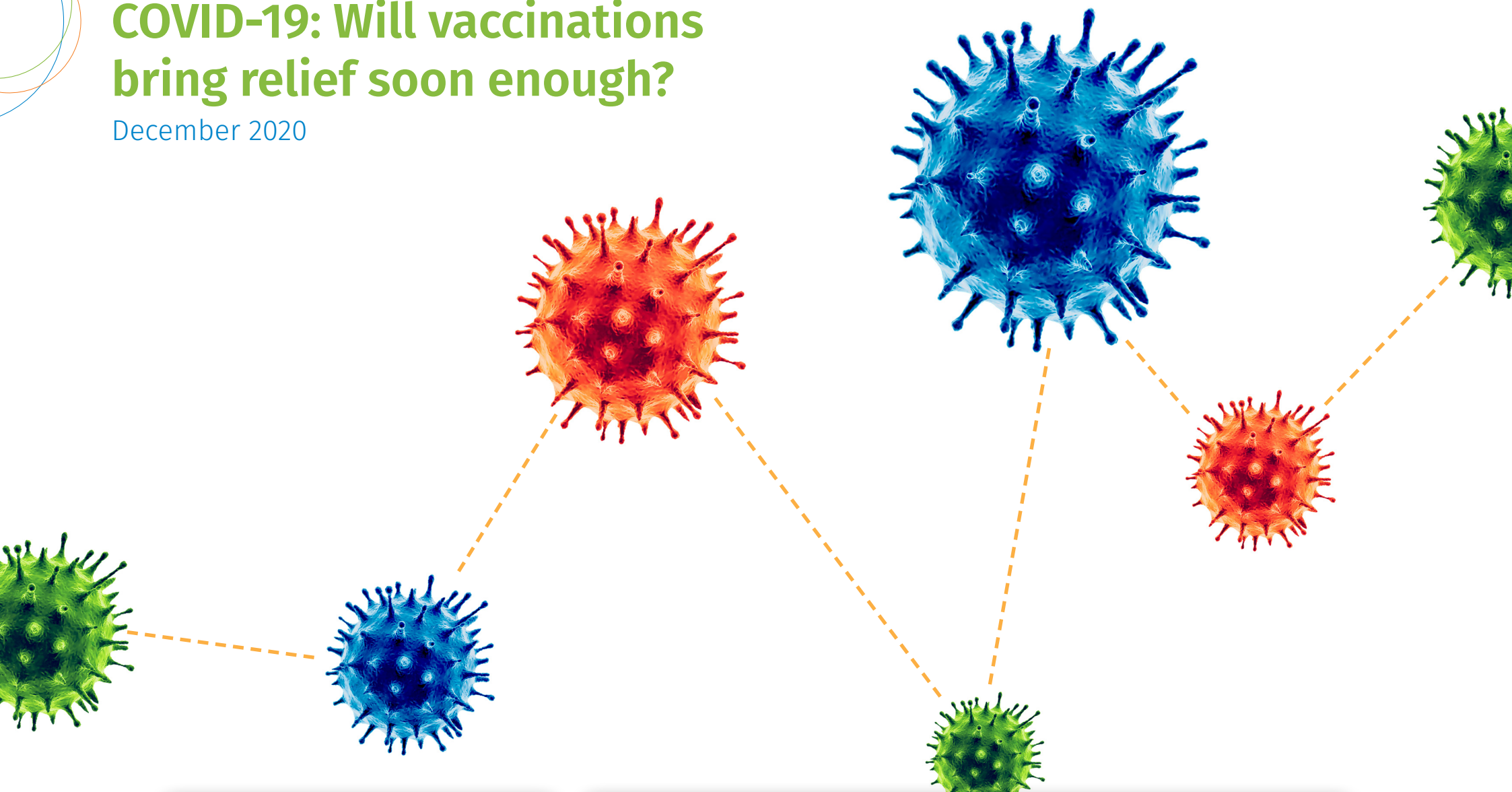


Quarterly Outlook

COVID-19: Will vaccinations bring relief soon enough?

