

Covid-19: The scenarios, the lockdown, the reaction, the recovery

Four scenarios for the global economy and financial markets beyond coronavirus



THINK Economic and Financial Analysis

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A virus-driven ice age

ING's Carsten Brzeski on the economic truths of the Covid-19 crisis, our scenarios for the future and the reality of living in what sounds like the script of a Hollywood movie

It's often said that economists live in ivory towers, taking a macro, holistic or sometimes nerdy view on things without really knowing what it is all about.

I will not even try to debunk these myths, but the truth is that right now we're all in the same boat. The outbreak of Covid-19 affects everyone. A virus doesn't stop at borders, a virus does not distinguish between jobs, lockdowns, social distancing, empty shelves in supermarkets, death tolls, reinventing the work-life balance in times of home office and many more. What sounded like the script from a Hollywood movie (I can recommend the 2011 movie "Contagion") at the start of the year has become a reality.

A reality with unprecedented economic consequences.

"It is an abrupt stop of economic activity... a virus-driven ice age"

It started as a supply-side shock, on the back of supply chain disruptions in China, which then turned into a demand-side shock, with first China going into lockdown and then other countries following and has now transformed into a standstill of many sectors of the economy. Recession is not the correct description of what we are currently witnessing. It is an abrupt stop of economic activity, from 100 to zero in just a few days or weeks. A virus-driven ice age.

Governments across the world have to balance health care issues with economic interests. The lockdowns could be compared to a medically-induced coma to 'flatten the curve'. The enormous rescue packages from both governments and central banks are the vital lifelines to make sure the patient is still in good health once brought back to life.

In these times, it's more difficult than ever to come up with adequate economic forecasts. The best we can do is to describe several possible outcomes, based on different scenarios regarding the length of the lockdown and the spread of the virus. As a result, we would like to present four scenarios in this Monthly Update.

Our base case scenario assumes a U-shaped recovery with a wide bottom, as social distancing and travel restrictions are likely to stick, even beyond the lockdowns. After a severe contraction of most economies in the first half of 2020, a subdued recovery would follow, with most economies returning to their pre-crisis levels in 2022. In more adverse scenarios, the return to pre-crisis levels could take until 2023 or even later.

While the different scenarios give some guidance on the economic impact of Covid-19, there are currently many other important issues. Do central banks still have any ammunition left? What is the endgame for fiscal policies? Which eurozone countries are the most vulnerable? Is this the time for a Eurobond? And how would an exit from the lockdown measures come about? Also, at some point in time, the crisis will be over. How will the world look then?

Our Research Team provides some food for thought in this edition of our Economic Monthly Update.

In the meantime, stay healthy.

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Four scenarios for the global economy after Covid-19

US: The only way is up!

 After being crushed through March and April much of the economy will recover once containment measures are eased. However, some parts will continue to struggle and some will be changed forever

Eurozone: GDP contraction to rival great recession

 With most eurozone countries in partial or full lockdown, GDP contraction this year is likely to rival the great recession. While the ECB has ultimately put a big monetary package on the table, a common European fiscal approach still seems far away

China: Draws a recovery roadmap

— China has decided to relax the lockdown of Wuhan city but maintain strict social distancing in most cities. This is the first step to getting the economic recovery back on track. There are also fiscal and monetary policies in place, but will they work?

UK: Economic challenges build, despite bold stimulus

 The UK government's fiscal response has been well-designed, but with the details of some schemes only just emerging, the challenge now will be to channel the money effectively to businesses. An extension to the post-Brexit transition period looks likely

Japan: A 'good' pandemic

 Having kept early coronavirus cases in check, Japan is seeing them rise more rapidly, and lockdowns are possible. Fiscal stimulus equal to 10% or more is being increasingly discussed

FX: In the dollar we do not trust

Given huge adjustments in financial markets, we are now being asked: 'What's mispriced?'. 10-20% declines against the dollar argue that commodity and EM currencies have discounted a lot. When dislocation in USD funding markets is resolved and some calm returns to markets – probably over coming weeks – we will come to see that the dollar is overpriced

Central and Eastern Europe FX: Negative growth, more easing ahead

 All CEE countries should experience negative growth in 2020, with 2Q20 constituting the bottom. All banks in the region are in full easing mode. We expect more cuts from the Czech Republic and QE from Hungary. The pace of the CEE FX sell off should ease as FX interventions loom. The already tightly-managed Romanian leu remains one of the global winners

Rates: Swing low

 Rates have to stay low. They could get there the hard way, from a multi-quarter shutdown - unlikely, fortunately. But even in the dream scenario of a quick return to 'normal', rates need to be kept low. Our base view is in between - the US 2yr hits zero and the 10yr goes below 50 basis points. Any hint of a supply-driven rise in rates will be hammered down by the Fed

How the World's emergency economic measures compare

Fiscal spending to the rescue Monetary policy so far

Your questions answered

When will the lockdown really end?
Which Eurozone countries are the most vulnerable?
Is this the time for a (euro) Coronabond?
How a post Covid world could look
What's the end-game for emergency fiscal and monetary policy?
Countries hit most by the coronavirus value chain shock
Will Covid-19 could leave a legacy of EM sovereign debt distresses?

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Four scenarios for the global economy after Covid-19

In this fast-moving environment, we need to think in scenarios, rather than pretending to know how the economy will evolve over the next 1½ years. We've developed four scenarios of how the virus, the lockdown measures and consequently the different economies could evolve. Needless to say, even these scenarios cannot try to fully predict reality, but we hope they can provide a benchmark for both the extremes and the middle-ground. In each case, we've laid out some possible health factors that may be driving the scenarios - although we'd emphasise these are not meant to be interpreted as forecasts.

Real GDP growth (QoQ% annualised unless otherwise state) and market forecasts

Real obl growth	(404701		Jea am							
Scenario 1 – Base case										
	1Q	2Q	2020 3Q	4Q	FY	1Q	2Q	2021 3Q	4Q	FY
United States Eurozone China (YoY%) Japan United Kingdom	-6.0 -15.2 3.6 -1 -5.5	-40 -16 3.9 -26 -35	22 13 4.0 18 20	10 7.5 4.5 2.0 8.0	-7.0 -5.0 4.0 -4.9 -6.1	5.0 2.5 5.8 0.5 3.5	4.0 2.0 5.9 0.9 2.4	3.5 2.0 5.6 0.9 1.5	3.0 2.0 5.7 0.9 0.5	3.4 3.2 5.8 0.9 2.6
EUR/USD USD/JPY US 10-year yield (%)	1.10 107 0.65	1.12 105 0.50	1.15 100 0.75	1.20 100 0.75		1.18 102 1.00	1.15 105 1.00	1.12 108 1.25	1.10 110 1.50	
Scenario 2 – Winter lo	ckdowns re	eturn								
	1Q	2Q	2020 3Q	4Q	FY	1Q	2Q	2021 3Q	4Q	FY
United States Eurozone China (YoY%) Japan United Kingdom EUR/USD USD/JPY US 10-year yield (%)	-6.0 -15.2 3.6 -1.0 -5.5 1.10 107 0.65	-40 -16 3.9 -44 -35 1.12 105 0.50	22 13 2.0 17 20 1.15 100 0.50	-9.5 -6.0 1.0 -22 -9.0 1.20 100 0.50	-8.1 -5.8 2.6 -11 -7.1	1.0 1.0 1.0 29 4.5 1.18 102 0.50	9.0 5.5 2.0 15 11 1.15 105 0.75	13.5 2.5 4.0 15 5.5 1.12 108 0.75	9.0 2.5 5.0 6.0 3.0 1.10 110	1.2 0.5 3.0 5.0 1.8
Scenario 3 – 'Best case	<u>.</u> '									
	1Q	2Q	2020 3Q	4Q	FY	1Q	2Q	2021 3Q	4Q	FY
United States Eurozone China (YoY%) Japan United Kingdom EUR/USD	-6.0 -15.2 3.6 1.7 -5.5	-24 -4.5 4.5 0.4 -21	15 10 4.8 0.9 20 1.15	6.5 4.0 5.1 0.9 4.0	-3.6 -3.2 4.5 -0.6 -3.1	4.5 2.5 6.0 0.9 1.0	3.0 2.0 6.0 0.9 1.5	3.0 2.0 5.8 0.9 1.0	2.5 2.0 5.9 0.9 1.0	3.4 3.1 5.9 0.9 2.1
USD/JPY US 10-year yield (%)	107 0.65	105 1.00	105 1.25	105 1.50		108 1.50	110 1.75	110 1.75	112 1.75	
Scenario 4 – 'Worst ca	se'									
	1Q	2Q	2020 3Q	4Q	FY	1Q	2Q	2021 3Q	4Q	FY
United States Eurozone China (YoY%) Japan United Kingdom EUR/USD USD/JPY US 10-year yield (%)	-6.0 -15.2 3.6 -1.0 -5.5 1.10 107 0.65	-55 -50 3.0 -47 -46 1.05 110 0.25	-10 -8.0 0.0 -11 -12 1.10 100 0.25	0.0 0.0 -5.0 -19 1.0 1.20 90 0.25	-14.9 -16.1 0.4 -14 -13.1	3.0 4.0 -7.0 27 8.0 1.30 95 0.25	23 30 1.0 21 21 1.20 100 0.50	21 20 4.0 14 17 1.18 102 0.50	9.0 10 6.0 6.0 6.5 1.15 105 0.50	1.2 3.3 1.0 2.0 2.3
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Source: ING (Note most growth forecasts rounded to nearest whole or half number)

Scenario 1: Our base case

We've discussed our base case, and what means for the major economies, in other parts of our latest monthly update. It assumes that the lockdowns eventually manage to flatten the curve, although not entirely. Given socio-economic tensions and the significant economic fallout, the first European governments decide to begin relaxing the lockdown measures at the end of April. Others will follow in May. The return to normality is gradual, and social distancing continues for at least the entire summer.

