DECEMBER 2021

Investment Strategy Focus

Summary

1. **It is natural to see stock investors taking some money off the table,** following the excellent performance and huge equity fund inflows since November 2020. This does not imply a lengthy correction or bear market upon the emergence of the new Omicron COVID-19 variant.

2. **Q4 growth to benefit from easing of supply chain bottlenecks:** with semiconductor production ramping up and sea freight rates now falling substantially, manufacturing production should recover quickly this quarter and beyond. Good news for 2022 growth and employment.

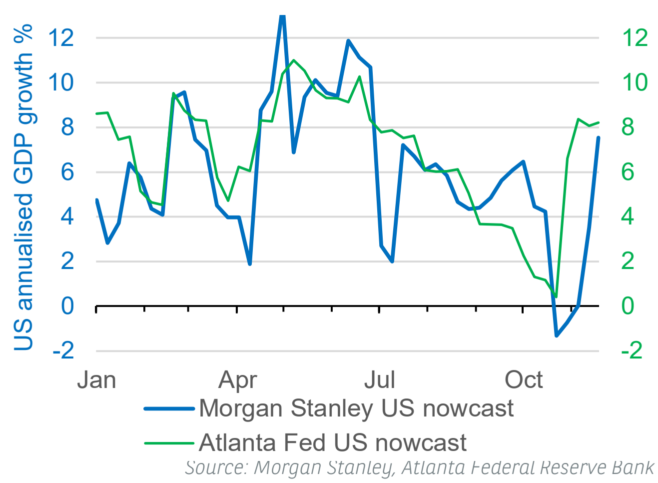
3. **Watching for a move from Expansion to Overheating**: we monitor a number of key indicators closely, including the high yield spread, for signs of a shift from the reflation stage to the overheating/peak stage of the cycle. For now, we remain in expansion/reflation, good for equities and real assets.

4. **Now forecasting EUR/USD stability:** we now expect the Fed to stick to its announced tapering plan, and decide a first interest rate hike in July 2022 (Q4 2022 expected previously). We now also forecast three 25bp rate hikes in 2022. We thus forecast EUR/USD at USD1.12 in both 3 and 12 months from now.

5. **Long-term expected returns updated**: we have updated our long-term expected returns by asset class. Over the next 10 years, average expected equity market returns range from 5.5%-7.25%, sovereign bonds 0.25%-1.50%, investment-grade credit 0.75%-2.00% and cash 0.0-1.0%. Highest returns are expected from Private Equity, then Emerging Market and UK equities.

Contents

US GROWTH EXPECTED TO REBOUND TO 7-8% ANNUALISED IN Q4 2021



Source: Morgan Stanley, Atlanta Federal Reserve Bank

Edmund Shing, PhD
Global CIO
BNP Paribas Wealth Management

What to do when volatility spikes

Volatility is normal even during bull markets

Stock markets are now correcting, but this is not unusual. In fact what is unusual is that the stock market has gone up for so long without a meaningful correction of at least 10% over the last year. In normal times the stock market sees a correction of at least 10% at least once a year on average, even during a bull market. So, this recent period since October 2020 has been somewhat unusual to say the least, with not even a 5% correction.

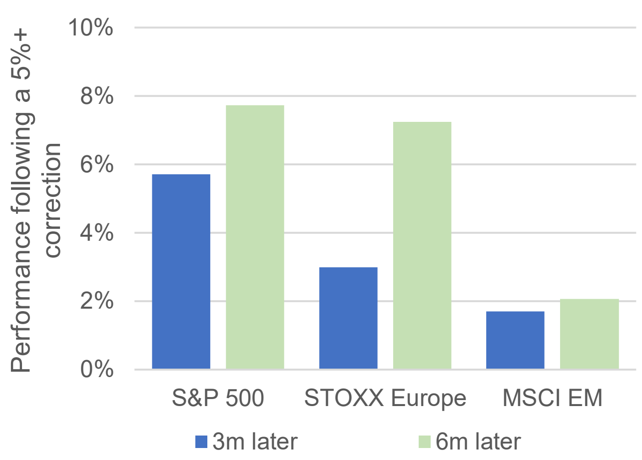
This risk-off move may be exaggerated because: a) investors have done very well out of the stock market advance and may want to take some profits off the table at the first sign of weakness; and b) that fund flows into equity funds have been monstrous in the US. According to fund flow data provider EPFR, the inflows into stock funds in the US this year are bigger than in the last 19 years, cumulatively. In other words, a massive inflow into stock funds following the strong momentum in stock funds, and of course, aided by the lack of yield available in bonds and in cash today.

A new Omicron (B1.1.529) COVID-19 variant in South Africa: relatively little is known about this variant for now. Bear in mind that only 23% of people in South Africa have been vaccinated. Secondly, this new variant seems to be very infectious and is now the dominant COVID variant in South Africa. Thirdly, some random cases have spread to certain European countries like Belgium, the Netherlands and the UK.

