MyStratWeekly

Market views and strategy

Ostrum
ASSET MANAGEMENT

This document is intended for professional clients in accordance with MIFID

N° 013 // **8 March 2021**

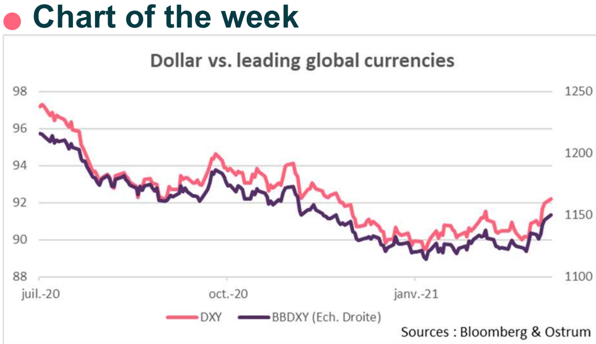
Topic of the week: semiconductors and the US/China Technology race

- **Semiconductors have become one of the most important industries in the world because they are at the heart of economic growth, security and technological innovation.**
- **Despite colossal investments in this industry, China is lagging behind, making it dependent on the rest of the world, especially Taiwan and South Korea.**
- **This has not escaped the US administration, which has increased trade sanctions against its technology giant Huawei, but also by putting pressure on chip suppliers, such as Taiwan.**
- **"Dual circulation" is China's strategy to be less dependent on the rest of the world.**

Market review: A silent Fed

- **Powell fails to provide guidance, yields press higher**
- **Nasdaq plunges 7,5% in 11 days**
- **Credit spreads unscathed amid rate volatility**
- **European banks outperform**

Chart of the week



The DXY averages the exchange rates between the USD and 6 major world currencies (EUR, GBP, CAD, CHF, SEK and JPY). The BBDXY is a larger index with 10 currencies (EUR, GBP, CAD, CHF, JPY, MXN, AUD, CHF, KRW, CNH and INR).

They both send a very similar signal: after a continuous depreciation last year, the dollar has turned this year with an acceleration of the appreciation over the past few weeks. The steepening of the curve and higher yield is one key factor for the move.

Figure of the week

70

Source : Ostrum AM

Brent prices exceeded 70$ briefly today for the first time since May 2019.
Prices are up more than 250% since last year's lows.

Stéphane Déo
Head of markets strategy

Axel Botte
Global strategist

Zouhoure Bousbih
Emerging countries strategist

Aline Goupil- Raguénès
Developed countries strategist

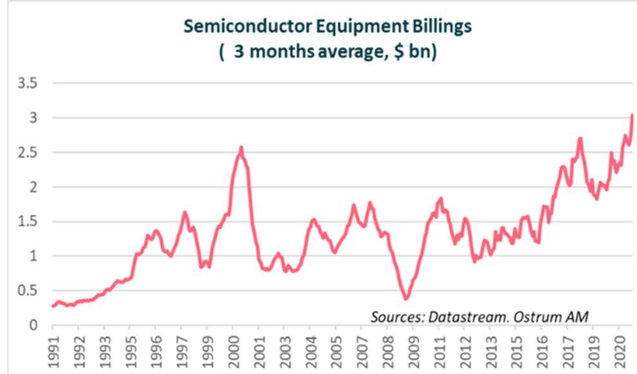
● **Topic of the week**

Semiconductors and the technology race USA/China

Semiconductors have become a global geopolitical issue because they are at the heart of the technological race between the United States and China. However, both countries are very dependent on the rest of the world for their supplies. China's strategic vulnerability in this industry has not escaped the US administration, which under D. Trump has multiplied trade sanctions against its tech giant Huawei. The US is also pressuring chip suppliers like Taiwan to choose between "blue" (US) or "red" (China) supply chains. U.S. trade sanctions and the pandemic have revealed to China that it can no longer depend on the rest of the world in such a strategic sector for its economic development. "Dual circulation" is the strategy to reduce their long-term dependence on the rest of the world.

