Global Macro Policy Quarterly

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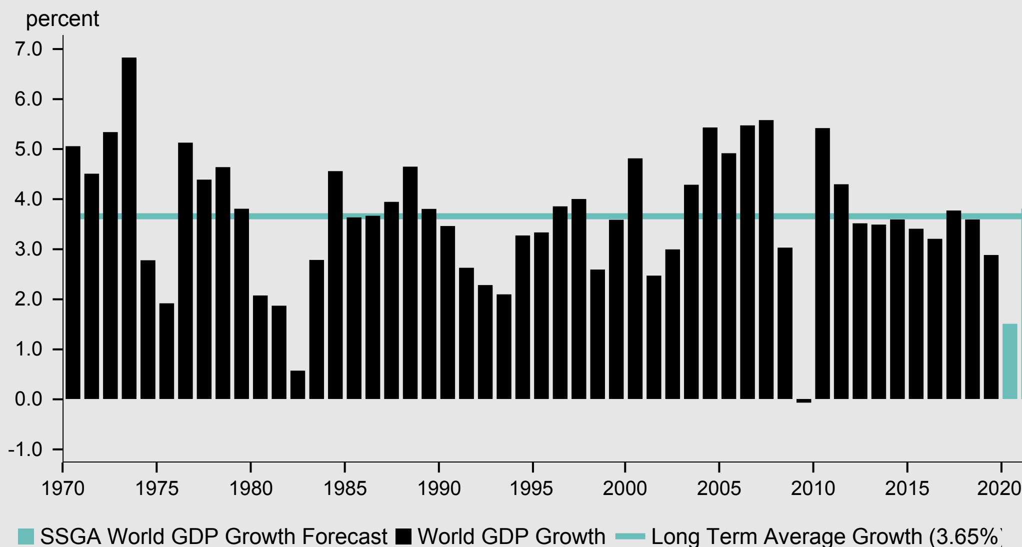

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STATE STREET GLOBAL ADVISORS

This Crisis IS Very Different and Might Usher in a "Brave New World" (Historically unprecedented with *global lockdowns* on consumers and workers)

We ended last quarter at year-end upbeat about a Resilient Global Economy. The biggest lesson for us as investors, analysts and policy makers is that Biological and Epidemiological risks need to be part of every Systemic Risk exercise. During the 2008-09 Financial Crisis we learnt that we need to develop systemic risk and macro-prudential frameworks to prevent market failures and contagion. Robert Shiller in "The Sub Prime Solution" and Paul Krugman in" The Return of Depression Economics" admitted that the signs were there in irrational exuberance in the credit and real estate markets as well as in the banking system which had "Fault Lines" as highlighted by Raghu Rajan.

This "Time is Very Different" than any historical crisis in terms of speed and impact across 170+ countries with forms of lockdowns across more than 50 countries; the impact is also on the poorest regions of the world with 70 countries or more requesting IMF aid as the crisis locks down productive workers and spending consumers that could contribute to GDP. Banking Crises, Currency Crises and Debt Crises that I have seen since 1981 are unlikely to have had such a widespread quarterly GDP loss globally.

This crisis is larger in terms of human impact not just financial and economic impact than any of the **earlier pandemics** like the Spanish flu of 1917-18 or the H1N1 pandemic of 2009 or earlier economic and financial crises including Global Financial Crises or earlier Wall Street crashes. The most important resource to fight GDP losses, corporate losses, income losses are consumers and workers are in not their most productive locations due to lockdowns except those heroically.

The macroeconomic policy solutions lie in targeted Fiscal Policy measures, Monetary Policy actions but most of all in supporting the Public Health resources at the front line of dealing with those infected and requiring acute care. Central Banks have risen above and beyond in coordinating actions on rate cuts, commercial paper funding and other facilities in an unforeseen coordinated success to shore up markets in panic and dislocation. The Liquidity lessons from the Global Financial Crisis are coming back to memory as many of the actions from central bank playbooks from then get airing again and some with modification too. The challenges lie in European Fiscal Solidarity and getting the recently agreed on US Fiscal package of USD 2 trillion to reach the self-employed, vulnerable and poor.

This medical crisis is Darwinian and different than SARS, MERS and EBOLA as it acutely affects the very old above 80+ years of age and those with existing adverse medical conditions. In addition, more old men are critically affected with higher fatality rates than older women. Also, this has different effects on emerging economies in Africa, Asia and Latin America with lower GDP per capita, higher poverty rates, poorer health systems with many living day to day on daily and hourly wages. The broad-ranging adverse implications may be felt more on the poorer world and set them back even more. African countries earlier this week requested $44 billion in loan waivers.

From an asset market standpoint, it is imperative to avoid volatile swings to stock and bond markets with indicators showing levels of volatility and fear like the Global Financial Crisis. The origins of the GFC lay in the excess lending by banks, real estate bubbles, creation of credit related instruments and irrational exuberance fueled by lax regulation. The excess froth in the financial system since the 2009 crisis is getting found out as we saw dislocations in the commercial paper, high yield and credit markets. Prompt proactive actions by the Fed have sought to counteract the illiquidity and market failures by providing aggregate liquidity.

G20 meetings and coordinated Fiscal actions will help just as they did during the GFC but a much wider, broader and stronger response is awaited by locked down workers and consumers. Aldous Huxley's BRAVE NEW WORLD comes to mind as we look to the future. Panics and fears are most damaging during crisis—let's try to avoid them.

Amlan Roy (Head, Global Macro Policy Research)

Key Macro Themes for the Global Economy

- ***A new year, a new reality, a new macro narrative…*** Unfortunately, the green shoots of improvement that had become evident in global macro data early this year have since collapsed under the weight of the Covid-19 pandemic into a retrenchment of unprecedented speed and depth. What during the global financial crisis took months to transpire, we are now experiencing in the span of mere weeks and days. This is true not only for financial markets—which, by their very nature—are anticipative and move fast, but also for the real economy itself. Severe restrictions on people movements and blanket "shelter in place" orders have caused service activity to swing, in many countries and within the span of a single month, from moderate growth to contractions so severe as to have never before been seen during peace time. In the United States, initial unemployment claims spiked from 282,000 in the week ended March 14 to 3,283,000 in the week ended March 21! To put this in perspective, they never exceeded 675,000 in 2009. How can this be? The answer has to do with the nature of this crisis, not economic or financial at its root but health-related. Because of that, the economic resilience that individuals, firms, or countries may have exhibited previously does not matter in the moment. We had resilience, but we all needed immunity…and we do not have it.
- ***"Whatever it takes!" policy response.*** Confronted with the precipitous developments of the past month, policymakers around the world have quickly swung from the "happy where we are" messaging of early 2020 to a "whatever it takes" crisis mitigation mindset meant to limit the economic damage and prevent a liquidity crisis from morphing into a solvency one. The idea, well-articulated by former Bank of England Governor Mark Carney, is to "keep firms in business and people in jobs". But it is much easier said than done…Luckily, most of today's tools were conceptually incubated during the Global Financial Crisis (GFC) and thus were "off-the-shelf" options deployable within days. We have seen dramatic rate cuts, massive scale-ups of repo operations, re-activation of crisis-era liquidity mechanisms, resumption, expansion, and broadening of QE. New tools are being developed as well, with the Fed initiating a new facility that essentially amounts to direct business lending. Meanwhile, governments around the world are pushing through enormous fiscal packages (see individual country sections).
- ***Policy support is not a substitute for economic activity.*** Such speed of response is critical in an era when social distancing policies required to slow down the virus mean instantaneous, broad, and indiscriminate stoppage in economic activity. But policy stimulus can only provide a bridge, not a substitute, for the normal functioning of the underlying economy. The next big debate will have to be about how to safely bring people back to work. This is not a political debate, it is an existential debate. Asking "what are we going to need in order to come back and how are we going to get there?" is not only valid, but critical.
- ***Not forecasts, but rough estimate projections.*** And so macroeconomic forecasts have been completely upended. Given the extraordinary degree of uncertainty about the evolution of the virus and the duration of business shut-downs, it may be better to view any numbers put forth by the analyst community as "best-guess estimates based on a certain set of assumptions". Our core assumption is that in each individual location, the Covid-19 crisis is a three-month peak event, rather than a six-month peak event. This does not mean we believe the outbreak will be over within three months, but rather that enough progress is made to bring it under control so that social distancing restrictions are gradually relaxed to allow for economic activity to selectively resume with that three-month horizon. Even so, the hit will be severe and many economies will experience deep recessions. Global growth halves this year; the risks to that forecast remain to the downside. But in situations such as these, it is perhaps more useful to embrace a two-year view. After the dashed expectations of 2020, we anticipate conditions will be in place for a powerful rebound, similar to the "synchronized global growth" story we were talking about back in 2017.
- ***Inflation*** is last on this list, and in this circumstance, it is the least of our worries. Despite likely supply chain disruptions and some bottlenecks in months to come, we view Covid-19 as largely a deflationary force near term. Plunging oil prices alone are enough to drive inflation down across economies and our new forecasts reflect that. Whether it is also deflationary over the medium to long term remains to be seen. Reshoring of supply chains to higher labor cost locations will battle it out with tech-driven innovations to settle that question. Whether inflation flares up down the line will also be the litmus test on whether MMT-type policy responses are viable.