A proportion of those who can work from home continue to do so for the foreseeable future. Meanwhile places where you can socialise (pubs, cinemas etc) begin to open with strict distancing rules in place. Global travel remains restrictive, but a combination of vaccine development, more widespread testing capacity and higher surge capacity within critical healthcare services, means full lockdowns can be largely avoided if the virus spreads again as we approach the northern winter. As a result, the economic recovery will be u-shaped. Still, most countries will experience a more severe contraction of economic activity than during the financial crisis.

NG base case Assumptions Full lockdowns end by Global travel Home-working summer (varies by country) remains restrictive stays in place where possible Social distancing remains Winter outbreak seen a feature for 6-12 months as more manageable Possible health drivers Critical care Widespread Better contact Progress made testing gives tracing helps on vaccine by surge capacity increases. Certain better data on manage another year-end but not possible winter outbreak without widely available drugs available to outbreak full lockdowns until 2021 help reduce time in hospital Real GDP growth (QoQ% annualized, YoY% for China) 20 13 7 5 20 10 2.5 0 0 -20 -10 -40 US (2020: -7.0%) Eurozone (2020: -5.0%) -40 -60 -20 -15.2 -16 1Q20 2Q20 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q20 4Q20 1Q21 2Q21 8 40 20 China (YoY%, 2020: 4.0%) 6 20 24 4 0 2 -5.5 -20 UK (2020: -6.1%) 0 -40 2Q20 3Q20 4Q20 1Q21 2Q21 1Q20 2Q20 1Q20 3Q20 4Q20 1Q21 2Q21 1Q21 2Q21 4Q21 1Q20 2Q20 3Q20 4Q20 3Q21 US 10Y yield (%) 0.65 0.50 0.75 0.75 1.00 1.00 1.25 1.50 **EUR/USD** 1.10 1.18 1.15 1.12 1.10 1.12 1.15 1.20

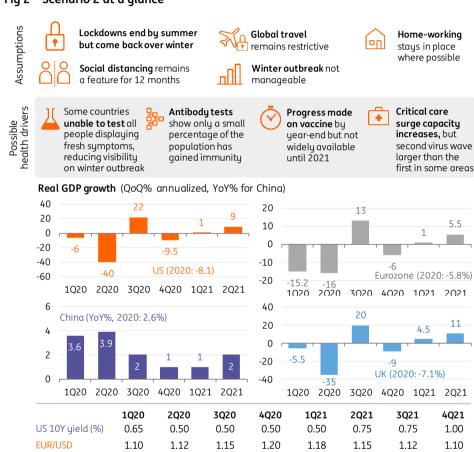
Fig 1 Our base case at a glance

Scenario 2: Winter lockdowns return

This is a slight variation of our base case scenario. It starts off in much the same way, with a gradual easing of lockdown measures in May and June. However, in this scenario, the virus returns in the autumn and despite more widespread testing efforts and contact tracing, the new spread pushes most economies back into lockdown.

Crisis management is more experienced than in Spring 2020 and containment measures could be more tailor-made, keeping some regions, sectors up and running. For indicative purposes, we're assuming it will take until April 2021 before the virus is back under control and economies, as well as societies, begin to return to normality. This is a 'W-shaped recovery'. GDP growth would be lower in 2020 but higher in 2021 than in our base case scenario. However, it may well take until late-2022 before most economies have returned to their pre-crisis levels.

Fig 2 Scenario 2 at a glance



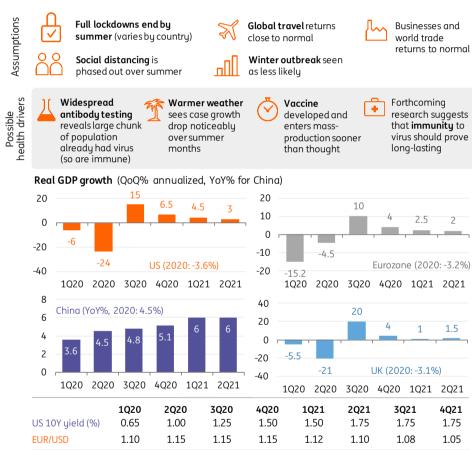
Scenario 3: The 'best' case

In our 'best' case scenario, the Western world follows in the footsteps of China by ending the lockdowns as soon as the curve of new infections has been flattened. A quick return to normality is assumed to materialize towards the end of April. This scenario also assumes that the virus doesn't come back again in the winter, either because a larger-than-expected proportion of people have already had the virus and built immunity, or because control measures become much more effective.

Even so, some economic losses would not be offset immediately. But government measures like guarantees, liquidity support and short-time work schemes foster a quick and strong rebound. Notwithstanding some differences across countries in terms of timing of the end of the lockdown measures. This is effectively a 'v-shaped' recovery scenario.

In this scenario, most economies would experience a mild recession of some 2-3% YoY but growth in 2021 would accelerate, returning most economies to their pre-crisis levels.

Fig 3 Scenario 3 at a glance



Scenario 4: The 'worst' case

To give a sense of how the worst-case scenario for the global economy might look, we assume here that the lockdown measures last until the end of the year. We're assuming that things return to normal from Q2 2021, perhaps if a vaccine is developed and able to be deployed over the winter months. The recovery here may be a little faster and stronger than in the other scenarios, as the virus is assumed to be completely under control. This is an 'L-shaped' recovery scenario. Needless to say, that this is an extreme scenario with lots of economic, social and political turmoil, and one that looks pretty unlikely at this stage.

In this scenario, most economies would experience an unprecedented and almost unimaginable contraction in Q2 2020 of around 50% QoQ annualized. The year 2020 would go down in history books as the year with most severe recessions ever, seeing most economies shrinking at double-digit rates for the year as a whole. The rebound in 2021 would be relatively muted and it would take until 2023 before most economies have returned to their pre-crisis levels.

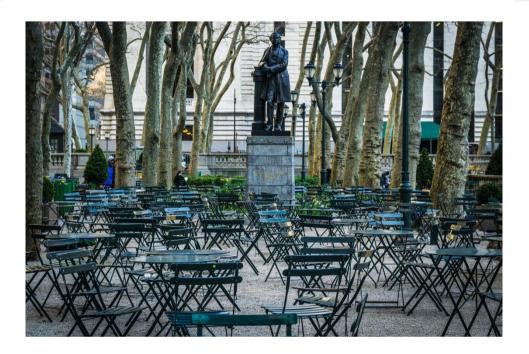
Fig 4 Scenario 4 at a glance



US: The only way is up!

James Knightley

Chief International Economist New York +1 646 424 8618 james.knightley@ing.com After being crushed through March and April much of the economy will recover once containment measures are eased. However, some parts will continue to struggle and some will be changed forever



Containment continues

President Trump has had to ditch his aim of a relaxing Covid-19 related restrictions by Easter. The escalating number of cases and warnings of potentially hundreds of thousands of deaths has meant guidance on limiting social interaction and avoidance of non-essential travel will remain in place until at least 30 April. Three quarters of the US population is under stricter measures with 32 states currently having stay-at-home orders while numerous cities in the remaining states have ordered non-essential businesses to close.

The economic fallout has been immediate. 6.6 million people filed a new unemployment claim in the week of 28 March following 3.3 million claims the week before, as restaurants, bars and retailers shuttered due to the lockdown. With the number of work from home orders increasing and the fact not all jobs can function in such a manner, unemployment will spread across sectors and likely accelerate.

Treasury Secretary Steven Mnuchin raised the prospect of the unemployment rate hitting 20% while St. Louis Federal Reserve President James Bullard talked of unemployment potentially reaching 30%. Such a scenario would mean the number of people out of work rising from a little under six million in February to around 50 million in a matter of months.

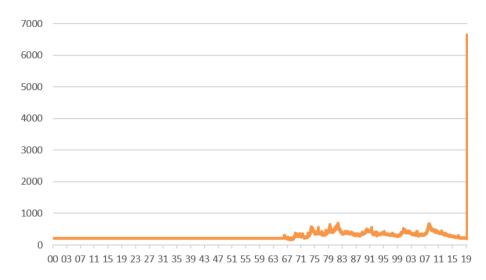


Fig 5 US weekly jobless claims (000s)

Source: CEIC

A wall of money

These fears led the Federal government to quickly approve a \$2 trillion fiscal package. Equivalent to a little under 10% of GDP, it includes measures that offer direct support to both households and businesses while providing another \$130 billion for hospitals and \$150bn extra for state and local governments to help them deal with the healthcare crisis. There is also \$350bn to fund a lending programme for small businesses set up in a way to incentivise keeping workers on the payroll.

