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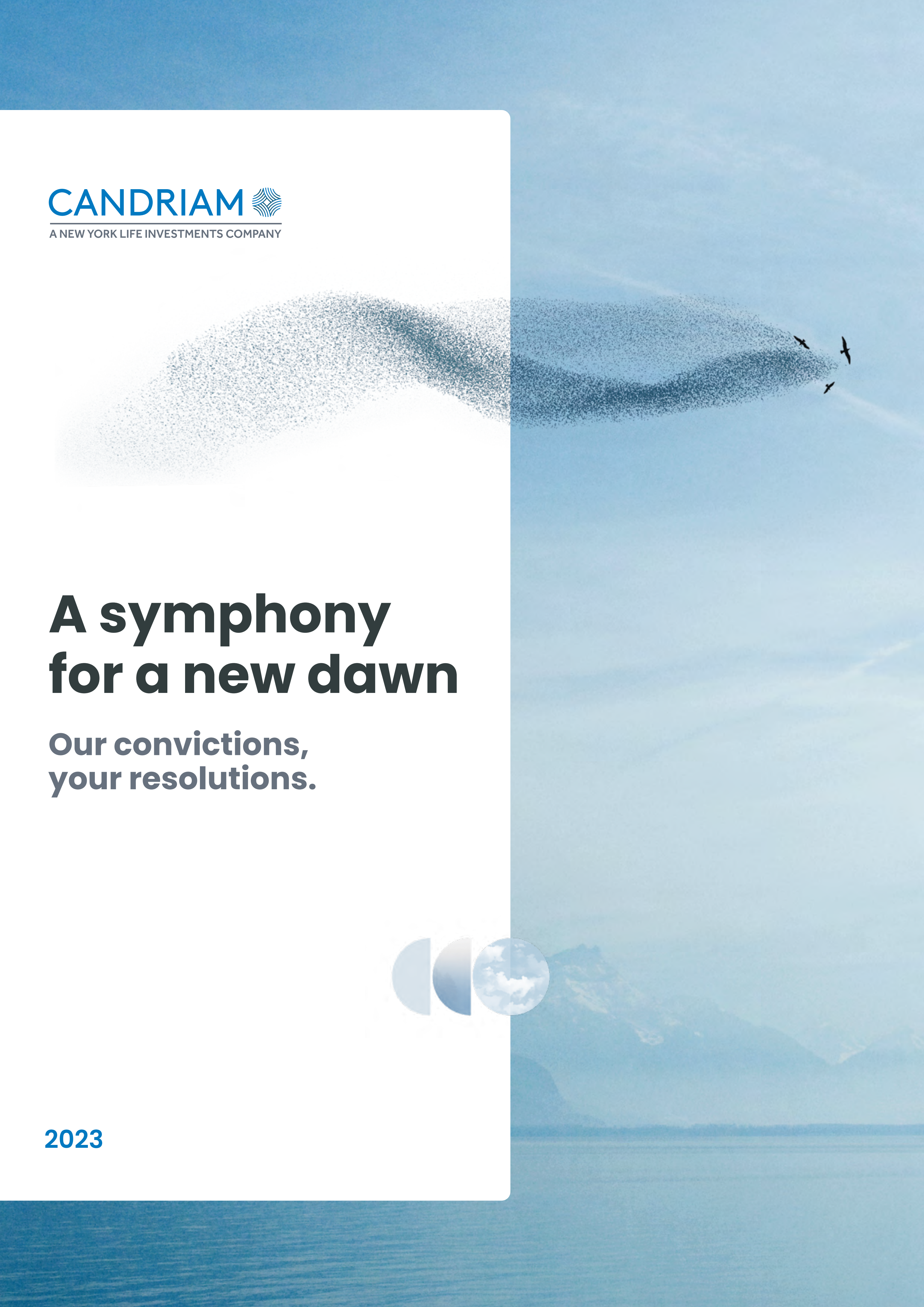

A symphony for a new dawn

Our convictions, your resolutions.

2023

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A better starting point for investors.

Vincent Hamelink
Chief Investment Officer

2022 in A minor

When investors thought at the end of 2021 that the shock of the Covid-19 pandemic could be left behind, few expected the outbreak of war in Europe just weeks later.

Besides the heavy toll on human life, the immediate impact of that harsh reality was the evaporation of energy security in Europe and a sharp rise in energy prices. The price of gas has increased fivefold, and the price of oil has more than doubled in two years. We are potentially in a more serious crisis than that of the 1970s. This crisis, which concerns us all, is not only about energy prices, but also about security of supply for Europe.

Since the start of this decade, the pandemic has been a disruption and the war has been an accelerator for financial market participants and for central bankers. We knew before the outset that the beginning of the central bank tightening cycle would be a delicate time for navigating markets. But the central bank reaction function ultimately led to a frontloading of monetary tightening unseen by the current investor generation.

However, as a result of a particularly challenging year 2022 for financial markets, investors face a better entry point today than just one year ago, both in fixed income and equities. Just one year ago, our annualised expected return for the next 5 years stood at a meagre 3.1% for a 50/50 balanced EMU portfolio. Medium-term expected returns have become more interesting as fixed income yield has been restored and equity valuations have fallen. Accordingly, the same measure has now risen to 5.5%.

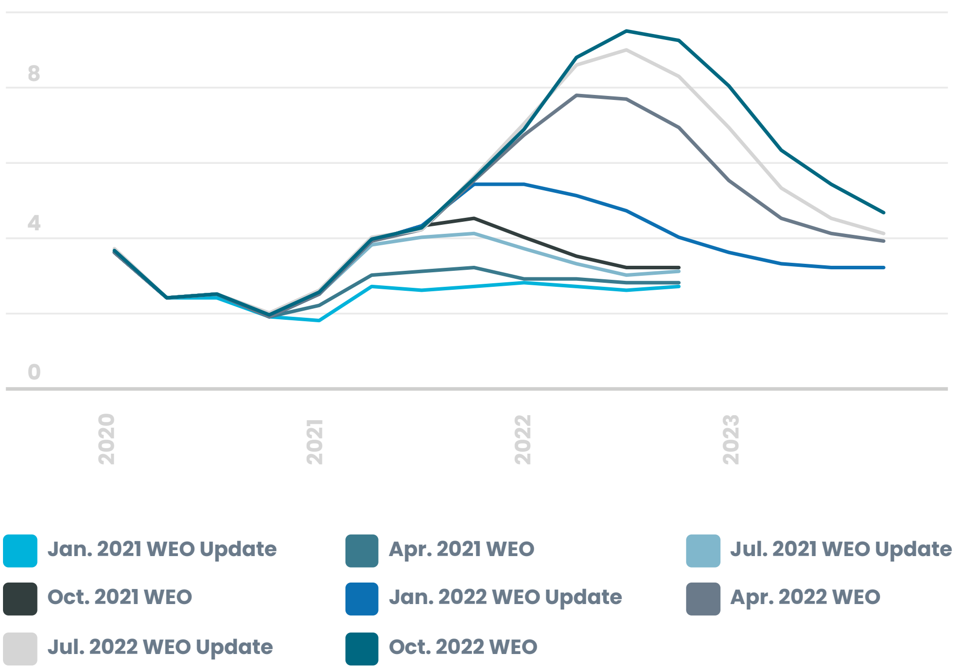
2022 has been challenging, again

Many countries saw inflation rise to levels unseen for decades. Already under pressure because of supply chain tensions, inflation was pushed higher in the aftermath of Russia's invasion of Ukraine. The latter caused a severe energy crisis in Europe and serious hardship for low-income countries as food prices came under pressure.

Persistent and broadening inflation has prompted central banks around the world to reverse their monetary policy accommodation: over the past half century, rarely has the world seen such a synchronized shift towards growth restrictive policies! Not surprisingly, the adjustment in financial markets has been painful: global stock and bond markets sold-off sharply.

In 2023, geopolitical uncertainty, tighter financial conditions and a dented purchasing power should continue to weigh on growth, but the peak of inflation has likely been reached. For financial markets the good news is that a great deal of bad news seems to be already priced in!

Global Inflation Forecasts : Serial Upside Surprises
(Percent)



Source : FMI

Geopolitical tensions to persist beyond 2023

Over the past decade, the world has transitioned from a post-cold war era to what is now often referred as "Great Power Competition" – a world of intensified competition between the U.S. and China, as well as between Russia and the West. Looking ahead, the political, economic, and military standoff between the West and Russia is expected to linger well into 2023, while tensions between the U.S. and China over access to strategic technologies, as well as the threat of a China's military intervention in Taiwan are unlikely to abate. In this context, the challenges of global security partnerships, financial integration, supply chain resilience, and migration are no longer simmering in the background: geopolitics will continue to shape the economic outlook and be a source of volatility for financial markets.

Higher inflation and lower growth as a starting point

Besides geopolitical uncertainty, tighter financial conditions and still elevated inflation will continue to curb global growth in 2023. Central banks in major economies will remain focused on inflation. As economies start slowing down and financial fragilities emerge, calls for a pivot toward looser monetary conditions will inevitably become louder. In this context, activity in advanced economies will remain subpar in 2023.

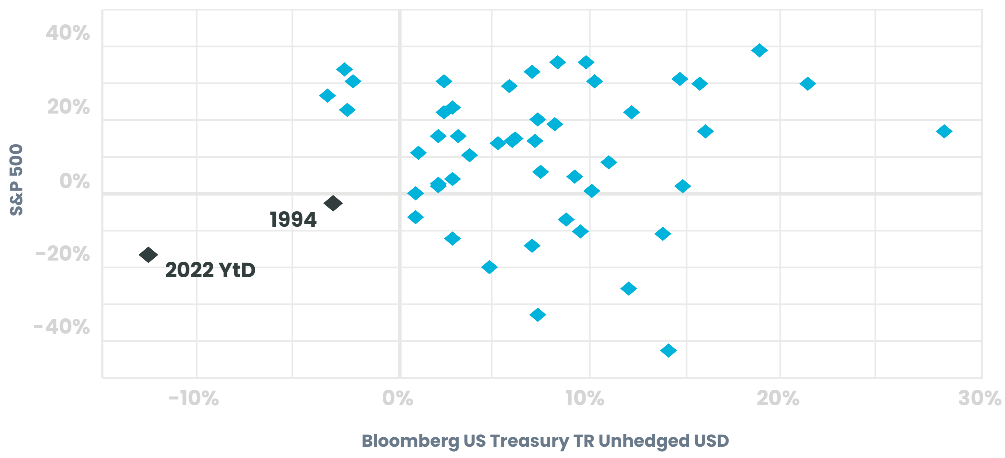
In the U.S., while the risk of monetary policy miscalibration remains significant, the Fed should manage to engineer a "softish" landing. In Europe, growth perspectives remain challenging: although unseasonably warm temperature have recently pushed natural gas prices lower, renewed tensions could easily push the euro area into a recession.

In China, despite the gradual easing of the Zero Covid Strategy and some fiscal support, the bursting of the real estate bubble is far from over.

A first cross-asset conclusion: Continue buying duration via IG credit

Capital markets have been quick to price in a lot of bad news during 2022. Over the past 50 years, simultaneously falling bond and equity prices were seen only in 1994 – another year which saw a sharp monetary tightening by the Federal Reserve. Consequently, some yield has been restored in recent months and expected returns on fixed income holdings have turned positive again, in sharp contrast to the situation one year ago. Clearly, Candriam has started to gradually lengthen portfolio durations and we expect to continue to do so in the coming months; our experts have identified European investment grade issuers with good quality as the sweet spot. Further, we source the carry via emerging debt and global high yield bonds.

Rare simultaneous S&P 500 & Treasury drawdowns since 1973



Source : Bloomberg

We end 2022 with a preference for equities over bonds, but we know that upside will likely be capped.

Our investment strategy has become more constructive, based on attractive price levels at the start of the fourth quarter. In October, our analysis of investor sentiment, market psychology and technical pointed to widespread pessimism, revealing depressed measures. This extreme configuration represented a signal to re-enter the market and put money back to work.

Listening to central banks worldwide, we think however that the anti-inflation stance is capping upside for risk assets. Contrary to the high inflation episode of the 1970s, the Federal Reserve has made clear that only tangible signs that inflation will return to its target would put an end to its restrictive stance. We expect the Fed funds rate to hit 5% next spring.

Further, below-potential economic growth and still elevated inflation point to upcoming downgrades in consensus earnings expectations, representing an obstacle for equity markets overall. In this context, our preference goes to quality and defensive stocks in the Healthcare and Consumer Staples sectors.

On the other hand, the ongoing decline in inflationary pressures and the following economic progress once the landing is absorbed, should also limit the downside on risk assets. Technically speaking, we expect that the support levels registered in October should hold unless a spill-over of financial distress or a monetary policy error provokes a market contagion.

> This year's European energy crisis raises an essential question: Will the energy transition in which we are engaged be slowed down or reinforced by the cut in Russian gas supplies?

A prudent and humble reading of the lessons since the start of this decade should remind us that keeping hedging strategies can mitigate the performance impact on portfolios of unexpected, major shocks. We are confident that alternative investment strategies and gold will continue to play their role. Unstable correlations and still elevated expected volatility among asset classes lead us to diversify into trend-following CTAs which have already benefitted from this environment in the past year. Among alternative investment strategies, we also expect equity market neutral and long / short credit strategies to benefit from the high dispersion. Beyond gold, the recent experience also taught us that it makes sense to maintain an exposure to the commodity complex to reach a better diversification to strengthen the portfolio resilience.

Continue investing for a new era, with a particular focus on energy transition

This year's European energy crisis raises an essential question: Will the energy transition in which we are engaged be slowed down or reinforced by the cut in Russian gas supplies? The European summer heatwave and drought of 2022 has further worsened the energy crisis, as river water levels have dropped significantly. Generating hydropower in Spain and Italy, cooling French nuclear plants, and shipping coal in Germany all became less trivial while the energy conflict between Europe and Russia escalated. As a result, we believe that the current crisis will serve as a formidable accelerator for the energy transition and therefore for the related investment themes. As responsible investors, it is our duty to facilitate and accelerate this transition. It is vital that we stick to our sustainability convictions, especially in an ever-more uncertain world. We remain confident in our believe that Sustainability is and will be a key driver of investment performance – today but also tomorrow and well into the future.

With the market downturn in 2022, equity valuations have become more attractive. More specifically, climate-related investments have lost more than 10 PE points in aggregate since the beginning of the year, falling from 31x to 20.5x. Their valuations are once again at attractive levels. And, at current levels, we see that in some cases we are not valuing future growth but only the operating income from the installed base. The sensitivity to higher interest rates has fallen and provide a better starting point for investors. Active management will be key in selecting those companies whose business models make a positive impact on the world of tomorrow.

Whether you are dynamic like Glass Marcano, passionate like Gustavo Dudamel, or even more sensual like Carlo Maria Giulini, as a good investor, the important thing for you will be to deeply understand the various appoggiaturas and punctuations that we might meet as we face the music in 2023 and to have the asset classes play in harmony at the right time, hopefully in C Major.

It is on this hopeful note that I wish you a very happy 2023.

ESG: Three chords to end the cacophony.

For or against? Partisan or not? A fad or real?? Caricature is fashionable and ESG is unfortunately no exception. What's more, data and measurement challenges, vested interests, politics, and marketing further obscure the reality. We believe that much of the current debate over ESG, sustainability and responsible investing stems from a fundamental misunderstanding about how we call on finance to address the environmental and societal challenges we face: expectations are often idealist and short term focused, where sustainable finance is simply about mitigating risks and capturing long term opportunities.

Wim Van Hyfte, PhD
Global Head of ESG
Investments and Research

ESG is information, not an investment style

ESG is not an investment approach. It is not yet quantifiable like Growth, or Value, or Index investing styles, and it may never be. ESG is about information. It is about incorporating data into securities analysis, risk management, and portfolio construction. It is about Environmental, Social, and Governance issues **which are not being priced in, that is, *externalities (or true costs)* and even internalities like tobacco, not reflected in the valuation of the equity and credit.** Some of these are more ethical, moral, or cultural in nature, while some consider long-term economic development and what may be required for that economic development to be sustainable and inclusive.

Hence, ESG Investing is an umbrella concept that means different things to different people. It can range from an investment strategy which excludes companies based on religious or cultural considerations (e.g. excluding alcohol, tobacco ...), to explicitly seeking to finance the energy transition of a chemical company or supporting specific charity projects like inclusive education and sheltered housing.

What is ESG not? ESG is not a partisan opinion

ESG is about the analysis of presumed ***extra/non***-financial factors which may affect the value of an investment. As it deems them financially material, Sustainable and Responsible Investing considers many of those aspects by pricing in, or 'internalizing' these critical externalities. The ESG information is incorporated into equity and credit valuation, risk modelling and portfolio construction to 1) identify and reduce sustainability risks, 2) to understand and capture sustainability-related opportunities and 3) to assess and mitigate negative repercussions for the environment and society. No more, no less.

From that, who rules over the credibility of sustainability claims? Who determines whether these assertions are fair, or are misleading and exaggerated? Against whose standards or reference framework do we assess these claims? Are we considering the complexity of what is at stake and the many science-based initiatives and trajectories (read transition)? Or is it interpretation based on patchy data and self-assessed disclosures of data collectors?

At the moment, the answer to 'who sets the rules' remains incomplete. We have recently seen strong progress, particularly in Europe where the EU Commission has lead the way. Yet, the regulator has not yet fully defined environmental objectives or criteria and needs to clarify how we should finance the energy transition and its social impact. Other 'rules' are set by associations such as NGOs, or lobby groups, which support some specific environmental, social or economic cause without reference to the broader context or the unanticipated consequences.

Very often, the latter are value judgements. In this regard, we are all right and wrong at the same time. In the end, the financial industry is a steward of capital. We need to acknowledge that it operates in an interim or transition phase today. And yes, greenwashing erodes trust in sustainable finance, however, silo thinking or setting the bar unrealistically high for investments does not advance the cause of sustainability. It could even slow or reverse the much-needed steering of capital flows to finance a more sustainable and inclusive economy. So, the challenge is to set strict enough investment definitions for 'sustainability' and 'impact', and yet not to set the bar so high that we detract from the end goal of transitioning to a more inclusive and sustainable economy. Demanding perfection of corporates and investors gives no incentive for improvement.

> **We will be relentless in our pursuit for perfection. We won't ever be perfect – but in the process we will achieve greatness.**
>
> **- Vince Thomas Lombardi, famous American Football Coach**

Difficult to measure? ... yet rooted in fact

Real sustainable impact is very hard to capture, and even harder to prove due to the lack of reliable data. Measurement, while improving, remains an area of contention. It is further complicated by the fact that some of the objectives lie decades in the future.

A sustainable economy? It is not a question of where we want to be in 10, 20 years. More importantly, it is a matter of how we are going to get there. In the short term, it is a balancing act that requires ambition and courage, and the acknowledgement that it is going to be a bumpy and imperfect journey. Some difficult and expensive choices need to be made by policy makers, regulators, and financial actors. But in all those challenges lies the opportunity of creating sustainable economic growth. Sustainability considers the complexity of many ecosystems and its stakeholders, the dynamic and the connectedness among them. ESG, Sustainable and/or Responsible (or any other related acronym) investing, is about that. It is rooted in the principles of sound corporate governance and business. Each of these elements is based on facts, data, and science, with all its imperfections.