Summary of World Output[1] and Inflation[2]

(Annual percent change)

	Weight	History					Forecast	
	(2018)	2015	2016	2017	2018	2019	2020	2021
World Growth	100.0	3.5	3.3	3.8	3.6	3.0	1.5	3.8
Advanced Economies	40.8	2.3	1.7	2.5	2.3	1.7	-0.3	2.6
US	15.2	2.9	1.6	2.4	2.9	2.3	0.3	3.3
Euro area	11.4	2.3	1.9	2.5	1.8	1.2	-1.0	2.6
Germany	3.2	1.7	2.2	2.5	1.5	0.6	-0.7	2.8
France	2.2	1.1	1.1	2.3	1.7	1.4	-1.7	2.0
Italy	1.8	0.8	1.3	1.7	0.8	0.3	-2.7	3.0
Japan	4.2	1.3	0.5	2.2	0.3	0.7	-1.2	1.6
UK	2.2	2.4	1.9	1.9	1.3	1.4	-0.3	2.7
Canada	1.4	0.7	1.0	3.2	2.0	1.6	-0.7	1.9
Australia	1.0	2.3	2.8	2.5	2.7	1.8	0.1	3.9
Developing Economies	59.2	4.3	4.6	4.8	4.5	3.9	2.8	4.7
Advanced Economy Inflation	40.8	0.3	0.8	1.7	2.0	1.5	0.8	1.8
US	15.2	0.1	1.3	2.1	2.4	1.8	0.8	2.3
Euro area	11.4	0.2	0.2	1.5	1.8	1.2	0.4	1.4
Germany	3.2	0.0	0.5	1.5	1.7	1.4	0.6	1.2
France	2.2	0.0	0.2	1.0	1.9	1.1	0.7	1.4
Italy	1.8	0.0	-0.1	1.2	1.1	0.6	-0.5	1.2
Japan	4.2	0.8	-0.1	0.5	1.0	0.6	0.0	0.3
UK	2.2	0.1	0.6	2.7	2.5	1.8	0.9	2.0
Canada	1.4	1.1	1.4	1.6	2.2	1.9	1.5	1.9
Australia	1.0	1.5	1.3	1.9	1.9	1.6	1.0	1.5
Developing Economies	59.2	4.7	4.2	4.3	5.0	4.8	3.0	4.4
Value of World Output ($ trl)								
At Market Exchange Rates		74.8	75.8	80.3	84.9	86.6	90.5	111.6
At Purchasing Power Parities		115.8	120.8	127.7	135.4	141.9	149.5	186.2

[1] Real GDP; [2] Consumer Price Inflation

Weight represents the share of world GDP on a purchasing power parity basis. IMF: *World Economic Outlook*, October 2018

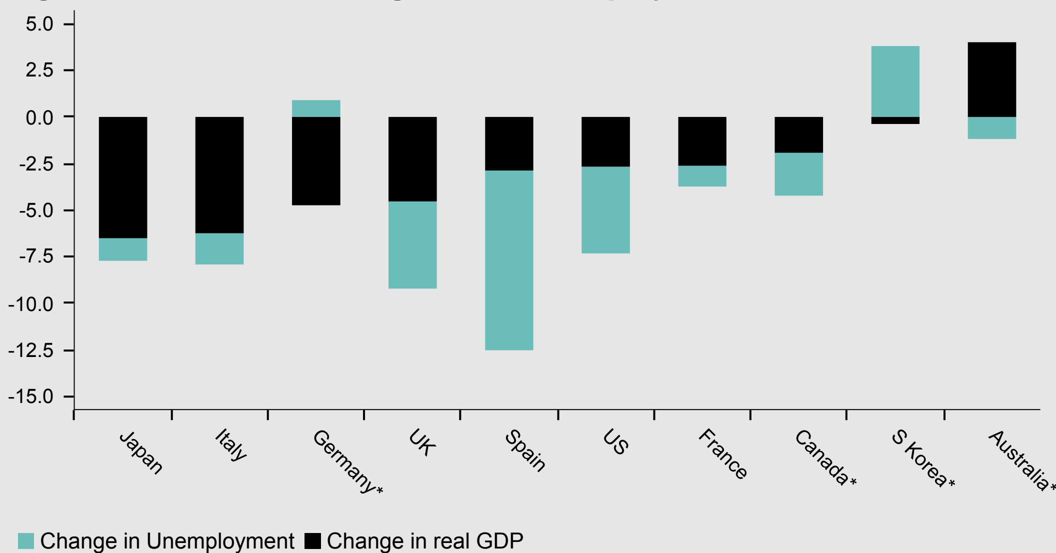
Source for historical data: Oxford Economicsnational sources, and IMF. Forecast: SSGA Global Macro and Policy Research

Political Risk in Focus: How Will Covid-19 Reshape Politics in the 2020s?

Current polling shows most global democratic leaders enjoying a major popularity bounce, particularly Presidents Macron and Trump as well as Prime Minister Johnson. They all, but especially the latter, would do well to remember that Gordon Brown also experienced a polling boost in late 2008 following a raft of domestic initiatives and his G-20 leadership.

Yet, the aftershocks of 2008 reverberated across most polities for the coming decade. Countries that fared poorly both from a growth and employment perspective tended to switch leaders in the subsequent election. The populist victories mid-decade were then a response to the perceived failure of the alternative political bloc in delivering credible support. Figure 1 shows that all countries that suffered either an economic contraction or a rise in unemployment in 2008-2009 thereafter kicked out the incumbent leadership, with the exception of Canada, though its contraction was relatively modest.

Figure 2: Cumulative Change: GDP, Unemployment 2008-09



Change in Unemployment ■ Change in real GDP

Sources: Macrobond, OECD
* indicates incumbent re-elected in first electoral contest after collapse of Lehman Brothers

Geopolitically, the 2008-2009 downturn rippled across the world. The Arab Spring ignited in late 2010 as inflationary pressures culminated in emerging markets, leading to the overthrow of several Arab regimes and civil wars in others

So what will it look like this time? In democracies, the same crisis management evaluation will take place with electorates rewarding leaders that minimized human and economic casualties during the Covid-19 outbreak. Not all of this must be absolute, as relative performance matters a lot politically. Shock events like war or pandemics also re-align the political fault lines and elections will confirm the newly shaping consensus. The latter is critical as it appears that a definitive embrace of the 'return of the state' to economic affairs will be central in developed economies. The de facto real-life experimentation of Modern Monetary Theory (MMT) will also break the taboos around state intervention. Taken together, leaders that appear to be effective crisis managers and subsequently internalize the need for greater economic intervention have better survival chances. This suggests that the political backlash could be greater in the US than in Europe.

The 'return of the state' likely comes at the expense of international coordination and market forces. Investment themes around deglobalisation will find more political support, with the future policy environment actively favoring shorter supply chains and designating a wider and wider swath of sectors as critical infrastructure for the national economy. Overall, this will be a world with lower growth potential and wider dispersion between winners and losers.