Another major thrust is a payment of \$1200 for low and middle-income earners plus an extra \$500 per child. However, for those that have lost their job, this money is not going to last long. Since the national containment restrictions are being extended, thereby limiting the chances of finding work until at least the end of the month, we suspect there will be calls for additional support.

The Federal Reserve has also taken unprecedented action, fearing that financial market distress risked exacerbating the downside for the economy. By pumping trillions of dollars of liquidity into the system, initiating "unlimited" quantitative easing, and announcing special purpose vehicles to buy corporate debt, a sense of orders has gradually returned.

Plumbing the depths

However, we have to remember that the Fed response is about mitigating risks, and the fiscal package is about tiding vulnerable families and businesses over until the virus containment measures end and the economy can recover. They cannot compensate for the steep decline in demand through March and April. Consumer spending outside of grocery and online retail has collapsed while business investment has ground to a halt. Trade has also slowed dramatically while the oil and gas industry is additionally being battered by Saudi Arabia and Russian tensions that is further worsening an already huge supply glut.

We remain hopeful that the virus threat will subside, and we can start to see some relaxation of restrictions in May. However, it won't be an immediate return to "business as usual" with a rolling process of re-opening likely that still involves some form of social distancing. Our best guess is that economic output will fall around 9% quarter-on-quarter through the current quarter. We have pegged the annualised contraction at 35%.

The prospect of a gradual roll back means that job opportunities for the millions of workers laid-off, particularly in the leisure & hospitality, retail and transport sectors will remain somewhat limited and unemployment will be slow to fall. We also have to be cognizant of the risk that numerous companies don't make it through this crisis and many that do will need to restructure. For example, "bricks and mortar" retailers were already under intense pressure from online specialists with the number of bankruptcies on the rise, which will in turn hurt commercial real estate. Should business failures lead to higher non-performing loans this will adversely impact banks and could hurt credit availability, which further limits the scope for a vigorous economic revival. Working from home directives may have lasting implications involving less commuting and fewer physical meetings, hurting the travel and hospitality industries.

Given this backdrop, we tentatively suggest that the economy contracts more than 10% peak to trough, compared to the 4% contraction experienced during the Global Financial Crisis, with the lost output not fully recovered until early 2022.

Inflation and interest rates remain anchored

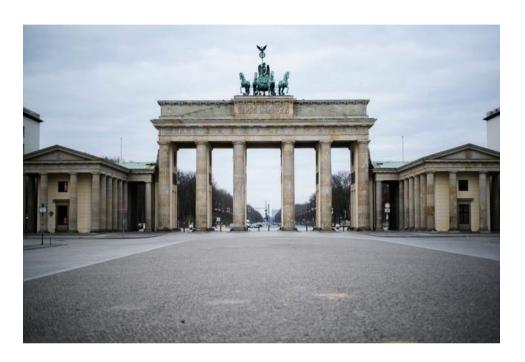
Inflation will be dragged sharply lower in the near term due to the plunge in energy prices with recession intensifying the threat of deflation (although food prices could be an outlier). In this environment bond yields are set to stay low, despite the fiscal deficit breaking above 15% of GDP and government debt surging above 100% of GDP. They will be even more anchored if the Federal Reserve decides to morph its unlimited quantitative easing programme into a more formal yield curve targeting policy.

One thing that is on the rise is President Trump's approval rating - now at all-time highs. Should he manage to navigate the crisis well and the economy rebounds strongly later this year he stands an excellent chance of being re-elected. This will be a worry for China and Europe who will remain in his crosshairs as he seeks to cement his position as a President who brings jobs back to America.

Eurozone: GDP contraction to rival great recession

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Brussels +32 2 547 8009 peter.vandenhoute@ing.com With most Eurozone countries in partial or full lockdown, GDP contraction this year is likely to rival the great recession. While the ECB has ultimately put a big monetary package on the table, a common European fiscal approach still seems far away



Lockdown idles a large part of the economy

While the sentiment indicators for March were bad, they probably can be thrown in the bin immediately. After four months of increases, economic sentiment nosedived in March.

Although the decline was historically large, it probably still understates the actual fall in sentiment, as the survey was conducted between 26 February and 23 March and fieldwork was hindered by containment measures.

"The OECD placed the loss of added value for most Eurozone member states at around 25% per month of lockdown"

We have more faith in the French statistical office INSEE's analysis that estimated the loss of activity by sector during the first week of the lockdown, as well as the loss of demand for each sector. Both the production and expenditure approach point to an economy operating at 65% of capacity. The OECD, using a similar methodology, placed the loss of added value for most eurozone member states at around 25% per month of lockdown.

Derild April April

Fig 6 Consumer confidence crashed in May

Source: Refinitiv Datastream

A better second half won't prevent significant GDP contraction

In our base case, the lockdown will be gradually lifted by the end of April, setting the scene for a recovery in May. However, there will be some negative second-round effects from higher (temporary) unemployment and rising bankruptcies, implying a very negative second quarter.

"We now pencil in a GDP contraction of 5% in 2020, followed by a 3.2% expansion in 2021"

While the rebound in the second half of the year is likely to be strong, it might take until the summer of 2022 before we catch up with the pre-crisis production levels. We now pencil in a GDP contraction of 5% in 2020, followed by a 3.2% expansion in 2021.

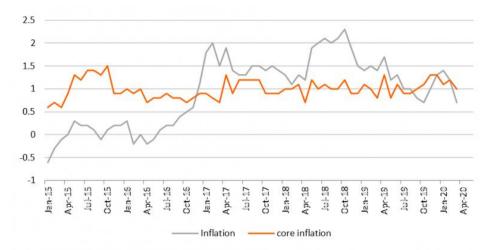
While some think that the supply shock might push inflation higher, we believe that falling demand will keep inflation at bay.

No unity on a common approach

The reaction of authorities has been rather swift. The general escape clause of the European Union's fiscal framework was activated to allow member states to disregard fiscal constraints to be able to fully respond to the economic challenges. On average about 2% of GDP stimulus has already been decided upon.

Whether this will be sufficient to compensate for the economic fallout remains doubtful, but European leaders have thus far failed to come up with a common European approach. The bone of contention remains a common debt instrument, a formal proposal by nine member states.

Fig 7 Inflation comes down again



Source: Refinitiv Datastream

'Crossing the Rubicon' moment

Meanwhile, the European Central Bank has morphed back into "whatever it takes" mode.

In the first instance, the ECB came up with a thoughtful response, loosening the conditions for banks to get ultra-cheap funding (even below the deposit rate) through the TLTRO III, to avoid a credit crunch. As markets' reaction was lukewarm the ECB decided in an emergency meeting to put in place the Pandemic Emergency Purchase Programme, allowing the bank to purchase for €750bn worth of sovereign and corporate bonds. Greek bonds will now also be included as well as commercial paper.

"If the ECB buys according to capital keys, it might temporarily pass the issuers limit for Germany but since the German government has decided to go big on fiscal expansion, the ECB holdings of German debt is likely to fall below 33% again in 2021"

With the PEPP (even though it allows some flexibility), together with the existing programmes, the ECB is now likely to buy more than €100bn a month in assets for the remainder of the year. The ECB will continue to use the capital key for the ultimate distribution of the purchases, although it decided to junk the issuer's limit, something that might trigger new complaints at the constitutional court in Karlsruhe.

While some saw this as a "crossing the Rubicon" moment, the reality is more prosaic. If the ECB buys according to the capital keys, it might temporarily pass the issuers limit for Germany. However, as the German government has decided on big fiscal expansion, the ECB holdings of German debt is likely to fall below 33% again in 2021.

China: Draws a recovery roadmap

China has decided to relax the lockdown of Wuhan city but maintain strict social distancing in most cities. This is the first step to getting the economic recovery back on track. There are also fiscal and monetary policies in place, but will they work?

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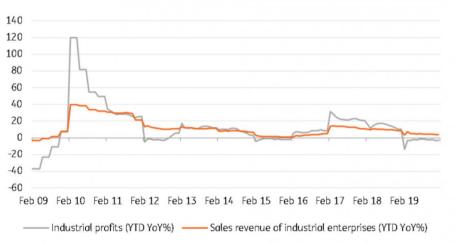


First step to recovery

The Chinese government sees unlocking Wuhan as an important first step to economic recovery. But there are still very strict rules on social distancing and distance learning for students. So domestic demand will recovery, but only gradually.

Global supply chains are disrupted in Europe and the US, and so is global demand. As we assume in our base case that the global lockdown will only last until early May, the damage should be manageable by Chinese manufacturers and exporters who have been given extensions in fee payments and loan repayments.

Fig 8 China industrial profits fell to levels similar to the global financial crisis



Source: ING, Bloomberg

Roadmap for a full recovery

A roadmap for a full recovery was developed by China when it was hit by Covid-19 in February, and this is becoming clearer now.

The recovery plan involves 'New Infrastructure' projects, as shown in the graphic in the Q&A section. Not everything will be done by the government, some will be implemented by the private sector. These new projects lay out the necessary soft and hard infrastructure that China will need to succeed in the future digitalised world.

Stimulus to avoid recession

In terms of government support, fiscal stimulus will range between 6.5% to 8% of nominal GDP in 2020, which will include tax and fee cuts, to prevent the economy falling into recession.

China's sovereign bonds will be bought by the country's corporate treasuries until the end of April, but then some of them will switch from government bonds into investment grade corporate bonds as the market recovers in the second quarter.