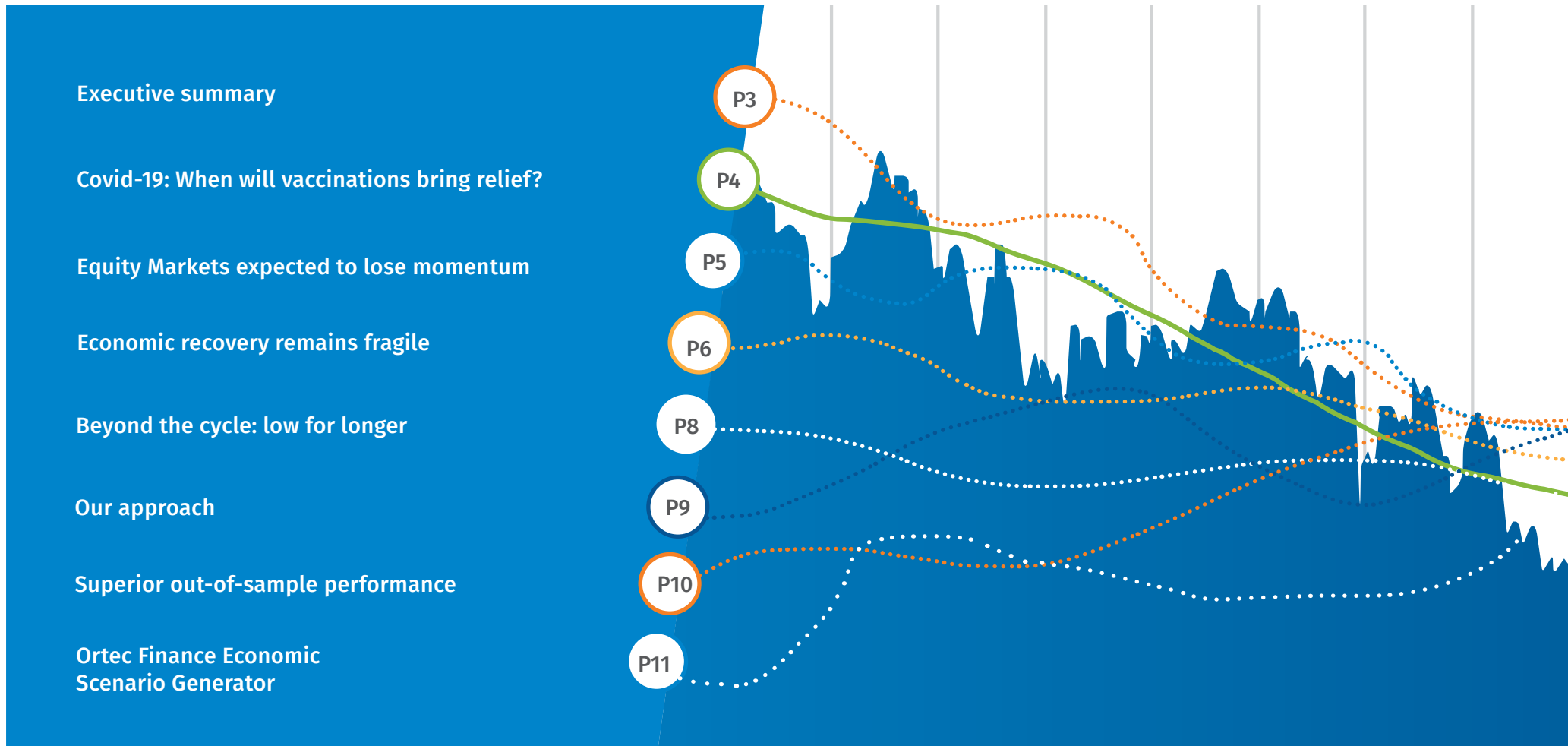
December 2020



Covid-19: When will vaccinations bring relief?

Equity Markets Expected to lose Momentum

Beyond the cycle: low for longer



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Executive summary

Governments reintroduced stringent containment measures to bring a **second wave of Covid-19** infections under control. Fortunately, vaccine development and approval made good progress. Currently, vaccination programs are starting up and are to bring the relief needed for the economy to return back to normal.

