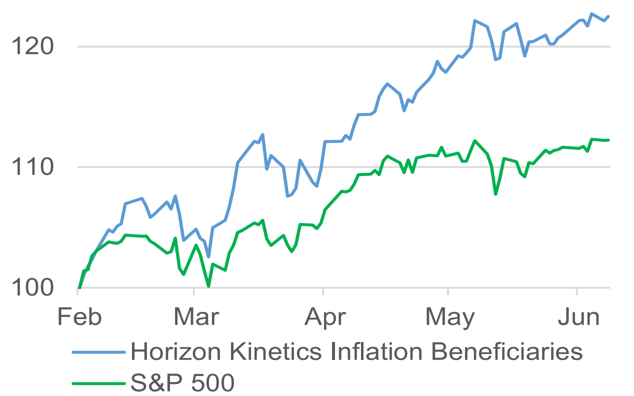
UNDER THE MICROSCOPE: 17 JUNE 2021

How to profit from rising inflation concerns

What you need to know

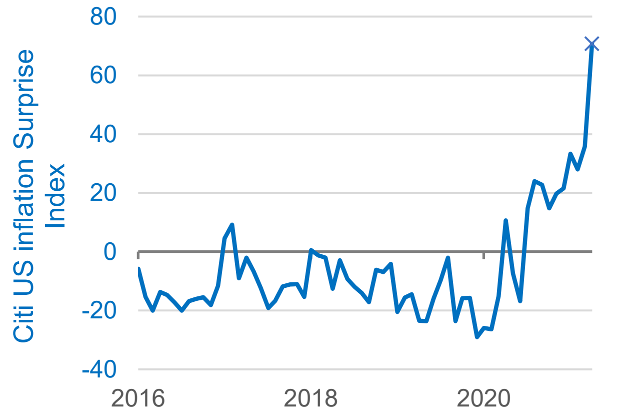
1. **Recent price trends have been driven by several transitory and idiosyncratic factors in the US and Europe.** Inflation is expected to stay high until autumn, and gradually fall back to close to central bank targets next year. We still see the risk that inflation overshoots 2% over a longer period as moderate, especially for Europe. In the US, risks are rising and it will take until at least year-end before we can evaluate medium-term risks such as job market overheating.
2. **How best to hedge inflation in the fixed-income universe?** Inflation-linked bonds, but they are already expensive. We favour floating-rate notes and leveraged loans.
3. **Commodities are an obvious investment destination**: precious metals, battery metals and crude oil. Commodity-related equities too: gold/silver miners, industrial metal miners, chemicals, paper & pulp.
4. **Real estate hedges inflation via rising rents, as long as real long-term yields do not rise sharply:** since 2001, US REITs have outperformed the S&P 500, particularly during periods when US inflation expectations have risen quickly.
5. **Targeting capital-light, hard-asset companies, information-based companies with high pricing power, low fixed costs**: companies that can raise prices while maintaining a low, largely fixed cost base are attractive inflation hedges.

SINCE FEBRUARY, INFLATION BENEFICIARIES HAVE DOUBLED THE S&P 500 PERFORMANCE



Source: Bloomberg

SURGE IN US INFLATION SURPRISES ECONOMISTS



Source: BNP Paribas Wealth Management, Bloomberg

Edmund Shing, PhD
Global CIO
BNP Paribas Wealth Management

Guy Ertz, PhD
Chief Investment Adviser, Luxembourg
BNP Paribas Wealth Management

Why inflation will increase further before falling back

Inflation figures have risen sharply in recent months. The question of the need to hedge against this risk is therefore ubiquitous. Headline inflation rose to 2% in the eurozone and above 4% in the US. Annual comparisons will continue to be made from very low prices over the next few months. This means that there will be significant base effects that will keep inflation high. This effect is expected to reverse gradually from autumn on. Shortages in certain supply chains (semiconductors, building materials) have also been a source of inflation. Indeed, we have observed delivery times increasing a lot in recent weeks (see chart below). However, it is interesting to note that since the 1990s, spikes in manufacturing price pressures have limited impact on inflation as companies have been quick to adapt. Commodity prices have been a driver of the recent sharp rise especially given the base effect mentioned above. We are expecting a phase of consolidation for base metal and oil prices. Indeed, chart analysis suggests an overbought environment and economic growth in China is expected to weaken, at least temporarily. Delayed effects from rising house prices could slow the normalisation process.