PBoC protects the financial system

For now, the central bank has to make sure that a deterioration in credit overseas does not lead to tighter liquidity and more difficult credit conditions in China. More frequent and stronger-than-expected rate cuts should prevent this from happening. But if there is a deterioration in credit, the recovery plan will clearly be delayed.

Downgrade growth forecast

We expect GDP growth at 3.6% year-on-year in the first quarter. Fiscal stimulus should avert a year-on-year recession but cannot prevent a slowdown from falling global demand. Our GDP forecast for 2020 is revised downward to 4% from the previous forecast of 4.2%. The recovery plan may be able to boost GDP growth in the second half of the year, but it is still too early to tell.

The yuan's path will follow the dollar. There shouldn't be any delays to outward remittances as capital outflow pressures will not be high. USD/CNY could reach 7.25 by the end of 2Q20 and reach 6.9 by the end of 2020.

UK: Economic challenges build, despite bold stimulus

James Smith

Economist, Developed Markets London +44 20 7767 1038 james.smith@ing.com The UK government's fiscal response has been well-designed, but with the details of some schemes only just emerging, the challenge now will be to channel the money effectively to businesses. An extension to the post-Brexit transition period looks likely



The UK's coronavirus crisis has yet to peak

The UK is at an earlier point in the coronavirus crisis than some of its European neighbours. But despite some hope that the rate of case growth may be stabilising, the unfortunate likelihood is that the crisis still has further to run. And this means the current period of lockdown, due currently to be reviewed in mid-April, is likely to be much longer-lasting.

If nothing else, the ability to test and implement more-widescale contact tracing will be key to reopening economies globally, and in the UK's case, it hasn't thus far been able to match the rate of testing seen in Germany and parts of Asia.

Logistics are the main challenge for the Chancellor

However, the UK's economic response to the crisis has undoubtedly been bold. Alongside a raft of Bank of England easing measures, the Chancellor has introduced a large loan guarantee scheme for small businesses, and as well as a 'job retention' scheme designed to pay 80% of a firm's wage bill for furloughed staff.

"One big challenge for Chancellor Rishi Sunak is that unlike other European countries, many of these new schemes are not part of the existing toolkit"

There are a range of other measures too, to protect firms' cashflows. But like we've seen in the US, the sheer speed at which the crisis is taking hold is alarming. The number of people signing up for unemployment benefits has soared, and that means the success of the Chancellor's crisis response will be judged just as much in the implementation, as in the design.

One challenge for Chancellor Rishi Sunak is that many of these new schemes are not part of the existing toolkit. Unlike other European countries for example, a job retention scheme hasn't been attempted before and as a result will take a bit longer to implement. Firms will receive the wage payments from the government from the end of April, with the hope that in the meantime employers will take advantage of the loan quarantee scheme to bridge the time gap.

However, the early evidence from accountants <u>suggests around a fifth of small and medium-sized firms</u> may not eligible for the loan guarantee scheme. There is also likely to be a chunk of firms that are too large to benefit from guaranteed loans, but too small (or not sufficiently credit-worthy) to benefit from schemes such as the Bank of England's commercial paper purchasing facility.

We'll have to wait for data on the take-up on the government's broader range of actions. But while the Chancellor's response has arguably been well designed, and the hope is it should still help foster a faster recovery at the end of all of this, there will still undoubtedly be a long-lasting impact on unemployment and the medium-term size of the economy.

An extension to the post-Brexit transition period looks likely

This all means that an extension to the post-Brexit transition period, beyond the end of this year, now looks inevitable. The timeline already looked tight to negotiate a free-trade agreement, and the current health-crisis undoubtedly gives the government some political breathing space to make an extension request.

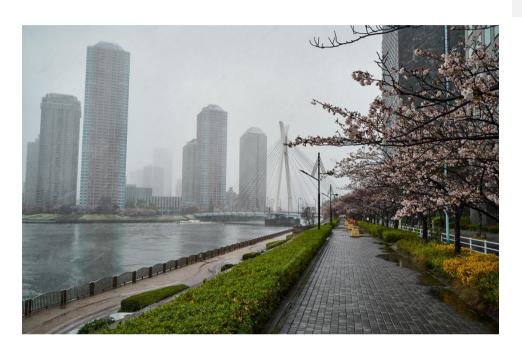
<u>A recent poll conducted on behalf of Best for Britain</u> indicated roughly two-thirds of people were in favour.

Under the terms of the withdrawal agreement, the UK has until 30 June to negotiate a two-year extension. That would still require Britain to accept ongoing budget payments to the EU - a thorny issue - but in the end, we wouldn't be surprised to see an extension quietly announced over the next couple of weeks.

Japan: A 'good' pandemic

Rob Carnell

Regional Head of Research, Asia-Pacific Singapore +65 6232 6020 rob.carnell@ing.com Having kept early coronavirus cases in check, Japan is seeing them rise more rapidly, and lockdowns are possible. Fiscal stimulus equal to 10% or more is being increasingly discussed



No Japanese lockdown (yet)

So far, Japan has had what you might call a 'good' pandemic. After having been one of the earliest arrivals on the Covid-19 league table, Japan currently sits at the lower end of the rankings, with fewer confirmed Covid-19 cases than Poland, a country with a population about half as big.

As a result, Japan has avoided having to take many of the same decisions that other countries with higher rates of infections have had to.

There is no lockdown. Yet. And the day-to-day economy is functioning fairly normally relative to elsewhere. But the number of new Covid-19 cases is now picking up more quickly, and given the experience of other countries, a confirmed case total of 2000 today can quickly turn into a confirmed case total of 8000 in only a week.

This would probably be a game-changer for Japan. Tokyo at least might need to be placed on lockdown, and possibly other major cities too. That would lead to a substantial and abrupt deterioration in economic activity as we have seen elsewhere. Indeed, our base case now assumes that this is what happens, and the resulting loss of activity in 2Q20, even assuming that the lockdown ends swiftly in May enabling activity to recover, takes GDP down to about -4 to -5% for the full year.

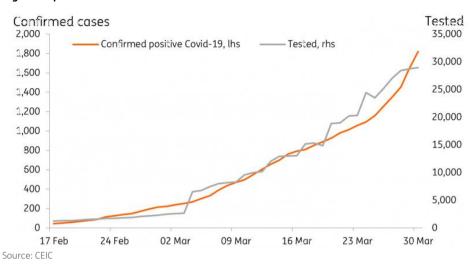


Fig 9 Japanese cases

Stimulus coming, but Japan has limited room to manoeuvre

The government is already talking up the numbers of the fiscal stimulus plans it will implement, and a new emergency budget may be unleashed within days. Headlines suggest something around the 10% of GDP mark (and rising). It is usual for much of this to comprise soft loans and guarantees, and our assumption is that the real spending and real tax cut content of the package will not be anything like as big, perhaps only 2% of GDP.

On the one hand, Japan, with a debt-to-GDP ratio of more than 300% has no room to manoeuvre on a stimulus package. On the other hand, failure to support the economy with spending now could lead to a greater loss of potential growth for the future, which is probably even worse. Moreover, there is no more fiscal credibility to be lost, so the arguments for prudence are very feeble.

The Bank of Japan likewise will continue to talk up its support for the economy and will supply liquidity as needed and maintain low bond yields as it has been doing for years. Buying ETF's will also continue in the absence of other channels for BoJ stimulus. But there will be no material change in the scale of BoJ support for the economy. This is a central bank that has been practicing unorthodox monetary easing since 2001. It isn't about to discover untapped sources of stimulus now.

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FX: In the dollar we do not trust

Given huge adjustments in financial markets, we are now being asked: 'What's mispriced?'. 10-20% declines against the dollar argue that commodity and EM currencies have discounted a lot. When dislocation in USD funding markets is resolved and some calm returns to markets – probably over coming weeks – we will come to see that the dollar is overpriced



Two factors driving dollar strength, both temporary

Foreign exchange markets are normally described as the most efficient in the world meaning that, in theory, everything is the right price. Our job as FX analysts is to understand which markets will adjust in future

Of the myriad factors at work in currency markets right now, we chose to focus on two: i) USD funding challenges and ii) a mass exodus in portfolio flows from emerging markets.

The first is the well-documented breakdown in the US Commercial Paper (CP) market, which occurred around 11/12 March. Credit risk became of paramount importance to investors around the world, including in the CP market. Investors switched money out of Prime and into government money market funds, preferring public over private-sector risk. The move deprived the CP market of its biggest buyers (Prime funds), shut one key source of short-term USD funding for banks and corporates and triggered a global hunt for dollars.

We expect the dislocation in dollar funding markets to improve over coming weeks. The Fed has addressed the international demand for dollars through new and enhanced USD swap lines with 14 central banks around the world. And more importantly, the Fed is in the process of directly supporting CP through a re-introduction of its Commercial Paper Funding Facility scheme in April. It may take some time for these measures to bear fruit, but the dollar rally on the back of this dislocation looks temporary.

On the second point, the Covid-19 shock has understandably triggered a mass exodus from emerging markets. The amount of portfolio capital leaving emerging markets since

late February dwarfs that seen during the summer 2013 'taper tantrum' and looks to match that seen during the GFC crisis.