As a consequence, regulation and society are changing, with very different requirements and expectations of what role companies and investors play. Whether rapid or slow, energy transition is clearly underway, disrupting business models with clear social implications for employees, customers, and the public.

These are all real risks. Just because we cannot measure them accurately or consistently does not mean we can wish them away. At some point they will affect our investments. That is precisely what sustainable and responsible investors should do, consider the risks and the opportunities that arise..

Pay as you go

Isn't it ironic that it took a war in Ukraine for European governments and society to grasp the urgency and the need of energy transition? The actions of one authoritarian leader did more than a $100/tonne carbon price to propel Europe into massively upscaling its Green deal. It won't be enough, and it will come at an incredible cost.

He who incurs the costs, should pay the costs.

Sustainable and responsible investing, with all its flavours and its colours of green and grey, is about intentionally incorporating the issues faced by our society into the decision making process, even if those issues lie decades into the future, and are not yet priced by markets or taxed by governments. In the end, it is for governments and society to create an environment for capital to flow to best meet the needs and challenges.

The nature of the externalities is that the beneficiaries are not paying the full costs. Therefore, are *governments* doing their job? Are they efficiently regulating the environmental and social (mis)behaviours of corporates, investors and end-consumers? Should they be pricing in these externalities created by corporations, for example through the oft-mooted carbon tax? We doubt that current regulation in Europe, the UK and the US will allow the financial industry and all its stakeholders to sort it out.

This is the misconception about ESG, and about Sustainable and Responsible Investing. Very often, sustainable and responsible investors go beyond today's bottom line and consider the long-term impact of our investment activities – and the cost of externalities which someone will have to pay in the future. Measuring that impact and assessing whether it is sustainable enough remains a judgement call. In some sense, it is a matter of drawing the line.

Ethically, the sustainability conversation should consider all stakeholders. But in terms of the profitability of a company or an investment, it might be argued that the costs of considering some stakeholders are so long-term, or difficult to quantify, that they are not being properly weighted in our hard calculations.

Tail risks are long-term – until the moment they hit your portfolio

For all issues encompassed by this loaded phrase, ESG, how can we possibly analyse the performance difference when most of the impact will occur over the next few decades? The sustainability risk landscape is becoming more complex and interconnected. There is a tension between short term and long-term sustainability. At some point, externalities become so expensive that they must be paid for by some stakeholder(s). The cost of these externalities, whether environmental, social, or some combination of the two, as well as the opportunities that arise from the changing society, become substantially more important to the long-term investor.

Our Candriam ESG Convictions

ESG is a broad concept. We must all be clear and transparent about our definitions, and continue to improve standards. Again, demanding perfection leaves no room for improvement. We are all part of the ecosystem – the ecosystem of our natural environment, and of our interconnected societies. It has taken quite a long time. The climate change argument has now moved on from 'Is it real?'. We now have scientific evidence that it is real, and the damage is already expensive. The argument now is how do we deal with it, and who pays.

The actions we take and the capital we deploy must not create new externalities. What about human rights? The shareholder should profit from the manufacturing of solar panels and its other benefits, but the shareholder should not profit from using child labour to produce them. We believe the energy transition will benefit everyone as the climate threat is reduced. We must ensure that it is a fair, and just, transition. Jobs will be lost. Jobs will be created. We can balance these changes so interconnected stakeholders can share the benefits.

At Candriam it has been, and remains, our conviction that companies which embrace sustainability-related opportunities and challenges in combination with financial opportunities and challenges are the most likely to generate shareholder value.

So we shall lead the music.

The "Ball" of the Central Banks: no false steps thus far.

Nicolas Forest
Global Head of Fixed Income

As 2022 draws to a close, we ponder the lessons from this year of rate increases. While the Fed may have accomplished its mission, Eurozone inflation remains high and the ECB has limited room for manoeuvre. Its footwork must be precise in the face of major risks, in particular a misstep which could destabilise the financial system.

A three-point review

In the face of the 2022 inflationary shock, central banks raised their key rates in an unprecedented and almost unanimous manner. As the year-end approaches and a recession looms, it is time to take stock.

Three lessons can already be drawn from this period.

1. Central banks are very poor forecasters. Their forecasts have consistently underestimated inflation – let us not forget the ECB's forecast.
2. The copy-cat effect on monetary policy has once again undermined independence. The Fed was thus the first and the most aggressive in its monetary tightening, echoed by all its counterparts.
3. The fight against inflation has become a priority for central bankers, at the risk of tipping the global economy into a major slowdown.

What do we see for 2023?

Even if inflation is expected to ebb, we expect it will remain well above the target of 2%, forcing central bankers to maintain higher rates for a longer period. More structural factors such as demographic changes and the energy transition could weigh more structurally on prices. Against this backdrop, the major challenge in 2023 will be forecasting the terminal rate of each region.

In the United States, the Federal Reserve pushed the most aggressive increase in its key interest rate in 40 years. Mission accomplished. With four exceptional increases of 75 basis points, bringing the Fed Funds rate to 4%, and an ambitious policy of reducing its balance sheet, the Fed managed to slow inflationary momentum without destabilising the US financial system. We expect that in 2023 the central bank will announce two further rate increases, stabilising around 5.25%. The management of the terminal rate will be a delicate exercise given that household savings mask the delayed effects of the increase in long-term rates on the economy.

In the Eurozone, the ECB put an end to its negative rates by raising them at a never-before-seen pace of more than 200 basis points in five months. But inflation is not yet under control, now hovering above 10% [1]. If energy prices should stabilise in 2023, the recent agreement obtained by German employees for a wage increase of 8.5% over two years[2] would raise fears of a wage-price spiral. Moreover, European governments have renounced budgetary orthodoxy and are supporting consumption at the risk of maintaining a higher-than-optimal level of inflation. The monetary restriction initiated by the European Central Bank is thus far from an end. The ECB should continue to normalise in 2023 via several increases, bringing the deposit rate to 3%. The task will prove even more difficult as budgetary policies partially offset the effects of a restrictive monetary policy. The ECB should increase its rates while the Fed will have already reached its terminal rate – delicate steps will be needed to avoid an excessive appreciation of the Euro.

Beyond these rate forecasts, two major risks should be monitored in 2023

The risk of losing independence. The Liz Truss drama in the UK underscored the dangers of a potential collusion between budgetary and monetary policy. History could repeat itself.

The risk of a tightening error. Too many rate increases could destabilise the financial system via the linkage with pension funds or real estate. While such an error has thus far been avoided, it will be necessary to monitor this risk in the coming year.

The ball of monetary tightening should come to an end in 2023; hopefully, a better end than a 'march to the scaffold'.

1. Source: Eurostat
2. Source: IG Metall

Governments and central banks: Le "Mariage forcé" for energy transition?

Florence Pisani
Global Head of Economic Research

Alix Chosson
Lead ESG Analyst for the Environmental Research & Investments

In Europe, the COVID-19 pandemic and the energy crisis have both weighed heavily on national Budgets. As the issue of energy transition becomes more pressing, can - and should - the European Central Bank (ECB) support governments?

The energy transition will require not only a huge transformation of the productive system, of its infrastructure, its buildings... It will also require a historic change in consumption patterns, particularly in the most advanced economies.

To achieve the zero net greenhouse gas (GHG) objective by 2050, we must drastically reduce our dependence on fossil fuels (coal, oil and gas), which currently account for 80% of energy consumption worldwide [1]. This will require a huge development in the use of low-carbon sources of electricity, improving our energy storage capacity (batteries, green hydrogen) and an unprecedented energy efficiency drive in all sectors.

What will it take?

The investments needed for this transformation are colossal. The International Energy Agency (IEA) estimates that, to meet the Paris Agreement objectives, they should triple globally from current levels to about between USD 4 trillion to USD 5 trillion a year by 2030 [2].

The demanding scale of these investment requirements however pales in comparison to what the world is set to lose should it chose inaction. According to a recent survey of economists, a "business as usual" scenario would result in an annual loss of 2.4% of GDP in 2030... and 10% in 2050 [3]. This is four times as much as the investments required to avert a global disaster.

The role of governments and legislators is central. Not only are they responsible for the design and implementation of new environmental policies, but they also possess the most appropriate tools to meet the challenge.

However, in recent years, calls for central banks to play a more active role in supporting the energy transition have increased, particularly in Europe. After all, during the COVID-19 pandemic, European governments and the European Central Bank (ECB) succeeded in preventing an economic collapse by working together. Couldn't this joint effort be a first step towards closer cooperation in the future? So, suggestions are being made for the two to become almost as close as in a marriage of convenience, a concept made the butt of jokes in the 400-year old French ballet "Mariage forcé" by Jean-Baptiste Lully.

When, in March 2020, European governments used their budgets to support their economies, the ECB launched in their wake a major securities purchase programme (Pandemic Emergency Purchasing Programme or PEPP). This has had the effect of pushing long-term interest rates to even lower levels, easing governments' debt burden while helping to support demand.

Central Banks: All Hands On Deck?

So why couldn't the ECB create a new programme to support public policies and facilitate the financing of the energy transition? Don't the EU treaties confer on the ECB, in addition to its price stability objective, the task to "support general economic policy in the Union, with a view to contributing to the achievement of the objectives of the Union [4]"? And isn't the energy transition clearly one of the Union's objectives?

The answers are not as straightforward as they may first seem. EU Treaties are prohibited from allowing monetary financing of public deficits. Unless this rule is changed, direct financing of the energy transition is not possible either by the ECB or Member States' national central banks.

That said, couldn't monetary policy nevertheless help governments by keeping their financing costs low? However here again Treaties condition ECB's action. The actions of the ECB should indeed aim to support EU policies "without prejudice to its primary objective" (of price stability).

In 2020, the cooperation between fiscal and monetary policies was "natural", as the central bank acted to dispel the fear of a deflationary spiral. However, when the economy is near full employment, this cooperation becomes less obvious. To fulfil its primary objective of ensuring price stability, the ECB has little choice today. Faced with high inflation and an unemployment rate at its lowest level since the creation of the euro, it must raise its key interest rates. Monetary history shows that it becomes very expensive to regain control of inflation if inflation expectations have been allowed to spiral out of control.

So.... are we stuck?

Be it the climate emergency or any other crisis, placing the central bank at the "service" of fiscal policy would not only require an amendment of the Treaty on the Functioning of the European Union (TFEU). Making an exception for the energy transition would also create a dangerous precedent: if we can weaponise monetary policy for this project, why not also for education or the improvement of social infrastructure?

In addition, making such "exceptions" would, effectively, divert monetary policy from its primary role as a tool for managing the business cycle. Monetary policy is not the right instrument for "financing" permanent spending programmes. Neither are government deficits, which should be reduced when the economy is close to full employment.

Energy transition requires a much more structural action plan that only governments can enact. Of course, the ECB should not ignore climate change and the many risks it poses, not only to price stability but also to financial stability. On their part, central banks must continue "greening" their monetary policy operations and encourage companies and financial institutions to be more transparent about their carbon emissions. However, a view that that the energy transition can be achieved by pushing central banks to buy government debt is likely to prove deceptive.

1. Hannah Ritchie, Max Roser and Pablo Rosado (2022) - « Energy ». Published online at OurWorldInData.org. Retrieved from: https://ourworldindata.org/energy [Online Resource]
2. https://www.iea.org/reports/net-zero-by-2050 Net Zero by 2050 - A Roadmap for the Global Energy Sector (windows.net). Page 81 « The NZE expands annual investment in energy from just over USD 2 trillion globally on average over the last five years to almost USD 5 trillion by 2030 and to USD 4.5 trillion by 2050 ».
3. https://www.swissre.com/dam/jcr:e73ee7c3-7f83-4c17-a2b8-8ef23a8d3312/swiss-re-institute-expertise-publication-economics-of-climate-change.pdf
4. Treaty on European Union and the Treaty on the Functioning of the European Union article 127 EUR-Lex - - EN (europa.eu)

CTA's: "Ride of the Valkyries".

Steeve Brument
Head of Quantitative Multi-Asset Strategies & Deputy Head of Global Multi-Asset

Johann Mauchand
Senior Systematic Fund Manager

Hard landing or soft? From Draghi's "Whatever it takes" to Powell's "Whatever it costs", we know the markets are ready for exciting times. CTAs aim to face the next swing, whether it be hard landing or soft.

What do we see from the mountain top?

You have lived through it too -- since the Global Financial Crisis, markets have enjoyed unprecedented monetary and fiscal support. Interest rates reached levels previously unseen. Government debt skyrocketed, while inflation remained surprisingly low. Since the emergence of the Covid crisis, we have experienced lockdowns, re-openings, wars, and a reversal of the long-running globalization trend. The result has been a considerable imbalance between supply and demand. Shortages of raw materials, finished goods, and workers strained costs, just as re-opening economies were vulnerable to the inflation we thought was a thing of the past. After many months of 'transitory' inflation, central banks changed their views and returned to their primary mandate of keeping inflation to acceptable levels. In doing so, they raised interest rates sharply in most parts of the world, triggering massive adjustments in all asset classes. These restrictive monetary policies may now risk pushing the fight against inflation too far and therefore crushing the economies.

In the short term, investors face uncertainties from several directions. When, and how high, will interest rates peak? Will central banks fine-tune for a mild recession, or tip us into a hard landing? How will the energy crisis impact Europe this winter, and what about the next winter? What new consequences might arise from the war in Ukraine?

While financial markets definitively priced in some of these uncertainties in 2022, we are likely to face an uncomfortable ride in 2023. Many allocations may be challenged. 'Diversification' is the word of the day. CTAs, or managed futures funds, typically rely on trend-following strategies which aim to benefit from market directionality, whether up or down. While the past is no guarantee of the future, the

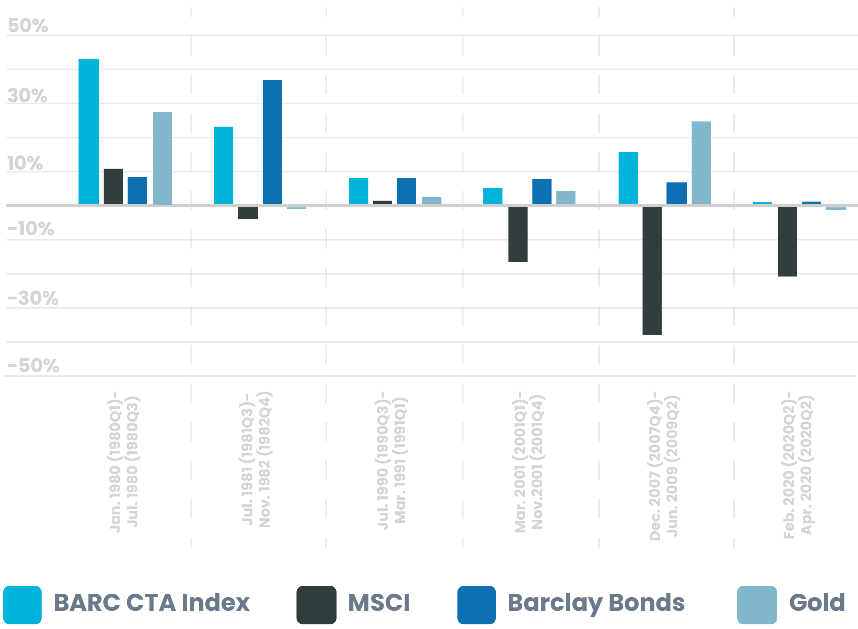
BarclayHedge CTA index has demonstrated 40 years of decorrelation against major asset classes during many market regimes, and has historically offered an effective hedge against tail risk events. The coming year should certainly qualify as one of surprises!

Recession? What *sort* of recession?

We analyzed returns of several asset classes during four decades of US recessions. The asset classes include global equities, global bonds, a traditional 60%/40% portfolio, an alternatives portfolio, and gold. We used the US because its economy is the heartbeat of the world.

Flat absolute performances over recession periods show that CTAs historically posted positive returns during recessions, matching a bond allocation but being more consistent than gold. Gold's relevance as a safe haven asset could be challenged from this perspective, but this is not the purpose of this analysis. Our objective here is to examine the history of a CTA allocation within a diversified portfolio.

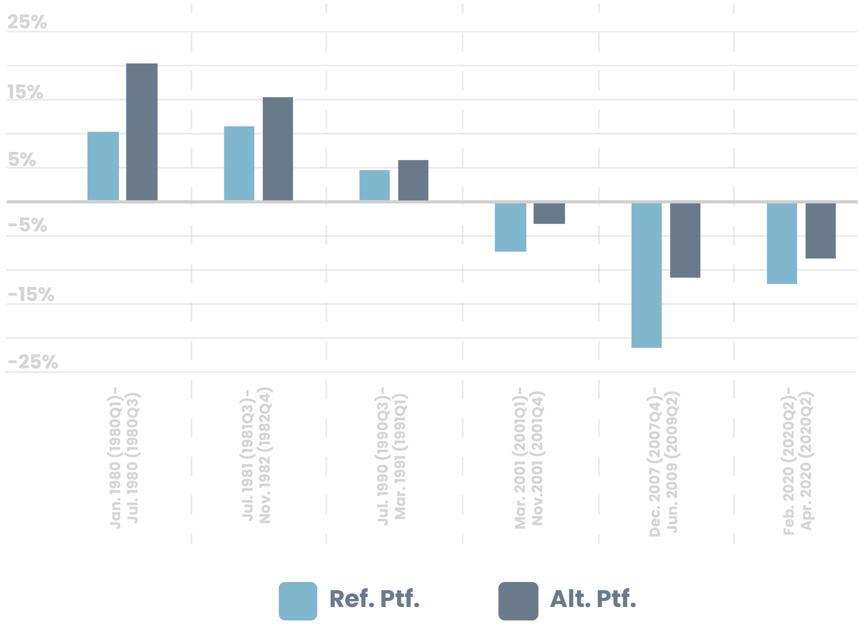
CTA Index versus other asset classes during financial turbulence



Sources and notes: Candriam, Bloomberg. Recessions as defined by the US National Bureau of Economic Research. For CTAs we used the BarclayHedge CTA Index, for global equity we used MSCI© World, for Global bonds we used Barclays US Agg. Bonds, for gold, we used the XAU Currency.

Past performance is not a guarantee of future returns.

Adding CTAs
to a portfolio during recession



Sources and notes: Candriam, Bloomberg. Recessions as defined by the US National Bureau of Economic Research. For the traditional 60/40 investor Portfolio, or Reference Portfolio, we used 60% MSCI World Index and 40% Barclays US Agg. Bonds. For the Alternatives Portfolio we used 70% Reference Portfolio and 30% CTA Index (that is, 42% MSCI World, 28% Barclays US Agg Bonds, and 30% CTA).

Past performance is not a guarantee of future returns.

When traditional asset classes become ‘fallen heroes’, what can we expect from CTAs?

