fed Funds Rate (upper limit) has generally hovered at around 0.8. In 2009, when multiple quantitative easing policies were implemented, the ratio began to fluctuate. Then in 2015, when then-Fed Chairman Ben Bernanke set the stage for liquidity tightening, the ratio returned to historical levels. Since the onset of the pandemic, the ratio has fluctuated more substantially.

Chairman Powell recently called for a tightening of liquidity. With GDP growth at 4.9% and a ratio of 19.6, interest rates must be raised four times (0.25% each) to return to the post-2009 average of 3.9. If GDP growth is 4% in 2022, the Fed will only have to raise rates three times. Moreover, the time required for mean reversion in 2010 and 2015 was around 1.2 years, so it is normal to base forecasts on quarterly hikes. Of course, if economic growth is not as expected (perhaps due to the pandemic or Sino-US relations) or if inflation falls faster than expected, it is reasonable to be more conservative and raise interest rates only twice.

Ratio of US GDP (YoY) to Fed Funds Rate (upper limit)



Source: Bloomberg, data as of 30th September, 2021

Macro Strategy

Other considerations include:

- Fed Chairman Powell has indicated that interest rate hikes will not be considered until the reduction in debt purchases is complete⁹, i.e. from March onwards.
- In the past 20 years, there has been only one interest rate change following the July meeting, so it is more likely to happen in June or September.
- The US midterm elections will be held on 8th November and the Fed will discuss interest rates on 2nd November. Traditionally, interest rates are not increased before an election.
- Powell stated that inflation is not the only factor under consideration and that more attention will be paid to structural employment in future⁹. However, he acknowledged that the problem cannot be solved through monetary policy.
- With reference to liquidity tightening in 2013, it is possible to stop reinvesting the principal of maturing securities after the completion of the debt reduction plan. Interest rate hikes are thus not the only option. According to the spread of US Treasury maturities¹⁰, the amount of debt maturing in 2022 will be the highest (as much as USD 8 trillion) over the next three decades. The Fed therefore has plenty of room to recover the liquidity it invested.
- Even if debt is renewed, the prevailing interest rate will not be too high, otherwise the increase in interest expenditure will wreak havoc on the budget for decades to come. The Fed is thus cautious when setting interest rates.
- Tax policies, such as wealth tax or capital gains tax, are usually more effective in solving structural economic problems.

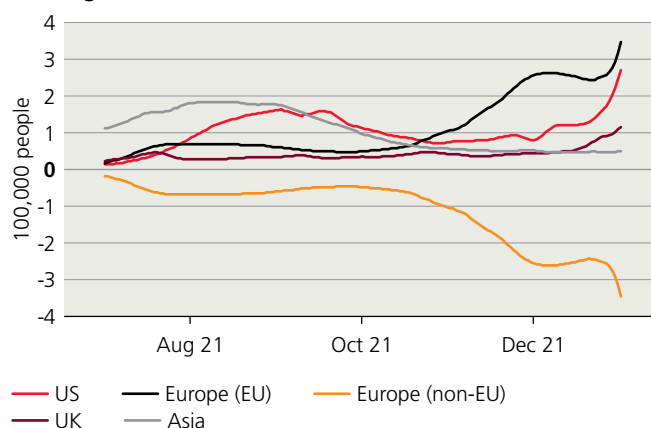
The pandemic returns: The race between vaccinations and variants

Omicron's influence on the market will fade

The world's first case of Omicron¹¹ was detected in South Africa on 14th November last year. Although Omicron is less likely to cause severe illness, it is more infectious than past variants. Since December, several European countries have tightened pandemic prevention measures, but this has led to a number of violent demonstrations and discontent among some citizens. As of 30th December, the number of infections in individual countries had repeatedly hit record highs. A WHO spokesperson said that the rising number of cases globally is very worrying and that more than 500,000 deaths are expected this spring¹². However, they added that the impact on investment markets would be manageable.

A closer look at the daily changes in the number of confirmed cases reveals that the deterioration is mainly concentrated in the United States, the United Kingdom, and the European Union, which makes hedging activities relatively easier.

Daily changes in number of confirmed cases in countries and regions



Source: Bloomberg, data as of 31st December, 2021

The trend in global mortality since February 2020 roughly diverges from the MSCI World Index. Even if Omicron continues to drive a sharp rise in worldwide infection rates, it is believed that the impact on equity markets will be minimal as long as the mortality rate remains at around 2%.

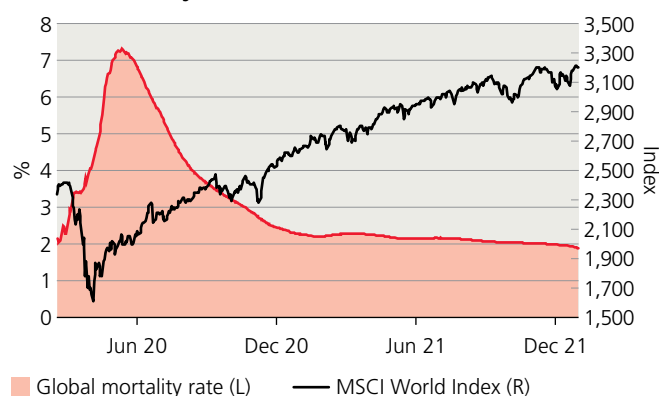
⁹ See the Federal Reserve website: <https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20211215.pdf>

¹⁰ See the Federal Reserve Bank of New York website: <https://www.newyorkfed.org/markets/soma-holdings>

¹¹ See the WHO website: [https://www.who.int/news/item/26-11-2021-classification-of-omicron-\(b.1.1.529\)-sars-cov-2-variant-of-concern](https://www.who.int/news/item/26-11-2021-classification-of-omicron-(b.1.1.529)-sars-cov-2-variant-of-concern)

¹² See the BBC website: <https://www.bbc.com/zhongwen/trad/world-59373579>

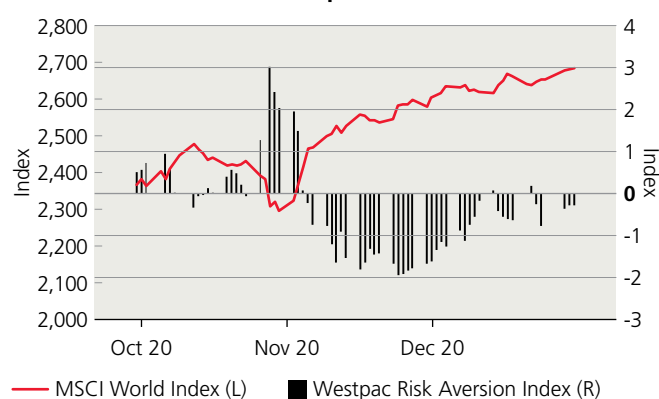
Global mortality and MSCI World Index



Source: Bloomberg, data as of 31st December, 2021

The first case of Delta was detected in early October 2020, spurring a surge in risk aversion. At the time, the MSCI World Index fell by about 7%. Later, following the implementation of various measures such as the tightening of pandemic regulations and the acceleration of vaccinations, stock markets across regions rebounded and global risk aversion declined. The process took around one and a half months. Investors can use this as a reference.

MSCI World Index and Westpac Risk Aversion Index



Source: Bloomberg, data from 30th September to 30th December, 2020

In addition, major pharmaceutical companies have announced that vaccines for Omicron will be available in the first half of 2022, alleviating market concerns. Countries are also revising their current anti-pandemic targets and regulations, and implementing a new round of measures. It is believed that the impact of Omicron on the investment market will gradually fade this quarter.

Global vaccine inequity is the biggest risk

When or how the virus will mutate cannot be controlled using current medical technology, and Omicron is unlikely to be the last variant. Vaccinations are still a viable and effective way to actively fight the pandemic despite all the uncertainties. However, an imbalance in the distribution and administration of vaccines as well as waste are issues WHO has repeatedly highlighted. Examples of wasteful use of vaccines have abounded over the past six months, from the destruction of more than 1 million expired doses in Nigeria¹³ to estimates by the US Centers of Disease Control and Prevention that the US wasted at least 15.1 million doses last year¹⁴.

There is no distinction between rich and poor in the face of the virus. The loopback effect caused by the imbalance in global vaccination rates will continue to operate between mature and emerging markets, hitting the global economy that has only just recovered.

- Emerging markets that provide raw materials and productivity have low inoculation rates and their economies have not yet restarted. However, demand in mature countries is recovering. The gap has caused tension in global supply chains, and rising production prices have led to structural inflation.
- International customs clearance increases the chance of infections, but closing countries and cities hampers economic recovery, creating a dilemma.

In response to global hoarding and waste, the WTO and the IMF have cooperated to develop the WTO-IMF COVID-19 Vaccine Trade Tracker¹⁵, which provides data on vaccine trade and supply according to vaccine types, economies, and supply arrangements. The system tracks:

- Doses of the final vaccine delivered to the beneficiary region
- Domestic supply (not including resale or donation) in beneficiary economies
- Comparison of primary vaccine supplier country with other sources (for example, total doses from a country or region of origin)

Although WHO Director-General Tedros said the pandemic will come to an end this year, he believes that the subsequent impact on economies and investment will continue and that investors must remain mindful of risks.

¹³ See the Xinhua News Agency website: http://www.news.cn/2021-12/23/c_1128192961.htm

¹⁴ See the China News Network website: <https://www.chinanews.com.cn/gj/2021/10-25/9594498.shtml>

¹⁵ See the WHO website: https://www.wto.org/english/tratop_e/covid19_e/vaccine_trade_tracker_e.htm

¹⁶ See the BBC website: <https://www.bbc.com/news/world-59840513>

Spring Equinox

Economic Research Department, The Bank of East Asia



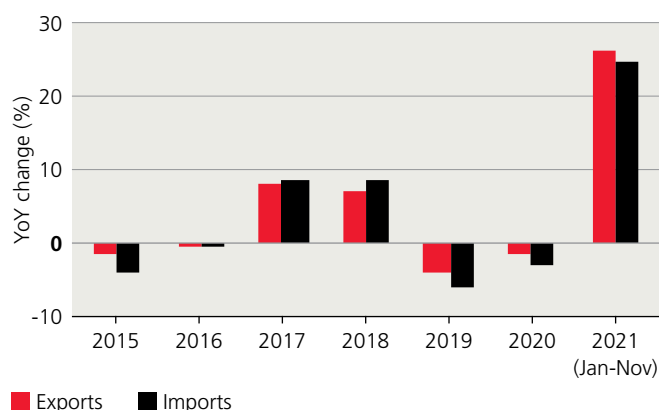
Economic Research Department, The Bank of East Asia

Hong Kong Economic Outlook

Exports sector – main engine of economic recovery

Exports remained the main boost to economic recovery, with a 26.5% year-on-year growth in the first eleven months of 2021, propelled by robust overseas demand. Exports are expected to remain robust entering 2022. However, the Omicron variant of COVID-19 is spreading around the world and casting a shadow on the global economic recovery. Meanwhile, supply bottlenecks, soaring shipping costs, and an energy shortage continue to linger and add to the downside risks. The slowing growth of Mainland China is also exerting a downward pressure on Hong Kong's export market. Overall, with a high base of comparison this year, exports are expected to grow at a slower pace this year.

Hong Kong exports and imports

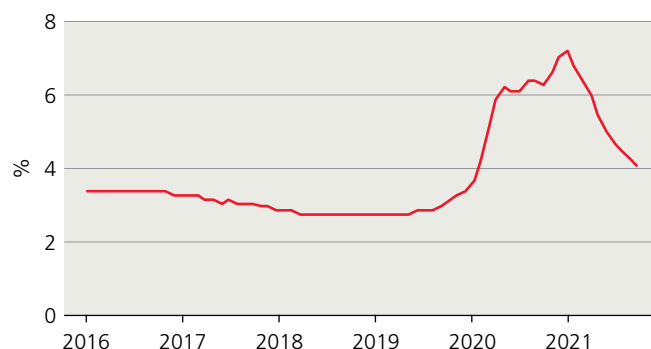


Source: Hong Kong Census and Statistics Department, data as of 28th December, 2021

Stable epidemic situation allows domestic market to recover

In contrast to the increasingly challenging environment, Hong Kong's domestic market is relatively stable. With the epidemic situation generally under control, the general business environment is improving. Hong Kong's unemployment rate continued to trend lower. It was at 4.1% in the September-November period, down from 4.3% in the period spanning August to October. The improvement is broad-based, with distinct decreases in the construction sector as well as in retail, accommodation, and food services. Total employment increased by about 6,800 between August-October and the September-November period, while the labour force decreased by about 6,900 during the same period. Looking ahead, it will take time to see a full recovery of the labour market to pre-pandemic levels, especially with the threat of a new COVID-19 variant and with the border remaining closed. As such, any further reduction in the unemployment rate is likely to be smaller, and unemployment is projected to stay at around the present level throughout 2022.

Hong Kong unemployment rate



Source: Hong Kong Census and Statistics Department, data as of 16th December, 2021

Retail sales continued to grow in November, shooting up 7.1% year-on-year, which amounts to a value of HKD 30.7 billion and surpasses that of the same period in 2019. Consumer confidence has been boosted by the government's disbursement of consumption vouchers and by solid economic recovery. The improvement was largely driven by wearing apparel, which grew 17.9% annually, followed by a 14.4% growth in jewellery, watches, and valuable gifts. However, supermarkets and other retailers selling fish, livestock and poultry saw a decline in sales.

Economic growth momentum will stay steady in the near term

Looking ahead, economic growth momentum will stay steady this year, albeit at a slower pace than in 2021 due to the different bases of comparison. Yet downward pressure is building up, with supply chain bottlenecks, an ongoing global pandemic, and moderating economic growth in Mainland China. The economy is forecast to grow at 3.2% in 2022, after growing at 6.5% in 2021.

Inflation rose to 1.8% in November, marginally higher than the 1.7% increase recorded in October, which is mainly attributed to a faster rise in utilities bills and prices for clothing and footwear. With the economy on track for recovery and soaring import prices, Hong Kong's inflationary pressure is expected to rise to 1.9% in 2022, up from 1.5% last year.

Residential property prices still have room to rise

Hong Kong's residential property prices edged downward for two consecutive months, amid a lacklustre stock market. According to the figures released by the Rating and Valuation Department, as of end-November the property price index was up 3.1% from end-2020, but was 1.2% below the level seen in the previous month. Meanwhile, residential rents had dropped 0.7% month-on-month, but were up 3.1% from end-2020.

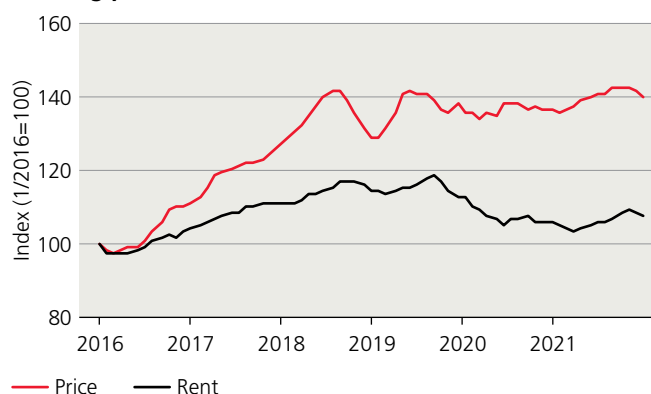
Macroeconomics



With a supply shortage and a low interest rate environment, there is now room for property prices to rise. The US Federal Reserve ("Fed") is now tapering off its asset purchasing programme twice as quickly, and the market generally expects the programme will end in March. Meanwhile, the majority of officials expect a 75 basis point interest rate hike in 2022. Reaction in the financial markets was rather muted, indicating that investors generally do not expect aggressive interest rate hikes.

The HIBOR will trend higher than in 2021. Having said that, with abundant liquidity in Hong Kong, the HIBOR is not expected to closely follow the movements of the LIBOR, nor is an increase in the prime rate likely next year.

Housing price and rent indices



Source: Rating and Valuation Department, data as of 29th December, 2021

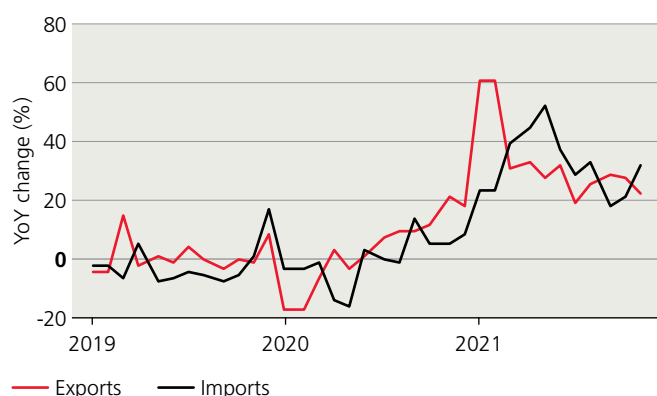
Mainland China Economic Outlook

China's economy still sluggish in November 2021

China's trade continued to register stellar growth, with solid global demand for Chinese-made goods. China's exports rose by 22% in November from a year ago, higher than the market expectation of 20.3%. Meanwhile, imports grew by 31.7% year-on-year in November, up from 20.6% in October.

Alongside strong export performance, industrial production reported a better-than-expected reading, with a yearly growth of 3.8% in November – having accelerated from 3.5% in October. Following policies to curb surging coal prices, the price pressures facing manufacturers started to ease. The yearly growth of the producer price index was reported to be 12.9% in November, slower than the historical high of 13.5% in October, albeit still at an elevated level.

Exports and imports

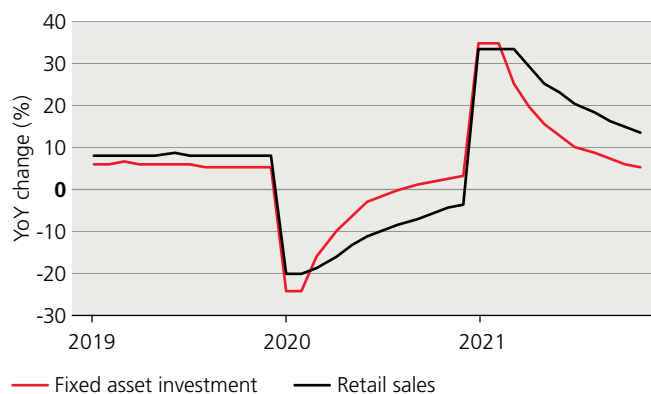


Source: General Administration of Customs, data as of 7th December, 2021

The domestic front fared less satisfactorily than the external front. Even with the Double 11 shopping festival, retail sales grew by just 3.9% year-on-year in November, below the market expectation of 4.7%. Owing to a lower base of comparison, consumer prices advanced to 2.3% yearly growth in November, up from 1.5% in October. Moreover, the urban unemployment rate increased slightly to 5% in November.

Against the backdrop of a property market downturn, investment indicators remained subdued in November. Fixed asset investment in the period between January and November 2021 increased by 5.2% year-on-year, further decelerating from 6.1% in the first 10 months. Infrastructure investment eased to 0.5% annual growth, down from 1% in the first 10 months. Property investment also increased by 6% year-on-year, slower than the 7.2% recorded in the previous month.

Cumulative fixed asset investment and retail sales



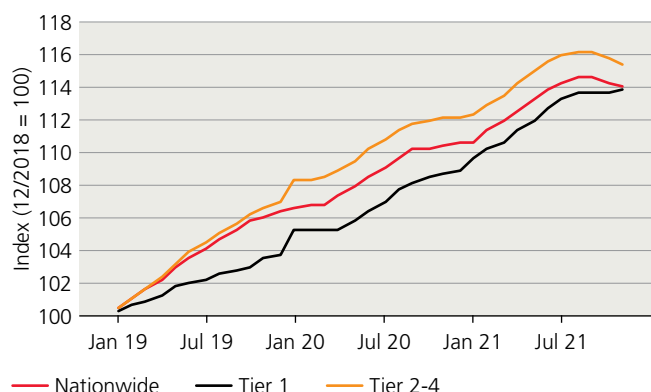
Source: National Bureau of Statistics of China, data as of 15th December, 2021

Home prices continue downward trend

Housing prices fell by 0.3% month-on-month in November, further decelerating from a monthly decline of 0.2% in October. Market sentiment remained bleak amid defaults by the Evergrande and Kaisa groups. The two developers were downgraded to restricted default by Fitch Ratings.

Looking ahead, gloomy market sentiment may increase pressure on developers to offer various discounts in a bid to release inventory and sustain cash flows. As the central government is expected to remain tough on developers' overleveraging issues, weaker players are likely to fail, and the property market as a whole will continue to be subdued in the near term.

New commercial home price index by tiers



Sources: National Bureau of Statistics of China, data as of 15th December, 2021

Macroeconomics

PBOC cuts “RRR”, indicating a need to stabilise the market

Major monetary indicators revealed a steady credit environment in November. The yearly growth of outstanding total social financing edged up to 10.1% in November, compared to 10% in October. Moreover, M2 money supply expanded by 8.5% from a year earlier in November, slightly down from 8.7% as recorded in the previous month.

On 6th December, the People’s Bank of China (“PBOC”) announced it would cut the reserve requirement ratio (“RRR”) for banks by 0.5 percentage points with effect from 15th December, the second such cut in 2021. The RRR cut is expected to inject long-term liquidity worth CNY 1.2 trillion into the interbank system. The PBOC also lowered the 1-year loan prime rate by 5 basis points to 3.8%. This move chimed with Chinese authorities’ priorities of stabilising the economy, soothing corporates’ funding pressures, and bolstering market confidence.

Chinese government signals a greater focus on economic stability

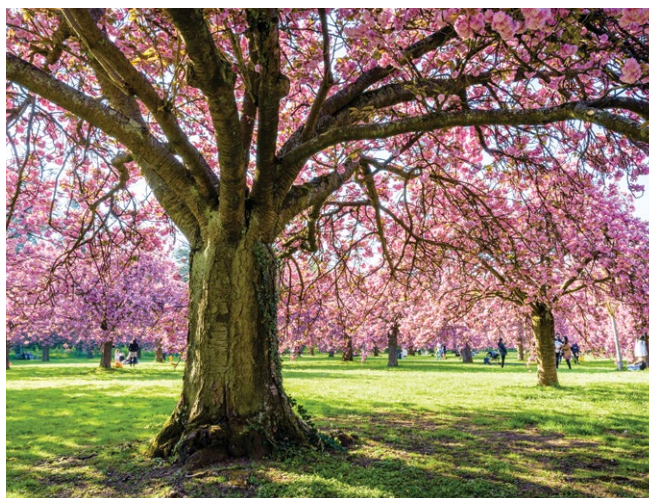
The Evergrande debt crisis and its spill-over affecting other cash-strapped developers has adversely affected market sentiment. The property market downturn is expected to linger in the coming months. The repayment pressure of offshore bonds for the developers remain unchanged in early 2022, heightening the risk of defaults. The room of financing environment facing Chinese real estate companies will be constrained, with rising borrowing cost. Lingering doubts about developers’ ability to service their debts negatively affected homebuyer confidence, exacerbating declines in home sales and prices. Against this backdrop, domestic consumption, which is already under pressure from sporadic COVID-19 outbreaks, will be restrained with a negative wealth effect. Local governments’ land sale revenues will also be affected, limiting room to accelerate infrastructure investment.

Meanwhile, the growth of exports will continue to be robust, but the magnitude is expected to be smaller owing to a higher base of comparison in 2021 as well as the gradual normalisation of factory production in some Southeast Asian economies.

Entering 2022, China’s economic growth is expected to remain under pressure in the first half of the year amid ongoing worries over property woes and softening momentum from exports. Current regulations on the property and technology sectors will likely remain in place as part of the government’s goal to achieve “common prosperity”.

In the context of various downward pressures going forward, it is expected that the Chinese government will roll out multiple policy tools to safeguard the economy against headwinds. At the central economic work conference held in December 2021, the top leaders emphasised their priority of ensuring macroeconomic stability for next year. In a statement released after the conference, China said the Mainland faces a triple threat from shrinking demand, supply shocks and weakening market expectations. The government aims to stabilise 6 fronts (employment, the financial sector, foreign trade, foreign investment, domestic investment, and market expectations) and safeguard 6 areas (employment, people’s livelihoods, market entities, food and energy security, industrial and supply chains, and the operations of primary-level governments). In particular, it will continue to implement proactive fiscal policies and prudent monetary policies. Specifically, China will implement new tax and fee reductions in an attempt to strengthen support for SMEs and individual-run businesses. Moreover, the government is expected to maintain reasonably ample liquidity with looser monetary policy.

Looking ahead, China’s government is pursuing quality and sustainable economic growth. China’s GDP is forecast to grow by 5.3% year-on-year in 2022. Meanwhile, inflation is forecast to pick up, with 2.2% yearly growth in 2022.

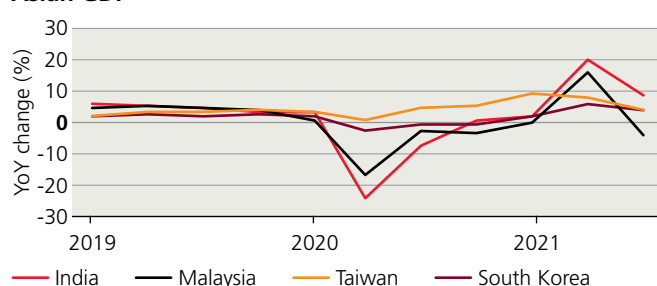


Asian Economic Outlook

Recovery in major Asian economies softens in Q3 2021

Most Asian economies lost momentum in their economic recovery in Q3 2021. For instance, annual growth of South Korea's GDP decreased from 6% in Q2 to 4% in Q3, while Taiwan's GDP rose by 3.7% year-on-year, down from 7.8% in Q2. Meanwhile, Malaysia's economy returned to contraction with a yearly drop of 4.5% in Q3, after a 16.1% annual growth recorded in Q2.

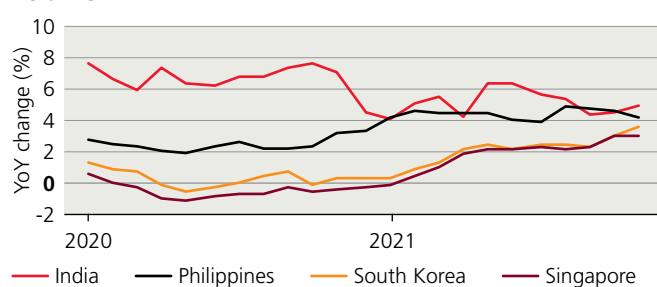
Asian GDP



Source: Bloomberg, data as of 21st December, 2021

Inflation in the Asian economies continues to accelerate in recent months. South Korea's inflation rate advanced to 3.8% in November, up from 2.4% in September. Consumer prices in Singapore also accelerated to 3.2% in October, up from 2.5% in the previous month. India's inflation rate rebounded to 4.9% in November from 4.5% seen in October.

Asian CPI



Source: Bloomberg, data as of 21st December, 2021

Challenges remain ahead for Asia's economic recovery

Looking ahead into 2022, Asian economies continue to face multiple downside risks including global supply chain disruptions and ongoing shortages of key raw materials, which are particularly problematic for the manufacturing sector. Furthermore, the emergence of the Omicron coronavirus variant is stoking concerns over the efficacy of existing vaccines and the potential re-imposition of stringent lockdown measures. Consumer sentiment in Asia's economies is likely to further deteriorate if another round of social distancing restrictions is made necessary by the spread of the Omicron variant.

Against the backdrop of rising downside risks, governments will roll out fresh fiscal support in a bid to protect the economy from adverse impacts. For example, the Malaysian government has announced a spending plan in its 2022 budget, with an

expansion in cash aid and financing support for households and businesses, as well as an allocation of MYR 4.8 billion to generate 600,000 job opportunities.

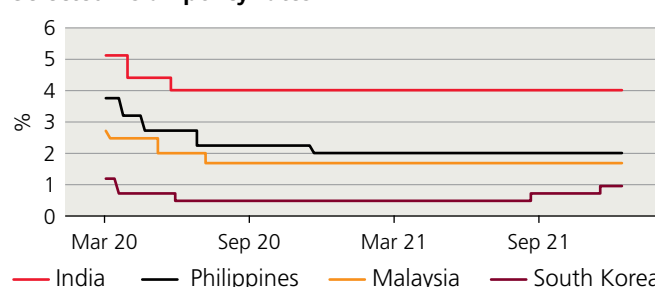
Additionally, the pace of recovery may continue to diverge between economies relying on trade in goods and/or services. In particular, goods exporters with a focus on technology products, such as Taiwan, will continue to benefit from solid external demand. On the other hand, with the COVID-19 pandemic still raging across the world, service exporters such as Thailand will be constrained by strict cross-border travel restrictions. Therefore, COVID-19 is expected to continue to widen the recovery gap between various Asian economies.

Forecasts by the International Monetary Fund indicate a softening economic growth ahead, with Asian economies as a whole expected to grow by 5.7% year-on-year in 2022, easing from a projected annual growth of 6.5% in 2021. Asia's advanced economies are expected to expand by 3.4% in 2022, while its emerging markets and developing economies are projected to accelerate by 6.3% annually.

Hawkish monetary stance of the US Federal Reserve may put further pressure on Asian central banks

Along with rising inflationary pressures, the Bank of Korea ("BOK") announced on 25th November that it was raising the benchmark rate by 25 basis points to 1%, following its hike in August 2021. Rate hikes are expected to increase debt repayment burdens for households, weighing on their financing and consumption incentives. Meanwhile, other Asian central banks including Thailand, India, and Malaysia stuck to an accommodative monetary policy and kept their key interest rates unchanged.

Selected Asian policy rates



Source: Bloomberg, data as of 21st December, 2021

The US Federal Reserve ("Fed") announced after its monetary policy meeting in December 2021 that it would accelerate the pace of reducing its monthly asset purchases. Additionally, more Fed officials now expect interest rate hikes of at least 75 basis points in 2022.

The growing strength of the US dollar, spurred by reduced asset purchases and an increased expectation of rate hikes, may weaken the currencies of Asian countries going forward, where some central banks are currently holding to a dovish monetary policy stance. Nevertheless, Asian economies are expected to be better prepared than in the 2013 taper tantrum, with more substantial foreign reserve cushions on hand to reduce the pressure created by capital flight.