In the fourth quarter, financial markets continued their rebound, and several equity markets reached new highs in response to positive developments around several downside risks. Going forward, the **Ortec Finance Momentum Indicator signals equity markets to lose momentum in the coming year.**

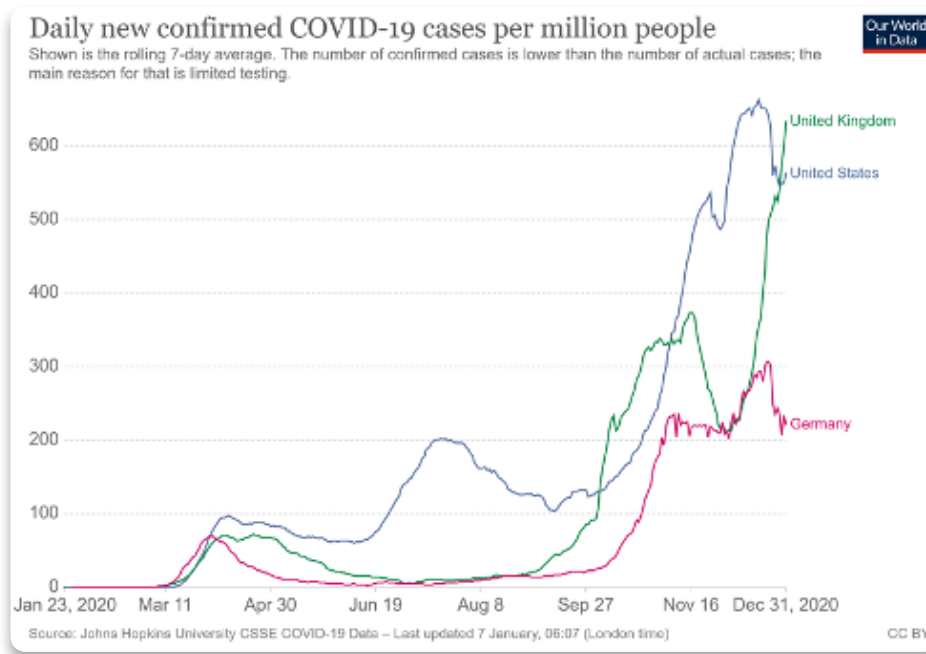
Due to Covid-19's second wave, the macroeconomic environment deteriorated more than anticipated which **worsened the outlook of the Ortec Finance Business Cycle Indicator.** Supported by the ongoing extensive fiscal and monetary stimulus, we assume that the global economy continues its recovery in the course of 2021.

The pandemic's economic impact, however, remains highly uncertain and **the economic recovery remains fragile.** The major downside risk is a prolonged or stronger impact on economic activity, for example caused by a resurgence of infections, challenges with the vaccine's rollout, as well as the vaccine efficacy across age groups.

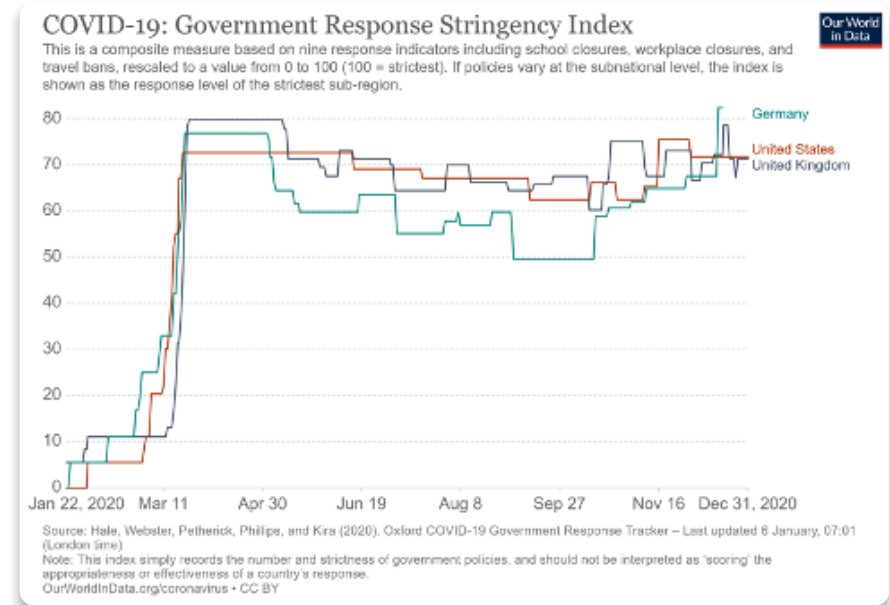
In light of developments in recent years including the continued low economic growth, inflation and interest rates, and diminishing consensus about where the economy is going, we **lowered our long-term expectations** for growth, inflation, interest rates and asset returns, and increased the uncertainty around our long-term outlook.

Covid-19: When will vaccinations bring relief?

The Covid-19 pandemic caused an unprecedented shock to the global economy. Lockdown and social distancing measures were effective and brought the first wave of infections under control. In the **fourth quarter, a second wave of infections materialized** and, again, led to tightening of lockdown and social distancing measures (as measured by the Oxford Covid-19 Government Stringency Index). Up to the end of 2020, it seems that the second wave and its containment measures have disrupted economic activity less than during the first major lockdown..