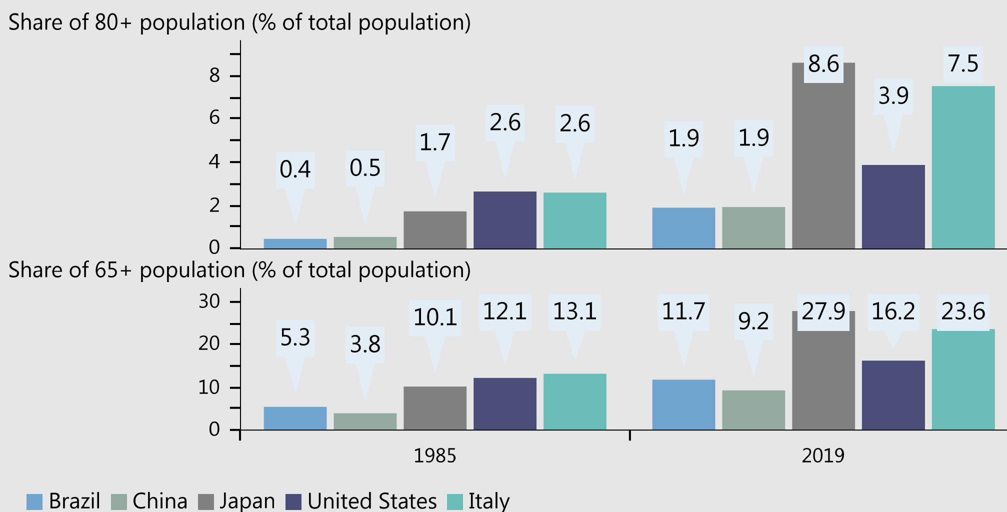
Covid-19 Crisis: A Demographic Perspective

We have highlighted in many of our previous reports that ageing populations in older advanced countries have led to severe fiscal strains and pressure on government budgets. The national debt arising from past promises made on pensions, healthcare and long-term care, which will become even more unsustainable in the future without radical policy reforms. The current global pandemic has brought such issues to the fore with governments agreeing to spend large amounts echoed our view with its larger impact on human, economic and finance compared to previous crises.

Human history has seen many wars, natural disasters and pandemics. Malthusian economics did raise warnings regarding population growth faster than growth of resources, however we have not seen that materialize despite the fastest ever population growth in the last half of 20th century due to rapid technological progress and increased productivity. Due to rising global connections and fast urbanization, the current fast-growing epidemic is unprecedented as it has spread to 170+ countries and territories within less than 3 months since China's first official report of unknow cause- pneumonia to WHO (31 December 2019). This medical crisis is different than SARS, MERS and EBOLA as it acutely affects the very old (above 80+ years of age) and those with existing adverse medical conditions. It is currently estimated that people above 80 years old have a 9.3% of infection fatality ratio while that of those below 60 years old is less than 1%1. In addition, more old men are critically affected with higher fatality rates than older women, with 57% of total infected cases in Europe being men and only 28.6% of total deaths in Europe are women[2].

The recent experiences of Italy and China may provide important guidance for future policy responses in other countries. As serious as the circumstances were in China, Italy may be worse off because its fatality rate is much higher than in China. This could be because Italy has more old people in its age distribution or that the proportion of people tested was higher in China. According to the WHO, Italy's fatality is about 5% versus nearly 2% for China and about 3.4% for the global average. While the data may have shortcomings, the differences are notable.

Figure 3. Age Distribution



Sources: UN, SSGA Global Macro Research

1 Imperial College COVID-19 Response Team, 16th March 2020, "Impact of non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand"

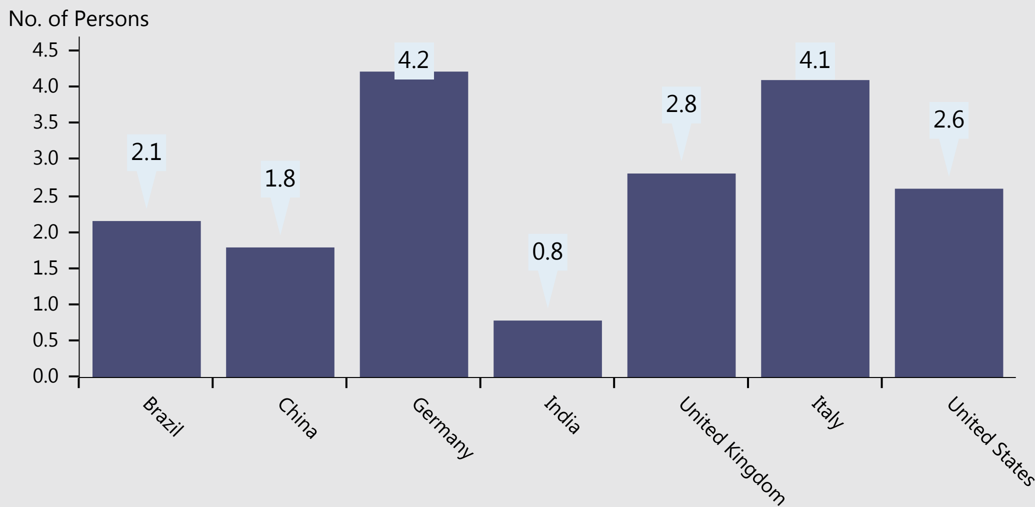
2 COVID-19 situation update for the WHO European Region (Data for the week of 9-15 March 2020)

In our 2018 report titled "Italy's Demographics Underpins its Growth, Debt, Stability and Politics" we highlighted Italy as Europe's oldest country and its fast growing 80+ population as a source of fiscal budgetary strain. Italy's much higher share of 80+ population (Figure 3, page 6) helps explain its higher mortality rates in the Covid-19 outbreak.

Focusing public health efforts to isolate or protect regions with a higher percentage of the 80+ aged may help limit fatalities and the epidemic spread. In addition, a big country such as the United States (US) could focus on states with the highest percentage of elderly people (age 80+). As of 2018, the states with the highest percentage of the 80-plus aged population were Florida (5.3%), Hawaii (4.9%), Maine (4.9%) and Pennsylvania (4.8%).

This crisis will also have different effects on emerging economies in Africa, Asia and Latin America with lower GDP per capita, higher poverty rates, poorer health systems, where many are living day to day on daily and hourly wages. As an example, on average, the number of physicians per 1000 people in India is 0.78, less than 25% that of Italy (4.1) and Germany (4.2) which are developed countries. The number of Covid-19 related deaths in developing countries such as India is still low so far but they might be in the early stages of the outbreak. Without appropriate mitigation and suppression measures, the resulting epidemic could still result in hundreds of thousands of deaths and health systems (most notably intensive care units) being overwhelmed many times over. India's mega-cities have a higher population density than Chinese and other western large cities. The government lockdown is a brave action to curtail spread of infection in the second most populous country in the world, trading off economic survival of very poor against their health.

Figure 4. Number of Physicians, per 1000 people



Sources: Macrobond, World Bank, SSGA Global Macro Research

This pandemic-crisis is different from other economic and financial crises as it restricts both workers (supply) and consumers (demand). Note that to us demographics pertains to consumers and workers, not merely age. Therefore, the forecasts for losses to economic growth, earnings and asset prices vary very widely and actually will depend on how long the lockdowns/ restrictions last. The Wuhan lockdown lasted 50 days, and the US and Europe might need to be prepared that they may get to early May before beginning to see some normalization in economic activity. In addition, the virus could prove more difficult to contain in the US and Europe than it was in China given the political structures.

Therefore, a combination of multiple government interventions in terms of suppressing the virus as well as in global financial systems is crucial for substantial impact. We call for more coordinated response by the G20 in the next few months with prime focus on public health resources: tests, masks, ventilators, doctors, nurses and hospitals. China was able to do that but issue is will other countries act bravely in this new world? We hope so.

Outlook for the Major Advanced Economies

US: Dashed Expectations

To borrow a little from Fed parlance, there has been "a material change to the outlook" since our last GMPR Quarterly publication in late December. At that time, we were quite pleased with how events converged to what had been our long-held view that eventual trade war de-escalation would allow economic activity to reaccelerate so at that point we had raised our 2020 US forecast from 1.9% (where it had been for nine months) to 2.1%. The first quarter of 2020 started very promising, with near constant upside surprises in high frequency data that ranged from stellar housing market reports to equally stellar employment reports. The "resilience" narrative was nicely coming along...And then, Covid-19 struck while OPEC/Russia disagreement sent oil prices tumbling. Essentially, two black swans entered the scene at once.