Sharp repatriation from emerging markets typically sees the dollar rally – on the assumption that dollar-based EM investors who revert to cash or redemptions from those funds need to be repaid in dollars. And looking at the events of the GFC, investors took portfolio (debt and equity) assets out of EM for three consecutive months (Oct-Dec 08) and only felt confident enough returning in April 2009 shortly after the Federal Reserve had expanded quantitative easing to include US Treasuries, and the G20 had 'saved the world' with a US\$1.1 trillion rescue package, particularly targeted at trade credits.

When will investors feel confident enough to return to emerging markets? One cannot know for sure, but we suspect that investors will selectively return to emerging markets much sooner than they did during the GFC crisis. Though this is an unprecedented shock, policymakers have moved fast to flood the market with liquidity and design fiscal support packages to ameliorate the downturn. Investors will start buying into asset markets well ahead of the low-point in activity. And the Fed's QE measures to drive investors out of the credit curve also contain the unwritten objective of driving investors out of the dollar.

In short, we think the fast and aggressive policy response will mean that it does not take investors six months to rekindle their interest in emerging markets. Instead, as 2Q20 progresses we suspect flows to emerging markets resume and upside pressure comes off the dollar.

Massive EM portfolio outflows temporarily lift the dollar 100 800 104 Mid March USD funding squeeze triggers a broad dollar rally.... 45 80 850 4 60 900 102 40 950 3.5 20 1,000 100 3 0 1.050 2.5 98 -20 1,100 -40 1,150 2 96 -60 1,200 15 -80 1.250 94 1 -100 1,300 2/1/20 31/1/20 29/2/20 29/3/20 Jan 05 Jan 07 Jan 09 Jan 11 Jan 13 Jan 15 Jan 17 Jan 19 - Trade weighted dollar (LHS, DXY) Total portfolio flows tracker (\$ bn, monthlu) ---- 90 day Private Sector USD Funding costs (RHS %, Commercial Paper A2) Bloomberg trade weighted dollar (RHS Inverted)

Fig 10 USD funding problems and EM portfolio outflows temporarily lift the dollar

Source: Bloomberg, IIF, ING.

What's cheap in G10 FX?

As above, some of the biggest casualties against the dollar over the last six weeks have been the commodity currencies. Based on our Behavioural Equilibrium Exchange (BEER) rate model, these now look cheap against the dollar. A slight caveat, however, in that this is a quarterly model and when the next set of terms of trade data is available and lower commodity prices are added in, the commodity segment will not look quite as cheap.

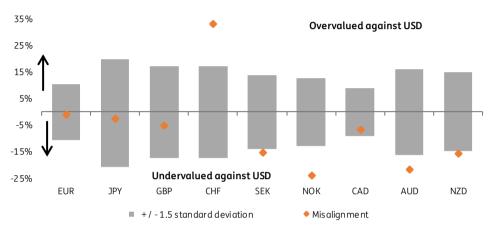
In any case, we would not be looking for the dollar to turn against the commodity FX segment first. Instead, the next move in this cycle should be a dollar depreciation against the defensive currencies such as the Japanese yen, Swiss franc and euro. In fact, the yen and the franc were net stronger (albeit marginally) against the US dollar in 1Q20, which was quite an impressive performance.

As outlined in our BEER framework below, neither the JPY nor the EUR is particularly expensive against the dollar right now and we can see the USD/JPY and EUR/USD pairs embarking on moves towards 100 and 1.15+ respectively through 2Q20.

Sterling is probably caught somewhere in the middle between the defensive pairs and commodity FX. The UK's large current account deficit and exposure to the financial sector do not help. But UK Gilts are proving one of the few safe havens in the fixed income world and if the UK's transition arrangement with the EU is to be extended after all, then GBP/USD should be rallying into the summer as well.

Fig 11 ING's BEER model for medium-term FX valuation against the dollar

%, Real exchange rates misalignments vs their BEER fair value. Bilateral G10 FX mis-valuation against USD



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Central and Eastern Europe FX: Negative growth, more easing ahead

All CEE countries should experience negative growth in 2020, with 2Q20 constituting the bottom. All banks in the region are in full easing mode. We expect more cuts from the Czech Republic and QE from Hungary. The pace of the CEE FX sell off should ease as FX interventions loom. The already tightly-managed Romanian leu remains one of the alobal winners



CEE growth: 2Q20 should constitute the bottom

As small open economies, the CEE countries are feeling the heat of the Covid-19 crisis via collapsing demand both domestically and globally. With world trade coming to a halt, weaker domestic exchange rates no longer act as an offsetting factor to weaker domestic growth. We expect all CEE countries to show negative growth in 2020 (Figure 1), with fiscal stimulus (in Poland worth as much as 9% of GDP for example) only softening the blow. Hungary is expected to experience the least negative growth (-0.8% year-on-year) among CEE countries in 2020, while Romania will feel the biggest hit (-6.6% YoY). As for the growth trajectory, 2Q20 should constitute the bottom, with some modest rebound in the second half of this year.

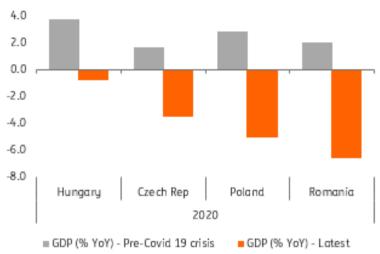


Fig 12 Downgrading CEE growth significantly

Source: CEE central banks: Shaking up the status quo

For the CEE central banks, the Covid-19 crisis heavily altered the status quo in terms of their reaction functions. The Czech National Bank, arguably one of the most hawkish central banks globally, has already slashed interest rates by 1.25% and is contemplating a soft version of quantitative easing. In contrast, one of the most dovish central banks globally up until now, the National Bank of Hungary, has lagged its CEE peers, refraining from rate cuts and QE and only providing targeted lending - perhaps due to the currency consideration. We expect the NBH to join the chorus of global central banks and eventually embark on QE, thus supporting the local bond market. In contrast, a lot seems to be already discounted in Czech and Poland (with the National Bank of Poland already embarking on aggressive purchases of domestic bonds), with the market looking for further cuts, in excess of 50bp. The CNB is likely to deliver more cuts while for the NBP, the bar to cut rates is higher.

%, of GDP, CEE central banks FX reserves

70%

60%

30%

40%

20%

Czech Poland Hungary Romania

Fig 13 CNB benefits from vast FX reserves

Source: CEE Central Banks

CEE FX: Entering the second (and more moderate) phase of the sell-off

As for FX, we see the CEE currencies entering a second (and more moderate) phase of the sell off, with local central banks contemplating FX interventions. The National Bank of Romania is already in full intervention mode, the CNB delivered a verbal intervention, while the NBP is likely to step into the market too, should it be necessary. In contrast, we see a high bar for NBH FX purchases, suggesting that the Hungarian forint could be relatively more vulnerable in falling markets (particularly if the NBH may yet embark on QE). In contrast, the CNB's large scale firepower in the form of its huge FX reserves (Figure 2) should now stop the koruna's underperformance vs its free-floating CEE FX peers. In falling markets, the tightly managed RON should continue to be a CEE winner and one of the global outperformers.

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Rates: Swing low

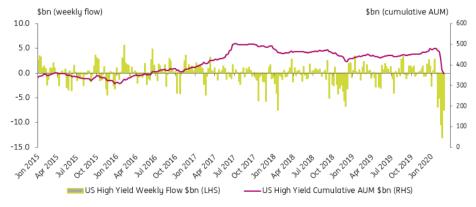
Rates have to stay low. They could get there the hard way, from a multi-quarter shutdown - unlikely, fortunately. But even in the dream scenario of a quick return to 'normal', rates need to be kept low. Our base view is in between - the US 2yr hits zero and the 10yr goes below 50 basis points. Any hint of a supply-driven rise in rates will be hammered down by the Fed



Flight to safety got us here

A mad dash from risky assets explains the bulk of the fall in core market rates seen in the past month. The chart below illustrates the remarkable outflow from high yield, and similar outflows can be gleaned from emerging markets, investment grade credit and equities. No surprise against this backdrop that core market rates literally collapsed, and especially US rates, which had more room to fall.

Fig 14 Capitulation outflows from High Yield corporates



Source: EPFR Global, ING estimates

Risky assets have stabilised of late, but we continue to see a lower rates bias as a dominating outcome in the coming weeks, and perhaps months. Part of the rationale centres on the likelihood that risky assets wobble in the period ahead, and during such periods there will be an appetite for the safety of government bonds as a cash parking alternative.

Big QE plus small CPI equals low rates

Add to that the considerable weight of central bank buying through quantitative easing (QE) programmes and there is an irresistible force in play that keeps core rates under wraps. This QE episode is unique in the sense that it is not just massive but is simultaneous and seemingly as open-ended as it needs to be. It also spans developed and many emerging markets.

On top of that, the lockdown measures in place mean significant demand reduction, and in consequence is seen as a deflationary impulse. We see this in market inflation breakevens too, e.g. the current market discount for US inflation is 0.5% per annum for the next five years, and the eurozone market discount is between zero to 0.25% per annum. These are remarkably benign market discounts for inflation.

"We eye the 2yr US yield hitting zero and we see the 10yr peppering 50bp, and likely dipping below"

There are some counter arguments. For starters, real rates are negative along the curve out to 10 years, and deeply negative in the eurozone. Deep negative real rates suggest that nominal market rates are too low. They probably are, but the weight of central bank demand together with massive central bank holdings are acting to keep rates hammered down.