Supported by plateauing infection rates, **our baseline assumption remains that the second wave can be brought under control** with appropriate measures in most parts of the world. Several vaccines became available earlier than anticipated and vaccination programs started up in December; in time, vaccinations should bring the much needed relief.



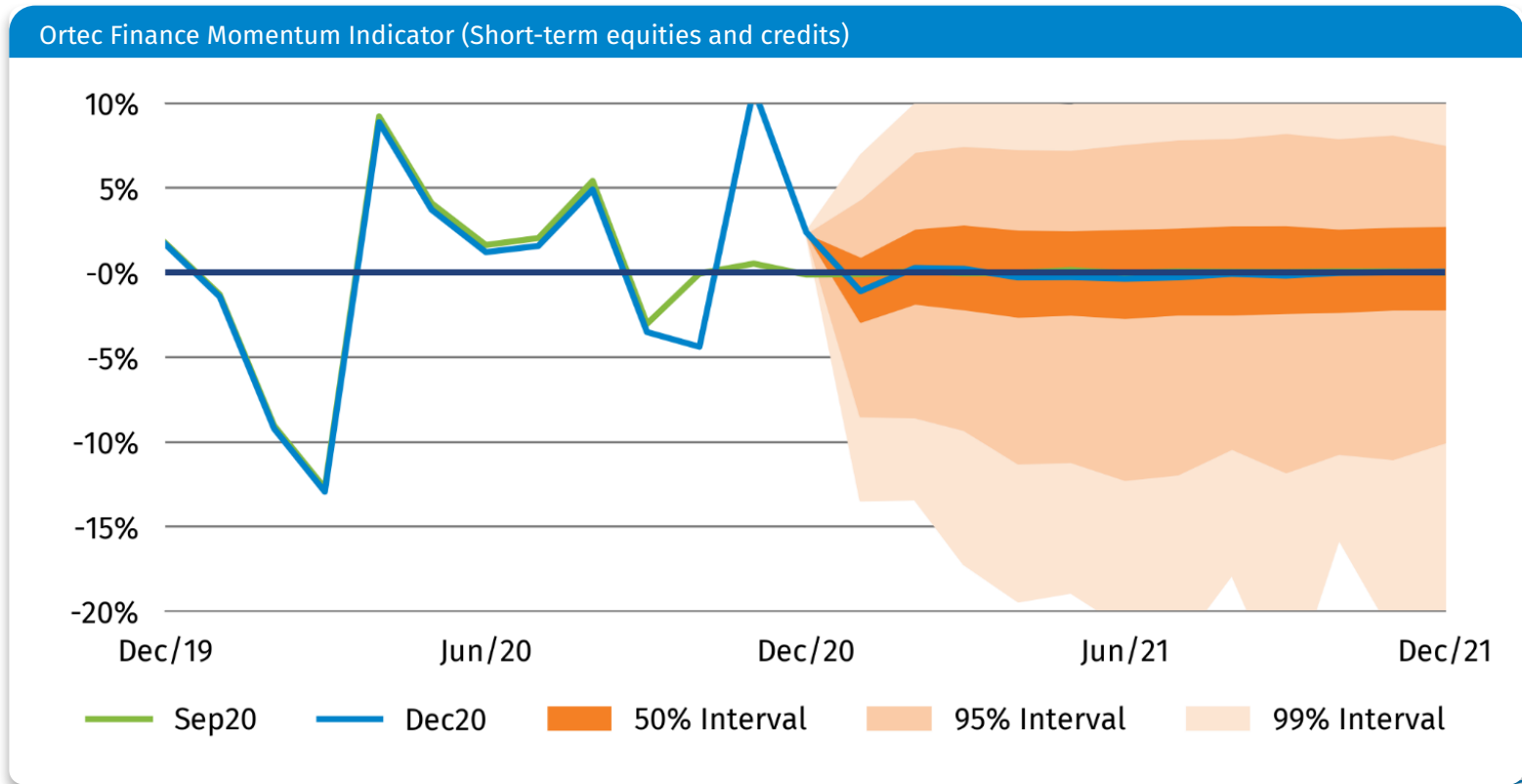
Nevertheless, significant challenges with the vaccine's rollout remain, as well as uncertainty over its efficacy across age groups. **We assume that containment measures remain in force to some degree throughout 2021** as it will take time to vaccinate most of the population.