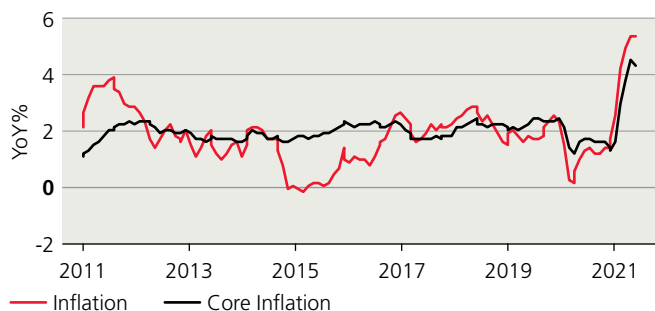
Macroeconomics

US Economic Outlook

Fed doubles speed of tapering off asset purchases and plans more rate hikes amid elevated inflation

US inflation surged to a 39-year high in November 2021 with year-on-year growth of the headline consumer price index ("CPI") rising further to 6.8%, up from the 6.2% in the previous month. The core CPI, which excludes volatile categories of food and energy, registered a 4.9% annual growth during the month, which is the largest rise since July 1991. Several product and service categories saw their largest price increases on record. For instance, new cars and trucks registered an 11.1% year-on-year growth in November, while fast-food restaurant food prices also recorded a 7.9% rise during the month. At the same time, men's apparel and living room, kitchen, and dining room furniture also saw record price rises in November.

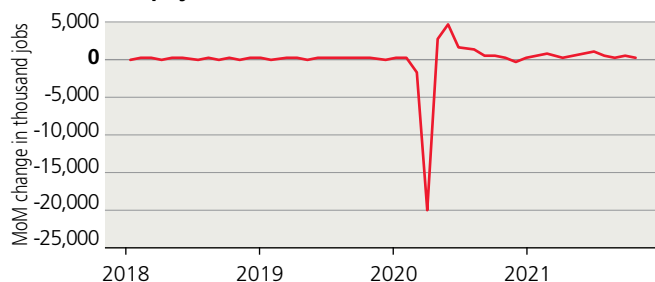
US inflation



Source: Bloomberg, data as of 27th December, 2021

Meanwhile, the US labour market has seen continued improvement in its hiring momentum in November, albeit at a slower pace. Nonfarm payrolls saw 210,000 jobs added in November, building on an upward revision of 546,000 added jobs in the previous month. At the same time, the unemployment rate declined further to 4.2% during the month from the 4.6% in the previous month, closer to the 3.5% pre-pandemic level, while average hourly wages saw a 4.8% year-on-year growth in November 2021.

US nonfarm payroll



Source: Bloomberg, data as of 27th December, 2021

Against this backdrop, the Federal Reserve announced that it would taper off its asset purchase programme faster and signalled more rate hikes at its December meeting. The reduction

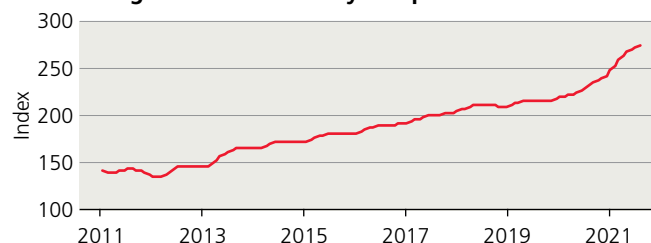
of asset purchases will double to USD 30 billion per month starting from January 2022, and the programme is expected to end in March 2022. The Fed's December projection signals that there will be three 25 basis point rate hikes in both 2022 and 2023, compared to only one to two rate hikes as implied in September's projection, as the Fed predicts inflation will stay elevated and the unemployment rate will decline faster in 2022. Market participants also expect to see first rate hike in Q2 2022, according to the latest Bloomberg survey released in December.

Omicron variant poses downside risk for 2022 economic outlook

Looking ahead, market participants generally expect supply chain constraints to extend into 2022 and inflation to remain elevated at least in the first half of 2022. This may result in a wage-price spiral. A survey by the Conference Board released in early December finds that base pay may increase by an average of 3.9% in 2022, the highest since 2008. Nearly half of the employers surveyed cited the need to offer higher wages to attract new workers amid the labour shortage, while nearly 40% cited high inflation as another factor.

Although the recently passed USD 1 trillion infrastructure spending bill is expected to support the economic recovery, the Omicron variant and any abrupt change in the central bank's policy stance will pose a downside risk to the economy in 2022. Current market expectation is that average US GDP growth for 2022 will be 4%, while the CPI is projected to grow by 4.4%. If the spread of the Omicron variant worsens significantly, governments will need to impose more stringent restrictions to curb the spread of the disease, which will dampen consumer and business sentiment. In addition, more lockdown measures will also lengthen supply chain bottlenecks, resulting in lingering high inflation and quicker interest rate normalisation by the Fed. This may be a further drag on economic growth as higher financing costs will reduce business investment. The S&P Case-Shiller 20-City Composite Home Price Index had risen 16% between end-2020 and October 2021. According to Reuters, Fed Funds Rate futures market has fully priced in a quarter-percentage-point hike by May 2022 after Fed's December meeting. If the Fed normalises interest rates faster than the market expects, asset prices that previously benefited from ultra-low interest rates may see corrections. The negative wealth effect will dent consumer sentiment and act as a further drag on economic growth.

S&P CoreLogic Case-Shiller 20-City Composite Home Price Index



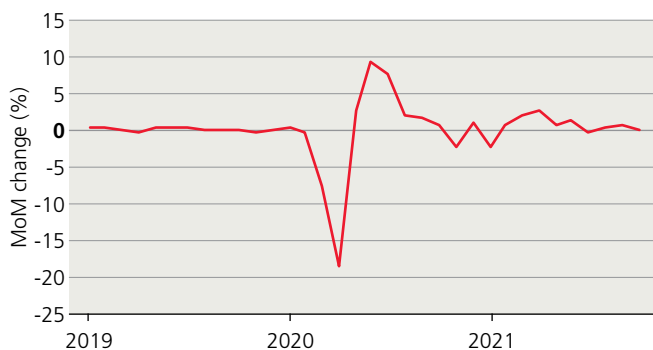
Source: Bloomberg, data as of 28th December, 2021

UK Economic Outlook

BOE rate hike in December surprises market

The UK economy saw growth slow in October, with GDP rising just 0.1% month-on-month, after a 0.6% growth in September. The monthly GDP growth was mainly dragged down by a 1.8% monthly drop in the construction sector and zero growth in manufacturing – with continual supply chain bottlenecks, despite the services sector recording 0.4% monthly growth.

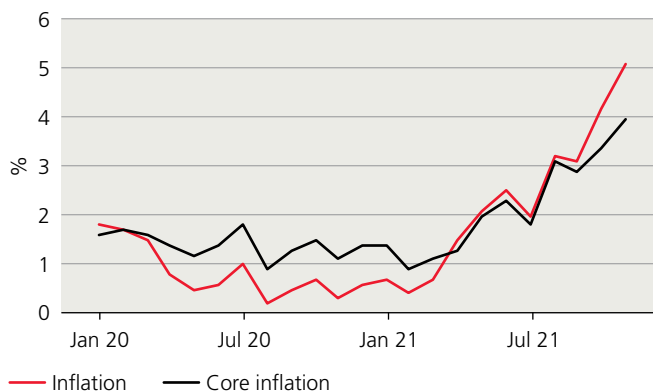
UK GDP



Source: Bloomberg, data as of 27th December, 2021

At the same time, the UK labour market remained resilient, although the government's furlough scheme ended in late September 2021. The unemployment rate fell to 4.2% in the three months to October, down from 4.3% in the three months to September. Besides this, inflation further accelerated in November, with the headline consumer price index ("CPI") rising 5.1% year-on-year in November, following a 4.2% rise in the previous month, and reaching a 10-year high. Core CPI also registered 4% growth during the month, up from 3.4% growth in the previous month.

UK inflation



Source: Bloomberg, data as of 27th December, 2021

Accelerated inflation and rising COVID-19 infections negatively impacted consumer confidence in December. As of 24th December, the 7-day average of newly confirmed COVID-19 cases had risen to over 100,000, up from about 42,560 cases at the end-November. The GfK Consumer Confidence Index edged down to -15 during the month from -14 in November.

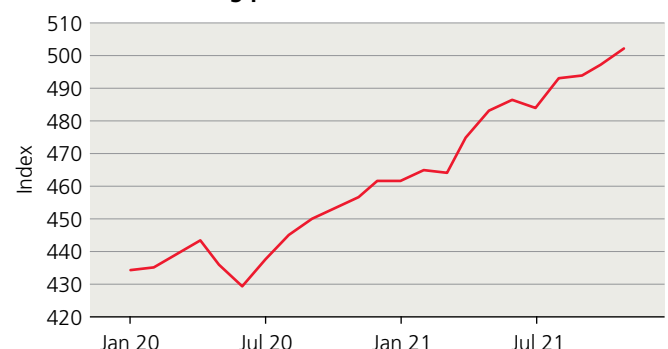
Market participants generally expected that the Bank of England ("BOE") would hold the bank rate unchanged at its December meeting amid the spread of the Omicron variant. However, the BoE unexpectedly raised the bank rate to 0.25% at the December meeting, up from 0.1% previously, as the central bank expects inflationary pressure to linger in the upcoming months and to peak at around 6% in April 2022.

Economic outlook in 2022 faces more challenges

Looking forward to 2022, general market expectation is that UK GDP growth will average 4.7% in 2022, after an estimated 7.7% growth in 2021. Meanwhile, market participants expect UK inflation to remain elevated at 4% in 2022, up from the estimated rise of 2.5% for 2021. The BOE's move at its December meeting has prompted some investors to price in a rise in bank rates to 0.5% by March 2022 and to 1% by September 2022. In a Reuter's poll released before the meeting, market participants generally expected that the bank rate would rise to 0.5% in May or June 2022 and then to 0.75% in Q4 2022. The BoE has said that it would consider actively selling some of its purchased assets when the bank rate reaches 1%. The emergence of the new virus variant may intensify global supply chain disruption if governments around the world re-impose stringent lockdown measures to curb the spread of the virus. This would further fuel inflationary pressure in the UK and raise the expectation of quicker rate hikes by the BOE.

Moreover, the rate of National Insurance contributions will rise by 1.25 percentage points, with the same increase also applying to a tax on dividends starting from April 2022. Consumers may see their disposable income squeezed further, and sentiment may be dampened. In addition, the normalisation of interest rates by the BOE may help to calm surging house prices. As of November 2021, the Nationwide House Price Index had risen by 8.8% from the level at the end-2020. Inflated housing prices may see slower growth in 2022, and the reduced wealth effect may also lower consumers' willingness to spend. Moreover, potential tensions between the UK and the EU stemming from Brexit may also pose additional uncertainties affecting the economic outlook in 2022.

Nationwide housing price index



Source: Nationwide Building Society, data as of 1st December, 2021

Macroeconomics

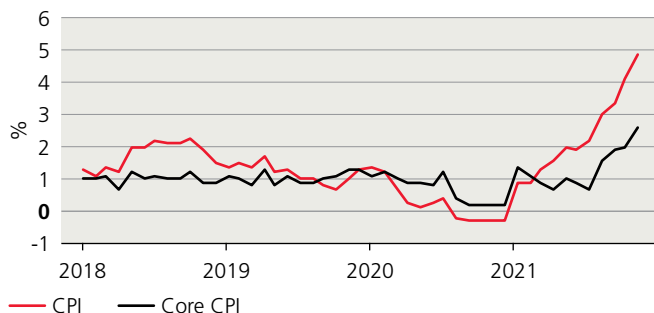
Eurozone Economic Outlook

ECB starts scaling back pandemic-related stimulus amid elevated inflation

In the face of soaring inflation, the European Central Bank ("ECB") announced in December that it would gradually reduce the pace of asset purchases in the coming quarters. In particular, net asset purchases under the EUR 1.85 trillion Pandemic Emergency Purchase Programme ("PEPP") will be scaled back over the course of Q1 2022 and be discontinued at the end of March 2022. In order to avoid disruption, the ECB is to expand its conventional Asset Purchase Programme from the current monthly pace of 20 to EUR 40 billion in Q2 2022, and to EUR 30 billion in Q3 2022, to cushion the impacts of exiting from PEPP. A monthly pace of EUR 20 billion will be maintained from October 2022 onwards, "for as long as necessary", before the ECB starts to raise key interest rates.

Eurozone inflation remained elevated at 4.9% in November, a fresh record high, up from 4.1% in October. Energy prices continued to be the main culprit, surging by 27.5% year-on-year in November.

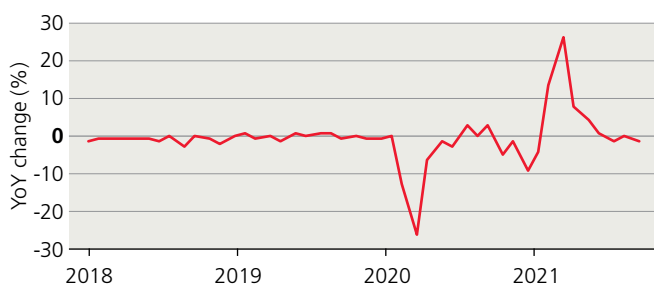
Eurozone inflation



Source: Bloomberg, data as of 17th December, 2021

The eurozone economy improved slightly in October, but increasing COVID-19 risks arising from the Omicron variant are clouding the market outlook. Eurozone retail sales increased by 0.2% month-on-month in October, up from a fall of 0.4% in September. On the external front, exports increased by 2.4% month-on-month in October while imports increased by 4.3%, resulting in a trade surplus of EUR 2.4 billion.

Eurozone retail sales

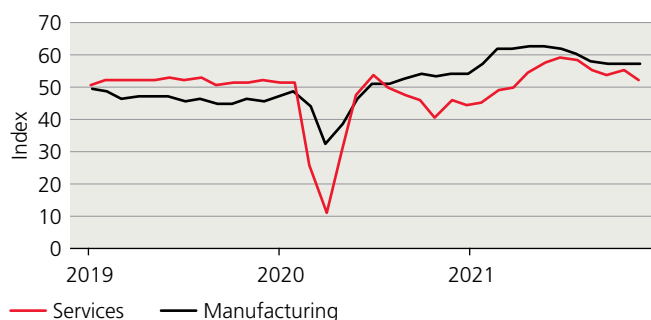


Source: Bloomberg, data as of 3rd December, 2021

Industrial production rebounded by 1.1% month-on-month in October, up from a 0.2% monthly drop in September. Germany's industrial production led the rise among member states, with a

monthly increase of 3%. The preliminary manufacturing purchasing managers' index ("PMI") remained in robust expansionary territory at 58 in December, down from 58.4 in November. Meanwhile, the preliminary reading of the eurozone services PMI decreased to 53.3 in December, compared to 55.9 in November.

Eurozone PMI



Source: Bloomberg, data as of 16th December, 2021

Economic recovery will remain subdued in 2022 amid multiple headwinds

Renewed outbreaks of COVID-19, supply bottlenecks and elevated inflation will weigh on eurozone economic activity entering 2022. A worsening COVID-19 situation and associated tightening in social distancing measures will dent consumer sentiment, dragging the shift of consumption from goods to services. Meanwhile, elevated inflation will also likely lower real disposable income and restrain consumption incentives accordingly. Supply bottlenecks are expected to persist into 2022, putting pressure on suppliers' delivery times and manufacturers to acquire key materials timely. Against this backdrop, the eurozone economy will remain challenged by multiple ongoing headwinds in the first half of 2022.

Having said that, if the eurozone can control the pandemic outbreaks in the latter half of the year, with booster jabs and better cures, the economy could improve across its member states. Precautionary excess savings accumulated during the pandemic may also be unleashed as uncertainty about the COVID-19 situation decreases and domestic consumption is given the green light. In addition, easing supply bottlenecks will also help to normalise the manufacturing process.

On the fiscal front, the European Recovery and Resilience Facility is expected to continue to help narrow the gap of recovery among member states in 2022. In particular, some countries hard hit by the pandemic such as Italy and Spain will receive more funds under the RRF than other member states such as France and Germany. The EU's fiscal stance will remain accommodative in 2022, with reduced taxes and further social transfers compensating households for rising energy prices.

According to economic projections by the ECB, real GDP growth is forecast to ease to 4.2% in 2022, down from an estimated 5.1% in 2021. In the meantime, the inflation rate is projected to further pick up, rising from an estimated year-on-year growth rate of 2.6% in 2021 to 3.2% in 2022.

Patience Will Pay Off

Chief Investment Strategist, Wealth Management Division, The Bank of East Asia | **Frank Lee**
BEA Union Investment CIO Office



Equity

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Patience Will Pay Off

Last quarter, markets expected central banks in the US and Europe to continue tightening liquidity in the face of inflation driven by supply chain disruptions. Equity markets hovered at high levels before experiencing a sharp decline. Political factors such as the US debt ceiling and changes of command in Germany and Japan will add to market uncertainties. Meanwhile, coronavirus variants should support medium-term stability in the pharmaceutical industry. The “coexistence” camp’s economic restart and a return to work and school will benefit basic consumption, while labour shortages will drive wage increases and the holiday season effect should benefit the discretionary sector. On the whole, past forecasts are roughly in line with today’s results.

Following a sharp increase last year, US stocks are expected to hover at a high level in the first quarter of this year, with large fluctuations and limited room for gains. Pessimists forecast a 10 to 15% correction and a sharp fall in the NASDAQ index. However, the correction will not be a sell-off. Over the last three years, the price-to-earnings ratio of the S&P 500 has fallen from a peak of more than 30 times to about 25 times, with a three-year average of 23 times – not overvalued, but also not cheap. Estimated earnings per share have continued to rise since January last year, suggesting that the upward trend in the US stock market was based on profits. Earnings growth is expected to remain positive this quarter, and any correction in US stocks in the first quarter will not be due to earnings issues.

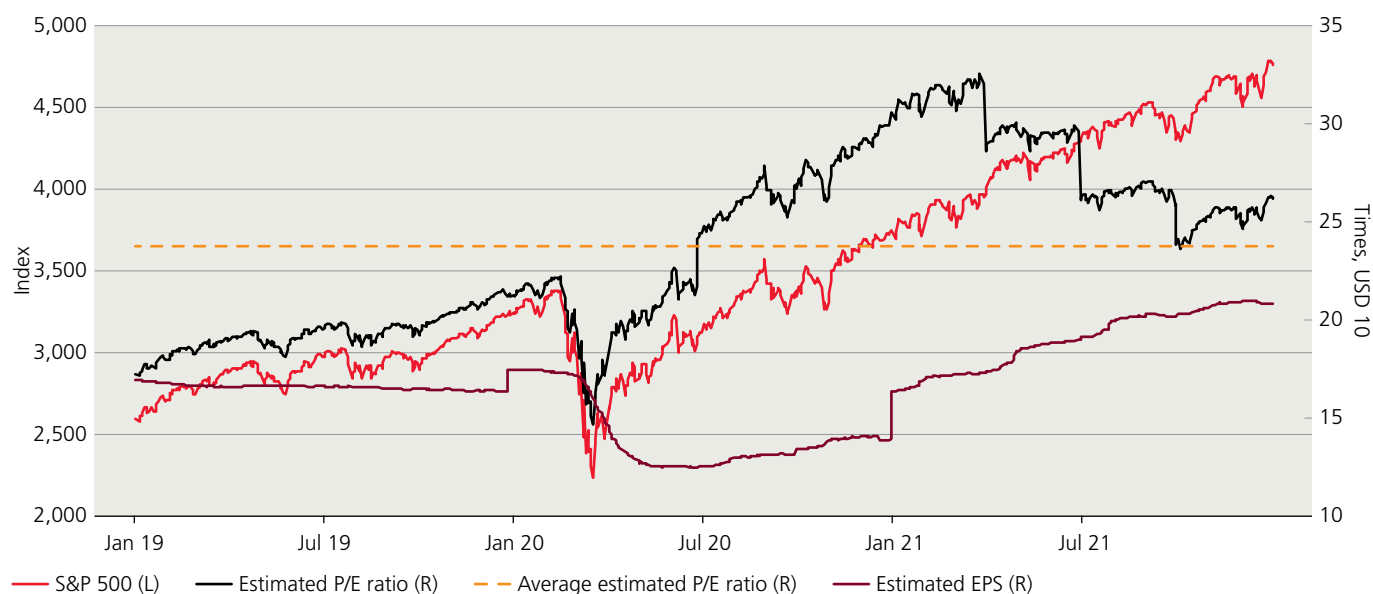
The reason for the correction is that central banks around the world are intentionally tightening liquidity and the US Federal Reserve (“Fed”) is likely to announce an interest rate hike cycle this quarter. During this international election year, the US midterms will deepen the rift between China and the US, hurting both stock markets. Climate change has reached an even more dire level of urgency. A global revolution in production is brewing and friction between sectors is increasingly apparent. Other trends such as “meme stocks” and share buybacks are also entangling individual sectors.

The title of this chapter is “Patience will pay off”, which comes from the first line of the Qian Diagram in the Book of Changes, also known as the I Ching. It refers to the nascent stages of an environment when conditions are unclear and when one’s immaturity urges them to pounce at any opportunity. Today, the pandemic is resurging, international relations are tenuous, internal reforms are in their infancy, and investment risks are rising. However, that does not mean investors should shy away from markets but rather maintain a low profile until the time is ripe to unleash Qianlong.

US and European stocks: It’s cold at great heights

Last year, the S&P 500 and the NASDAQ both climbed 27% while the Dow Jones Industrial Average (“the Dow”) rose 19%. Despite record highs, last year’s performance was not the most impressive in modern times. France’s CAC 40 index saw the greatest gains in almost a decade, outperforming mature markets in the US and Europe. However, risks persist in the form of high valuations, the pandemic, and international relations.

Estimated P/E ratio and EPS for the S&P 500



Source: Bloomberg, data as of 31st December, 2021

The annual performance of major US and European stock indices over the last decade

Year	Index (%)					
	S&P 500	NASDAQ	The Dow	DAX	CAC	FTSE 100
2012	13.4	16.8	7.3	29.1	15.2	5.8
2013	29.6	35.0	26.5	25.5	18.0	14.4
2014	11.4	17.9	7.5	2.7	-0.5	-2.7
2015	-0.7	8.4	-2.2	9.6	8.5	-4.9
2016	9.5	5.9	13.4	6.9	4.9	14.4
2017	19.4	31.5	25.1	12.5	9.3	7.6
2018	-6.2	-1.0	-5.6	-18.3	-11.0	-12.5
2019	28.9	38.0	22.3	25.5	26.4	12.1
2020	16.3	47.6	7.2	3.5	-7.1	-14.3
2021	26.9	26.6	18.7	15.8	28.9	14.3

Source: Bloomberg, data as of 31st December, 2021

Lessons from the Fed's Financial Stability Report

The Fed released its semi-annual Financial Stability Report¹ on 8th November, 2021, identifying macro risks that could impact the US financial system. These include:

- The potential for deterioration in public health may impact corporate and personal confidence.
- Excessive interest rate hikes could slow economic recovery while lower asset valuations put pressure on financial institutions, businesses, and households.
- A global liquidity squeeze threatens to affect the development of emerging markets.
- The housing problem is weighing on China's financial system, with repercussions in the United States.
- The weaker-than-expected recovery in Europe could affect the financial system.

The report also summarises a risk survey conducted between August and October last year. The following ranked financial risks are those the interviewed international financial institutions are most concerned about:

Rank	Risk	%
1	Persistent inflation and monetary tightening	65
2	Vaccine-resistant variants	50
3	Chinese regulatory and real estate risks	47
4	Sino-US tensions	30
5	Cryptocurrencies and stable coins	27
6	Climate change	25
7	Risk-asset valuations/correction	25
8	Political uncertainty	20
9	Fiscal cliff effects	20
10	Cyberattacks	15
11	Real yield spike/taper tantrum	15
12	Emerging market economic risks	15
13	China economic slowdown	15

Source: The US Federal Reserve, data as of 8th November, 2021

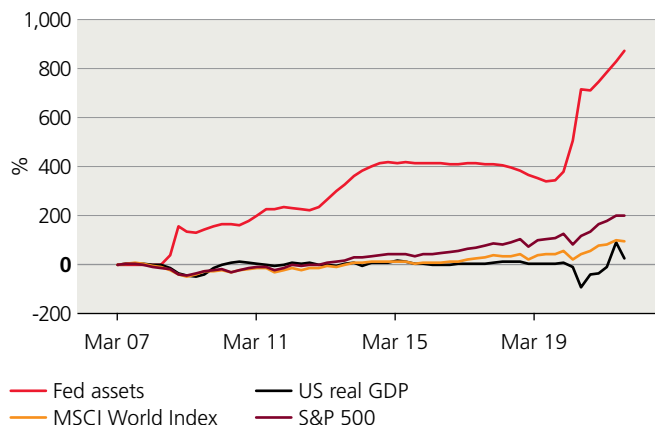
Among them, it is believed that monetary tightening, Sino-US tensions, and climate change will have the greatest impact on developed markets' stock markets. See "Macro Strategy" for an analysis on vaccine-resistant variants, see last quarter's "Equity" section for more on the fiscal cliff, and for information on China's regulatory and real estate risks, see "Outlook for Chinese and Asian Stock Markets".

¹ See the Federal Reserve website: <https://www.federalreserve.gov/publications/files/financial-stability-report-20211108.pdf>

Equity

Monetary policy: Crisis and opportunity**The real interest rate is the protagonist**

Since 2008, the financial crisis and the pandemic have led the Fed to implement multiple rounds of quantitative easing, with Fed assets rising by approximately nine-fold from around USD 1 trillion to USD 9 trillion. However, real US GDP only grew by around 30% over the same period, reflecting that the real economy was not benefiting from the extra liquidity. Meanwhile, the MSCI World Index and the S&P 500 only increased by around 1 and 2 times, respectively, during the same period.

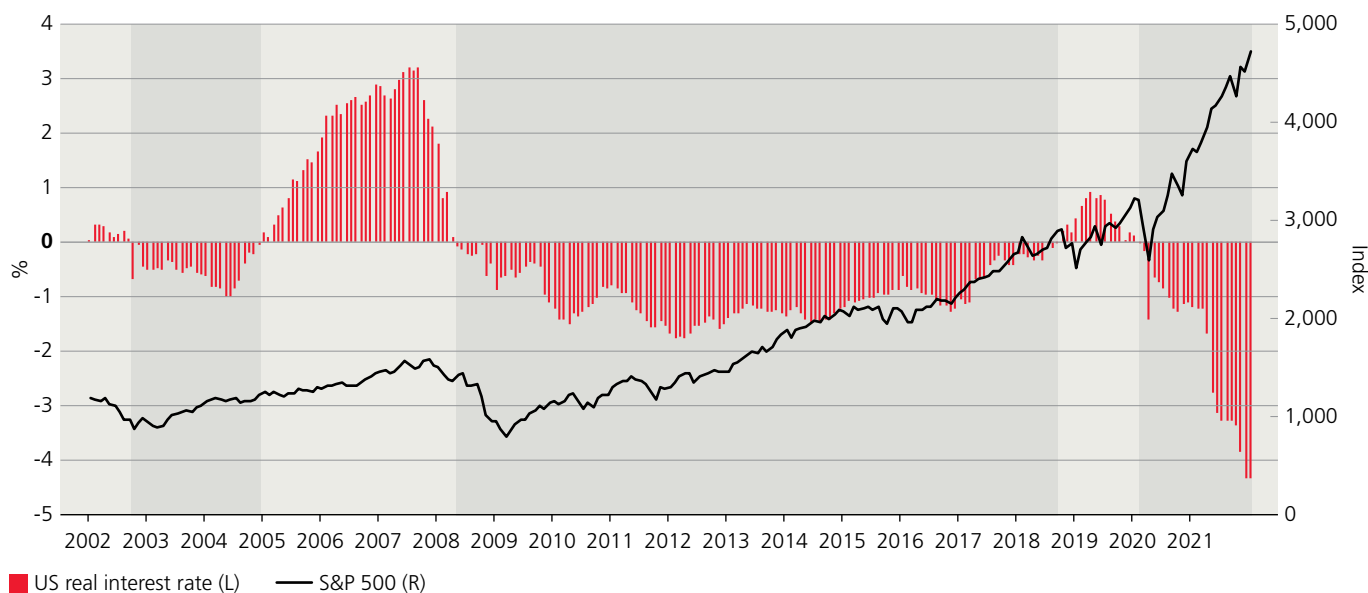
Fed assets, US real GDP, MSCI World Index, and S&P 500 performance based on March 2007

Source: Bloomberg, data as of 31st December, 2021



Traditionally, stock market and real interest rate trends diverge. During the past two decades, the Fed Funds Rate less core personal consumption expenditure ("PCE") has been used as the basis for real interest rates. When the value is negative, the S&P 500 has tended to improve. The pandemic caused the Fed to reduce interest rates from 1.75 to 0.25% within one month. The move helped avoid financial disaster but ushered in the highest inflation seen in 30 years.

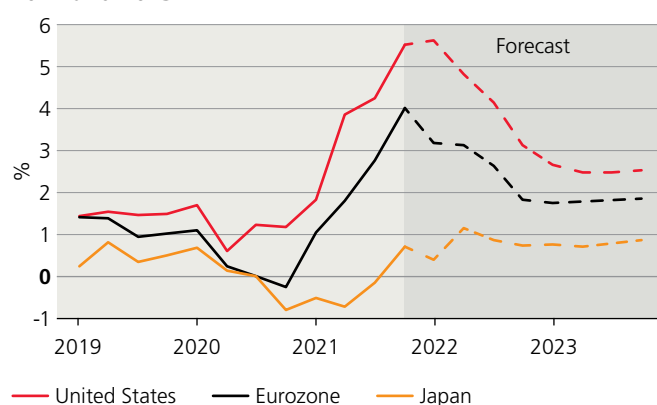
Today, real interest rates have reached a 20-year low of -4.7%, indirectly supporting US stocks that have hit record highs. The Fed intends to solve high inflation via interest rate normalisation, with the median Fed Funds Rate and core PCE expected to be 0.91% and 2.7%, respectively, in 2022. That is, the forecast real interest rate will rise significantly over the year to -1.79%. Historically, when the real interest rate has trended from negative to positive, the upward trend in US stocks has continued albeit at a slower pace. The US equity market is expected to behave similarly in 2022.

The S&P 500 and US real interest rate

Source: Bloomberg, data as of 31st December, 2021

On the inflation front, the Organisation for Economic Co-operation and Development ("OECD")'s latest forecast is in line with that of the Fed. In the United States, the eurozone, and Japan, the OECD expects inflation to fall markedly this year and remain flat in 2023. In addition to suggesting the inflation trend will not persist, the OECD sees US inflation declining more than that of the eurozone and Japan. Thus, even if US interest rate hikes do not meet expectations, the drop in inflation will be sufficient to increase real interest rates, placing more pressure on US equities than Japanese and eurozone stocks.

Inflation forecasts for the US, the eurozone, and Japan in 2022 and 2023



Source: OECD, data as of 31st December, 2021

Rising rates are not a setback

Traditionally, interest rates have been somewhat correlated with economic development (for details, see "Macro Strategy"). Thus, rate schedules need to match the speed and magnitude of economic change to support stock markets. There have been four interest rate hike cycles in the United States over the last three decades. Calculated using 0.25% for each hike means each cycle comprises about 10 increases over an average of 21 months. According to interest rate discussions in December last year and Fed Chair Jerome Powell's comments, the coming interest rate schedule is set to be faster than past cycles. Of the last four cycles, the shortest was in 1999 when the interest rate was raised six times over 11 months (one increase every one to three months) for a total increase of 1.5 percentage points. The data are in line with the analysis (for details, see "Macro Strategy").