History is filled with unexpected events – the invasion of Ukraine, the Covid pandemic.... How have CTAs performed during market turmoil? We also analyzed the BarclayHedge CTA Index during 14 well-known and extreme unpredictable events over the last 35 years, including geopolitical, health, and financial market crises. The CTA index generated a positive return during 12 of these 14 instances of market turbulence, in some cases posting extraordinarily strong returns. Government bonds and gold also rose in value in most cases, during 10 and 9 crises, respectively. By contrast, the global equities fell sharply during all but one of these risk-off events (the 2016 US election of President Trump). In some market dislocations equities lost almost half their value. Therefore, adding a CTA allocation improved diversification and performance of the reference portfolio in the vast majority of historical cases.

Selected Market Crises

Asset class performance during selected market crises

Crises *Geopolitical, Financial, Pandemic events*	Date	Duration in Months	Performance					
			CTA Index	Global Equities	Global Bonds	Gold	Reference Portfolio	Alternative
US Stock Market Crash of 1987	Oct '87	1	0.3%	-17.0%	3.6%	2.0%	-8.8%	-6.0%
Kuwait Invasion	Aug '90	1	6.7%	-9.4%	-1.3%	4.1%	-6.2%	-2.3%
LTCM and Russian Crises	3Q '98	2	9.3%	-11.8%	4.0%	3.7%	-5.5%	-1.1%
US Presidential Election Supreme Ct	4Q 2000	2	8.9%	-4.6%	3.5%	2.7%	-1.3%	1.7%
Terrorist Attack NYC World Trade	Sep 2001	1	1.8%	-8.8%	1.2%	6.9%	-4.8%	-2.8%
Dot.com crash	2000-2002	32	18.4%	-42.9%	28.0%	13.9%	-21.0%	-9.5%
SARS Crisis, Iraq Invasion	1Q 2003	3	0.7%	-5.1%	1.4%	-3.0%	-2.5%	-1.5%
Lehman Bankruptcy	Sep 2008	1	-0.3%	-11.9%	-1.3%	4.8%	-7.75%	-5.4%
Global Financial Crisis	2007-2009	19	20.9%	-50.4%	9.2%	41.9%	-31.2%	-18.0%
Greek election	May '12	1	2.6%	-8.6%	0.9%	-6.3%	-4.8%	-2.6%
Brexit vote	June '16	1	2.0%	-1.1%	1.8%	8.8%	0.0%	0.6%
US Presidential Election Trump	Nov '16	1	-0.2%	1.4%	-2.4%	-8.1%	-0.1%	-0.1%
Covid-19	Feb-Mar 2000	2	0.7%	-20.6%	1.2%	-0.8%	-12.2%	-8.4%
Ukraine Invasion / 0.3% Inflation	Feb-Sep 2022	8	8.6%	-21.3%	-12.7%	-7.6%	-17.8%	-10.4%

Sources and notes: Candriam, Bloomberg. Time frames are illustrative and dates of crises may vary by source. BarclayHedge CTA Index, MSCI© World, Barclays US Agg. Bonds, XAU Currency gold, for the Reference Portfolio we used 60% MSCI World Index and 40% Barclays US Agg. Bonds, for the Alternatives Portfolio we used 70% Reference Portfolio and 30% CTA Index.

Past performance is not a guarantee of future returns.

We analyze CTAs in more depth in a series of papers, Going with the trend: How CTAs work, Interest Rates Go Up: A threat or an Opportunity for CTAs and Smile! CTA convexity is not lost.

Since 2000, markets have experienced several unexpected events, with varying degrees of disruption. Timing economic cycles, or anticipating low-probability events, remains an incredibly challenging task. CTAs can play a very useful role in diversifying portfolios to navigate the unpredictable.

And your forecast? Hard landing or soft?

The Ride of the Valkyries

Risks: *The main risks associated with Investing in CTA strategies are the following: risk of capital loss, equity risk, concentration risk, currency risk, derivative risk, liquidity risk, emerging market risk, sustainability risk and ESG Investment Risk.*

Engagement: The "Unfinished Symphony" as beautiful as Schubert's.

Schubert began his Eighth symphony in 1822. His *Unfinished Symphony* is also known as the first Romantic symphony, heralding a new musical type. Used in present-day movies, it is still fresh 200 years later. Engagement is the ongoing manifestation of sustainable investing. May it continue as long.

Sophie Deleuze
Lead ESG Analyst,
Stewardship

'Unfinished', or only the beginning?

Sometimes, 'unfinished' can mean time spent, where we stand, time left, time remaining to accomplishment. But somehow it also rings the bell of "frustration". While engagement is definitely a matter of time, it is fortunately not always frustrating.

On the contrary. **Behind successful engagement lies common purpose.** Successful engagement is ongoing, complex, and organized, progressing together from movement to movement as a group and the strength it generates. Engagement is not a frustration, rather a motivating and never-ending range.

ESG: a moving symphony

Engagement is nothing without ESG analysis and proper assessment of ESG risks and opportunities which issuers should tackle or explore. Engagement builds on this assessment and feeds ESG analysis in return... the 'virtuous cycle'.

ESG opinions are living, growing things. We should not consider them conclusions, as our views should never be final. Engagement enables opinions to live, take on additional nuances, and to grow over time. As with any opinion, the better informed an ESG view is, the better it is.

- **Events and trends are constantly emerging.** Some have greater impact on companies and should change the way we look at these issuers -- when business fundamentals change, the metrics we use to analyse businesses adapt.
- Covid is a dramatic example. The campaign we launched in 2021 is quite representative on how engagement and the evolution of analysis are intertwined -- we investigated how relationships with stakeholders changed, and these are now integrated as the "new normal" course of business for Candriam's investee companies.
- Candriam analysis addresses double materiality. That is, for 25 years we have considered ESG investing both a question of values and value, the enhancement of both sustainability and financial return.

This type of ongoing progress requires engagement to go beyond exchanges with single issuers. It is fundamental that we continuously acquire a more precise and accurate view of the impacts of issuer choices on stakeholders and related expectations. Especially in our thematic engagement campaigns, we contact multiple stakeholders who are material and of prime importance. Regulators, industry federations, unions, civil society, and consumers are among the stakeholders we contacted in the past two years for our campaigns, such as for utilities and the Just Energy Transition, our Pesticides work, and for the collaborative initiative we launched last year on Facial Recognition Technology and its impact on human rights.

Becoming a classic

Engagement is also adapting to investment strategies. For example, the way we approach engagement campaigns with private high yield debt issuers differs from an engagement focusing on quality of green or social issues. Engagement gains in maturity as investors adopt a greater variety of facets.

This growing maturity reflects the expansion of the engagement goals. Twenty years ago engagement was limited to demanding access to most basic ESG data. Engagement has grown to include pushing issuers towards a low-carbon economy aligned with 1.5-degree, scientifically-recognized trajectories.

As long-term investors our role is to support investee companies in their development. As long as we invest in the shares or the debt of an issuer, it means we believe in its management's capacity to tackle challenges they face, at both the micro and macro level. However, as a conviction-based asset manager we accompany them in their journey. We will also describe our expectations to investee companies, and discuss the material challenges to ensure that the adopted strategy will answer our concerns while creating value. An example of this partnership is our engagement campaign with small- and mid-sized companies on human capital. It has been tailored to the accounting limitations of smaller companies, and provides our target companies with the opportunity to compare their practices with comparably-sizes companies. As we share the more detailed outcomes with dialogue companies (the very detailed portion of our engagement that we do not make public), these companies in turn receive useful input for their strategies.

The next movement will not be the final movement

Recent European regulation such as SFDR have put engagement at the centre of its approach. Regulators are increasingly demanding, notably in terms of reporting on outcomes of our engagements. While these requests are challenging, they strengthen processes in a number of ways. At a high level, these requirements challenge all investors to improve transparency and improve engagement. At the company level, these new requirements facilitate involvement and interaction of the different teams across the company, which is how we at Candriam believe engagement works best.

Perhaps engagement has mainly involved corporates in the opening movements of the symphony. For the past two years the engagement 'bridge' with sovereigns has gained in importance. The next phases will show how much remains, including the identification of the right approach and defining interlocutors for efficient and impactful engagement.

Together, let's write our 9th symphony!

Rudi Van Den Eynde
Head of Thematic Global
Equity Management

Building a New World: Thematic Investments.

Europe Small Caps: they say history never repeats itself. But doesn’t it often rhyme?

Christian Solé
Deputy Head of Fundamental Europe Equity, and Head of Small & Midcaps

In the past, small caps have tended to rebound strongly after inflation peaks. Small caps’ intrinsic qualities – agility, strong pricing power –, supplemented by careful selection by an experienced team, may allow them to stand out from the crowd once again in the near future, like a bright and powerful *clarinet sound* can take us almost by surprise.

Sometimes we hear a slightly different symphony again, but recognize its theme - or as one says “History never repeats itself, but it does often rhyme”.

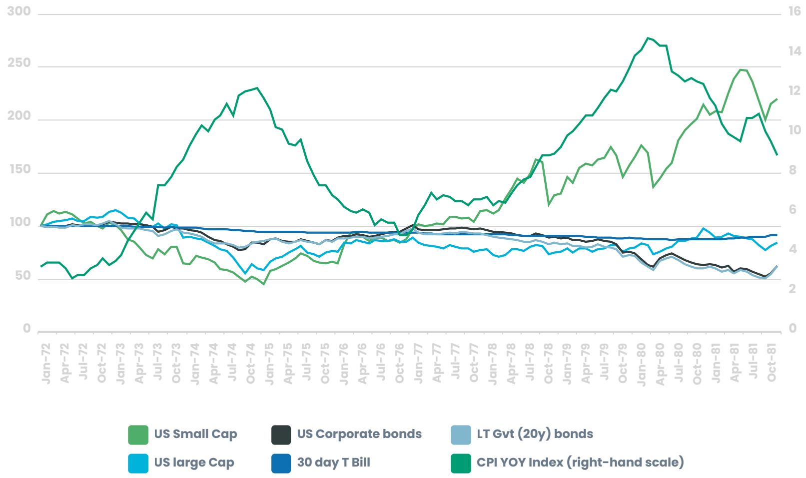
The last time developed countries faced strong inflationary forces was about 50 years ago, in the seventies. Interesting comments may be drawn from this period.

Back then, not only did small cap companies outperform the main traditional asset classes in real terms, but they were among the rare ones to deliver positive returns (see graph). Note that we see here how small caps performance can be decorrelated from large caps, thus providing a diversification effect into portfolios.

When inflation started to soar in 1973, following the end of the Bretton Woods system, small caps underperformed while the world was gradually entering into a recession. Smaller companies' revenues are generally the first to be affected by an economic slowdown, and investors prefer safer boats in the storm. Small companies also have less access to debt and equity capital markets than larger companies.

But right after the peak of inflation, small caps entered a phase of strong outperformance which was barely impacted by the second inflationary shock, thanks to their stronger dynamism and entrepreneurial leadership. Small companies also tend to react faster than larger ones to changing environments. Note that we are showing US data in the absence of equivalent historical series for Europe, due to the market structure at the time.

Traditional Asset Classes (inflation adjusted)
vs. Inflation 1972-1981



Source: Morningstar Direct, Candriam.
Indices: US Small Cap corresponds to IA SBBI US Small Stock Total Return USD, US Large Cap corresponds to IA SBBI US Large Stock Total Return USD Ext, US Corporate Bonds corresponds to IA SBBI US LT Corp Total Return USD, LT Gvt (20y) Bonds corresponds to IA SBBI US LT Govt Total Return USD, 30day T Bill corresponds to IA SBBI US 30 Day TBill Total Return USD, CPI YOY Index. "SBBI" stands for "Stocks, Bonds. Bills, and Inflation". "SBBI" are registered trademarks of Morningstar, Inc. All rights reserved. Used with permission.

Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance do not predict future returns.

At Candriam, we believe that small caps, which have underperformed large caps since the second semester of 2021, may start to outperform soon. This may coincide with the Fed pivot or the moment investors have more visibility on the taming of inflationary forces. We shall monitor closely Central banks policies and the bottoming out of PMI[1] figures to call the bottom on small caps.

Furthermore, we also believe that our selective approach to investing in small caps names, which has proven successful over a period of 10 years, is more crucial now than ever (annualized gross excess return of 3.6% over ten years, and a Sharpe ratio of 0.82[2]).

The cornerstone of our approach is our team's expertise, backed by 15 years of experience in small cap research and investment. Our internal resources in both financial and extra-financial research are key to spot the opportunities in a highly dispersed asset class with low sell-side coverage. We are a team of 34 specialists sharing the same floor and the same philosophy.

> **"**
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> **The cornerstone of our approach is our team's expertise, backed by 15 years of experience in small cap research and investment.**

Our approach is long term. We implement a proprietary disciplined analysis framework along 5 investment criteria which we believe are key in the current environment:

- **Quality of management**: good management and staff should be retained and incentivized, particularly so in smaller companies. This is one of the reasons why we have started, together with our ESG analysts, a dialogue with the companies in which we invest to better understand their organization and retention and development programs. We look for a long-term dialogue with these companies, and we prefer supportive engagement rather than systematic exclusion. When engaging with smaller corporates, we are not dogmatic and we consider their specific challenges. For example, given their smaller size or due to a family ownership, it is more common to have no separation between Chairman and CEO roles. Part of this long-term relationship is also to share best practices in social and governance areas. Obviously, we remain strict on controversies which we monitor on an on-going basis. In the absence of improvement, we simply cut down our exposure, partially or totally.
- **Underlying market growth**: in a changing economic environment, it is essential to understand which niches have real growth potential beyond short term fads. For example, we see the new climate related regulations as growth opportunities for the private sector, which is keen to contribute to climate protection and resource savings. More specifically in this segment, we believe the European Green Deal will favor companies that are active in insulation.
- **Competitive advantages**: we target companies with pricing power or potential market share growth, as margin protection is key in an inflationary environment (see table below). Companies can build these competitive advantages through innovation or with a favorable market structure.

Effect of 10% cost inflation on operating profits with pricing power

	HIGH PRICING POWER		LOW PRICING POWER	
	BASE CASE	INFLATION	BASE CASE	INFLATION
Revenue	100	110	100	105
Cost of goods sold	20	22	20	22
Gross profit	80	88	80	83
Gross margin	80%	80%	80%	79%
Operating expenses	60	66	60	66
Operating profit	20	22	20	17
Operating margin	20%	20%	20%	16%
Change in profit		10%		-15%

Sources: Candriam simulation

- **Profitability**: while other strategies would only look at growth, we focus on profitability too. We look for stocks that are already profitable, not *potentially* profitable. As shown in the table below, companies with lower profitability tend to suffer more severely from higher input costs.

Effect of 10% input cost inflation on operating profits

	HIGH GROSS MARGINS		LOW GROSS MARGINS	
	BASE CASE	INFLATION	BASE CASE	INFLATION
Revenue	100	100	100	100
Cost of goods sold	20	22	60	66
Gross profit	80	78	40	34
Gross margin	80%	78%	40%	34%
Operating expenses	60	60	20	20
Operating profit	20	18	20	14
Operating margin	20%	18%	20%	14%
Change in profit		-10%		-30%

Sources: Candriam simulation

- **Leverage**: debt should be managed cautiously in a rising interest rates environment. Focusing on leverage is key both from a financial and a responsible point of view. It is thus essential in our investment framework.

We strongly believe high returns and responsible investment are compatible. Markets could soon offer a unique opportunity to invest in small caps at very attractive levels. We also believe that engagement, combined with responsible investing, is key to improve our risk reward. So, are you ready to hear the clear and bright sound of the clarinet?

All investment strategies involve risks, including the risk of loss of capital. The main risks associated with our European Small & Mid cap strategy are: Risk of capital loss, Equity risk, Currency risk, Liquidity risk, Concentration risk, Derivative risk, ESG Investment risk.

Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance does not predict future returns.

ESG Investment Risk: The non-financial objectives presented in this document are based upon the realization of assumptions made by Candriam. These assumptions are made according to Candriam's ESG rating models, the implementation of which necessitates access to various quantitative as well as qualitative data, depending on the sector and the exact activities of a given company. The availability, the quality and the reliability of these data can vary, and therefore can affect Candriam's ESG ratings. For more information on ESG investment risk, please refer to the Transparency Codes, or the prospectus if a fund.

1. PMI: Purchasing Managers' Index: **an index of the prevailing direction of economic trends in the manufacturing and service sectors.**
2. Candriam European Small & Mid Caps GIPS composite, gross performance in EUR, to end October 2022. Benchmark is MSCI Europe Small Caps NR. Past performance of a given financial instrument or index or an investment service or strategy does not predict future returns.

Impact: to create real and quantifiable impact, what else than investing with soul?

Maia Ferrand
Co-Head of External
Multi-management

Jean-Gabriel Nicolay
Co-Head of External
Multi-management

What differentiates good music from excellent music? Maybe not the talent or the technique of each individual musician, but the soul that emanates from the ensemble. In our approach to impact investing, purpose and intention are primary. We invest with the aim to bring positive change in environmental and social areas. And we make sure our results are real.

Impact investing: investing with a purpose

When good music is performed by talented artists executing a nicely written piece, you surely spend an enjoyable moment. But when soul overtakes technique – that is when you get magic. That is when music truly resonates with you and what makes you remember a piece long after the concert ended.

By definition, impact investing has this ambitious goal to deliver *both* financial returns and environmental and/or social impact. Our approach of impact investing is fully aligned with this: when we invest in a fund, which in turn invests in companies, we act on our commitment to support the sustainable transition of our world with the aim to tackle the threat posed by resource scarcity. Thus, we select long-term projects promoting access to healthcare and education for all. We also finance companies that aim to implement efficient supply chain management, ambitious carbon reduction, and improved waste management strategies. Finally, we finance disruptive and innovative solutions that seek to accelerate the transition. We focus on companies that, like us, have integrated the urgency of change in their business model.

Keeping impact at the core of what we do is a way to ensure that our investment strategy is *intentional*, and that its positive societal and/or environmental impact is *replicable*. Our "soul" stems from all stages of our investing approach: starting with the extra-financial due diligence we conduct, followed by the quantification of the impact results through defined and measurable KPIs, and strengthened by our alignment through the carried interest.

See below how our due diligence process integrates this focus at all stages:

Target Impact	
1. Defining	The investment team articulates the impact mission of its portfolio and each portfolio company.
2. Targeting	Investments are directed to a specific social or environmental outcome.
3. Transparency	Detailed mechanism and results of each investments should be known to investors.
4. Engagement	The manager maintains an ongoing engagement to monitor and build support with portfolio companies.
5. Commitment	The level of financial commitment is consistent with the company needs, both in duration and resources.
6. Implementation	The combined infrastructure of the impact investors and portfolio companies allows for increased efficiency.
7. Sizing	For each project, allocated capital should have a degree of proportionality with the level of impact created.
8. Exit strategy	Selection of buyers with high environmental and ethical standards. Transfer condition pre-defined.

Source: Candriam

Investing with soul, but making sure the impact is real

All investments we make have predefined impact objectives, and we ensure that these objectives are clearly defined, measured and monitored. We also maintain a very close relationship with our investees and act as a sustainable advisor: challenging, advising and supporting them through their sustainability and impact journey.

