MyStratWeekly
Market views and strategy

N° 047 // **November 29, 2021**

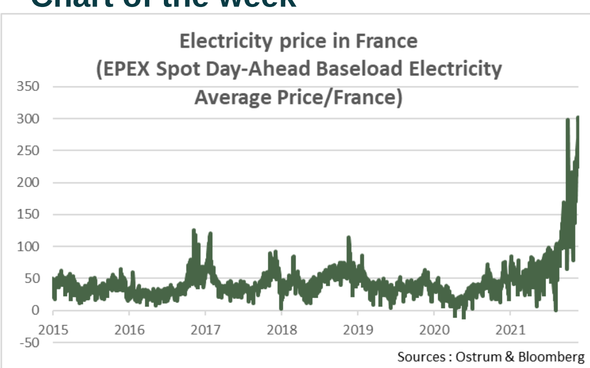
Topic of the week: Africa: Covid-19 has awakened its old demons.

- **The last decades of stability in Africa had fostered its strongest growth of the century and reduced poverty;**
- **The Covid-19 pandemic is a destabilizing force for the continent. The risk of instability is compounded by rising food prices and the effects of climate change;**
- **In terms of investment choices, we favor countries with stable governance in the region and remain cautious about importing agricultural products.**

Market review: Back to the unknow

- **The South African variant pours cold water on global markets;**
- **Stocks plunge into hollow markets;**
- **Flight-to-quality on Bunds, T-notes;**
- **Notable unwinding of short positions on the yen.**

Chart of the week



One aspect of the ongoing energy crisis is the jump in electricity prices. The price in France has jumped (EPEX Spot Day-Ahead Baseload Electricity Average Price/France) it has grown 399% compared to last year and 434% compared to the beginning of the year.

Although this has had little impact so far on the CPI, it will certainly have at some point in the future. This also means that the production costs for a number of sectors have increased significantly, which will constitute yet another problem for margins.

Figure of the week

6

Source : Ostrum AM

Inflation in Germany, according to the harmonized definition. Before this year that measure of inflation had never exceeded 3.5%. Although it's most certainly the peak, it will inevitably trigger a hot debate.

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.goupil-raguenes@ostrum.com

Topic of the week

Africa: Covid-19 has awakened its old demons

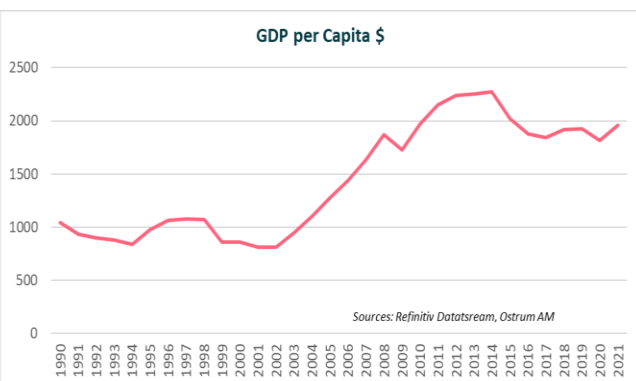
The coups are back in Africa. Will this trend continue? Part of the response is provided by the Covid-19 pandemic that highlighted the continent's structural vulnerabilities. Although it has been relatively spared in terms of health, the economic consequences of it, particularly on informal work, risk distancing Africa from the UN's first sustainable development objective, that of poverty reduction. Instability in the region is likely to be exacerbated by rising food prices and climate risks.

Pre-existing structural vulnerabilities

The strongest growth of the century due to a period of stability

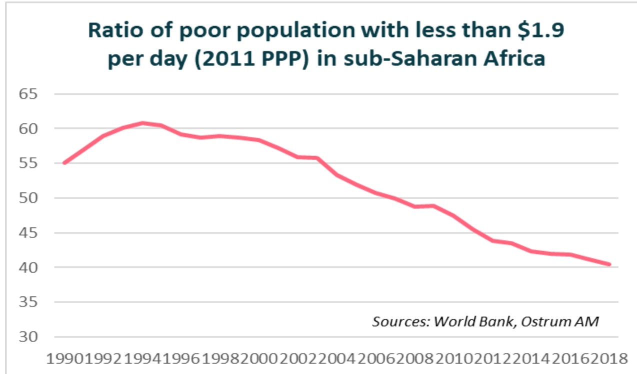
The reduction of conflicts has allowed Africa to record strong growth, leading to better economic policies and increased macroeconomic stability.