Everything changed overnight. Initial unemployment claims spiked to 3.3 million during the week ended March 21, up from 282,000 the week before and five times higher than the previous record in 2009. While these numbers won't last for more than several weeks, it could get even worse before they pull back in what will probably be equally dramatic fashion. Unemployment could easily touch 10%...it was at a record low of 3.5% as recently as February. Consumer confidence (Michigan survey) plunged by nearly 12 points in March. The underlying reality is even bleaker as sentiment utterly collapsed in the last 10 days of the month. The two-month March-April declines could prove unprecedented in magnitude.

Unsurprisingly, the policy response has been swift. One thing is clear: policymakers are in a "whatever it takes" mindset, willing to deploy all tools at their disposal, willing to improvise and adjust, and willing to seek additional legal authority to develop new tools tailored for the crisis at hand. Since first cutting interest rates by 50 basis points in an emergency meeting on March 3, the Fed has lowered the Fed Funds rate by another 100 bp to 0.00-0.25%, has massively scaled up repo operations, has restarted and broadened what has essentially become unlimited QE, has reactivated a range of crisis-era facilities aimed to provide liquidity and stabilize a broad range of markets, and is tiptoeing into what is essentially direct business lending. It is truly astonishing to behold! Most of the easing measures will stay in place for a while. We do not expect even a serious discussion about roll-backs until after the election and then perhaps only some timid moves in early 2021. If our baseline expectation of a broad-based global rebound prove true, that debate will intensify around mid-2021.

The fiscal policy response underwent a similar, extraordinary swelling in a matter of days. What started as a roughly $750 billion stimulus bill morphed into a $2 trillion affair comprising direct payments to individuals, specific industry support, aid for small businesses, and loan guarantees. At the time of this writing the House had not yet voted on the measure but we are working on the assumption that the package will be passed imminently and moneys will start flowing through the system around mid-April. The biggest questions about the fiscal package are no so much about whether the size is adequate but whether it will reach those most in need before the realities of no income and no revenues cause irreversible damage. The unemployment claims spike speaks to the criticality of speed and also to the night and day difference between firms seeing a decline in revenues (as is typically even in the worst recessions) versus no revenues at all (under current shut-down orders).

Is there any hope? Yes, there is. Let's not forget that the US consumer as a whole entered this crisis in a good shape. The February data showed the personal savings rate at an elevated 8.2%. This can be quickly exhausted in an extended loss of income scenario, but it does provide some cushion. Moreover, if fiscal support reaches individuals and small business in a way that makes them as close to "whole" as possible during the period of activity shut-downs, there is all reason to believe that both supply and demand can come back with a vengeance when movement restrictions are lifted. Our current forecasts assume a deep decline in Q2 GDP of the order of 10-12% annualized, but a similar-sized rebound in Q3 and further strong gains in Q4. Again, we assume that the peak restrictions episode does not last more than several weeks (the period may vary across different parts of the country), with some businesses currently under lock-down resuming operations during the second half of April and even more doing so in May. This leaves US GDP close to flat in 2020. We settled on an incremental positive figure more to make a point and push back against some of the apocalyptic scenarios out there is the market, but we do not claim false precision here. There are simply too many moving pieces here to say we have high confidence it won't be a small negative. But unless we move away from our core assumption of this being a 3-month as opposed to a 6-month peak hit, it is difficult to envision a deep annual contraction.

We see the temporary hit to GDP coming primarily from the consumption side. While shut down businesses are unlikely to make investments, may firms continue operations and even small businesses might actually need to make investments in IT and IP to facilitate operations. Thus, while we anticipate deeper declines in structures investment than during the 2015-16 episode (this investment category is closely related to the energy sector), and we see business equipment investment down for the year as a whole, we continue to expect annual gains in residential and IP investment. Government investment should also provide some offset. Inventories and trade are genuine wild cards. They were already volatile prior the outbreak as the trade war skewed behavior. They should directionally offset each other somewhat as inventory drawdowns will also manifest themselves in lower imports.

Inflation is not an issue. Chair Powell said so much in a rare TV interview this week. Lower oil prices and a temporary drop in demand for certain goods and services imply a notably weaker 2020 number. But some of that will be made up in 2021 as base effects become much easier and the anticipated global rebound lifts energy prices.

Canada: Double Whammy

As we write, Canada had been spared some of the worst ordeals that its southern neighbor and some European countries are facing in the wake of the coronavirus outbreak. Yet the economy is very much exposed to the shock, mainly due to its trade openness and its reliance on oil.

The fourth quarter of 2019 was a dull affair, as GDP rose just 0.1% q/q with activity disrupted by pipeline shutdowns, rail transportation strikes, strikes disrupting motor vehicle and parts manufacturing, continued global trade tensions and market uncertainty. Some of these effects carried into the first quarter, while the effects of a global demand hit and drastically lower oil prices will sweep through the domestic economy. Even before Covid-19, Canada's exports to China were falling, down 16% in 2019. During the same period, net exports detracted 0.4 percentage points off headline growth. We expect exports in the first quarter to be badly hit due to factory closures in China and declines over subsequent quarters resulting from a negative global demand shock. Services trade will also be impacted due to lack of tourism. The second source of uncertainty arises from the dramatic oil war being played out in the backdrop. Prices of Brent are already less than half the level assumed in Bank of Canada's (BoC) January Monetary Policy Report, and we will not be surprised to see them dive lower due to lack of global activity. Oil accounts for close to 20% of Canada's exports, which are at risk of posing a significant drag to GDP. However, significant depreciation pressures on the CAD should help cushion some of the blow and we see a recovery in exports only in the fourth quarter of 2020. On March 18 the government announced a large fiscal package totaling C$82 billion (3% of GDP) in direct support to most affected and in tax deferrals. The stimulus is likely to help the economy to recover faster and lead to a positive contribution to GDP from the public sector. Despite offsetting fiscal and monetary policy, we see 2020 GDP down 0.7%.

But, we also expect a rebound in 2021. The Covid-19 shock is expected to be a temporary one, and unlikely to persist beyond 2020. The USMCA tri-partite deal signed earlier will be a big positive for trade, and also help boost investor sentiment. Our expectation is for GDP to grow by 1.9% in 2021.

Lower gasoline prices pulled headline consumer price inflation down by two tenths in February to 2.2% y/y, a tad above expectations. Overall energy inflation slowed to 4.3% from 6.8% in January. Transportation services costs also declined slightly from January to 4.4% amid a decline in travel demand. In tune with Statistics Canada, we expect a sharp inflation deceleration ahead amid muted air travel and recreational services demand. This will be compounded by declining prices for crude oil due to lower demand as well as a ramp-up in supply. Below potential GDP growth will likely lead to less inflation pressures, while lower CAD will lead to a decline in terms of trade. Consequently we see inflation at 1.5% in 2020, down five tenths from our earlier estimate of 2.0%, before climbing to 1.9% in 2021.

The Bank of Canada has cut benchmark rates by a total of 150 basis points in three steps to 0.25%, which Governor Poloz went to great lengths in the press conference to describe as "the effective lower bound". The bank had already scaled up and broadened repo operations with terms of 6 and 12 months up to C$7 billion occurring bi-weekly, broaden the scope of the bond buyback program with the buybacks extending across all benchmark maturity sectors. It launched the Bankers' Acceptance Purchase Facility (BAPF) aiming to help financing for small- and medium-size corporate borrowers. Notably,

on March 27, just as this piece went to press, the BoC also launched large scale asset purchases. While Governor Poloz seemed reluctant to dub these as quantitative easing (because the intent is not to impact rates across the curve but rather to allow a smooth functioning of the market itself) we would still look at them as just that. The bank launched a Commercial Paper Purchase Program (CPPP) and it announced “across the yield curve” purchases of Canadian government bonds starting at a minimum of C$5 billion per week, with amounts adjustable “as conditions warrant”.

UK: A Risk Event Worse Than Brexit

It seems unreal to say it, but where are the good old times when Brexit was the biggest thing we had to worry about in regards to the UK economy? Well, everything is relative, and now the UK, alongside the entire world, has a much bigger crisis on its hands. By the way, Brexit did finally happen: the UK is in a transition period but officially no longer part of the EU. Ironically perhaps, effectively tackling the Covid-19 outbreak will require stepped-up international cooperation and coordination just as the EU and the UK parted ways...