In the United States, inflation above 4% is likely in Q2/Q3 but the figures should gradually soften at the beginning of next year. Inflation is expected to return to 3% by spring 2022 and 2.3% at the end of 2022. In the eurozone, inflation will exceed 2% in the coming months and normalise below this level in early 2022.

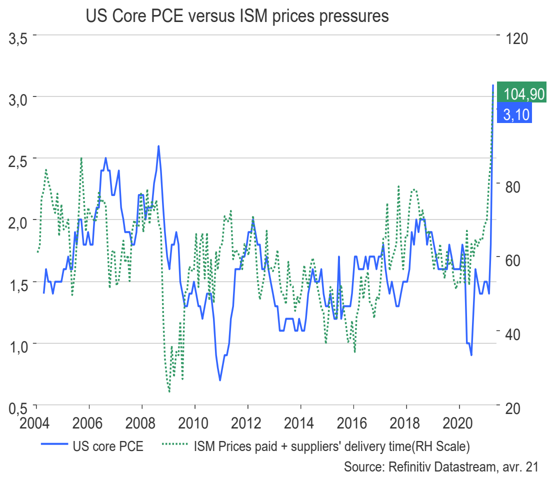
Medium-term outlook and indicators to monitor

We see the risks for inflation overshooting 2% over a longer period as still moderate, especially for Europe. In the US, risks are rising and two main dimensions need to be monitored.

The first is the risk of 'self fulfilling' expectations. Indeed, economic agents are highly influenced by the most recent inflation figures which will be very high the next few months. We need to monitor surveys conducted among consumers, financial professionals and the expectations for underlying financial assets, such as inflation-linked bonds and derivative contracts (inflation swaps). The key is that US long-term inflation expectations, as measured by inflation swaps or breakeven rates, do not rise sharply (see chart below).

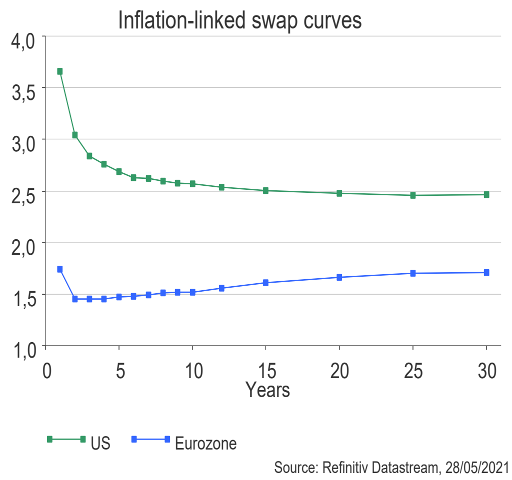
The second risk is related to an overheating via the labour market and wages. At this stage, there is still a lot of overcapacity, especially in Europe. In the United States, the situation seems more tense in view of the level of unemployment and the flexibility of this market. There is, however, substantial slack as the participation rate is still around 62% compared with approximately 67% at the beginning of 2000. The comparison for the population without a university-level education is 55% versus 66%. We expect the massive stimulus programme of the Biden administration to generate a large number of jobs, specifically for this part of the population. The potential for broad-based wage increases in the coming months is thus more limited. We will need to monitor closely the speed and type of job creation and the evolution of the participation rate.

INFLATION AND SUPPLY CHAINS



Source: Refinitiv Datastream, avr. 21

KEEP AN EYE ON INFLATION EXPECTATIONS



Source: Refinitiv Datastream, 28/05/2021

Hedging inflation in fixed income

Investors who are concerned about inflation can find some solutions in the fixed-income space.

Inflation-linked bonds (Treasury Inflation-Protected Security or TIPS in the US) are a way to protect a portfolio against inflation. They provide a better hedge if they are held to maturity. They offer coupons adjusted for inflation and capital at maturity that is also adjusted for inflation as defined by the evolution of the Consumer Price Index.