The net outcome is for low and even lower rates to obtain in the coming period. We eye the 2yr US yield hitting zero (now 25bp) and we see the 10yr peppering 50bp (now 65bp) and likely dipping below. At the same time, the German curve can dip back down to the -100bp to -50bp area along the 2yr to 10yr segment. Yes, these are crisis levels. But well justified as we are still in mid crisis mode.

Curvewise, the narrative for much of the second quarter is one of curves shifting lower and flatter, with the US curve seeing a floor at zero in the 2yr.

But some eye-popping supply is coming

Once we get to a re-opening process, expect to see market rates come under a different dark influence: high bond supply. With the US deficit set to rocket to over 15% of GDP in the near term, the size of the bond issuance required to finance this will be substantial.

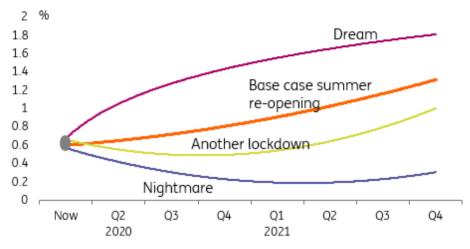
The most likely prognosis is for a supply-driven re-steepening of the curve to dominate through the third quarter, with the 10yr Treasury yield targeting a break back up to 1+% by the turn of the year. Even though a decent rump of the extra issuance will be concentrated in bills, the bigger directional pressure would be felt in longer dates, especially if this coincides with re-building inflation expectations.

Whether the curve re-flattens from the front end in the fourth quarter will depend on the degree of market credibility attached to a rate hike process in 2021. Certainly, the Federal Reserve would be keen to reverse as much of the emergency measures as possible, and in particular to move the funds rate off zero. That would be enough to see the curve re-flatten from the front end by 4Q 2020, with the 2yr heading back above 0.5% in anticipation.

From nightmare to dream with the likely base for yields in between

A range of routes for the US 10yr yield are illustrated below. The best case "dream" scenario is also the least likely, so focus on the other three for a good guide. Our base case is in orange.

Fig 15 Potential path for the US 10yr yield in the coming quarters



Source: Bloomberg, ING estimates

The point estimates for our US base case scenario are summarised below, adding projections for the 10yr German yield. Here, we have a re-opening in the summer, and we return to a new 'normal'. As you can see, that new normal does not see yields getting much above 1.5% in 2021.

Fig 16 Most likely scenario - The shutdown comes to an end by summer

	2020				2021				
	Now	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
US 10yr yield (bp)	0.7	0.50	0.75	0.75	1.00	1.00	1.25	1.50	
German 10yr yield (bp)	-0.5	-0.6	-0.5	-0.5	-0.4	-0.4	-0.2	-0.1	

Source: Bloomberg, ING estimates:

Here, the 10yr Bund yield peppers the -50bp area for most of 2020, bearing in mind that even on a re-opening there is ongoing macro angst to withstand.

A less likely (but not improbable) counter scenario is one where we see another lockdown as we face the 2020/21 flu season. The main outcome of this is for the US 10yr yield to remain at 50bp or lower through much of 2020 and does not make its way back up to 1% until 4Q 2021. Here the 10yr Bund yield deepens to the -60bp area and does not make it above -50bp until end 2021.

Fig 17 Worse than the base case - Another lock down in the fall/winter

	2020				2021				
	Now	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
US 10yr yield (bp)	0.7	0.50	0.50	0.50	0.50	0.75	0.75	1.00	_
German 10yr yield (bp)	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	-0.5	-0.4	

Source: Bloomberg, ING estimates

By the same token, should we see the other extreme where the lockdown remains in place on a multi-quarter profile, then the 10yr has a 25bp tendency for the second half of 2020, and only edging back up to 50bp in 2021 (by which time, a virus solution is found). For the eurozone, this translates to the -70bp area as a theme through 2020/21.

Fig 18 Nightmare scenario - Multi-quarter shutdown till vaccination found

	2020				2021				
	Now	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
US 10yr yield (bp)	0.7	0.25	0.25	0.25	0.25	0.50	0.50	0.50	
German 10yr yield (bp)	-0.5	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	

Source: Bloomberg, ING estimates

If there were a quicker return to normal than implied in the base case, then the 10yr would head to 1.5% by the fourth quarter 2020. It would still be held down by the collateral damage done by the lockdown, implying that a break back above 2% would not be likely. Here, we see the 10yr Bund yield edging back towards zero as a theme for 2021.

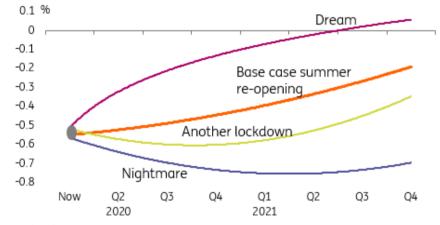
Fig 19 Dream scenario - Quick return to "normal"

	2020				2021				
	Now	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
US 10yr yield (bp)	0.7	1.00	1.25	1.50	1.50	1.75	1.75	1.75	
German 10yr yield (bp)	-0.5	-0.4	-0.2	-0.1	-0.1	0.0	0.0	0.0	

Source: Bloomberg, ING estimates

Below is a summary of the aforementioned scenarios, with a focus this time on the path for German yields in the quarters ahead.

Fig 20 Potential path for the German 10yr yield in the coming quarters



Source: Bloomberg, ING estimates

Why rates need to stay low for 2020

One of the striking aspects of these rates views is they are bounded by extremes of zero to 2% for the US 10yr, and so whichever way we go, we see maintenance of low core market rates as a natural outcome. And the German 10yr is bounded by -1% and zero. But in a sense, this is also a desired outcome in order to secure recovery. In that vein, should the US 10yr rate break back above 2%, we'd suggest that the Federal Reserve would manage them back down, assuming that such a break above 2% was detrimental to the recovery.

"And that's why rates need to be kept under wraps, whether by design or 'default"

In our base view, market interest rate management, if required, is not an improbable development. Anything to soften the default risk that is bound to evolve as we progress through 3Q and into 4Q. This default risk would extend from the personal sector and into the corporate sector. A classic deep recession would see high yield defaults in the 5% to 10% area. This one will be at the upper end of that zone. The two deeper negative scenarios entertained here would take it comfortably into double digits.

And that's why rates need to be kept under wraps, whether by design or 'default'.

How the World's emergency economic measures compare



Fiscal spending to the rescue

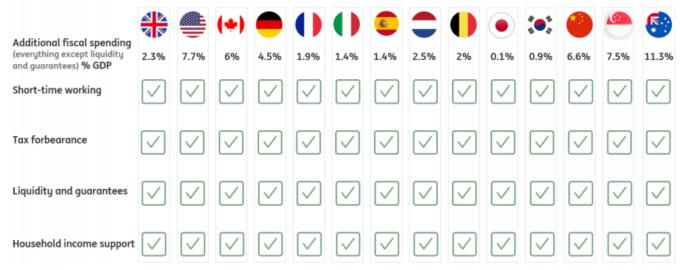
The pandemic has caused governments around the world to announce emergency measures to battle the economic fallout. Governments have learned from the global financial crisis and have taken relatively similar relief measures. Differences are large in terms of size though, which is likely to be key

Globally, measures taken by governments to mitigate the economic impact of the Covid-19 crisis all roughly follow similar lines.

Support has been given to keep people at work, taxes have been deferred, various forms of household income support have been granted and liquidity and guarantees have been provided to make sure that healthy businesses do not go bankrupt in the period of restrictive economic measures and its aftermath. Differences in size are large though, with countries like Australia spending a share of GDP in double-digits, while Japan spending just 0.1% of GDP.

It's not easy comparing these numbers as spending takes different forms over different timeframes and neither are the lines always clear between guarantees, loans and cash out fiscal stimulus.

Fig 21 Fiscal measures are similar around the globe, but very different in size and details



Source: ING

Monetary policy so far

Monetary policy has been quick to react to the Covid-19 outbreak, and in many cases central banks are pretty much 'all-in' with their efforts to support the economy. The table below shows what's been done so far across the major central banks, and what might still be possible.