Semiconductors have become one of the most important industries in the world because they are at the heart of economic growth, security and technological innovation. Moreover, they play a key role in emerging technologies, such as Artificial Intelligence (AI), 5G, IOT (internet of things) and autonomous systems.

The pandemic has accelerated the demand for computer products, and consequently the demand for semiconductors. Equipment from North American manufacturers worldwide reached more than $3 billion (3-month average) in January 2021, according to Semiconductor Equipement Industry (SEMI), surpassing the peak of 2018.



To understand the geopolitical stakes of these small silicone objects, we must first quickly look at the global semiconductor industry.

A highly concentrated and complex industry

The market for semiconductor companies is dominated by the US, which accounts for 47% of sales (according to Innovation Technology and Innovation Foundation (ITIF)), followed by South Korea (19%), Japan (10%), Europe (10%), Taiwan (6%) and China (5%).

However, the hierarchy is reversed when it comes to production. Indeed, many semiconductors are manufactured in South Korea (28%) by Samsung, Taiwan (22%) by Taiwan Semiconductor Manufacturing Corporation (TSMC) and China (12%) by SMIC. The United States only makes up 11% of the capacity.

The architecture of the production line of the semiconductor industry is therefore complex, which generates strong dependencies, especially the United States and China vis-à-vis producing countries. The recent global shortage of semiconductors has also revealed that other industrial sectors are equally highly dependent on industry.

This is the case for the automotive sector ($40 billion in semiconductors according to IHS Markit), smartphones ($115 billion according to IDC) and laptops ($70 billion according to IDC) which are the three main markets of the semiconductor industry.

However, the automotive sector is becoming an increasingly important market as automobiles contain a wider range of semiconductors than PCs or smartphones that require few components such as processors and memory chips. The automotive sector is currently experiencing a significant shortage of semiconductors as suppliers have turned to products for other applications due to the drop in car sales (-20% in 2020) related to the pandemic.

The Achilles Heel of China

China knows that to have sustainable growth it must change its industrial model. Rather than continue to be the sweatshop of the world, by importing intermediate goods and exporting finished products, China must be a leader in high-tech products, such as semiconductors.

We can see China's technological shift through its trade balance. Its imports in integrated circuits now represent 14.7% of its total imports, exceeding the share of oil which is 6.5% at the end of 2020.

China has become a leader in many high-tech areas such as solar panels, telecommunications equipment, and high-speed trains.

However, the country is lagging far behind in semiconductors, despite huge investments in the sector. According to Credit Suisse, China would have invested more in the semiconductor industry than the Americans to send their first man to the moon!

To reduce its dependence on the rest of the world, the Chinese authorities had launched a new "Made in China" policy in 2015 that also included the semiconductor industry. This policy quickly shifted to a grant policy for national champions. This has reduced incentives to innovate and thus gain market share, unlike foreign companies.

Another explanation is that the problem of China lies in finishing. Semiconductor manufacturing requires precision, which means cutting-edge equipment, such as lithographic machines, which China does not have. SMIC, China's largest semiconductor company, is far from competing with Taiwan Semiconductor Manufacturing Corporation (TSMC) and Samsung.

China's strategic vulnerability, an opportunity for the US to attack Huawei.

It was under the administration of D. Trump that the technological war against China intensified. The American strategy is clearly to put the Chinese technology giant under embargo.

Huawei, which was the world's second largest smartphone producer in Q2 and Q3 2020, fell to fifth place in Q4 2020 (according to Gartner). However, the Chinese company managed to end the year 2020 by being the third largest seller of smartphones, despite the distrust of a large number of countries, including the United States.