Should deflation occur, then investors receive the par value of the bond at maturity. Inflation-linked bonds are not very liquid instruments, so their prices can move quickly during periods of volatility. While actual inflation determines the value of the coupon, the value of the TIPS depends on inflation expectations.

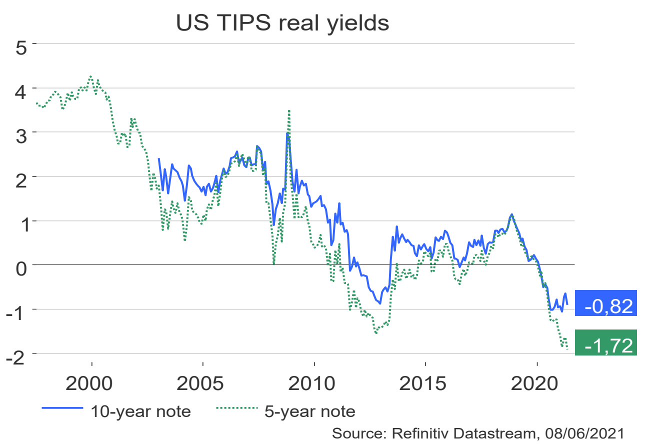
In our view, inflation-linked bonds seem to be fairly well valued after the sharp rise in inflation expectations. The real yield (nominal yield minus inflation) is negative, at -1.8% for a 5-year bond and -0.8% for a 10-year inflation-linked bond in the US.

Therefore, investors will only make a profit if inflation expectations rise further and real yields fall or stagnate.

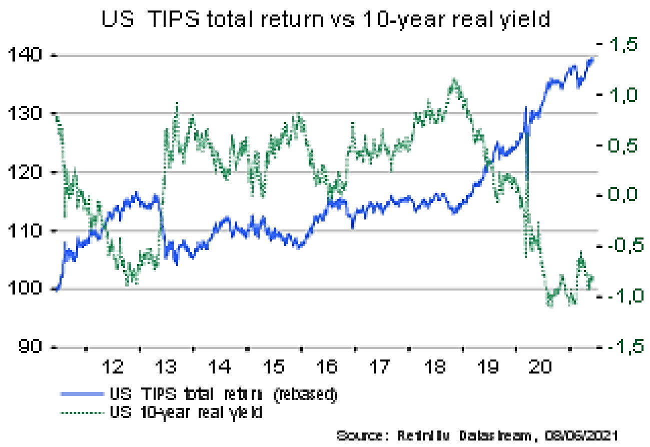
Floating Rate Notes (FRNs) are another hedging option. They pay a coupon that is usually based on a short-term risk-free rate plus a spread. The calculation of the coupon is commonly reset every quarter. Coupons do not usually fluctuate much because they depend on the credit quality of the issuer as opposed to the evolution of long-term bond yields. The issuers are mostly US banks, i.e. with a good credit rating. For example, a 4-year US floating rate note would pay a coupon of about 0.5%. By comparison, the equivalent in EUR would be quoted above par and not pay a coupon. Floating rate bonds do not exactly protect against inflation per se, but they do protect against interest rates, which is related in a way, since central banks raise rates when inflation reaches a certain level. We assume that the US Federal Reserve will raise policy rates in 3Q 2023 and we do not forecast the ECB to increase its key rates in the foreseeable future.

Finally**, leveraged loans** are loans made by financial institutions to highly-leveraged companies. As such, they have a higher credit risk than the floaters or inflation-linked bonds mentioned above and in return offer a higher yield. Loans generally pay a floating rate based on a short-term risk-free rate plus a spread. They normally have less default risk than high yield bonds. They have outperformed the latter since the beginning of the year in terms of total return.

US REAL YIELDS ALREADY AT HISTORIC LOWS, REFLECTING HIGH VALUATIONS



US TIPS DO NOT FARE WELL WHEN REAL YIELD RISE



Why does real estate perform well in inflationary periods?

Real estate exposure can hedge against inflation: direct real estate (commercial and residential) may offer investors protection against a shift higher in inflation rates.