Fig 22 Central bank actions so far

	Rate cuts	QE	QE assets	Commercial paper purchases	Counter-cyclical buffer cut	Targeted loans to banks	Other schemes	What's still possible?
Federal Reserve	↓ 150bp	Unlimited	Treasuries, MBS	Yes	-	-	Corporate bond buying program	Extend QE to other assets (corp. bonds or equities). Negative rates not considered
European Central Bank	No	EUR120bn euro + EUR750bn PEPP	Euro sovereign bonds, corporate bonds	Yes	Yes	Yes, TLTROs, LTROs, dual rates	Collateral rules eased, tiering system for deposit facility, invtied banks not to pay dividends	More QE, rate cuts, purchases of bank bonds, ETFs
Bank of Japan	No	No target changes, text tweaked to "active" buying	Stepped up existing ETF and J-Reit purchases	Yes, increased upper limits of CP and Corp bond purchases	Already 0%	Yes, 1-year zero interest rate loans for commercial banks	No	Debt monetization through annulling direct JGB holdings
People's Bank of China	↓ 30bp	No	No	No	No	Yes - aimed at SMEs	Permitting delay of loan repayments	Counter-cyclical buffer cut
Bank of England	↓ 65bp	£200bn	Gilts, corp. bonds	Yes	Yes (to 0%)	Yes - aimed at SMEs	Collateral rules eased	Negative rates ruled out. More QE possible
Bank of Canada	↓ 150bp	C\$5bn/week	Government bonds	Yes	Yes	-	Purchasing mortgage bonds, banker's acceptance and provincial money market securities	Expand & extend QE to include other assets. Negative rates unlikely
Reserve Bank of Australia	↓ 50bp	In pursuit of 0.25% 3Y yield target, so in principle, unlimited	Gov't bonds, semi- gov't bonds	No	Already at 0%	Yes, AUD90bn Term funding facility	Forward guidance - OCR not to be raised until inflation target met	Outright purchases of bank paper
Reserve Bank of NZ	↓ 75bp	Yes, up to NZD30bn in next 12 months	Government bonds	Not outright, repo only for Asset backed CP	n/a	Not yet, term lending hinted as possible	OCR will not be raised for 12M - guidance	Mildly negative rates, interest rate swaps
Riksbank	No	SEK300bn	Govt, municipal, covered bonds	Yes	Yes (to 0%)	Yes	Collateral rules eased	Cut repo rate into negative again
Norges Bank	↓ 125bp	No	No	No	Yes (to 1%)	Yes	Threatened NOK intervention. Collateral rules eased	Negative rates & QE not viewed as feasible
Swiss National Bank	No	No	No	No	SNB has submitted a proposal requesting to reduce the buffer to 0%	-	FX interventions and a new SNB COVID-19 refinancing facility, aimed at strengthening supply of credit	QE or rate cut possible if FX interventions aren't enough to limit appreciation of the Swiss franc (not our base case)

Your questions answered

- When will the lockdown really end?
- Which Eurozone countries are the most vulnerable?
- Is this the time for a (euro) Coronabond?
- How a post Covid world could look
- What's the end-game for emergency fiscal and monetary policy?
- Countries hit most by the coronavirus value chain shock
- Will Covid-19 could leave a legacy of EM sovereign debt distresses?

When will the lockdown really end?



In some countries which have not yet seen the peak in infections, there have been calls for a quick exit from the lockdown measures. The social and economic costs of the lockdown have been deemed by some as too severe to justify the strict social distancing measures. Also, as the weather improves and the Easter break arrives, it will be harder to keep people at home. Supporters of this view also cite the potential adverse impact on mental health from an indefinite lockdown period. This balancing act, between containing the virus outbreak and limiting the social-economic costs, will become more complicated and steer the debate about how and when to exit the lockdown.

Earlier this week, the Danish government was the first government in Europe to announce a possible end to the lockdown measures after Easter.

In general, before any government removes emergency measures, we would anticipate seeing the following criteria:

- 1) New case numbers falling for a sustained period (say 14 days).
- 2) Health services are able to deal with cases that require hospitalisation without recourse to emergency measures field hospitals, military support etc.
- 3) In a position to fully test potential cases, trace and test their contacts, and monitor them.

A movement to a less restricted environment is likely to be a gradual process but could enable a phased move back to work for some businesses and a relaxation of social distancing measures. For bigger countries, this could be phased in regionally.

A difficult balancing act

In much the same way that countries around the world responded gradually to the Covid-19 outbreak and with a view to their own national circumstances, it is reasonable to expect that most countries will emerge from the emergency measures they have imposed at a time and a speed that is determined primarily by what is happening in their own countries, rather than what is happening at a global level.

But we can make some general assumptions:

- 1) First in, first out: The countries that were first exposed to Covid-19 are also the furthest along the pandemic curve and will be the first to be able to remove restrictions on travel and individual movement. We are already beginning to see this in China. South Korea may follow. In time, some of Europe's current hotspots could see an infection peak before countries such as the US.
- 2) Second-wave: A second wave is always possible as restrictions are relaxed, and if imported cases are not prevented by maintaining stringent immigration controls.
- 3) The global view is important: Where countries have limited the spread of the infection with tight testing, tracing and isolating policies, along the lines recommended by the WHO (Singapore, Hong Kong), restrictions may need to remain in place longer, until either the global situation is less threatening, or effective treatment has been developed. Until then, they remain islands of potential infection.

A difficult balancing act between the desire to restrain the virus with a need to restart the economy may almost inevitably lead to some restrictions being eased prematurely. Seasonality of the virus, if this turns out to be a feature, may also encourage premature easing and second waves of infection before a sustainable easing of restrictions is possible.

Where countries see new cases begin to rise again or see a rise in non-traceable cases, they will have to re-implement restrictions. Such reversals could spur a social backlash and pushback against restrictions, which may start to be ignored and lose their effectiveness.

When will it really end?

The return to something that resembles genuine 'normality', at which point we could reasonably say the pandemic is over, will probably not take place until:

- 1) Such a large proportion of the population has been infected with the virus that herd immunity exists (80%+).
- 2) An effective vaccine has been established (consensus view is a 12-month horizon).
- 3) Effective treatment for the conditions caused by the infection has been established.

None of the three conditions above can be taken for granted. There is no vaccine to the common cold - another coronavirus. And immunity on the basis of prior infection may not be total, or long-lasting (as with the common cold), so herd immunity may not be a feasible or realistic goal.

There are few specific effective treatments for respiratory infections, and the best hope for treatment may rest with the family of antivirals such as Remdesivir. Trials are underway. Production and licensing issues may slow take up and use.

In short, in our base case scenario, social and economic pressure will be at such high levels that some European countries will try to ease some of the lockdown measures at the end of April. It may not be until May/June before countries now suffering large-scale infections in Europe (later for the US) are in a position to ease back their restrictions on travel and movement.

It may take until the end of the year or the New Year before countries are operating closer to 'normality'.

Which Eurozone countries are the most vulnerable?



The health crisis in Spain and Italy is the most severe of all eurozone countries. What's more, southern eurozone economies are especially vulnerable to the economic effects of such a shock. A stronger fiscal response could be necessary to limit the lasting damage.

Lasting damage

The most important factor to judge the severity of this crisis is not necessarily the depth of the GDP decline but whether there is any lasting damage to the economy. The chances of a V-shaped recovery differ between eurozone countries because of factors such as company size, exposure to tourism, the share of vulnerable workers and the cushioning of automatic stabilisers.

As the lockdown measures taken to counter the virus make it impossible to travel for leisure, the immediate growth impact will be larger for countries with a large tourism and travel sector. Tourism is particularly important in Italy and Spain, accounting for at least 13% of GDP and about 15% of total employment. Within the eurozone, Cyprus, Greece and Portugal are the three countries with the largest tourism and travel sector. Even though the spread of the virus, at the moment, is relatively limited in these three countries, the growth impact will be large. As fear of travelling will probably last longer than the pandemic itself, it is difficult to expect an immediate recovery once the lockdown measures are lifted. Research from the World Travel and Tourism Council shows that the average recovery time for visitor numbers to a destination after a major viral epidemic is about 19 months, which suggests that the recovery is unlikely to be V-shaped for the countries that heavily depend on tourism.

The labour market

The structure of the labour market can also make a country more vulnerable to the Covid-19 shock. Workers in the informal sector have no social protection and are more difficult to reach with targeted measures, while self-employed and temporary workers generally have lower social protection. Moreover, a high share of temporary workers make the labour market more cycle-sensitive, meaning that a large number of people can become unemployed in recessions. Here too, Spain and Italy are among the countries that do not score well. These two countries are in the top four in terms of the share of self-employed and temporary workers. The Spanish experience from the Great Recession gives reason to worry. The unemployment rate rose to 26% in 2013 partly due to the high share of temporary workers pre-crisis, and even though some labour market reform has taken place, temporary workers remain vulnerable.

Company size and tax systems

Another interesting angle to judge the sensitivity of an economy to the Covid-19 shock is to look at the size of companies. Smaller companies generally have limited financial, managerial and technological resources. It is, for example, more difficult for small firms to respond to the crisis with technological solutions such as telework. Academic research shows that smaller and younger enterprises are more vulnerable to exogenous shocks. Here too, southern countries are in a bad position as they have a high share of small companies.

The impact of an economic shock is also dependent on the fiscal system. Tax and benefit systems cushion economic shocks, on average about 35% of the impact on household incomes is absorbed by the tax and benefit system in the EU, according to the European Commission. This differs a lot by country though. Austria sees 45% of an income shock absorbed by automatic stabilisers, closely followed by Ireland, Luxembourg, Finland and Germany. At the bottom of the list ranks Estonia, Spain and Malta, but also Greece and Slovakia have a shock absorption of under 30%. Italy ranks just above that, also below average. This indicates that the social safety net in most northern economies is more developed than in the southern economies, adding to the vulnerability.

South more vulnerable than the north

Southern eurozone economies seem to be more vulnerable to this economic shock than the northern member states. The larger exposure to tourism, smaller automatic stabilisers, larger share of vulnerable workers and higher chance of bankruptcies due to firm size all contribute to an uneven recovery once the virus retreats and restrictive measures are lifted.

Steven Trypsteen

Is this the time for a (euro) Coronabond?