We do not know how resistant the current vaccines are against this new variant. Clearly the concern for investors is that the vaccines will be less effective against this variant than against the existing variants. And thus, that this may exacerbate the fifth infection wave that we are currently seeing in Europe.

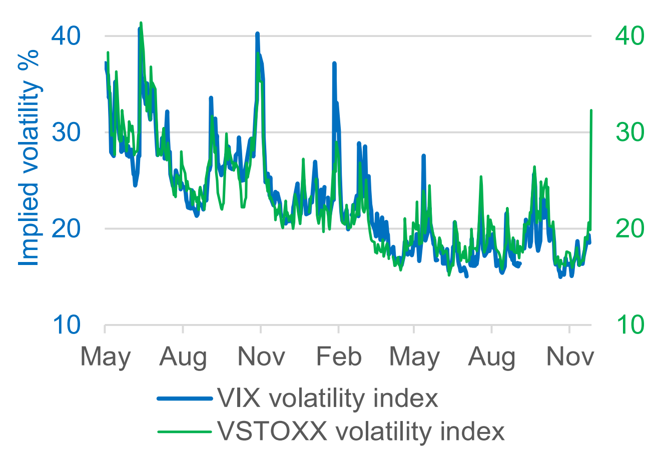
The threshold for renewed lockdowns is extremely high, given widespread household fatigue over repeated COVID-19 lockdowns. I believe that with the arrival of new treatments from both Pfizer and Merck which have proven to be very successful in limiting hospitalisations. **Bottom line:** we need more hard data before we can assess the true risk from this new variant.

STOCK MARKETS USUALLY HIGHER 3 + 6 MONTHS POST A 5%+ CORRECTION



Source: Bloomberg

STOCK MARKET VOLATILITY HAS SPIKED, BUT WAS HIGHER IN LATE 2020 AND EARLY 2021



Source: Bloomberg

CONCLUSION

It is natural to see stock investors reacting in a knee-jerk fashion to take some money off the table, following the excellent performance and huge equity fund inflows since November 2020. This does not mean, however, that we are about to enter a lengthy correction or even a bear market which would necessitate changing our equity recommendation from positive to neutral or even negative.

The Big Picture

Concerns rise over COVID-19 5th wave

Potential for further COVID-19 disruptions short-term: while Q4 growth forecasts pencil in a sharp rebound following a Q3 hit by widespread supply chain disruptions to production and consumption, the spread of a 5th COVID-19 wave in Europe could put these optimistic forecasts at risk.

Germany is at the epicentre of this new wave of infections despite 70% of its population being vaccinated, with almost 50,000 new Coronavirus infections per day, far more than the previous two infection peaks. Neighbouring Austria has already enacted a new lockdown, fuelling fears that Germany and other countries may follow suit.

Note that Germany is not typical in its infection profile – France and Sweden do not have the same huge surge in new infections, due to the acquired natural immunity in their populations from previous infection waves. The eurozone is still forecast Q4 GDP growth of close to 5% annualised by the consensus, while German consensus Q4 growth forecasts have already been cut dramatically to 2.2%. Europe may see short-term weakness in consumption on the back of COVID-19, but we do not see a longer-term impact on growth.

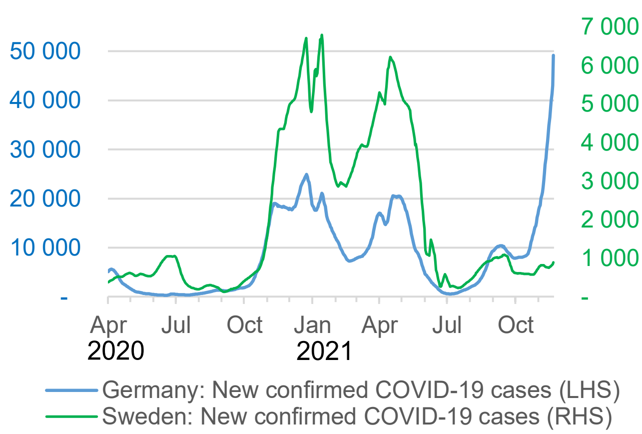
Q4 growth helped by supply chain easing

Nevertheless, Q4 is expected to see a huge rebound in growth: after a Q3 slowdown held back by supply chain disruptions, Q4 growth is expected to rebound strongly. The Atlanta Fed nowcast indicator points to 8.3% annualised US GDP growth for this quarter.

There are preliminary signs of easing in supply chain bottlenecks, with Malaysian chipmakers back to 100% output, signs of easing congestion in US ports, lower freight costs, and carmaker Toyota setting a December production target even above pre-pandemic levels.