Data on the last four US interest rate hike cycles

Start		End		Analysis	
Month and year	Interest rate (%)	Month and year	Interest rate (%)	Cycle length (months)	Rate increase (%)
February 1994	3.25	February 1995	6.00	12	2.75
June 1999	5.00	May 2000	6.50	11	1.50
June 2004	1.25	June 2006	5.25	24	4.00
December 2015	0.50	December 2018	2.50	36	2.00
Average				21	2.56
Highest				37	4.00
Lowest				11	1.50

Source: Bloomberg, data as of 31st December, 2021

Equity

In terms of returns, the three major US stock indices averaged positive performance three and six months prior to the interest rate hike cycles. This reflects that when the Fed intends to raise interest rates, it pays to invest in US stocks and hold them until the beginning of the rate hike cycle. The worst performances before a hike were the S&P 500 and the Dow, returning -0.9 and -1.1%, respectively, in the six months prior to the 2015-2018 hike cycle.

Performance of US stock indices during the past four US interest rate hike cycles									
Year	Six months prior (%)			Three months prior (%)			Full period (%)		
	S&P	Dow	NASDAQ	S&P	Dow	NASDAQ	S&P	Dow	NASDAQ
1994	0.8	5.0	10.6	1.2	4.0	6.6	4.3	4.7	4.9
1999	11.7	19.5	25.1	6.7	12.1	9.0	3.5	-4.1	44.7
2004	2.6	-0.2	3.3	1.3	0.8	5.4	11.3	6.8	3.9
2015	-0.9	-1.1	4.5	6.5	7.0	9.9	22.6	33.9	37.8
Average	3.5	5.8	10.9	3.9	6.0	7.7	10.5	10.3	22.8
Highest	11.7	19.5	25.1	6.7	12.1	9.9	22.6	33.9	44.7
Lowest	-0.9	-1.1	3.3	1.2	0.8	5.4	3.5	-4.1	3.9

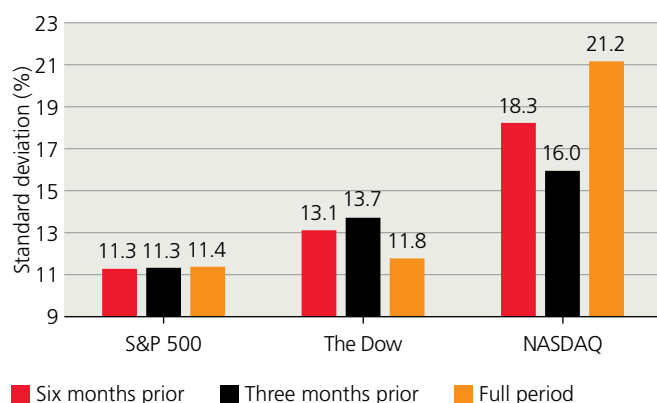
Source: Bloomberg, data as of 31st December, 2021

Overall, rate hike cycles have the least effect on the volatility of the S&P 500, which has exhibited an average standard deviation of around 11% before and after rate hikes. Meanwhile, the average volatility of the NASDAQ, which comprises new economy stocks, was about twice as high as that of the S&P 500 and the Dow over the full rate hike periods.

Volatility of US stock indices during the past four interest rate hike cycles									
Year	Six months prior (%)			Three months prior (%)			Full period (%)		
	S&P	Dow	NASDAQ	S&P	Dow	NASDAQ	S&P	Dow	NASDAQ
1994	8.5	12.0	8.1	9.4	13.9	8.6	10.6	11.8	14.8
1999	12.8	14.3	34.4	12.2	17.6	20.7	16.6	16.3	40.5
2004	8.0	10.4	10.3	6.4	6.9	12.9	7.5	7.8	15.4
2015	15.8	15.7	20.2	17.3	16.6	21.6	10.8	11.4	14.1
Average	11.3	13.1	18.3	11.3	13.7	16.0	11.4	11.8	21.2

Source: Bloomberg, data as of 31st December, 2021

Volatility of the three major US stock indices before and after interest rate hike cycles



Source: Bloomberg, data as of 31st December, 2021

According to the above data, the three major indices are expected to fluctuate significantly ahead of the Fed's rate rise later this year. The largest drop is expected to be about 10 to 15%, likely coming from the NASDAQ index. The odds of positive returns if one invests in the major indices three to six months prior to the hike cycle and holds until the rate increase is confirmed are 87.5%, with an average overall return of 6.3%. The NASDAQ is expected to be the best performer, with returns of 9.3%, reflecting a medium-term market entry opportunity amid volatile market conditions.

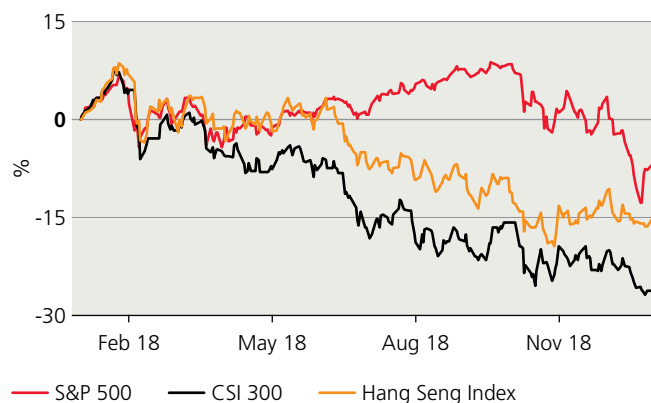
Sino-US relations: The end of the line

Consequences of Trump's "extreme pressure" policy

The Biden administration's current level of support combined with historical data does not paint an encouraging picture for the Democratic Party ahead of this year's midterm elections (for details, see "Macro Strategy"). To maintain control over the House of Representatives and Senate, President Biden must redouble his campaigning efforts. Sino-US relations are expected to be a focal point of his strategy.

The best point of reference is the "extreme pressure" campaign against China that former President Trump adopted when he took office. After imposing tariffs on China for the first time in March 2018, relations between the two countries began to deteriorate. The US stock market took an approximately 15% hit in December that year when the US government shut down for 35 days over the debt ceiling, narrowing the gap between US and Chinese equity markets. However, the CSI 300 and Hang Seng Index fell throughout the year, highlighting that the US was less affected by Sino-US tensions.

Chinese and US stock market performance in 2018

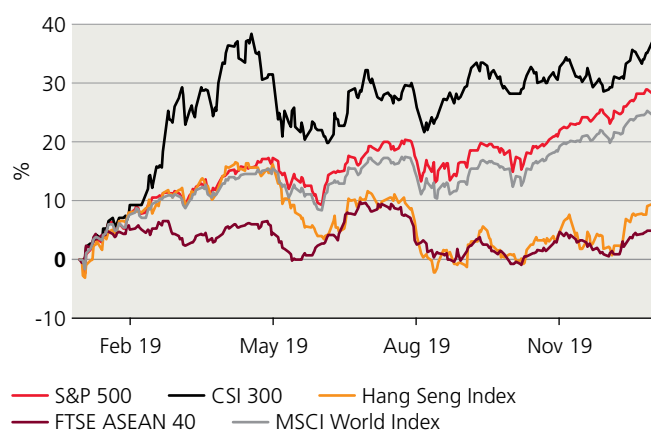


Source: Bloomberg, data from 31st December, 2017 to 31st December, 2018

By 2019, Trump had shifted his battlefield to the technology and financial realms (for details, see "Macro Strategy") but China responded swiftly and decisively, preventing the United States from gaining the upper hand and causing it to lose policy focus and dominance.

That same year, the CSI 300 rebounded sharply, regaining most of the ground it lost in 2018 and highlighting China's economic resilience. The S&P 500 climbed around 28% during the year and even surpassed the MSCI World Index, reflecting that the greater the friction between the United States and China, the better off their stock markets. However, in Hong Kong, which plays an important role in Sino-US tensions, the Hang Seng Index performed relatively poorly, posting returns of around 9%. In South Asia, which claims to be supported by Trump, the FTSE ASEAN 40 index rose by less than 5%.

Performance of stock indices in various regions in 2019



Source: Bloomberg, data from 31st December, 2018 to 31st December, 2019

Equity

Since he took office, Biden has largely maintained Trump's China policy. With less than a year until the US midterms, China has become increasingly aggressive in its dealings with the United States. Coupled with the resurgence of the pandemic, Sino-US relations are expected to become more strained and further benefit the stock markets of both regions. Given the experience of 2019, Hong Kong and other related Asian regions are at stake.

Pre-midterm first quarter: Volatile but no gains

In the past, the lead up to US midterm elections has affected global investment sentiment. According to data from Chinese, US, and European stock markets in the first quarter of the last five midterm election years, the average return of the S&P 500 was only 1.7%, but the average standard deviation was 12.8%. This indicates a volatile environment with little to no returns. European and Chinese stock markets exhibited a similar trend.

Stock market performance in the three regions is expected to be similar to past data. Uncertainty around the pandemic, global interest rates, and domestic tensions in the US have created a level playing field for bullish and bearish capital around the world. Thus, index performance is relatively flat but the wrestle between bulls and bears will create a lot of volatility.



Performance of US, European, and Chinese stock markets in the first quarter of the last five midterm election years

Year	S&P 500		EURO STOXX		CSI 300		Hang Seng Index	
	Return (%)	Standard deviation (%)	Return (%)	Standard deviation (%)	Return (%)	Standard deviation (%)	Return (%)	Standard deviation (%)
2002	-0.1	11.0	1.6	13.3	-0.2	22.7	-3.2	19.7
2006	3.7	4.4	10.3	2.4	14.9	14.9	6.2	11.8
2010	4.9	17.0	0.8	22.8	-6.4	25.2	-2.9	21.5
2014	1.3	13.6	2.9	12.5	-7.9	8.4	-5.0	16.3
2018	-1.2	17.9	-3.0	12.8	-3.3	21.7	0.6	29.2
Average	1.7	12.8	2.5	12.8	-0.6	18.6	-0.8	19.7

Source: Bloomberg, data as of 31st December, 2021

Ride the “national tide”

Since former President Trump took a tougher stance on China, the two nations have engaged in a tit-for-tat in areas ranging from trade to finance. Political tensions have spilled over into cultural, ethnic, ideological, and other areas of society, motivating Chinese consumers to turn to domestic brands to express their patriotism and support their country's economy. This has given rise to the “national tide” consumption model.

“National tide” refers to the combination of Chinese cultural characteristics and contemporary elements. Mainland consumers’ national self-confidence and identity have strengthened, driving demand for “*guochao*” (literally “national trend”) brands and indirectly improving producers’ profitability. “National tide” stocks have thus become an investment highlight amid the deterioration of Sino-US relations.

According to the 2020 Generation Z Consumer Attitudes Insight Report², the size of Generation Z (born between 1995 and 2009) is roughly 1.85 billion people, accounting for about 24% of the world population and surpassing millennials (born between 1981 and 1994) with 22% to become the main force of future global consumption. China is home to approximately 260 million Gen Z people, and their spending accounts for 13% of the country's total household expenditure. Although it is lower than the “post-90s” and “post-85s”, their spending growth rate is significantly higher and they are expected to surpass other demographics to become the predominant source of household expenditure in China in the next 10 years. Gen Z's most important consumption categories are: e-sports, animation, figurines, and “*guochao*”. Among them, “*guochao*” or the “national style” is expected to support the development of “national tide” consumption in the future.

According to the Baidu 2021 “*guochao*” Pride Search Big Data report³, attention surrounding “*guochao*” has increased by around 5.3 times over the past decade. Last year, support for domestic brands was three times higher than that of international brands. Among them, the six consumer categories with the highest growth are mobile phones, apparel, automobiles, beauty, food, and household appliances, in that order. Regarding “national fashion”, domestic digital products, local apparel, and domestic cosmetics received the most attention. Both rankings reflect that digital products, fashion and beauty, and automobiles are the main benefactors of the “national tide” consumption trend.

The domestic mobile phone industry garnered the most attention in the digital space, polling five times higher than overseas brands. Meanwhile, industrialisation and new retail have boosted interest in domestic apparel. Chinese clothing brands saw a 137% surge in support following the Xinjiang cotton incident, reflecting that intensifying Sino-US frictions bolster future growth in the domestic clothing industry. Chinese beauty brands are also around three times more popular than overseas cosmetics. As for the automotive sector, support for local suppliers from 2016 to 2021 was also around three times higher than for international manufacturers.

Therefore, the “national tide” is expected to be a large part of the mainland's consumption transformation. The deterioration of Sino-US relations and an increase in the recognition of national brands will benefit the sales and earnings growth of *guochao*-related shares.

Climate change: An indispensable investment Outcomes of COP26

The 26th UN Climate Change Conference (“COP26”) was held in November last year. The conference brought together the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. Therefore, the results of the meeting have important implications for future climate policies.

The conference achieved four goals⁴:

1. Countries must propose emission reduction targets for 2030 and must accelerate the elimination (note: revised to “reduction”⁵) of coal, curb deforestation, accelerate the shift to electric vehicles, and encourage investment in renewable energy. By the middle of this century, there should be net zero global emissions (greenhouse gases) and the earth's warming will be maintained below 1.5°C.
2. Assistance must be given to countries affected by climate change to protect and restore ecosystems, as well as establish defences, early-warning systems, and resilient infrastructure and agriculture.

² See the CBNDData website: <https://www.cbndata.com/report/2381/detail?isReading=report&page=1>

³ See the Baidu website: <https://baijiahao.baidu.com/s?id=1699334642273339852>

⁴ See the 26th UN Climate Change Conference website: <https://ukcop26.org/cop26-goals/>

⁵ See the Reuters website: <https://www.reuters.com/business/cop/business-usual-global-fossil-fuel-firms-now-after-un-climate-deal-2021-11-15/>

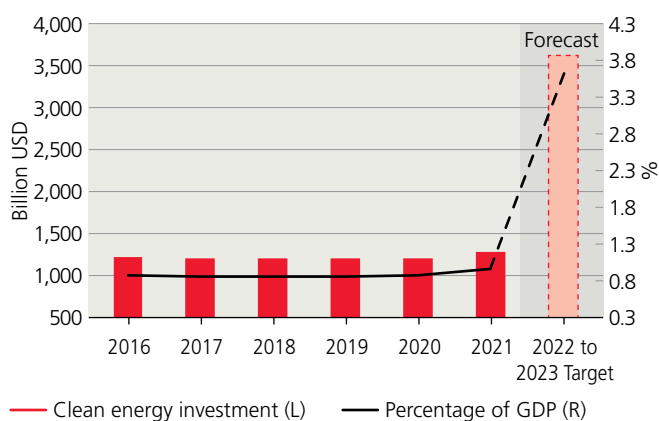
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3. In order to achieve the above goals, developed countries must mobilise at least USD 100 billion in climate financing each year beginning in 2020. International financial institutions must assist in ensuring the finance is available to reach net zero global emissions.
4. Nations must work together to finalise the Paris Rulebook and respond to the climate crisis through cooperation between governments, businesses, and civil society.

The conference closed with the passing of the Glasgow Climate Pact which aims to keep global temperature increases within 1.5°C. The agreement marks the first time nations have committed to limiting the use of coal⁶.

Investments in climate and environmental policies of major economies are expected to continue unabated, benefiting the development and profit growth of related industries. According to the OECD, global investment in clean energy and its share of global GDP will increase more than threefold from approximately USD 105 billion and 1.1% in 2022 to USD 336.7 billion and 3.8% in 2030.

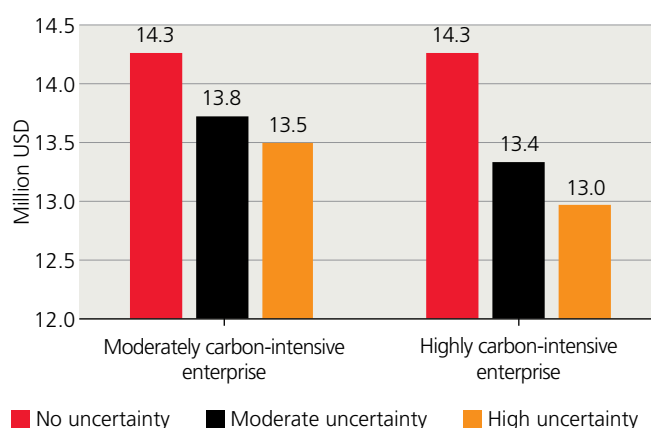
Changes in the clean energy investment and its share of GDP



Source: OECD, data as of 31st December, 2021

On the contrary, the potential for fossil fuels and carbon-intensive businesses will continue to narrow, with reduced investments or capital flight constraining earnings and affecting stock prices. However, according to an OECD survey, moderately and highly carbon-intensive companies are open to investing in certain policies, reflecting that some traditional companies are willing to transform and upgrade to secure greater market share. The improvement in corporate profits can also be regarded as a long-term investment opportunity.

Policy certainty and investment in carbon-intensive enterprises



Source: OECD, data as of 31st December, 2021

The greatest common factor in Sino-US policy

One-third of Pacific Island countries were absent from COP26 due to the pandemic, but Simon Kofe, Tuvalu's foreign minister, spoke via video link. Standing knee-deep in sea water, he claimed that island nations are facing extinction. During the meeting, demonstrators demanded that rich countries take responsibility for climate change⁷. Despite their political differences, China and the United States cannot downplay the urgent need to make greater climate commitments. The nations appeared to set aside their differences and reach a consensus on climate change, issuing a rare joint statement⁸ at the conference. From an investment perspective, the environmental protection sector will act as a buffer amid Sino-US tensions.

⁶ See the 26th UN Climate Change Conference website: <https://ukcop26.org/wp-content/uploads/2021/11/COP26-Presidency-Outcomes-The-Climate-Pact.pdf>

⁷ See the NBC News website: <https://www.nbcnews.com/news/world/cop26-island-nations-risk-climate-change-struggle-make-point-rcna4912>

⁸ See the SCMP website: <https://www.scmp.com/news/china/diplomacy/article/3155606/cop26-china-launching-enhanced-climate-plan-us-says-envoy-xie>

Regarding China's policies, the State Council Information Office published a white paper in October last year on policies and actions to address climate change. The paper included an action plan to achieve peak carbon dioxide emissions and carbon neutrality by 2030 and 2060 respectively. The plan covers energy, industry, urban and rural construction, industry cooperation, science and technology, and finance. It also specifies a timetable and roadmap to reaching peak emissions and carbon neutrality. In other words, environmental protection, which has long been supported by national policies, is believed to be the best way forward for the AH stock market.

Moreover, after taking office, Biden announced the United States' return to the Paris Agreement, pledging the United States would achieve net zero emissions by 2050 and reduce greenhouse gas emissions by 2030. However, states' attitudes towards climate policies vary based on natural resource endowments, industrial development trends, and political inclinations. The Clean Electricity Performance Program ("CEPP") is an initiative that highlights the divisiveness between states.

The CEPP is regarded as the core of Biden's climate strategy and stands to become the most powerful climate policy. Power plants account for one-quarter of greenhouse gases produced in the United States, and implementation of the policy could see greenhouse gas emissions greatly reduced over the next decade. However, the bill was opposed by Democratic Senator Joe Manchin. His home state of West Virginia is the largest producer of coal and natural gas in the United States, and he has close ties to the coal industry. The White House later revised the CEPP and introduced the Build Back Better bill. Despite its broader reach to include proposals such as subsidies for electric vehicles and charging stations, it has also failed to gain support¹⁰.

From an investment perspective, China and the United States are committed to implementing environmental protection policies, but differences in execution have led to capital diversion. Environmental protection-related industries are in high demand globally. Chinese companies that dominate in terms of sales volume, coverage, and marketability are expected to have policy support for their operations and profit growth. Meanwhile, the United States, European, and Japanese companies will have the upper hand in terms of supply, such as technological breakthroughs, technological patents, and reliability, which will help attract capital.

From environmental friendly to sustainable to ESG

One goal of COP26 is to ensure countries' financial and private sectors reduce greenhouse gas emissions. Years ago, the market began advocating for "green investments", "green finance" and "green bonds". As these are not meant to be once-off measures, the concept of sustainability emerged. In 2015, the UN proposed the Sustainable Development Goals (SDGs)¹¹. In addition, companies and management must be socially responsible and govern effectively to improve overall efficiency. Environmental, social, and governance ("ESG") is a combination of the above aims. Although there is no global standard, various international academic institutions (such as the CFA Institute¹²), financial regulators (such as the IMF¹³), and accounting standards (such as IFRS¹⁴) have guided capital markets to assist in sustainable environmental protection.

There are many perspectives on ESG investing and there are "greenwashing" pseudo-ESG stocks. Therefore, international index firms have launched ESG indices to aid investors. The MSCI World ESG Leaders Index and the MSCI World Index have performed similarly over the past two years during the pandemic, but the former has outperformed by around 3%. During that time, the Hang Seng ESG Index and Hang Seng Index declined. Although the Hang Seng ESG Index did not perform well, it is expected that an increase in global support and public and private capital investment will be conducive to the long-term development of the ESG sector.

⁹ See the official website of the Chinese government: http://www.gov.cn/zhengce/2021-10/27/content_5646697.htm

¹⁰ See the Economist website: <https://www.economist.com/united-states/2021/12/19/joe-manchin-kills-the-build-back-better-act-joe-bidens-ambitious-legislative-package>

¹¹ See the United Nations website: <https://www.un.org/sustainabledevelopment/zh/sustainable-development-goals/>

¹² See the CFA Institute website: <https://www.cfainstitute.org/en/ethics-standards/codes/esg-standards>

¹³ See the IMF website: <https://www.imf.org/-/media/Files/Publications/GFSR/2021/October/English/ch3.ashx>

¹⁴ See the IFRS website: <https://www.ifrs.org/groups/international-sustainability-standards-board/>

Equity

MSCI, Hang Seng ESG and stock market indices



Source: Bloomberg, data as of 31st December, 2021

According to Google¹⁵, the term “environment” was prominent in last year’s annual search rankings. Meanwhile, searches for “conservation”, “climate change”, and “sustainability” reached new highs, indicating that environmental protection has become a growing global concern. COP27 will be held in November 2022 with the hope that countries will share impressive performance records and offer markets new investment opportunities.

Other factors: Outside the radar

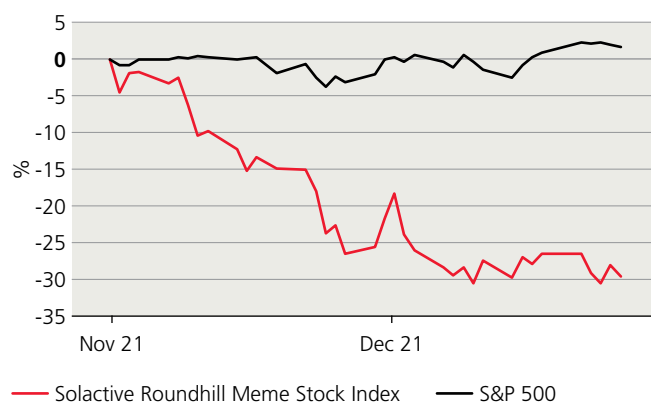
“Meme stocks” affect overvalued shares

The evolution and interaction of demographics, regulations, and technological developments have led to structural changes, resulting in a growing number of younger retail investors. Although the data suggests the impact of the increase has been limited, the median leverage ratio of younger retail investors, who are increasingly using options, is more than twice that of all investors¹⁶. They have become the driving force behind stock volatility, which can negatively affect investors with high levels of debt. Younger investors often interact over social media, which stimulates risk appetite within the group and encourages trading, contributing to instability.

Solactive Roundhill Meme Stock Index¹⁷ provides the top 50 most watched stocks on social media and ranks them based on short sale transactions. Only the top 25 stocks with a

minimum market capitalisation of USD 1 billion are selected as constituent stocks of the index. Data shows that the index has so far underperformed the market.

Solactive Roundhill Meme Stock Index and S&P 500 performance



Source: Bloomberg, data as of 31st December, 2021

Although the scope of the impact is relatively small, US regulators have so far failed to assess the potential for financial losses. Frequent and volatile flashes are expected, increasing speculative activity and affecting shares that are overvalued or lack earnings support.

¹⁵ See the Google website: <https://about.google/stories/year-in-search-2021/?topic=environment>

¹⁶ See the Federal Reserve website: <https://www.federalreserve.gov/publications/files/financial-stability-report-20211108.pdf>

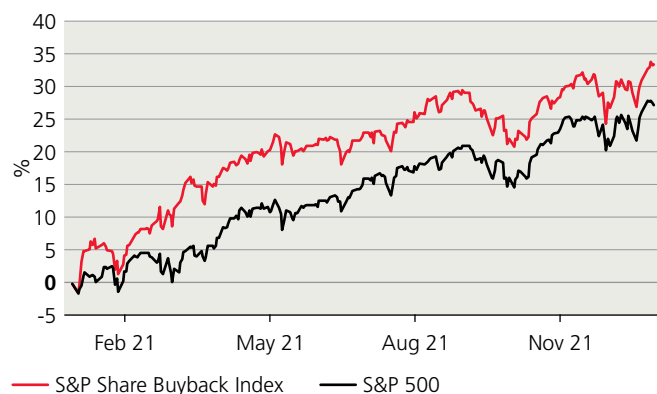
¹⁷ See the Roundhill Investments website: <https://www.roundhillinvestments.com/index/meme/>

Slowdown in share buybacks will weigh on market

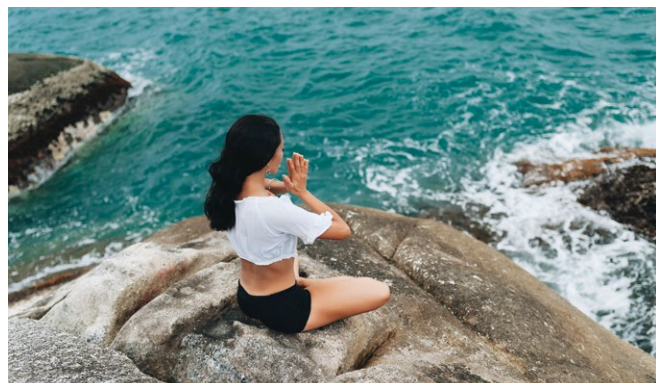
Share buybacks refer to the repurchase of issued shares by the board of directors to better utilise cash flows in the interests of shareholders. According to S&P Dow Jones Indices data¹⁸, buybacks in the third quarter of 2021 amounted to USD 234.6 billion, an increase of 18% quarter-on-quarter and 130.5% year-on-year. In the 12 months leading up to September last year, buybacks totalled USD 742.2 billion, a 30% increase compared to the 12-month September 2020 period. US share buybacks were evidently very popular last year.

Repurchasing shares means fewer total shares and higher earnings per share, which often favours the stock price. The performance of the S&P Share Buyback Index, which tracks the share prices of the 100 companies with the highest share buyback ratios, is around 6% higher than that of the S&P 500. Applying the same method to European markets, the buyback index was 12% higher, reflecting that share buybacks was one driving force behind the rise in US and European stock markets last year.

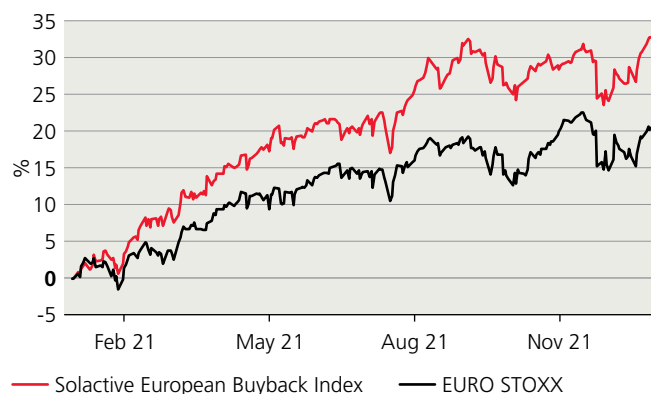
Changes in the S&P Share Buyback Index and S&P 500



Source: Bloomberg, data as of 31st December, 2021



Changes in the Solactive European Buyback Index and EURO STOXX



Source: Bloomberg, data as of 31st December, 2021

Between 2018 and 2020, the number of issued shares was 300 billion, 296 billion, and 312 billion, respectively. During the first three-quarters of 2021, 306 billion shares were issued. When shares are repurchased, company management simultaneously exercises their share options, thus the overall number of issued shares does not always change significantly. CNBC cited an InsiderScore report showing buybacks last year were concentrated among a small number of companies, with the top five making up 30% of total buybacks in the third quarter of last year. Among them, the top four sellers were CEOs or senior executives of science and technology companies, together selling around USD 30 billion in stock¹⁹.

The flood of buybacks has caught the attention of regulators. The US Securities and Exchange Commission intends to tighten the terms related to insider buybacks, covering capital gains tax, money market funds, and swaps²⁰. For example, the local Washington government will raise capital gains tax rates. Beginning in 2022, people with a total income of more than USD 10 million will pay 5% on capital gains, while those with income over USD 25 million will pay an additional 3% (8% in total). That is, for every sale of USD 100 million in shares, USD 8 million will be paid in taxes.

The above methods are expected to curb buyback activities, indirectly weighing on US and European stock markets, especially in the overvalued technology sector.

¹⁸ See the S&P Dow Jones Indices press release: <https://www.spglobal.com/spdji/en/documents/index-news-and-announcements/20211221-sp-500-buyback-pr-q3-2021.pdf>

¹⁹ See the CNBC website: <https://www.cnbc.com/2021/12/01/ceos-and-insiders-sell-a-record-69-billion-of-their-stock.html>

²⁰ See the Bloomberg website: <https://www.bloomberg.com/opinion/articles/2021-12-16/the-sec-has-big-plans>

Outlook for Chinese and Asian Stock Markets

Rate hikes ready to be deployed to combat inflation

The US economy is recovering: personal consumption expenditure ("PCE") rose in November last year, with core PCE climbing 4.7% over the year, and the unemployment rate has declined. Meanwhile, Chairman of the Federal Reserve ("Fed") Jerome Powell has also become more hawkish regarding rate hikes and is expected to maintain that view for at least the first half of 2022. In November, the United States decided to reduce its debt purchases by USD 15 billion per month, thus the pace of liquidity tightening will accelerate. Local inflation rose to 6.8% in November, a near 40-year high. BEA Union believes inflation will become a long-term trend this year. Amid an inflationary environment, we expect the Fed will gradually raise interest rates three times this year, exerting upward pressure on the US dollar. The US dollar index increased by 5.9% last year and is expected to continue its upward trajectory. Some major central banks are eager to take the lead in tightening monetary policy. In the fourth quarter of last year alone, the Reserve Bank of New Zealand raised interest rates twice while Bank of England's Governor Andrew Bailey surprised markets when he announced a rate hike of 0.15% owing to tight labour markets and inflationary pressures. Although some central banks are accelerating liquidity tightening, there is still ample capital circulating in markets which is believed to be sufficient to offset market volatility and reduce the likelihood of a sharp market downturn.

