

MyStratWeekly Market views and strategy

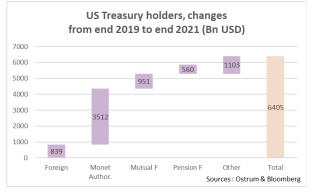
This document is intended for professional clients in accordance with MIFID N° 065 // April 11, 2022

- Topic of the week: Recession? The market view.
 - The curve inversion is very peculiar, and we are therefore cautious about the signal sent in terms of future recession.
 - However, using a broader approach to market movements, we conclude that a recession is likely.
 - Hence the acceleration of the Fed which knows it has little time to normalize its rates.
 - However, it seems difficult to have both a soft landing of the economy and a monetary policy that is sufficiently restrictive to reduce inflation.

• Market review: Fed takes another tightening step

- The Fed will reduce its balance sheet by \$95 bn per month from May;
- Sharp rise in the T-note yield towards 2.70%;
- OAT hit by uncertainty surrounding presidential elections;
- Equities: the lack of visibility favors the quality factor.

Chart of the week



According to US government debt holding data, over the past two years the Fed, through its QE, has absorbed two-thirds of Treasury's net supply.

It should also be added that foreigners have been net sellers (albeit marginally) for almost a decade.

Of course the deficits should be reduced and the net paper issue should therefore be reduced. The fact remains that the supply of paper will have to be absorbed primarily by the American private sector. We think of pension funds. But the market may be tight and the term premium may be affected.

• Figure of the week



A somewhat surreal figure, inflation in industry reached 31.4% in February. With the Ukrainian crisis it is possible that this figure will continue to grow.



Stéphane Déo Head of markets strategy stephane.deo@ostrum.com



Axel Botte Global strategist axel.botte@ostrum.com



Zouhoure Bousbih Emerging countries strategist zouhoure.bousbih@ostrum.com



Aline Goupil- Raguénès Developed countries strategist aline.goupilraguenes@ostrum.com

Topic of the week

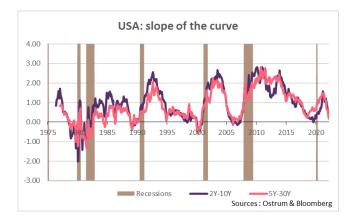
Recession? The market view.

The curve is inverted in the United States and would therefore signal a recession. The reality is more complex because the reversal of the curve is mainly due to inflation expectations, therefore and to an unprecedented historical oddity. So be careful about the interpretation. We use a broader approach to market movements and, unfortunately, we nevertheless conclude that a recession is likely.

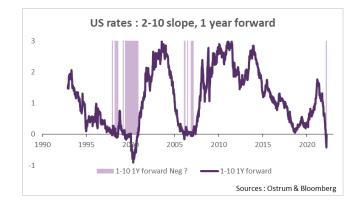
Inversion

There was a lot of feedback on the chart below. The first point is that the curve is thus inverted on both the 2-10 year part and the 5-30 year part. The second point is that these curve reversals systematically preceded a recession that occurred in the following year.

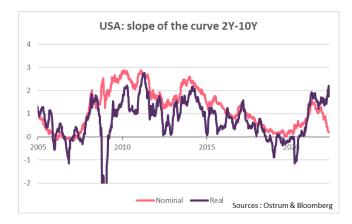
The risk is that history will repeat itself once again and that the United States will be in recession next year.



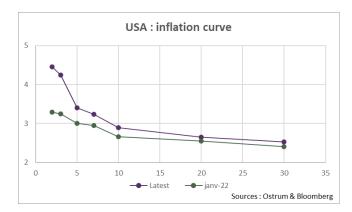
To go further, "future" markets give an even more anxietyprovoking message. The graph below shows the market expectations at one year. The market expectations on the slope of the curve in one year are that it will be even more reversed. Signal therefore without ambiguity on the meaning of the story.



There is, however, a specificity, if not a singularity, about the current curve inversion. Normally the distinction between nominal and real rates does not change much on the shape of the curve. At present, however, the slope of the nominal curve, which is therefore negative, is very different from the slope of the real curve, which remains clearly positive.



