



"Is it just me, or is it getting crazier out there?"
Arthur Fleck from the movie Joker (2019)

A decade of a "climate change" in the markets

Just as in 2018, markets entered turbulence as the year came to a close, but that is also where similarities ended: 2019 finished in the form of a "melt up", in contrast to the "melt-down" of 2018. The gravity defying markets went into overdrive across the board and despite a growing roster of "red flag" inducing undercurrents, most notable of which were the creeping protectionism and a major "recalibration" of the world order. The eleventh-hour rally caught most pundits, who a few months earlier were forecasting gloom and doom, by surprise¹. This ended up being a year where you really had to try hard to "lose" money, almost every asset class out there, whether it was stocks, bonds, real estate or commodities, ended in the positive. Likewise, all 11 sectors rallied, led by tech stocks, finishing the year with gains of close to 50%². It certainly didn't pay to be overly risk-averse; you were likely "worse off" if you had significant allocations into money markets or invested heavily into hedge funds for whom 2019 was yet another unexceptional year. In short, the higher up you were on the "risk ladder", the greater were your rewards.

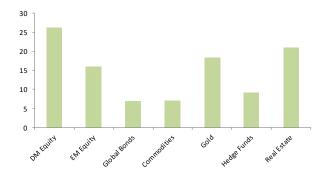


Figure 1: In sharp contrast to a year earlier, you really had to put effort to lose money in 2019. The 10-year Treasury yield dropped to around 1.9% from 2.7% at the start of the year—earning almost 10%. Those who held the 30-year made 19%, although that was still well behind the S&P 500's 31%, with dividends reinvested. Gold was up 15%, crude oil 34% and even widely reviled European bank stocks were up 20%, including a hefty dividend.

In that sense it was a year for the risk takers, contrarians and compulsive gamblers, everyone else positioned somewhere between being fully hedged (in anticipation of the elusive "crisis" around the corner) and not wanting to miss out on one of the longest bull-market streaks in history. The late stage rally was like a pressure cooker letting off steam, a release triggered by the partial dissipation of uncertainties that had been weighing on sentiment like a heavy fog after months of directionless drifting. Those uncertainties were comprised mainly of the lingering threat of a broader trade spat between the U.S. and China, emerging signs of economic weakness in Germany, the endless BREXIT debacle and worries that the Fed's more hawkish bias would derail a fragile recovery³.

¹ In August of 2019, nearly three times as many global fund managers surveyed by Bank of America Merrill Lynch expected weaker global growth over the coming year as expected stronger growth. In November, the optimists actually outnumbered the pessimists. At the start of 2019, the Fed was tentatively planning on three quarter-point increases in the federal funds rate, it basically put those on hold and then cut three times, with two of the cuts coming since August.

² It wasn't all clear sailing for the tech sector, 2019 proved catastrophic for the Unicorn IPOs: both Uber and Lyft lost a third of their value from their listing price and WeWork, the most extreme of the proposed IPOs, ended up having its float cancelled and its entire business model is being rethought.

³ Those four major headwinds began to soften almost simultaneously in the second half of the year. The Fed switched back to being firmly accommodative following the brief inversion of the yield curve and as inflation fears began to recede. China and the US appeared to tone down the threats that had been building up in previous months, reaching an interim "deal" before planned negotiations for later in 2020 whilst Boris Johnson's resounding win in the December elections not only gave greater legitimacy to his leadership but also removed a thick layer of uncertainty regarding the future of Brexit.

Those four major headwinds began to soften almost simultaneously in the second half of the year: The Fed went back to being overtly supportive, China and the US toned down from the rhetoric that had been building up over previous months, Germany narrowly avoided what would have been its first recession in six years, and Boris Johnson's resounding win in the December elections not only gave greater legitimacy to his leadership but lessened the toxic uncertainty that had been plaguing the BREXIT process from the very beginning. Still, the protracted uncertainties had likely extricated a substantial toll on the global recovery itself, shaving off more than a couple of decimal points from growth. Manufacturing, hurt by the sharp rise in tariffs, plunged into recession across the globe, prompting businesses that had become wary about the outlook, to postpone large investment projects and scaled back hiring, whilst households turned more frugal with their spending⁴.



Figure 2: The markets traded through most of the year in an environment of major uncertainties. Things started to change towards the last quarter propelling stocks higher after the combined effects of the Fed's stimulus "U-turn", a temporary thaw in trade tensions between the US and China, and the UK election results that appeared to put a stop to the endless Brexit negotiations.

There were other, subtler but equally impactful changes of a longer-term nature that appeared to be affecting the dynamics of the markets and the economy at large. Despite more than a decade of pumping the financial markets with liquidity, and signs that the economies had finally stabilized, the Fed and other central banks were unable to withdraw the support. This may be one of the longest recovery cycles on record for the US, an entire decade without recession, but it is also one that had been artificially sustained (and continues to be), managed through almost constant support. Central banks have been able to keep the stimulus taps open for such an extended period thanks to combining "traditional" monetary tools such as adjusting the target rate and other, less orthodox ones that have included quantitative easing, other forms of open-market purchases and less ambiguous policy guidance.