The pandemic severely disrupted global production and supply chains. Together with widening imbalances between supply and demand, rising labour and transport costs have driven up prices and sent inflation soaring. Floods of capital have been released over the last two years to prop up markets, but supply chain issues cannot be resolved in the short term. Further, prices of resources such as crude oil and coal have risen over the last year. The upward pressure on prices is not expected to dissipate before the end of 2022. Meanwhile, the United States could potentially lower import tariffs to ease price pressures. The news could see investors lock in profits at high levels and look for opportunities in other markets with more attractive valuations, such as in Asia. Investors should prepare accordingly.

Asian stocks and bonds diverge and require different strategies

BEA Union maintains a positive view on Asian markets, with India and Australia holding a slight edge. In terms of overall strategy, we are slightly overweight on stocks and remain cautious on bonds. When economic developments and policies become clearer, overall allocations in previously underperforming markets may gradually increase. The low

price-to-earnings ratios of Asian stock markets have always attracted attention for their potential, while cyclical sectors and volatile regions offer investment potential. It is worth paying attention to the structural growth of the electric vehicle supply chain, Australian commodities, Indian steel, and solar energy and hydrogen supply chains.

The relative resilience of the Australian stock market, coupled with the maturity of its financial system, has created opportunities for mergers and acquisitions. Opportunities in the ASEAN market cannot be ignored. Among them, the Indian government is promoting the development of digitalisation across the country, e-commerce has facilitated online shopping, and the pandemic has promoted online consumption which has further developed local e-commerce. Global warming has led many countries to pursue carbon reduction, benefiting many of India's renewable energy companies. In addition, the Indonesian real estate industry has successfully shifted from high end to mass market, thus greatly improving its coverage. Contract sales are expected to continue increasing and optimise the industry's fundamentals. In addition, many Asian countries have emerged from the pandemic and economic activities are gradually returning to normal. However, supply has lagged for some time. The imbalance between supply and demand has driven up energy and material prices. Indonesia's oil and gas sectors will continue to benefit.

Mainland China's pandemic approach and regulatory policies are target-oriented

The global economy has been hit hard by the coronavirus pandemic for two years. The pandemic has worsened in many European countries, with the Omicron variant spreading rapidly around the world following the surge in Delta. Infection numbers in Europe have been on the rise, while cases have been recorded in all 50 American states. Countries are calling on their citizens to get vaccinated to help strengthen the foundation for a comprehensive economic recovery.

As for Mainland China, the outbreak has been largely contained under near-total lockdown conditions, but economic growth is under pressure. Looking back at the mainland's stock market in 2021, performance in the first half of the year was solid. Some sectors benefited from the pandemic, such as the technology industry, shipping, and exports. As for the second half of the year, performance was dragged down by the government's tightening of regulations on sectors such as real estate, the internet, and education, thus leading to slower development.

Last year, tighter measures were placed on excessive corporate borrowing which caused structural changes in fundamentals and reduced the risk of rapid market expansion leading to a bubble. Along with the “shared prosperity” national policy, the market still needs time to digest the changes. Short-term volatility is inevitable. Once the market consolidates or the government signals more accommodative policies, domestic housing credit conditions are expected to improve. BEA Union believes that when market uncertainties dissipate and sentiment improves, investors’ resumption of interest in real estate will drive household appliances, automobile, and consumer markets, and future economic development will become more solid and stable.

Driven by the pandemic, we believe shipping, technology, and even virtual reality (“VR”) and augmented reality (“AR”) sectors will remain robust, while sectors such as electric vehicles and solar energy that are less sensitive to economic cycles will also benefit. The oversold stock market may provide long-term investment opportunities. Among them, the internet sector is valued at close to its annual low, while e-commerce and online advertising are expected to benefit from gradual economic recovery in the second half of 2022. In addition, in order to keep the labour market active, China lowered the loan prime rate by 5 basis points at the end of December, and further reductions are expected in the near future. The Mainland’s zeroing attitude towards the pandemic, developments in industrial regulations, and the implementation of policies have all played an important role.



Image source: Unsplash

Hong Kong stocks are volatile and A shares have growth advantage

Performance of Chinese stocks in 2021			
Stock market index*	Price	2021 performance (%)	P/E ratio
MSCI China A Index (USD)	82.7	-24.0	14.3
CSI 300	4,919.3	-6.6	17.9
Shanghai A-Share Index	3,789.5	3.2	15.5
Science and Technology Innovation Board 50 Index (STAR 50)	1,369.6	-3.7	81.0
Shenzhen A-Share Index	2,631.6	5.4	37.9
Growth Enterprise Market	3,328.6	8.1	61.6

Performance of Chinese bonds in 2021		
China bond yield	Yield (%)	2021 change (bps)
10-year government bond	2.80	-37.8
10-year US interest rate spread	1.33	-91.5
USD Treasury [#]	3.45	41.7
5-year AAA-rated corporate bonds	3.31	-43.5

* Calculated in local currency unless otherwise indicated

[#] Source: JPMorgan Emerging Markets Bond Index Global Diversified, data as of 28th December, 2021

Source: See the Alpine Macro website: https://alpinemacro.com/emc/Dec29_2021/The_PBoC_Is_Still_Behind_The_Curve.pdf

Equity

Despite the strong performance of US stocks in 2021, there were also significant capital inflows into A-shares and Hong Kong stocks. The chart above shows that A-shares outperformed their peers last year. While short-term market conditions remain volatile, long-term investors should look towards undervalued sectors based on the mainland's growth advantages. As more A-shares are added to the MSCI index in future, the trading volume of A-shares is expected to increase in the long term. Regarding fundamentals, the future development of the A-share market is supported. And in terms of bottom-up selection, we are particularly optimistic about new energy, technology, and metaverse stocks.

In Hong Kong, Financial Secretary Paul Chan Mo-po expects economic growth of 6.4% in 2021, almost one percentage point higher than the February budget estimate. Despite recent uncertainties regarding customs clearance, Hong Kong's stock market was able to maintain its upward momentum as stable blue chips remained defensive, capital was plentiful, and corporate earnings growth was in line with market expectations. Low double-digit earnings growth is expected in 2022, and Hong Kong equities will be supported by liquidity-injecting policies in the mainland.

In terms of new geopolitical trends, it is likely Chinese firms will delist in the United States and move to Hong Kong. In addition to the introduction of a new listing model for special purpose acquisition companies, the Hong Kong stock market will attract more foreign capital, which is conducive to long-term development.

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BEA Union Investment is a joint venture formed in 2007 between The Bank of East Asia, Limited of Hong Kong and Union Asset Management Holding AG of Germany.

Performance of major global markets in 2021

Local index	Change in 2021 (%)
United States	
Dow Jones Industrial Average	+18.92
S&P 500	+27.43
S&P/TSX Composite Index	+20.86
Brazil Stock Market	-18.69
EMEA (Europe, Middle East, and Africa)	
EURO STOXX 50	+12.32
FTSE 100	+12.13
CAC 40	+19.71
DAX	+7.68
Asia-Pacific	
Nikkei 225	-5.49
Hang Seng Index	-15.74
CSI 300	-3.69
S&P/ASX 200	+7.13
Korea Composite Stock Price Index	-4.51
NIFTY 50	+20.39
Taiwan Capitalization Weighted Stock Index	+25.82
Jakarta Stock Exchange Composite Index	+8.54
FTSE Bursa Malaysia Kuala Lumpur Composite Index	-9.13
FTSE Singapore Straits Times Index	+7.69

Source: Bloomberg, data as of 29th December, 2021

Poised to Take Off

Senior Investment Strategist, Wealth Management Division,
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Impending rate hikes drive up US bond rates, benefiting US dollar

Expected range of the US Dollar Index in Q1

94.00 - 98.00

Overview

Faced with rising inflationary pressures, the US Federal Reserve ("Fed") finally acknowledged that US inflation could last longer than forecast and embarked on a tightening programme last year. The market expects the tapering of bond purchases to wrap up in the first quarter, followed by interest rate hikes and a balance sheet reduction. The pace of the tightening will be guided by economic recovery. If US data continues to improve, the Fed may consider raising interest rates faster, strengthening the dollar further. With rising production prices and wages, overall inflation will battle to fall in the short term and thus the Fed is likely to continue tightening. Meanwhile, the forthcoming rate hikes are expected to drive US 10-year Treasury yields back to the 2% level, supporting the upward trend in the dollar.

One-year chart of the US Dollar Index



Source: Reuters, data as of December 2021

Key economic indicators in the US	Time period	Value (%)
GDP	Q3	2.3 (QoQ)
Unemployment rate	November	4.2
Retail sales	November	0.3 (MoM)
Consumer price index ("CPI")	November	6.8 (YoY)

Source: Reuters, data as of December 2021

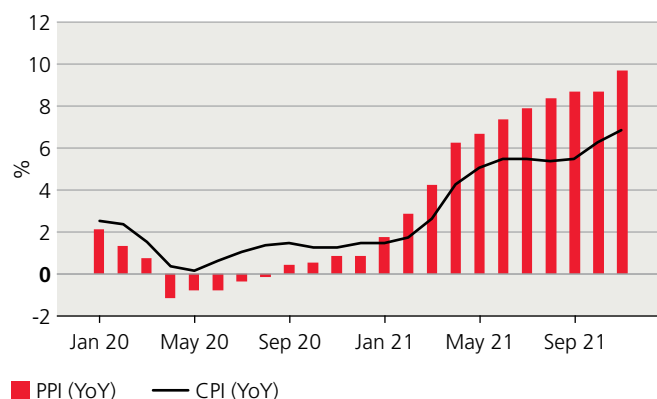
Fed will look to raise rates after tapering wraps

At its November rate-setting meeting, the Fed did an about-turn on its earlier view that US inflation is transitory and announced details of policy tightening that would include reducing monthly purchases of Treasuries and mortgage-backed securities by USD 15 billion per month. Later, at its December meeting, the central bank decided to double the pace to USD 30 billion per month. Starting from USD 120 billion, tapering is set to end in March. According to the Fed's dot plot, there will be three rate hikes in 2022, with officials expecting the Fed Funds Rate to rise from the current near-zero level to 0.9% by the close of the year, and to 1.6% and 2.1% in 2023 and 2024, respectively. Price pressures in the United States are unlikely to dissipate in the short term, therefore markets expect rate hikes and balance sheet reductions to begin once the bond-buying programme comes to a close. The pace of tightening will depend on the state of economic recovery.

Monthly inflation slows but will remain high in the short term

Consumer prices in the United States remain stubbornly high, with local CPI rising 0.8% over the month and 6.8% year-on-year in November, a near 40-year record. Meanwhile, core CPI, which excludes energy and food prices, rose 4.9% over the year. Although data suggests that inflation is slowing, overall inflation will battle to fall in the short term given that producer price index ("PPI") and local wages are high and still rising. Steep inflation will remain a problem for the Fed.

US PPI and CPI



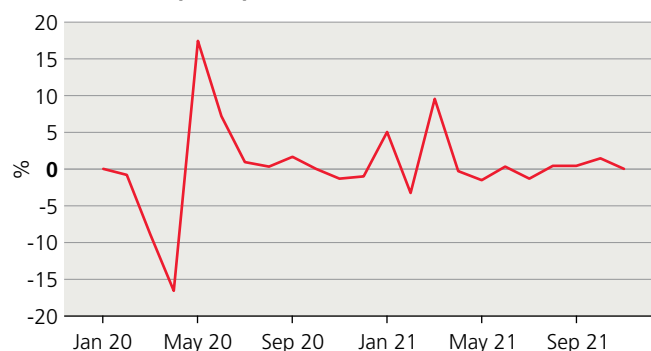
Source: Reuters, data as of December 2021



Retail sales growth will drive Fed to accelerate rate hikes

As the Fed embarks on its interest rate hike strategy, it is expected to continue examining local US economic conditions to determine the pace of tightening. In addition to inflation and employment, which Fed Chairman Jerome Powell often cites, local consumption data will also be monitored closely. As consumption in the United States accounts for as much as 70% of local GDP, positive data would suggest conditions are ideal for faster monetary tightening. Retail sales in the United States have continued to rebound. After a 1.8% improvement in October, they rose by 0.3% in November, a slight slowdown and four-month low. Consumer spending may therefore face challenges in a persistent inflation environment. However, if retail sales do continue to grow, the Fed could raise rates sooner than expected, boosting the US dollar.

US retail sales (MoM)



Source: Reuters, data as of December 2021

Omicron's limited impact on economy will not affect Fed policy

The latest Omicron variant has triggered a massive outbreak, with confirmed new cases in the United States exceeding one million in a single day – a record high since the onset of the pandemic. Although the variant is less pathogenic, it is highly contagious and thus many employees have been quarantined at home, forcing businesses to cut back and damaging the US economy in the short term. However, the market continues to digest the economic impact of Omicron and vaccine research and development has progressed, so the effect of the variant on the economy is expected to be short-lived and the Fed's resolve to tighten monetary policy will unlikely be shaken.

FX EUR to USD exchange rate

Senior Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Angela Wong**

ECB and Fed rate hike divergence will weigh on euro

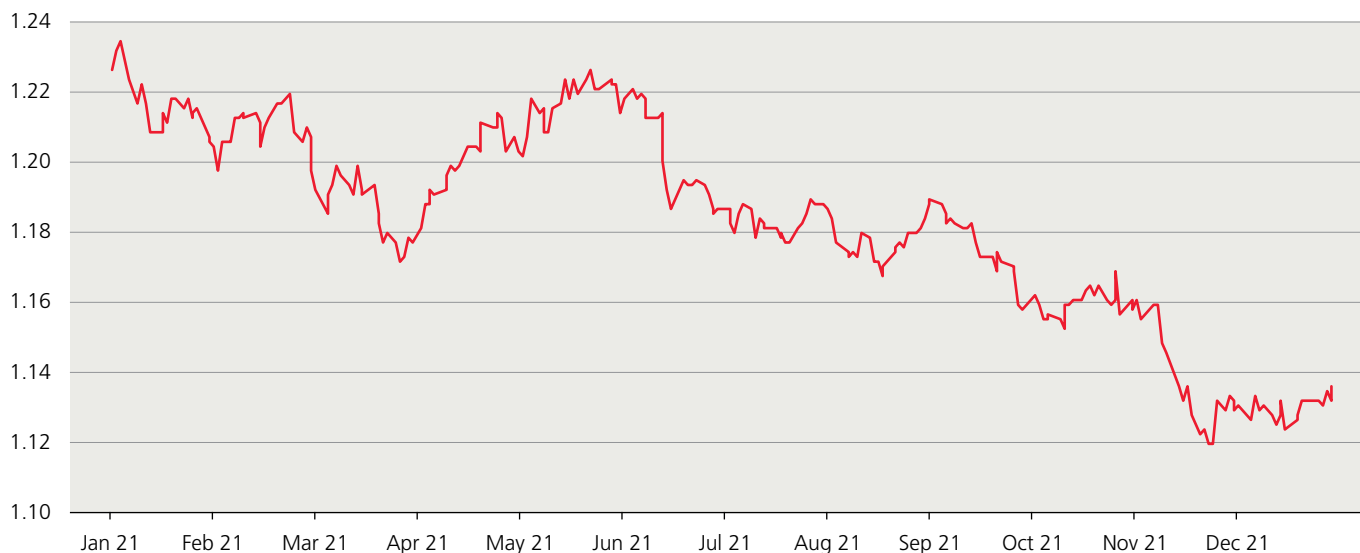
Expected trading range of EUR/USD in Q1

1.1000 - 1.1500

Overview

The European Central Bank ("ECB") finally acknowledged that high inflation will persist, reflecting a marked change in its attitude towards rising prices. However, the central bank insisted it is still in no hurry to adjust the relevant monetary policies, adding that there is little chance of interest rate increases in 2022. Compared to the prospect of monetary tightening in the United States, the ECB appears more cautious of rate hikes. The gap between tightening strategies is expected to weigh on the euro. Moreover, economic fundamentals in the eurozone are still weak, and if the pandemic worsens, it will weaken the economy further. Given the differences between policy-related expectations for Europe and the United States, the dollar is expected to rise and suppress the euro. Meanwhile, the pandemic will further impact the eurozone economy and the euro is expected to maintain a downward trend in the short term.

One-year chart of EUR to USD exchange rate



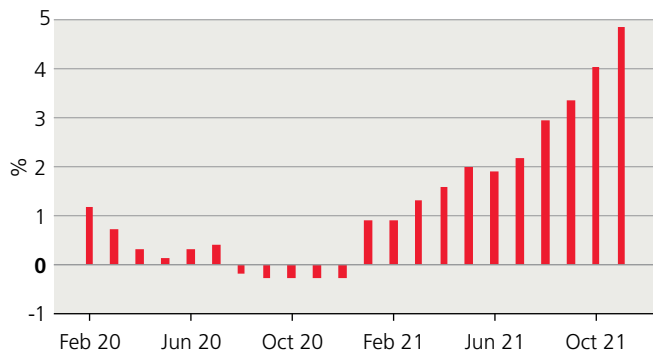
Source: Reuters, data as of December 2021

Key economic indicators in the eurozone	Time period	Value (%)
GDP	Q3	2.2 (QoQ)
Unemployment rate	August	7.5
Retail sales	July	-2.3 (MoM)
Harmonised indices of consumer prices ("HICP")	November	4.9 (YoY)

Source: Reuters, data as of December 2021

Europe's cautious approach to inflation affects monetary policy

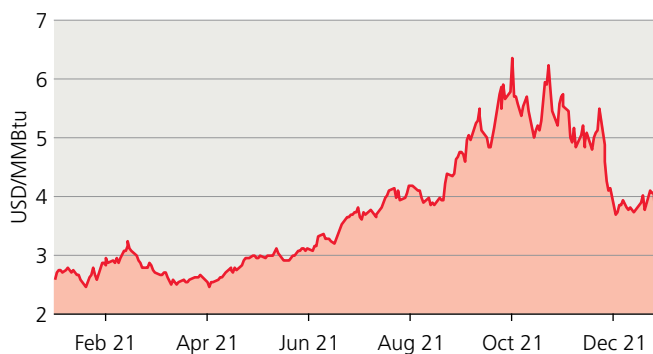
In late October, the ECB acknowledged that eurozone inflation would remain elevated for longer, lagging behind the response of other central banks which have begun to tighten policies. ECB President Christine Lagarde believes that factors such as higher energy prices and supply constraints will ease and subside, and that the inflation rate will likely return to below the 2% target. She added that tightening policies prematurely will create unnecessary obstacles to economic recovery. Although inflationary pressures are still building, policymakers are maintaining a cautious and slow approach to monetary tightening. While the ECB remains in the slow lane, the US Federal Reserve ("Fed") has started reducing bond purchases and is preparing to raise interest rates. The US dollar will benefit from expectations of higher rates, while the euro will remain under pressure in the short term.

Eurozone HICP (YoY)

Source: Reuters, data as of November 2021

PEPP will end in March but will remain on standby

The ECB finally acknowledged the persistence of high inflation in the eurozone, and markets expect the central bank to gradually tighten monetary policy. Following the Bank of England's announcement of an interest rate hike in December, the ECB said it would end the pandemic emergency purchase programme ("PEPP") in March while doubling the pace of its longer-term asset purchase programme to ensure a smooth transition. The ECB also promised to keep borrowing costs low, extend the period for reinvesting capital from maturing PEPP bonds, and to keep the PEPP on standby. Clearly, the central bank is cautious about monetary tightening and will lag behind the Fed, thus weakening the euro in the medium and long term.

Natural gas futures prices

Source: Investing.com, data as of 31st December, 2021

Rising gas prices could worsen inflation

Eurozone inflation hit a 13-year high of 4.9% in November, well above the central bank's 2% target. Inflation in the eurozone is continuing to rise, and Europe's natural gas prices are soaring again after Germany suspended the approval of the Nord Stream 2 project. Thus, the problem of high inflation in the eurozone will unlikely be resolved in the short term. Although Lagarde has repeatedly said there is little chance of rate hikes this year, she acknowledged that inflation is on the rise. The central bank raised the inflation forecast to 3.2% this year and expects it to fall to 1.8% in 2023 and 2024. If the surge in energy prices leads to further inflation in the eurozone, policymakers might consider raising interest rates sooner than expected.

Coronavirus hampers eurozone economic recovery

The Omicron variant has swept across Europe, bringing back lockdowns in European countries such as Austria and the Netherlands and damaging nascent economic recoveries. Business activity in the eurozone slowed more than expected in December, and IHS Markit's preliminary composite purchasing managers' index ("PMI") for the month fell to 53.4, down from 55.4 in November. The worse-than-expected performance, and the lowest since March, highlighted how the re-emergence of the pandemic has affected growth. European countries are not expected to implement lockdowns, but the eurozone's weak economic recovery will further slow under the shadow of Omicron.



FX GBP to USD exchange rate

Senior Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Angela Wong**

High inflation drives UK rate hikes, improves pound outlook

Expected trading range of GBP/USD in Q1

1.3400 - 1.3900

Overview

Global supply chain bottlenecks, coupled with post-Brexit trade and immigration issues, have exacerbated inflation in the UK. The Bank of England ("BOE") raised interest rates for the first time in December last year to ease rising inflation, becoming the first major central bank to increase rates since the onset of the pandemic. In the face of intensifying inflationary pressures, the central bank is expected to raise rates aggressively. The BOE is likely to use local employment data to guide the rate hike schedule. Stable employment conditions and gradual economic improvements provide a good environment for the central bank to raise interest rates, thus benefiting the pound.

One-year chart of GBP to USD exchange rate



Source: Reuters, data as of December 2021

Key economic indicators in the UK	Time period	Value (%)
GDP	Q3	1.1 (QoQ)
Unemployment rate	October	4.2
Retail sales	November	1.1 (MoM)
Consumer price index ("CPI")	November	5.1 (YoY)

Source: Reuters, data as of December 2021

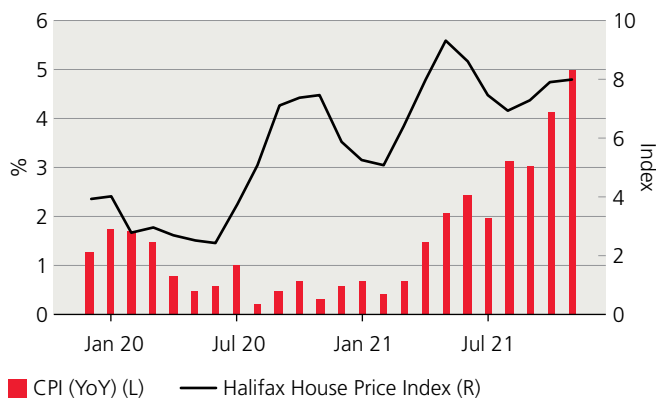
Rate increases expected to continue following last year's surprise hike

The BOE left the benchmark rate unchanged at its November meeting last year, confounding markets which expected a rate hike and causing the pound to suffer its largest one-day drop in more than 18 months. With inflationary pressures mounting in the UK and the IMF warning the BOE not to tighten too slowly, the central bank defied market expectations again in December, unexpectedly raising the key interest rate to 0.25% and becoming the first major central bank to raise interest rates since the onset of the pandemic. The hike is predominantly aimed at addressing the recent surge in prices, and monetary tightening is expected to continue in an effort to fight inflation. Higher interest rates benefit the outlook for the pound.

BOE rate hikes necessary to fight inflation

Last year's rise in energy prices as well as supply chain bottlenecks have led to an upswing in global inflation, with UK inflation further exacerbated by post-Brexit trade and immigration issues. Annual inflation in the UK was 5.1% in November, and the BOE expects it to reach 6% in April, three times the central bank's target. Meanwhile, the IMF predicts inflation in the UK will reach a 30-year high of 5.5% this year. The BOE is thus expected to continue raising interest rates to ward off perilous inflation.

UK CPI and Halifax House Price Index



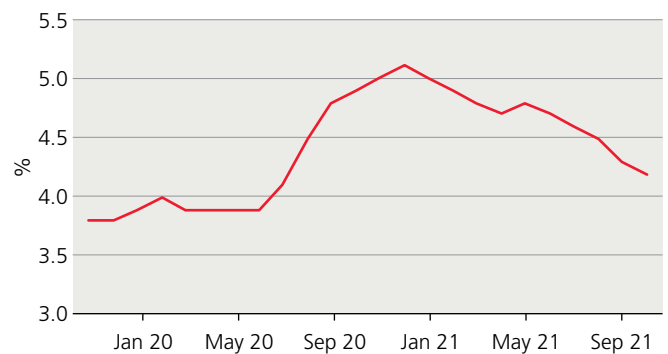
Source: Reuters, data as of November 2021

Employment data to guide rate hike schedule

The UK's recent employment figures have been positive, reflecting the strength of the local labour market following the end of the government's wage subsidy scheme. According to the UK's Office for National Statistics, employment numbers rose by 257,000 to 29.4 million in November and the unemployment rate fell to 4.2% in the three months to October. The data suggests local employment conditions are steadily recovering. The BOE is expected to not only focus on high inflation but also track local employment figures to determine the pace of short-term rate hikes. Steady improvements in the UK job market will thus strengthen the BOE's resolve to continue raising interest rates.



UK unemployment rate



Source: Reuters, data as of October 2021

Economic recovery to cushion Omicron blow

The Omicron variant is ravaging the UK, with daily new cases hitting a record high of 200,000 for the first time. However, the government has stuck to its "co-existence" strategy, resulting in the rapid local spread of the virus. Despite advocating for "co-existence" with the virus, the government is urging employers to allow employees to work from home when possible and is advising citizens to limit outings. The hotel, leisure, and retail industries are expected to take a hit, with economic growth forecast to slow in the fourth quarter of last year. In the second and third quarters of 2021, UK economic growth turned positive, with third-quarter GDP growth reaching 6.6%. The positive performance is expected to help buffer the economy from the resurgence of the pandemic.

FX USD to JPY exchange rate

Senior Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Angela Wong**

Yen set to lag as BOJ tightening restricted by weak economy

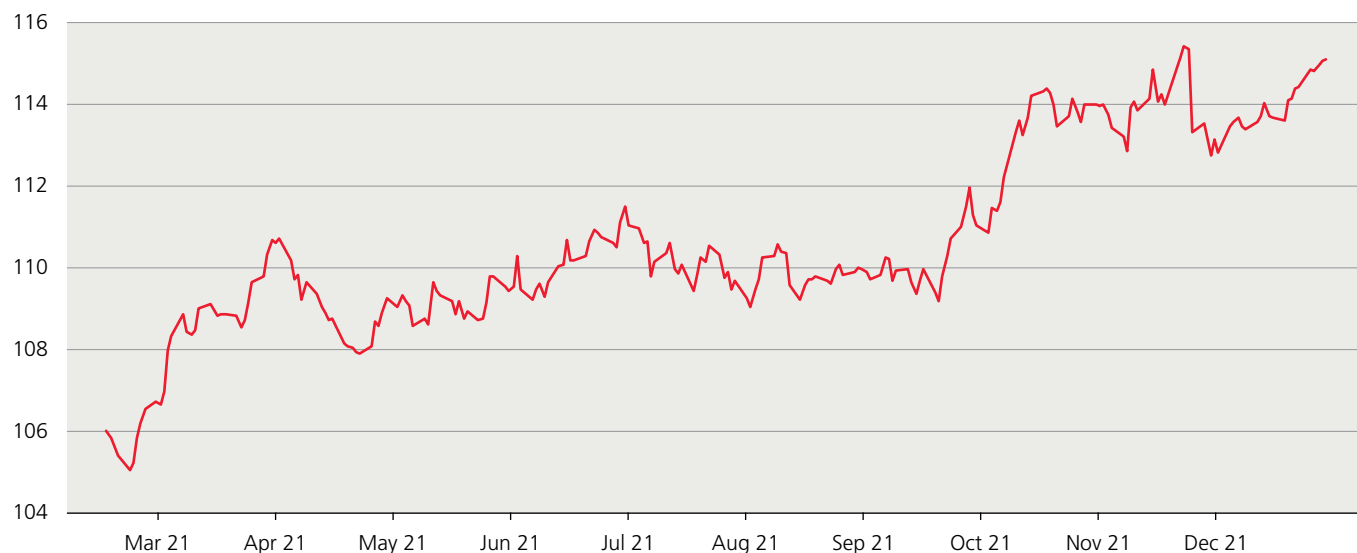
Expected trading range of USD/JPY in Q1

113.00 - 118.00

Overview

The US Federal Reserve ("Fed") began tapering its bond-buying programme in the fourth quarter of last year, cutting monthly purchases by USD 120 billion. The programme is likely to end in March, with interest rate hikes set to follow. Meanwhile, the Bank of Japan ("BOJ") is expected to maintain a more accommodative monetary stance in the short term in the face of weak economic performance weighed on by the pandemic. The sharp contrast between the monetary policies of the United States and Japan will suppress the yen. Moreover, driven by high inflation, the US dollar and interest rate will continue to rise, widening interest rate spreads between US and Japanese bonds and ultimately suppressing the yen.

One-year chart of USD to JPY exchange rate



Source: Reuters, data as of December 2021

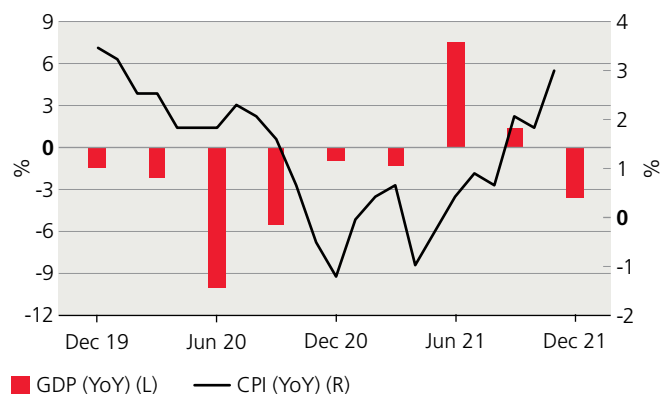
Key economic indicators in Japan	Time period	Value (%)
GDP	Q3	-0.9 (QoQ)
Unemployment rate	November	2.8
Retail sales	November	1.9 (YoY)
Consumer price index ("CPI")	November	0.6 (YoY)

Source: Reuters, data as of December 2021

Japan's weak economy limits central bank monetary policy

Economic recovery in Japan has been relatively slow, with growth and inflation still flat. Local consumer prices rose only 0.6% year-on-year in November, while GDP returned to negative territory in the third quarter after two consecutive quarters of growth, reflecting the presence of downside risks. The BOJ also appeared less optimistic about the local economy, cutting its inflation forecast for the fiscal year ending in March to 0% from 0.6%, and lowering its forecast for economic growth in 2022. The central bank also scaled back its emergency pandemic funding programme and said it was in no rush to expand stimulus in the short term. Therefore, amid the weak economic environment, the BOJ is maintaining its current accommodative approach in the short term, standing in sharp contrast to the Fed's stance on implementing interest rate hikes.