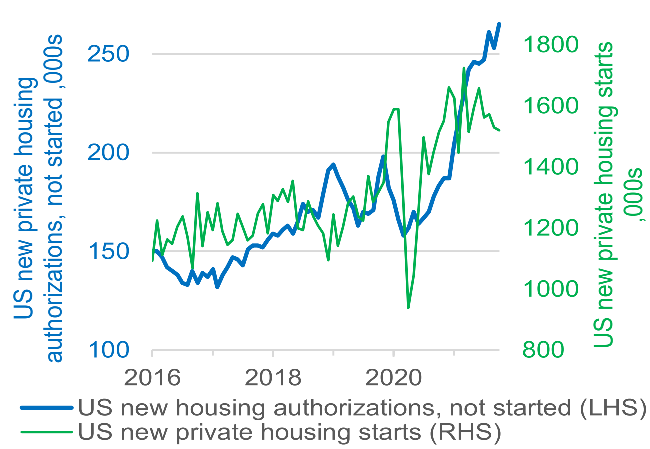
Inventory rebuild, consumption rebound: economic growth should start to reaccelerate from this quarter (Q4) into 2022, as manufacturers are able to produce goods such as cars and mobile phones, and companies can rebuild inventories which have fallen to near-record lows. **Construction** could also deliver a big boost to economic growth. US housing starts have slowed significantly due to shortage of key materials such as lumber. In contrast, the number of authorisations continues to climb, underlining the growing pipeline of housebuilding projects waiting for available supplies, and for labour shortages to ease.

COVID-19 5TH WAVE IN EUROPE DRIVES RENEWED LOCKDOWN CONCERNS



Source: Our World in Data

SUPPLY PROBLEMS SLOW US HOUSING STARTS, BUT MANY PROJECTS ARE WAITING



Source: Bloomberg

CONCLUSION

European COVID-19 resurgence could dampen near-term growth: but with the arrival of effective COVID-19 treatments from Pfizer and Merck, the Coronavirus is becoming endemic rather than epidemic, something we will have to live with. With semiconductor production ramping up and sea freight rates now falling substantially, manufacturing production should recover quickly this quarter and beyond.

Macro Risk Management

What does well when? Defining 4 key phases of the business cycle

We define the **four stages of the business cycle** as:

1. **Recovery** (growth ↑, inflation ↓): Growth booms as the economy is restarted. Inflation falls as a result of consumer and central bank behaviour in recessions (end of previous cycle).
2. **Reflation/Expansion** (growth ↑, inflation ↑): The economy enters a sustainable growth period, triggering inflation. Central banks begin a new rate hike cycle.
3. **Overheating/Peak** (growth ↓, inflation ↑): Growth slows and inflation increases further with full employment. Central banks continue to raise rates.
4. **Recession** (growth ↓, inflation ↓): Growth is negative and inflation falls, given reduced consumer spending and rate cuts by central banks.

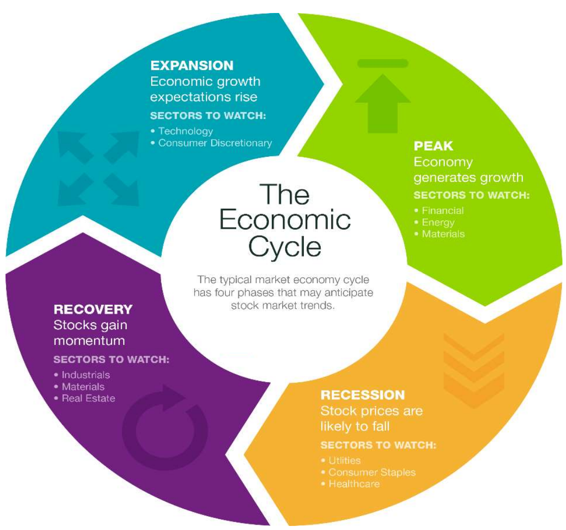
During 2020-21, we have clearly passed from Stage 4 (Recession) to Stage 1 (Recovery), and then to Stage 2 (Expansion), with above-trend growth now accompanied by rising inflation.

What assets typically perform best at each stage?

1. **Recovery**: *Aggressive risk-on positioning* - Equities (particularly small value stocks), real estate, oil.
2. **Reflation/Expansion**: *Risk-on* - Equities (quality stocks), private equity, real estate, copper.
3. **Overheating/Peak**: *Balanced risk* - long-term sovereign bonds, investment grade + high yield credit, defensive equities, gold.
4. **Recession**: *Risk-off* - sovereign bonds, gold, AAA investment-grade credit, defensive currencies e.g. US dollar and swiss franc, volatility.

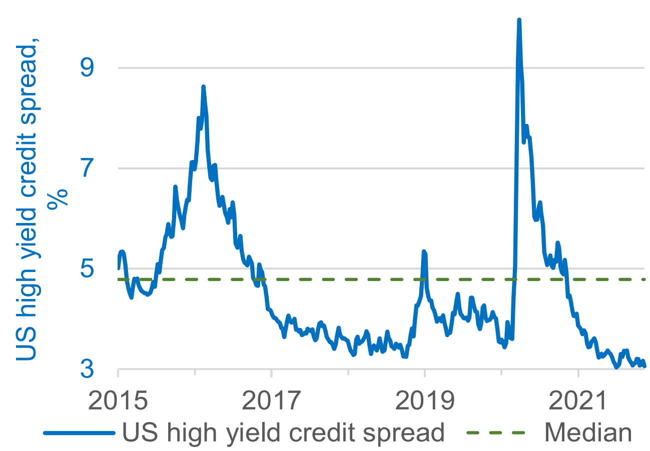
What signs should we watch to flag a move from stage 2 (expansion) to stage 3 (overheating)? The high yield spread has been a good signal in the past to highlight a shift in business cycle risk, as in 2015 and early 2020. A shift from narrow and falling spreads (Stage 2) to narrow but rising spreads (Stage 3) would indicate a shift in risk allocation away from risk-on.