In other words, the reversal of the curve owes much to the fact that market inflation expectations are, for very good reasons, very unusual. At 2-years the expected inflation is 4.5% while it is 3% at 30 years. This makes sense: very strong inflationary pressures in the immediate future, but a long-term goal that converts to the Fed's 2% target.



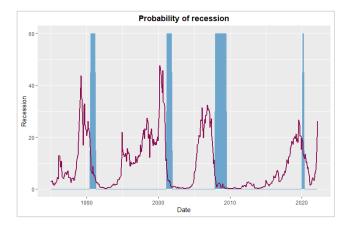
The reversal of the curve is therefore, above all, linked to a totally unusual inflation profile. So we have to be very careful about the interpretation in terms of growth.



A gowth signal

We wanted to have a rigorous approach to the recession signal. For this we have built a logit model which, using the slope of the curve, allows us to predict the probability of a recession in the following year.

The result is given in the graph below.



The model confirms that there is a strong historical correlation between curve inversion and recession over the following year. The model currently achieves 26% probability. It should be noted, however, that this type of model (we will give you technical details) is relatively effective at capturing cycles but tends to underestimate the probability. Every time the model has exceeded 30%, we have had a recession. So the 26% we have now is particularly high.

A more comprehesive approach

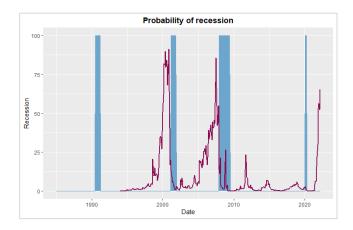
Once again, the use of the curve, while the movement is rather due to inflation, is questionable. There are, however, a number of other end-of-cycle markers.

In total, we use seven markers, that is to say seven variables that tend to identify an end of the cycle and a future recession:

- 1. The slope of the curve (difference between 2-year and 10-year),
- 2. The AAA credit spread
- 3. The HY credit spread
- 4. Inflation
- 5. Swap spreads
- 6. Relative "Growth" vs. "Value" performance in the equity market
- 7. Company margins

These various indicators provide heterogeneous signal quality. Some are partially redundant, for example, AAA and HY spreads generally diverge in concert. Finally, not all have the same delay effect: very high HY spreads signal an imminent crisis, while a curve inversion can be a signal at more than one year.

That said, the combination of these indicators should help capture the signs of future recession. So we reuse our model with all these markers (for purists, this becomes a multivariate logit). The result is shown on the following graph:



First, in contrast to the previous approach, which used only the slope of the curve, the model seems to "understand" the cycles better, the probabilities of recessions are greater than 80% in 2000 and 2009. Unfortunately, the model is currently at a high level, a 65% probability of recession.

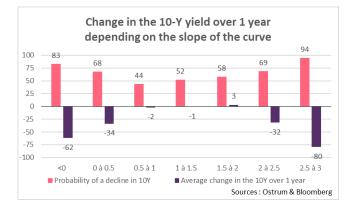
According to the model, therefore, the Mass is (almost) said.

The other consequence: future rate dynamics

The inversion of the curve is causing a lot of debate on growth, but we forget that it has another consequence: a signal on the future direction of rates. The intuition is simple: if a reversal of the yield curve leads to a recession, it is very likely that it will also be accompanied by a fall in rates.

We looked at whether this is the case historically. The chart below validates the idea. When the curve is reversed on the 2-10, we have historically had 83% of cases where the 10year-old fell in the year that followed. Decrease of 62 basis points on average for the 10-year-old over the following year.





It seems difficult to have both a soft landing of the economy and a sufficiently restrictive monetary policy to bring inflation back at 2%. This validates our view that the rise in U.S. longterm rates is largely behind us. lf the approach is valid, the rates should even drop in the future. With inflation close to 9%, it is more than understandable that the pressure is on the The latest rise. statements by the Fed, which is undoubtedly behind its tightening in this policy, help direction. At the end of the year, however, the much weaker growth outlook for 2023, as well as the inevitable slowdown in inflation, could lead to a very different rate dynamic.