Figure 3: Emerging market stocks also ended the year with overall gains, although those gains ended up being less impressive than those of the developed markets. Likewise, most of those gains occurred in the latter part of the year, boosted by diminishing uncertainties on the outlook. Resource rich countries such as Russia and Brazil also benefitted from the rise in commodity prices.

As economies began to show signs of stabilizing following the "great recession" of 2007, the broad quantitative easing efforts gave way to tapering, allowing central banks an opportunity to start replenishing stimulus firepower that had been spent over the years. It didn't take long, however, for the tapering efforts to hit a roadblock and fizzle. The Fed's tightening ended being short lived, even though the inflation measures of capacity utilization and wages were both accelerating, they failed to ramp up inflation to any

⁴ A combination of rising tariffs and the poorer outlook visibility (further reinforced by the Brexit debacle) prompted firms to pair back on large project investments which, in turn, dragged growth to a slower pace. The globally integrated supply chains acted as conduits in spreading the effects of manufacturing sector contractions in China and Germany to other countries, prompting central banks such as the ECB to take more aggressive accommodative actions to counter it. The US economy, decoupled from that of the rest of the world, was somewhat of an outlier to this trend with its record hiring and robust consumption levels that more than made up for the tariff-driven losses. This should come as no surprise given the far lesser significance of exports as a contributor to GDP compared to services and consumption.

significant extent. As 2019 continued to unfold, the ongoing trade spat between the US and China, the two largest economies, Brexit uncertainties and the record length of the current cycle all weighed on a Fed that was also under intense pressure from an overtly hostile executive branch to keep pumping money. The brief inversion of the yield curve in the second half of the year⁵, a well-established signal for recessionary risks ahead, became the final stroke. Without the threat of inflation as a "clear and present danger", the Fed went back to focusing on the geopolitically induced uncertainties plaguing markets, slashing the target rate by a quarter point on three separate occasions.

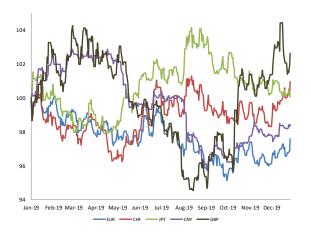


Figure 4: Major currencies experienced swings throughout the year, reacting mainly to the uncertainties with the tariffs war between the US and China and the Brexit proceedings. The pound in particular depreciated substantially mid-year against the dollar and then gained sharply to close higher as the Brexit uncertainties began to diminish. The Euro's steady erosion over the year reflected the deteriorating economic conditions of the EU (prompting additional ECB intervention) and the growing divergences with a far more robust US economy.

These actions, coupled with policy guidance that had switched back to being accommodative, acted as powerful "risk-on" signals for a market that, not too long before, had been preparing for a possible recession⁶. Better than expected corporate earnings over most of the year also reinforced the "positive sentiment", even though most of the "upside surprises" were more the product of overly cautious analysts than any substantial organic growth-induced year-on-year improvements. That is why, unlike in 2018, broad market multiples like those of the S&P500 expanded to end the year higher than where they had started. A peculiarity with 2019 was how all major asset classes participated in the rally, ending the year with substantial gains, which could only mean that sentiment was evenly split between greed and fear. The upswing was not entirely driven by just positive sentiment on the outlook, but also by those worried that combined headwinds would put an end to one of the longest bull market cycles in history⁷. Asset correlations dropped steadily throughout the year with intermittent large swings and despite the divisiveness in sentiment.



Figure 5: Asset class correlations ended the year overall lower than where it had started with short periods that saw large swings, reflecting the evolving geopolitical uncertainties. The drop in correlations meant that sentiment had become less divided despite the fact that the strong end of year multi-asset class rally suggested otherwise. Volatility also dropped steadily, despite the brief periods of sharp spikes.

Political interference and global uncertainties notwithstanding, the Fed continued to focus on its dual mandates of maintaining price stability and keeping employment at its fullest, non-inflationary rate. A large part of the success in maintaining inflation and jobs steady had probably more to do with profound underlying structural changes in the economic and market dynamics, brought about by the accelerating pace of technologically driven transformations, than any central bank induced efforts. One of the most

⁵ During the trading day on Aug. 14 the yield on 10- year Treasury notes briefly fell below that on 2-year notes—a reversal of the normal state of affairs, in which investors get paid more to hold long-term securities. So-called inversions have in the past been followed by recessions.

⁶ The European Central Bank joined the fray by resuming bond purchases to counter the Europe-wide slowdown and whilst the Bank of Japan made less efforts to stimulate the economy, it did keep its benchmark interest rate in negative territory, despite pressure to raise it.