Our impact committee, comprising investors' representative and independent experts in relevant impact fields if needed, validates the Impact investment thesis, its KPIs and expected outcome.

For example, one of the funds in which we are invested fosters the development of a French industrial SME's 4.0 medium size companies based on growth projects within a decarbonization target of 25% reduction thus aiming to create economic, social, environmental and financial value.

Another one of our underlying funds invests in companies led by entrepreneurs that create disruptive sustainable solutions away from fossil fuel, based on a strong differentiation, strong IP across Agriculture, Food, Chemicals and Materials sectors to help address major environmental challenges like climate change, biodiversity and food waste.

As we require underlying funds and companies to align their objectives to the SDGs, we can aggregate all data and map our impact at the fund level. We monitor precise and concrete impact measures in each area:

Non-exhaustive selection of KPIs followed:

		Corresponding SDG's	Reported Impact Indicators
Environmental Impact	**Climate Stability** Limit GHG levels to stabilise global temperature rise under 2°C		• Avoided Annual CO2 Emissions • Reduction of oil-based products • Replacement of concrete using less carbon intensive substitutes
	Healthy Ecosystems Maintain ecologically sound landscape and sea for nature and people		• Number of biodiversity data delivered for environmental impact assessments (EIAs) • Number of species protected following the conducted EIAs • Tons of cultured meat sold
Social Impact	**Basic Needs** Food, water, energy, shelter, sanitation, communications, transport, credit and health for all		• Number of farmers sourced from in the last 12 months • Cumulative amount of debt cancelled for people at risk of poverty • Number of public facilities made accessible for disabled people
	Decent Work Secure, socially inclusive jobs and working conditions for all		• Number of graduates who have found an international job above income threshold of USD 1.000 per month • Number of people hired through inclusion networks • Number of books sold adapted to reading disabilities

Source: Candriam, as at June 30th, 2022

With a clear view of our underlying funds' KPIs and achievements, we are in turn able to report on our impact at the fund level.

Quantification of impact thus transpires at all steps of our approach: from fund selection through our Due Diligence questions to the potential investees, to the impact data that we require from our underlying funds to our own reporting to investors.

Committed and aligned all along the process, for an ambitious purpose

Commitment does not stop at the investment process phase. We have placed this principle of alignment of interest at the center of our own remuneration, as an investment team. The Fund's carried interest is linked to social/ environmental goals. In other words, the team is financially incentivized to meeting both financial and non-financial targets are met. If we cannot deliver the expected impact, the carried interest fee will be donated to a non-profit group. This is how we concretely align our acts with our intentions.

All stakeholders are thus aligned on common principles, and it is our duty to ensure both full transparency and outstanding integrity while selecting and allocating investments. Our task is important: finance great projects with the aim to positively contribute to a sustainable future.

Soundpost

For string instruments, the soundpost is a small spruce dowel joining the front and back surfaces, which supports the bridge while allowing the whole body of the instrument to vibrate.

In French, they call it 'l'âme', which also means the soul.

Yehudi Menuhin knew how to touch both: make the violin vibrate and move our soul.

All our investment strategies involve risks, including the risk of loss of capital. The main risks associated with the strategy are: Risk of capital loss, Equity risk, Interest rate risk, Credit risk, Liquidity risk, Concentration risk, volatility risk, leverage risk, ESG Investment risk

ESG Investment Risk: The non-financial objectives presented in this document are based upon the realization of assumptions made by Candriam. These assumptions are made according to Candriam's ESG rating models, the implementation of which necessitates access to various quantitative as well as qualitative data, depending on the sector and the exact activities of a given company. The availability, the quality and the reliability of these data can vary, and therefore can affect Candriam's ESG ratings. For more information on ESG investment risk, please refer to the Transparency Codes, or the prospectus if a fund.

Private Debt & ESG: small companies, big (data) challenge.

Vincent Compiègne
Deputy Global Head of ESG
Investments & Research

Coralie De Maesschalck
Head of CSR & ESG, Kartesia

ESG data – its availability, relevance and comparability - is at the center of a wide industry debate which is even more lively for private markets. We discuss three ways to deal with this issue, and reemphasize the central role of due diligence in the ESG analysis process.

Small is beautiful. Small is dynamic and responsive - but also often less researched. The availability and quality of company data is a key challenge to ESG research in general, and even more so in private markets where regulations related to sustainability disclosures are less stringent than for larger listed companies.

Data sourcing: Small = challenging

The first and very practical challenge for ESG analysts when looking at smaller companies lies in the lack of resources: many companies are simply not able to allocate time or staff to the production of ESG reports.

The availability and quality of data is also uneven and very much linked to company activity or sector. For example, a small industrial company like a glassware manufacturer or a producer of aluminium components may be able to report on primary energy sources or machine energy efficiency, given that these issues are particularly important for the sector - and companies may even be required to report on them. However, this may not be the case for other sectors and other types of businesses. On some factors, such as gender equality or full-time vs temporary staff breakdowns, most companies do not routinely disclose data.

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> **Many companies are simply not able to allocate time or staff to the production of ESG reports.**

Due diligence: Small = proximity

The ESG data challenge highlights the crucial step in the ESG analytical process: the due diligence phase. To compensate the fact that we are lenders (debt investors) and not company owners (equity investors), we take advantage of this due diligence phase to get some proximity with management. For instance, we always negotiate to have the ESG report integrated in the list of required legal documents, and to have a seat at the board, or, at least, a quarterly meeting with top management. It is very important to have a continuous and regular dialogue with the board. Where required, we use our ESG expertise, as well as our independence, to challenge companies' management and achieve progress in sustainability areas.

The due diligence phase entails a comprehensive analysis of companies' strengths and weaknesses in terms of sustainability, which may help them raise their ESG profile substantially. During this step, we have noted that the management of smaller companies tend to show more sensitivity to sustainability issues than larger firms. They also tend to have a clearer and more concrete idea of the environmental or social impact of their activities.

We are thus able to set relevant indicators and KPIs in a collaborative mode, favouring those that are most material for stakeholders, including on intangible assets. This KPI definition step has utmost importance as favourable lending conditions may be conditional to objectives being met.

Moreover, including industry best practices in the conversation can be both insightful and mutually beneficial for companies and ESG analysts alike.

We cannot insist enough on the importance of comprehensive carbon audits, including for small businesses. We use our influence to push companies in this direction.

ESG analysis also needs to include an assessment of the companies' dependency to fossil fuels and a comprehensive analysis of energy costs, as these are key externalities and key risks. This should be based on a mapping of the various steps of the production process - data related to the use of basic materials are key inputs to the analysis of supply chains, as many sectors are facing shortages of semiconductors or fertilizers.

Data relevance: Small = specific

When it comes to smaller companies, one cannot use a standard data set. The relevance of data has to be assessed on a case-to-case basis, depending on the sector, regulatory environment, and societal transformations. In this respect, staff retention has become a challenge for many sectors since the COVID-19 pandemic. For example, when we consider a provider of mobility services to disabled people, meaningful indicators will include its scope 3 emissions[1], as well as the number of vulnerable people who were transported. In contrast, for a provider of personal care services, we will consider employee turnover and/or staff training numbers. Industrial companies' KPIs ten to focus on carbon footprint and energy efficiency.

SFDR still needs to go one step forward

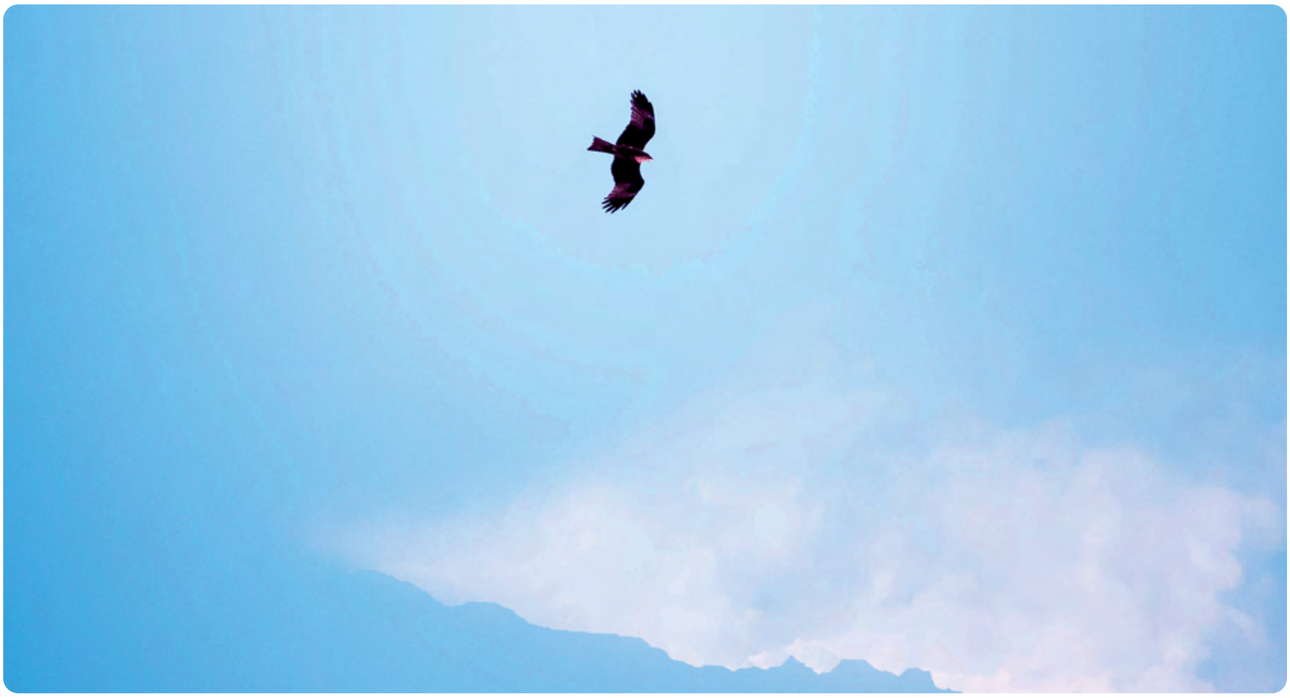
With its willingness to bring more transparency to the market, the Sustainable Finance Disclosure Regulation (SFDR) is certainly a step in the right direction, but the relevance of the chosen data remains questionable. First, the Regulatory Technical Standards due to come into effect on 1 January 2023, which aim to bring a concrete definition of activities with an environmental/ social contribution, still lack clarity regarding both indicators and templates. Second, a strict interpretation of regulations related to product categories (article 9 funds in particular, which 'target sustainable investments') is leading the industry to focus on high stake sectors and specific themes that maximise positive externalities (energy efficiency, circular economy), possibly leading to assets concentration on specific stocks or sectors.

Assessing the debt of a private small company requires specific expertise that differs from evaluating the credit profile of a blue chip. Just like in the case of a flute and piccolo, which look very similar but produce quite different types of sounds. Good ESG analysis and a continuous exchange with management will allow you to get the best out of your preferred instrument, regardless of its characteristics.

1. Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chain.

Absolute return and decorrelation: the many instruments in an orchestra.

Market turmoil can benefit certain types of absolute return strategies, just when the other instruments are out of tune. High volatility, rising rates, and increasing correlation among asset classes demonstrate why an orchestra employs *a full range of instruments*.



Emmanuel Terraz
Global Head of Absolute Return
& Quantitative Equity, and
Head of Equity Market Neutral

Every instrument in the orchestra

By construction, long-short equity absolute return equity strategies use many instruments in their aim to perform. In dull markets, their returns can be dull, too, looking rather like a money market fund with extra bits and pieces. These approaches are also designed with the aim to actually benefit from ***rising volatility***.

But like a money market fund, ***higher interest rates*** mean the bass note of expected return rises to a higher pitch. Also like a money market, when rates are rising, that bass note rises right alongside the other instruments, with little or no time lag.

Tuning up the instruments

Rising rates and the return of high market volatility were the themes of 2022. Both equity and bond markets have been 'discordant', to say the least. The MSCI World equity index has fallen nearly 15%, while the Barclays Global Aggregate bond index has lost more than 16% year to date through 23 November[1]. Nevertheless, absolute return equity strategies may be particularly well-positioned to benefit from the increased volatility and rising interest rates.

With positive correlation between equities and bonds for the first time since the 2008 financial crisis,[2] these strategies are playing their role as a diversifying asset class. If good news comes in threes, then three sour notes for the markets are in perfect tune with these types of investments.

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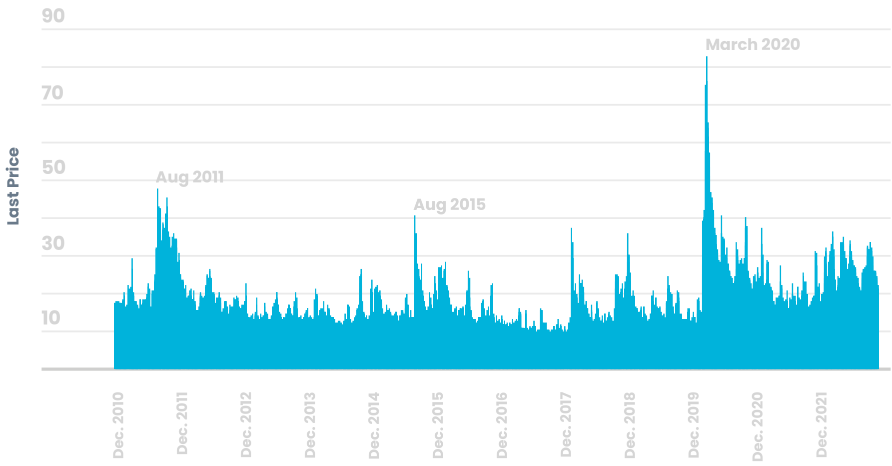
> **But like a money market fund, higher interest rates mean the bass note of expected return rises to a higher pitch.**

Volatility favours absolute return equity strategies

Equity volatility has stepped up to a higher average. Looking at equity volatility, we can see an increase in the average level of the VIX in the most recent two years relative to 2012 – 2019 period.[3] Both these time frames exclude the Covid spike.

Volatility: VIX
from 2011 to Nov 2022



Sources: CBOE Volatility Index (VIX), Bloomberg, 31 Dec 2010 to 23 Nov 2022

Rising volatility offers higher risk premiums. The ability to make rapid adjustments to changing markets means that when higher risk premiums appear, these approaches can capture new risk/return opportunities in real time. As most absolute return equity funds, they are providers of liquidity, and can potentially be more profitable in periods of high market volatility when that liquidity is well-compensated.

Rising rates mean better returns in the money market "bucket"

Contrary to traditional asset classes, absolute return equity strategies may benefit from an environment of rising interest rates. A special feature of certain alternative funds is that they may consist of the opportunistic investment strategies alongside an invested money market bucket.

Strategies are typically implemented using derivative instruments which only require a portion of the exposed amounts.

The remaining cash is invested in short term instruments such as repurchase agreements or money market instruments, whose rates have recently been rising.

Until a few months ago, absolute return products with conservative cash management policies have suffered from the negative return on their money market bucket, especially in the Eurozone. The successive increases in the key rates of the FED and the ECB have pushed short rates into positive territory. Thus, where a European money market investment was *losing* an annualized -59bps at the end of 2021, it should return around 1.4% at the end of 2022.

Eurozone short-term rate (€STR) at 31 December

All else equal, when money market yields rise, Absolute Return yields should also rise.

	Short term rates (€STR) at 31 December
2015	-0.13%*
2016	-0.33%*
2017	-0.35%*
2018	-0.36%*
2019	-0.45%*
2020	-0.58%
2021	-0.59%
2022*	1.40%

*As of 23/11/2022

Past history does not guarantee future performance.
Sources: Bloomberg. Prior to 2020, the €STR was the EONIA.

Dissonance -- risks

All our investment strategies involve risks.

Absolute return strategies are subject to risks of loss of capital. Main risks associated with investing in these strategies include derivative risk, currency risk, counterparty risk, and arbitrage risks. Other important risks include concentration risk, volatility risk, liquidity risk, and M&A risk.

All the instruments are warmed up

This new market regime combining high volatility, rising interest rates and increased correlation among most asset classes constitutes an alignment of the planets that may be more favourable to alternative management. Absolute return equity strategies may indeed benefit from these market conditions and provide more diversification to investors. For this reason, we remain optimistic that these strategies may be able to outperform in these new conditions.

Absolute Return equity strategies, by definition, seek to deliver alpha regardless of market conditions. Adding them to an asset allocation can reduce overall volatility and help the asset classes in your allocation play in harmony. Like an oboe tuning the orchestra, sometimes the unusual instrument is the right one for the task at hand.

1. Bloomberg, MSCI World Net return and Barclays Global Aggregate Net Return, 31 Dec 2021 through 23 November 2022.
2. Bloomberg, Candriam. Based on correlation between the S&P 500 index and the Bloomberg US Aggregate Bonds Index between August 2007 and November 2022, there were only short periods of positive correlation until the second half of 2022.
3. Volatility has risen from **15.2%** (31 Dec 2011 through 31 Dec 2019) to **23.4%** (1 July 2020 to 30 Dec 2022).

EM Corporate Bonds - getting tuned for strong performance: make sure to pick the right notes!

Christopher Mey
Head of Emerging Market
Corporate Credit

2022 has been a challenging year for fixed income assets and the emerging market corporate space has been no exception. We are more constructive on the asset class going into 2023 and will seek to select the right notes to compose a portfolio well positioned for 2023.

Return forecast: a solid 7.5-12.5%[1]

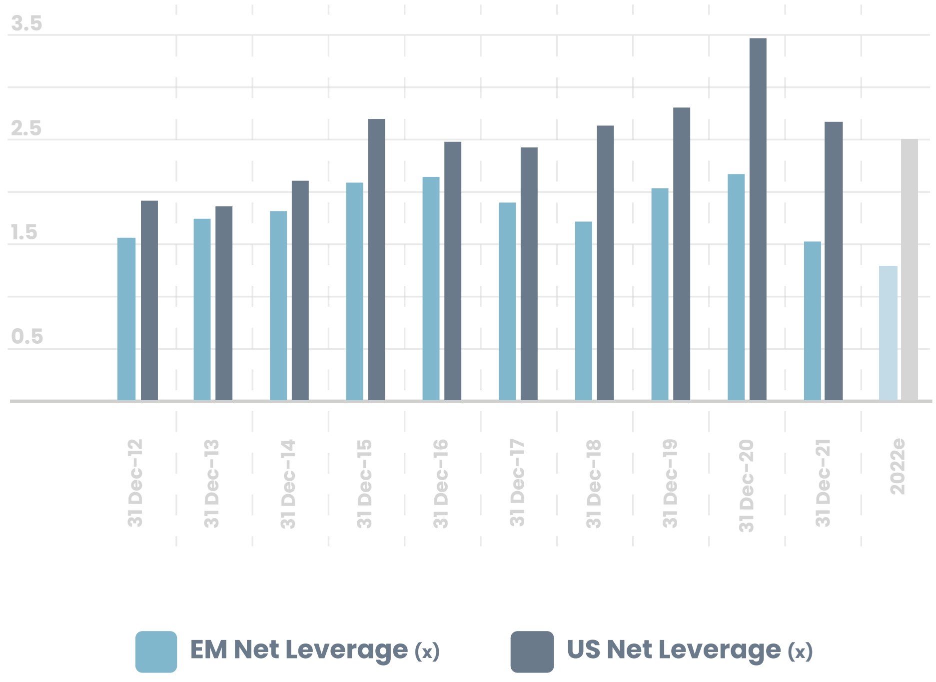
2022 has been a challenging year for the emerging corporate bond market, which posted a negative return of -13.60%[2]. The war in Ukraine triggered a spike in commodity prices and led to sharper than anticipated spread widening. In this environment, our strategy[3] managed to generate a net excess return of 1.1%.