THE 4 STAGES OF A CLASSIC ECONOMIC CYCLE



Source: BNP Paribas, TD Ameritrade

HIGH YIELD CREDIT SPREADS STILL AT HISTORIC LOWS, SO STILL IN REFLATION



Source: BNP Paribas, Bloomberg

CONCLUSION

We monitor a number of key indicators closely, including the high yield spread, for signs of a shift from the reflation stage to the overheating/peak stage of the cycle. Thus far, with high yield spreads close to historic lows, we remain in Stage 2 reflation, and thus remain positive on equities, real assets and certain commodities.
But this could of course change quickly in the weeks and months ahead.

Equities and Commodities outlook

Positive equities view maintained, for now...

Deterioration of breadth of stock market advance: a key condition of our positive position on equities as an asset class rests on a continued broad-based advance by the average stock in the major US and European indices, namely the S&P 500 and the Euro STOXX. For the moment, more than 65% of the components of each index sit today above their 200-day moving averages, short-hand for being in an uptrend.

However, despite a strong crop of Q3 2021 earnings results, this breadth measure for both indices sits close to our 65% threshold for reducing equity exposure overall. As per the chart below, both indices have been consistently above this breadth threshold for the last 12 months without interruption.

But, a decisive break by both indices below 65% breadth would potentially be a signal for us to reduce our equity exposure to Neutral.

The trend is still your trend... But for now, note that the major European, US and Japanese indices all sit in a continuing uptrend; well above their own (rising) 200-day moving averages. While this remains the case, we do not want to lose out on potential upside.

Crude oil gets the coronavirus jitters

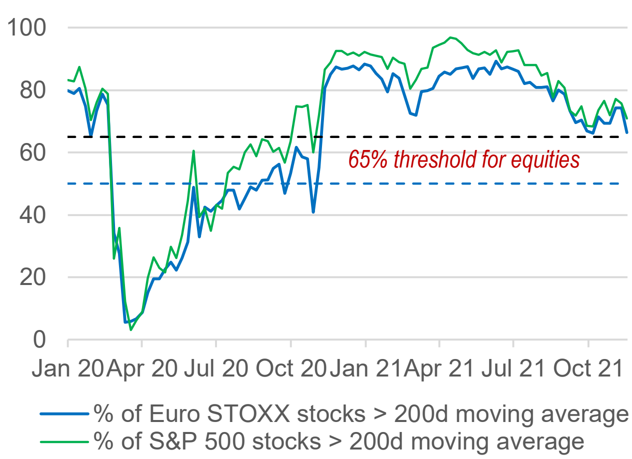
At last, some relief from ever-rising energy prices: as fears rise over the coronavirus 4th wave in Europe (impacting oil product demand). The market also prices the potential for the US and other countries to release part of their strategic reserves, bringing supply and demand more into balance in the short-term.

Brent crude oil spot prices have fallen below USD80/barrel at the time of writing; down from the October peak of USD86, thus providing some small respite on the inflation front together with falling natural gas prices on both sides of the Atlantic.

Could crude oil prices ease further in the months ahead? There are clear precedents for crude oil prices falling after a sharp run-up. In 2011 and 2018, after crude oil prices more than doubled, they subsequently drifted lower over the following 1-2 years. A sharp inflationary impact then morphed into disinflation.

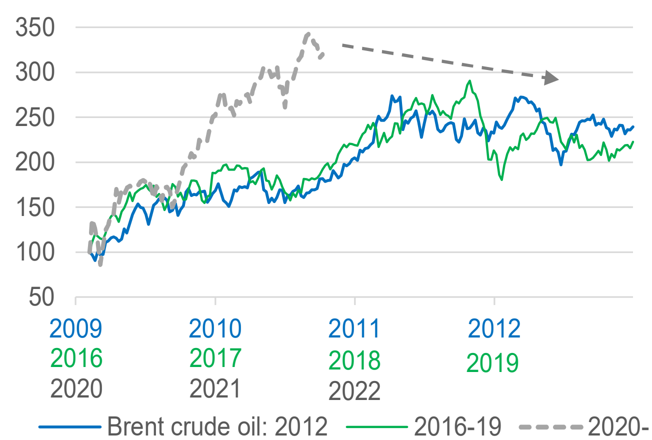
The US is a key marginal producer: today, the US produces 11.1m barrels/day of crude oil, 1.7m barrels below early 2020 production levels. Were US shale + offshore oil production to recover further, this could shift the global supply/demand balance, cooling prices.