But if there was one moment in recent weeks that also highlighted the potential benefits of independent domestic policymaking, it was the impressive coordination of monetary and fiscal policy, so evidently displayed and so swiftly delivered by UK authorities. We wrote extensively in our March 13 Weekly Economic Perspectives about this, but the 50 basis point emergency rate cut and a range of liquidity operations and real-economy lending incentives announced by the Bank of England on the same day that the government put forth its budget was a genuine example of how policy should be done in a time of crisis. Since then, both monetary and fiscal responses have been topped off, with the BoE cutting the bank rate by another 35 basis points to 0.1%, resuming QE, and doubling the size of the term funding scheme. The government has also sharply scaled up fiscal stimulus given the rapidly deteriorating outbreak situation. It is notable that in the midst of this crisis the policy response has been so smooth that the change of leadership at the Bank of England passed nearly unnoticed. But yes, as of March 16, the BoE has a new governor in Andrew Bailey.

Still, we do not believe the economy will avoid a recession this year. Proximity to and reliance on eurozone demand are negatives in the current context. Generally speaking, we would view smaller, open, service-based economies as more vulnerable in this crisis that larger ones and those more depended on manufacturing. It’s not that the cost of domestic social distancing is necessarily different but the more an economy is dependent on external demand, the more it is vulnerable to waves of impact and thus a longer lasting demand hit. We therefore anticipate an outright but modest contraction in 2020 GDP, the damaged reduced by what appears to be effective and sizable fiscal stimulus. As we hope to have made abundantly clear by now, these point forecasts have an unusually large margin of error and should be seen as the mid-point of a range of outcomes. This particular number reflects a sizable decline in both household and non-profit consumption this year (the latter in what will likely be a multi-year decline linked partly to changing funding pattern following Brexit), partly offset by rising government consumption. Fixed investment also contracts, but inventories, which had been an extraordinary drag on growth in 2019, make a positive contribution. Net trade is a drag on growth.

These dynamics shift dramatically in 2021, when we anticipate a sharp growth reacceleration as activity not only normalizes but some demand get pushed back into 2021. Manufacturing is best placed to accommodate such pent-up demand but there is scope for such behavior even in some services. Assuming the Covid-19 is fully under control (via a vaccine or other such development), there is a lot of scope for pent-up demand in areas like concerts, events, and evens some travel, to overshoot in 2021.

Inflation had moderated quite noticeably at the end of 2019 and while that was starting to turn around, the economic slowdown does imply weaker price pressures near term. Exchange rate movements have been extreme over the past month but as the dollar shortage seems to be easing, we would expect the pound to stabilize close to pre-Covid levels such that the exchange rate doesn’t play a driving role in inflation this year. As demand rebounds and energy prices strengthen, overall inflation also moves higher in a non-problematic fashion in 2021. The BoE will eventually respond, but it will be in no rush to do so.

Eurozone: Deep Cyclical Downturn, Better Structural Outlook

The eurozone presents an interesting case. Back in December, we anticipate a mild cyclical improvement but expressed continued grave doubts about the structural institutional and policy set-up which we had long seen as detrimental to optimal economic performance. Covid-19 turned that assessment on its head. Given recent developments in Italy, Spain, and the entire region, there is no point debating whether a recession is at hand. It is unavoidable. The question is only how bad it will get. On the other hand, this may well prove to be the crisis that galvanizes the sort of heretofore absent political will to enhance the effectiveness of macro policy making across the eurozone. The ECB has for far too long been fighting the battle alone. New leaders at the helms of the ECB and the European Commission, operating in the middle of unprecedented crisis seem poised to change that. The ECB may be the institution officially conducting a policy review, but we now believe the entire EU body politic is about to undergo a similar exercise. For now, the policy response still primarily involved the bending of existing rules. But there are broadening signs that the rules themselves are under review. .

We expect the eurozone economy to contract by about 1.0% in 2020 before rebounding in 2021. Italy's contraction could approach 3.0%, with France faring a little better and Germany better still. Germany's outperformance in 2020 is not the same relative competitiveness story that has underpinned its outperformance in years past. It is more of an economic structure story, with less reliance on services and especially tourism, than France or Italy. While manufacturing was a liability during the 2019 trade war episode, it may be an advantage insofar manufacturing activity could undergo more limited shutdowns, plus has a greater capacity to make up losses on the other side of this when activity resumes. It also reflects its corporate sector's experience with the work subsidy programs that have yielded good results during the recession and should therefore be expected to prove effective this time around as well. And finally, it reflects its greater room for fiscal stimulus, now emerging.

The ECB is doing what it can, which is primarily to boost QE further and broader the types of assets it will purchase In addition to increasing its existing asset purchase program, it launched a temporary €750 billion Pandemic Emergency Purchase Program (PEPP) and waved eligibility requirements so Greek debt could be included in the program. The ECB also expanded the range of eligible assets under the corporate sector purchase program (CSPP) to "all non-financial commercial paper of sufficient credit quality". It greatly sweetened the terms of its TLTRO III program slated to begin in June and launched additional weekly long-term refinancing operations to bridge the tome until then. It also temporarily eased some capital requirements and hinted that national macro-prudential authorities complement those by relaxing the counter-cyclical capital buffers.

As notable as what the ECB has done, is what it has not done, meaning it hasn't cut interest rates further into negative territory. We look at this as indirect acknowledgement that negative interest rates don't really have favorable impact they were hoped to have had in terms of encouraging lending. So the ECB seems to be moving more towards a carrot approach vis-à-vis banks as it tries to incentivize lending rather than punish the lack of lending. This is a good change in approach in our view, and may well ignite some fiscal concessions out of Germany, whose banking sector should benefit from ECB's change in tacks. Like Mme. Lagarde said during her first press conference at the ECB, the "ballet" of economic policymaking involves many dancers. Greater harmony would benefit all.

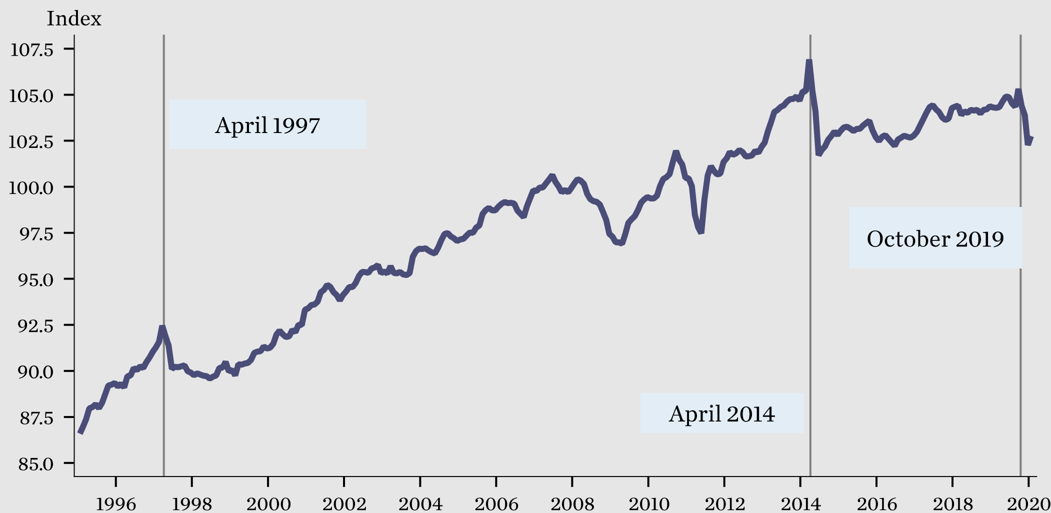
Japan: Virus To Blame But Fundamentals Are Weak, Too

Japan was already at a precipice before the coronavirus outbreak. Natural disasters, and more recently, the hike in consumption tax had slowed the economy down considerably. But while we were expecting a recovery due to the counter cyclical fiscal measures implemented, growth is at risk of being derailed altogether due to the exogenous shock. The key uncertainty is the duration and spread of the outbreak; and while a H2 rebound is still possible, it will depend on the virus being brought under control rapidly.