The evolution of GDP per capita has been on an upward trajectory since 2001, when China entered the World Trade Organization. Accelerating trade and rising commodity prices linked to strong Chinese demand have benefited the resource-rich continent.



This strong growth has reduced poverty, particularly extreme poverty.

Thus, the ratio of the poor population with less than $1.90 per day in sub-Saharan Africa has fallen considerably since 2000, from more than 60% in 1994 to 40% in 2018.

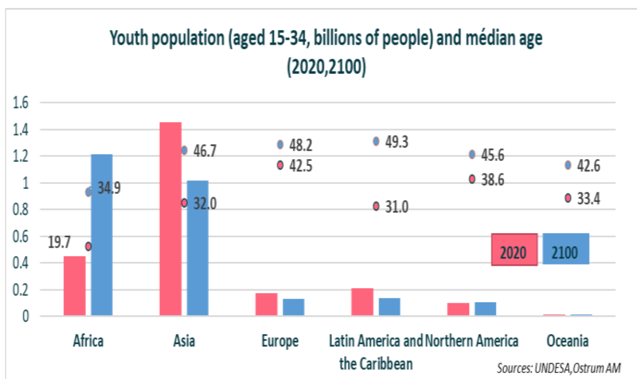


However, since 2016, growth has slowed, one year after Africa committed to eradicating poverty by 2030 by adopting the UN's 17 Sustainable Development Goals. The poverty rate remains high, particularly in the Sub-Saharan Africa region. Behind this, there are significant structural vulnerabilities, the first victims of which are young people.

Africa: the youngest continent

The median age in 2020 was 19.7 years. As a comparison in Latin America and the Caribbean, the median age was 31 years, 32 years in Asia, 33.4 years in Oceania, 38.6 years in North America and 42.5 years in Europe, the oldest continent.

Forecasts for 2100 by the UN Department of Economic and Social Affairs show that the continent will still remain the youngest, as shown in the graph below.

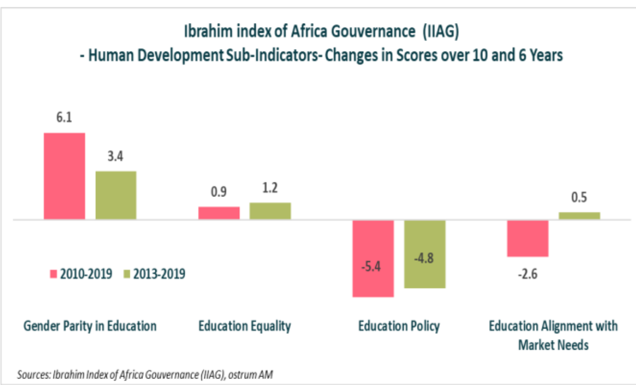


This significant youth gap with other continents should be a development opportunity for Africa. Yet, despite the last decade of growth, the continent has not managed to create enough jobs for its young people, but more importantly, has not trained them enough to serve the economy.

Young Africans are unemployed and poorly trained

The unemployment rate is high in the continent, especially for 15-24 year-olds as shown in the chart below.

These young people have also received little training, reflecting the deterioration of the education indicators in the graph below.



The match between business skills and education is worse than in the rest of the world. The link between higher education and better employment prospects is also weak.

The other important point is that the urban informal economy is particularly prevalent among young people (95.8% aged 15-24) and women (92.1%) and contributes greatly to poverty reduction[1].

For example, in Senegal the informal sector accounts for 90.2% of total employment, 90.1% in Togo, Zambia 71.8%, Mali 93.4% and Egypt 64.6%[2].

While this creates opportunities for economic growth, the urban wage-earning sector does not create enough jobs to absorb all entrants and those migrating from rural to urban areas. By 2030, 30 million young people will enter the labor market! These people are therefore vulnerable because they do not benefit from recurring income and social protection.

This dramatic situation on the labor market may explain the frustrations that African youth may encounter, which leads to high social tensions or push them to emigrate, sometimes at the risk of their lives.