Japan GDP and CPI



Source: Bloomberg, data as of December 2021

BOJ tightening expected to lag that of other major central banks

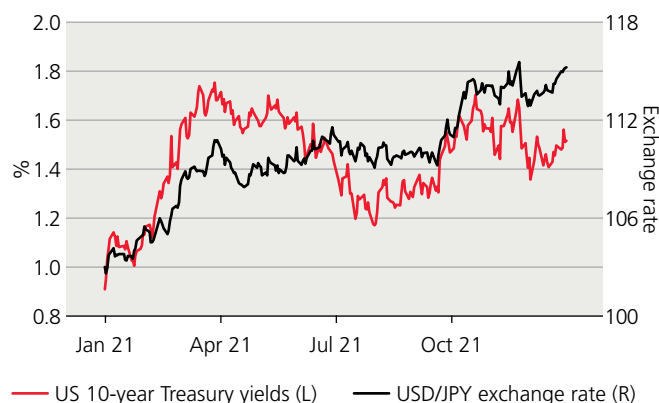
The BOJ has reiterated that it will keep monetary policy unchanged and that it expects inflation to stay below the 2% target for at least this year and the next. Therefore, it is too early to consider monetary policy normalisation. The central bank will slowly reduce stimulus measures at a pace significantly slower than that of the Fed, which will ultimately weigh on the yen. In addition, the BOJ's policy board has said that a weaker yen will boost exports and positively impact the broader Japanese economy, suggesting the central bank is comfortable with a sluggish yen.



US inflation drives up US bond yields, yen exchange rate under pressure

Rising global inflation has driven up long-term interest rates and drawn attention to US Treasury yields. US 10-year yields have risen above 1.8%, a return to pre-pandemic levels. This has widened the spread between long-term US and Japanese debt and caused the yen, which is particularly sensitive to changes in US interest rates, to drop sharply to join the weaker currencies last year. US inflation is expected to persist in the short term, propping up the US dollar and interest rate. Thus, the gap between US and Japanese bond yields is set to widen further, maintaining pressure on the yen.

US 10-year Treasury yields and USD/JPY exchange rate



Source: Reuters, data as of December 2021

Market's need for safe-haven assets wanes

Following the outbreak of the Omicron variant in November, investors turned to safe-haven assets, helping the yen recover from a low level, with the US dollar briefly trading at 112.52. Although Omicron is more transmissible, reports of lower hospitalisation and severity rates as well as news that vaccines can protect against the strain, eased market concerns. On the back of these reports, the yen's decline resumed, with the dollar-yen exchange rate rising above 116. The yen's rise has been limited by the fact that the market has become accustomed to repeated waves of the pandemic, weakening the need for safe-haven assets.

FX AUD to USD exchange rate

Senior Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Angela Wong**

RBA's prudent monetary policy will weigh on short-term AUD performance

Expected trading range of AUD/USD in Q1

0.6900 - 0.7400

Overview

As the Australian economy continues to improve, the stance of the Reserve Bank of Australia ("RBA") is no longer as dovish as it once was. However, the central bank still sees inflation rising more slowly in Australia than in other developed countries, and has reiterated that there is little chance of higher interest rates this year. Although the central bank said that it was in no hurry to raise rates, expectations of a rate hike remain high. The interest rate futures market reflects a rate rise before June this year. In addition, the short-term increase in iron ore prices is expected to be limited, thus restricting a rebound in the Australian dollar. In summary, the performance of the Australian dollar in the first quarter of 2022 will be relatively volatile and downward pressure will persist.

One-year chart of AUD to USD exchange rate



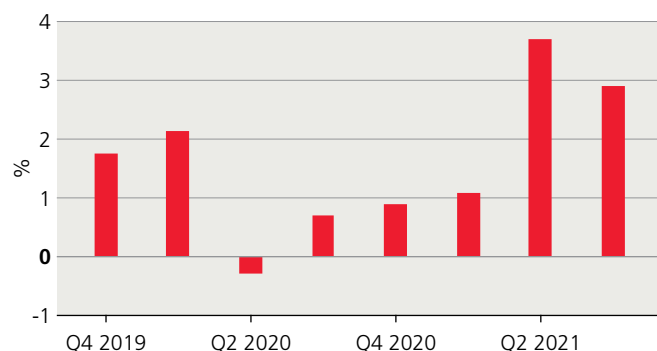
Source: Reuters, data as of December 2021

Key economic indicators in Australia	Time period	Value (%)
GDP	Q3	-1.9 (QoQ)
Unemployment rate	November	4.6
Retail sales	October	4.9 (MoM)
Consumer price index ("CPI")	Q3	0.8 (QoQ)

Source: Reuters, data as of December 2021

RBA sees slower inflation, is thus in no hurry to raise interest rates

The RBA sees a sustained recovery and falling unemployment but believes local inflation could lag other developed countries owing to sluggish local wage growth. The central bank said it would not be prepared to raise interest rates until inflation hits the target range of 2 to 3%. In fact, annual inflation in Australia rose to 3.8% in the second quarter of last year, but the central bank did not acknowledge the growth as persistent inflation. Therefore, if economic data remains positive or the RBA ultimately believes inflation will continue to rise, monetary policy will turn hawkish and only then will it support the Australian dollar.

Australia CPI (YoY)

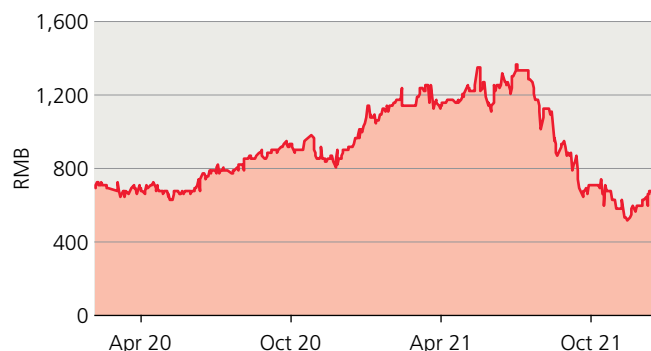
Source: Reuters, data as of December 2021

RBA is dovish but markets still expect rate hike in 2022

At a time when central banks are planning to raise interest rates, the RBA remains relatively dovish on monetary policy. Although the central bank has raised Australia's economic growth and inflation forecasts for 2022, RBA Governor Lowe has repeatedly said interest rate hikes are unlikely this year and that the bank will review various quantitative easing measures at its policy meeting on 1st February. Given that there is a small chance the RBA will raise rates this year, which is in sharp contrast to the US Federal Reserve's monetary policy, the overall trend of the Australian dollar could be affected. The central bank is in no rush to raise rates but the market remains optimistic that the RBA will have the opportunity to raise interest rates to 0.25% by June.

Iron ore prices have bottomed out but are restrained by the pandemic

In 2021, major central banks around the world implemented accommodative monetary policies to stimulate economic recovery during the pandemic. As a result, inflation expectations sent prices of commodities, including iron ore, soaring at the beginning of the year. However, prices subsequently retreated from high levels and bottomed out in November. Due to the resurgence of the pandemic, iron ore prices are expected to increase by a limited amount in the short term. Australia is the world's largest exporter of iron ore, accounting for about one-third of global production. Therefore, given the constraints on iron ore prices, the Australian dollar will battle to rebound significantly in the short term.

Prices of Dalian iron ore futures

Source: Reuters, data as of December 2021

Variant poses little threat to Australia's economy

The Omicron variant has created fresh uncertainties regarding the global economic outlook and investors fear the pandemic will threaten economic recovery across countries. However, the RBA is confident in the domestic economy. At a policy meeting in December last year, Governor Lowe said the Omicron variant poses downside economic risks but that the Australian economy can withstand the shock. Thus, the central bank is optimistic about the country's economic outlook, but is not yet confident enough to further tighten monetary policy.



FX NZD to USD exchange rate

Senior Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Angela Wong**

Reserve Bank of New Zealand will raise interest rates to restrain property market, supporting the New Zealand dollar

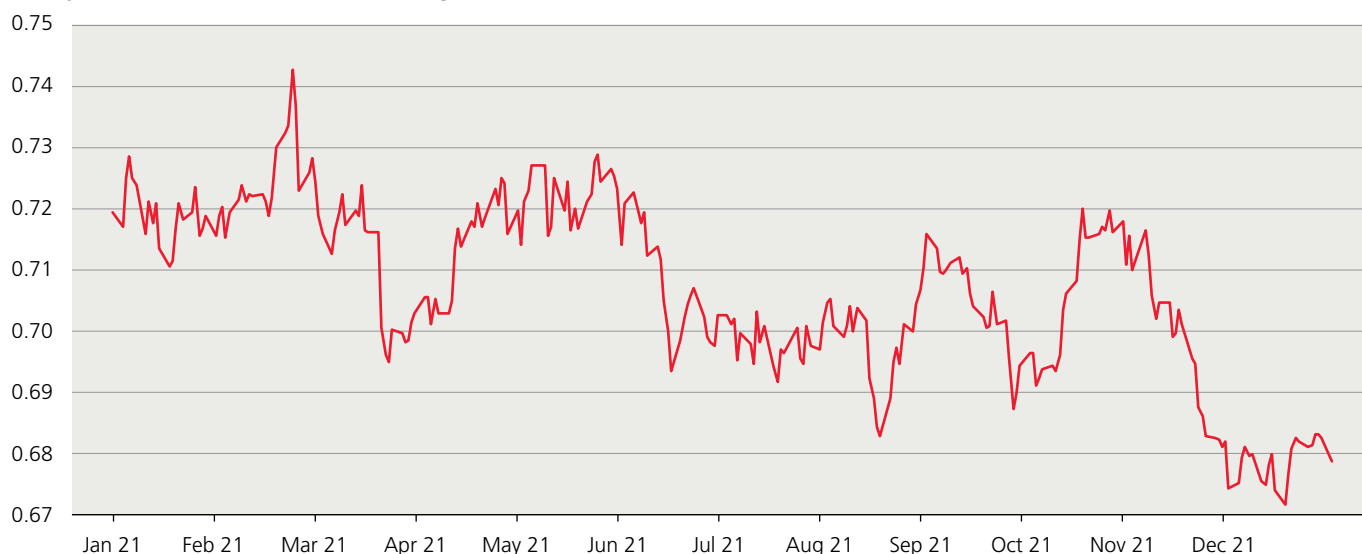
Expected trading range of NZD/USD in Q1

0.6500 - 0.7000

Overview

New Zealand's hot housing market and stubbornly high inflation prompted the Reserve Bank of New Zealand ("RBNZ") to accelerate monetary tightening and raise interest rates twice last year. In addition to the central bank's clear policy stance, the local economy is healthy, providing sufficient conditions for the bank to implement interest rate hikes. International milk prices are stable and have been relatively high in recent years. Meanwhile, the Regional Comprehensive Economic Partnership agreement, which was officially implemented on 1st January, is expected to further expand the sale of New Zealand's agricultural products in the region, boosting local economic performance. The expected further strengthening of New Zealand's economy and the central bank's stated intention to continue raising interest rates will help strengthen the New Zealand dollar in the medium and long term as well as counter pressure from the strong US dollar.

One-year chart of NZD to USD exchange rate



Source: Reuters, data as of December 2021

Key economic indicators in New Zealand	Time period	Value (%)
GDP	Q3	-3.7 (QoQ)
Unemployment rate	Q3	3.4
Retail sales	Q3	-8.1 (QoQ)
Consumer price index ("CPI")	Q3	2.2 (QoQ)

Source: Reuters, data as of December 2021

New Zealand – First G10 country to raise interest rates

Last year, New Zealand's central bank raised interest rates for the first time in seven years and was the first G10 country to do so. The bank finally opened the door to interest rate hikes, and in October and November of last year increased the official overnight call rate ("OCR") by 25 basis points to the current 0.75%. The main objective of the tightening is to rein in high domestic inflation and cool the hot property market. Expectations are that global and New Zealand inflation levels will battle to fall sharply in the short term, and that the RBNZ's more aggressive policy stance will strengthen its determination to continue raising interest rates, thus resisting the upward trend in the US dollar.

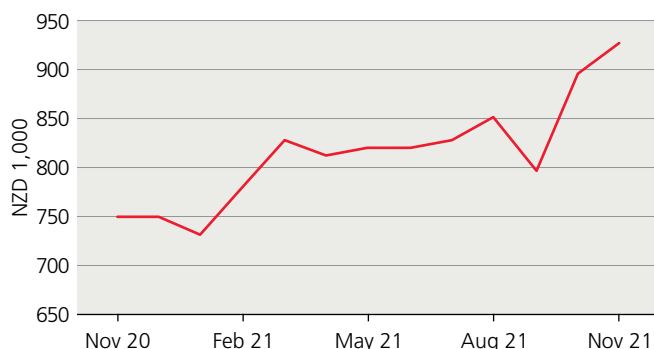
Hot property market and high inflation to lead to successive interest rate hikes

The RBNZ raised interest rates twice last year, adopting an aggressive stance on monetary policy. Governor Orr said the bank would continue to raise rates if the hot property market persists and inflation remains high. He expects interest rates to reach 2.5% by 2023, with a chance of further increases in 2024. His remarks indicate that the central bank is hawkish on interest rates and that it will raise rates successively. Market expectations of further tightening by New Zealand's central bank have increased, supporting the New Zealand dollar in the medium and long term.

High property prices are major incentive for RBNZ to continue raising rates

When the RBNZ raised interest rates for two consecutive months in the fourth quarter of last year, homeowners were reminded to prepare for further rate hikes. The central bank has clear plans and the determination to rein in inflation and cool the red-hot property market. In fact, New Zealand is already one of the most unaffordable countries among OECD member states. Local property prices have roughly doubled in the past seven years. The government has also imposed additional taxes on property investors and ordered the central bank to take into account the property market when formulating policies. Unfortunately, the local property market is still overheating and the high level of inflation brought about by high local property prices is prompting the central bank to accelerate tightening. It is expected that the central bank will continue to raise interest rates to better cope with the economic environment.

Median house prices in New Zealand



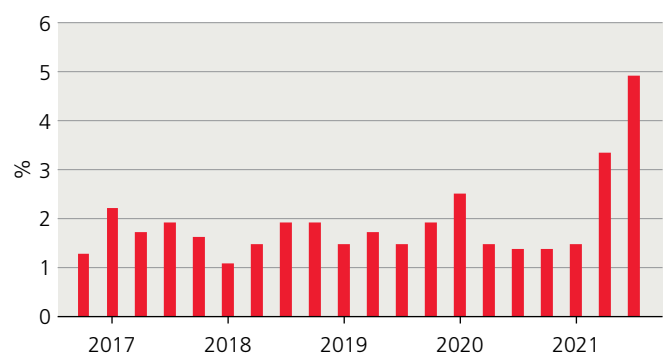
Source: Reuters, data as of December 2021



Rising inflation prompts New Zealand's central bank to keep raising interest rates

Global inflation is rising, including in New Zealand where CPI rose to an annual rate of 4.9% in the third quarter of last year – the highest rate in over a decade. Further, the central bank's quarterly forecast survey indicates that the country's business managers expect average annual inflation of 3.7% in 2022, an 11-year high. It is clear that curbing property and soaring consumer prices has become the most important issue for the RBNZ. Thus the central bank is expected to continue raising rates in a bid to cool property prices and inflation.

New Zealand CPI (YoY)



Source: Reuters, data as of December 2021

FX USD to CAD exchange rate

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Stable oil prices expected and BOC monetary policy clear

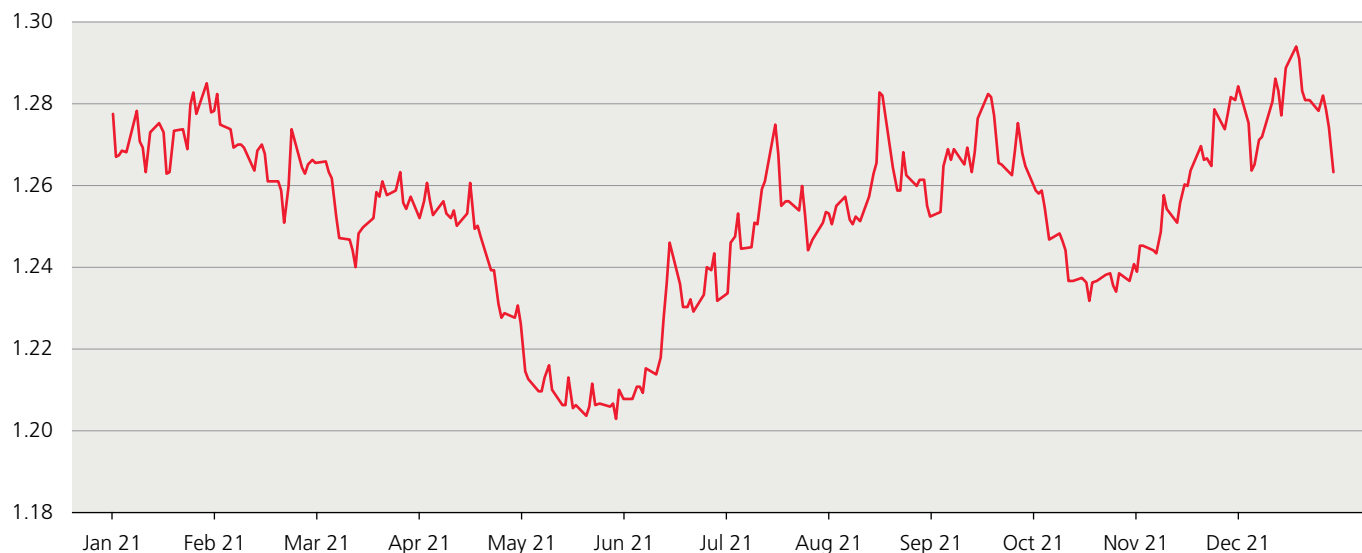
Expected trading range of USD/CAD in Q1

1.2500 - 1.3000

Overview

The Bank of Canada ("BOC") was the first central bank of a major economy to reduce bond purchases, given strong local employment and economic growth as well as high vaccination rates. The central bank expects spare capacity in the economy to be absorbed more quickly and has begun to actively tighten monetary policy, potentially raising interest rates between April and September this year. Given optimistic oil demand forecasts by OPEC, which have stabilised oil price expectations, the central bank will maintain its policy stance. However, the domestic economy may suffer from pandemic-related challenges in the short term, perhaps delaying plans to further tighten policies if conditions worsen in Canada or the United States, a key economic partner.

One-year chart of USD to CAD exchange rate



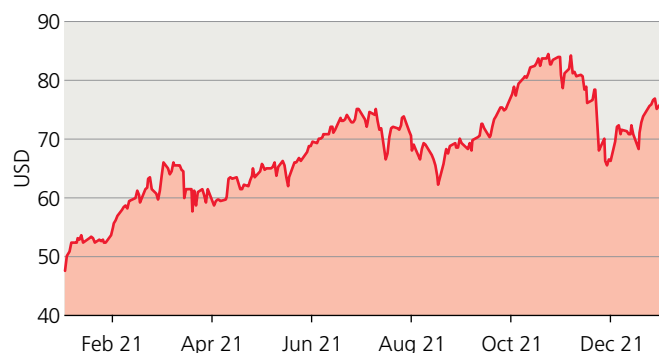
Source: Reuters, data as of December 2021

Key economic indicators in Canada	Time period	Value (%)
GDP	Q3	1.3 (QoQ)
Unemployment rate	November	6.0
Retail sales	October	1.6 (MoM)
Consumer price index ("CPI")	November	4.7 (YoY)

Source: Reuters, data as of December 2021

Monetary policy becomes clearer

In October, the BOC announced it would end quantitative easing and switch to purchasing only government bonds to replace expired debt. The central bank expects spare capacity to be absorbed this year, further guiding inflation towards the 1 to 3% target. BOC Governor Macklem said high inflation will not persist as spare capacity will be eliminated or interest rates will rise earlier than expected. He added that if there is a need to raise rates sooner, it will likely happen between April and September this year, demonstrating that the BOC has a low tolerance for high inflation. Indeed, inflation in Canada is currently very high – CPI stood at 4.7% in November. Given rising energy prices and supply bottlenecks, local inflation will be stubborn downward, thus the central bank is expected to begin rate hikes as soon as the second quarter.

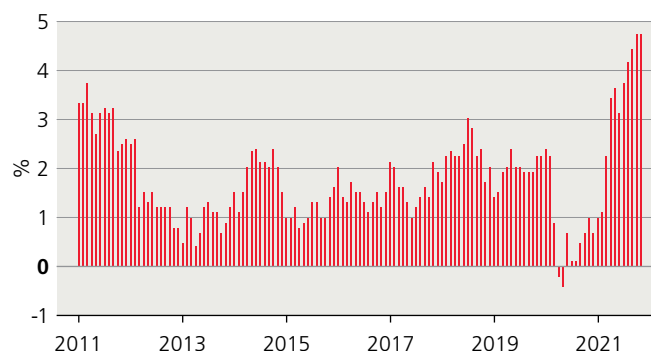
WTI crude oil futures price

Source: Reuters, data as of December 2021

Supply and demand factors balance out, oil prices expected to stabilise

The trend in oil prices remains positive. After hitting a seven-year high in mid-October, WTI crude oil futures traded at around USD 62 per barrel as the Omicron variant began to make headlines. However, the impact of Omicron on oil demand is expected to be mild and short-lived. OPEC has raised its forecast for global oil demand in the first quarter to 99.13 million barrels per day, with demand expected to reach pre-pandemic levels of 100 million barrels per day by the third quarter. Thus, in the medium and long term, international oil prices are expected to gradually rise in tandem with the recovery of the global economy.

As for oil supply, the United States, China, and other countries are preparing to release their strategic oil reserves. The process is expected to take a long time, have little impact on oil prices, and be digested gradually. OPEC+ has agreed to increase production by a modest 400,000 barrels per day from February, while Mexico plans to reduce daily oil output from 1 million barrels to more than 400,000 barrels. Therefore, overall oil production will be roughly unchanged, with oil prices bound within a range.

Canada CPI (YoY)

Source: Reuters, data as of December 2021

Healthy pace of economic recovery supports monetary tightening

Although the Omicron variant may disrupt supply chains further and damage the economy, Canada has witnessed a good economic recovery. GDP growth in the third quarter turned positive and the 2021 current account showed a surplus balance for the first time since 2008, indicating that the continued inflow of capital will benefit Canada's economic performance. On the inflation front, CPI (YoY) in November was the highest since February 2003. Combined with healthy economic performance, high domestic inflation indicates that conditions are ripe for further monetary tightening.

Omicron will not affect BOC's overall policy stance

The coronavirus outbreak has picked up in Canada, spurred by a spread of the Omicron variant. Confirmed case numbers are increasing rapidly, and the new strain has replaced Delta as the main variant in some provinces. However, Omicron's economic blow is expected to be short-lived, and will not affect the central bank's stance on monetary policy.



Renminbi rally expected to slow but still outperform

Expected trading range of USD/CNH in Q1

6.3300 - 6.4300

Overview

Driven by expectations of interest rate hikes by the US Federal Reserve ("Fed"), the US dollar rose sharply last year, but its performance still lagged behind that of the renminbi which appreciated 2.5% against the US currency in 2021. Meanwhile, weighed against 24 other currencies, the renminbi index increased by more than 8% last year, highlighting the currency's remarkable annual performance. In the face of anticipated slower economic growth, the People's Bank of China ("PBOC") may consider further easing monetary policy. As the Fed begins to raise rates, the US-China interest rate spread will narrow, weakening China's rate differential advantage and affecting the attractiveness of the renminbi. Thus, the performance of the renminbi is expected to slow this year. However, China has a well-developed supply chain to support the nation's exports, and the continued inflow of capital is expected to offset the downward pressure on the renminbi. The PBOC is expected to maintain a more neutral monetary policy and ensure two-way exchange rate fluctuations. Overall, the renminbi is forecast to outperform non-US currencies this year.

One-year chart of USD to CNH exchange rate



Source: Reuters, data as of December 2021

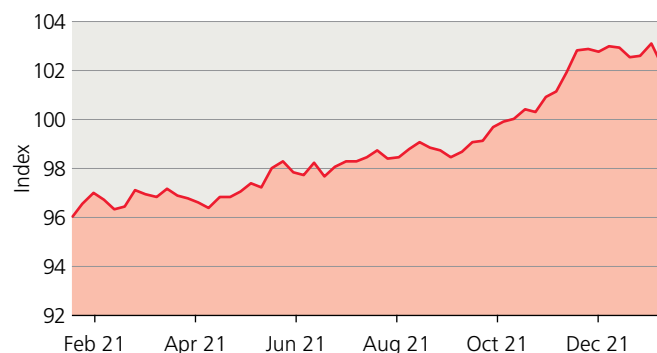
Key economic indicators in China	Time period	Value (%)
GDP	Q3	0.2 (QoQ)
Unemployment rate	August	5.0
Retail sales	November	3.9 (YoY)
Consumer price index ("CPI")	November	2.3 (YoY)

Source: Reuters, data as of December 2021

Impact of narrowing spreads on renminbi offset by foreign capital inflows

Inflation in the United States remains high, and with the Fed intent on raising rates to curb growing prices, long-term US bond interest rates are expected to rise. US 10-year Treasury yields have returned to the pre-pandemic range of 1.7 to 2% and are likely to rise above 2% when the Fed implements the rate hike. At that time, the interest rate differential between Chinese and US long-term debt will gradually narrow and, as a result, the US dollar will strengthen, gradually affecting the trajectory of the renminbi. Meanwhile, China's economy is rebounding steadily and its equity and bond markets continue to attract foreign capital, which is supportive of the renminbi. Thus, expectations are that the weakening interest rate differential and continued inflows of foreign capital will offset each other's impact on the exchange rate.

One-year trend in CFETS RMB Exchange Rate Index

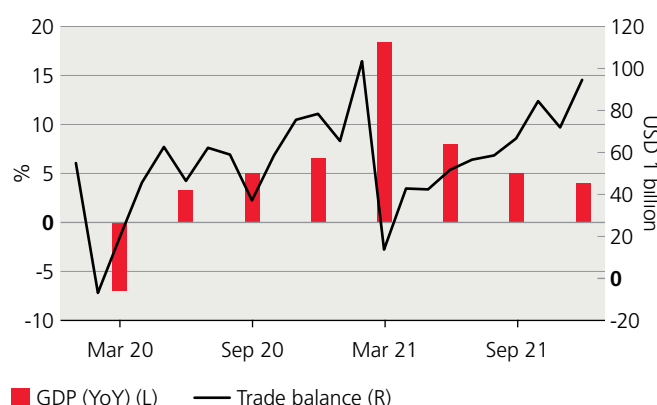


Source: China Foreign Exchange Trade System, data as of December 2021

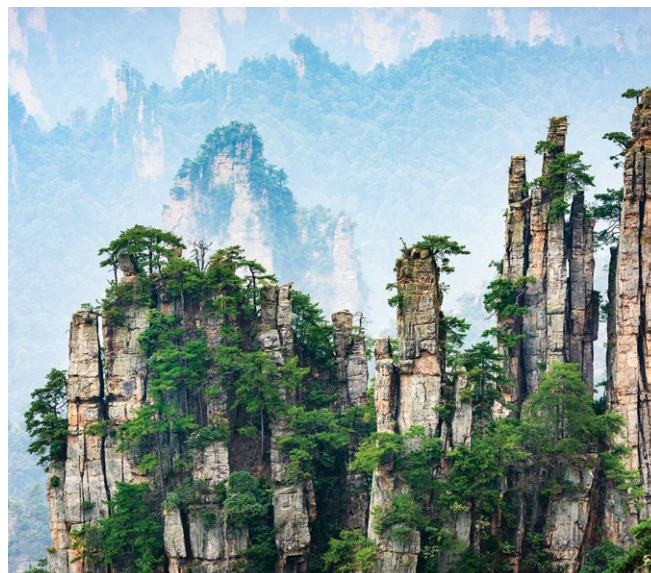
China's economic growth slows but exports remain supportive

China's economic growth has gradually slowed since the second half of last year. Third-quarter GDP growth was 4.9%, a sharp drop from the 18.3% and 7.9% in the first and second quarters, respectively. However, China's well developed supply chain has remained relatively stable despite persistent bottlenecks. Coupled with the strong performance in exports and high resilience of foreign trade, it will drive the country's steady growth trend. China's exports are still attractive, and a strong trade surplus is expected to be a key supporter of the renminbi. Furthermore, positive interest rate differentials and the continued inflow of foreign capital will help stabilise the overall renminbi exchange rate.

China GDP and trade balance



Source: Reuters, data as of December 2021



PBOC may cut RRR to boost economy

The PBOC lowered the reserve requirement ratio ("RRR") for the second time in December last year, dropping required reserves for financial institutions by 0.5%, and the central bank also cut the re-lending rate for agriculture and small businesses by 0.25%. That same month, the foreign exchange RRR was increased from 7 to 9%. The PBOC thus continues to support the real economy while remaining committed to its current prudent monetary policy. In addition, in its latest policy report, the central bank noted that the economy is facing downward pressure and that another comprehensive RRR cut and other accommodative policies are not off the table.

China-US relations appear to have thawed, but actual progress is limited

US President Biden met with Chinese President Xi Jinping for the first time last year to discuss a wide range of topics, including bilateral relations, macroeconomics, trade issues, Taiwan, energy security, climate change, and public health. Although disagreements persist, the meeting is expected to ease tensions between the two countries and pave the way for future trade talks. On the trade front, US Treasury Secretary Janet Yellen said in November that she might consider reciprocal China-US tariff reductions to curb ongoing high inflation. Lifting tariffs may be easier said than done in the short term, but progress is worth keeping an eye on.

Wind-resistant Grass

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Wind-resistant Grass

Last quarter, the US Federal Reserve (“Fed”) was expected to begin normalising interest rates. Expectations of rate hikes put pressure on bond indices, but varying yield sensitivities resulted in mixed performances compared to the previous three quarters. Persistent production-driven inflation makes it possible for the Fed to accelerate tightening. Past forecasts are broadly in line with today’s results, with the exception that the Fed’s rate hike schedule is more aggressive than was expected last quarter.

In the first quarter of 2022, the Fed is expected to remain somewhat impotent in the face of structural economic issues in the United States. Monetary policy can cure the symptoms but not the root cause. Meanwhile, the pandemic and fiscal policy co-operation can only be resolved gradually, and thus will not reach a conclusion this quarter. Other developed markets are expected to follow in the footsteps of the United States and raise interest rates, tightening global liquidity. Emerging markets are the epicentre of volatility, and any misstep can spell financial disaster. According to data, bond indices generally weaken before the first rate hike but consistently improve over the next 12 months. Until the mid-to-late cycle, developed and emerging market bond indices tend to diverge.