US, EUROPE STOCK INDEX BREADTH HOLDS ABOVE CRUCIAL 65% THRESHOLD



Source: Bloomberg

WILL THIS OIL PRICE RALLY RETRACE LIKE PREVIOUS ONES DID IN 2011, 2018?



Source: Bloomberg.
Note: Brent crude oil price rebased to 100 for each period

CONCLUSION

We maintain our positive stance of global equities on the back of the combination of a strong underlying earnings trend, our outlook for above-trend nominal economic growth in 2022 and heavily negative long-term real interest rates. A modest mid-cycle correction in equity markets is quite possible in the near-term, but would rather provide an attractive entry point in our view.

Positive Q3 Earnings Surprise

Alain Gérard, Investment Advisor, Equities

A very good Q3 2021 reporting season

The Q3 2021 earnings season for companies proved excellent on both sides of the Atlantic, albeit not as spectacular as in previous quarters.

In the US, more than 80% of companies announced better-than-expected profits, beating forecasts by an nearly 10% on average. Moreover, two-thirds of companies reported sales above expectations. Meanwhile in Europe, 56% of companies announced better-than-expected profits and generated profits around 8% above expectations. These results enabled companies to clean up their balance sheets.

In the US and Europe, the results were most impressive in the Energy sector, but also in Financials, Healthcare and Semiconductors. In these sectors, future earnings continue to be revised upwards. Conversely, this was less the case for Consumer Durables and Industrials (downward revisions). No more upward revisions for Consumer Staples either. Finally, we are seeing regular downgrades of profit forecasts in China at the moment.

Globally, a large number of companies are facing supply woes and cost increases, especially in the Consumer Goods and Industrial sectors.

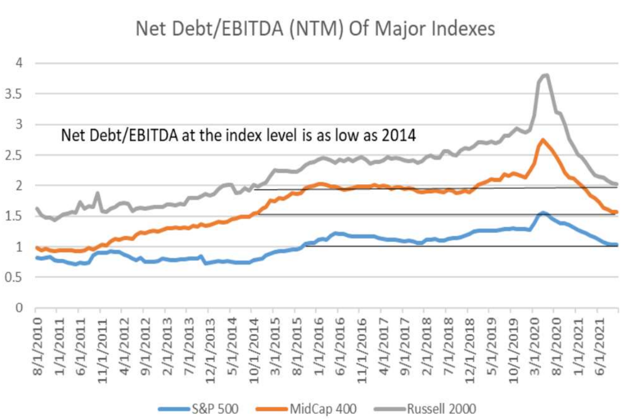
Positive expectations for Q4 2021 and 2022

In the United States, a profit of $199 was expected for full-year 2021 for S&P 500 companies before the Q3 season. Following the good results, expectations are now close to $203. It is likely, however, that this level will not be exceeded in view of the cost increases (under fairly good control for now) and supply problems. Profit margins remain high and supply bottlenecks are starting to be addressed. **For 2022, profit growth expectations range from +7% to +8%** (and +10% for 2023). This seems quite prudent as certain previously-expected tax hikes on US corporate profits will not finally be implemented.

The global economy should continue to be supported by high consumer savings rates, pent-up demand, and robust company balance sheets (allowing for new investments, dividends, share buybacks, acquisitions).

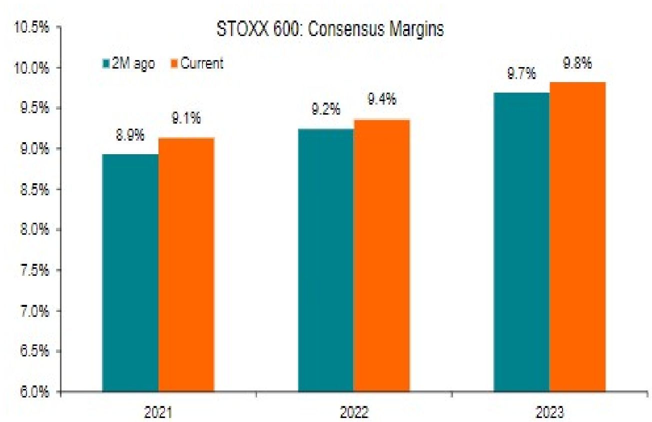
European companies also look well-placed: analysts continue to revise up their profit forecasts. The 2022 consensus for the STOXX Europe 600 Index is now EUR30.7, up 7% vs. 2021. This expected growth is cautious in our view, given the strong macro growth projections for the European economy in 2022 (+4.2%). The 2022 P/E ratio is low in Europe at 15.6x. The US trades at an estimated P/E 2022 ratio of 22.2x.