The fourth quarter saw a sharp pullback in GDP, which fell 7.1% q/q annualized, the sharpest contraction since April 2014. Arguably, it was tad better than the drop recorded post the last tax hike, it was worse than consensus. Household consumption and private investment were the main drivers of the decline. Consumption had earlier failed to show an

uptick ahead of the tax hike, hence our expectation was for a lower drop in October. The final estimate for the fourth quarter showed private consumption to have dropped by 11%. While this was not as steep as the 18% contraction in the second quarter of 2014 following the previous consumption tax hike, it was considerably worse than the 8% contraction the market had expected. Moreover, this time we do not see a subsequent rebound in consumption as witnessed in the third quarter of 2014, rather it will stay weak depending on the extent of disruption.

Figure 5. Fall Less Pronounced In BoJ Consumption Activity Index



Sources: Macrobond, Japanese Cabinet Office (CaO)

In order to contain the virus, the government has imposed some mitigating measures—school closures and quasi-ban on mass gatherings which may prove to be pivotal in controlling the outbreak. But it will likely come at a steep economic cost as events are cancelled, corporates curtail travel and entertainment budget, and households cut back on discretionary purchases in response to heightened uncertainty. Services has been particularly hard hit, witnessed in the slump in Services PMI to 32.7, the lowest on record! We assume that a successful slowdown in COVID-19 case counts allows the government to lift the most aggressive mitigation measures by late April. But the recovery in sentiment and social consumption will remain sluggish, in line with the experience following the March 2011 earthquake/tsunami. Private sector capex also fell substantially, by 18% in the fourth quarter, reflecting the impact of the consumption tax hike and a series of typhoons. We have assumed a moderate recovery in our Q1 capex growth forecast, but this effectively indicates a downward revision taking account of a far larger-than-expected decline in Q4. Corporations will likely take a wait-and-see stance toward capex as long as uncertainty surrounding the coronavirus remains high. Sharp appreciation of the yen and fall in equities, which have tightened financial conditions and is likely to depress private sector sentiment further. Which is why we assume capex growth to weaken further in the second quarter before seeing a rebound in the second half of 2020.

Net exports have been reeling, more so because of supply chain disruptions arising from China. The spread of the COVID-19 outbreak to Europe and the United States raises the risks that similarly aggressive mitigation efforts and supply-chain disruptions there may weaken Japan's exports further. We expect Japan's trade in goods to start picking up from Q3, but we do not expect consumer spending on services or the number of foreign visitors to Japan to start recovering noticeably until summer. Imports should decline sharply in the first half as well, following a 10.3% decline in 4Q, due mainly to lower imports from China and reduced domestic demand. Net exports are thus expected to make a significant negative contribution to GDP in the first half of 2020. Public demand has been the mainstay for growth over past several quarters. We forecast a significant increase in government spending from Q2 onwards, as we expect the government to implement urgent measures to deal with the coronavirus. Fiscal stimulus becomes especially necessary as we await the official

postponement of the 2020 Tokyo Olympics by a year. The first of these packages was announced on 13 February but was limited to a ¥15.3 billion ($140 million). Media reports suggest a bigger package is imminent, likely to exceed 10% of GDP.

Our forecasts are for a 1.2% drop in GDP in 2020; however we believe the risks to our 2020 GDP projection is tilted to the downside. We still assume that the outbreak largely comes to an end in H2 2020, that nothing seriously breaks in the global economy and markets, and that Japan's economy begins to heal in albeit at a weak pace. We forecast a somewhat muted recovery in 2021 with growth to pick up at 1.6%. A revival in external demand should help the export sector considerably, while inbound tourism around the Summer Olympics will boost the services sector.

Inflation has deviated considerably from target, with February down three tenths to 0.4% y/y, a four- month low. The main reason for the deceleration was a 0.2% drop in energy prices; this should exert downward pressure on the headline for a few more months. Prices for cultural and recreational services are also expected to slow, with the sector majorly hit due to lockdown and cancellation of events. Declining global oil prices will keep headline inflation down, with spikes in some of the sub-sectors including medical goods and personal care. But overall we see a deceleration in inflation extending well into the second half of 2020. We expect inflation to stay flat over 2020, before picking up marginally to 0.3% y/y in 2021.

Fiscal policy has to be the frontrunner in this battle. The Bank of Japan which is thinly stretched, has already opened the floodgates—with a Special Fund-Supplying Operation to provide credit availability to small and medium enterprises and a step up in purchase of ETFs and J-REITS. The bar for a rate cut is rather high, given the adverse impact on bank earnings as net interest margins are squeezed. Moreover, low long term interest rates risk dampen consumer sentiment by depressing the investment performance of life insurance and pension funds. Also, a muted reacted of the Yen to earlier Fed cuts might have reduced the urgency to cut. Hence we see the Bank of Japan on a prolonged pause throughout 2020 and 2021.

Australia: The Recovery Nipped In The Bud

"A recovery in the offing"—this was our message for Australia when we last published our quarterly forecasts in December. A rebound in the housing sector and the tight labor market were the main sources of optimism, along with an improving global sector. But the first blow came in the form of a devastating bushfire in end 2019, heavily impacting tourism and other service sectors.

GDP had been disappointing, growing just 1.8% in 2019, missing the Reserve Bank of Australia's forecasts by a wide margin. The public and external sectors have been the drivers, but contribution from private demand has been significantly low. The tourism sector was already suffering from the impact of bushfires and the February 1st travel ban on all Foreign nationals from China, which comprises of 15% of inbound tourists. The spread of the virus into other parts of the world has further reduced tourism, and will be weak for most part of this year as travelers remain wary of the threat. The supply chain disruptions arising from closure of factories in China and other parts of Asia will hit production hard. China has slowly been getting back on its feet as the number of cases level off, but receding global demand will have a second round of impact on production. Consequently we expect exports to stay weak for most part of the year, showing a weak rebound in only the fourth quarter. The government has been proactive in handling the crisis, with two tranches of aid announced to date and both having exceeded expectations. The A$66 billion stimulus (the total is now A$84 billion ~4% of GDP) announced on March 22, A$31.9 billion is for businesses across all industries, subject to retention of existing workforce. The government will also guarantee 50% of loans worth up to A$40 billion and up to A$20 billion for workers who lose their jobs. Policy stimulus will help, but it is very unlikely that it can offset widespread economic closures. It will lessen the blow to households and businesses from job and income losses, but there will still be a sharp lift in the unemployment rate and a drop in hours worked. Business cash flow will benefit from government measures, but subsidies, waivers and loans can't offset the decline in activity that many firms will face.

We are optimistic about the situation once the dust settles. High debt and low household income will still be drags on spending, especially as low wage expectations become the "new normal". But fiscal concessions will help, and housing in our view, holds the key to improving consumer sentiment. The accommodative policy stance by the RBA going well into 2021 should support housing activity. Thus we expect growth to rebound in the second half of 2020, enough to avoid a

negative print for the whole year, which is expected to be 0.1%. A flurry of industrial activity and return of tourists then helps Australia to 3.9% growth in 2021.

Underlying inflation has run at a soft 1.7-2.0% over the past couple of years as a result of an increasingly competitive retail environment, smaller administered price increases and, of course, slow wage growth. Low oil prices combined with lack of domestic activity should keep inflation suppressed. Our baseline expectation is for inflation to average 1.0% in 2020, revised substantially down from our earlier estimate, before rising to a still modest 1.5% in 2020.

The Reserve Bank of Australia was one of the first of major central banks to reduce policy rates proactively. We were expecting RBA to ease in 2020 even before the crisis, as the economy was still some way off RBA's employment and output targets. But with subsequent cuts, the RBA has reached the floor of 0.25%, and we believe the Board will be unwilling to take rates down to zero unless absolutely necessary. The RBA has also introduced a BoJ-style yield curve control program, along with a term funding facility to support credit flow to small and medium-sized businesses. The most important aspect is the open-endedness of the policy action, wherein the bank has committed to keep rates low as long as required, with the upper bound of ACGB purchases undefined as well. It is probably too late to save the second quarter, but the unprecedented coordinated policy action across the globe generates hope that the subsequent recovery will be swift. Question still remains, have we reached the limits of monetary policy? The fluidity of the situation makes an answer very difficult, but we suspect that the RBA will need to increase the breadth of asset purchases, by including longer dated as well corporate bonds. As the Deputy Governor said in a recent speech, "the virus is going to have a material economic impact but it is not clear how large that will be. That makes it difficult for the market to reprice financial assets." For now we expect the cash rate to stay unchanged at 0.25% throughout 2020 and 2021.