The US strategy against Huawei is based on two components: first, to put pressure on other countries, particularly Europe, by reminding the company's alleged proximity to the Chinese authorities. For the Americans, Huawei's equipment would be used to spy on companies and states. This is why the United States banned their companies from using Huawei network equipment in 2012 and added the company to its Entity List in May 2019 following a decree by D. Trump that was extended until 2021.

Since the health crisis, China's international image has deteriorated significantly and other countries have joined the US position. Thus, on 14 July 2020, the UK banned Huawei from its 5G network: the equipment must be removed by 2027.

The other part is to cut off its sources of supply of semiconductors, vital for its development.

Last December's US trade sanctions against SMIC, which prohibit US companies from exporting technology, severely penalize its ability to manufacture more advanced chips. As already mentioned in the first section, the architecture of the production chain is complex, if SMIC can no longer have access to its suppliers then the company is unable to compete with its rivals TSMC and Samsung.

Huawei has developed its own semiconductor company, Kirin, for its 5G equipment and smartphones.

The problem is that due to the lack of equipment, especially in lithographic machines, Kirin semiconductors are manufactured by Taiwan TSMC which uses American technology and equipment.

The Chinese authorities had launched a new "Made in China" policy in 2015 that also included the semiconductor industry

Since September 14, 2020, TSMC has stopped supplying Huawei chips due to "new US regulations" against the Chinese company, which has weakened its development. Huawei's other source of fragility is also base materials, such as photosensitive resins, which are used in many industrial processes such as lithography. For the time being, the position of the new J. Biden administration on the subject has not yet been made public.

Taiwan: at the heart of the tec rivalry between the United States and China

Taiwan has become the world leader in semiconductor production thanks to Taiwan Semiconductor Manufacturing Corporation (TSMC), which produces the world's top performing chips (10 nanometers or less). It is also the main supplier of US and Chinese companies such as Apple, Qualcomm, Broadcom, Xilinx and Huawei (until recent US restrictions).

The reasons for such success are to be found in geopolitics. Taiwan, South Korea and Japan all benefited from US technology transfer as allies during the Cold War. Taiwan sent its first engineers to the United States in 1970, who then founded TSMC. At that time, China was just emerging from its Cultural Revolution and began to open up to the world in 1978. As a result, the country was lagging behind in science and was sorely short of engineers. Technological innovation requires investment in human capital that takes time and does not catch up quickly.

Taiwan and TSMC have therefore assumed greater geopolitical importance in the current environment, as evidenced by the actions of the US administration.

The United States has launched an initiative that encourages leaders in the semiconductor industry, including TSMC, to build advanced chip manufacturing facilities on American soil. The goal is to put pressure on global chip suppliers to choose between "blue" (US) and "red" (China) supply chains.

On May 15, 2020, TSMC announced that it would invest up to $12 billion in a 5nm chip manufacturing plant in Arizona, which could pave the way for a "safe" collaboration with the Pentagon that would then integrate it into its supply chain. The strong presence of Chinese engineers in the Taiwanese leader worries the American administration, because of suspicions of espionage especially in the military field. American companies account for 60% of its revenues.

On the same day, the U.S. administration issued a foreign direct product rule to stop shipments of advanced semiconductors to Huawei's subsidiary HiSilicon by TSMC. HiSilicon also accounts for 14% of its revenues.

If the United States extends technology restrictions on semiconductors to other Chinese companies and succeeds in widening the gap between China and Taiwan in the semiconductor field, then they risk provoking a brutal reaction from Beijing, that would create significant distortions in global technology supply chains.