This inflation hedge comes principally through the fact that real estate is a "real" asset, that is an asset whose value rises over time at least in line with inflation. This property is derived from the ability to raise rents in line with inflation over time, unlike a fixed-coupon bond whose coupon is fixed at the same level, irrespective of the inflation rate.

If nominal interest rates rise on the basis of a projected acceleration in demand inflation, then real interest rates (adjusted for inflation) will remain more or less stable. If a property owner finances his/her own "bricks and mortar" at a capped or fixed rate before inflation surges, borrowing costs will remain unchanged while rental revenues will increase. Thus, real estate is a potential source of cash flow.

Protection against inflation is undeniably partial for two main reasons: i) there is a time lag between the rise in prices and the rental indexation, often six months or more, and ii) the various indices used for rental indexation do not always fully reflect future inflation. In the event of inflation, growth in rents tends to occur before values go up. Theoretically, property values could be considered as an infinite supply of growing rental cash flows, which is why rents rely on inflation to climb.

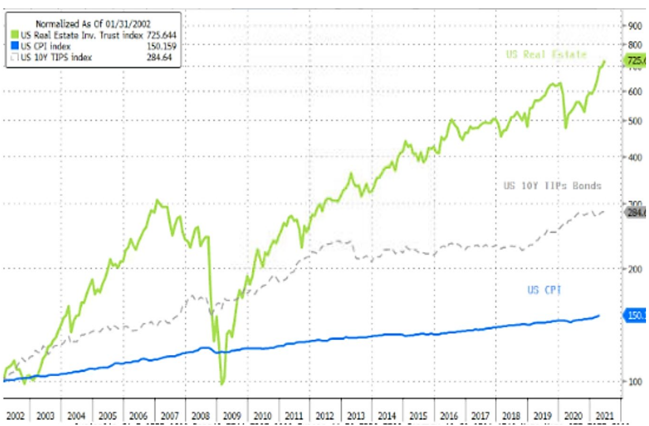
Direct office and residential real estate returns rise with inflation: according to Demary and Voigtlander (2009), office and residential real estate investments historically served as an effective hedge against both expected and unexpected inflation (over 1998-2007).

Other factors to consider – demand growth, vacancy rates, long-term real yields: of course, inflation is not the only macro factor to consider when looking at real estate investments. The biggest driver of recent real estate returns has been the falling cost of financing in the form of lower long-term real yields. We contend that real yields will not be able to rise much in the future, as central banks will try to ensure that the ongoing cost of financing government debt remains low, to allow governments to continue to stimulate domestic economies post pandemic.

Demand growth remains strong, particularly residential rental demand, as house prices rise sharply and affordability is stretched. This forces more households to rent for longer before being in a position to buy a home. New household creation is a second, structural driver of residential rental demand, particularly strong in the US given the huge cohort of millennials entering prime house buying age.

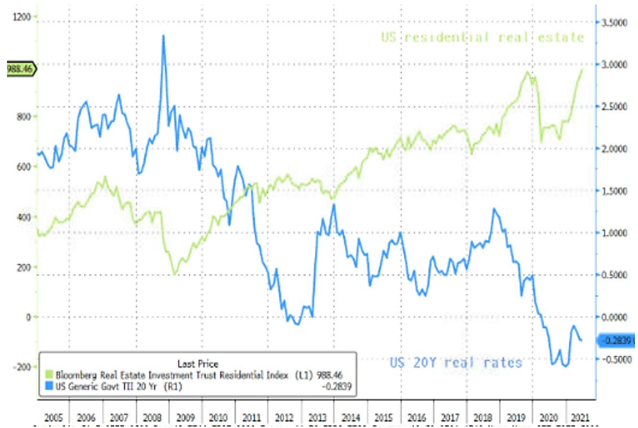
Return to the office could be more robust than expected: office demand is likely to be supported by a stronger-than-expected return to office trend in the coming months, with companies increasingly valuing collaborative working in a shared environment.