It should be noted that the signal also exists in the reverse direction, when the curve is abnormally steep. Above 200 bps the level of long rates is excessive and therefore tends to fall back.

Conclusion

If we are doubtful about the reading of the inversion of the curve, a more complete reading of market movements nevertheless leads us to conclude that the American economy has a non-negotiable risk of recession for next year. With an unemployment rate of 3.8%, it is indeed clear that the output gap is extremely tight and that the economy is closer to the end of the cycle.

This puts the Fed in a very complicated situation. It has to raise its rates to fight inflation. But the window of fire is probably limited and we could then witness an unusually short phase of rise. The Fed's recent run-up is probably also due to this. The Fed is aware that a gradual approach would not allow it to reach sufficient Fed funds. But of course by accelerating the monetary tightening, the Fed is also increasing the likelihood of a faster economic slowdown. It therefore seems difficult to have both a soft landing of the US economy and a monetary policy sufficiently restrictive to bring inflation down to 2%.

Stéphane Déo



Market review

Fed takes another tightening step

The Fed announces a QT in May, fueling volatility ahead of the earnings season and the French Presidential elections.

Financial markets are caught in the crossfire of Fed monetary tightening, uncertainty over near-term economic growth and profit margins, and news from Ukraine ahead of a likely Russian offensive in the Donbass region. Volatility is not abating, and the financial signals of investor risk aversion are clearly visible. The dollar is flying high, the V2X index indicates 30% expected volatility at 1 month in Europe and swap spreads are still around 70 bp in the euro area. CDS spreads are widening again as profit taking becomes more widespread on corporate credit markets after an upbeat month of March.

The Fed's monetary policy remains a kay concern for most investors. The monetary institution will begin reducing its balance sheet in May, according to Lael Brainard's communication at the beginning of last week. The minutes of the last FOMC provided greater details about the upcoming tightening. Fed policymakers seem to agree on a maximum monthly reduction in asset holdings of \$60bn for Treasuries and \$35bn for MBS. The implementation of quantitative tightening will be gradual over the next three months and will remain dependent on market conditions (it is no coincidence as maturities for the period from May to July are particularly high at \$350bn). In 2022, maturities are still above the threshold except for October (\$52 billion). In this case, the Fed plans not to roll over its T-bill holdings to reach the \$60 billion target. Redemptions above the threshold will continue to be reinvested at monthly Treasury bond auctions. The withdrawal of the Fed also implies a financing requirement for the Treasury of around \$50 billion this year, which is added to a federal deficit of around \$850 billion. The situation regarding MBS held on the balance sheet is quite different. Mortgage refinancing flows have dried up given the rise in long-term rates, which has slowed the amortization of the Fed's portfolio. There is a conflict between the need to raise rates to reduce inflationary pressures, to which housing costs contribute strongly, and the objective of a smooth quantitative tightening. It will certainly be necessary to sell MBS to reach the ceiling of \$35 billion. The primary dealers have limited exposure to the asset class at this juncture, but their absorption capacity is uncertain. Their total holdings of MBS have not exceeded \$80bn in recent years. In addition, the impact on non-bank lenders, whose business model requires large origination volumes, may be difficult to assess.

unwinding of implemented flattening positions as the Fed increasingly talks about 50bp rate moves. The QT means that the duration risk assumed by the Fed will decrease. The stimulus withdrawal should be conducive of a larger term premium. The 2-10 year spread moved back into positive territory at 20bp. The T-note yield rose by more than 20 bps last week, most of the movement reflecting the upward adjustment in real yields. Meanwhile, MBS spreads are only 3bp wider. The Fed is unlikely to sell securities in the short term. In the euro area, the hawkish stance that emerges from the minutes of the ECB's March 7 meeting is fueling expectations of rate hikes. Short-term interest rate swaps (OIS) price in 50 bp hikes by the end of 2022. Inflation expectations remain on the rise (+15 bp on the 10-year euro inflation swap) given the weakness in the euro, supply chain constraints amplified lately by lockdowns in China and high commodity prices. Bund yields jumped above 0.70%. Besides inflation pressures, political risk in France contributes to mistrust against OATs (56bp at 10 years). Speculative accounts are 5-year bond sellers. Institutional investors, on the other hand, are taking advantage of higher vields and purchase bonds with maturities greater than 10 years. Sovereign spreads and swap spreads have widened significantly. The Portuguese 10-year bond issue las week required a 10bp premium to raise €3bn.