Covid-19 pandemic is a destabilizing force for Africa

The worst recession in half a century!

Although Africa was relatively untouched by the health crisis, in 2020 it experienced its worst recession (-1.8%, according to the African Development Bank) in half a century. All regions of the continent have been impacted by the economic consequences of the Covid-19 pandemic: falling commodity prices, global trade, and tourism.

The recovery plans implemented in the countries, as well as remittances by migrant workers from so-called developed countries, have made it possible to limit the economic effects of the pandemic, particularly on the most vulnerable population.
According to the World Bank, remittance flows are expected to grow by 7.3 per cent in 2021 to reach $589 billion. This forecast is higher than previous estimates and follows the resilience of flows observed in 2020, when they had decreased by only 1.7% despite a severe global recession.

As in the rest of the world, the economic recovery has begun. For 2021, the continent's growth forecast is 3.4% and 4.7% for 2022[3]. Commodity-producing countries should benefit from higher prices. However, the recovery is slower compared to the projected global growth of 6%, and especially compared to the developed countries. The low rate of vaccination against the virus obviously explains the delay in the recovery of Africa.

According to IMF projections, advanced economies are expected to reach their pre-crisis growth trajectory by 2023. Sub-Saharan Africa, on the other hand, will not soon regain lost ground. The region is expected to grow twice as fast over the next three years to match the type of recovery seen

[1] https://blogs.worldbank.org/africacan/supporting-africas-urban-informal-sector-coordinated-policies-social-protection-core
[2] Data from ILO, SDG indicator 8.3.1 - Proportion of informal employment in total employment by sex and sector (%)

[3] Forecasts from African Development Bank(AFDB)

in advanced economies.

According to the WHO, only five African countries, less than a tenth of the continent's 54 nations, will reach the end-of-year goal of fully vaccinating 40% of the population. At this stage three African countries, Seychelles, Mauritius and Morocco had already reached the target in May. At this rate, only two other countries, Tunisia and Cape Verde, will also reach the WHO target.

However, it is the labor market shock in the African countries that is the most worrying because it is a strong factor of social instability.

The virus has highlighted the vulnerability of people working in the informal sector

In South Africa, 1 million jobs have been destroyed as a result of mobility restrictions implemented in 2020. Income losses are considerable, and more and more industrialized African countries are experiencing an increase in hunger!

In Nigeria, the largest oil-producing country in Africa, the unemployment rate is over 40%!

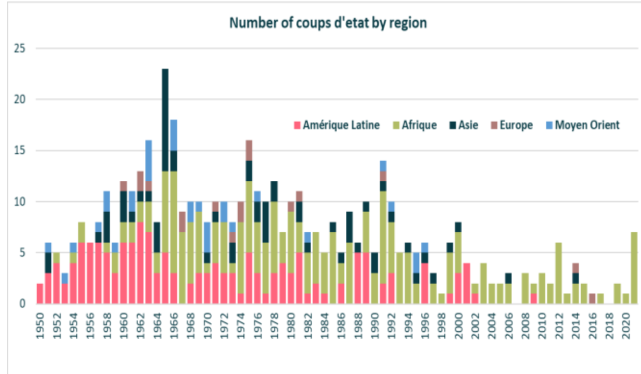
The continent also suffers from the drop in tourism that contributed to 8.5% of GDP before the pandemic and employed 24 million people[4].

Without assistance, there is a high risk of falling into poverty.

According to the World Bank, the pandemic pushed more than 40 million people into extreme poverty[5] before Africa was hit hard by the resurgence of the epidemic in May and July 2021. Living in urban areas also places them at greater risk of health and social risks.

The number of coups d'etat at its highest since 1980!

The worsening economic and social situation in many African countries has created the resurgence of coups d'état which, after a relatively calm decade, have returned to Africa, as shown in the graph below.



Africa is the continent that has experienced the most coups in history, but this year the number is at the highest since the 1980s!

Since 18 August 2020, four coups d'état have been committed. Two in Mali, in May 2020 and August 2021, one in Chad, in May 2021, and one in Guinea, in September 2021. Other countries also experienced complicated situations this summer, such as Tunisia, since the 2011 "jasmine revolution", the political situation in Tunisia is very unstable. The succession of governments and political clashes have significantly reduced the country's macro-economic visibility, this penalizes investment, which is key to growth.