Double circulation: China's strategy to be less dependent on the rest of the world

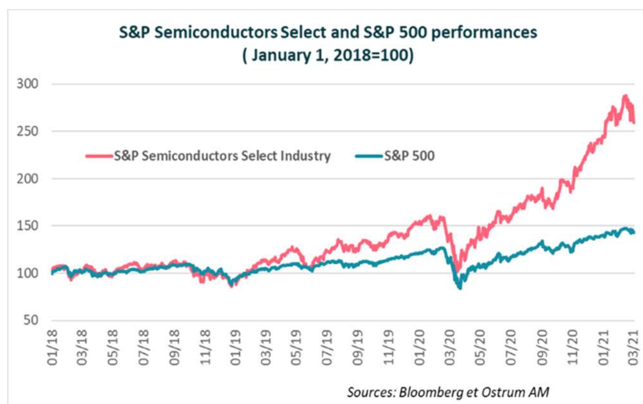
The US sanctions and the pandemic have reminded China that it can no longer be dependent on the rest of the world, especially in the strategic field of semiconductors.

In fact, this is one of the priorities of the Chinese Communist Party's 14th five-year strategic plan for 2021-2025, and of the "dual circulation" strategy. The objective is to reduce dependence on exports in its economic development, focusing on domestic demand.

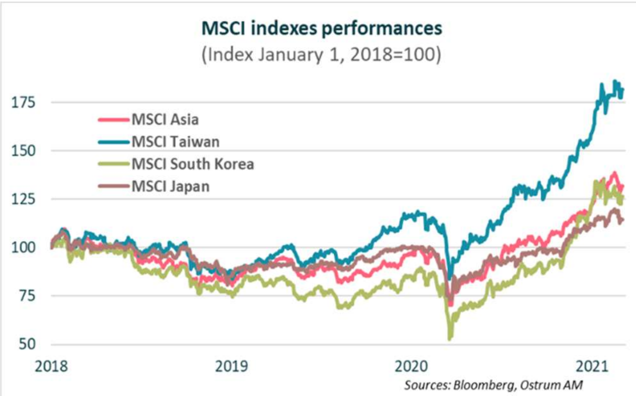
However, this does not mean that China is shutting down in the world, as it is still dependent on the rest of the world in certain technology sectors, such as semiconductors. The idea is to gradually shift the Chinese economic model towards the domestic market, which will play an increasingly important role in the long term.

What implications for financial markets?

After a challenging 2018 year marked by US trade sanctions and weak global demand for semiconductors, the S&P Semiconductors Select Index reached a record high on February 16 at more than 4,700 points. Since 2018, the S&P 500 Select Semiconductor Index has increased 160%!

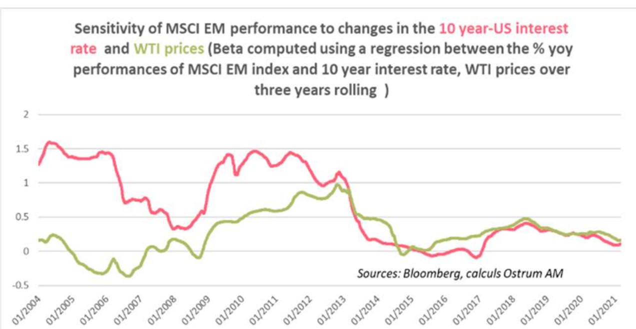


The performance of the index reflects the strong global demand for computer products to work and study at home, linked to the pandemic, which outperformed the S&P 500 index.



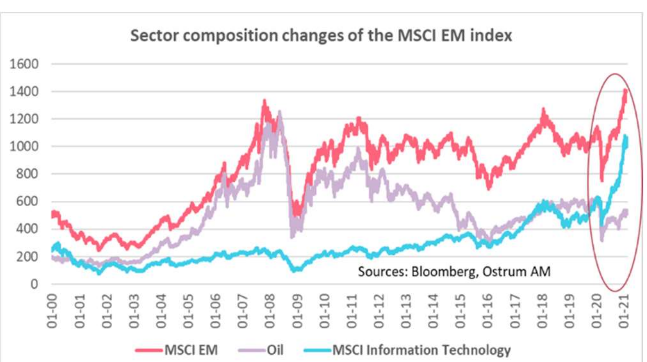
In the Asian equity markets, Taiwan is by far the market that has taken full advantage of the pandemic, as has the MSCI Taiwan Index, which outperforms the MSCI Asia Index and those of South Korea and Japan.