The euro IG credit market seems to be retracing some of the spread tightening, linked to fund inflows observed in the second half of March. New issue premiums, however, protect the performance of corporate bonds issued since the beginning of the month, particularly for financials. Euro IG spreads widened by 3 bps in the past week to 132 bps. Conversely, high swap spreads are delaying potential tightening of spreads on covered bonds (72 bp). In high yield space, there has been no primary market deal for 56 days in the euro area. High yield is somewhat "protected" by the absence of new issues, but risk aversion returned at the start of the quarter. The iTraxx XO is back above 360bp. The average spread on high-yield debt nevertheless stabilized this week around 390 bp against Bunds.

The equity market continues to experience high volatility as market participants wait the first Q1 earnings releases. The lack of visibility could prove penalizing even if Q1 earnings remain solid. The global stocks indices resumed their downward path last week with the exception of the UK's FTSE (+1.75%). The quality factor outperforms as well as the strategies reducing volatility. In Europe, the pressures on interest weigh on technology as expected but are no longer benefiting banking stocks.

Axel Botte

Global strategist

• Main market indicators

'um

Ostr

G4 Government Bonds	11-Apr-22	1w k (bp)	1m (bp)	2022 (bp)
EUR Bunds 2y	0.12%	+20	+53	+74
EUR Bunds 10y	0.78%	+27	+53	+96
EUR Bunds 2s10s	65.4bp	+7	+0	+22
USD Treasuries 2y	2.58%	+15	+83	+184
USD Treasuries 10y	2.76%	+36	+77	+125
USD Treasuries 2s10s	17.7bp	+21	-6	-60
GBP Gilt 10y	1.83%	+28	+34	+86
JPY JGB 10y	0.24%	+3	-2	-1
€ Sovereign Spreads (10y)	11-Apr-22	1w k (bp)	1m (bp)	2022 (bp)
France	49.67bp	0	+6	+12
Italy	163.02bp	+7	+14	+28
Spain	94.61bp	0	+6	+20
Inflation Break-evens (10y)	11-Apr-22	1w k (bp)	1m (bp)	2022 (bp)
EUR 10y Inflation Swap	2.97%	+16	+33	+88
USD 10y Inflation Swap	3.09%	+9	-8	+31
GBP 10y Inflation Swap	4.63%	+7	-10	+45
EUR Credit Indices	11-Apr-22	1w k (bp)	1m (bp)	2022 (bp)
EUR Corporate Credit OAS	131bp	+1	-29	+36
EUR Agencies OAS	65bp	+3	-1	+16
EUR Securitized - Covered OAS	73bp	+3	-2	+27
EUR Pan-European High Yield OAS	391bp	-2	-98	+73
EUR/USD CDS Indices 5y	11-Apr-22	1w k (bp)	1m (bp)	2022 (bp)
iTraxx IG	76bp	+6	-4	+29
				.404
iTraxx Crossover	367bp	+33	-19	+124
iTraxx Crossover CDX IG	367bp 71bp	+33 +6	-19 -4	+124 +21
	•		-	
CDX IG CDX High Yield	71bp	+6	-4	+21
CDX IG CDX High Yield	71bp 400bp	+6 +34	-4 +4	+21 +107
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread	71bp 400bp 11-Apr-22	+6 +34 1w k (bp)	-4 +4 1m (bp)	+21 +107 2022 (bp)
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread	71bp 400bp 11-Apr-22 399bp	+6 +34 1w k (bp) -1	-4 +4 1m (bp) -127	+21 +107 2022 (bp) +30
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread Currencies	71bp 400bp 11-Apr-22 399bp 11-Apr-22	+6 +34 1w k (bp) -1 1w k (%)	-4 +4 1m (bp) -127 1m (%)	+21 +107 2022 (bp) +30 2022 (%)
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread Currencies EUR/USD GBP/USD USD/JPY	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.488 -2.035	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -3.5 -8.2
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread Currencies EUR/USD GBP/USD USD/JPY	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.488	-4 +4 1m (bp) -127 1m (%) 0.119 0.115	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5
CDX IG CDX High Yield Emerging Markets JPM EMBI Global Div. Spread Currencies EUR/USD GBP/USD USD/JPY	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.488 -2.035	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -3.5 -8.2
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGold	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1 957.3	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$)	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGold	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.488 -2.035 -1w k (\$) -\$7.2	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGold	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1 957.3	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7 -\$8.7 -\$31.2	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGoldEquity Market Indices	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1957.3 11-Apr-22	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6 -1w k (%)	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7 -\$31.2 -\$31.2 -1m (%)	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00 2022 (%)
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGoldEquity Market Indices	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1 957.3 11-Apr-22 4 488	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6 -1w k (%) -1.27	4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7 -\$31.2 -\$31.2 -\$31.2 -\$31.2 -\$31.2	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00 2022 (%) -5.8
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesCrude BrentGoldEquity Market IndicesS&P 500EuroStoxx 50	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1 957.3 11-Apr-22 4 488 3 858	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6 -1w k (%) -1.27 -2.35	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7 -\$31.2 -\$31.2 -1m (%) 6.75 4.65	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00 2022 (%) -5.8 -10.2
CDX IGCDX High YieldEmerging MarketsJPM EMBI Global Div. SpreadCurrenciesEUR/USDGBP/USDUSD/JPYCommodity FuturesGoldEquity Market IndicesS&P 500EuroStoxx 50CAC 40	71bp 400bp 11-Apr-22 399bp 11-Apr-22 \$1.093 \$1.305 JPY 125 11-Apr-22 \$100.4 \$1957.3 11-Apr-22 4 488 3 858 6 595	+6 +34 1w k (bp) -1 1w k (%) -0.428 -0.428 -0.488 -2.035 -1w k (\$) -\$7.2 \$24.6 -1w k (%) -1.27 -2.35 -2.02	-4 +4 1m (bp) -127 1m (%) 0.119 0.115 -6.423 -1m (\$) -\$8.7 -\$31.2 -\$31.2 -1m (%) 6.75 4.65 5.35	+21 +107 2022 (bp) +30 2022 (%) -3.9 -3.5 -8.2 2022 (%) 31.39 7.00 2022 (%) -5.8 -10.2 -7.8