⁷ The rally in a majority of asset classes reflects ongoing economic outlook uncertainties weighing on investors, as contrasting signals create a "tug of war" condition of competing forces between greed and fear. Sentiment is also being swayed by the illusionary effects of another "strong" earnings season, which is more the result of substantial downward adjustments of earnings expectations by analysts than any actual real gains. These artificially created "tail winds" are also being compounded by the numerous ongoing political bluffs and blunders of the Trump administration, upending the post-war geopolitical balance and contributing to significant potential risks over the longer term.

perplexingly differences between the present cycle and previous ones has been the almost complete absence of inflation in any significance and despite stimulus measures that have spanned for over a decade of economic expansion and more recent wage pressures.

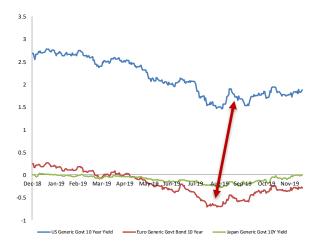


Figure 6: Eurobond yields joined those of Japan turning negative from May onwards and although they started to reverse course as of August, they were still firmly in the negative by year end. The spread with treasuries didn't change much over the year, which meant that treasury yields, although remaining positive throughout were dropping steadily, inverting the yield curve for a while in the second half of the year.

Unemployment in the U.S. continued to drop to levels that in the past would have triggered runaway inflation, the NAIRU⁸ threshold was breached more than once, but inflation remained subdued and the economy chugged along like nothing had happened. Corporate earnings also showed few signs of relenting to the gravitational pull that tends to manifest itself at the later stages of an extended cycle, especially with the pickup in wage inflation. A increasingly "digitized" economy, by introducing platforms that lessened transactional frictions and increased the speed and efficiency of doing business, and globalization's effect of eroding corporate pricing power, appeared to be changing the shape of business cycles on a permanent basis. These changes also appeared to explain why earnings had become impervious to a multitude of headwinds that they were facing.

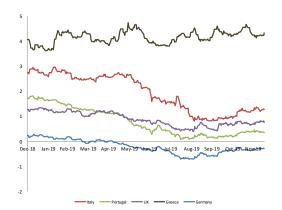


Figure 7: In Europe, with the exception of German bunds, the yields of the other markets remained positive throughout the year. Germany's manufacturing-oriented economy came close to recession, pushing yields into the negative. Italian bond spreads narrowed substantially in the second half of the year, reflecting the emergence of a less polarizing government. This was in contrast to Greek bonds, the spreads of which widened because of continued problems with its economy.

Just as with the climate that had been experiencing a general rise in temperatures⁹, the economies of the world have been in the process of a deep seated, mainly technology-driven structural transformation. Global warming is insidious in the way that its effects appear only gradually, spanning over decades. Seasonal patterns which they tend to mimic¹⁰ also make them more difficult to distinguish. Likewise, the effects of the structural changes in the economy (automation, digitization, gig economy) are appearing only very gradually, changing the nature of inflation, employment and the shape of business cycles¹¹. The general awareness of these

⁸ NAIRU is an acronym for non-accelerating inflation rate of unemployment, and refers to a theoretical threshold level of unemployment beyond which inflation would be expected to rise.

⁹ See the UN report on climate change and its impact https://www.ipcc.ch/sr15/

¹⁰ Even if we were to maintain carbon emissions at their current levels, it is estimated that global temperatures could rise 1.5 degrees Celsius by 2040 and up to a sweat inducing 4 degrees by the end of the century, a clear threat to life on earth by any objective measure. Even more alarming appears to be the "time sensitive" opportunity cost of doing nothing about. According to the Global Carbon Project, if we had begun decarbonizing in 2000, a 2% cut in carbon emissions per year would be sufficient to remain safely below the two degrees of warming danger zone. Comprehensive decarbonization today, on the other hand, would necessitate a 5% cut per annum to achieve the same results and around 9% if it is delayed another decade. As the opportunity cost of doing nothing rises over time, it brings us closer to a catastrophic condition because it makes it all the more challenging to actually do something about it.

¹¹ In an increasingly digitized world, where a rising share of production is being automated and where information is available in near real-time and with far greater granularity than ever before means that businesses have far better control over the timing of production, making them more resilient to shocks. The emergence of a digital economy also means that an increasing share of consumption goods are of a "virtual" kind with close to zero marginal costs of production: To duplicate a song or movie and distribute it over a network requires almost zero effort or expense. Those same technologies have led to the emergence of a

changes appears to have been attenuated by the record length of the current bull market recovery, its most startling feature being the absence of inflation, despite years of monetary stimulus.



Figure 8: The Fed cut its target rate by a quarter point on 3 occasions. The first cut occurred early in the year, followed by two additional cuts later on, reflecting growing worries on the momentum of the recovery. Despite tight labor markets and high capacity utilization, inflation remained stubbornly below the Fed's 2.5% target level, paving the way for the cuts.