The title of this chapter this quarter is “Wind-resistant Grass”, highlighting that only strong and resilient plants can survive the gale. Only after severe tests do we know who is strongest. No matter how intense the headwind, conditions are cyclic, therefore being determined and trusting the trend is the best way forward.

Global interest rates: The full picture

United States: Monetary policy fails to address structural unemployment

In the “Macro Strategy” and “Equity” sections, we analysed structural inflation in the United States. Attempting to solve the problem through monetary policy alone would be futile. In fact, along with inflation, current employment issues in the United States are also structural.

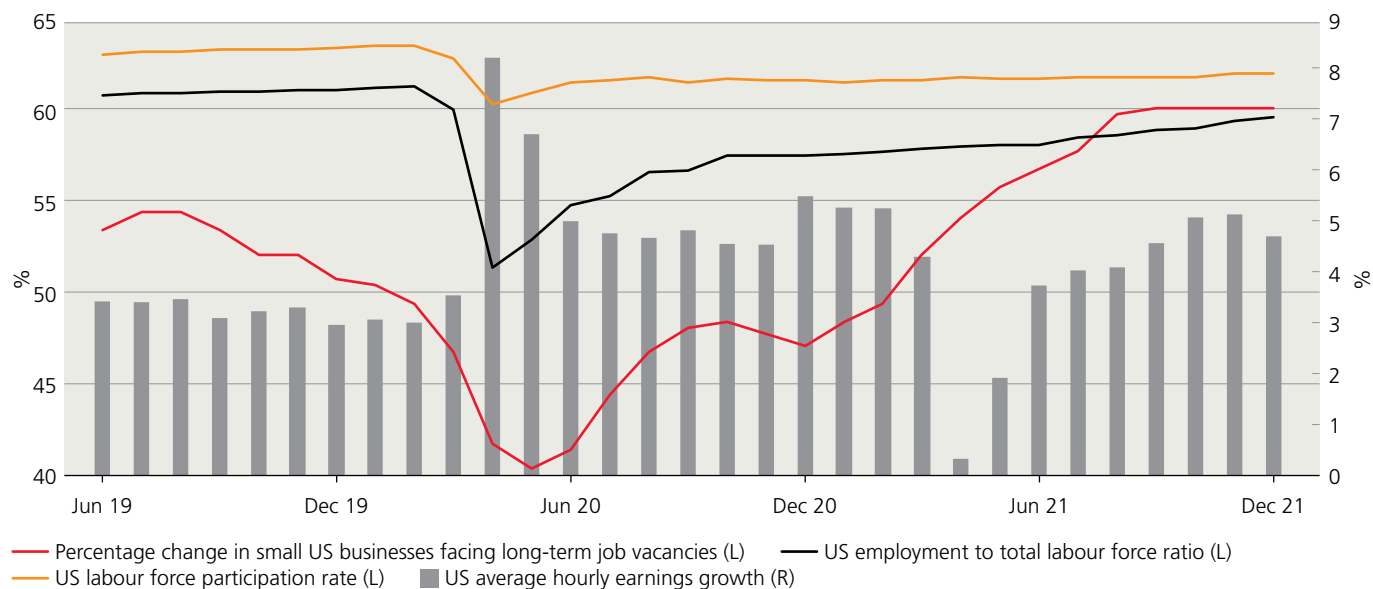
Generally, when labour or technology is outpaced by demand-driven economic growth, companies will increase wages to fill job vacancies and attract talent. The larger incomes then cycle back to domestic demand and investment, boosting the economy. However, the latest coronavirus variant is more transmissible, the healthcare system is overwhelmed, and the government has implemented subsidy programmes. Wage increases can motivate the labour force to return to the office but they cause structural unemployment, particularly in low and middle-income jobs. Even if the Fed persists in raising interest rates while remaining cognisant of the costs and risks, the suppressed domestic demand and investments will be counterproductive, exacerbating economic issues and even increasing the possibility of a recession.

The US unemployment rate fell to a low of 3.9% in December, reaching so-called “full employment”. However, the reality is not as positive as the data. According to the Organisation for Economic Co-operation and Development (“OECD”), the percentage of small US businesses facing long-term job vacancies soared to nearly 60% in 2021, a record high since 2015. Rather than a demand-driven shortage of manpower, the pandemic has affected the labour force’s motivation to return to work. Even if companies raise wages to attract employees (average hourly wages in the United States have increased every month since April last year), there are still jobs “no one wants to do”. At the heart of the problem is the pandemic, during which many workers gave up looking for work or left the labour force, resulting in a miscalculation of “full employment”.

While the share of employed persons to the total labour force has rebounded from 51.3 to 59.5% over the last five years, it is still around 3% shy of the pre-pandemic figure of 62%. The trend in the labour force participation rate is similar, rising from a low of 60.2 to 61.9%, but lagging the pre-pandemic rate by 1.5%. In terms of age brackets, those 25 and over account for the largest proportion of the labour force and productivity. The participation rate of 25 to 54-year-olds has rebounded significantly since May 2020 to 81.9%, only 1.3% lower than before the pandemic. However, participation among those aged 55 and over has continued to decline since January 2020, hovering at around 38.5%. This suggests that pandemic-related concerns are generally concentrated among the older working population.

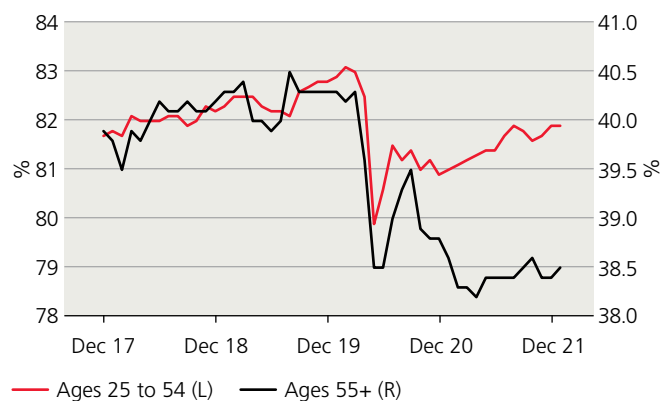
Bond

Percentage change in small US businesses facing long-term job vacancies and US employment data



Source: Bloomberg, data as of 31st December, 2021

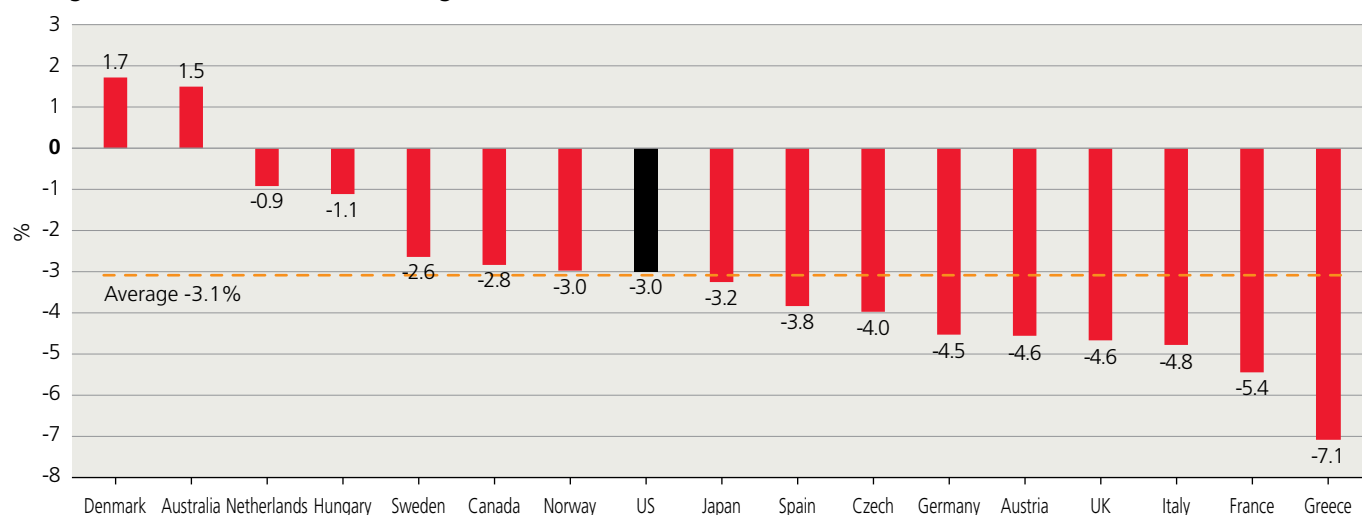
US labour force participation rate by age group



Source: Bloomberg, data as of 31st December, 2021

According to the OECD, total labour market working hours in developed countries are still generally lower than before the pandemic, with an average change of about -3.1%. This indicates that developed economies have not solved employment issues since the onset of the pandemic. It also highlights that supply chain tensions caused by employment problems cannot be resolved in the short term and that global structural inflation will persist (for details, see "Macro Strategy").



Change in total labour market working hours (based on Q4 2019)

Source: Bloomberg, data as of 31st December, 2021

Faced with the long-term battle against the pandemic, people are increasingly adopting a “YOLO” stance. “YOLO” is an acronym for “you only live once”, meaning one should live in the moment. Life is fragile in the face of the virus, and accumulated wealth and achievements can disappear in an instant, thus one should not wait to have enough money and rather live the life they want to now. Work-life balance is a higher priority than it was before the pandemic began. This mindset can be translated into an alternative economic model that will affect the return of the labour force to pre-pandemic levels and cannot be solved by monetary policy.

The main cause of structural economic issues in the United States is a resurgence of the pandemic and the temporary disruption caused by the failure to put adequate resources in place. The solution at the heart of the issue is not monetary policy but rather fiscal policy (such as supporting employment programmes and/or reducing pandemic relief schemes) and the effectiveness of pandemic-fighting measures. The insistence on interest rate hikes is more likely to be counterproductive.

Developed markets: Prepare before you act

Structural economic issues are common in developed countries. However, when the United States is intent on tightening liquidity, other central banks of developed nations have to eventually follow suit. Combined with a record number of COVID-19 infections, responses to the pandemic have begun to diverge, making central bank leaders hesitant. Agility and foresight are necessary to navigate the storm.

On 16th December last year, the European Central Bank (“ECB”) President, Christine Lagarde, shared the following¹:

- Tapering of the pandemic emergency purchase programme (“PEPP”) will begin in the first quarter of 2022 at a pace similar to that of the Fed, ending in March.
- PEPP principal reinvestment will continue until at least the end of 2024, and the PEPP will remain on standby. This is comparable to the Fed’s approach.
- Due to the resurgence of the pandemic, the asset purchase programme (“APP”) will increase from EUR 20 to 40 billion in the second quarter of 2022, decrease to 30 billion euros in the third quarter, and return to EUR 20 billion in the fourth quarter.
- All official interest rates remain unchanged, and a rate hike is “unlikely” in 2022².
- No decisions were made on targeted longer-term refinancing operations and on raising the reserve requirement ratio.

¹ See the Investing.com website: <https://www.investing.com/analysis/something-for-everyone-from-a-cautious-ecb-200612026>

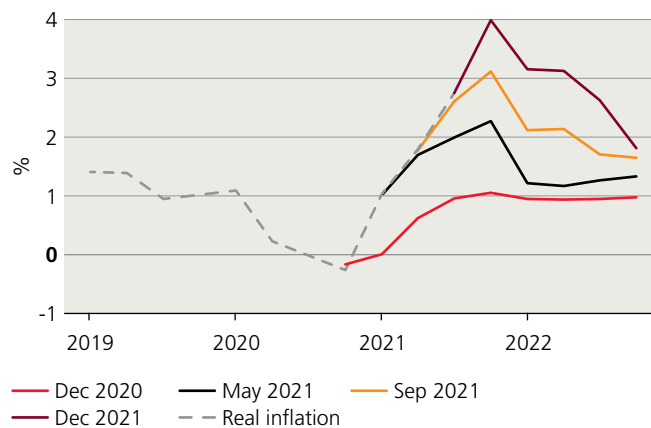
² See the Bloomberg website: <https://www.bloomberg.com/news/videos/2021-12-16/lagarde-very-unlikely-ecb-raises-rates-in-2022-video>

Bond

The ECB is not expected to raise rates at its February and March meetings despite eurozone inflation hitting a 20-year high of 5% in December. Indeed, the central bank is likely to remain on a more accommodative policy path. European bond yields are forecast to perform similarly to US bond yields last year, rising in an orderly manner. This is the risk the European debt market faces in the short term.

Meanwhile, Lagarde said that unless inflation surges out of control, interest rates would remain flat this year. Since December 2020, the OECD has revised upward its inflation forecast for this year, most recently to 1.8%, which is lower than the ECB's 2.6%. This reflects that annual inflation will drop sharply from 5% in December 2021, strengthening the view that the ECB is "unlikely" to hike rates.

OECD inflation expectations for the eurozone



Source: OECD, data as of 31st December, 2021

In addition to the ECB, other major central banks planned or implemented monetary policy tightening in the fourth quarter last year:

Country	Policy changes
Canada	During its meetings in October and December last year, the Bank of Canada decided to end quantitative easing, and it is expected to raise interest rates as early as the second quarter of this year.
UK	In December last year, the central bank decided to raise interest rates by 0.15 percentage points to 0.25% and maintain the GBP 875 billion target for its bond-buying programme.
Japan	The Bank of Japan decided during its October and December meetings to maintain the benchmark interest rate of -0.1% and its yield curve control policy, as well as extend the financial relief programme to September 2022.
Australia	At its meetings in October, November, and December last year, Australia's central bank kept the key interest rate at 0.1%, with no rate increase expected until 2023.
New Zealand	In October and November 2021, the central bank successively raised interest rates by 0.25 percentage points, with the benchmark rate increasing from 0.25 to 0.75% during the quarter. It added that there is still room for future increases.
South Korea	The Bank of Korea raised interest rates by 0.25 percentage points to 1% in November, after having raised them from 0.25 to 0.75% in August.

Source: Comprehensive website information, data as of 31st December, 2021

G10 (ex-US) central banks mostly got ahead of the last two US interest rate hike cycles, increasing rates in the six months leading up to the Fed's first increase. The total number of interest rate changes (including hikes and cuts) over the six-month periods was around 3.5 times higher than the number of US rate hikes. If the Fed raises rates three times in 2022, together the G10 (ex-US) central banks are expected to change rates around 10 times.

Number of rate changes in G10 (ex-US) countries before the last two US rate hike cycles

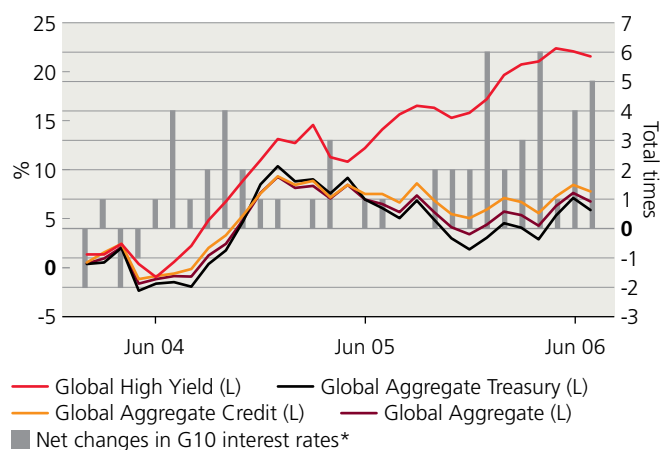
Start	End	US	G10 (ex-US) (six months prior to first US rate hike)
June 2004	June 2006	17	58
December 2015	December 2018	9	32

Source: Bloomberg, data as of 31st December, 2021

Moreover, if the net effect of simultaneous interest rate hikes and cuts on the region's bond market is excluded, and only the number of changes in net interest rates are taken into consideration, then the relationship to four Bloomberg bond indices (Global Aggregate, Global Aggregate Treasury, Global Aggregate Credit, Global High Yield) are as follows:

1. Before the cycle: Six months prior to the first US interest rate hike, bond indices generally declined.
2. Early stage of the cycle: After the first rate hike, whether net changes were positive or negative, a higher absolute number of changes was correlated to better performance of the four bond indices.
3. Mid-cycle: When the total number of interest rate changes slowed mid-cycle, the indices adjusted, with the exception of Global High Yield.
4. End of the cycle: The total number of interest rate changes rebounded at the end of the two cycles, but the four indices diverged during both. The reference value of the end of the cycle is not high for investors.

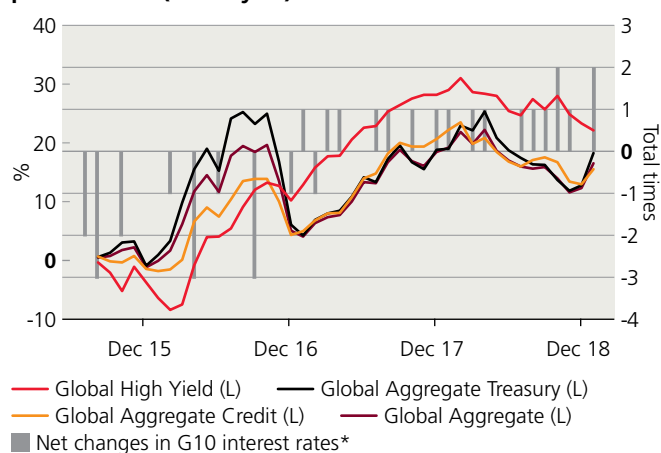
Net changes in G10 interest rates and global bond indices performance (2004 cycle)



*Positive for rate hikes, negative for rate cuts

Source: OECD, data from December 2003 to June 2006

Net changes in G10 interest rates and global bond indices performance (2015 cycle)



*Positive for rate hikes, negative for rate cuts

Source: OECD, data from June 2015 to December 2018

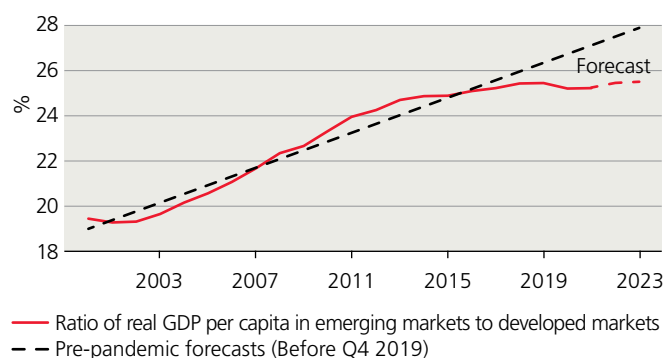
Emerging markets: Epicentre of bond market volatility

Usually, turning points in the global interest rate cycle happen between economic booms and busts. In the final stages of the global recession, developed markets recovered first and demand drove inflation, predominantly affecting emerging markets that export resources and productivity. Low foreign exchange reserves, dependence on imports of consumer goods, and capital outflows during recessions have contributed to earlier and faster inflation in emerging markets. Central banks of emerging economies are therefore compelled to raise interest rates to stem inflation, but in the process credit default risks grow, leading to capital outflows.

Bond

Economies in emerging markets and Asia are relatively weak in depth and breadth, thus the impact of monetary policy shifts in developed nations often has a pronounced effect. In particular, rate hikes in the United States have a stronger ripple effect than policy changes in other G10 countries. According to the OECD, the ratio of GDP per capita in emerging markets to developed markets will lag significantly behind long-term growth in the wake of the pandemic, exacerbating inflation and posing a challenge to central bank policymakers.

Ratio of GDP per capita in emerging markets to developed markets compared to pre-pandemic forecasts



Source: Bloomberg, data as of 31st December, 2021

CPI and official interest rates in emerging markets and Asia			
Region	Country	CPI (YoY) (%)	Official interest rate (%)
Eastern Europe and Africa	Hungary	7.4	2.40
	Poland	8.6	1.75
	Romania	7.8	1.75
	Russia	8.4	8.50
	Turkey	36.1	14.00
	South Africa	5.5	3.75
South America	Argentina	49.1	40.00
	Brazil	10.1	9.25
	Chile	7.2	4.00
	Mexico	7.4	5.50
	Venezuela	686.4	10.18
Asia	India	5.6	3.35
	Malaysia	3.3	1.75
	Philippines	3.6	2.00
	Thailand	2.2	0.50
	South Korea	3.7	1.00

Source: Bloomberg, data as of 10th January, 2022

Inflation in emerging markets has risen more than in the US and Europe as “coexistence” strategies helped revive economies last year. Currently, central banks in emerging markets are bracing themselves for a US interest rate hike in 2022. Argentina expects inflation to rise above 50% this year³, and the central bank raised its benchmark rate from 38 to 40% in January. Meanwhile, the Central Bank of Peru raised its key rate from 2.5 to 3%, while the Central Bank of Uruguay upped rates from 5.75 to 6.5%. Other South American countries have been tightening monetary policies since March last year.

Turkey is arguably representative of inflation-ridden Eastern Europe and Africa. Inflation surpassed 30%⁴ in December (50% according to unofficial data), but President Erdogan overrode the central bank and unsuccessfully sought to curb inflation through unconventional interest rate cuts.

Asian economies, on the other hand, have improved markedly over the past two decades. As of 31st December last year, the GDP of Asia's biggest 10 economies accounted for 32% of the global total and was 30% and 1.1 times bigger than that of the United States and the eurozone, respectively. Despite repeated outbreaks, economic data in Asia is expected to remain healthy. Compared to the taper tantrum of 2013, the region's rich foreign exchange reserves can withstand future capital account volatility. Asian bond markets are expected to be less affected than those of emerging markets. For details, see “Asian Economic Outlook” in “Macroeconomics”.

National and regional GDP compared to Asia's top 10		
Country/Region	Total GDP (USD trillion)	Proportion (%)
China	14.7	54.4
Japan	5.1	18.7
India	2.7	9.8
South Korea	1.6	6.1
Indonesia	1.1	3.9
Thailand	0.5	1.9
Philippines	0.4	1.3
Taiwan	0.4	1.3
Hong Kong	0.3	1.3
Singapore	0.3	1.3
Asia top 10 total	27.0	Proportion (%)
Worldwide	84.7	31.9
United States	20.9	129.4
Eurozone	13.0	207.7

Source: Bloomberg, data as of 31st December, 2021

³ See the Reuters website: <https://www.reuters.com/markets/currencies/argentina-2022-inflation-reach-548-cenbank-poll-2022-01-07/>

⁴ See the Reuters website: <https://www.reuters.com/markets/asia/turkish-inflation-seen-above-30-december-amid-lira-weakness-2021-12-28/>

Emerging markets: Caution is crucial

The number of interest rate changes (hikes and cuts) in emerging and Asian countries over the last two US interest rate hike cycles is, on average, five times higher than in the United States. Notably, during the 2004 cycle, rate changes in emerging and Asian nations were 18 times more frequent than in the US. The number of interest rate changes reflects the impact US interest rate adjustments have on capital markets across regions. South America, which is geographically closest to the United States, is most affected, and Asia to a lesser extent. If the United States raises rates three times this year, the total number of interest rate changes in emerging and Asian economies is expected to be at most 54 times. Bond markets of emerging and Asian nations are expected to come under significant pressure.



Number of rate changes in emerging and Asian markets leading up to the last two US rate hike cycles (including rate changes in the six months leading up to the first US rate hike)

Cycle	Months	US	Emerging markets	Emerging market region		
				Eastern Europe and Africa	South America	Asia
2004	24	17	92	4	66	22
2015	36	9	161	58	83	20
Total times		26	253	62	149	42

Source: Bloomberg, data as of 31st December, 2021

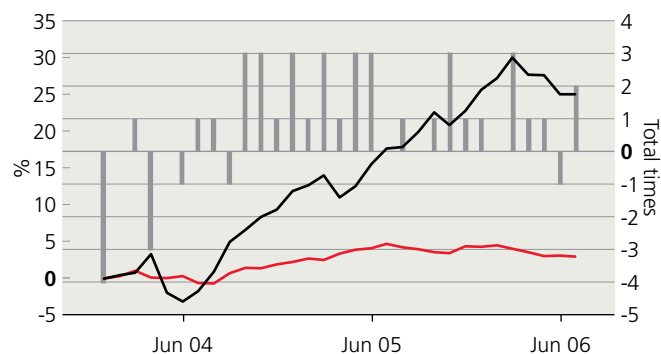
In addition, if the net effect of simultaneous interest rate hikes and cuts on the emerging and Asian bond markets are excluded, and only the number of changes in net interest rates is taken into consideration, then the relationship to two Bloomberg bond indices (Emerging USD Aggregate and Asian-Pacific Aggregate) are as follows:

1. Before the cycle: Six months prior to the first US rate hike, 2 bond indices generally weakened.
2. Early stage of the cycle: After the first US interest rate hike in 2004, emerging market and Asian central banks significantly accelerated the frequency of rate increases.
3. Early stage of the cycle: After the first US interest rate hike in 2015, there was no consensus among emerging and Asian central banks. The Emerging USD Aggregate index performed well in the early stages, but eventually the trend reversed. Meanwhile, the Asian-Pacific Aggregate index continued to decline, reflecting the changes brought about by policy changes. Instability hit both emerging and Asian bond markets.
4. Mid-cycle: During both cycles, the divergence in interest rate policies became clearer and index performance diverged further, reflecting the importance of policy stability to the bond market.
5. End of the cycle: For both cycles, interest rate changes tended to rise simultaneously, and performance of the two indices stabilised.
6. Full period: Over the 2004 cycle, the Emerging USD Aggregate and Asian-Pacific Aggregate indices increased by around 25 and 3%, respectively. While in 2015, they declined by approximately 12.5 and 4.2%, respectively.

Clear policy guidance is crucial to the performance of emerging markets and Asia, despite their different economic structures. The gap between returns during the 2004 and 2015 cycles was 37.5% for the Emerging USD Aggregate index and 7.2% for the Asian-Pacific Aggregate index. Thus, risk management is crucial when investing in emerging and Asian bond markets during the coming interest rate hike cycle.

Bond

Total number of interest rate changes and bond index performance for emerging and Asian markets (2004 Cycle)

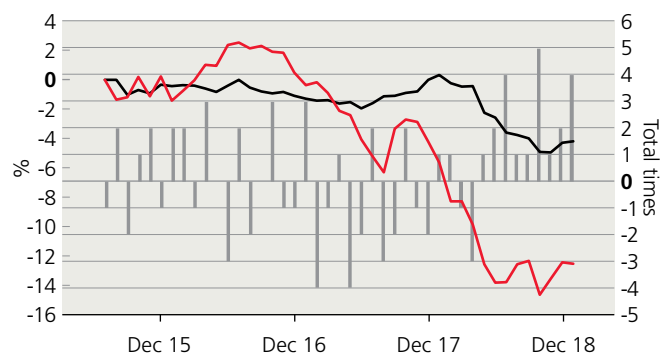


— Emerging USD Aggregate (L) — Asian-Pacific Aggregate (L)
 ■ Total number of interest rate changes*

*Positive for rate hikes, negative for rate cuts

Source: OECD, data from December 2003 to June 2006

Total number of interest rate changes and bond index performance for emerging and Asian markets (2015 Cycle)



— Emerging USD Aggregate (L) — Asian-Pacific Aggregate (L)
 ■ Total number of interest rate changes*

*Positive for rate hikes, negative for rate cuts

Source: OECD, data from June 2015 to December 2018

Investment strategy: Opportunities amid headwinds

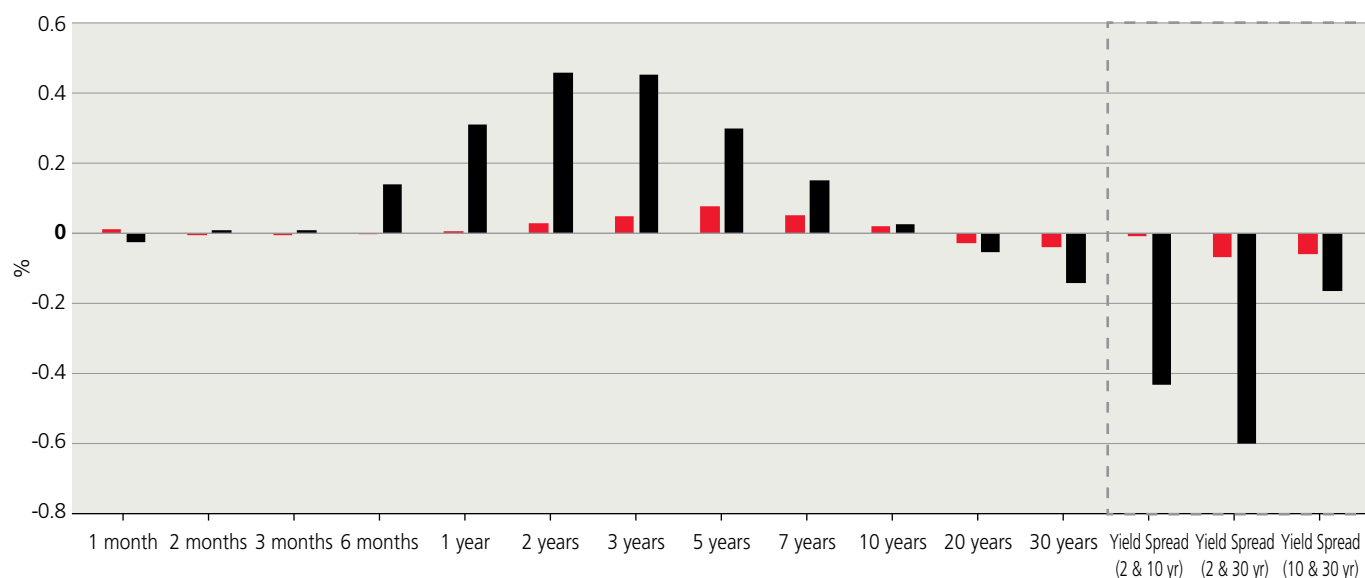
Yield curve trends reflect growing bond market risks

The biggest difference between raising interest rates (tightening) and reducing bond purchases (tapering) is that the latter affects US bond yields and, indirectly, bond indices. Meanwhile, rate hikes directly affect returns and, ultimately, pricing owing to the

sensitivity of bonds to changes in interest rates (i.e. duration). Higher interest rates have traditionally had a greater impact on bond price volatility than reductions in bond purchases.

Segments of the bond market have different durations, varying levels of exposure, and divergent index sensitivities. Therefore, in addition to the magnitude and pace of interest rate hikes, the term-relative yield of bonds plays an important role in deciding future bond prices.