COMPANY BALANCE SHEETS HAVE RECOVERED WELL (SHARP FALL IN DEBT)



Source: Bloomberg, Factset, Raymond James

PROFIT MARGINS CONTINUE TO IMPROVE, PARTICULARLY IN EUROPE



Source: Exane

CONCLUSION

Despite the cost increases, the Q3 earnings season surprised to the upside (again). Most companies maintained high profit margins, and in some cases, even increased them. Visibility is low for Q4 2021, but pent-up demand, investment, inventory build-up and reduced supply chain bottlenecks should drive earnings over the coming quarters. We remain optimistic for 2022.

Bonds, Credit and FX outlook

The focus is firmly on the Fed

Risk-on environment prevails: the risk-on environment is just as evident in this year's fixed income returns as in other asset classes. Leveraged loans and high yield credit have performed well as investors have chased income, while government bonds have underperformed cash.

Rising inflation pressures weigh on sovereign bonds: as core and headline inflation rates continue to rise, expectations of central bank rate hikes have advanced. Interest rate futures now imply a first rate hike by the Bank of England in February 2022, and the US Federal Reserve by mid-2022.

A brake on growth? Short-term bond yields have risen to reflect these higher rate expectations, while long-term bond yields have risen remarkably little despite the sharp increase in medium-term inflation expectations. The bond market seems to price in a combination of higher central bank rates, and a subsequent slowdown in longer-term growth.

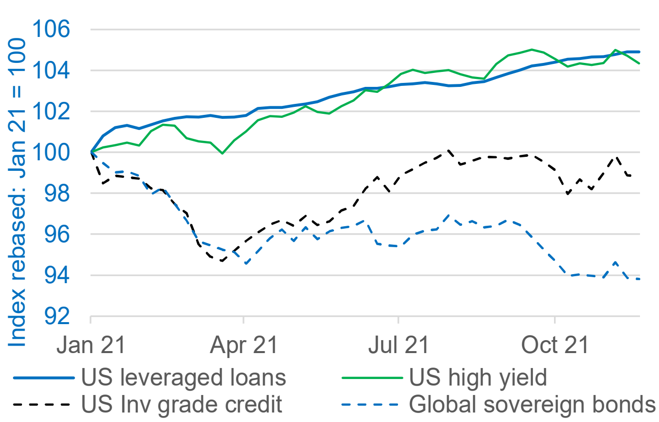
Watch the yield curve: This yield curve flattening is a signal we watch very carefully, as it can signal a rising risk of recession, and thus a need to adopt a more defensive asset allocation stance..

Outlook change for the EURUSD

The recent sharp move from USD1.16 to below USD1.12 (value of one euro) is likely to be followed by a temporary bounce but that should be limited in time and in amplitude. Our new global economic outlook supports this view. The most important change is focused on the path of monetary policy in the US relative to the eurozone. Indeed, we now expect the Fed to stick to its announced tapering plan, and decide a first interest rate hike in July 2022 (Q4 2022 expected previously). In total, we forecast three 25bp rate hikes in 2022, followed by four more in 2023. In contrast, the ECB is expected to maintain a stimulative monetary policy for much longer. We forecast a first ECB rate hike of 10 basis points in June 2023. This scenario change implies a sharp widening of the interest rate and yield differentials between the US and the eurozone. Historically this has been a key driver of exchange rates and suggests a strong dollar for the coming year. Another reason to expected a limited rebound of the euro is the recent worsening of economic momentum in the Eurozone relative to the US due to COVID resurgence in key countries.

We now forecast EUR/USD to fluctuate around USD1.12 per 1 euro over the next 3 and 12 months.

2021 RISK ON: LEVERAGED LOANS, HIGH YIELD HAVE OUTPERFORMED IN FIXED INCOME



Source: BNP Paribas WM, Bloomberg. All indices in USD

INCREASES IN THE YIELD DIFFERENTIAL SHOULD SUPPORT DOLLAR STRENGTH

Source: Refinitiv Datastream, 26/11/2021

CONCLUSION

While we currently maintain a negative stance on developed market government bonds, the extreme negative consensus positioning in bonds (as per recent fund manager surveys) heightens the risk of a contrarian move higher in bond prices, lower in yields. In FX, we now forecast the EUR/USD rate to fluctuate around 1.12 both for the coming 3 and 12 months.

Long-term expected returns

Guy Ertz, Chief Investment Adviser Luxembourg

The economic recovery has been stronger-than-expected and the massive stimulus programs should generate growth levels above long-term averages in the coming quarters and years. The recent rise in inflation should be reversed over the course of next year and have no major impact on the average inflation over the forecast period (10 years).

We do not expect central banks to hike rates before mid-2022 in the US and possibly mid-2023 in the Eurozone. The path should however be gradual. In the US, we have revised up our estimate for the long-term expected return on cash and on government as well as corporate and emerging market bonds. Average bond spreads are assumed to be in line with historical averages. The long-term expected return for government bonds has not been revised in the Eurozone as the monetary policy should remain very accommodative. We revised the estimate for European high yield bonds slightly down as spreads are very tight.

The accommodative monetary policy and low bond yields should remain favourable for assets with higher risk levels. We have upgraded somewhat our expected returns for equities as we now expect a higher growth rate for earnings for the coming quarters. The impact on the average growth rate over the next 10 years is however quite moderate.