Looking into 2023 we expect volatility to remain high. Nevertheless we now hold a more constructive view based on **attractive absolute valuations, resilient fundamentals** and a **technical picture that is looking benign** over the next 12 months. We expect a gross total return of 10-15% for 2023[1] aided by a historically high carry (7.6%) together with up to 100bps in spread tightening from current levels. Given our expectation of a realised default rate of 4%[1] across EM (emerging market) corporates together with a historical average recovery of $39 cents, we calculate credit losses of 2.5%[1] for a net return forecast of 7.5%-12.5%[1].

Attractive fundamentals: Strong balance sheets, lower default rates and manageable credit deterioration with BBB- average rating

Emerging market corporates are entering 2023 with strong balance sheets and are well positioned compared to developed market peers. While we are still awaiting FY22 reports, LTM net leverage for EM companies was at 1.5x, significantly below their US Corporate counterparts at an average estimated level of 2.5x[4].

Companies' long-term net leverage:
emerging markets vs USA



Source: Candriam, JP Morgan, Bank of America, 30 November 2022

We expect some weakening of fundamentals going forward. The latest reporting cycle has shown that margin erosion is taking place across cyclical industries such as chemicals, petrochemicals and real estate. While some companies have shown strong ability to pass on higher costs to their customers, generating top line nominal revenue growth, their degree of control over input costs has been weaker, leading to lower profitability and higher leverage ratios. **We are therefore looking for opportunities in industries where issuers exhibit some degree of pricing power and our strategy currently favours sectors such as non-cyclical consumer sector, TMT, and infrastructure as more defensive plays.**

Emerging market issuers have extensive experience of past crises where capital markets have been shut over prolonged periods and are generally more proactive in managing their debt maturity profile. According to JP Morgan data, there were $78bn of tenders & calls in 2022 and $130bn in 2021. Consequently, there are limited maturities coming up in 2023 for the asset class overall.

We still see heightened refinancing risks for the lower rated issuers as the cost of refinancing has reached the highest level since the Global Financial Crisis. Due to our expectation of elevated refinancing risk, **we are positioned defensively, limiting our exposure to lower quality issuers with large near-term maturities.**

We expect default rates in 2023 to normalise from historically high 2022 levels affected by weakness in the Chinese real estate sector and numerous defaults of Russian and Ukrainian companies following the Russian invasion of Ukraine. We forecast high yield default rates of 6-8%1 in 2023, equivalent to 3-4% of the entire EM corporate market.

Positive technical factors: Rebound in issuance, strong reflows, modest net issuance

2022 was expected to be a year of high issuance matching 2021s previous record of $541bn5. Elevated volatility in risky assets and US Treasuries led to a collapse in supply as issuers struggled to access the USD denominated primary debt markets.

Emerging market hard currency outflows reached $85bn[5] in 2022, however for 2023 we expect the level of outflows to abate and strategic investors with a long-term view to

> **We expect default rates in 2023 to normalise from historically high 2022 levels.**

reinvest in the market. We also forecast marginally higher gross issuance and neutral net issuance for 2023.

Valuations: historically elevated, attractive relative value

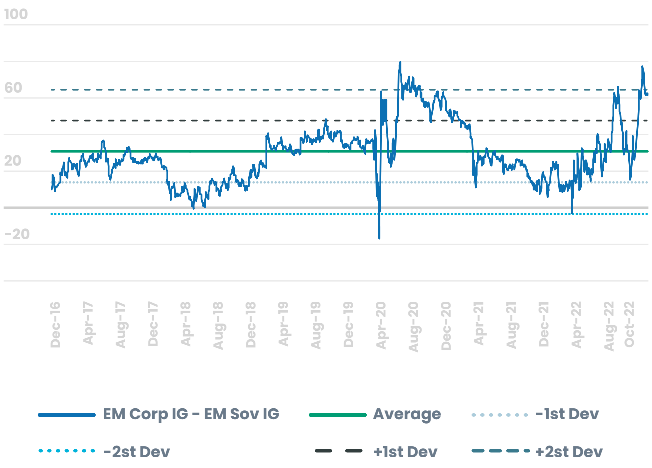
We currently view the asset class as attractive. EM corporate spreads are cheap as they remain around one standard deviation above the 5-year average, whilst relative value is also compelling with the attractive pick-up in spread over US Corporates and EM Sovereigns.

We particularly note that **there are pockets of value in investment grade EM corporates** that trade exceptionally cheap vs EM sovereigns at double the 5-year average spread as well as in the EM corporates rated AA, BBB, BB and B that trade at a decent premium vs comparable US corporates.

Our approach: a relative value-driven corporate credit investment process complemented by strong sovereign and ESG risk analysis

Over the past 10 years we have developed a unique relative value approach aiming to identify mispriced market opportunities. This active, fundamental, bottom-up process relies on proprietary tools integrating ESG factors whilst operating a disciplined approach to risk management. We leverageontheexpertiseofmorethan30creditandESGexperts.

Relative valuation, emerging market investment grade corporates vs sovereigns



Our cautious approach of governance issues is key in markets where many issuers still lack transparency. As a result of our many meetings with corporate issuers this year, we managed to avoid the weakest credit profiles. Our Sovereign team's comprehensive analysis serves as an input to our own as we avoid countries with poor political and economic outlook.

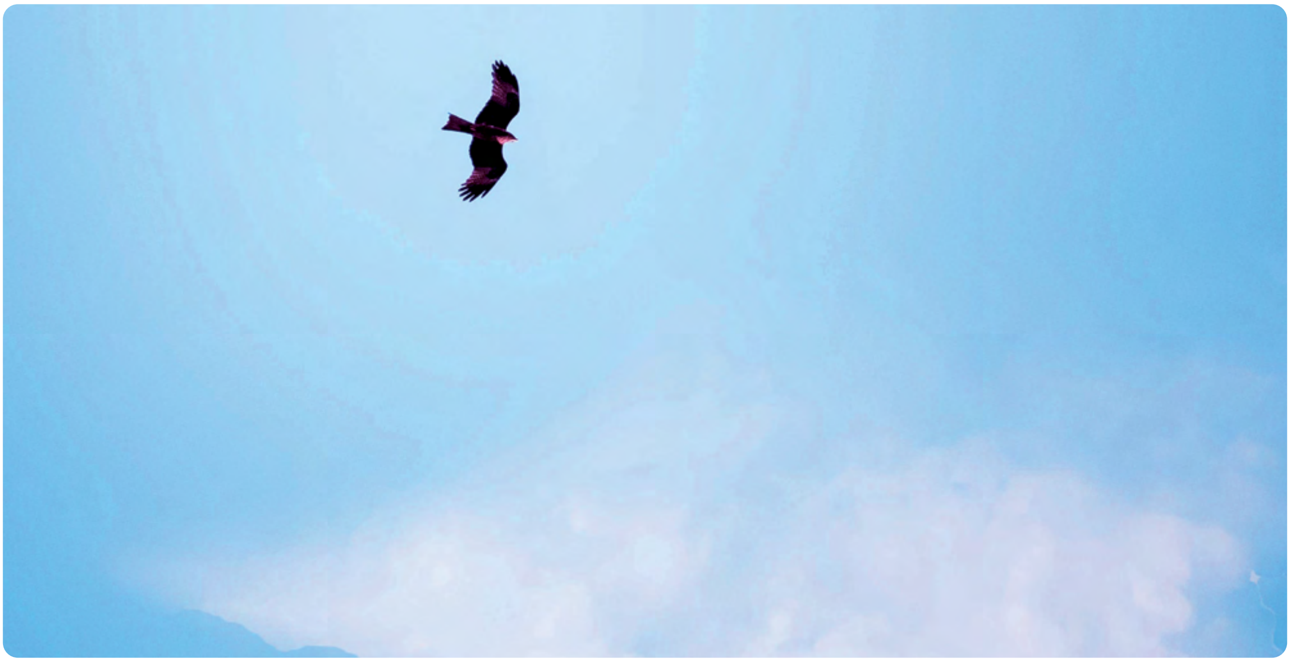
Similar to a piano and its wide range of keys, the EM corporate space offers multiple opportunities for all types of investors. As EM specialists, we rely on active management of risks and a rigorous bottom-up approach, integrating ESG factors in the aim to exploit the most attractive opportunities and compose a robust portfolio that resonates across all market environments.

All our investment strategies involve risks, including the risk of loss of capital. The main risks associated with the strategy are: Risk of capital loss, Interest rate risk, Credit risk, High Yield risk, Liquidity risk, Derivative risk, Counterparty risk, Emerging Market risk, ESG Investment risk.

ESG Investment Risk: The non-financial objectives presented in this document are based upon the realization of assumptions made by Candriam. These assumptions are made according to Candriam's ESG rating models, the implementation of which necessitates access to various quantitative as well as qualitative data, depending on the sector and the exact activities of a given company. The availability, the quality and the reliability of these data can vary, and therefore can affect Candriam's ESG ratings. For more information on ESG investment risk, please refer to the Transparency Codes, or the prospectus if a fund.

The Fund's Risk level is 4 on a scale from 1 to 7.

1. Candriam forecast. The scenarios presented are an estimate of future performance based on evidence from the past on how the value of this investment varies, and/or current market conditions and are not an exact indicator. What you will get will vary depending on how the market performs and how long you keep the investment/product. All our investment strategies are exposed to risks, including the risk of loss of capital.
2. Measured by JPM Broad Diversified Index 1st January to 30th November 2022 in USD
3. Candriam Bonds Emerging Market Corporate, net performance in USD, Institutional share class, 1st January to 31st October 2022. Reference index is JPM Corp EMBI Broad Diversified USD RI. Past performance is no guarantee of future returns.
4. Candriam, JP Morgan, Bank of America, November 2022
5. Source: Morgan Stanley



Real estate is like opera.

Simon Martin
Chief Investment Strategist and Head of Research & Investment Strategy at Tristan Capital Partners

The late, great Stephen Sondheim was, perhaps, the greatest figure in 20th century musical theatre. He once said the 'art is, in itself, an attempt to make order out of chaos'. The greatest operatic composers lived in dramatic times. Puccini composed during the Italian wars of reunification. Mozart & Beethoven lived through the first 2 decades of the industrial revolution and the enlightenment. Wagner's operas are nothing if not tumultuous. It seems that great works of opera are best suited to uncertain times.

Someone somewhere should therefore be writing an opera based on 2022. Post Covid, a war broke out on Europe's Eastern border, followed by the most rapid increase in interest rates since the early 1980s and a surge in inflation that is unparalleled in this era of globalisation. At the same time, bonds and stock have been correlated, volatile and performed poorly. The UK's hard-won reputation for fiscal probity has been dented. Crypto rolled over and seems to be dying dramatically. FAANG bit back. Investors have had to be selective to find safe places to store their capital.

Despite this drama, real estate has had a reasonable year. Although denominator effects have lifted real estate allocations for many and capital flows have slowed, the inherent stability of the asset class, solid operating fundamentals and the index linked nature of leases have combined so that investors have been somewhat protected against the headwinds in other markets.

That said, we cannot assume that real estate is fully insulated from the turmoil of the economic outlook. The operating fundamentals are solid and anchored by low supply risk, but everyone understands that the chill winds of recession are blowing into Europe. Central banks seem likely to keep monetary policy tight, so liquidity and financing will be rationed, and portfolio and risk management skills will come to the fore. With energy efficiency and ESG factors becoming more important to tenants, buildings will have to be properly provisioned to ensure that they can compete in a tougher economic climate and so it seems like that capital intensity will continue to rise and asset management skills will need to be on show. Equally, real estate assets are idiosyncratic and illiquid, so pricing risk is complex, and capital does not always flow evenly and efficiently to where it is needed. This raises the risk that people who need capital quickly to cope with the challenges will not be able to find it.

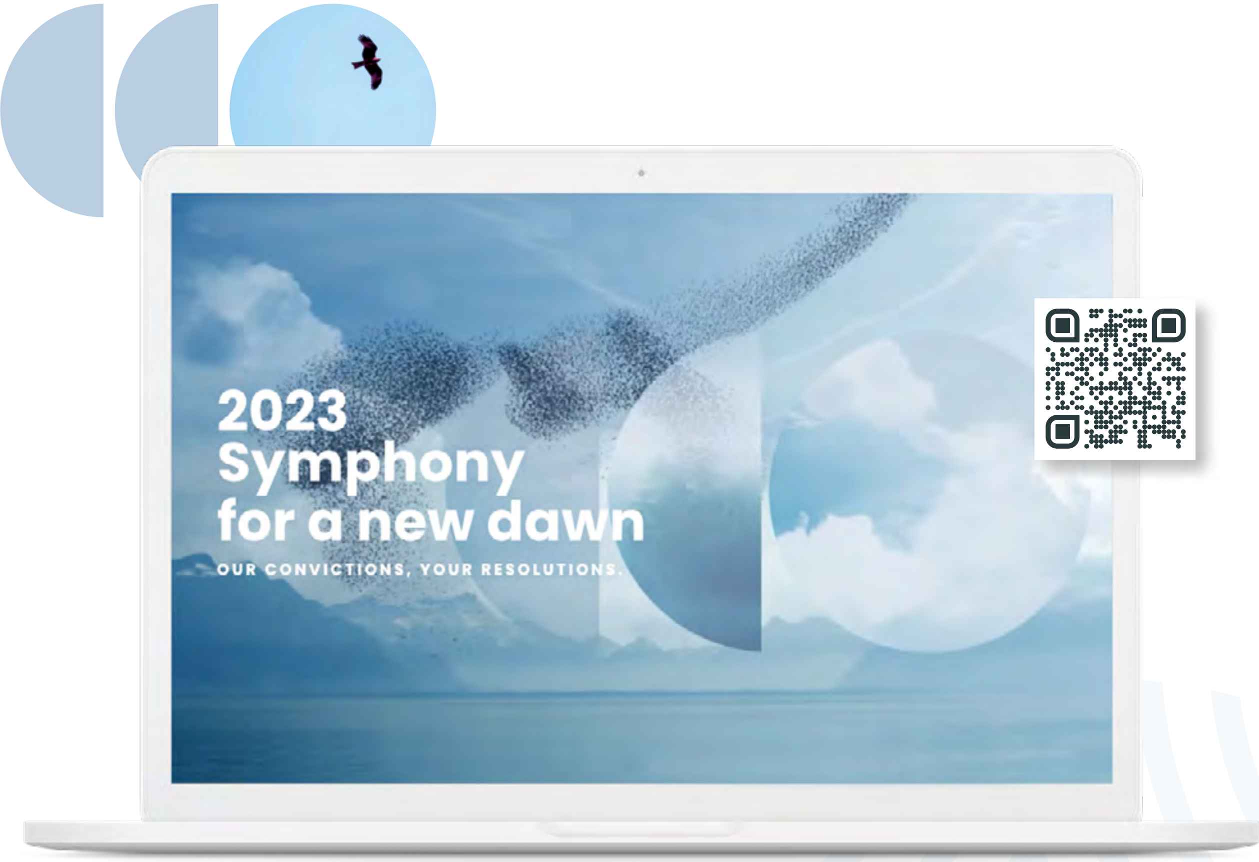
Not all investors will be prepared for these challenges and so it is almost inevitable that some will find themselves frantically searching for help at the wrong moment in time. Some will choose to sell; some may be pushed into selling by impatient creditors. This will result in opportunity for both debt and equity investors. History tells us that investing during periods when capital is scarce is, by every measure, the most accretive for long run performance. That said capital alone is not enough, investors must also show conviction.

We believe that, in today's ever evolving market, conviction is ultimately a function of the operating fundamentals – the dynamics of supply and demand. On the demand side there are several long run secular trends boosting the demand for space that can be harnessed by landlords to create upside optionality and reduce the cyclical risk that flows from recession. These secular drivers will be most powerful in the cities with the strongest demographics and where the levels of vacancy are low, particularly in cities where construction activity has been slow to recover from covid induced cost and timing effects. These markets will be the most resilient under stress; they are the markets where indexation is most likely to be accepted by tenants; they are the markets where the upside is strongest into recovery and, consequently they are the markets where yields and capitalisation rates will be least impacted by interest rate volatility and uncertainty.

Mark Twain once went to see Wagner's, 'Tristan and Isolde'. "Tristan" is said to have knocked the irony right out of him. He wrote: "I have never seen anything like this before". Twain clearly had taste! But even if they lack his trademark irony, his words are resonant. These are challenging times, but with challenge comes opportunity. There are ways to navigate the tumult. Twain knew that clear-sighted conviction and trust in your 'composer' were essential.

Kroum Sourov
Lead ESG Analyst, ESG
Sovereign Research

Swan Lake. Full of Grey.



> **"Risks are likely to continue to materialise, but as long as we are prepared, and act as responsible investors, I think that we can deliver value to our clients.**

Multi-management: how can several voices sing in harmony?

Maia Ferrand
Co-Head of External Multi-management

Jean-Gabriel Nicolay
Co-Head of External Multi-management

In *The Marriage of Figaro's Act III sextet*, six voices reach harmony while singing their individual part. We find a parallel with the multi-manager's mandate: aiming to select the best performers in each category, knowing each fund inside out including the conditions in which they may perform best, and building a unique portfolio seeking to deliver alpha in any given market regime.

Auditioning candidates to select the best soloists in their category

Just like auditions are a crucial initial step in building a harmonious ensemble, building a multi-strategy portfolio starts with selecting quality expertise. We believe a good level of diversification is achieved through a selection of 30 to 35 managers. In order to build an all-weather portfolio aiming to perform in all market regimes, we think investors should select several underlying strategies within each asset class, each one exhibiting a specific risk/return profile:

- Within fixed income, relative value strategies at the micro level and macro level. While the first ones aim to exploit dislocations within the same yield curve so as to deliver regular returns over time, the latter aim to benefit from directional positions via options
- Global macro strategies aim to capture market trends in volatile markets. We like to select managers with skills in one or several asset classes: fixed income, equities, currencies.
- Equity long-short: we tend to favor sector specialists with neutral or low market exposure. They aim to generate alpha on both long and short positions; their favorite environment to perform is directionless markets with sector dispersion.
- Quantitative strategies: we select managers with various investment techniques: equity statistical arbitrage, volatility arbitrage, trend following
- Credit strategies are usually sized up when the strategy offers unlevered equity-like returns with a better asymmetry
- Event-driven has a more opportunistic role in the portfolio as the strategy is highly dependent on market environments such as strong M&A cycle and stable regulation.