While the prospect of an end to the health crisis appears to be emerging through vaccination, global demand for semiconductors is expected to remain strong due to the growth of emerging technologies, particularly in China.

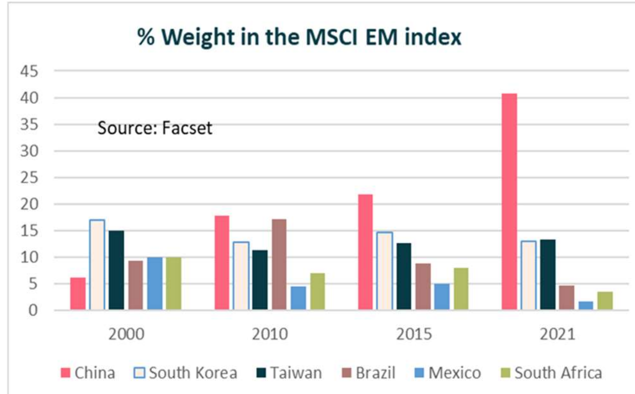


China's technological shift has led to significant structural changes in emerging market equity indices, such as the MSCI EM Index.

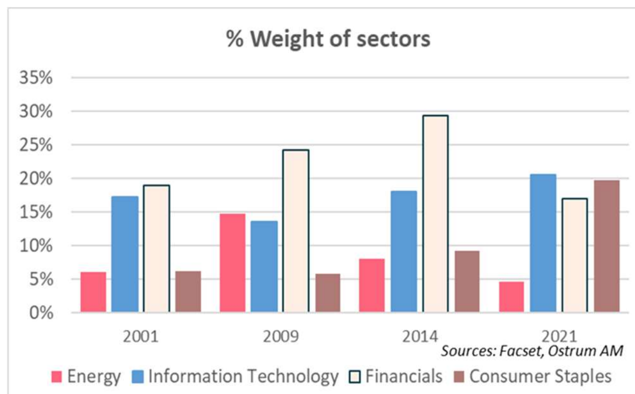
The sensitivity of the MSCI EM Index (in USD) to US interest rates and oil prices has decreased significantly since 2013, reflecting significant sectoral changes within the index.



Technology is now the main driver of performance, not energy. The growth of the information technology sector (20.5% of the MSCI EM index) is in line with that of China, which now accounts for 40% of the MSCI EM index.



Discretionary consumption is also a new trend that has emerged, reflecting the emergence of a middle class in emerging countries, particularly China. Its weight in the index increased from less than 6% in 2001 to almost 20% in 2021.



Chinese consumers' insatiable demand for smartphones (90 million devices shipped in Q2 2020, according to Credit Suisse) and its largest automotive sector in the world, are among the main drivers of demand from the semi-commercialdrivers of the country.

In addition, the global automotive sector, which is currently experiencing a shortage of semiconductors, does not require as complex electronic components as smartphones or laptops. SMIC, could fill this gap by using the old technology and make a success of the game.

China can also find unexplored opportunities elsewhere, such as artificial intelligence chips. What made TSMC's financial success is that the Taiwanese company specialized in a segment of the production chain and not in the entire chain. Chinese companies Alibaba and Huawei have already taken a step ahead in producing these chips for use in 5G networks. This is an opportunity to catch for China.

Zouhoure Bousbih

Market review

A silent Fed

Fed will ignore inflation spurt leaving room for further tensions on bond yields. The Nasdaq shifts lower. Credit proves resilient to higher rate volatility whilst European equities bounce.

Jerome Powell's intervention at the WSJ forum was much awaited by markets. The Fed chairman considers that the institution remains far off its dual mandate goals of maximum employment and stable prices. The asset purchase program remains calibrated at $120b a month. The acceleration in prices is judged temporary so that the Federal Reserve appears unwilling to change course as inflation expectations remain consistent with its price stability objective. Doing so, Jerome Powell may leave the Fed exposed to speculative market moves.