Changes in US Treasury yield curve in Q3 and Q4 2021



■ Change in Q3 ■ Change in Q4

Source: Bloomberg, data as of 31st December, 2021



According to quarterly changes on the US Treasury yield curve, 3-month or shorter-duration Treasury yields did not change significantly. These short-duration bonds are predominantly related to LIBOR and the date of the first interest rate hike. Meanwhile, in the third and fourth quarters of last year, yields rose on six-month to 10-year Treasuries, with notable increases among 2 and 3-year bonds which are the most sensitive to duration, with longer-term debt increasingly affected as interest rates begin to rise. If the Fed raises the interest rate in March, the duration effect will extend across a 5-year period, representing a larger number of bonds exposed to interest rate changes.

However, 20-year and 30-year Treasury yields fell in the third and fourth quarters. Longer-term bonds generally reflect the capital market's forecast for economic growth and inflation, with steady declines suggesting a pessimistic outlook. Moreover, spreads for 2-year and 10-year, 2-year and 30-year, and 10-year and 30-year bonds fell in the second half of last year. This indicates either an inverted or flattening yield curve rather than the traditional shape, and illustrates the market's concerns about deep-seated economic problems. If the Fed is determined to implement several rate hikes amid a surging pandemic, structural inflation and unemployment do not improve, and if the wealth effects and marginal benefits of monetary policies turn negative, it will weigh on the burgeoning economy and increase the risk of stagflation. For details, see "Macro Strategy".

Indeed, the main cause of future bond market volatility is the divergence between the outlooks of capital markets and the Fed. The central bank's lack of communication and consensus with markets is expected to generate global capital volatility. Fluctuations in the bond market will continue to rise in the first quarter, with ripples expanding into other asset markets. This quarter, investors need to pay attention to large policy reversals and misjudgements, a lack of market consensus, and short-term volatility during the run-up period.

History as a guide: Flexibility required in early stages of interest rate hike cycle

Over the last 30 years, there have been four rate hike cycles in the United States. The number and total size of the hikes varies significantly across the four cycles. The Fed is expected to raise rates twice this year, ideally three times, most likely in March, June, and possibly December. For details, see "Macro Strategy" and "Equity".

Using data from the four rate hike periods, the performances of the constituent indices in the Bloomberg Fixed Income Index were analysed six months and three months prior to the rate hike and over the full cycle. The results are as follows:

Bond

Index	6 months prior (%)				3 months prior (%)				Full period (%)			
	1994	1999	2004	2015	1994	1999	2004	2015	1994	1999	2004	2015
Global Aggregate	0.9	-6.1	-1.0	-0.1	0.8	-3.0	-2.9	-0.9	4.9	-0.9	7.8	8.3
Global Treasury	–	–	-1.5	0.4	–	–	-3.4	-1.0	–	–	7.5	8.7
Global Credit	–	–	-0.7	-1.0	–	–	-3.0	-0.8	–	–	8.5	9.3
US Comprehensive	0.2	-0.8	0.2	0.1	0.2	-0.6	-2.4	-0.5	1.4	2.6	7.1	7.9
US Aggregate	-0.1	-1.4	0.2	0.7	0.1	-0.9	-2.4	-0.6	1.8	2.4	5.9	6.3
US Aggregate Government/Credit	-0.6	-2.3	-0.2	0.4	-0.3	-1.1	-3.2	-0.7	1.3	2.2	5.6	6.7
US Treasury	-0.8	-2.5	-0.2	0.8	-0.4	-0.9	-3.2	-0.9	1.3	3.6	5.3	4.3
US Government-related	–	-1.5	-0.1	-0.4	–	-0.8	-2.8	-0.4	1.2	1.7	6.0	7.3
US Aggregate Corporate	-0.4	-2.3	-0.3	0.2	0.1	-1.6	-3.4	-0.6	1.4	0.5	5.8	10.1
US MBS	1.3	0.5	0.8	1.2	1.1	-0.5	-1.1	-0.1	2.8	2.8	6.6	5.2
Pan-European Aggregate	–	–	2.3	1.1	–	-1.0	-1.0	0.3	–	1.6	8.1	2.2
Euro Aggregate	–	-0.4	1.9	2.2	–	-1.2	-1.0	0.5	–	0.3	7.7	4.5
Asian-Pacific Aggregate	–	–	-0.6	0.6	–	–	-0.7	1.4	–	–	3.6	3.7
Global High Yield	5.7	5.4	0.5	-4.6	1.0	2.3	-1.8	-0.9	-5.4	3.8	21.0	21.1
US Corporate High Yield	6.0	2.2	1.4	-6.8	3.2	0.3	-1.0	-2.1	1.8	-3.0	16.2	23.3
Pan-European High Yield	–	–	5.6	-0.8	–	1.2	0.9	1.5	–	3.0	20.0	9.1
Emerging USD Aggregate	5.1	10.2	-1.7	-1.4	-2.4	5.0	-4.9	1.0	-15.8	15.1	27.2	15.9
Global Inflation-Linked	–	-0.1	2.3	-3.6	–	0.5	-2.2	-2.4	–	0.5	13.1	8.3
Municipal Bonds	1.0	-0.9	-0.7	3.2	0.6	-1.8	-2.4	1.5	1.9	0.6	9.2	7.1
Average	1.7	0.0	0.4	-0.4	0.4	-0.2	-2.2	-0.3	-0.1	2.3	10.1	8.9
Maximum	6.0	10.2	5.6	3.2	3.2	5.0	0.9	1.5	4.9	15.1	27.2	23.3
Minimum	-0.8	-6.1	-1.7	-6.8	-2.4	-3.0	-4.9	-2.4	-15.8	-3.0	3.6	2.2
Number of increases	7	4	9	11	8	5	1	6	10	14	19	19
Number of declines	4	10	10	8	3	11	18	13	2	2	0	0

Source: Bloomberg, data as of 31st December, 2021

An analysis of the results is as follows:

1. Investing six months before the start of the cycle and holding until the first rate hike resulted in an average increase of only 0.4%. Performance ranges from -6.8 to 10.2%, reflecting that gains vary significantly across indices during the same period.
2. Meanwhile, investing and holding for the three months leading up to the first rate hike resulted in average performance dropping by 0.6%. Emerging USD Aggregate had the best performance ahead of the 1999 rate hike and the worst performance in the three months before the 2004 hike, suggesting the index is very sensitive to changes in US interest rates.
3. Overall, the ratio of positive returns to negative returns in the six months before the rate hike cycle is approximately 50:50. Of the indices, US MBS was most frequently positive, with gains ahead of all four cycles. The index should perform well ahead of the coming rate hike.
4. In the three months leading up to the hike, the ratio of positive to negative returns was around 30:70, reflecting much higher risks in the bond market during this period.
5. Combining data from investing six and three months prior to the hike cycle, US MBS, Global High Yield, and US Corporate High Yield have the highest probability (63% each) of posting positive returns by the first rate increase. Ahead of the impending rate hike, these three segments should be prioritised.
6. Investing at the beginning of the cycle and holding until the end (the average cycle length is 21 months – for details, see “Equity”) saw the overall positive returns to negative returns ratio climb to around 94:6. The data shows that the probability of gains is very high and that US-based indices will ultimately benefit the most from US interest rate hikes.

History as a guide: Correlation coefficients indicate divergence in bond markets

Arranging data according to time period provides a simple understanding of the performance of each index, but overlooks changes within and between periods. Using the 20-day correlation coefficient between the Bloomberg Fixed Income Index and the Fed Funds Rate, we analyse the impact of interest rate hikes on the index over time. The index comprises 19 categories, which can be grouped into five series:

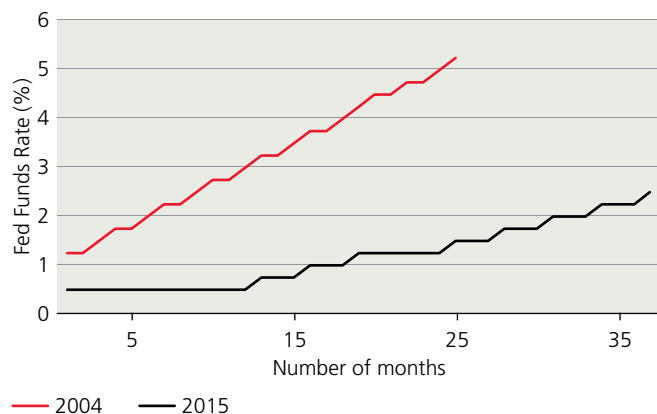
Series	Index
Global	Global Aggregate
	Global Treasury
	Global Credit
US	US Comprehensive
	US Aggregate
	US Aggregate Government/Credit
	US Treasury
	US Government-related
	US Aggregate Corporate
	US MBS
Eurasian	Pan-European Aggregate
	Euro Aggregate
	Asian-Pacific Aggregate
High Yield	Global High Yield
	US Corporate High Yield
	Pan-European High Yield
Other	Emerging USD Aggregate
	Global Inflation-Linked
	Municipal Bonds

Source: Bloomberg, data as of 31st December, 2021

Some of the component indices were only established after 2000, and correlation coefficients cannot be compared directly given changes in the constituent bonds (due to expiration or redemption) and the economic environment (for example, quantitative easing). Thus, the following analysis draws data from only the last two interest rate hike cycles.

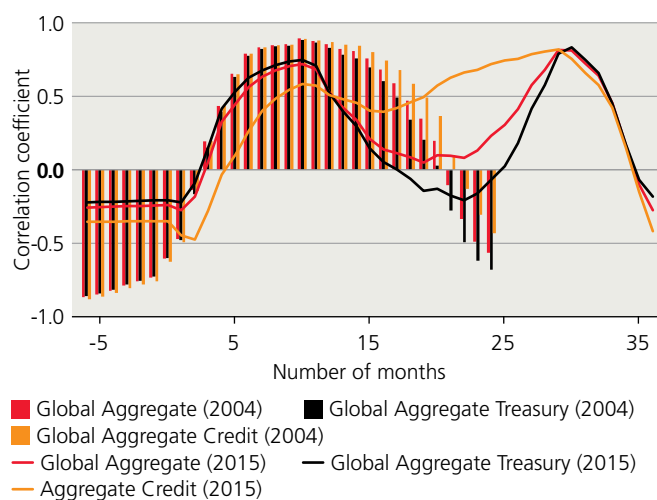
Bond

2004 and 2015 Fed rate hike cycles



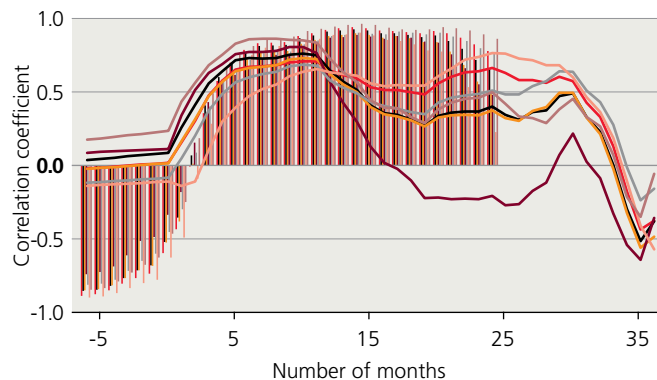
Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the Bloomberg Fixed Income Index and the number of interest rate hikes-Global Series



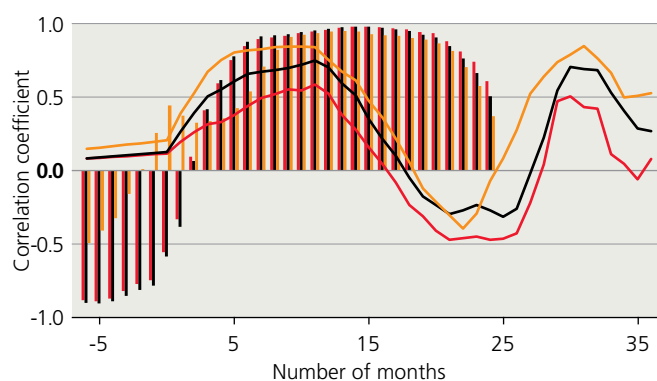
Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the Bloomberg Fixed Income Index and the number of interest rate hikes-US Series



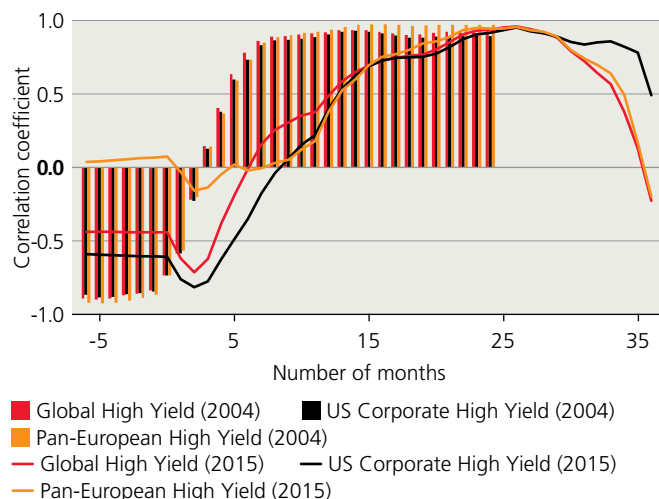
Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the Bloomberg Fixed Income Index and the number of interest rate hikes-Eurasian Series



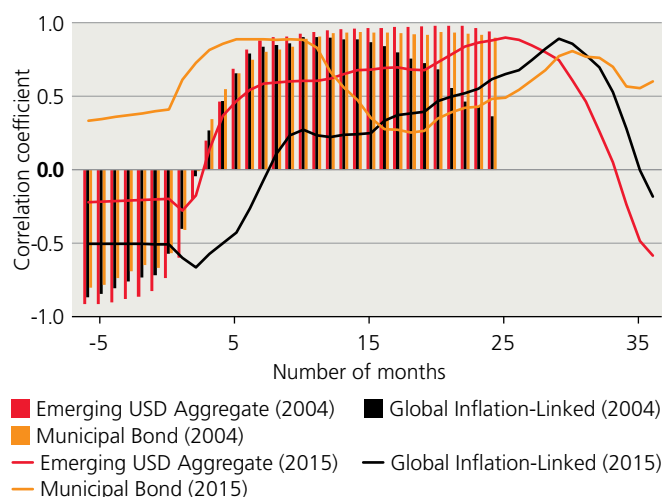
Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the Bloomberg Fixed Income Index and the number of interest rate hikes- High Yield Series



Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the Bloomberg Fixed Income Index and the number of interest rate hikes- Other Series



Source: Bloomberg, data as of 31st December, 2021

The results of the analysis are as follows:

1. Six months before the first rate hike, the correlation coefficients between all series and the Fed Funds Rate were negative (that is, indices moved in the opposite direction to interest rates), suggesting that rate increases weigh on all indices. However, as the rate hikes drew nearer, correlation coefficients trended higher and generally reached zero four months or more after the rate hike. This indicates that although initial performance is not ideal, investing early pays off later.
2. Once the correlation coefficients broke through the zero level, the coefficients of all the series continued to rise, indicating that capital returns to the market after it has digested the impact of interest rate hikes. However, coefficients began to peak and fall mid-cycle, reflecting that pressure on indices increases once rates reach a certain level.
3. The correlation coefficients of the High Yield and Other series did not drop significantly after peaking and continued to hover at high levels, reflecting the resilience of these series in the face of interest rate hikes. The coefficients generally fell after approximately the 25th month and returned to negative territory after the 30th month – that is, interest rates and series performance once again trended in opposite directions.
4. After the coefficients of the Global, US, and Eurasian series peaked, they declined continuously between the 15th and 25th month. This reflects that additional interest rate hikes affect bond markets, most notably the Global series which exhibited the most marked decline. But interestingly, after around 23 months, the coefficients rebounded across the three series. This is likely due to the Fed's decision to pause hikes between months 20 and 25 during the 2015 hike cycle, helping reverse the declining trend for the three series.
5. At the end of the 2004 rate hike cycle, all coefficients were positive, with the exception of the Global series. This shows that high interest rates supported the performance of the five series before the interest rate cut cycle began.
6. At the end of the 2015 hike cycle, only the Eurasian series had a positive coefficient. With the exception of the Municipal Bonds and US Corporate High Yield constituents, the remaining five series had negative coefficients. This highlights that the performance of these series was generally negatively affected by high interest rates before rate cuts began.

Comprehensive analysis shows that the global bond market will be under pressure from six months prior to the first interest rate hike to the early stages of the cycle. However, continued rate hikes should benefit the performance of various bond indices. Investing early and holding until around six months after the onset of the rate hike cycle offers a greater likelihood of positive returns. Notably, after 18 months, the High Yield and Other series still performed well, while there was no clear pattern among the remaining series. After the 24th month, series performance further diverged and the reference value for investors was not particularly high.

Bond

BEA Union Investment CIO Office The Bank of East Asia

Outlook for Chinese and Asian Bonds

US Treasury and RMB bonds

The Omicron variant has spread rapidly around the world and case numbers have been on the rise. The sudden onset pushed US Treasury rates lower, flattening the yield curve. However, Chairman of the Federal Reserve Jerome Powell has adopted a more hawkish stance regarding interest rates. At a congressional hearing, he said the central bank would “consider wrapping up the taper of asset purchases [...] perhaps a few months sooner”. Thus a rate hike could come earlier than anticipated by markets. BEA Union expects US Treasury yields to rise.

The world's major central banks are no longer waiting for the US to take the lead on tightening monetary policy. In the fourth quarter alone, the Reserve Bank of New Zealand raised rates twice and the Bank of England surprised the market when it increased its target interest rate by 0.15 percentage points in December. However, compared to global and emerging markets, Asian central banks have been slow to tighten policies. Owing to benign inflation and sluggish credit growth in the private sector, the pace of tightening in the region will remain slow in 2022. The People's Bank of China (“PBOC”) cut the reserve requirement ratio by 50 basis points in December, improving yields on RMB bonds, which investors can use to diversify globally.

Housing control policies in the mainland

In China's property market, which is comprehensively regulated by the central government, many developers have successively exposed the problem of insufficient liquidity, and the social and economic impacts have been widespread. In November 2021, China's top 100 developers saw contract sales drop 37% year-on-year and 24% compared to 2019. And according to November data, developers with generally lower offshore and onshore bond prices have experienced a greater decline in contract sales. Expectations of lower property prices have buyers adopting a wait-and-see attitude. Decline in investor demand in second and third-tier cities has fallen even more sharply, with some developers cutting new home prices by around 10 to 15% to boost contract sales.

To actively promote the healthy development of the real estate market and ramp up demand for compliant housing, the PBOC has further relaxed the mortgage quota and accelerated the allocation of loans. Under the “three red lines” policy, developers may withdraw M&A loans and the issuance of asset-backed mortgage bonds will resume. We believe that state-owned enterprises and private companies with good credit

ratings can benefit from the policy easing. In addition, there have been reports that mortgage interest rates in Shenzhen, Dalian, Nantong, Zhuhai, and Zhongshan have been cut by 10 to 30 basis points. Although this is a positive development, we do not believe the impact on the real economy will be significant. Therefore, we are eyeing strong companies with low short-term financing needs.

When the government signals policy easing, the credit environment for domestic housing will have an opportunity to improve. BEA Union believes the relaxation of refinancing policies for developers in the onshore bond market and the acceleration of mortgage approvals will benefit high-quality real estate companies in the BBB and BB categories. Momentum in China's asset management sector has also improved.

Investment grade bond prospects

As for the bond market, Asian investment grade bonds have a shorter duration than those of the US and other emerging markets. The shorter duration Asian investment grade bonds are less sensitive and have relatively stable prices. Furthermore, Asian investment grade bond yields are higher than those of global bonds, thus offering investors good risk-adjusted returns.

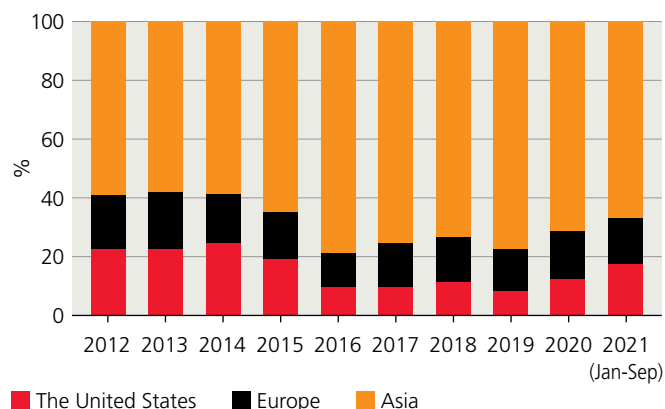
Investment grade bond yield comparison			
Investment grade bonds	Asia	Europe, Middle East, Africa	United States
Spread-to-worst (bps)	136	132	95
Modified duration to maturity	5.35	6.83	8.33

Source: Bloomberg, data as of 31st December, 2021

Other countries have the opportunity to tighten liquidity due to renewed inflation. Even though interest rates are still very low, rising rates benefit the banking and finance industries, especially banking systems with abundant capital and high liquidity. In the Asian region, bonds from Hong Kong, Singapore, and South Korea have the potential to be among the top performers.

Meanwhile, credit indicators and ratings for investment grade debt across Asia are continuously improving. Emerging markets have potential given their large and loyal regional investor base.

Percentage of investment grade bonds issued by region



Source: JPMorgan Chase, data as of October 2021

Generally, Asian investment grade debt is more stable than high-yield bonds and is less exposed to China's trade, leasing, and technology, media and telecommunications ("TMT") sectors. Therefore, BEA Union is confident Asian investment grade bonds will positively contribute to the investment portfolio.

Asian bond review

Indonesia

Even as China increases coal supply, prices remain volatile. The price of Indonesian coal fell by nearly two-thirds following the previous peak and then rose to USD 60 to 70 per ton. A number of coal mining companies and contractors reported strong financial performance due to high average selling prices and production volume. Some coal producers have deleveraged to net cash flow and even repaid US dollar bonds in full. We will closely monitor the risk levels of coal producers that have increased leverage in order to increase their coal reserves to conduct M&A and invest in non-coal businesses for ESG purposes.

Hong Kong

Given poor sentiment in the Chinese property market, real estate companies with higher beta coefficients are seeing weaker performance. In the Hong Kong real estate industry that is not affected by the policies, we will maintain high-quality trading and carefully select resilient Hong Kong companies with reasonable valuations.

Macau

The new coronavirus variant has increased uncertainties surrounding customs clearance. Although initial clearance quotas are expected to be modest, it is still good news for the gambling industry. Gaming operators have switched from VIP tables to casinos over the past few years, which has had a limited impact on their earnings before interest, tax, depreciation, and amortisation ("EBITDA").

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BEA Union Investment is a joint venture formed in 2007 between The Bank of East Asia, Limited of Hong Kong and Union Asset Management Holding AG of Germany.



Out With the Old, In With the New

Chief Investment Strategist, Wealth Management Division, The Bank of East Asia | **Frank Lee**



Chief Investment Strategist, Wealth Management Division,
The Bank of East Asia | **Frank Lee**

Out With the Old, In With the New

Last quarter, this section was titled “Sand Fortress”, and commodities behaved accordingly, performing worse in the fourth quarter of 2021 than in the previous three quarters. In November, the US Federal Reserve (“Fed”) announced it would begin tapering the bond-buying programme to speed up liquidity tightening, which has led to lower inflows of speculative capital into commodity futures. Oil prices peaked in November, and gold prices failed to benefit from high inflation, following oil prices back down to earth. The S&P Goldman Sachs Commodity Index and Industrial Metals Index performed similarly. Past forecasts are roughly in line with today’s results.

The title this quarter is “Out With the Old, In With the New”, which represents the ongoing revolution in commodity markets. Virtual currencies are challenging the historical status of gold, while renewable energy is expected to take up the mantle from fossil fuels. Investors should prepare to take advantage of the trend. In the first quarter of this year, gold prices will have little room to fall given growing demand for real gold, and high global inflation is also supportive of gold. However, gains will be offset by a turnaround in gold ETFs and changes in short-term global interest rates. The gold price is projected to fluctuate within a narrow 5% range around USD 1,800. Today’s high oil prices are weighed on by expectations that global central banks will tighten liquidity, speculative capital will converge in commodity markets, and that global energy supply and demand will balance out this quarter, with a possibility of excess supply. WTI crude oil futures are set to peak at USD 85 before falling to and hovering around USD 75 per barrel. However, if the pandemic worsens and China’s economy continues to slow, prices could drop to as low as USD 70 per barrel.

Investment strategy: Conventional wisdom’s approach to commodity markets

Predictable direction but with varying degrees of significance

With expectations that the Fed will raise rates this quarter, gloom is hanging over all asset markets, including commodities. Inflation in the United States remains stubbornly high and the Fed will take action. In addition to speeding up bond purchases and possibly suspending principal reinvestments, the December Fed dot plot shows rates could be increased three times this year, most likely in March, June, and December (for details, see “Macro Strategy”).

Tighter monetary policies traditionally prop up the US dollar and Treasury yields, affecting major investment markets. To calculate the correlation coefficients with changes in the dollar and Treasury yields, five sub-indices of the S&P Goldman Sachs Commodity Index series (Composite, Industrial Metals, Agriculture, Precious Metals, and Energy) were used as a proxy for the commodities sector. The threshold is 70%, with a value of more than 70% denoting “a clear relationship” and values below 70% suggesting “no clear relationship”.

Traditionally, a strong US dollar is unfavourable to commodity prices, and the correlation coefficients between the S&P GSCI Composite Commodities Index and the US Dollar Index were generally negative over the past year. However, of all the correlation coefficients, only 65% were negative, so although the direction is clear, the strength of the relationship does not pass the significance threshold.

For the remaining four indices, more than 70% of the correlation coefficients were negative for the S&P GSCI Industrial Metals (82%) and Precious Metals indices (88%), reflecting that a strong dollar is most unfavourable to metals. In the fourth quarter, the Precious Metals Index clearly deviated from the trend in the US dollar (73%), while the Agriculture Index exhibited a positive relationship with the US Dollar Index, indicating that a strong dollar does not negatively affect the commodity market as a whole.

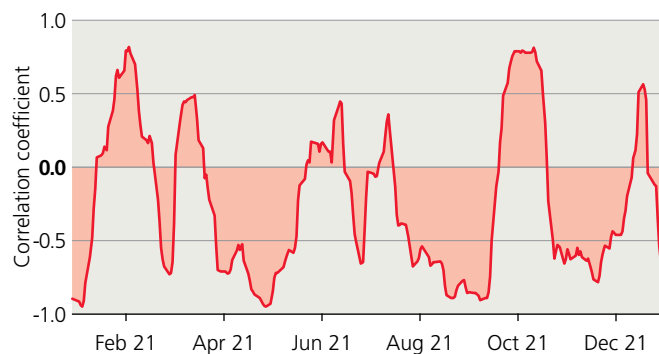
Commodity prices or index performance in 2021

Index/Price	Q4		Full year	
	Return (%)	Annualised volatility (%)	Return (%)	Annualised volatility (%)
S&P GSCI Composite Commodities Index	0.62	20.02	37.05	23.03
S&P GSCI Industrial Metals Index	6.73	20.28	29.63	23.36
S&P GSCI Agriculture Index	5.83	22.00	24.70	15.85
S&P GSCI Precious Metals Index	4.13	16.04	-5.13	13.75
Gold	4.11	13.54	-3.64	11.88
WTI crude oil futures	0.24	35.09	55.01	41.27
Brent crude oil futures	-0.94	32.42	50.15	36.41

Source: Bloomberg, data as of 31st December, 2021

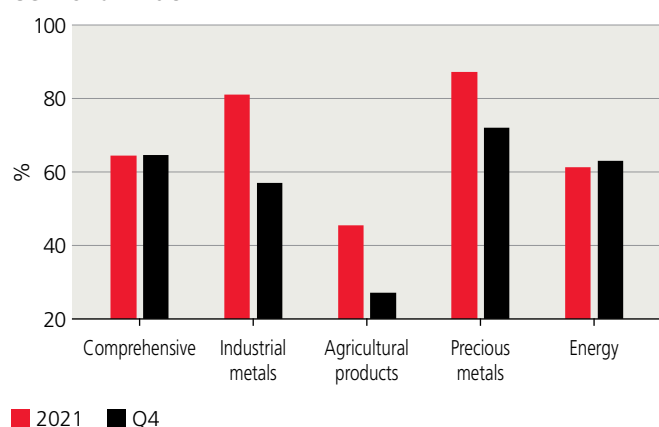
Alternatives

Correlation coefficients between S&P GSCI Composite Commodities Index and US Dollar Index



Source: Bloomberg, data as of 31st December, 2021

Proportion of negative correlation coefficients between S&P GSCI Composite Commodities Index and US Dollar Index

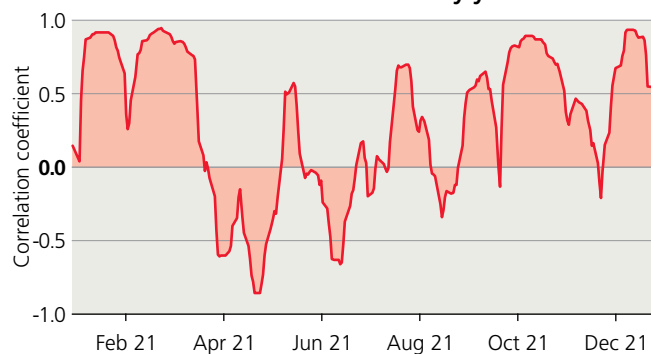


Source: Bloomberg, data as of 31st December, 2021

Commodity markets are usually vulnerable to high bond yields. With reference to the relationship between the Composite Commodities Index and US 10-year Treasury yields over the past year, only 32% of the correlation coefficients were negative and just 5% in the fourth quarter. This suggests movements between the index and 10-year Treasuries was relatively synchronised in the fourth quarter, highlighting that conventional wisdom is imperfect.

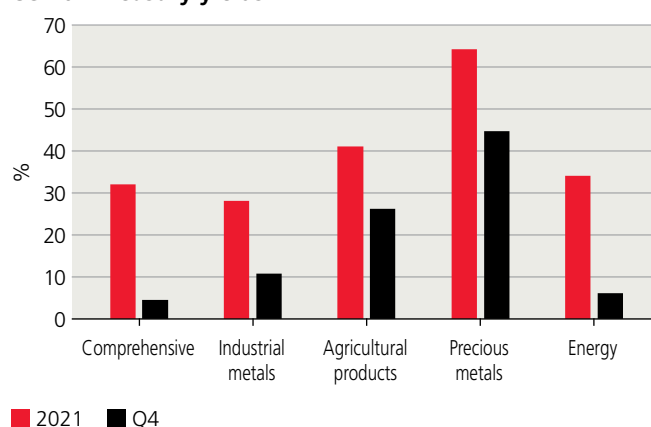
For the remaining indices, the proportion of negative correlation coefficients over the year does not surpass 70%. In fact, the Industrial Metals Index exhibited positive coefficients 72% of the time, reflecting its trend is similar to that of US Treasury yields. Data from the fourth quarter is even more stark, with high proportions of positive correlation coefficients for the Precious Metals (95%), Composite Commodities (89%), Industrial Metals (74%), and Agriculture Products (94%) indices – revealing favourable returns across the four indices in tandem with a rise in Treasury yields.