The due diligence process should be highly disciplined and fine-tuned over the years. Beyond the usual operational aspects (solidity of the structure of the partnership, operational structure, quality of the team, risk management), it should include an in-depth understanding of the strategy: in which conditions will the strategy deliver its best returns, or, on the contrary, struggle? We believe we should try to spend as much time as possible with managers, analyzing financial as well as soft skills: personality, communication, temper. We need to understand how the manager will respond in tough markets, and if he is here for a home-run or for the long term. As Duke Ellington said, '*the wise musicians are those who play what they can master*'. Like a conductor selects the best voice for each part, we need to know, for each given market environment, which managers will perform at their best.

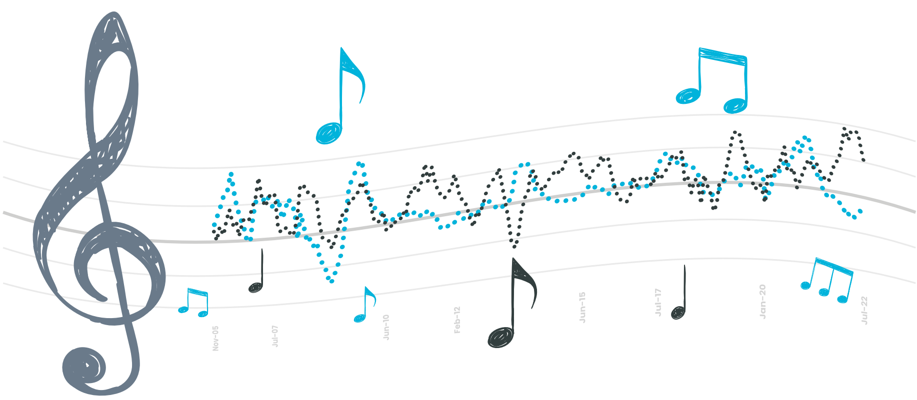
The best soloists do not always make the best ensemble. It is key to understand how they interact

Hiring the best individual talents is not a guarantee of success; making them work well together is more important. Like the composer would select this soprano and that baritone to create alchemy for a specific part, the multi-manager aims to select the best combination of managers to deliver the target risk/return objective.

Among the tools available for portfolio construction and monitoring, stress-testing and correlation analyses are instruments to check risk diversification, and monitor strategies' contributions to risk and return across time; while also monitoring thematic exposure. An absolute return approach aims to deliver stable returns in all market conditions. Stability is obtained through diversification, aiming to avoid over-concentrated bets and hidden correlations. In our portfolio, two thirds of strategies exhibit a correlation to each other below 0.25[1].

For example: on the fixed income side, global macro strategies tend to perform best in dislocated markets with trends, while macro relative value funds offer a very convex profile able to capture market changes, even sudden and violent. On the equity side: we will look for dispersion across sectors, hence select sector-specialised long/short managers with small directional biases to the market.

6-month rolling P&L of two underlying strategies



······· 6-month moving average Strategy 1 ······· 6-month moving average Strategy 2

Examples are hypothetical in nature, do not reflect actual investment results and are not a guarantee of future results.
This is for illustrative purposes only and not indicative of any investment.

Source: Candriam proprietary database

Our key success factor: experience

Across the past 20 years we were able to build a proprietary database that is difficult to replicate. Experience is key to navigate all market environments. We are convinced this is the only way for investors to deliver consistent performance over the years, outperforming the market and indices in down years and navigating market events such as the sell-off in growth against value in Q2 and Q3 2021, and the inflation fears during Q4 21 which materialized with the Ukraine war in February 2022.

What makes a great musician? Talent accounts for 20 per cent, and work and experience for 80 per cent. With our twenty years of investing experience and our very stable team we have built an ensemble able to play the most challenging operas.

All investment strategies involve risks, including the risk of loss of capital. The main risks associated with our strategy are: Risk of capital loss, Equity risk, Interest rate risk, Commodity risk, Credit risk, high Yield risk, Currency risk, Liquidity risk, Derivative risk, Counterparty risk, Model risk, Arbitrage risk, Volatility risk, Emerging market risk, Leverage risk, Index provider risk, Sustainability risk.

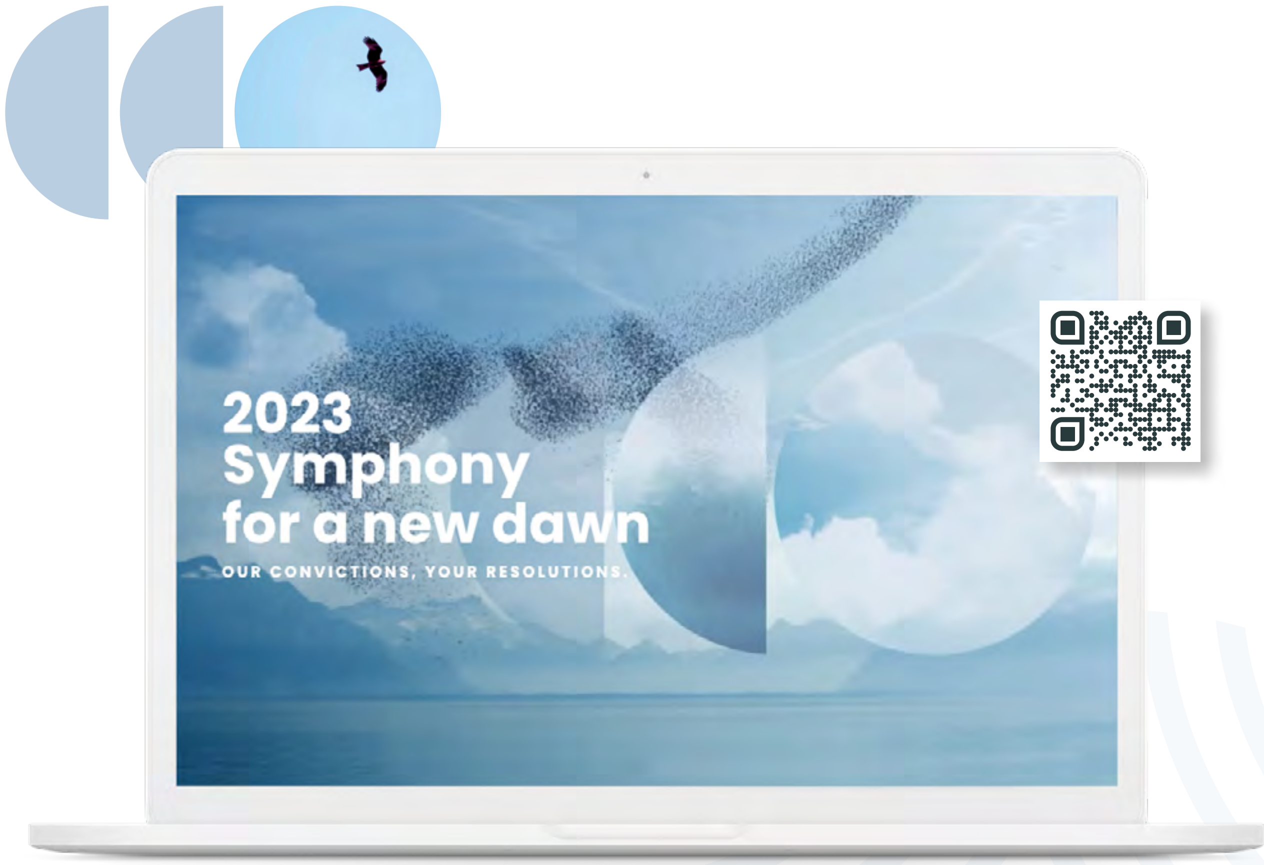
The sustainability risk refers to any event or situation in the environmental, social or governance domain that could affect the performance and/or the reputation of the issuers in the portfolio. The sustainability risk may be specific to the issuer, depending on its activities and practices, but it may also be due to external factors.

Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance does not predict future returns.

1. Source Candriam, CWA Alphamax cross correlation strategies end of November 2022.

Alix Chosson
Lead ESG Analyst for the Environmental Research & Investments

A "Slow Funeral March" for the Fossil Fuel Era.



> **"**
>
> **An accelerating energy transition, supported by decisive government support, offers tremendous opportunities for investors.**

Net Zero with Emerging Markets: before the bell tolls.

Net Zero is a make-or-break moment for the global economy and investors can help emerging markets take full part in the energy transition.

Galina Besedina
Senior Emerging Markets
Equity Research Analyst and
Portfolio Manager

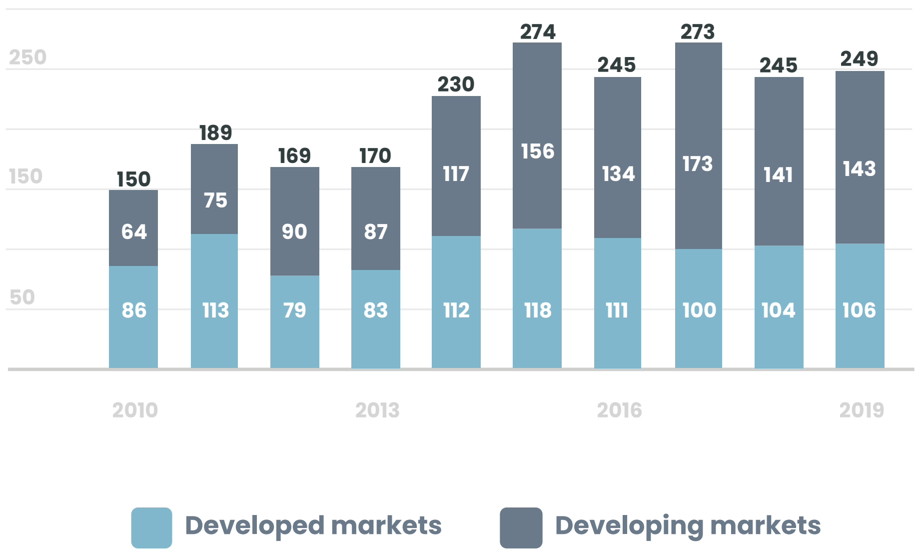
Paulo Salazar
Head of Emerging
Markets Equity

Cinderella had so much fun at the ball that she had to rush down the stairs to get away in her carriage before it turned into a pumpkin with the last stroke of midnight.Charles Perrault's beloved fairy tale became a ballet and several operas, to be enjoyed by children and adults alike, such as Jules Massenet's Cendrillon, premiered in 1899 in Paris. But we doubt the humanity wants to be caught out, Cinderella-like, late for energy transition.

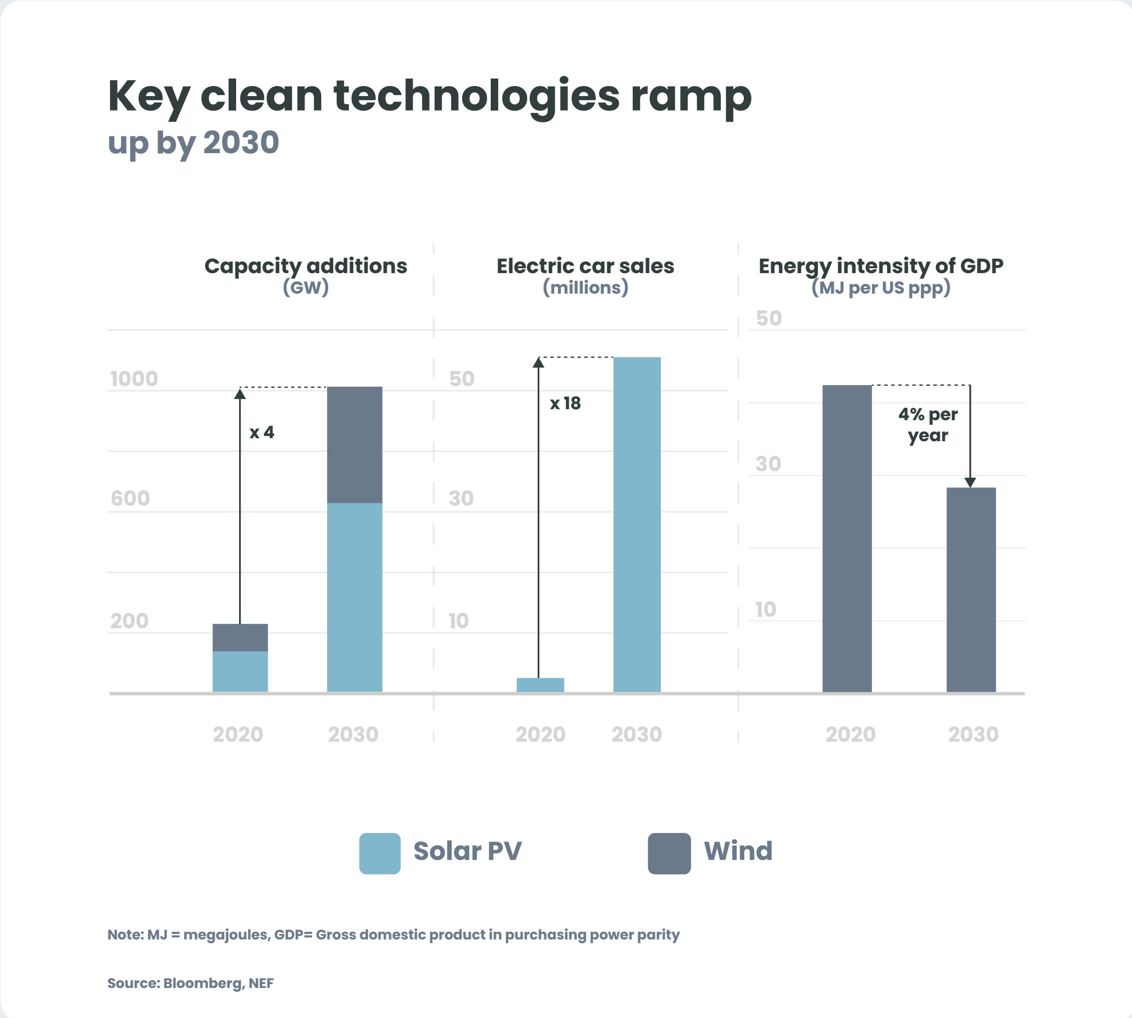
Emerging Markets: Leading in new-built clean energy asset finance globally

Global new-build clean energy asset finance

by market type



Source: Bloomberg, NEF



It will be impossible to reach the crucially important global Net Zero goals without emerging markets. Representing over 62% of the world's population and 48% of global emissions[1], emerging markets should be a key focus of sustainable impact investors. The scale of the challenge is enormous: emerging markets need to find an additional USD94.8 trillion to transition to net zero by 2060[2]. And yet, in the main, international investors seem to be staying away, spooked by geopolitical potential risks and uncertainty.

So how can responsible investors support emerging markets' energy transition without compromising their objectives?

Focus on Climate Change Opportunities

Some emerging market companies will be among the most important enablers of energy transition, not only in emerging markets themselves but the rest of the world too.

Over the ten years from 2020 to 2030, for example, solar photovoltaic (PV) and wind energy generation capacity globally is set to increase by fourfold. Most solar panel producers are based in Asia. Over the same period, the sales of electric cars are projected to grow by about 18 times. Solar PV is now one of the cheapest energy options globally[1] and China and the rest of Asia will account for the lion's share of the expansion of solar power generation through to 2028. Even a year ago, at the end of 2021, China boasted 300 GWt of installed solar capacity[2] compared to 160 GWt for the European Union (EU)[3]. And the, of course, there are electric vehicles.

Going electric

When it comes to electric vehicles, the planned the shift to zero-emission mobility across the developed economies cannot be achieved without emerging markets. For example, recently the EU decided that all new cars and vans registered in Europe will be zero-emission by 2035. As an intermediary step towards zero emissions, the new CO2 standards will also require average emissions of new cars to come down by 55% by 2030, and new vans by 50% by 2030[4].

With the battery accounting for a very sizable chunk in the price of an electric car, Asia is set to become the battery workshop of the world, helped by its collective dominance through the whole supply.

According to Benchmark Minerals, China will have 322 gigawatt hours (GWh) of production capacity in Europe by 2031, with South Korea the second largest at 192GWh, followed by France and Sweden. The US is fifth, thanks to Tesla's plant in Berlin, followed by Germany and Norway. The UK is eighth with just 20GWh[5].

And other greenablers...

Greenablers are producers of building blocks of a more circular, more energy efficient global economy. Among them are major suppliers of copper and lithium - metals essential for the de-carbonisation. Another example – are producers of semiconductors, which are mostly manufactured in Asia and play a critical role in reducing electricity consumption – and demand for these are growing..

Know How

To identify specific investment opportunities, we believe investors should build an exhaustive universe of emerging market companies playing a positive role in providing climate solutions. Candriam's approach is to then 'cluster' these companies around different themes, such as electric vehicles, renewable energy, software, recycling or the smart grid[6].

In our experience, there are many 'hidden gems' companies in emerging companies, whose activities at first glance have little to do with energy transition, but in fact turn out to be important contributors. For example, the Taiwanese financial services company **Chailease** is not only a specialist in leasing, instalment sales, import and export and direct financing but is also one of the largest owners of solar power plants in the country.

WEG SA is well known international Brazil-based producer electric motors, generators, transformers, gear units and geared motors. What is less known is the company's high exposure to renewables, e-mobility and industrial automation[7].

Siemens in India experiencing strong demand for industrial de-carbonisation solutions[8] in the form of waste heat recovery systems, biomass solutions and modernisation and upgrades with energy efficiency solutions like eco design transformers[9].

Yadea is the largest player in China's electric two-wheeler market[10], with almost a third of the domestic market. The company designs, develops, manufactures, and sells electric scooters, electric bicycles, and related accessories. What it makes particularly interesting for us is that Yadea also developed graphene batteries[11], which presented an affordable alternative to acid and lithium-ion batteries.

Clearly among key enablers are the more obvious contributors to the energy transition, such as **Sungrow Power Supply**, a Chinese manufacturer of solar inverters (PV inverters) with a 21% global market share in 2021[12]. Solar inverter is a device which converts the energy generated by a solar panel into a regular electric current that can be fed into a local energy grid.

Focus on what matters

Global net zero will be achieved when human-caused greenhouse gas (GHG) emissions are cut to absolute minimum, while any remaining "residual emissions" are removed from the atmosphere by plants or new specifically designed for that purpose technologies. Historically, advanced economies have emitted more carbon than emerging markets. Advanced economies of Europe and the US were also the first to cut emissions. However, a global journey won't succeed until emerging markets feel incentivised to take equally effective measures and investors will play an important role directing capital flows towards climate action enablers. So that humanity won't have to leap from riches to rags with the last toll of the bell, just like Cinderella.

Important

Please note that the companies mentioned in this article are invested by Candriam portfolios at the time of writing.

Risks

All our investment strategies involve risks, including the risk of loss of capital. The main risks associated with our Sustainable Emerging markets Equity strategy are: Risk of capital loss, Equity risk, Interest rate risk, Currency risk, Liquidity risk, Emerging market risk, ESG Investment Risk, Risk on A-Shares (China), Sustainability risk.