The tug of war between the Fed and financial markets will hence be centered on the evolution of inflation expectations. There may be a parallel to be drawn with Mario Draghi's speech at the 2014 Jackson Hole meeting. The ECB chief had taken comfort in the anchoring of medium-term inflation expectations… but, in the following weeks of trading, long-term inflation breakevens (5-year forward 5-year) had fallen sharply invalidating Draghi's argument and forcing the ECB to launch a massive asset purchase program. If the Fed, wishes to intervene to stem upward pressure on yields, a Twist operation would appear most appropriate. The institution holds $885b worth of Treasury bonds and bills maturing in 2021 (equivalent to 11 months of current Treasuries purchases). The Fed may redeploy these bond holdings onto longer-dated maturities. Under the previous twist experiment, purchases had been concentrated on Treasuries with maturities beyond 6 years. Additionally, liquidity conditions in repo markets could be improved, as the collateral scarcity issue grows after the Treasury's decision to cut Treasury bill issuance. Repo rates on special securities frequently trade down to -3% area. The QE breakdown between Treasuries and MBS. However, cutting the share of MBS could be a way to ensure financing of the Federal fiscal program. The robustness of housing investment entails financial stability risks in years ahead. Fed caution appears increasingly at odds with the underlying economic reality. By the end of the first quarter, the US economy will have erased the pandemic hit with about 10% annualized growth expected in the three months to March, before $1.9T fiscal stimulus kicks in. Job creation is improving with 465k jobs added in February and a decline in the unemployment rate to 6.2%. The Fed's stance (status quo on interest rates until 2023) will be increasingly harder to maintain as CPI inflation will accelerate past 3% this spring.

Market pressure will intensify. T-note yields have been testing the 1.60% threshold as 30-year Treasuries traded through 2.30%. These two maturities will be issued this week. The 2s10s curve spread traded higher towards 143bp. The bearish consensus is building fast according to positioning surveys. Put volumes are twice those traded on the call side. Meanwhile the greenback strengthened against all currencies. The rise in Treasury note yields seems to attract foreign interests, including from Japanese investors. Conversely to the Fed, the BoJ made (relatively) clear that it did not intend to broaden the target range for the 10-year JGB yield (centered on 0%). As a result, JBGs rallied briefly towards 0.10% and a sharp depreciation in the JPY past 108. The Chinese Renminbi also adjusted lower on revisions to growth forecasts made by government (just 6% expected in 2021).

In the euro area, Bunds stabilized about -0.30% despite hazardous communication from of ECB members, which hints at difficulties to achieve consensus at the upcoming governing council on Thursday. The ECB will surely leave policy unchanged as PEPP already offered the needed flexibility. Most sovereign spreads were a touch wider last week. Sovereign bond fund inflows have slowed somewhat. In turn, the inaugural Italian green bond deal (Apr45) attracted huge demand worth €80b but weighed slightly on surrounding BTPs. Ten-year BTPs is trading about 106bp at last week's close. In the UK, the budget announcement weighed on markets. Gilt issuance will total £234b this fiscal year, about 20% more than had been expected.

Credit markets, including CDS indices, remain quite resilient to increased rate volatility and signs of weakness in some equity markets. We have observed some relative value arbitrages in favor of short-dated credit securities to the detriment of rich long-term bonds. Financial conditions remain very favorable to borrowers as primary bond deals reach €17b last week. As a side remark, recently issued green bonds commend a premium of about 5bp in secondary markets. High yield markets also resist continued outflows from speculative-grade bond funds, in USD space in particular.