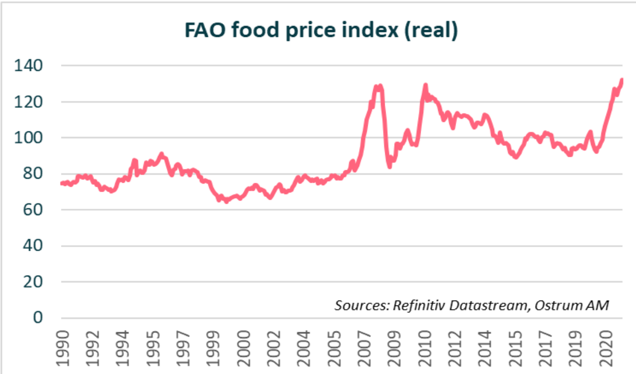
The latest is that of 25 July 2021, when President Kadis Saied, invoking Article 80 of the Tunisian Constitution, suspended the work of Parliament and announced the lifting of the immunity of all MEPs. He then announced on September 22 the extension of the decisions and decided to suspend the salaries and other income granted to MPs. The president's decisions raise fears of a totalitarian drift that would harm the country's economic prospects.

Aggravating factors

Rising food prices, the main risk for 2022

The FAO Food Price Index (relative to the price of industrial goods) is at an all-time high, exceeding the 2011 levels of the "Arab Spring" characterized by high political instability in these countries (Tunisia, Egypt, Algeria).

[4] African economic outlook 2021, AFDB
[5] https://www.worldbank.org/en/news/factsheet/2020/06/02/world-banks-response-to-covid-19-coronavirus-in-africa



Since May 2020, the index has increased by more than 40%! **Rising food prices combined with reduced incomes also mean that households need to reduce their food consumption, threatening past gains in poverty reduction, nutrition and food security.**

Climate risk: a crisis multiplier

The climate risk aggravates the food security of sub-Saharan Africa, which is the region most vulnerable to climate risk while it is the smallest contributor of greenhouse gas emissions in the world, less than 5% of global emissions. One third of the world's droughts are already occurring in sub-Saharan Africa, where agriculture is highly dependent on rain. **The climate factor can act as an amplification of crises by aggravating pre-existing tensions, weak governance and other social economic problems.**

International cooperation remains paramount

It is the rapid financial mobilization of the international community that has been a vital aid to Africa without which decades of hard-won progress would be wiped out[6].

The recent allocation in SDRs has increased the foreign exchange reserves of countries and strengthened their external positions.

International cooperation remains paramount and must be strengthened.

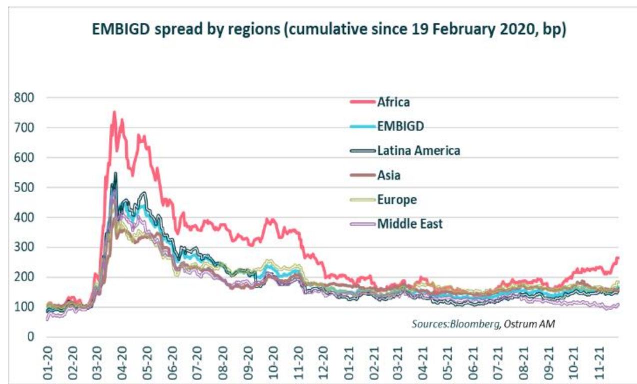
Indeed, fiscal room for maneuver is reduced[7] or even non-existent in some countries, and the continent still has to deal with the virus-related spending that continues to plague activity, as well as the economic consequences.

In this perspective, the transfer of SDRs from rich countries to poorer countries, an hypothetical solution, could strengthen their impact by providing additional resources that would allow the post-pandemic recovery.

Strategy & markets

Africa's structural vulnerabilities are reflected in its credit profile

The chart below shows the EMBIGD spreads for the different regions cumulatively since the WHO declaration of the global pandemic on February 19, 2020.