The lack of inflation poses a dilemma to central banks across the globe that can no longer rely on traditional economic signals to determine appropriate policy, rendering them potentially more vulnerable to mistakes than in the past. It also means that they have not been able to rebuild their reserves sufficiently to counter the next "crisis" when it happens. This is despite having a broader range of tools at their disposal (quantitative easing, negative interest rates¹², proactive policy guidance to name a few). Even with these additional resources, their effectiveness in a major crisis environment remains largely untested. Another danger of persistently low inflation is in its potential of triggering a deflationary spiral as has been the case in Japan for the past few decades. Europe's economies narrowly averted deflation during the harsh austerity years and despite improving conditions, they remain vulnerable: if growth rates weaken further, stimulus may not suffice to prop up prices, which means that central banks are going to have a harder time combatting the risk of a deflationary spiral from taking hold.

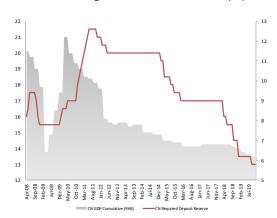


Figure 9: The Chinese government continued to proactively support its maturing economy that was being further weakened by the combined effects of the US tariff impositions and the earlier crackdown on speculation. The tariff wars and a more unstable geopolitical environment has prompted the government to diminish the economy's disproportionate dependence on exports.

These secular undercurrents of accelerating progress and climate change have been affecting the globe at an increasing rate over most of the last decade. The sharp rise in populism across regions, the emergence of protectionism in the US, the unwinding of core post-war treaties and major shifts in migratory patterns are just some of the indirect consequences of these "disrupters". We appear to be at crossroads, a major transition phase towards a new world order, the nature of which is still uncertain. It is a transition marked by its "untetheredness" with the past, which is also what makes it unpredictable. Who would have guessed only a few years earlier that the markets would be swamped with trillions of dollars' worth of negative interest debt, that the US would become one of the most protectionist countries out there, its economy almost totally decoupled with that of others, and that the UK would be the first country to leave the EU after dragging their feet for over 3 years? These are truly singular, extraordinary times that we are living.

new breed of mega corporations (Amazon, Apple, Facebook, Google, Microsoft) that have deeper pockets and greater control over the costs of production. These changes are so rapid and profound that governments are struggling to reign them in with outdated and ineffective antitrust measures.

¹² Studies have shown that the effectiveness of negative interest rates to stimulate the economy is diminishing over time, which means that the longer they are applied, the lesser their effectiveness. Although the same could be said with any cut in interest rates, the rate of decay of negative interest rates appears to be greater than that of positive ones.

2019 shows us that the pessimism and selloff in the closing months of 2018 had been overdone. A large proportion of the sudden upward momentum in the last two months of 2019 was making up for "lost time", an affirmation to the diminishing uncertainties on some of the major issues that were plaguing the markets. In that sense it was more of a recalibration of risk premiums than an actual change in the underlying, even though some of that was also most certainly taking place. Substantial gains in most asset classes were also suggesting disaccord in sentiment; as mentioned earlier, there was clearly a lack of consensus on the outlook and it appeared to be dragging into the new year. Even though on a macroeconomic level the overall global recovery continued to chug along its trajectory relatively unhindered, it was a different story when you looked at a more granular level.

You had the US with an economy that couldn't be in better shape (record employment levels, strong consumption demand, weak inflation) and totally unfazed by the trade war and corrosive politics. And then you had the rest of the world, fragilized by the backlash from populism, protectionism and social upheavals unseen in more than a few decades. Developed markets struggled to pull out of its protracted weak recovery, the uncertainty posed by Brexit¹³ and populism fueling migration, whilst emerging markets having lost their former luster, struggled to adapt to a world of slower growth, aging populations and global trade that was becoming more constraining by the day. The ascendance of Trump led to a radical change in the rules of the game that went well beyond the "new normal" conditions that had emerged from the ashes of the "great recession" financial crisis more than a decade earlier. But Trump wasn't the instigator of all this, like most of the other populist leaders that came to power over the last decade, he was just a symptom of deep-seated malaise that had been building up for a while already¹⁴.

The effects of climate change and technology disruptions turned into a potent mix of forces that are upending our lives in major ways. The accelerating pace of technology-driven innovations have been increasingly dragging the middle class towards the bottom, whilst climate change is having serious consequences on migratory patterns. Wealthy nations are being flooded by political and economic refugees fleeing war torn and environmentally affected regions, causing additional strains to government welfare systems that are already fragile¹⁵. We are only now becoming more aware of the effects of technology and climate disruptions, namely because of the accelerating pace in which these changes are taking place. Technologies are following Moore's law and climate change is accelerating due to the significant rise in pollution, as population growth and economic expansion become a greater burden on finite resources. These dynamics are unlikely to disappear anytime soon. Technologies may have opened up new pathways, given us greater control over matters and provided us with incredible insights, but at the same time never has our future been more uncertain. The world of tomorrow promises to look very different from that of yesterday. The question is: are we prepared?