US REAL ESTATE HAS FAR OUTPACED BOTH INFLATION-PROTECTED BONDS AND CPI



Source: Bloomberg

LOWER LONG-TERM REAL YIELDS HAVE BOOSTED RESIDENTIAL REAL ESTATE



Source: Bloomberg

Investing in commodities and commodity-related equities

Commodities tend to benefit from rising inflation: commodities tend to perform well when inflation rates are rising in two scenarios.

Firstly, when inflation is the result of strong economic recovery, as is the case currently. As demand for goods and services increases during recovery, the prices for those goods and services usually rise, and in turn the prices of those commodities used to produce those goods and services.

Secondly, when a commodity-driven inflationary shock (e.g. the 1973 oil shock) occurs, commodity prices tend to rise as a result of these supply shocks, with too much demand chasing too little supply.

Additional structural demand growth from energy transition: to add to the growing demand for commodities from post-pandemic economic recovery, there is also structural demand growth for a whole host of industrial metals such as copper, tin, nickel, lithium and cobalt from the secular pressures of energy transition in targeting a low carbon economy.

Investing in a diversified commodity index provides diversification, yield and a hedge against inflation: investing in a diversified commodity index such as the Bloomberg Commodity ex-Agriculture index (exposed to 11 different commodities) can provide diversification to a portfolio skewed to equity and fixed-income exposure, given the low historic correlation between commodities and stocks or bonds. But it can also provide an important element of yield.

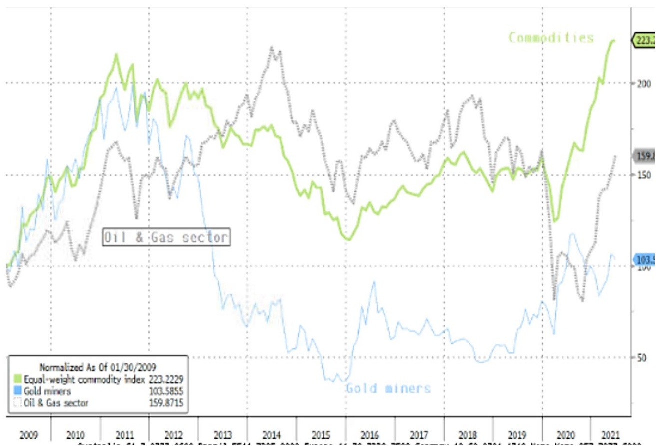
Playing commodity backwardation: when supply is constrained and demand increases, the commodity futures market tend to be in backwardation (when prices for future delivery decline in line with the maturity of the contracts). This offers investors a positive "roll yield". Commodity funds and ETFs invest via the futures market; as they do not want to take delivery of the commodities, they "roll the contracts" i.e. sell the contracts about to mature to buy new ones with a longer maturity. If they buy at a cheaper price, they make a gain on a rising price as the contract approaches maturity (*ceteris paribus*).

Commodity-related equities benefit from operational leverage to higher commodity prices: commodity-producing companies enjoy a leveraged profit impact from rising commodity prices, as they receive rising prices for their production, but have largely fixed costs. Thus when commodity prices rise during an acceleration in inflation, commodity producers' profits tend to grow quickly. **10+ year commodity bear market has enforced discipline**: given that commodity markets have suffered generally from lower prices for the past 10+ years, investment discipline is today very high post heavy consolidation and cost-cutting efforts by commodity producers. There is little sign that this new management attitude is changing – commodity producers seem much more focused on maintaining limited investment plans, maximising profitability and shareholder returns.

COMMODITY PRICES HAVE FOLLOWED GLOBAL INFLATION DOWN AND UP

Source: Bloomberg

GOLD MINERS, OIL & GAS STOCKS HAVE LAGGED COMMODITIES SO FAR



Source: BNP Paribas Wealth Management, Bloomberg

Prefer asset-light, hard asset and real pricing power companies

Inflation-friendly equity sectors – Gold- and oil-related exposure, health care, semiconductors and tech hardware: prior inflationary periods in the 1970s and early 1980s show three groups of sectors that outperformed when inflation rates rose sharply.

Gold and oil: firstly, commodity-related equities such as oil and gold producers performed well, as expected as commodity prices rose. As indirect exposure to these sectors, Russian and Brazilian equity exposure can be attractive given high commodity weightings.