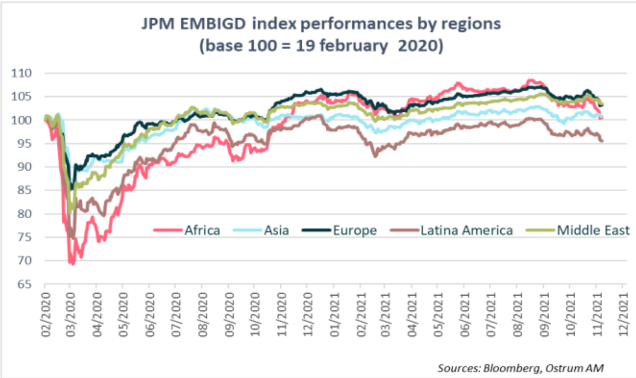


In 2020, Africa's risk premium deteriorated the most, it widened to more than 700 bps, while the EMBIGD index was 400 bps, reflecting the strong shock of the pandemic that exacerbated the continent's pre-existing vulnerabilities.

It is noted, however, that the risk premium has declined rapidly since spring 2020, reflecting the rapid financial mobilization of the international community which has reduced liquidity risk for many very fragile countries by alleviating financial pressures.

This was reflected in the performance of the EMBIGD Africa Index (chart below), which quickly returned to its pre-pandemic level, while Latin America remains lagging behind.

6 MyStratWeekly, EM after Jackson Hole
7 MyStratweekly, EM debt in full change

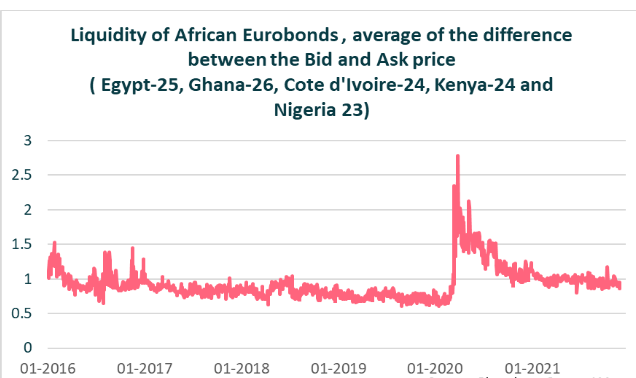


The region's EMBIGD index has still not returned to pre-pandemic levels, as shown in the chart below, relative to other regions.

Latin America has been hit hard by the health crisis and its economic consequences. Political uncertainty related to the busy electoral calendar (Peru, Chile, ...) has also reduced macroeconomic visibility, which has worsened investor sentiment for the region.

Another point that can be noted is the easing of tensions on liquidity. Eurobond liquidity had deteriorated following the sharp tightening of global financial conditions that had led to a dollar shortage. The Fed's reactivation of the dollar swap lines introduced during the 2008 financial crisis, as well as its other measures to inject liquidity, has helped to ease tensions in global markets.

The chart below represents the average of the differences between the purchase and sale price of the euro bonds on short maturities, liquidity proxy, for five African countries: Egypt, Ghana, Côte d'Ivoire, Kenya and Nigeria.

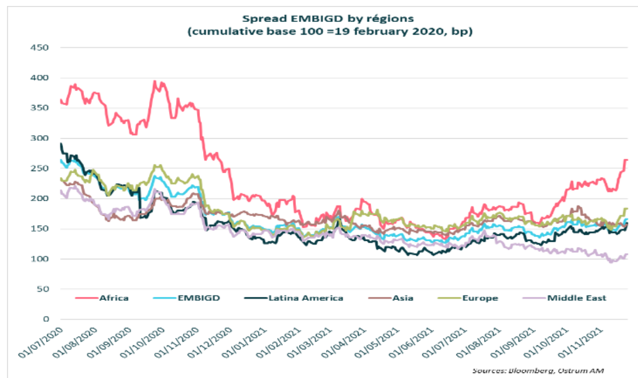


There was an increase in the price differential over the entire first quarter of 2020, then gradually falling below 1 bps, which remains above pre-pandemic levels. International investors remain wary because of the fragile macro-financial balance of these countries.
It should be noted that the EMBIGD spread, although it tightened very quickly after the peak of the crisis in March 2020, has still not returned to its pre-pandemic level. It is at +108 bps from its five-year low and +188 bps from its historical low. This reflects fears about the economic and social prospects of emerging countries whose post-pandemic recovery remains fragile.