The coming decade of "disruptions"

The recent broad market gains are likely to extend into the new year, at least over the next couple of months, reflecting the markedly improved sentiment on a variety of core issues that had been causing serious worries at the start of last year. The central bank policy switch from hawkish to being supportive has been accompanied by a perceived "de-escalation" of geopolitical risks, whether it be the trade tensions between the US and others or the uncertainties surrounding the modalities through which the UK would finally leave the EU¹⁶. To this we can add that despite the strong end of year rally, stock market multiples that have expanded as a result remain reasonable. The US economy's resilience to the various threats that have manifested themselves throughout 2019 is also likely to continue, reinforced by the feedback loop between the tight labor markets and strong consumption demand. The recent pickup in wage growth, especially in the lower skilled segment that had been seriously lagging the rest, is unlikely to trigger runaway inflation.

¹³ Brexit was just one of the threats that weighed on the future integrity of the EU. Tensions also flared with the far right, populist leaderships of Hungary, Poland and Italy throughout the year. Italy's case was further amplified through its precarious economic health that threatened to derail EU-wide recovery, whilst Germany's flirtations with recession and France's protracted social upheavals signaled instabilities at the core.

¹⁴ Greta Thunberg, the face of the emerging movement against climate change is likewise a symptom to problems that have been neglected or purposely suppressed over the long term.

¹⁵ The ascendance of populism across the globe and most notably in Europe and the U.S. are in no small part a knee jerk reaction to the more recent changes in migratory patterns. A growing proportion of the influx of migrants can be attributed to changing weather patterns that have been disproportionally affecting crop yields in regions that are predominantly under development. If this process continues to worsen, the migration challenge is unlikely to subside and may actually worsen over time, threatening the liberal / democratic order of western nations by a far greater extent.

¹⁶ The German economy narrowly missing a recession and a relatively smooth leadership transition for the ECB undoubtably contributed to attenuating market nervousness.

The private sector continues to add jobs, and the almost 80% of the US economy that doesn't involve manufacturing and trade is growing at a decent clip. The rest of the year appears less certain, however, mainly because none of the major lingering issues that had caused turbulence last year have been resolved. US and China trade contentions remain, tougher negotiations lie ahead, which hasn't stopped markets from rallying as a result of the perceived thaw. We are in a period of relative calm but how long it lasts is uncertain given Trump's impulsive and volatile nature. The November elections will also likely play a significant role on the way that the negotiations unfold and there is a greater chance that matters drag on until after November, which means that trade related turbulence will likely remain with us for some time¹⁷.

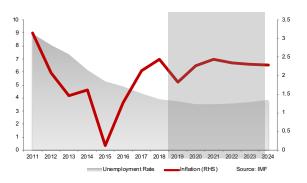


Figure 10: US employment is expected to remain tight in coming years without risking inflation, as technology-driven productivities continue to compensate. Maintaining this trajectory will also depend largely on the way in which a number of disrupters play out. Populism, automation and climate change will likely be playing a growing role over the next decade and beyond.

The other uncertainty concerns the Brexit negotiations that are still to be concluded, now that an exit date has been set and parliament has pretty much approved Boris Johnson's proposed terms. His resounding win at the elections has injected new vigor into the process, removing an important layer of morale sapping uncertainties from the endless political bickering that had consumed the country and the rest of Europe for the good part of 3 years. A hard Brexit at this stage appears less likely than ever. It would be in the interest of neither party and the financial repercussions for the UK would be too steep for the government to bear, which doesn't mean it can't happen. Europe will continue to face challenges on multiple fronts that will play against its more fragmented economies and weaker fundamentals. Populism will continue to act as one of the main sources of turbulence for the region's growth prospects and its effect will depend largely on how well the disparate economies fare through the year¹⁸.

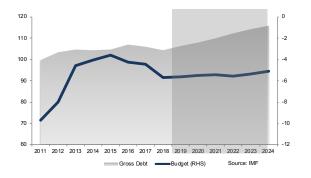


Figure 11: Government debt should continue to climb even without the tax break, fueled by a budget deficit that is likely to remain. The economy is standing on solid fundamentals and there is no reason to think that this will change in the near term. Rising debt rates could lead to a "crowding out" in the bond markets as more treasuries are issued to service existing debt.

Although the ECB, under the new leadership of Christine Lagarde will likely keep the stimulus taps open (to minimize the recession risks that loomed over the continent in 2019), the effectiveness of the tools at its disposal will be limited. With interest rates already in the negative over trillions of euros in bonds, and other central bank methods of shoring the economy having been depleted through years of use, the benefits of additional marginal increases in stimulus are unlikely to be significant. That will leave fiscal stimulus as an alternative means of propping the economy, but those that need it most can ill afford to and may face political resistance to its use. Germany's economy will continue to serve as the engine of growth for the region. How well it fares will largely depend on how its relations with the US under Trump's leadership evolve.

¹⁷ The dragging uncertainties of what happens next will continue to act as headwinds on the recovery. The longer-term effects of this are even less clear, Trump's aggressive nature and mercantilist approach are creating bad will and distrust with his trading partners that could have significant repercussions as the world order continues to rebalance. Unless these processes are reversed before it is too late, the dismantling of treaties, reneging on past accords and a more populist/protectionist stance will usher us back into a technology-driven cold war era, fueled by deep suspicion.