The pandemic's impact on the economy is accompanied by several sources of **increased downside risk**. First, prolonged stringent lockdown measures still cannot be ruled out to get a second wave of infections under control, especially when vaccinations programs do not bring their anticipated relief soon enough. Second, Covid-19 mutations can cause subsequent waves of infections that might prove difficult to get under control. Third, for many companies, liquidity problems can cause solvency issues, potentially resulting in bankruptcy. Even when bankruptcies can be avoided, companies may be hesitant to hire jobseekers, worsening the labor market more severely than anticipated. Also, instability in the financial sector can cause liquidity to dry up, leading to rising financing costs and a postponement of recovery. Finally, the unprecedented stimulus of governments and central banks may keep debt-burdened firms fictitiously up and running.

Equity Markets expected to lose momentum

In the fourth quarter of 2020, **global equity markets continued their recovery** from the deep losses from early 2020 and set new all-time highs in response to positive developments around several downside risks. First, financial market uncertainty around the US election outcome faded with the convincing win of Biden. Second, the EU and the UK agreed on trade arrangements before the end of the year so that a disorderly Brexit can be avoided. And, finally, several vaccines were found to be effective, got approved, and vaccinations programs are starting up. Altogether, this fueled market optimism and the renewed measures to bring a second wave of Covid-19 infections under control didn't keep markets from setting new all-time highs.

Global equity markets gained momentum as they outperformed September's outlook. Out- and underperformance of markets is captured by the **Ortec Finance Momentum Indicator** which constantly adjusts to the latest information and news events, and drives the short-term intra-year dynamics of our outlook. Going forward, **we expect markets to lose momentum**. In particular, we expect 1-year equity returns to suffer about 3% from the negative momentum. With the positive developments around several downside risks, volatility decreased significantly this quarter. Accordingly, we shorten our increased volatility for investable asset classes to a 1-year horizon. Nevertheless, we expect volatility to remain higher than normal and increased downside risk to persist in the short term.





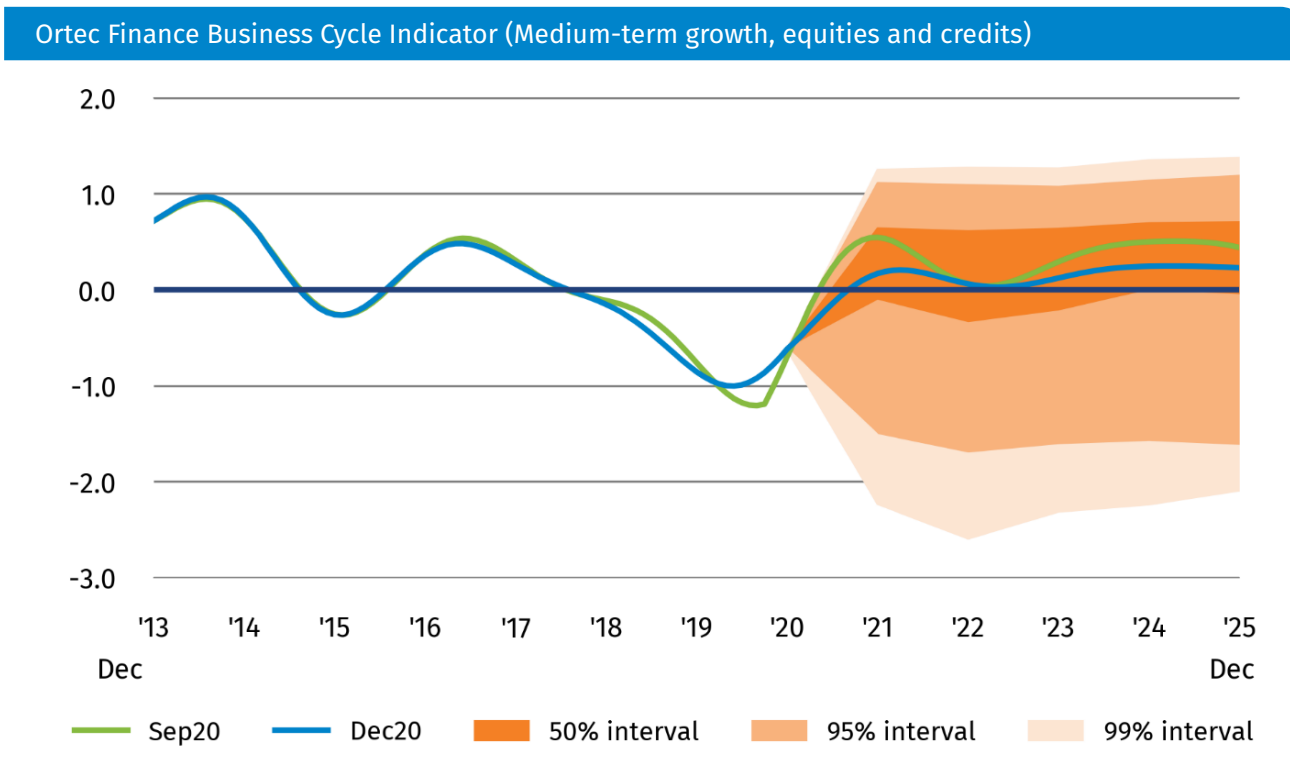
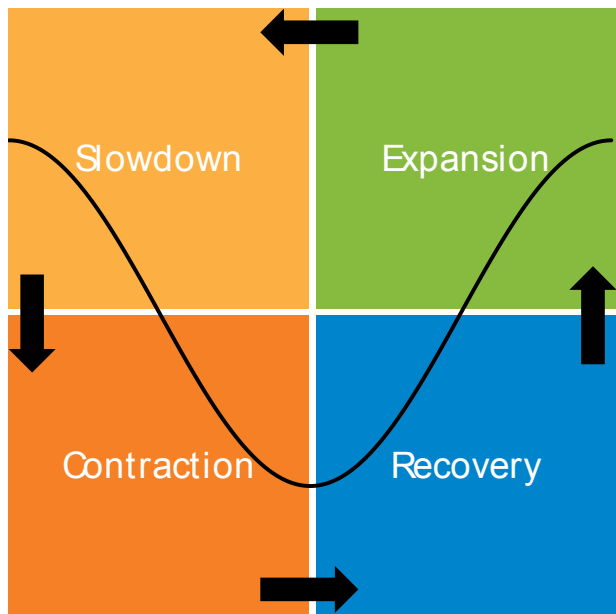
Economic recovery remains fragile