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Stock Markets					10 Year Bond Yields			Currencies		
Country	Exchange	Last	%Ch Week	%Ch YTD	Last	BP Ch Week	BP Ch YTD	Last	%Ch Week	%Ch YTD
US	S&P 500®	2541.47	10.3%	-21.3%	0.68	-16	-124	98.365	-4.3%	2.1%
Canada	TSE 300	12687.74	7.1%	-25.6%	0.75	-12	-95	1.398	-2.7%	7.6%
UK	FTSE®	5510.33	6.2%	-26.9%	0.37	-20	-46	1.2465	7.2%	-6.0%
Germany	DAX	9632.52	7.9%	-27.3%	-0.47	-15	-29			
France	CAC-40	4351.49	7.5%	-27.2%	-0.06	-17	-17	1.1144	4.3%	-0.6%
Italy	FTSE® MIB	16822.59	6.9%	-28.4%	1.33	-30	-9			
Japan	Nikkei 225	19389.43	17.1%	-18.0%	0.02	-7	3	107.93	-2.7%	-0.6%
Australia	ASX 200	4842.428	0.5%	-27.6%	0.93	-22	-45	0.618	6.8%	-12.0%

Commodity Markets

Commodity	Unit	Source	Last Price	%Ch Week	%Ch YTD	%Ch Yr Ago
Oil (Brent)	US$/Barrel	Bloomberg	24.25	-5.7%	-63.5%	-63.9%
Gold	US$/troy oz	Bloomberg	1622.36	8.3%	6.9%	23.9%

Source: Bloomberg®

Week in Review (March 23–March 27)

Country	Release (Date, format)	Consensus	Actual	Last	Comments
Monday, March 23					
	No Major Releases				
Tuesday, March 24					
US	New Home Sales (Feb, thous)	750	765	800(↑r)	
UK	Manufacturing PMI (Mar, prelim)	45.0	48.0	51.7	
UK	Services PMI (Mar, prelim)	45.0	35.7	53.2	
EC	Manufacturing PMI (Mar, prelim)	39.0	44.8	49.2	
EC	Services PMI (Mar, prelim)	39.5	28.4	52.6	
GE	Manufacturing PMI (Mar, prelim)	39.9	45.7	48.0	
GE	Services PMI (Mar, prelim)	43.0	34.5	52.5	
FR	Manufacturing PMI (Mar, prelim)	40.6	42.9	49.8	
JN	Manufacturing PMI (Mar, prelim)		44.8	47.8	Still better than expected.
JN	Services PMI (Mar, prelim)		32.7	46.8	Abomination.
JN	Leading Index (Jan, final)	90.3(p)	90.5	91.0	Hold on and sit tight.
Wednesday, March 25					
US	FHFA House Price Index (Jan, m/m)	0.4%	0.3%	0.7%(↑r)	
US	Durable Goods Orders (Feb, prelim, m/m)	-0.9%	1.2%	0.1%(↑r)	
UK	CPI (Feb, y/y)	1.7%	1.7%	1.8%	
UK	PPI Output (Feb, y/y)	0.9%	0.4%	1.0%(↓r)	
GE	IFO Business Climate (Mar, final)	87.7(p)	86.1	96(↓r)	
Thursday, March 26					
US	Initial Jobless claims (Mar 21, thous)	1700	3283	282(↑r)	Astonishing, record spike!
US	GDP (Q4, third, q/q saar)	2.1%(p)	2.1%	2.1%	
US	Kansas City Fed Manf. Activity (Mar)	-10	-17	5	
UK	BoE Monetary Policy Decision	0.10%	0.10%	0.10%	
UK	Retail Sales (Feb, m/m)	0.2%	-0.3%	1.1%(↑r)	
GE	GfK Consumer Confidence (Apr)	7.5	2.7	8.3(↓r)	
FR	Business Confidence (Mar)	97	95	105	
JN	PPI Services (Feb, y/y)	2.2%	2.1%	2.3%	Drop in international air travel prices.
Friday, March 27					
US	Personal Income (Feb, m/m)	0.4%	0.6%	0.6%	
US	Personal Spending (Feb, m/m)	0.2%	0.2%	0.2%	
US	U of Mich Sentiment (Mar, final)	95.9(p)	89.1	101.0	Late-month data was far worse.
CA	Bank of Canada Policy Decision		0.25%	0.75%	Launched QE
FR	Consumer Confidence (Mar)	91	103	104	
IT	Consumer Confidence (Mar)	100.5	101.0	110.9(↓r)	
IT	Manufacturing Confidence (Mar)	88	89.5	98.8(↓r)	

Source: for data, Bloomberg®; for commentary, SSGA Economics.

Week Preview (March 30–April 3)

Country	Release (Date, format)	Consensus	Last	Comments
Monday, March 30				
US	Pending Home Sales (Feb, m/m)	-1.8%	5.2%	
UK	GfK Consumer Confidence (Mar)	-13	-7	Will likely be worse.
UK	Mortgage Approvals (Feb, thous)	68.2	70.9	
GE	CPI (Mar, prelim, y/y)	1.4%	1.7%	
Tuesday, March 31				
US	S&P CoreLogic 20-City Index (Jan, m/m)	0.4%	0.4%	
US	Consumer Confidence (Mar)	112	130.7	Could well be worse.
CA	GDP (Jan, m/m)		0.3%	Sadly, no bearing on where we'll be in Q2…
UK	GDP (Q4, final, q/q)	0.0%(p)	0.3%	Sadly, no bearing on where we'll be in Q2…
GE	Unemployment Rate (Mar)	5.1%	5.0%	Has likely bottomed for now.
FR	Consumer Spending (Feb, m/m)		-1.1%	
JN	Unemployment Rate (Feb)	2.4%	2.4%	Last report free of virus impact.
JN	Industrial Production (Feb, prelim, m/m)	0.0%	1.0%	Supply glut from China should show up.
JN	Retail Sales (Feb, m/m)	-1.5%	1.5%(↑r)	Last report free of virus impact.
AU	Private Sector Credit (Feb, m/m)	0.3%	0.3%	Credit flow in the economy to slow.
Wednesday, April 1				
US	ISM Manufacturing (Mar)	46	50.1	
UK	Manufacturing PMI (Mar, final)	48.0(p)	51.7	
EC	Manufacturing PMI (Mar, final)	44.8(p)	49.2	
GE	Manufacturing PMI (Mar, final)	45.7(p)	48.0	
GE	Retail Sales (Feb, m/m)	0.2%	1.0%(↑r)	
FR	Manufacturing PMI (Mar, final)	42.9(p)	49.8	
IT	Unemployment Rate (Feb, prelim)		9.8%	
JN	Tankan Large Mfg Index (Q1)	-10	0	Compiled ahead of the peak virus impact.
JN	Manufacturing PMI (Mar, final)	44.8(p)	47.8	
Thursday, April 2				
US	Initial Jobless claims (Mar 28, thous)		---	
US	Total Vehicle Sales (Mar, mil.)	15.2	16.8	
US	Factory Orders (Feb, m/m)	-0.3%	-0.5%	
AU	Job vacancies (Feb, m/m)		1.6%	
Friday, April 3				
US	Change in Nonfarm Payrolls (Mar, thous)	-61	273	
US	Unemployment Rate (Mar)	3.8%	3.5%	
US	ISM Nonmanufacturing (Mar)	48	57.3	
UK	Services PMI (Mar, final)	35.7(p)	53.2	
EC	Services PMI (Mar, final)	28.4(p)	52.6	
GE	Services PMI (Mar, final)	34.5(p)	52.5	
JN	Services PMI (Mar, final)	32.7(p)	46.8	
AU	Retail Sales (Feb, m/m)	0.4%	-0.3%	Slight pickup expected.

Source: for data, Bloomberg®; for commentary, SSGA Economics.