Faster food inflation increases risk premiums in African countries…

Over the past three months, international investor sentiment has sharply changed due to inflation fears, including rising food prices, which threaten the macroeconomic and political/social stability of emerging countries.

This has resulted in an increase in risk premiums, which can be seen in the chart below, which is an expansion over the recent period of the first chart on EMBIGD spreads.



Latin America, whose EMBIGD index had the worst performances since the beginning of the year, has just been quickly caught up by Africa.

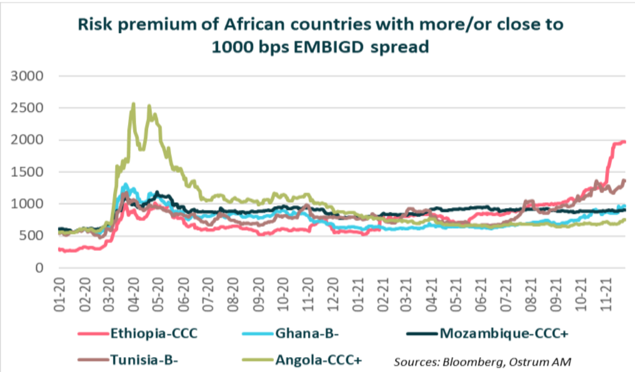
The increase in risk premiums is again particularly marked for Africa. Since September 2021, the region's EMBIGD spread has spread by more than 100 bps, +37 bps for Latin America, +30 bps for Europe, +4 bps for Asia, and -6 bps for the Middle East.
Asia and the Middle East have played their role as defensive values, although rising food prices are also expected to weaken the most fragile Asian countries. This means that rising food prices are more destabilizing for Africa than for other regions. This is the main risk for the continent in 2022, which should result in an increase in risk premiums for several already weakened countries.

… because it is a threat to social and political stability

The return of political risk also increases risk premiums.

The return of political risk has put pressure on the credit profile of many African countries, which have higher risk premiums or close to 1,000 bps.

This is the case for Tunisia, whose risk premium (EMBIGD spread) reached record highs at 1358 bps linked to the deterioration of the country's political situation.

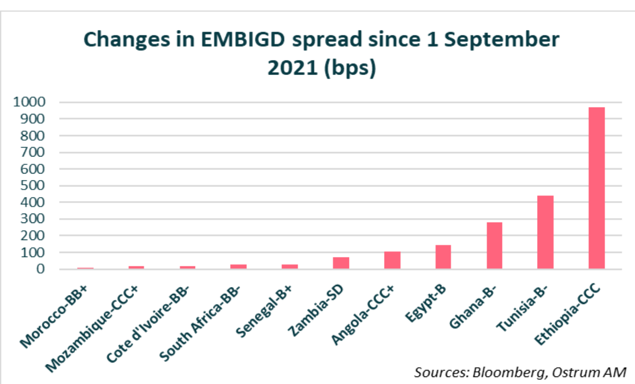


Ethiopia, which was highly underrated by rating agencies, CCC, which on 29 January 2021 said it wanted to renegotiate its debt under the new G20 negotiating framework, also has the highest spread in the region close to 2000 bps. The country is preparing to enter into war against the Oromo and Tigrean rebels, which risks destabilizing the entire region.

Finally, Ghana, the world's second largest cocoa producer, after Côte d'Ivoire, where debt interest accounts for 129% of its income! Its fiscal room is therefore very limited and the country is also facing social tensions. The government has decided to increase taxes, including gasoline prices by 20%, to increase its tax revenues, which have been undermined by the health crisis.

Governance is a strong driver of risk premiums

A distinction can be made between countries within the region. The chart below shows the EMBIG spread variations of a selection of African countries since 1 September 2021.



Overall, the top-ranked countries recorded small spread changes in the order of the EMBIGD index (26 bps). Their ratings also reflect their relative political stability. Mozambique, which has a very poor rating like Ethiopia, already had a high risk premium (907 bps), because of its debt repayment problems, but relies on its liquefied gas resources to repay it.

Egypt and Tunisia, both net importers of agricultural products, are the most vulnerable to rising food prices that threaten their social and political stability. Egypt's increased risk premium is also linked to its own dispute with Ethiopia over a massive dam on the Nile. We favor countries with stable governance. We remain cautious over countries that are net importers of agricultural products.