Covid-19's containment measures led to unprecedented growth and unemployment shocks, and a deep global recession, which bottomed out in the second quarter of 2020. Although in the third quarter economic activity rebounded more strongly than anticipated, the reintroduction of lock-down measures to bring the second wave under control deteriorated the macro-economic environment. Consequently, **the outlook of the *Ortec Finance Business Cycle Indicator* worsened.**

Extensive fiscal and monetary stimulus continue to support the global economy. In particular, to mitigate the economic damage of Covid-19's second wave, the US congress approved a 900 billion USD stimulus package, and the European Commission agreed on a large recovery fund. Also, the US Federal Reserve, the European Central Bank and the Bank of England expanded their stimulus packages. **We assume that the Covid-19 pandemic can be brought under control in the course of 2021**, and the economy to continue its recovery, and economic activity to be back to normal in 2022. Finally, we expect the increased uncertainty to gradually disappear in 2021 which contributes to the progression of the ***Ortec Finance Business Cycle Indicator***.



Despite several positive developments, **the economic recovery remains fragile and the pandemic's economic impact remains uncertain**. The major downside risk is a prolonged or stronger impact on economic activity. The pandemic's economic impact is caused by policy measures, such as lockdowns, and voluntary social distancing. The latter, unfortunately, cannot be lifted using policy measures, and, therefore, normalizing consumer behavior will play a sizeable role in the progression of the economic recovery. Other downside risks include, US-China, debt-burdened governments and corporates, and side effects of negative interest rates.