Health care: secondly, health care in the form of pharmaceuticals and medical services performed well during these inflationary periods (in the US, medical cost inflation has exceeded CPI by far since 2000).

Semis, tech hardware: thirdly, semiconductors and other technology hardware stocks performed well over these same periods, boosted by structural demand growth and pricing power.

This was true back in the 1970s and 1980s, prior to the Volcker era of Fed forcing down inflation rates from initial double-digit rates down to today's subdued levels, driving the multi-decade bond bull market. **Focus on pricing power and low capital needs**: we believe that the three sectors identified above will still benefit from higher inflation rates today, given the evidence of higher prices in health care and semis.

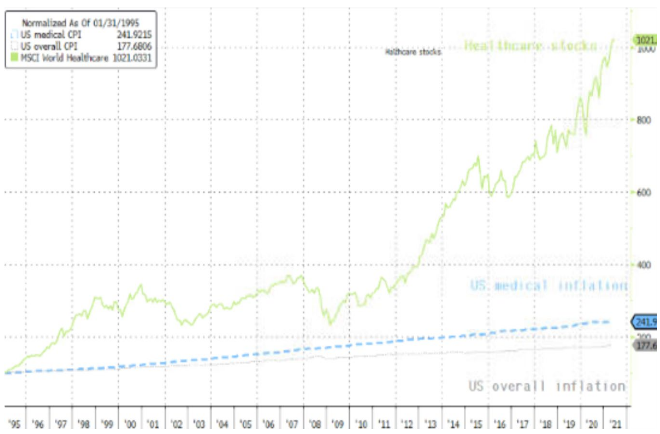
Companies with pricing power combined with low capital needs: companies such as royalty companies in the commodity space offer upside to higher commodity prices, but without the high capital needs associated with traditional gold miners and oil producers.

Companies that provide "picks and shovels" to metals and agricultural producers in terms of technology, services and equipment, are attractive. They offer high profitability and growth, and benefit from any uptick in investment resulting from high commodity prices.

Thirdly, oligopolistic companies in highly regulated or patent-protected service-based industries with high profitability should be favoured, including stock exchange operators, and information-based data/research-driven companies.

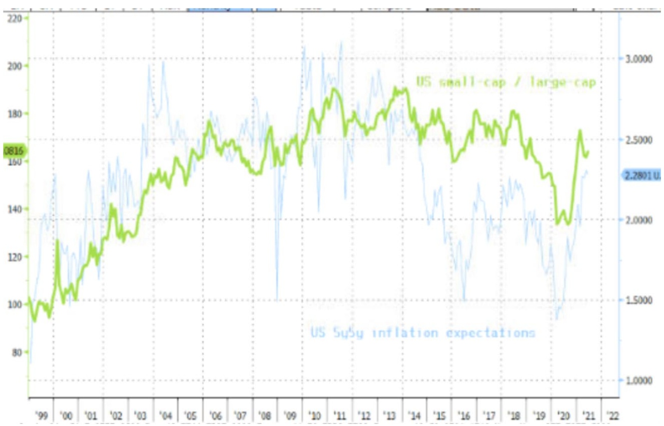
Equity factors to benefit – Value, Small-Caps: in style factor terms, both value and small-cap exposure tends to outperform when nominal growth (real economic growth + inflation) is strong, typically after an exit from recession. Note that the value factor in particular has been a serial underperformer since 2010, while inflation rates have remained largely at (or below) central bank inflation targets in Europe and the US. In Europe, which has a more cyclical stock market bias, we continue to favour mid- and small-cap exposure to benefit not only from any rise in global inflation rates, but also domestic demand recovery as we exit lockdowns and return to a more "normal" way of life.

US MEDICAL INFLATION EXCEEDS OVERALL CPI AND BOOSTS HEALTH CARE SECTOR



Source: Bloomberg

SMALL-CAPS OUTPERFORM LARGE-CAPS WHEN INFLATION EXPECTATIONS RISE



Source: BNP Paribas Wealth Management, Bloomberg

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.