Additional notes

Ostrum Asset Management

Asset management company regulated by AMF under n° GP-18000014 – Limited company with a share capital of 48 518 602 \in . Trade register n°525 192 753 Paris – VAT : FR 93 525 192 753 – Registered Office: 43, avenue Pierre Mendès-France, 75013 Paris – <u>www.ostrum.com</u> This document is intended for professional, in accordance with MIFID. It may not be used for any purpose other than that for which it was conceived and may not be copied, distributed or communicated to third parties, in part or in whole, without the prior written authorization of Ostrum Asset Management.

None of the information contained in this document should be interpreted as having any contractual value. This document is produced purely for the purposes of providing indicative information. This document consists of a presentation created and prepared by Ostrum Asset Management based on sources it considers to be reliable.

Ostrum Asset Management reserves the right to modify the information presented in this document at any time without notice, which under no circumstances constitutes a commitment from Ostrum Asset Management.

The analyses and opinions referenced herein represent the subjective views of the author(s) as referenced, are as of the date shown and are subject to change without prior notice. There can be no assurance that developments will transpire as may be forecasted in this material. This simulation was carried out for indicative purposes, on the basis of hypothetical investments, and does not constitute a contractual agreement from the part of Ostrum Asset Management.

Ostrum Asset Management will not be held responsible for any decision taken or not taken on the basis of the information contained in this document, nor in the use that a third party might make of the information. Figures mentioned refer to previous years. Past performance does not guarantee future results. Any reference to a ranking, a rating or an award provides no guarantee for future performance and is not constant over time. Reference to a ranking and/or an award does not indicate the future performance of the UCITS/AIF or the fund manager.