Conclusion

The Covid-19 pandemic is a destabilizing force for Africa that was already suffering from pre-existing structural vulnerabilities. The risk of political and social instability in the region is rising sharply, compounded by rising food prices and the effects of climate change. The rapid financial mobilization of the international financial community was crucial in 2020 to avoid the loss of decades of progress, particularly on eradicating extreme poverty (SGD 1). International cooperation must therefore continue and strengthen to prevent Africa from moving away from the 17 UN Sustainable Development Goals. In terms of market strategy, this should translate into an increase in risk premiums linked to the deterioration of governance and economic prospects.
We favor countries with stable governance. We remain cautious over countries that are net importers of agricultural products.

Zouhoure Bousbih

Market review

Back to the unknown

The South African variant causes violent rotations in the markets.

The inflation of the price of turkey (+ 14% from a year ago!) on Thanksgiving week has been this week's topic until the new South African variant made news. Its rapid spread is worrying, and many countries have already suspended air traffic to six countries in the south of the African continent. The WHO predicts that it will take several weeks to establish the dangerousness of this variant. Stock markets slipped in Asia during Friday's session. Futures on the S&P, Euro Stoxx 50 and major European stock indexes were rapidly down 2 to 4%. The low liquidity in the financial markets around Thanksgiving likely exacerbated the price downswings. The earlier rise in US yields which reflected expectations of an acceleration in the exit from quantitative easing has been erased. The 10-year T-note eventually stabilized around 1.50% after reaching an intraday peak at 1.69% on Wednesday. The pullback in German Bund yields is more measured but the euro benchmark 10-yr bond is trading below -0.30%. Positions which generated profits lately are being cut. The dollar-yen is a prime example of such reversals. The euro climbed back to $1.128. Synthetic credit spreads shot up significantly. The iTraxx crossover (286bp) widened by more than 20bp at the Friday open. In short, the world is faced with sanitary uncertainty, with the risk of stop-and-go growth pattern through the winter. Volatility levels in equities, foreign exchange and rates have increased markedly. The price of oil plunged ($ 75 on Brent) anticipating a like drop in air traffic. Most commodities are plunging (especially metals), except for gold.

The return of the Covid threat comes as business surveys appear robust in November. Regional Fed surveys show a rebound in activity. GDP for the second quarter (+ 2.1%ar) has admittedly been rounded down, but consumer spending and household income were upbeat in October. In parallel, capital goods orders signal a further rise in corporate investment. In the euro area, the November PMIs have shown an improvement, which is now therefore partially called into question by the deterioration in the health situation, Brexit or even tensions at the eastern European borders.

As regards monetary policy, the resurgence of Covid probably makes the situation harder to assess for policymakers. Inflation has become a major political issue in the run-up to the midterm elections. The reappointment of Jerome Powell (at the expense of Lael Brainard, who was promoted to Vice-Chair) ensures a certain continuity in policymaking but the minutes of the November FOMC already hints at an accelerated exit from the asset purchase program and front-loaded rate hikes. Markets are pricing in two Fed Fund hikes next year. The ECB is in a similar situation. Inflation risks are on the rise, according to Isabel Schnabel. The consensus within the Governing Council is thus shifting towards a less accommodative calibration of bond purchases. The BoE, admittedly pretty unpredictable of late, seemed to take a further step towards an increase in December due to high wage inflation (5.8% year on year, including bonuses) which could reinforce upward pressure on consumer prices.

Knee-jerk risk-off reactions to the announcement of this worrisome new variant outbreak is widespread across global financial markets. Asian market participants swiftly sold equity futures on both local and western markets. The Nikkei, like the Hong Kong index, lost 2.5% on Friday. European markets were down 2 to 4%. Violent sectoral rotations are taking place. The transport and leisure sector plunged 7% on Friday and banks wiped out part of their 2021 outperformance as yields nosedived. Tech stocks and pharmaceuticals, especially vaccine makers, are once again benefiting from falling long-term rates.