Economic Indicators

Central Bank Policy Targets

		Year/Year % Change in Target				
		Oct	Nov	Dec	Jan	Feb
US	Target: PCE price index 2.0% y/y	1.3	1.3	1.6	1.8	1.8
Canada	Target: CPI 2.0% y/y, 1.0%-3.0% control range	1.9	2.2	2.2	2.4	2.2
UK	Target: CPI 2.0% y/y	1.5	1.5	1.3	1.8	1.7
Eurozone	Target: CPI below but close to 2.0% y/y	0.7	1.0	1.3	1.4	1.2
Japan	Target: CPI 2.0% y/y	0.2	0.5	0.8	0.7	0.4
Australia	Target Range: CPI 2.0%-3.0% y/y	1.8	1.8	1.8		

Source: Macrobond

Key Interest Rates

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
US (top of target range)	2.50	2.50	2.50	2.50	2.25	2.00	1.75	1.75	1.75	1.75	1.75
Canada (Overnight Rate)	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
UK (Bank Rate)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Eurozone (Refi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Japan (OCR)	-0.07	-0.06	-0.08	-0.07	-0.06	-0.06	-0.03	-0.03	-0.07	-0.04	-0.03
Australia (OCR)	1.50	1.50	1.28	1.02	1.00	1.00	0.76	0.75	0.75	0.75	0.75

Source: Macrobond

General Government Structural Balance as a % of Potential GDP

									Forecast	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
US	-8.2	-6.4	-4.5	-3.8	-3.6	-4.4	-4.8	-6.0	-6.3	-6.3
Canada	-3.1	-2.1	-1.1	0.1	0.8	0.7	0.0	-0.2	-0.5	-0.8
UK	-5.9	-6.0	-4.0	-4.7	-4.1	-2.9	-2.0	-1.5	-1.3	-1.4
Eurozone	-3.9	-2.1	-1.2	-0.9	-0.8	-0.7	-0.7	-0.6	-0.7	-0.9
Germany	-1.4	0.0	0.6	1.2	1.2	1.3	1.1	1.4	0.9	1.0
France	-5.0	-4.4	-3.4	-3.3	-3.0	-2.8	-2.6	-2.5	-2.4	-2.5
Italy	-4.1	-1.5	-0.6	-1.1	-0.7	-1.4	-1.7	-1.8	-1.5	-2.1
Japan	-8.0	-7.6	-7.5	-5.5	-4.3	-4.1	-3.4	-3.1	-2.9	-2.1
Australia	-4.3	-3.3	-2.6	-2.6	-2.4	-2.2	-1.5	-0.6	-0.4	-0.4

Source: International Monetary Fund, World Economic Outlook

Headline Consumer and Producer Price Inflation

	CPI Year/Year % Change					PPI Year/Year % Change				
	Oct	Nov	Dec	Jan	Feb	Oct	Nov	Dec	Jan	Feb
US	1.8	2.1	2.3	2.5	2.3	1.0	1.1	1.3	2.1	1.3
Canada	1.9	2.2	2.2	2.4	2.2	-1.4	-0.6	0.5	0.5	
UK	1.5	1.5	1.3	1.8	1.7	0.8	0.5	0.8	1.0	0.4
Eurozone	0.7	1.0	1.3	1.4	1.2	-1.9	-1.4	-0.6	-0.5	
Germany	1.1	1.1	1.5	1.7	1.7	-0.6	-0.7	-0.2	0.2	-0.1
France	0.8	1.0	1.5	1.5	1.4	-1.2	-0.3	0.7	0.3	
Italy	0.2	0.2	0.5	0.5	0.3	-2.9	-2.6	-2.1	-2.3	
Japan	0.2	0.5	0.8	0.7	0.4	-0.3	0.2	0.9	1.5	0.8
Australia	1.8	1.8	1.8			1.4	1.4	1.4		

Source: Macrobond

Economic Indicators

Real GDP Growth (Q/Q Seasonally Adjusted)

	Quarter/Quarter %Change					Year/Year %Change				
	Q4-18	Q1-19	Q2-19	Q3-19	Q4-19	Q4-18	Q1-19	Q2-19	Q3-19	Q4-19
US	0.3	0.8	0.5	0.5	0.5	2.5	2.7	2.3	2.1	2.3
Canada	0.2	0.2	0.9	0.3	0.1	1.8	1.5	2.0	1.6	1.5
UK	0.2	0.6	-0.1	0.5	0.0	1.4	2.0	1.3	1.2	1.1
Eurozone	0.4	0.5	0.1	0.3	0.1	1.2	1.4	1.2	1.3	1.0
Germany	0.2	0.5	-0.2	0.2	0.0	0.6	1.0	0.3	0.6	0.5
France	0.5	0.3	0.4	0.3	-0.1	1.2	1.3	1.5	1.5	0.9
Italy	0.1	0.2	0.1	0.1	-0.3	0.0	0.2	0.4	0.5	0.1
Japan	0.6	0.5	0.6	0.0	-1.8	-0.2	0.8	0.9	1.7	-0.7
Australia	0.2	0.5	0.6	0.6	0.5	2.2	1.7	1.6	1.8	2.2

Source: Macrobond

Industrial Production Index (M/M Seasonally Adjusted)

	Month/Month %Change					Year/Year %Change				
	Oct	Nov	Dec	Jan	Feb	Oct	Nov	Dec	Jan	Feb
US	-0.4	0.9	-0.4	-0.5	0.6	-0.8	-0.4	-0.9	-1.0	0.0
Canada	0.0	-0.4	0.3			-2.5	-1.8	-1.2		
UK	0.1	-1.2	0.1	-0.1		-1.6	-2.5	-1.9	-2.9	
Germany	-1.2	1.3	-2.2	3.0		-4.7	-2.5	-5.3	-1.4	
France	0.4	-0.2	-2.5	1.2		-0.2	0.5	-3.0	-2.8	
Italy	-0.3	0.0	-2.6	3.7		-2.4	-0.8	-3.7	-0.4	
Japan	-4.5	-1.0	1.2	1.0		-6.6	-6.7	-5.6	-2.3	

Source: Macrobond

Unemployment Rate (Seasonally Adjusted)

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
US	3.6	3.6	3.7	3.7	3.7	3.5	3.6	3.5	3.5	3.6	3.5
Canada	5.7	5.4	5.6	5.7	5.7	5.5	5.6	5.9	5.6	5.5	5.6
UK	3.8	3.9	3.8	3.9	3.8	3.8	3.8	3.8	3.9		
Eurozone	7.6	7.6	7.5	7.6	7.5	7.5	7.4	7.4	7.4	7.4	
Germany	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
France	8.5	8.4	8.5	8.5	8.5	8.4	8.3	8.2	8.2	8.2	
Italy	10.1	10.0	9.8	9.9	9.6	9.9	9.7	9.7	9.8	9.8	
Japan	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.2	2.2	2.4	
Australia	5.2	5.2	5.3	5.2	5.3	5.2	5.3	5.2	5.1	5.3	5.1

Source: Macrobond

Current Account Balance as a % of GDP (Seasonally Adjusted)

	Q1-17	Q2-17	Q3-17	Q4-17	Q1-18	Q2-18	Q3-18	Q4-18	Q1-19	Q2-19	Q3-19
US	-2.2	-2.5	-2.0	-2.3	-2.3	-2.1	-2.4	-2.8	-2.6	-2.4	
Canada	-2.2	-2.7	-3.4	-3.0	-2.8	-2.6	-1.8	-2.8	-3.0	-1.2	-1.7
UK	-3.2	-4.0	-3.4	-3.3	-3.4	-4.4	-4.3	-5.1	-6.0	-4.6	
Eurozone	3.1	1.9	3.9	3.6	3.5	3.6	2.6	2.8	3.1	2.4	
Germany	8.3	7.0	8.6	8.6	8.5	7.6	6.5	7.4	7.8	7.6	8.1
France	-1.3	-0.7	-0.7	-0.3	-0.3	-1.4	-0.5	-0.5	-0.8	-0.8	-1.0
Japan	4.3	3.7	4.6	4.2	3.6	4.0	3.4	3.1	3.4	3.5	3.5
Australia	-1.5	-2.5	-2.8	-3.5	-2.2	-2.7	-2.2	-1.4	-0.2	1.2	

Source: Macrobond

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