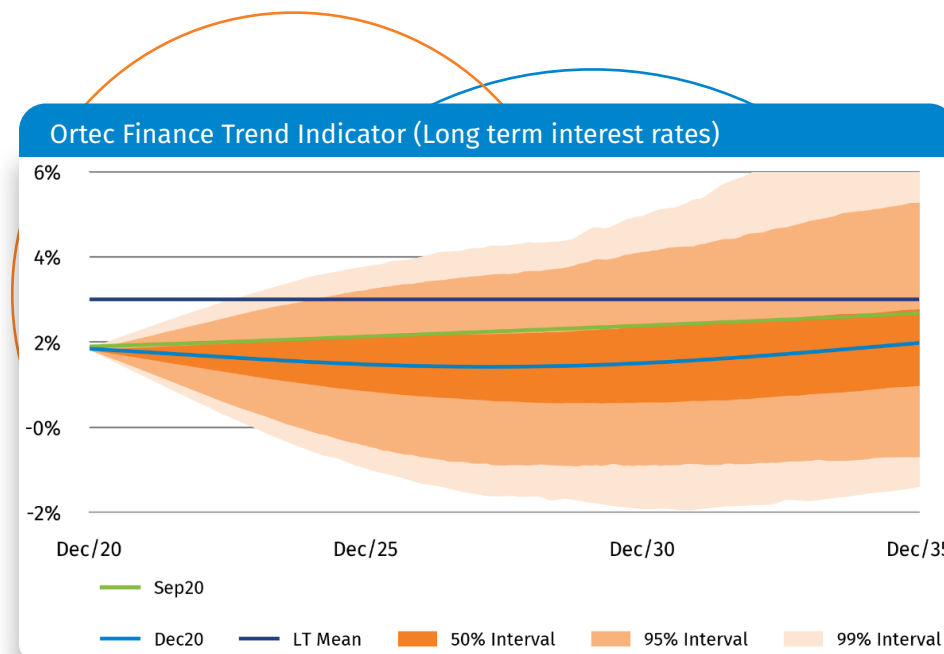


Beyond the cycle: low for longer

Beyond short-term momentum and medium-term business cycle cyclicity, the **Ortec Finance Trend Indicator** covers the long-term outlook many decades into the future. This outlook is driven by global economic developments, and accounts for regional differences.

In light of developments in recent years including continued low economic growth, inflation and interest rates and diminishing consensus amongst economists and market participations about where the economy is going, we reviewed our long-term economic outlook [4: Long-Term Assumptions of GDP, CPI, and Real Rates, December 2020 ([available on request](#))]. In particular, we **lowered our long-term expectations** for economic growth (25bps lower), interest rates (1% to 1.5% lower), European inflation (25bps lower to 1.75%), and equity returns (1% to 1.5% lower). Lower expected productivity growth is the main driver for the lowered growth outlook. Also, based on a re-assessment of factors including aging populations, safe haven demand, lower productivity growth amongst others, and changing monetary policies, we deem it warranted to lower our long-term expected real interest rate by at least 0.75%. Finally, we increased the long term uncertainty, especially for interest rates as their decline continued to break through all-time lows and entered uncharted territory.

Currently, global economic growth, inflation, and interest rates are at historically low trend, far below their long term expectation. Since the start of the Covid-19 outbreak, these trend levels decreased even further. We expect developments including technological progress, structural reforms, and rising emerging markets to improve economic growth. Growth will recover first, followed by inflation, and finally interest rates will normalize. We do, however, expect this to happen very slowly, spanning possibly several decades.