Alternative assets, for which we calculate the expected returns based on a premium over cash, have now a moderately higher expected return as we upgraded the expected return for USD cash.

More details can be found in the BNP Paribas WM Flash *"Long-term Expected Returns"* (click on title to access link), 18 November 2021.

LONG-TERM EXPECTED RETURNS*

		Estimates 2021	Estimates 2020	Volatility (10-year Historical)
Fixed Income	Euro cash	0,00%	0,00%	-
	USD cash	1,00%	0,75%	-
	Government bonds Eurozone	0,25%	0,25%	4,20
	Government bonds U.S.	1,50%	1,00%	3,50
	Corporate High Grade Europe	0,75%	0,75%	3,90
	Corporate High Grade U.S.	2,00%	1,50%	5,10
	High Yield Bonds Europe	3,50%	3,75%	7,30
	High Yield Bonds United-States	4,25%	4,00%	6,70
	Emerging Hard Currency bonds	4,00%	3,50%	8,00
Equities	Equities Eurozone	5,50%	5,00%	13,10
	Equities U.S.	5,50%	5,00%	13,20
	Equities U.K.	5.75%	5,00%	12,10
	Equities Japan	4,75%	4,75%	16,60
	Equities Emerging Markets	7,25%	7,00%	16,90
Alternatives	UCITs	3,25%	3,00%	4,10
	Real Estate	5,75%	5,50%	14,90
	Private Equity	8,50%	8,00%	-
	Commodities	2,50%	2,00%	21,40
	Gold	2,75%	2,25%	15,20

Source: BNP Paribas WM, Bloomberg

***All returns are calculated using a 10-year horizon. We assume that all currency effects tend to cancel each out on average over that period. We thus use expected returns in local currency.**

Summary of our main recommendations

	Current Recom	Prior Recom	Constituents	We like	We avoid	Comments
EQUITIES	+	+	Markets	EU, UK, Japan, EM: China, S Korea, Brazil, Russia.		Historically low long-term real rates and accommodative financial conditions are supporting the upward trend in global stocks. We continue to recommend a more defensive sector stance for now.
			Sectors	Financials, Real Estate, Healthcare, Semicond, Construction Gold mines, EU Energy	Transportation	We have become more defensive in our sector allocation. We continue to recommend a more defensive sector stance for now, biased towards quality dividend/dividend growth strategies.
			Styles/ Themes	Megatrend themes		
BONDS	-	-	Govies	EM bonds (USD + local currency)	US long-term Treasuries and German Bunds	
			Segments	Peripheral euro and eurozone convertible. Fallen Angels.		
			Maturities	At benchmark		
CASH	=	=				
COMMO-DITIES	+	+		Gold		Gold faces headwinds (higher real rates, strong USD) but supply demand dynamics remain favourable and it remains our preferred hedge asset. Industrial metals – We are Neutral as we expect a lower demand from China in Q4 but MT prospects remain positive.
FOREX			EUR/USD			We adjust our EUR/USD target to USD1.12 (value of one euro) for the next 12 months.
ALTERNATIVE UCITS				Macro, relative-value and event-driven		

Economic, FX forecast tables

BNP Paribas Forecasts

GDP Growth %	2020	2021	2022	2023
United States	-3.5	5.5	4.7	2.8
Japan	-4.7	1.7	2.6	1.6
United Kingdom	-9.8	7.1	5.4	2.1
Eurozone	**-6.7**	**5.0**	**4.2**	**3**
Germany	-5.1	2.6	3.6	3.6
France	-8	6.7	4.2	2.5
Italy	-8.9	6.3	4.9	3
Emerging				
China	2.3	7.9	5.3	5.5
India*	-7.2	8	11	6,0
Brazil	-4.1	4.8	0.5	2
Russia	-4.5	4.5	3	1.8

* Fiscal year

Source: Refinitiv - BNP Paribas - 29/11/2021

BNP Paribas Forecasts

CPI Inflation %	2020	2021	2022	2023
United States	1.2	4.7	4.6	2.1
Japan	0	-0.2	0.7	0.5
United Kingdom	0.9	2.5	4.5	2.1
Eurozone	**0.3**	**2.5**	**3.1**	**2**
Germany	0.4	3.1	3.4	2.2
France	0.5	2	2.5	2.1
Italy	-0.1	1.8	2.9	1.7
Emerging				
China	2.5	0.9	2.1	2.5
India*	6.1	5.4	5.7	5
Brazil	3.2	8.3	8.3	4.3
Russia	3.4	7	6.3	4.1