Under Ostrum Asset Management's social responsibility policy, and in accordance with the treaties signed by the French government, the funds directly managed by Ostrum Asset Management do not invest in any company that manufactures, sells or stocks anti-personnel mines and cluster bombs.

Final version dated 11/04/2022

Natixis Investment Managers

This material has been provided for information purposes only to investment service providers or other Professional Clients, Qualified or Institutional Investors and, when required by local regulation, only at their written request. This material must not be used with Retail Investors.

In the E.U. (outside of the UK and France): Provided by Natixis Investment Managers S.A. or one of its branch offices listed below. Natixis Investment Managers S.A. is a Luxembourg management company that is authorized by the Commission de Surveillance du Secteur Financier and is incorporated under Luxembourg laws and registered under n. B 115843. Registered office of Natixis Investment Managers S.A.: 2, rue Jean Monnet, L-2180 Luxembourg, Grand Duchy of Luxembourg. <u>Italy</u>: Natixis Investment Managers S.A., Succursale Italiana (Bank of Italy Register of Italian Asset Management Companies no 23458.3). Registered office: Via San Clemente 1, 20122 Milan, Italy. <u>Germany</u>: Natixis Investment Managers S.A., Zweigniederlassung Deutschland (Registration number: HRB 88541). Registered office: Im Trutz Frankfurt 55, Westend Carrée, 7. Floor, Frankfurt am Main 60322, Germany. <u>Netherlands</u>: Natixis Investment Managers, Nederlands (Registration number 50774670). Registered office: Stadsplateau 7, 3521AZ Utrecht, the Netherlands. <u>Sweden</u>: Natixis Investment Managers, Nordics Filial (Registration number 516405-9601 - Swedish Companies Registration Office). Registered office: Kungsgatan 48 5tr, Stockholm 111 35, Sweden. <u>Spain</u>: Natixis Investment Managers, Sucursal en España. Serrano n°90, 6th Floor, 28006, Madrid, Spain. <u>Belgium</u>: Natixis Investment Managers S.A., Belgian Branch, Louizalaan 120 Avenue Louise, 1000 Brussel/Bruxelles, Belgium.

In France: Provided by Natixis Investment Managers International – a portfolio management company authorized by the Autorité des Marchés Financiers (French Financial Markets Authority - AMF) under no. GP 90-009, and a public limited company (société anonyme) registered in the Paris Trade and Companies Register under no. 329 450 738. Registered office: 43 avenue Pierre Mendès France, 75013 Paris.

In Switzerland: Provided for information purposes only by Natixis Investment Managers, Switzerland Sarl, Rue du Vieux Collège 10, 1204 Geneva, Switzerland or its representative office in Zurich, Schweizergasse 6, 8001 Zürich.

In the British Isles: Provided by Natixis Investment Managers UK Limited which is authorised and regulated by the UK Financial Conduct Authority (register no. 190258) - registered office: Natixis Investment Managers UK Limited, One Carter Lane, London, EC4V 5ER. When permitted, the distribution of this material is intended to be made to persons as described as follows: in the United Kingdom: this material is intended to be communicated to and/or directed at investment professionals and professional investors only; in Ireland: this material is intended to be communicated to and/or directed at professional investors only; in Guernsey: this material is intended to be communicated to and/or directed at professional investors only; in Guernsey: this material is intended to be communicated to and/or directed at professional investors only; in Guernsey: this material is intended to be communicated to and/or directed at a not professional investors only; in Jersey: this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Guernsey Financial Services Commission; in Jersey: this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Isle of Man: this material is intended to be communicated to and/or directed at only financial services providers which hold a license from the Isle of Man Financial Services Authority or insurers authorised under section 8 of the Insurance Act 2008.