The European equity market is up in the last five sessions thanks to favorable earnings picture (topping estimates by 15% on average) most notably in value cyclical sectors. Tensions on yields are less pronounced than in the US but European technology stocks cannot break away from the correction in Nasdaq, (-7.5% in 11 days). Sharp sector rotation is developing. Banks benefit from higher yields and scope for increased distribution given their excess capital (14-16% capital ratio). ROTE averaging 8% is set to rise.

Axel Botte

Main market indicators

G4 Government Bonds	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Bunds 2y	-0.68 %	+0	+3	+2
EUR Bunds 10y	-0.28%	+5	+16	+29
EUR Bunds 2s10s	40 bp	+5	+14	+27
USD Treasuries 2y	0.15 %	+3	+4	+3
USD Treasuries 10y	1.6 %	+18	+43	+68
USD Treasuries 2s10s	145 bp	+15	+39	+66
GBP Gilt 10y	0.76 %	+1	+29	+57
JPY JGB 10y	0.12 %	-3	+5	+10
€ Sovereign Spreads (10y)	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
France	24 bp	+0	+2	+1
Italy	103 bp	+3	+7	-9
Spain	67 bp	+1	+10	+6
Inflation Break-evens (10y)	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR OATi (9y)	110 bp	+9	+12	-
USD TIPS	225 bp	+9	+4	+26
GBP Gilt Index-Linked	338 bp	+1	+24	+38
EUR Credit Indices	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Corporate Credit OAS	89 bp	+0	+1	-3
EUR Agencies OAS	39 bp	+0	+0	-2
EUR Securitized - Covered OAS	30 bp	+1	-1	-2
EUR Pan-European High Yield OAS	320 bp	+2	-7	-38
EUR/USD CDS Indices 5y	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
iTraxx IG	50 bp	+1	+2	+2
iTraxx Crossover	257 bp	+7	+12	+15
CDX IG	54 bp	+1	+4	+4
CDX High Yield	305 bp	+9	+20	+11
Emerging Markets	08-Mar-21	-1wk (bp)	-1m (bp)	YTD (bp)
JPM EMBI Global Div. Spread	363 bp	+4	+24	+11
Currencies	08-Mar-21	-1wk (%)	-1m (%)	YTD (%)
EUR/USD	$1.187	-1.45	-1.49	-2.93
GBP/USD	$1.384	-0.55	+0.73	+1.4
USD/JPY	¥108.68	-1.75	-3.21	-4.95
Commodity Futures	08-Mar-21	-1wk ($)	-1m ($)	YTD ($)
Crude Brent	$69.1	$5.4	$8.9	$17.4
Gold	$1 691.4	-$35.7	-$141.5	-$203.0
Equity Market Indices	08-Mar-21	-1wk (%)	-1m (%)	YTD (%)
S&P 500	3 842	0.81	-1.88	2.29
EuroStoxx 50	3 711	0.12	1.25	4.46
CAC 40	5 833	0.69	2.58	5.07
Nikkei 225	28 743	-3.10	-2.20	4.73
Shanghai Composite	3 421	-3.66	-3.14	-1.49
VIX - Implied Volatility Index	26.56	13.75	25.05	16.75

Source: Bloomberg, Ostrum Asset Management

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 €. Trade register n°525 192 753 Paris – VAT : FR 93 525 192 753 – Registered Office: 43, avenue Pierre Mendès-France, 75013 Paris – www.ostrum.com
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 08/03/2021

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. Italy: 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. Germany: 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. Netherlands: Natixis Investment Managers, Nederlands (Registration number 50774670). Registered office: Stadsplateau 7, 3521AZ Utrecht, the Netherlands. Sweden: Natixis Investment Managers, Nordics Filial (Registration number 516405-9601 - Swedish Companies Registration Office). Registered office: Kungsgatan 48 5tr, Stockholm 111 35, Sweden. Spain: Natixis Investment Managers, Sucursal en España. Serrano n°90, 6th Floor, 28006, Madrid, Spain. Belgium: 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 Sàrl, 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 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 professional investors only; in 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 line-up 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.