¹⁸ Countries with less developed social welfare programs will have greater difficulty in staving off the populism onslaught than those with a more deeply ingrained tradition (although they too will continue to face challenges as their social welfare systems are increasingly drained and fragilized by a combination of climate change induced migrations and technology induced polarization in wealth.)

European politics in 2020 is likely to have less of a destabilizing effect on global markets than last year, but this will depend on what happens with migration flows. Recent changes in the composition of Italy's government should lead to a "toning down" of its confrontational approach and make it more likely that a budget deal with the EU is passed, whilst the upcoming elections in Spain and Portugal later in the year are likely to reaffirm the status quo, which should help reinforce stability. The other uncertainty will be the way in which the protracted strikes and civil unrest challenges facing the French government unfold. Apart from the emerging, mainly ideologically-driven cracks that are being increasingly observed between western nations (France, Germany vs. Italy, Poland, Hungary) and growing internal tensions (gilets jaunes, Brexit movement), there is also a broader east-west rift that is emerging, pitting the mainly liberal systems against their autocratic rivals.

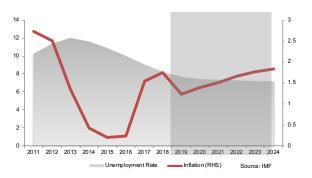


Figure 12: Europe's economic challenges are unlikely to dissipate any time soon but should improve over time as continued ECB stimulus helps to revive the ailing economies of the continent. Unemployment rates will continue to remain relatively elevated which means the region will continue to be susceptible to populism driven disruptions. Continued weak growth should also maintain the lid on inflation.

The global economy will likely continue to decelerate over the year as developed markets continue to face uncertainties from a combination of corrosive populist politics, civil strife and the risk of further tariff-induced setbacks on exports, whilst emerging markets are challenged by the combined effects of maturing economies and the emergence of trade flow restrictions as post war accords continue to be upended. These short-term risks facing the global recovery will be joined by other, longer term threats and opportunities that will shape the future growth trajectory and changes in income brackets of most countries. These will include a combination of traditional economic drivers (skilled labor, high investments and high productivity) and emerging disrupters (populism, protectionism, automation, digitization of the economy and climate change).

Investing heavily into the traditional drivers will no longer suffice, as it has in the past, to ensure rapid economic development. Countries will also need to consider and adapt to the various "disrupters" in order to position themselves optimally for growth. The manner in which they adapt and respond to these combinations of drivers and disrupters will determine how successful they are in raising the living standards of their citizens¹⁹. China, having invested substantially into infrastructure, education and, more recently, productivity boosting technologies, was able to harness powerful tailwinds over decades that have helped propel its economy forward. How they fare over the coming decade and beyond will depend on how effective they are in tackling the "disrupters". Technology is changing economies in fundamental ways, electrification is replacing fossil fuels, data is becoming the new oil. What is going to increasingly matter is the insights that can be extracted from this wealth of information and the way in which they are monetized. These are the new economic drivers that in the long run will determine a country's wealth and security in the 21st century.

China's manufacturing and trade reliant economy will remain vulnerable to the dual threats of populism (Hong Kong protests, Taiwan independence) and protectionism (trade war with US). The country will have a growing incentive to strengthen its middle class in order to reduce dependence on manufacturing and exports. Climate change could also become a major threat to China and other countries that suffer from water shortages and have largely exposed coastlines. China invested substantially in technologies and labor skills for over a decade, which makes it better positioned than many other emerging and developed countries to benefit from the coming wave of automation and digitization disruptions. Significant advances in Al and robotics will displace a growing portion of higher skilled workers in such fields as health care and banking, but the displacement will also likely affect the lower skilled segments of the economy, which means that the low cost labor advantage of many emerging markets could become threatened²⁰²¹.

¹⁹ Within the low- and middle-income group, those that have moved early to get traditional drivers of development in place will be better positioned to adapt. China is making major investments in innovation—necessary to move the economy up the value chain. Brazil is not. Among high-income economies, those with a dynamic response to disruptive forces are better placed. Denmark is investing heavily in workforce training and providing support for displaced workers—a cushion against automation. The U.S. is not.

²⁰ https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages

²¹ Markets with a high share of workers in routine jobs, low spending on support for displaced workers and a small university-educated population face the highest risks.

Japan will remain a bit of an outlier to all this with its deeply ingrained culture of solidarity between firms and their employees that will help to better shield them from the displacement effects of automation.

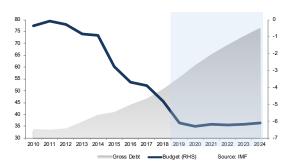


Figure 13: China's debt rate will continue to rise sharply as the government attempts to guide its steadily maturing economy through the process of transition towards a more "moderate" long-term growth rate. This transition will be further complicated with the drive to diversify the economy away from its substantial dependence on manufacturing and exports.