Correlation coefficients between S&P GSCI Composite Commodities Index and US 10Y Treasury yields



Source: Bloomberg, data as of 31st December, 2021

Proportion of negative correlation coefficients between S&P GSCI Composite Commodities Index and US 10Y Treasury yields

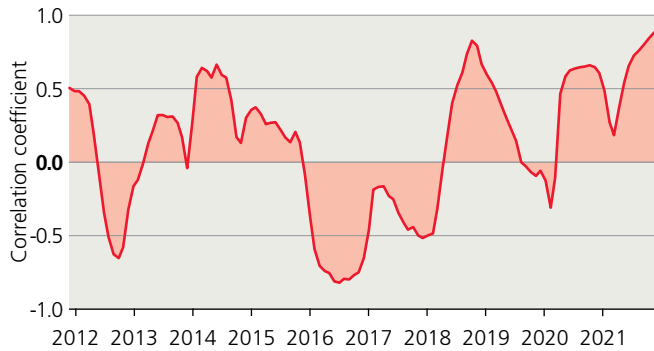


Source: Bloomberg, data as of 31st December, 2021

Using the same approach for monthly correlation coefficients between US core inflation and the five indices over the past decade, there is no clear relationship between price levels and the Composite Commodities Index over the whole period, but from 2018 onwards, 81% of the values were positive. This reflects that US core inflation has supported the commodity market over the past four years.

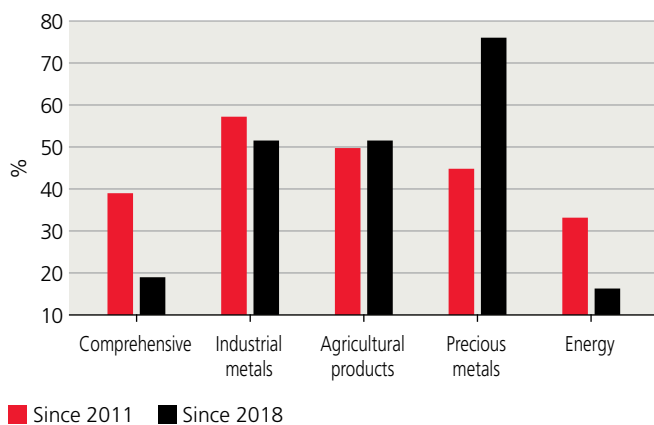
In terms of the remaining four indices, there is no clear relationship between annual data and US core inflation. On the contrary, from 2018 onwards, the proportion of negative values for the Precious Metals Index (76%) shows that high inflation does not bode well for precious metals, while the significant proportion of positive values for the Energy Index (84%) reflects that high inflation supports the trend in energy.

Correlation coefficients between S&P GSCI Composite Commodities Index and US core inflation



Source: Bloomberg, data as of 31st December, 2021

Proportion of negative correlation coefficients between S&P GSCI Composite Commodities Index and US core inflation



Source: Bloomberg, data as of 31st December, 2021

Overall, the results show a strong US dollar is unsupportive of metal indices but is good for agricultural commodities. High Treasury yields, meanwhile, favour most commodity indices with the exception of precious metals. US core inflation has also supported commodity markets since 2018, particularly energy. If the Fed begins hiking interest rates in March, a stronger dollar and higher yields will likely follow, alongside a gradual decline in inflation. Investors should pay attention to the subsequent impact these trends will have on commodity portfolios.

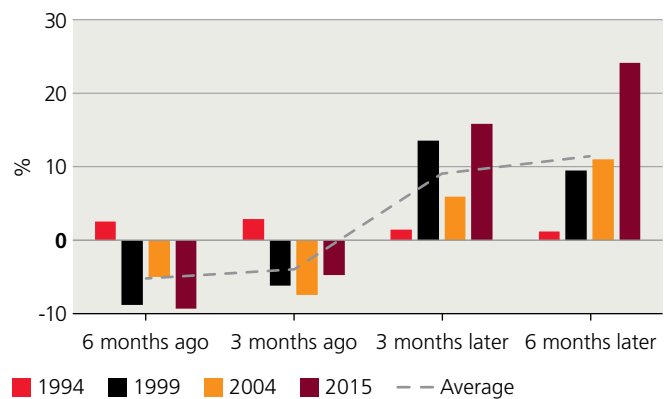
Gold: Expected to hover tightly around USD 1,800

History as a guide: Gold forecast to fall then rise in the short term

In the "Equity" and "Bond" chapters of this issue, the impact of the first rate increase of the last four interest rate hike cycles for each market is analysed. The same approach will now be used for the price of gold which has tended to first fall then rise.



Gold price performance before and after initial US rate hike



Source: Bloomberg, data as of 31st December, 2021

The results are as follows:

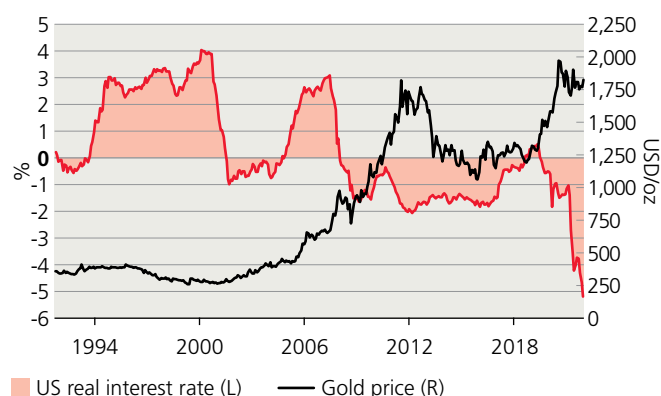
- Six of the eight sets of data declined in the six months and three months leading up to the rate hike, reflecting a general downward adjustment of gold prices prior to a rate increase. Among these, the largest decline was -9.5% in 2015 and the smallest decline was -5.1% in 2004. This suggests that if there is a correction in gold prices, it will fall between 5 and 10%.
- Following the rate hike, all eight sets of data rose, implying that gold prices will gradually recover once the market digests the impact of the rate hike.
- Average returns during the three to six months before the rate hike were -5.2% and -3.9%, respectively, while the average returns over the three to six months after the rate hike were 9.4% and 11.7%, respectively. This requires an "initial drop then rise" investment strategy.

Alternatives

Real interest rates: The horizontal divide

The analysis in the “Equity” chapter of this issue indicates that, this quarter, US stocks will be subject to the trend in US real interest rates (i.e. interest rate hikes adjusted for gradually declining inflation). Meanwhile, the trend in gold prices, although not distinct, has roughly diverged from real US interest rates over the past 30 years. The predicted impact on gold is similar to that on US stocks, but can the relationship between gold and real interest rates be interpreted as a straight line?

US real interest rate and the price of gold



Source: Bloomberg, data as of 31st December, 2021

Traditionally, higher interest rates do not bode well for gold while higher inflation supports gold prices. The combined impact is that of real interest rates. By disassembling and analysing the data carefully, you will find that the effects are horizontal, i.e. they offset each other.

Monthly data from the past 30 years was extracted and divided according to correlation coefficient intervals. The results are as follows:

Correlation coefficients between monthly US core inflation and gold prices

Interval	US core inflation	Number of positive coefficients	Proportion (%)
<1%	10	0	0
1-2%	116	46	40
2-3%	199	113	57
3-4%	34	25	74
≥4%	8	2	25

Source: Bloomberg, data as of 31st December, 2021

Correlation coefficients between the monthly Fed Funds Rate and gold prices

Interval	Fed Funds Rate	Number of negative coefficients	Proportion (%)
0-1%	138	110	80
1-2%	69	41	59
2-3%	52	29	56
3-4%	43	9	21
4-5%	34	5	15
5-6%	78	39	50
≥6%	15	3	20

Source: Bloomberg, data as of 31st December, 2021

The data supports the theory that there is a positive relationship between US core inflation and gold prices. For the majority of the last 30 years, core inflation in the United States has hovered between 1 and 3% and the proportion of positive correlation coefficients with gold prices has trended with rising inflation. However, when core inflation exceeds 4%, the proportion of positive coefficients drops to 25%. This is in line with the analysis above showing precious metals are negatively affected by high inflation, which most recently stood at 5.45%. If core inflation remains high this quarter, it will support the gold price at USD 1,800.

The impact of US interest rates on gold prices is less clear. The Fed Funds Rate has sat below the 2% target for more than half (57%) of the last 30 years, but trends between US rates and gold prices diverge at 3%. When interest rates have fallen below the 3% threshold, especially between 0 and 1%, gold prices have risen. However, when rates are between 3 and 5%, the proportion of negative correlation coefficients is only 21% and 15%, respectively. This reflects that investors can still hold gold at these rates without the opportunity cost of interest income. As rates head toward the 5 to 6% range, investors will be less inclined to hold gold as the proportion of negative coefficients rises sharply to 50%, weighing on the gold prices. The Fed is expected to raise the interest rate twice in the first half of the year but steadily enough that it will still sit below 1%, thus benefiting the performance of gold.

Finally, gold is a global market, and other central banks will also respond to the actions of the Fed (for details, see “Macro Strategy”). In particular, with the exception of the United States, the world’s four largest gold-holding countries or regions (for details, see “Alternatives” last quarter) will maintain or favour looser monetary policies in the face of repeated pandemic outbreaks, keeping gold relatively steady at USD 1,800.

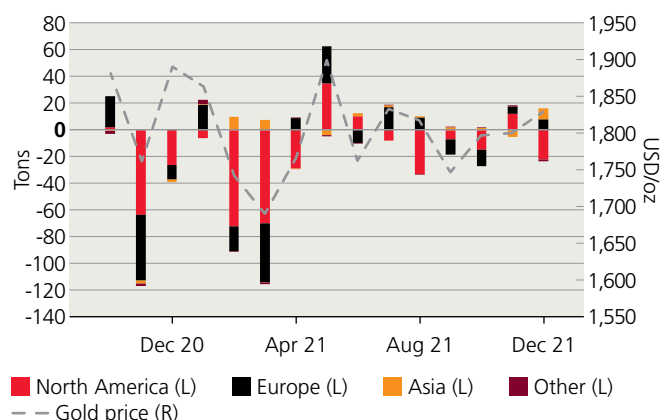
The monetary policy stances of other major central banks are as follows:

- European Central Bank President Christine Lagarde said a rate hike in 2022 is “unlikely” despite recent record-high inflation¹.
- After raising interest rates in December last year, the Bank of England stated that the policy committee will raise interest rates moderately depending on future economic conditions².
- The Reserve Bank of India announced it would maintain an accommodative monetary policy to sustain economic recovery and mitigate the impact of the pandemic³.
- The People’s Bank of China cut the loan prime rate by 5 basis points in December after lowering the reserve requirement ratio for commercial banks. The central bank is expected to implement stabilising monetary policies in the short term, benefiting the performance of domestic gold prices⁴.

Gold ETFs: Median gold price expected to hover in narrow range

The World Gold Council reported in December that among the changes in gold ETF holdings across regions last year, total gold holdings in North America fell by nearly 200 tons. Meanwhile, the other three regions posted positive growth, namely Europe (0.7 tons), Asia (25.4 tons), and others (0.1 tons). Among these, Asian ETFs saw the largest growth last year, although the gold price dropped from around USD 1,900 to USD 1,800.

Changes in gold price and gold ETF holdings across regions

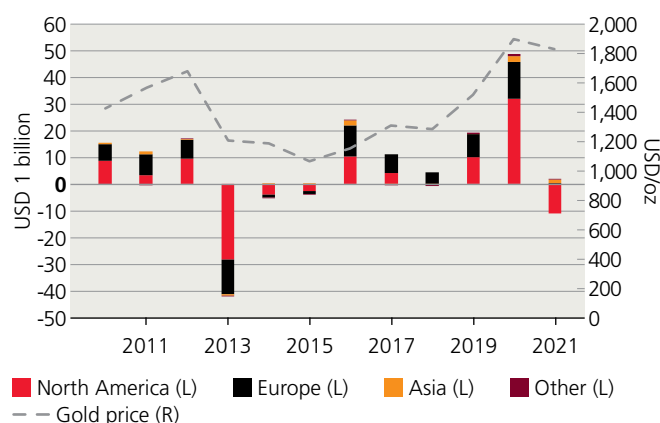


Source: World Gold Council, data as of 31st December, 2021

In terms of monthly figures, changes narrowed significantly as the year progressed. As the Fed prepares to hike interest rates for the first time, there is an increasing likelihood that gold ETFs will see declines, especially in North America and Europe. The central banks of China and India, which hold the most gold in Asia, intend to maintain loose monetary policies and are therefore expected to increase their holdings. However, this will only alleviate and not reverse the downward trend in gold ETF holdings, and the median view is still unfavourable to gold prices.

In terms of assets under management (“AUM”), the total AUM of listed gold ETFs across various regions saw a net outflow of approximately USD 9.13 billion in 2021, the first net outflow since 2016. It is also the first year-on-year reversal since the rebound from the bottom in 2018 supported the rise in gold prices. The reversal reflects changes in investor demand for gold. Focusing on fourth quarter data, North America was the only region to record net outflows, although outflows in December alone account for 95% of the drop. This highlights that the impending rate hikes in the United States have a more immediate impact than the ongoing reduction in bond purchases.

Changes in gold price and AUM of listed gold ETFs across regions



Source: World Gold Council, data as of 31st December, 2021

¹ See the Reuters website: <https://www.reuters.com/business/finance/ecb-very-unlikely-raise-rates-next-year-lagarde-says-2021-11-03/>

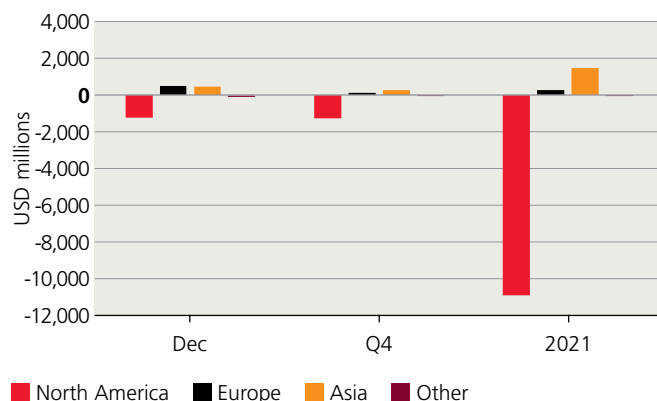
² See the Financial Times website: <https://www.ft.com/content/eb35ea37-fb8b-43a7-9d30-d985c58e62d7>

³ See the RBI website: https://rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=52687

⁴ See the World Gold Council website: <https://www.gold.org/goldhub/gold-focus/2021/12/chinas-easing-monetary-policy-paints-positive-picture-2022>

Alternatives

Changes in AUM of listed gold ETFs across regions



Source: World Gold Council, data as of 31st December, 2021

Real gold demand to support long-term gold price

In addition to being an investment vehicle, gold has practical purposes. The World Gold Council classifies the demand for real gold according to five categories: jewellery, gold bars and coins, central bank and related institutions, industry and technology, and ETFs and related investments.

- Of these categories, the demand for real gold is highest for jewellery. From the third quarter of 2020 to the third quarter of 2021, gold jewellery holdings increased by

nearly 1,900 tons. In the third quarter alone, it increased 33% year-on-year. Specifically, demand in India and China increased by 58% and 32%, respectively. Gold bars and coins ranked second, with an increase of nearly 1,100 tons during the same period, an 18% year-on-year increase. Demand in India and China grew by 27% and 12%, respectively, reflecting the unmatched position of the two countries as major demanders of gold during the pandemic.

- Demand from central banks and related institutions rose, with holdings having increased by nearly 450 tons during the same period. It is believed that demand for gold as a foreign exchange reserve asset will not be rattled in the foreseeable future.
- Solid gold also has a variety of uses in industry and technology. Demand grew in the high-end sector, with holdings increasing by nearly 330 tons during the same period, reflecting that the pandemic has not hindered growing demand in this area.

The supply of real gold remained stable over the past four seasons. However, supply exceeded total demand in each quarter, resulting in a surplus of 1,206 tons over the whole period, around 25% of total supply. The surplus will weigh on any future gold price rally.

Supply (tons)	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Total
Minerals	921.7	842.7	876.8	959.5	3,600.7
Gold producer hedging	-28.1	8.7	-15.2	-18.6	-53.1
Recycled real gold	331.8	271.6	281.5	298.0	1,183.0
Total	1,225.5	1,123.1	1,143.1	1,238.9	4,730.6
Demand (tons)	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Total
Jewellery	485.6	513.4	419.9	483.3	1,902.3
Gold bars and coins	269.2	351.9	243.1	261.7	1,125.9
Central bank and related institutions	61.0	133.4	190.6	69.3	454.4
Industry and technology	84.0	81.1	80.2	83.8	329.0
ETFs and related investments	-131.3	-170.0	40.7	-26.7	-287.3
Total	768.6	909.7	974.6	871.5	3,524.4
Surplus/Deficit	456.9	213.3	168.6	367.4	1,206.3

Source: World Gold Council, data as of 31st December, 2021

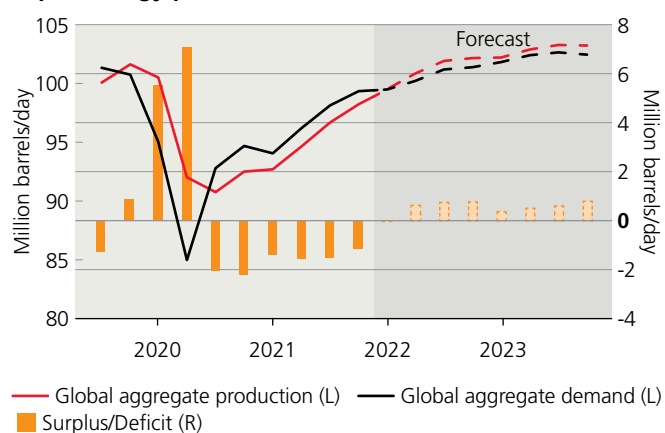
In summary, long-term demand for real gold for people's livelihoods and industry has grown steadily, and there is little chance the gold price will fall sharply. However, the multi-year upward trend in ETF gold holdings and managed funds has been broken, suggesting that the need to hedge risks or inflation in the medium term has reversed in the face of changes in global interest rate policies, reducing the scope for gold price increases. In the short term, gold prices are subject to US rate hikes and inflation data. If interest rate hikes are below 1%, the negative impact on gold will be limited, but if inflation falls significantly, it will weigh heavily on gold prices. Based on the above analysis, gold prices this quarter are expected to be around USD 1,800, fluctuating within a narrow range of 5% or USD 100.

Energy: WTI crude oil futures expected to fall between USD 70 to 75

Surplus supply will weigh on oil prices

The broad trend in energy prices is not immune to the forces of supply and demand. According to comprehensive data from the US Energy Information Administration ("EIA") and OPEC, when the pandemic broke out in the first and second quarters of 2020, global oversupply was severe, reaching a surplus of 6 million barrels per day, with oil prices falling to historic negative levels. The subsequent supply crunch and the development of vaccines stimulated oil prices as demand lagged behind supply. The demand-supply relationship is expected to reverse from next quarter, with overproduction increasing every quarter and ending the year with a surplus of 770,000 barrels per day. Oil prices are expected to peak then fall around the end of the first quarter.

Liquid energy production, demand, and imbalance



Source: EIA and OPEC, data as of 31st December, 2021

On the demand front, the total is expected to fall year-on-year in 2022, especially if non-OECD demand drops more sharply than that of OECD nations. The decline is forecast to continue into next year. Compared to 2021, demand from OECD and non-OECD countries in 2023 is expected to fall by around 88% and 48%, respectively, with only one-third of total growth remaining.

Among non-OECD countries, demand in China and the United States will decline significantly this year and next owing to environmental policies and climate goals of the two nations. After two years, China's demand growth will have halved, while that of the United States will sit at only 19%. India, however, will buck the trend, with demand accelerating over the coming two years.

Annual change in OECD and non-OECD demand

Region	Year-on-year change (million barrels/day)			
	2020	2021	2022*	2023*
OECD	-5.7	2.4	1.4	0.3
Non-OECD	-2.7	2.7	2.2	1.4
Total change	-8.4	5.1	3.6	1.7

*Forecast

Source: EIA and OECD, data as of 31st December, 2021

Annual change in non-OECD demand

Country/Region	Year-on-year change (million barrels/day)			
	2020	2021	2022*	2023*
China	0.4	0.8	0.6	0.4
US	-2.4	1.6	0.8	0.3
India	-0.5	0.2	0.4	0.3
Middle East	-0.6	0.3	0.4	0.2

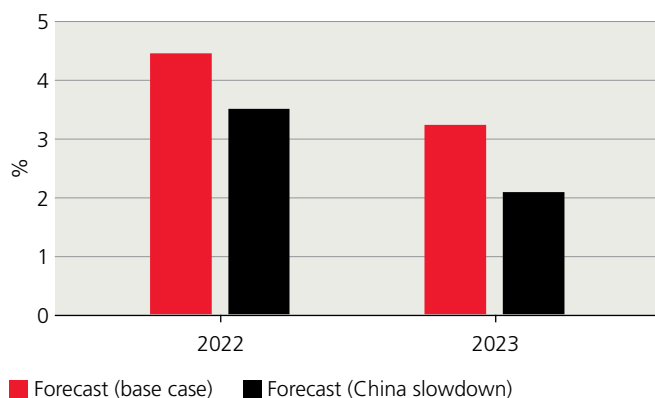
*Forecast

Source: EIA and OECD, data as of 31st December, 2021

In addition, the OECD predicts that if China's economy continues to slow this year, it will drag down global GDP growth. The base scenario is that global GDP will grow by roughly 4.5% this year, falling to 3.5% if economic growth slows in China. If the slowdown continues into 2023, the two forecast figures are 3.2% and 2.1%, respectively, reflecting that China's economic performance will affect global energy demand over the next two years.

Alternatives

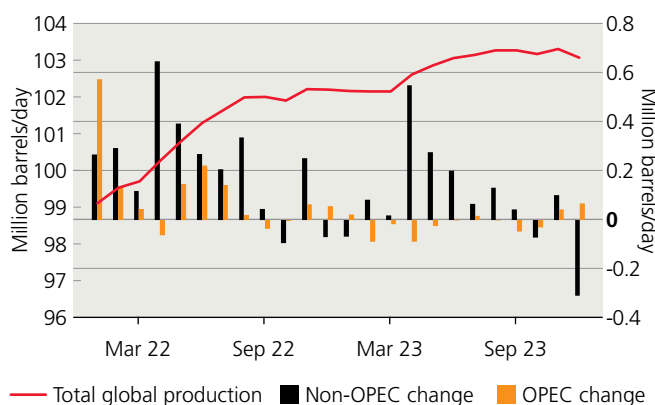
Global GDP growth forecast (base case vs China slowdown)



Source: OECD, data as of 31st December, 2021

On the supply side, production is expected to continue rising for the next two years from fewer than 100 million barrels per day in 2022 to 103 million by the end of 2023. The largest contribution is from non-OECD regions which are set to increase production by 670,000 barrels per day this quarter – enough to offset the supply shortfalls last quarter and this quarter. Next quarter, supply could increase by 1.3 million barrels per day, setting the stage for future excess supply. Continuing into 2023, non-OPEC production may dominate global supply.

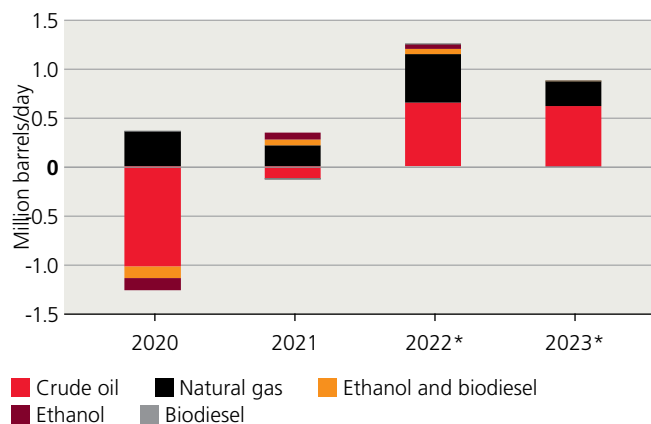
Global oil supply forecast and changes in OPEC and non-OPEC production



Source: EIA and OPEC, data as of 31st December, 2021

The top three non-OPEC oil producers are the United States, Russia, and Canada in that order. According to Bloomberg data, the three nations supplied the market at a rate of 25.13 million barrels per day in December, accounting for around 26% of global supply. US crude oil production fell 1.1% in 2021, but the EIA expects a reversal of a 5.7% rise this year and 5.2% in 2023.

US crude oil and liquid energy production changes and forecasts

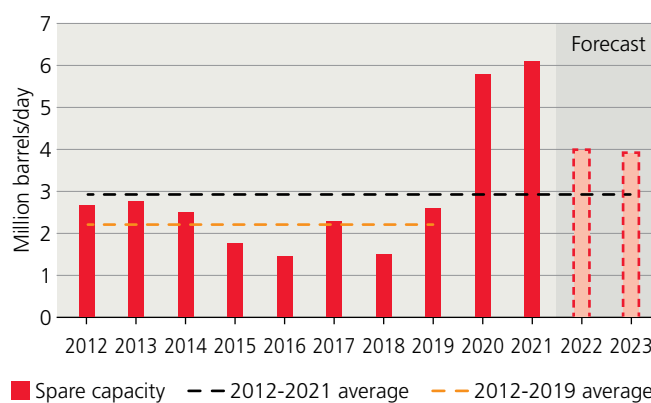


* Forecast

Source: EIA, data as of 31st December, 2021

The shortfall in OPEC production is not beyond reach, with spare capacity expected to be around 3.95 million barrels per day this year, nearly 1.04 million barrels higher than the average over the past decade. Traditionally, OPEC's production level has been a balance between international economic interactions and the economic interests of member states themselves. At its meeting on 4th January, OPEC agreed to increase production by 400,000 barrels per day, which is in line with market expectations and will affect energy prices in the short term.

OPEC spare capacity



Source: EIA, data as of 31st December, 2021

Based on the above analysis, the overall energy market has reversed the supply-demand balance in recent years, and production will dominate the trend in oil prices in the short term. Supply is expected to overtake demand by the end of the quarter, dragging down oil prices. The influence of non-OPEC oil producers will gradually overshadow that of OPEC, with the recovery of US productivity playing a key role. After peaking above USD 85, WTI crude oil futures are forecast to fall then hover around USD 75 for the majority of the quarter. However, if the pandemic continues to run rampant and Chinese economic growth is slow, oil prices could fall to as low as USD 70.

Renewable energy: Rising stars

CO₂ emissions as market indicators

The global climate problem has reached a critical juncture, with heated debates at the recent COP26 and strong views held by various countries (for details, see "Macro Strategy"). No global headwinds will not stop the market from focusing on the climate and exploring related investment opportunities.

US President Biden has aggressively pursued climate policies, and the EIA expects US coal emissions to fall by 31 million tons this year after growing 138 million tons in 2021. Growth in gasoline emissions is forecast to fall from last year's 172 million tons to 106 million tons to 26 million tons in 2023, a drop of more than 85% over two years. Meanwhile, emissions linked to natural gas, which is a powerful energy source, are expected to rise slightly this year by 12 million tons and by only 1 million tons next year. This implies that the EIA believes climate policies will deliver impressive results over the next two years and it also suggests that there will be a sharp drop in demand for crude oil and coal, thus affecting commodity prices.

Annual change in US energy CO₂ emissions

Energy type	Annual change (million tons)			
	2020	2021	2022*	2023*
Coal	-203	138	-31	-3
Crude oil	-329	172	106	26
Natural gas	-36	-27	12	1
Total	-568	283	88	24

* Forecast

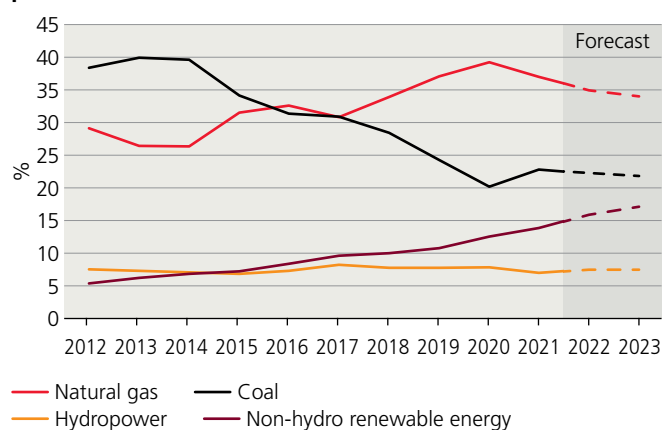
Source: EIA, data as of 31st December, 2021

Treasure hunting in the renewable energy sector

Economies that have switched from fossil fuels to electricity are believed to be leading the global trend of the future. However, electricity production also requires raw materials. According to EIA data, the most common raw material is natural gas (35%), the proportion of which used in electricity production has continued to increase over the past 10 years. Although coal comes in second, its share has fallen sharply from 39% a decade ago to a forecast 22% this year. Notably, the proportion of non-hydro renewable energy has risen from less than 5% 10 years ago to an expected 17% in 2022. Pay attention to the different types of renewable energy. From 2020 to 2023, the top three renewable energy sources in terms of production capacity in the United States are wind power, solar power, and geothermal energy. Meanwhile, hydropower capacity is expected to increase this year by more than 1.8 times year-on-year.

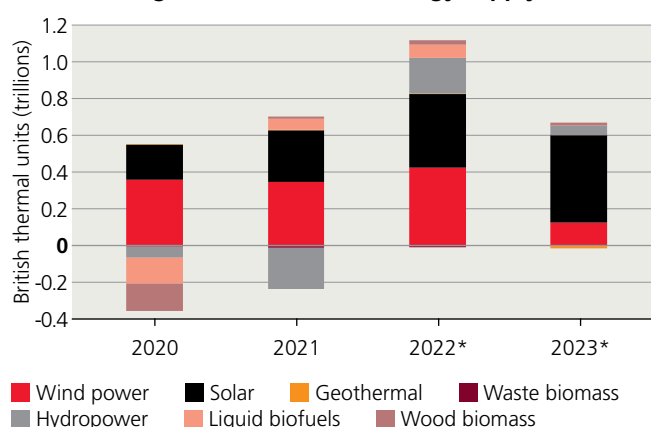
Renewable energy is a rising star in the commodity market. Government support and funding will continue unabated in the future, which will be accompanied by various investment opportunities.

Percentage change in raw materials used for electricity production in the United States



Source: EIA, data as of 31st December, 2021

Annual change in US renewable energy supply



* Forecast

Source: EIA, data as of 31st December, 2021



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