The sustainability risk refers to any event or situation in the environmental, social or governance domain that could affect the performance and/or the reputation of the issuers in the portfolio. The sustainability risk may be specific to the issuer, depending on its activities and practices, but it may also be due to external factors.

Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance does not predict future returns.

1. Page 11, https://www.ifc.org/wps/wcm/connect/26f79a1b-c191-494b-b2d9-c891e138bb37/IFC_GreenReport_FINAL_web_1-14-21.pdf?MOD=AJPERES&CVID=ns1JVaR
2. Leveraging markets for the green push | Standard Chartered (sc.com), https://www.sc.com/en/feature/leveraging-markets-for-the-green-push/
3. CLSA, 2022, Global clean energy, 2023 outlook: Time for realism
4. China: installed solar power capacity 2021 | Statista
5. In focus: Solar energy – harnessing the power of the sun (europa.eu)
6. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6462
7. https://www.ft.com/content/d407772c-4a76-4e59-9bb0-998b3f22383b
8. An electricity supply network that uses digital communications technology to detect and react to local changes in usage.
9. https://www.weg.net/institutional/FR/fr/news/corporate/consistent-growth-supported-by-demand-for-renewable-energy-and-international-expansion
10. https://www.siemens-energy.com/global/en/offerings/decarbonization-products-solutions.html
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14. https://renewablesnow.com/news/huawei-sungrow-control-44-of-pv-inverter-market-in-2021-791023/

Are India's stars finally aligning?

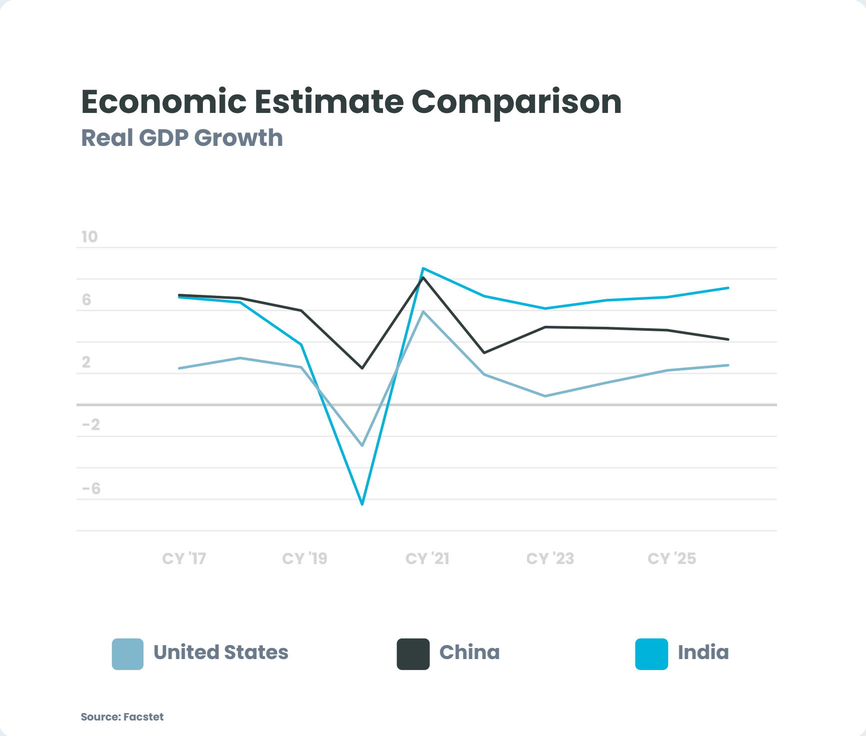
Vivek Dhawan
Portfolio Manager & Equity
Analyst, Emerging Markets Equity

Last year India became the fifth largest economy in the world and the country's GDP exceeded USD 3 trillion. In 2022 and 2023, India is the only major economy expected to deliver a robust real GDP growth of about 7%[1], accounting for about 22% of global growth[2]. Is India at the cusp of delivering long term sustainable growth and how can investors participate?

Policy reforms turn pro growth

In the last few years, several crucial supply side reforms have been rolled out which could help India achieve sustainable economic growth in the future. One of the most important initiatives has been a shift towards higher levels of profit contribution to the country's GDP. It included a reduction in corporate tax rates for new manufacturing from 25% to 15% in 2019, and several production-linked Incentive programmes. To a large extend, this replicates the South Asian model of export and investment cycle driven economic growth, that we have also seen play out in other economies successfully in the past. Other reforms include the unified Goods and Services Tax Law, the Real Estate Regulation Act and the Bankruptcy Code. In addition, India has also benefitted from a benign external environment and the diversification of global supply chains, which led to an increase in direct foreign investment.

GDP growth estimates for major regions



Themes with exponential growth opportunities

As a result, we are seeing offshoots of growth in several areas that might have the potential to deliver high economic growth over many years.

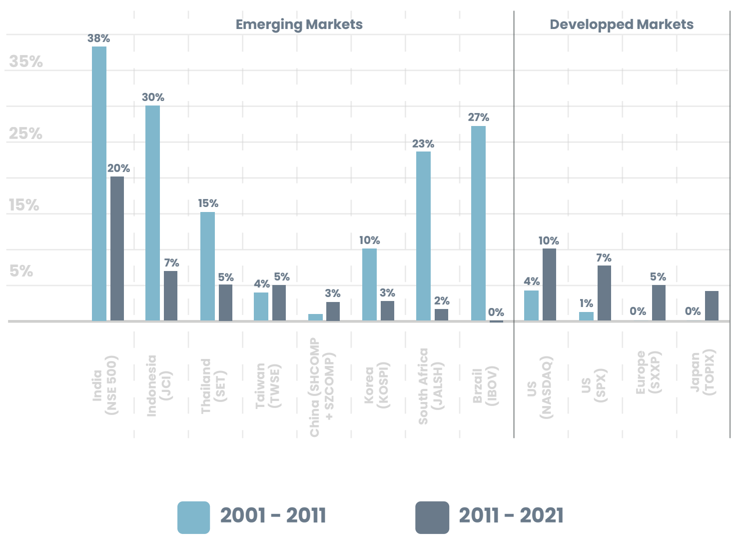
- **Investment cycle revival.** As India's policy focus shifts to increasing capex investment, the obvious beneficiary is booming demand for credit and lenders. Considering that many Indian financial institutions have learnt how to leverage the use of technology, and the current level of credit is less than 60% of India's GDP, we believe that credit demand has a growth potential of around 15% (annualised) for years to come[3]. Infrastructure expansion is another theme that is likely to potentially help generate economic growth over many years, as the government announced an expansion of freight corridors and port capacities.
- **Manufacturing.** Driven by three key drivers – increased efforts on diversifying global supply chain, the government's production-linked incentives in 14 sectors and low production costs compared to developed countries. We believe that India's manufacturing output has the potential to grow three-fold by 2031. Indian exporters in manufacturing and automation are well positioned to leverage this growth opportunity.

- **Energy transition.** India's commitment at the COP26 summit focused on reducing carbon emissions but also on increasing contribution from renewable energy. However, for a country which faced rapidly growing energy requirements, it becomes imperative that a larger proportion (almost 2/3 by end of this decade) of new energy supply comes from clean sources, primarily solar, biofuels and hydrogen. We think that would create about USD700bn in renewable energy capex opportunities.
- **Digital services.** As global enterprises look to embrace the digital transition and global technology capex continues to rise, Indian services exporters could find a new growth engine in form of digital solutions, with the possibility to almost treble in value over next 10 years, to over USD 500bn. Beneficiaries from this significant secular trend will include not only the largest Indian IT corporates but also niche digital solution players.

Taking on the growth baton

As a confluence of positive factors materialise, India looks well poised to deliver sustainable real GDP growth of 6%-7% a year over several years[4]. This is a level, which in musical terms is *prestissimo*[5], not only is above the global average in a world economy which is currently slowing down, but it would also represent a significant one fifth of global GDP growth.

% share of «10-Baggers» in a decade



«10-Baggers» are defined as stocks that went up 10x in 10 years;
During 2011-2021, 20% of stocks that were part of the NSE 500 Index at the start delivered a total return of over 900%.
During the previous decade, 38% of such stocks did so; Returns are in local-currency terms.

Source: Bloomberg Intelligence

For investors, this could be opening doors to exponential growth opportunities in several areas which we highlighted above. In fact, according to a recent study from Bloomberg, the Indian market witnessed more of its stocks rising by over 10 times (or "10 x baggers") than any other major stock market over the past decade[6].

It is perhaps for this reason that while most regions went through a major equity market correction in 2022, Indian equities continued reaching new all-time highs. While predicting short- to medium-term market movements is an impossible task, looking over the long term, one thing is clear to us - at last, stars seem to be aligning for the country after a long time.

> **While predicting short- to medium-term market movements is an impossible task, looking over the long term, one thing is clear to us - at last, stars seem to be aligning for the country after a long time.**

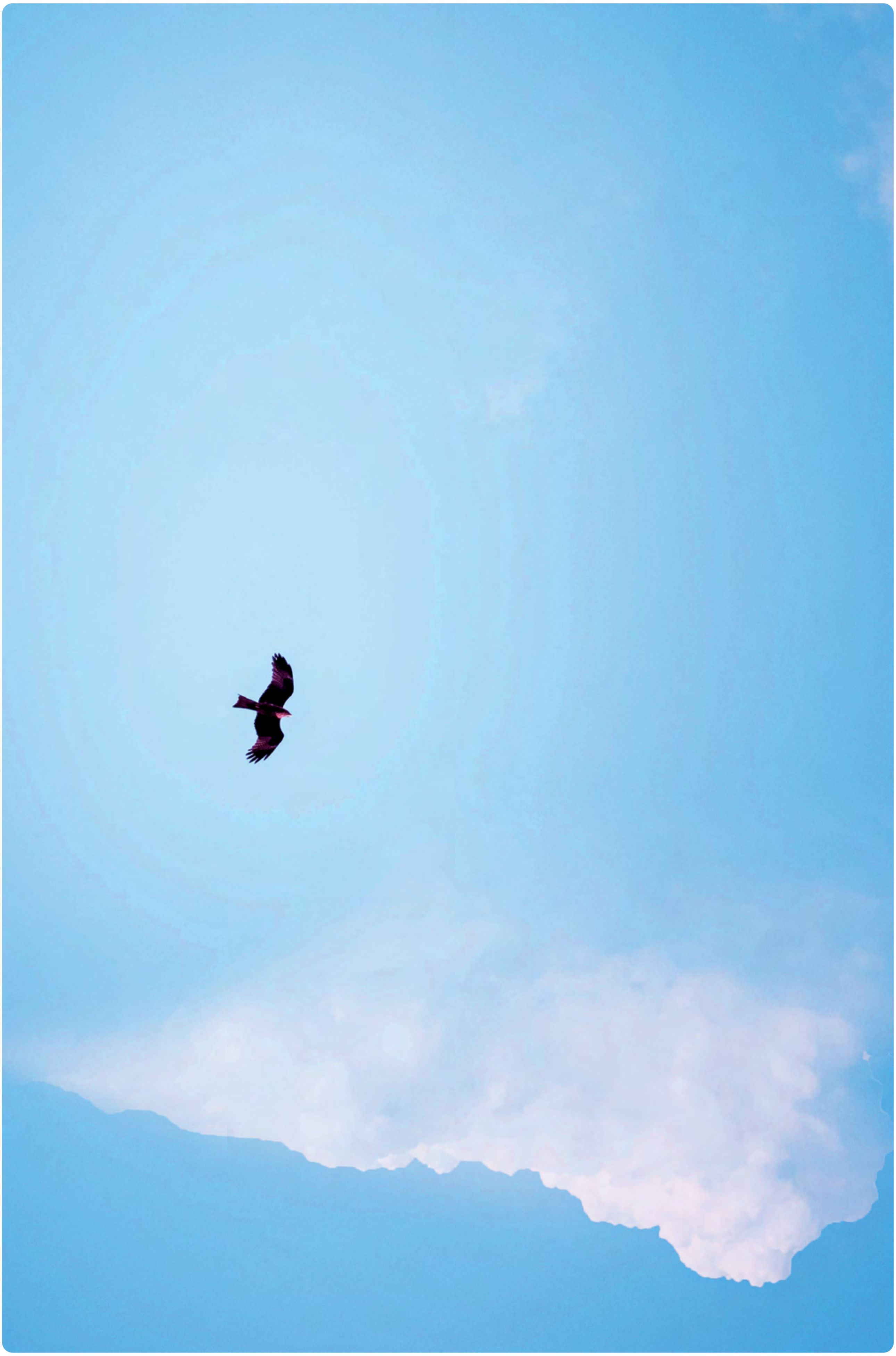
References: *MS Blue Paper on India.*

Risks

All our investment strategies involve risks, including the risk of loss of capital. The main risks associated with our Emerging markets Equity strategy are: Risk of capital loss, Equity risk, Interest rate risk, Currency risk, Liquidity risk, Derivative risk, Emerging market risk, ESG Investment Risk, Risk on A-Shares (China).

Past performance of a given financial instrument or index or an investment service or strategy, or simulations of past performance, or forecasts of future performance does not predict future returns.

1. GDP growth estimates: FactSet estimates
2. GDP growth contribution as % of global GDP growth: MS Blue paper, p 15
3. Credit growth estimates: MS Blue paper, p 12
4. GDP growth estimates: FactSet estimates
5. adj, prestissimo (not comparable) (music) Extremely fast, the fastest possible tempo.
6. Chasing multi-baggers? India has had more stocks rising 10-fold | Insights | Bloomberg Professional Services, https://www.bloomberg.com/professional/blog/chasing-multi-baggers-india-has-had-more-stocks-rising-10-fold/



The interest rate fugue: bond yields are back, but is anything the same?

Philippe Noyard
Global Head of Credit &
Deputy Global Head of
Fixed income

Bond yields are back, but with a difference. In a fugue, the theme repeats itself. If rising rates are a theme markets have seen before, this time the rising tempo of that theme may completely change the sound. Listen carefully, selectivity will be everything.

Be careful what you wish for, you might get it.

The rise in central bank rates to combat inflation has sent shockwaves through bond markets, raising concerns about the risks of economic recession if they are too aggressive.

The combination of positive interest rates and historically high risk premiums in European credit offers attractive coupons to investors looking for a carry.

Never in its history has investment grade credit posted such negative returns, from -12.53% over the first 11 months of the year for the BoFa IG Euro Corporates Index.[1]

The tightening of monetary policies is the main factor behind this. It was impossible to transition from negative yields on German government bonds to 2% without losses.

Only 20% of the loss in value is attributable to credit risk. The normalisation of key rates should continue in 2023 but at a much less aggressive pace as inflation seems to have reached its peak. The main question will be the speed of its decline, excluding new exogenous shocks, particularly in Europe.

Risk premiums have soared from 1% at the beginning of January to 1.8% at the end of November for Euro investment grade credit and from 3.3% to 5% for Euro high yield credit[2]. These valuation levels exceed the historical averages of the last 10 years and imply default probabilities close to 8% for high yield, well above the historical 4.5% over that period.[3]

While early 2023 is likely to be complicated, with 4% yields on Euro Investment Grade today, we believe this asset class offers an interesting return in the current context.

Selectivity remains the order of the day

Fundamental analysis will remain key in 2023.

Credit ratios are likely to deteriorate noticeably in the coming months. Economic growth is slowing in regions around the world and the outlook for earnings growth is dimming.

The year looks difficult for the most indebted and cyclical companies. We expect more credit rating downgrades than upgrades in 2023.

Profit margins are expected to decline and leverage to increase. The most defensive profiles, or companies able to pass on price increases to their end customers, will be the winners.

Companies have benefited for many years from low financing rates and have taken advantage of this to extend the average maturity of their debt.

The increase in interest expense seems manageable for investment grade companies. Only 11% of total debt is due to be refinanced in 2023, at an average coupon of 4.20% compared to 1.90% in 2021.[4]

On average, high-yield issuers do not have large short-term maturities. However, a prolonged restriction of the capital markets may be problematic for some companies. Although the average credit quality has improved significantly compared to the past, **we expect the default rate to double to between 4% and 5% in 2023.**

Caution on weakest links

A fugue returns preciselty to its pattern. The markets may not. The creditworthiness of issuers with the lowest ratings, from single-B to triple-C, is at risk.

These segments include many companies owned by private equity funds through leveraged buy-outs. The latter have used very high leverage, often at variable rates, to achieve their return targets in the context of low-cost funding. Now these companies face operating margin declines at the same time as they will suffer even greater pressure from significant increases in interest payments.

Some companies will suffer significant ratings downgrades, leading to underperformance or even default.

Finish the Fugue with a Flourish

We believe that 2023 offers real investment opportunities with attractive yields. We are also convinced that certain segments of the credit market will remain particularly vulnerable and that their probability of default is not yet fully reflected in credit spreads. Now more than ever, we believe it is essential to favour active management and have well designed credit and ESG analysts teams play *moderato più moto*.

1. Data sources: Bloomberg, Candriam.
2. Bloomberg, Candriam. For investment grade, data refers to ICE BofA Euro Corporate Index, for High Yield, data refers to ICE BofA Euroe High Yield index.
3. S&P Capital IQ, 12-month trailing Specfulative Grade Default Rates.
4. Bloomberg, Candriam.

Sustainable Bonds: one step back, two steps forward.

Céline Deroux
Senior Fixed
Income Strategist,
Global Bonds

Lucia Meloni
Lead ESG Analyst for the
Environmental Research
& Investments

***Allegro... ma non troppo*. Geopolitical tensions and the potential energy supply shock raised questions about the energy transition path. Company investment in clean technologies could be delayed by higher costs and interest rates, but energy transition is still on the agenda. The current environment can be an opportunity to accelerate toward Net Zero, through investing in sustainable bonds – but selectivity is key!**

Due to market conditions, sustainable bond issuance has been below expectations

2022 has been a challenging year for sustainable bonds with $700 billion of primary supply YTD[1], against $950 billion for 2021. We are far from our expectations of $1 trillion per year ! Market volatility, primary market shutdown and tighter financial conditions contributed to the decline in issuance, with a monthly volume of $58 billion compared to $86 billion last year. However if global issuance was much lower than last year, the share of sustainable issuance has increased relative to conventional bonds. For investment grade non financials, sustainable labelled bonds represent 30% of the total yearly issuance compared to 19% in 2021 and 8% in 2020. Even high yield companies have increased their sustainable bonds share to 9% relative to traditional bonds, versus 4% last year. This reflects a higher desire to tackle sustainable issues, and the order book reveals that demand is still intact.

The case for energy transition has never been stronger

The Ukraine /Russia conflict has reminded the urgency to find more clean energy technologies. The EU has proposed a plan to reach independence from Russian fossil fuels well before 2030. "RePower EU" aims to increase the resilience of the energy system and diversify gas supply sources, boosting the use of biomethane and hydrogen, increasing renewables and promoting energy efficiency. The "Fit for 55" package should already cut gas consumption by 30% by 2030 and "Next generation EU" should build a more resilient Europe post-Covid by allocating 30% of its resources to financing green projects between 2021 and 2026.