The US economy's lower dependence to trade will ensure that it remains relatively shielded from the type of external shocks that rattled the likes of China in 2019²². Its economy came out relatively unscathed from the gradual dismantling of post war accords or the escalating tariffs war initiated by Trump (despite most of the damage resulting from a cutback in business investments and layoffs rather than the direct effect of tariffs²³). But the US economy does contain other vulnerabilities. The growing wealth disparity and labor displacement effects resulting from the "digitization" of the economy and rising automation could further reinforce the toxic populism that has been engulfing the country. Climate change will also play an increasingly threatening role as extreme weather conditions become more frequent, negatively impacting the economy by causing havoc on housing, infrastructure and supply chains. In Europe, populism will continue to menace the integrity of the EU. US tariffs on European car imports, if applied, will have significantly negative repercussions for Germany and its fragile economy, whilst the UK is likely to become more vulnerable to such external shocks, especially if it leaves the EU with a weak agreement. Emerging markets as a whole and smaller economies, such as Vietnam in particular, stand to lose substantially if free trade is curbed further.

The tech behemoths (Amazon, Apple, Facebook, Google) with their unchecked powers and domineering influence on society and politics carry the potential of further destabilizing the world order²⁴. They will likely face growing scrutiny from regulators across the globe that are becoming more aware of the dangers posed by the likes of "deep fake" and unconstrained Al²⁵. Without major changes, emerging technologies stand to further widen the "digital divide" between the "haves" and the "have nots" and wealth is likely to further concentrate in the hands of a shrinking few, whilst growing proportions of the labor force find themselves displaced and with fewer opportunities to adapt. All this will push the world towards even greater polarization, bringing us closer to the dangerous conditions that in the past have led to major conflicts. There is a real incentive to fix things before they spiral out of control, but the current political climate is such that the necessary efforts for change are unlikely to materialize.

2019 reminded us of the futility in trying to predict the performance, let alone direction of the markets. Skill didn't really seem to matter when just about anything you invested into performed well and most pundits probably didn't expect that the Fed would initiate such a major reversal in policy (it appears the Fed didn't either). Skills do make a difference, however, when optimizing a portfolio to better match the evolving risk profile of an investor or in diversifying sufficiently and rebalancing the portfolio at just the right moment or intervals. Research shows that if you get the timing right, there is a good chance it is more due to luck than skill. You could also stumble onto a market anomaly and profit from it until others catch on and arbitrage it away, or you might be big enough to move markets, but even then the constraints are such that you can't always win. Private equity and hedge funds do provide an "alternative", but they come with compromises of their own (liquidity, fees).

²² Household consumption is amongst the largest contributors to US GDP. This is followed by the services sector with manufacturing and exports representing a little more than 10% of total GDP. Record hiring in recent years has also reinforced consumption further.

²³ The export vulnerable manufacturing sectors in the US and elsewhere went into recession in 2019, but in the US the overall impact is less significant, given its smaller relative size compared to other sectors.

²⁴ Many of the technologies in use today have helped improve and enrich our lives in immeasurable ways, but some are also vulnerable to being weaponized and, in the wrong hands, could threaten the very systems that gave them the opportunity to exist in the first place. Facebook's relatively unregulated social media platform has been used as a very effective vector to propagate fake news. The risks increase significantly when combined with emerging AI technologies that make it more difficult to distinguish factual information from the fake.

 $^{^{25} \} https://www.nytimes.com/2019/10/08/opinion/artificial-intelligence.html? action=click \& module=Related Links \& pgtype=Article action=click \& pgtype=Arti$

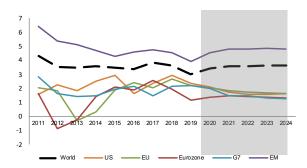


Figure 14: Growth rates in developed market economies are not expected to deviate much from their current "new normal" levels, although it is difficult to anticipate how things will play out, considering the major disrupters that will be affecting the markets in coming years. Emerging market growth rates will continue to maintain faster expansion, although the longer term trend will continue to be towards convergence.

The coming decade promises to be very eventful with the various momentous challenges and opportunities (unlike anything that we have experienced before) that lie ahead. The transition phase towards a new "equilibrium" will continue to be turbulent, fraught with greater dangers and fewer cues to "guide" us through uncharted waters. The previous two to three decades brought many changes, most of them contributing to the betterment of humankind. Barriers came down, wealth spread across borders, middle classes emerged where they had never existed before and poverty rates across the globe continued to shrink. Accelerating improvements in technologies have empowered people in unimaginable ways, creating a more integrated world until recently²⁶. The drivers for these changes are still with us, but most have been weakened, whilst others risk being "weaponized" or yanked by the disruptive forces outlined earlier²⁷.