In the DIFC: Provided in and from the DIFC financial district by Natixis Investment Managers Middle East (DIFC Branch) which is regulated by the DFSA. Related financial products or services are only available to persons who have sufficient financial experience



and understanding to participate in financial markets within the DIFC, and qualify as Professional Clients or Market Counterparties as defined by the DFSA. No other Person should act upon this material. Registered office: Unit L10-02, Level 10, ICD Brookfield Place, DIFC, PO Box 506752, Dubai, United Arab Emirates

In Japan: Provided by Natixis Investment Managers Japan Co., Ltd., Registration No.: Director-General of the Kanto Local Financial Bureau (kinsho) No. 425. Content of Business: The Company conducts discretionary asset management business and investment advisory and agency business as a Financial Instruments Business Operator. Registered address: 1-4-5, Roppongi, Minato-ku, Tokyo. In Taiwan: Provided by Natixis Investment Managers Securities Investment Consulting (Taipei) Co., Ltd., a Securities Investment Consulting Enterprise regulated by the Financial Supervisory Commission of the R.O.C. Registered address: 34F., No. 68, Sec. 5, Zhongxiao East Road, Xinyi Dist., Taipei City 11065, Taiwan (R.O.C.), license number 2020 FSC SICE No. 025, Tel. +886 2 8789 2788. In Singapore: Provided by Natixis Investment Managers Singapore Limited (company registration no. 199801044D) to distributors and institutional investors for informational purposes only.

In Hong Kong: Provided by Natixis Investment Managers Hong Kong Limited to institutional/ corporate professional investors only. In Australia: Provided by Natixis Investment Managers Australia Pty Limited (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information of financial advisers and wholesale clients only.

In New Zealand: This document is intended for the general information of New Zealand wholesale investors only and does not constitute financial advice. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. Natixis Investment Managers Australia Pty Limited is not a registered financial service provider in New Zealand.

In Latin America: Provided by Natixis Investment Managers S.A.

In Uruguay: Provided by Natixis Investment Managers Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Office: San Lucar 1491, Montevideo, Uruguay, CP 11500. The sale or offer of any units of a fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627.

In Colombia: Provided by Natixis Investment Managers S.A. Oficina de Representación (Colombia) to professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia. This material does not constitute a public offering in Colombia and is addressed to less than 100 specifically identified investors.

In Mexico Provided by Natixis IM Mexico, S. de R.L. de C.V., which is not a regulated financial entity, securities intermediary, or an investment manager in terms of the Mexican Securities Market Law (Ley del Mercado de Valores) and is not registered with the Comisión Nacional Bancaria y de Valores (CNBV) or any other Mexican authority. Any products, services or investments referred to herein that require authorization or license are rendered exclusively outside of Mexico. While shares of certain ETFs may be listed in the Sistema Internacional de Cotizaciones (SIC), such listing does not represent a public offering of securities in Mexico, and therefore the accuracy of this information has not been confirmed by the CNBV. Natixis Investment Managers is an entity organized under the laws of France and is not authorized by or registered with the CNBV or any other Mexican authority. Any reference contained herein to "Investment Managers" is made to Natixis Investment Managers and/or any of its investment management subsidiaries, which are also not authorized by or registered with the CNBV or any other Mexican authority.

The above referenced entities are business development units of Natixis Investment Managers, the holding company of a diverse lineup of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Investment Managers conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorized. Their services and the products they manage are not available to all investors in all jurisdictions. It is the responsibility of each investment service provider to ensure that the offering or sale of fund shares or third party investment services to its clients complies with the relevant national law.

The provision of this material and/or reference to specific securities, sectors, or markets within this material does not constitute investment advice, or a recommendation or an offer to buy or to sell any security, or an offer of any regulated financial activity. Investors should consider the investment objectives, risks and expenses of any investment carefully before investing. The analyses, opinions, and certain of the investment themes and processes referenced herein represent the views of the portfolio manager(s) as of the date indicated. These, as well as the portfolio holdings and characteristics shown, are subject to change. There can be no assurance that developments will transpire as may be forecasted in this material. Past performance information presented is not indicative of future performance.

Although Natixis Investment Managers believes the information provided in this material to be reliable, including that from third party sources, it does not guarantee the accuracy, adequacy, or completeness of such information. This material may not be distributed, published, or reproduced, in whole or in part.

All amounts shown are expressed in USD unless otherwise indicated.