Even the European Central Bank wants to decarbonize its balance sheet by favoring green investments in its corporate bond portfolio. Climate considerations are now incorporated by tilting corporate purchases towards issuers with better climate scores. From October, reinvestments of bonds matured in APP (Asset Purchase Programme) and PEPP (Pandemic Emergency Purchase Programme) should favour issuers with low carbon intensity, ambitious and credible decarbonization strategy and good quality of sustainable disclosures. They also want to impose bond maturity limits on issuers with a low climate score.

The "Inflation reduction Act" in the US is another example of the largest investment in US history to combat the climate crisis, increase energy security and lower the cost of living for families. This plan will invest more than $300 billion and includes tax credit to buy electric vehicles assembled in the US, make affordable housing more energy efficient or manufacture solar panels or wind turbines.

We expect a rebound of sustainable bonds issuance: *Allegro*

2023 should see a rebound of sustainable bond supply with an expected $900 billion across the four types of instruments: green bonds, sustainability and sustainability-linked bonds, and social bonds.

Green issuance should continue to prevail (60%) due to the number of green projects to be financed in Europe, as well as in the US under the Inflation Reduction Act.

Sustainability-linked bonds (12%) should grow as well, as they enable issuers to display their sustainability commitments and decarbonization strategies which could attract growing interest from high yield issuers.

Social bonds (14%) should remain limited to the banking or agency sector as it is more difficult to finance social projects on the capex side. But in case of severe or prolonged economic recession, they could see a revival.

And finally, sustainability bonds (14%) should remain a favorite instrument for some supranationals or banks but their market share is expected to decline on the medium term given the lack of clarity on their real impact and given the number of green or social projects to be financed.

So overall the pick-up in issuance should be driven by non-financial companies, governments and supranationals while banks should maintain stable volumes. The European Union should continue to be active next year.

... ma non troppo !

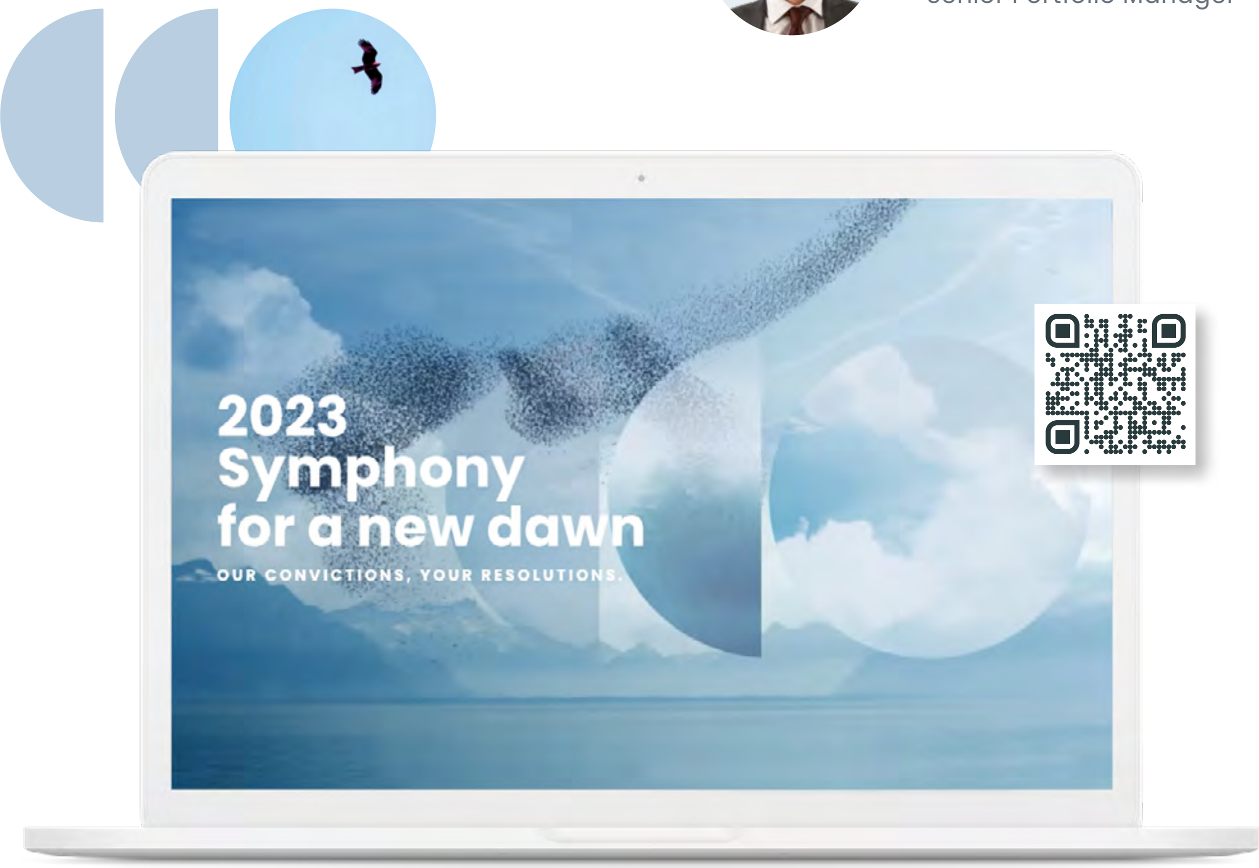
As we expect the economic environment to remain challenging and dispersion between laggards & winners to increase, **we believe issuer risk analysis will remain key and thus we favor a careful issuer selection.** The current crisis and governance issues have reinforced the case for ESG integration in fundamental analysis. Regulation and sustainable data disclosure (notably Corporate Sustainability Reporting Directive) will improve transparency, consistency and comparability between entities. As the sustainable bond market is growing and diversifying, avoiding greenwashing is a priority. An in-depth analysis of the project and management of the proceeds will help us make the right choices as we want to make sure the bonds do contribute to a sustainable future.

1. For all issuance data in this paper, source is Candriam analysis based on Bloomberg data, November 2022

Accelerando: the tempo accelerates towards a Circular Economy.

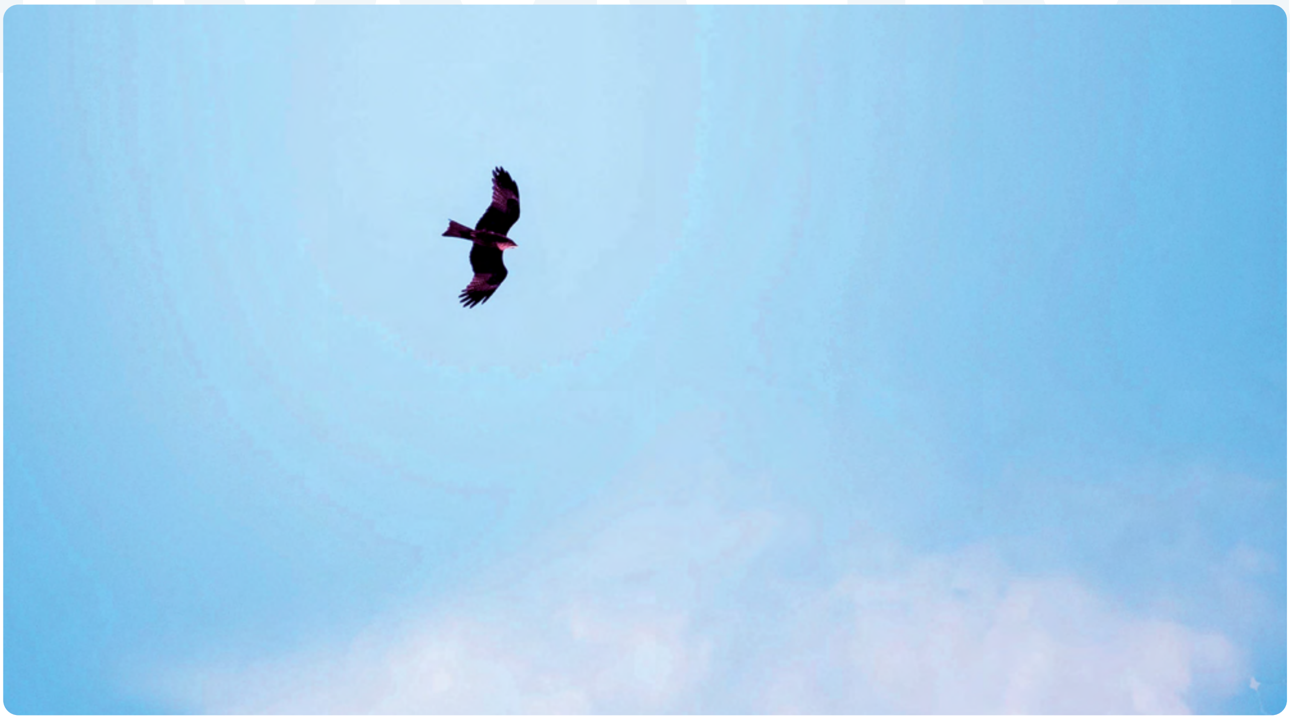
David Czupryna
Senior Portfolio Manager

Bastien Dublanc
Senior Portfolio Manager



The next measure? Allegro moderato!

The impacts of the pandemic and the war in Ukraine have interrupted the positive performance trajectory of a diversified allocation, penalising both equity and bond markets. While markets are likely to remain highly dependent, in the short term, on changes in economic data (inflation and growth), we believe that investors can once again rely on attractive yields for a longer investment horizon with greater peace of mind.



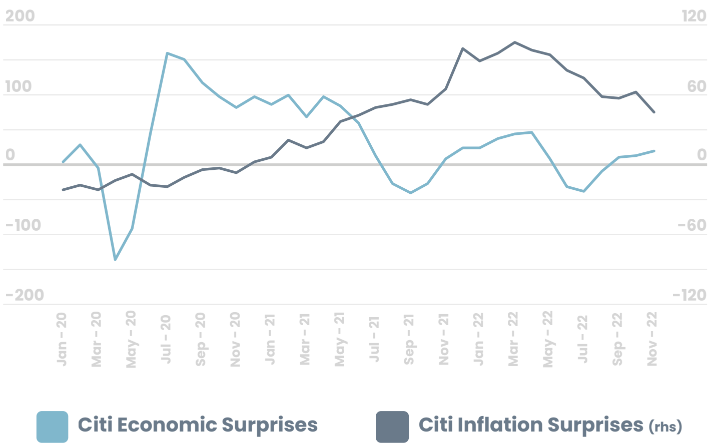
Nadège Dufossé
Global Head of
Multi-Asset

How will this next measure be written?

More than the absolute level of inflation reports or growth indicators, the real driver of performance and volatility for the financial markets seems to have been the level of surprises compared to expectations. That is, true surprises leading to sudden adjustments in investor expectations.

The story of 2022 has been that of the gap between inflation and growth expectations and the data reports, particularly in the United States. Using Citi's indicators of surprise on inflation and growth for the main economies (G10) as a measure of these gaps, we can indeed observe that during 2022 the context remained largely unfavourable for the financial markets.

Evolution of Inflation and Economic surprises



Source: Bloomberg

The configuration of the first half, with resilient growth (positive economic surprises) yet inflation that also continued to surprise (that is, higher-than-expected inflation) led to an accelerated tightening of global financial conditions and expectations of rate hikes well above the level of expectations at the beginning of the year. The financial markets fell sharply, both in bonds (accelerated rise in rates) and equities (significant drop in valuation, particularly within growth-style stocks, which are more sensitive to these higher rates due to the discounting of future cash flows).

The rebound in equities observed this summer coincided with a slowing of inflation surprises and negative economic surprises, leading to hopes of an ease in the pace of monetary policy tightening... quickly denied by the Fed at its late-August Jackson Hole meeting. At the same time, there was a recovery in economic surprises, which returned to positive territory, and a stabilisation in inflation surprises, once again creating a hostile environment for the financial markets and a new low for equities. Since the end of October, inflation surprises have slowed again while economic surprises remain slightly positive, which has favoured the strong rebound observed in bonds and equities.

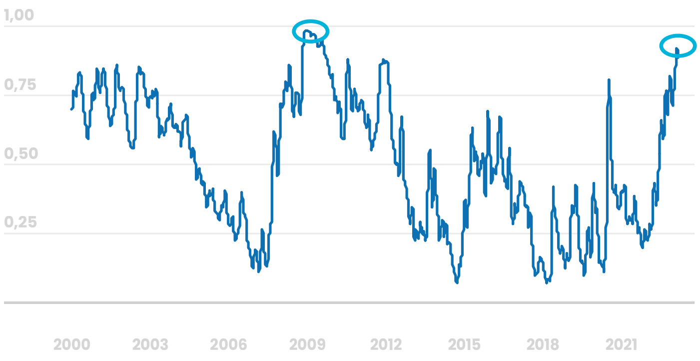
How will the history of the coming months be written? According to our economic expectations, inflation surprises should continue to decline, which would be a more positive anchor for financial markets. **Uncertainties are now likely to focus on economic growth.** It remains resilient overall for the time being, with persistent positive surprises. In our central scenario for the United States, with a form of soft landing, economic surprises are unlikely to fall sharply. Europe could be more vulnerable due to its energy dependence on gas. China, meanwhile, is expected to experience higher growth than this year with the gradual easing of its restrictions. Surprises on inflation and growth closer to the breakeven point would constitute an overall favourable environment for credit and equities in 2023, with less economic uncertainty and therefore less volatility.

Might we see a new low point in the financial markets?

In October, we started from extreme levels on the financial markets: extremely negative investor sentiment on the economy and expected market trends, historic high volatility in all asset classes.

Cross-asset implied volatilities

Percentile of cross-asset implied volatilities, 1-month moving average



Sources: Bloomberg, Candriam

These extreme levels of pessimism are generally quite powerful contrarian buy signals. However, the year ended with an anomaly: we did not see any significant outflows from investors on equities, as we generally observe when such a level of pessimism prevails. They seem to have maintained a larger exposure to equities than suggested by their expectations for the economy and the markets. Several reasons, in particular the absence of an alternative, might explain this behaviour...

In short, among the indicators we analyse, there is therefore no real capitulation combining sentiment and flows.

> "
>
> **Against the backdrop of our current economic scenario, with a deceleration in inflation and economic growth but without a severe recession, we do not expect to see a new low point in the next measure.**

What could trigger a new capitulation of investors in 2023?

In our view, a potential new low point would come from a slippage of economic expectations:

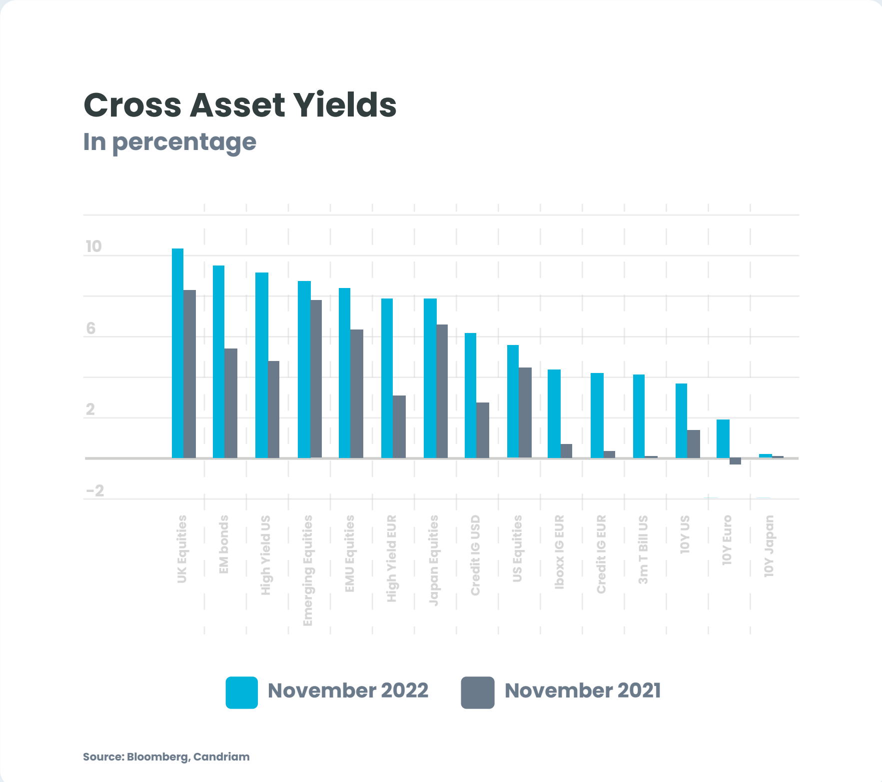
- Or, as in 2022: surprises on inflation could pick up again with fairly resilient economic growth, dashing hopes of a central bank pivot;
- Either a hard landing with a deeper recession than currently anticipated by the financial markets;
- Or a financial accident with broader contagion (scenario similar to 2008). Central banks are remaining vigilant and aiming to contain inflation as well as risks to financial stability.

Against the backdrop of our current economic scenario, with a deceleration in inflation and economic growth but without a severe recession, we do not expect to see a new low point in the next measure. We see equity markets moving within a fairly broad range: limited to the upside by the actions of central banks, which will ensure that financial conditions do not ease too quickly if the economy is holding up well, and supported by a faster monetary policy pivot if the economy is too hard hit.

With regard to bonds, the carry that was reconstituted by the rise in yields in 2022 seems attractive to us. The deceleration in inflation should lead to a drop in volatility on bonds, allowing for an easing of volatility on other asset classes.

What is the outlook for a diversified portfolio over the medium term?

There are now alternatives



We compared the expected medium/long-term expected return on equities and government bonds this year to those of last year. We have taken the “yield to Maturity” for bonds and the “earnings yield” for equities.

We draw two conclusions:

- All current yields are higher than at the end of 2021 due to rising rates and lower equity valuations.
- Less than a half-note now separates equity and bond yields. In the US, yields have even swung in favour of bonds. The equity risk premium in the United States is at a 15-year low.

As a result, the expected return on a diversified portfolio has risen sharply this year and returned to the expected levels of return in 2018 and 2019, even in real return. This expected return is based on equities and bonds in a much more balanced way.

Similarly, after a year of positive correlation between equities and bonds (both asset classes posted equivalent negative returns), we expect this correlation to decline. This means that the bond portion of a diversified portfolio could once again play its role as a cushion in periods of falling equities, or at least not add additional negative performance.

Are we heading for another lost decade?

US 50/50 portfolio
(real TR)

Sources: Bloomberg, Candriam

Past performance is not a guarantee of future returns.

The yield of a diversified portfolio has remained, overall, close to zero over the past three years. If central banks succeed in what they have aimed to achieve this year, i.e. controlling inflation without causing a severe recession, we will remain constructive overall for the years to come. Historically speaking, "lost decades" have occurred during the first two world wars, the period of stagflation in the 70s and the bursting of financial bubbles in the 2000s. Apart from exceptional events, we believe that investors should be able to extend the period of harmony that the Covid pandemic and the outbreak of the war have interrupted since 2020, probably *Allegro moderato*.

The concert of our outlook 2023 is coming to an end. We hope you enjoyed it and wish you great compositions in 2023!

CANDRIAM

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