Some of them, like climate change or the broadening digital divide need to be addressed urgently if we want to avert embarking on a perilous, conflict-ridden future. Populism and protectionism are just symptoms of a malaise, a system that has run its course and is in need of a paradigm shift. The Joker movie may have gotten many negative reviews from critics, highlighting the "gratuitous" violence, but they were just missing the point²⁸. The real message appears to be a depiction of the frustrations and a rage against growing injustices of a dystopian society, one that bares worrying similarities with the real world. This is where we are today at crossroads and the path that we choose will matter more than we can imagine.

Region	+	-
Europe, Eurozone	 Europe is lagging the US in the cycle and stock multiples are also more attractive which gives it greater legroom for gains before inflation and bubbles become a concern. 	 US tariff threats against the auto sector risks derailing Germany's fragile, manufacturing-dependent economy which would likely spread contagion across the continent. The ECB's limited firepower would also make it less effective in preventing a recession.
	 A less "confrontational" Italy will make it more likely that a budget deal with the EU is passed. Spanish and Portuguese elections should help reinforce the integrity of the EU, removing another layer of uncertainty. 	 Populism could strengthen further if migration continues to drag along. This would further weaken the EU leadership and impede its drive to pull the continent out of its current slump.
	 A weaker Euro will continue to boost the relative attractiveness of its goods, providing some counterbalance to the losses from the drop in export demand and the effects of tariff threats. 	 France's ongoing strikes contain "black swan" risks; there is growing uncertainty on how these confrontations are likely to be resolved.
	Fewer migrants and stricter policies will help attenuate the populism fires, reducing tensions between the core and the periphery.	 There are signs that negative interest rates become less effective when applied over extended periods, which leaves the ECB with fewer options to bail out the economy in the event of a major crisis. This would also be a major problem if deflation re-emerges.
	 With the elections behind, the UK is more likely to find common ground on the negotiations with the EU which should result in a more orderly Brexit process, causing less turbulence in the markets. 	 A hard Brexit could still happen which would create significant volatility in the markets and could plunge the UK economy into a new crisis and recession.

²⁶ A potentially toxic combination of disrupters such as Trumpian politics, the dizzying pace of technological progress and the rising threat of climate change could become potential catalysts that trigger a new "arms race". The superpowers of the future will be those that dominate key technologies such as AI and big data. The race has already begun to build the most advanced AI system which is happening without much of a regulatory framework. The further digitization of the economy will also create new opportunities, strengthening certain industries and weakening or eliminating others.

²⁷ https://www.nytimes.com/2020/01/10/us/politics/russia-hacking-disinformation-election.html?action=click&module=Top%20Stories&pgtype=Homepage

²⁸ https://www.theguardian.com/commentisfree/2019/oct/10/joker-far-right-warning-austerity

U.S.	 The economy is likely to maintain solid fundamentals, reinforced through the "positive feedback loop" between tight labor markets and robust household consumption demand. The relative insignificance of the manufacturing sector and exports will also continue to shield the economy from global shocks. A continued recession in manufacturing, caused by the trade woes with China, a strong dollar and Boeing's crisis should act as a counterbalance to other sectors that have been causing tight labor markets and a pickup in wages. This could help to further extend the recovery cycle by keeping a lid on inflation. Continued negotiations with China could lead to a "breakthrough" agreement that tangibly benefits both sides and a more permanent thaw in relations, eliminating a major source of uncertainty for the markets. A pickup in corporate earnings over the year would narrow multiples, extending the bull market without risking bubble formations. The US economy's above average elasticity/adaptation to change makes it well positioned to face the coming technology "disrupters". 	·
	 China is well positioned to reap benefits from its substantial investments into cutting edge technologies (Al, automation, robotics), infrastructure and education, rendering its economy more "future proof" towards related disrupters. The US economy is unlikely to overheat (despite rising 	
E.M.	 wages and tight labor) which means that the dollar is unlikely to appreciate substantially over the year. This would bode well for emerging market countries that have large dollar denominated borrowings. Higher commodity prices, if maintained throughout the year, should help benefit the economies of net exporters such as Russia and Brazil. 	 China's manufacturing and export-oriented economy, like those of many other emerging markets, will continue to make it vulnerable to US trade woes and other global shocks. The risk of a stronger dollar and interest rate differential will continue to cause damage to EM countries with large public and private dollar borrowings, creating a substantial headwind for the economy.
	 Emerging market stocks have trailed those of developed markets and multiples remain relatively attractive which gives them a greater potential to catch up. 	 Stronger commodity prices, if maintained, will cause headwinds to the economies of net importers such as China and Turkey.
	 Emerging market growth rates, despite the secular slowdown, should continue to remain significantly higher than those of developed markets, maintaining their relative attractiveness in terms of investments. Autocratic regimes will continue to maintain a comparative advantage of being able to deploy policy and steer the economy far more efficiently. 	 Continued significant exposures to foreign direct investments for certain EM countries, such as Argentina or Turkey, or the autocratic regime meddling of the economy for political gains remain major sources of potential volatility and instability for global markets.
	 Emerging market central banks continue to maintain substantial stimulus reserves that they will be able to deploy in the event of a major crisis. 	

Table: List of positive and negative potential developments across regions and the world that we may see in 2020.

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