In fixed income markets, the variant news contributes to bends the expected Fed tightening path. The slope of the US yield curve changed little as yields fell across all maturities on Friday (-10bp over 30 years). The T-note now closed last week around 1.50%. Index-linked bonds underperform both for technical reasons related to the flight to quality bid and the drawdown in oil prices. Curve flattening is thus larger on euro 2s10s spread given the richness of the 2-yr Schatz, as euro collateral is becoming scarce in the run-up to year-end. Peripheral sovereign spreads were however little changed, with modest spread widening reflecting the sharp adjustment in Bund futures. Banks are unwilling to make markets at this time of the year.

Credit markets are often crippled by a lack of liquidity during periods of market panic. The only way to cut risk exposure is to use credit derivatives. The spread of the iTraxx crossover thus spiked back beyond 280bp. This also reflects the downside risk of assets outside of the scope of ECB purchases. The widening in high yield spreads also accelerated. In cash corporate bond markets, IG spreads widened an additional 4-5bp on Friday. Subordinated and hybrid debts are underperforming. The primary market was however quite active this week with issuance worth 8.4 billion of senior financial bonds and 4 billion of non-financial debt securities.

On the foreign exchange market, the drop in metals weighs on the Australian and Canadian dollars. The Norwegian krone and the Russian ruble react to the fall in Brent despite monetary tightening. The carry trades funded in yen are being cut. As for emerging countries, the rand plunged for obvious reasons.

Axel Botte

Global strategist

Main market indicators

G4 Government Bonds	29-Nov-21	-1wk (bp)	-1m (bp)	YTD (bp)
EUR Bunds 2y	-0.75 %	-1	-17	-5
EUR Bunds 10y	-0.32%	-2	-21	+25
EUR Bunds 2s10s	43 bp	-1	-5	+30
USD Treasuries 2y	0.53 %	-6	+3	+40
USD Treasuries 10y	1.53 %	-10	-2	+61
USD Treasuries 2s10s	100 bp	-4	-5	+21
GBP Gilt 10y	0.86 %	-7	-17	+66
JPY JGB 10y	0.08 %	+0	-2	+6
€ Sovereign Spreads (10y)	**29-Nov-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
France	36 bp	+1	-1	+13
Italy	130 bp	+4	+2	+18
Spain	74 bp	+2	+2	+12
Inflation Break-evens (10y)	**29-Nov-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
EUR OATi (9y)	164 bp	+5	+13	-
USD TIPS	258 bp	-5	-1	+59
GBP Gilt Index-Linked	418 bp	+9	+25	+118
EUR Credit Indices	**29-Nov-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
EUR Corporate Credit OAS	111 bp	+13	+25	+19
EUR Agencies OAS	52 bp	+3	+9	+11
EUR Securitized - Covered OAS	49 bp	-1	+8	+17
EUR Pan-European High Yield OAS	353 bp	+29	+32	-5
EUR/USD CDS Indices 5y	**29-Nov-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
iTraxx IG	56 bp	+6	+5	+8
iTraxx Crossover	280 bp	+27	+19	+39
CDX IG	56 bp	+4	+4	+5
CDX High Yield	319 bp	+19	+17	+25
Emerging Markets	**29-Nov-21**	**-1wk (bp)**	**-1m (bp)**	**YTD (bp)**
JPM EMBI Global Div. Spread	391 bp	+31	+34	+40
Currencies	**29-Nov-21**	**-1wk (%)**	**-1m (%)**	**YTD (%)**
EUR/USD	$1.127	+0.29	-2.49	-7.74
GBP/USD	$1.330	-0.72	-2.79	-2.71
USD/JPY	¥113.75	+0.99	+0.18	-9.23
Commodity Futures	**29-Nov-21**	**-1wk ($)**	**-1m ($)**	**YTD ($)**
Crude Brent	$75.1	-$4.7	-$8.7	$24.4
Gold	$1 784.2	-$20.5	$0.8	-$114.2
Equity Market Indices	**29-Nov-21**	**-1wk (%)**	**-1m (%)**	**YTD (%)**
S&P 500	4 669	-0.63	1.37	24.29
EuroStoxx 50	4 110	-5.28	-3.32	15.67
CAC 40	6 776	-4.63	-0.79	22.06
Nikkei 225	28 284	-4.91	-2.11	3.06
Shanghai Composite	3 563	-0.54	0.43	2.58
VIX - Implied Volatility Index	21.85	22.00	34.38	-3.96

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 29/11/2021

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.

www.ostrum.com