* Fiscal year

Source: Refinitiv - BNP Paribas - 29/11/2021

	Country		Spot 28/11/2021	Trend	Target 3 months (vs. EUR)	Trend	Target 12 months (vs. EUR)
	United States	EUR / USD	1,132	Neutral	1,12	Neutral	1,12
	United Kingdom	EUR / GBP	0,849	Neutral	0,84	Neutral	0,84
	Japan	EUR / JPY	128,0	Positive	124	Positive	124
	Switzerland	EUR / CHF	1,044	Neutral	1,06	Negative	1,08
	Australia	EUR / AUD	1,588	Positive	1,53	Positive	1,53
	New-Zealand	EUR / NZD	1,658	Positive	1,60	Positive	1,60
	Canada	EUR / CAD	1,447	Positive	1,40	Positive	1,40
	Sweden	EUR / SEK	10,30	Positive	10,00	Positive	10,00
	Norway	EUR / NOK	10,29	Positive	9,75	Positive	9,60
Asia	China	EUR / CNY	7,232	Neutral	7,28	Neutral	7,28
	India	EUR / INR	84,72	Neutral	85,12	Negative	87,36
Latam	Brazil	EUR / BRL	6,322	Positive	6,16	Positive	5,88
EMEA	Russia	EUR / RUB	85,50	Positive	80,64	Positive	80,64

Source: BNP Paribas, Refinitiv Datastream

THE INVESTMENT STRATEGY TEAM

FRANCE

Edmund SHING
Global Chief Investment Officer

ASIA

Prashant BHAYANI
Chief Investment Officer, Asia

Grace TAM
Chief Investment Advisor, Asia

BELGIUM

Philippe GIJSELS
Chief Investment Advisor

Alain GERARD
Senior Investment Advisor, Equities

Xavier TIMMERMANS
Senior Investment Strategist, PRB

LUXEMBOURG

Guy ERTZ
Chief Investment Advisor

Edouard DESBONNETS
Investment Advisor, Fixed Income

CONNECT WITH US

wealthmanagement.bnpparibas

DISCLAIMER

This marketing document is communicated by the Wealth Management Métier of BNP Paribas, a French Société Anonyme, Head Office 16 boulevard des Italiens, 75009 Paris, France, registered under number 662 042 449 RCS Paris, registered in France as a bank with the French Autorité de Contrôle Prudentiel et de résolution (ACPR) and regulated by the French Autorité des Marchés Financiers (AMF). As marketing material, it has not been prepared in accordance with legal and regulatory requirements aimed at ensuring the independence of investment research and is not subject to any prohibition on dealing ahead of its dissemination. It has not been submitted to the AMF or any other market authority.

This document is confidential and intended solely for the use of BNP Paribas SA, BNP Paribas Wealth Management SA or their affiliates ("BNP Paribas") and the persons to whom this document has been delivered. It may not be distributed, published, reproduced or disclosed by any recipient to any other person, nor may it be quoted or referred to in any document, without the prior consent of BNP Paribas.

This document is provided solely for information and shall not constitute an offer or solicitation in any state or jurisdiction in which such an offer or solicitation is not authorized, or to any person to whom it is unlawful to make such offer, solicitation or sale. It is not, and under no circumstances is it to be construed as, a prospectus.

Although the information provided herein may have been obtained from published or unpublished sources considered to be reliable and while all reasonable care has been taken in the preparation of this document, BNP Paribas does not make any representation or warranty, express or implied, as to its accuracy or completeness and does not accept responsibility for any inaccuracy, error or omission. BNP Paribas gives no warranty, guarantee or representation as to the expected or projected success, profitability, return, performance, result, effect, consequence or benefit (either legal, regulatory, tax, financial, accounting or otherwise) of any product or transaction. Investors should not place undue reliance on any theoretical historical information regarding such theoretical historical performance. This document may contain or refer to past performance; past performance is no guarantee for future performance.

The information contained in this document has been drafted without prior knowledge of your personal circumstances, including your financial position, risk profile and investment objectives.

Prior to entering into a transaction each investor should fully understand the financial risks, including any market risk associated with the issuer, the merits and the suitability of investing in any product and consult with his or her own legal, tax, financial and accounting advisors before making his or her investment. Investors should be in a position to fully understand the features of the transaction and, in the absence of any provision to the contrary, be financially able to bear a loss of their investment and willing to accept such risk. Investors should always keep in mind that the value of investments and any income from them may go down as well as up and that past performance should not be seen as an indication of future performance. Any investment in a product described herein is subject to the prior reading and understanding of the legal documentation concerning the product, and in particular the one which describes in details the rights and obligations of investors as well as the risks inherent to an investment in the product. Save as otherwise expressly agreed in writing, BNP Paribas is not acting as financial adviser or fiduciary of the investor in any transaction. The information, opinions and projections expressed herein reflect the opinion of their author at the time of writing; they are not to be relied upon as authoritative or taken in substitution for the exercise of judgment by anyone, and are subject to change without notice. Neither BNP Paribas nor any BNP Paribas Group entity accepts any liability whatsoever for any consequences that may arise from the use of information, opinions or projections contained herein.

As distributor of the products described herein, BNP Paribas may receive distribution fees on which you can obtain more information upon specific request. BNP Paribas, their employees or administrators may hold positions in these products or have dealings with their issuers.

By accepting this document, you agree to be bound by the foregoing limitations.