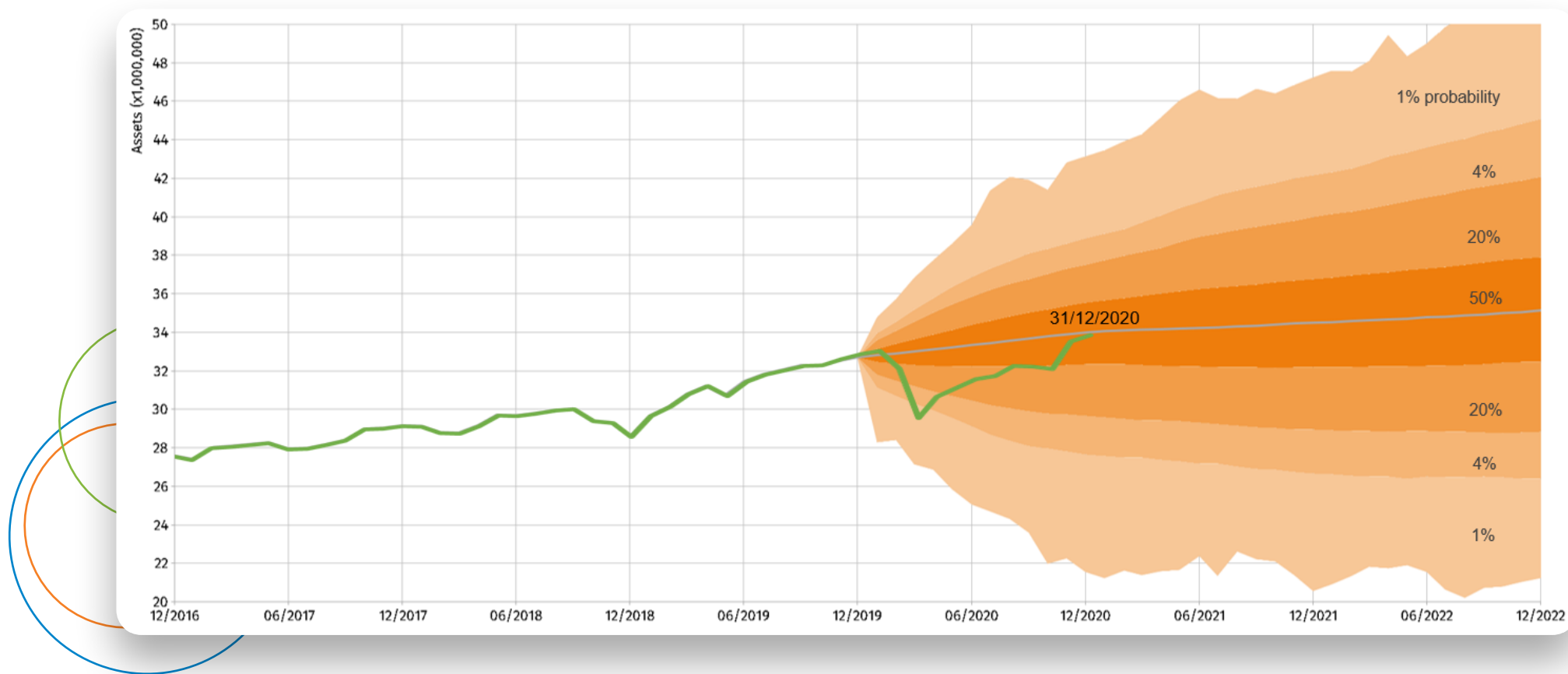
Our approach

At Ortec Finance, we are committed to help our clients manage the complexity of investment decision making. We believe that models in general – and scenario models in particular – are the most helpful tool for this, because of the consistency, objectivity, transparency and efficiency that working with proper models in a proper way can bring **[1: Relevance of scenario models]**.

We primarily follow a data and model-driven approach to construct our scenarios and resulting outlook. To ensure that our scenarios are as realistic as possible, we augment our approach with views and expert opinion **[2: Ortec Finance scenario approach]**. This outlook is the result of our model-driven approach applied to all information available at the end of December 2020.

Superior out-of-sample performance

To safeguard superior out-of-sample performance, we continuously evaluate the quality of our scenarios. As an example, the figure below shows the value of a portfolio (green line), consisting of 50% government bonds, 25% equity, and 25% alternatives until, together with its projection at the start of 2020 (orange). To assess the performance, we use the value of a total portfolio rather than individual assets as this is what ultimately matters to investors. Early 2020, market moves were extreme and ended up in the lower 1%. As a result of the rebounded financial markets, however, the value of the portfolio at the end of 2020 ended up in the middle of the projection. Note that these results exclude the impact of low interest rates on the economic valuation of liabilities, and essential for the balance sheet of institutional investors.





About Ortec Finance Economic Scenario Generator

The Ortec Finance **Economic Scenario Generator** integrates short and long investment horizons consistently across all asset classes and economies **[3: Ortec Finance Economic Scenario Generator]**. Instead of the traditional complex, inconsistent and inefficient mix of models, a wide range of investment and risk management applications (ALM, SAA, ORSA, ECAP etc.) can now be served with one model.

By using one integrated and consistent methodology, the Ortec Finance **Economic Scenario Generator** provides realistic stochastic risk and return scenarios for all relevant time horizons and balance-sheet-level applications in one go. This approach brings important consistency and efficiency to enterprise-wide investment decision-making and risk management processes.

Its proprietary frequency domain methodology, combined with dynamic factor models, has been developed specifically to capture the complex realities of financial and economic markets for all horizons and asset classes at any point in time. This is substantiated by back-testing results that indicate a 10% outperformance compared to competing approaches.

Contact Hens.Steehouwer@Ortec-finance.com for more information.



More information

- [1] Read more in [whitepaper Relevance of scenario models](#)
- [2] Read more in [whitepaper Ortec Finance scenario approach](#)
- [3] Find out more our [Economic Scenario Generator](#)
- [4] Read more in Long-Term Assumptions of GDP, CPI, and Real Rates, December 2020 ([available on request](#))

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December 2020

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