The political will to pool risk across the eurozone with a common Coronabond is not there, yet. As a result, debt mutualisation will continue through the backdoor

Credit, where credit is due

In the current crisis, almost all European governments have reacted much faster and more aggressively than they did during the financial crisis. Whether it has been the measures to limit the outbreak of the virus or the measures to limit the adverse effects on the economy, the policy response has been unprecedented. The fiscal rules of the Stability and Growth Pact will be suspended and almost all governments are providing quarantees and liquidity, labour market support and outright fiscal stimulus.

"The main problem is that the eurozone's ability to tackle the crisis is - to some extent - determined by the public finances of each country"

Governments were quick to act even as the European Central Bank was prevaricating, with President Christine Lagarde initially arguing that it was not the ECB's responsibility to narrow spreads between government bond yields. But while individual countries have followed similar patterns, they have not really coordinated their efforts. Looking ahead, the lack of a pan-eurozone fiscal reaction increases the risk that the euro debt crisis will return, once the dust from the current crisis has settled.

The main problem is that the eurozone's ability to tackle the crisis is – to some extent – determined by the public finances of each country. Right now, there is undoubtedly a strong political will to allow for higher deficits and debt. But the risk is that this disappears once the crisis is over. Fiscal rules will be re-established, forcing highly indebted countries to put in place austerity, further feeding populism and anti-European sentiment.

At the same time, doubts about debt sustainability will resurface, leading to a widening of spreads. Eventually, this could lead to a return of the euro crisis.

Coronabonds, Covid-19 perpetuals, ESM credit line?

The economic discussion is often mixed with a political discussion about (the lack of) European solidarity. We don't want to go down that route and rather stick to the economics. When looking at the options for how to avoid a new crisis on the back of the current fiscal measures, a distinction between liquidity and solvency problems needs to be made, that is, if liquidity problems can eventually become solvency problems and vice versa. However, this distinction is essential in the current debate, with several options being discussed:

Coronabonds

The ultimate option would be to introduce a Covid-19 perpetual Eurobond or a Coronabond. This would be a one-off Eurobond, exclusively linked to financing the fiscal policies to tackle the current crisis. It would be a common bond, which brings back the old controversy about the advantages and disadvantages of debt mutualisation. To keep it short here, we will skip a repetition of these arguments. As setting up a structure to issue common bonds would take a lot of time, a potential shortcut could be to introduce this via the European Stability Mechanism. The ESM would actually issue this Coronabond and hand over the proceeds to the member states. Another advantage is that it would probably be easier for the ECB to increase the issuer limit for a supranational entity (like the ESM) than for individual member states, which would imply that the ECB could fund this bond for the large part, if not entirely. However, barring such implicit monetisation by the ECB, a Coronabond would not necessarily improve debt sustainability, it would only make any future debt forgiveness easier as it distinguishes between Covid-19 related debt and legacy debt.

Covid-19 perpetuals

A national solution which eventually could be turned into a European solution. Eurozone countries could agree to issue perpetual bonds up to a certain percentage of GDP. A Covid-19 perpetual bond. Currently, the average fiscal stimulus in eurozone countries is around 2% of GDP. The ECB could then buy these bonds to a certain extent, without risk-sharing: this means that the credit risk lies at the level of the national banks, also implying that the largest chunk of the interest income remains

within the national bank of every member state. Hence, financing costs would ultimately be low. Issuing national perpetuals in a coordinated manner could be one pragmatic step away from Eurobonds, actually implying some form of monetary financing.

ESM credit line

A so-called enhanced conditions credit line (ECCL) from the ESM's precautionary credit line toolkit could be another way to tackle financing problems. Such a credit line does not require a debt sustainability analysis beforehand and would give countries access to a credit line of up to 2% of GDP. It could be crafted to only finance Covid-19 related expenditures. However, the disadvantages of an ECCL are short maturities, stigma and the inter-governmental structure of the ESM, which could complicate decision-making. Also, an ECCL would be a country-by-country solution to a common shock, adding to possible divergence across the eurozone, unless all eurozone countries decide at the same time to collectively apply for an ECCL. It would be the preferred solution of the countries opposing the common bond or some form of debt mutualisation.

No debt sustainability without debt monetisation or writedowns

To be clear, without central bank buying, all three options mainly tackle possible liquidity problems and would keep funding costs low. However, none of the options would reduce the debt burden itself, nor the deficit. Therefore, some kind of debt monetisation, such as permanent refinancing of the bond (which in the case of a perpetual means keeping it on the balance sheet forever) or eventually debt write-downs would have to take place.

"Some kind of debt monetisation, such as permanent refinancing of the bond or eventually debt write-downs would have to take place"

The suspension of the fiscal rules, European Investment Bank funding and the ECB's Pandemic Emergency Purchase Programme, as well as the ESM and the ECB's Outright Monetary Transactions, are the best firefighting brigade that the current eurozone setup has to offer in order to address the speculation about a new euro crisis.

The political willingness to take the next step of debt mutualisation is not there, yet. As a consequence, debt mutualisation through the backdoor will continue and the ECB's 'low for longer' will eventually become a 'low forever', as well as perpetual refinancing of the ECB's sovereign bond holdings.

In fact, it will eventually be a trade-off between debt mutualisation and 'low-interest rates and QE forever'.

Carsten Brzeski, Peter Vanden Houte

How a post Covid world could look



Low interest rates for even longer or maybe even forever, and ballooning government balance sheets will shape the post Covid-19 era. But that's not all. The health crisis may have fundamentally altered the structure of our economy

End of the world as we know it?

While all of the focus right now is on how to solve the health crisis, flatten the curve of infections and tackle the adverse economic impact from the lockdowns, there will be a time after the crisis. A time when normality returns. The question, however, is whether this is the same normality or whether we are currently witnessing the end of the world as we know it.

As discussed in other sections of our Economic Update, there will be an aftermath to the economic emergency measures. Low interest rates for even longer or maybe even forever and ballooning government balance sheets will definitely shape the post Covid-19 era. In the eurozone, heated discussions about the adverse effects of the ECB's unconventional measures, as well as tensions over debt sustainability and the right macro policy prescription, are likely to return with a vengeance. But there is more. Based on recent experiences during the Covid-19 crisis, more structural changes also look likely. Here are some of those potential changes.

1. Narrowing the wage gap

For some, getting sick means going on paid leave and retaining access to high quality healthcare services. For others, especially those with part-time contracts, it means either losing their job or having no or limited access to healthcare services. However, it wouldn't be surprising to see higher wages for healthcare workers, as demand for their services peaks and supply shrinks, not least because of lower cross-country mobility as a result of lockdown measures. The crisis has (at least temporarily) redefined the term systemic-relevant employees. We could also see higher wages for low-wage service workers, and perhaps even larger (unconditional) basic income schemes. Gig economy workers could be hit hard though. In Italy and Germany, between 2.5 and 5% of the working population gets at least 50% of their income from the sharing economy. The gender pay gap may get worse, as women might be forced to take time off work to look after loved ones.

2. Social distancing here to stay

Pandemics often come in waves and social distancing is one of the key tools to manage the spread. These measures will remain in full force, even when this immediate outbreak is over. This could potentially have a significant impact on social life, sports and culture but also on the way we work. Just think of working in cubicles and flex desks. Will this still be possible with continued social distancing? Will the increase in people working from home reduce the demand (and prices) for office space? Will social distancing and the fear of future pandemics reverse the entire trend of the sharing economy? Will there be a renaissance of private cars? More broadly, will this be a turning point for urbanisation – at least in the developed world? These are just some of the many questions that remain to be answered in the coming weeks and months.

3. De-globalisation

We don't know if the coronavirus pandemic means the end of globalisation yet, but it is highly unlikely that we will return to business as usual. Global trade will suffer the most and perhaps even make a comeback at some point. However, since countries have been exposed to the fragilities of global supply chains (e.g. medical equipment hoarding), they'll have to learn how to cope with long periods of economic self-isolation, especially as pandemics often come in waves. Also, around the world, there have been several rather nationalistic reflexes in dealing with the crisis; be it export bans on face masks, attempts to buy foreign companies, which are trying to find a vaccine, or simply considering stopping foreign companies on domestic soil from exporting crucial materials.

4. Next steps for digitalisation

As working from home accelerates, there will be higher demand for internet bandwidth, but also higher concerns around cybersecurity, which ultimately could push authorities to boost the speed and resilience of digital infrastructure. Platforms for all kinds of experts as well as platforms to provide social services should receive more interest as a result of the crisis. Moreover, we wouldn't be surprised if consumers were to make more use of contactless payments and reduce their use of cash going forward, perhaps even in those countries where cash is king, like the US and Europe.

Carsten Brzeski

What's the end-game for emergency fiscal and monetary policy?



The last few weeks has seen an unleashing of fiscal and monetary firepower that overshadows that seen during the global financial crisis. Some central banks have cut rates to levels never previously reached. Others have reverted to quantitative easing. Still others have started unorthodox measures for the first time ever. This monetary firepower is nothing though compared to the weight of fiscal stimulus measures.

These stimulus packages are growing by the day but seem to be converging on rates equalling or in some cases, exceeding 10% of GDP. Fiscal deficits for these countries, as a

proportion of GDP, will be much larger still, as tax revenues collapse along with the GDP denominator. We're mulling deficits in the 25% GDP range for some major economies, including the US and Japan. But despite huge existing piles of debt, governments and central banks know they must spend now, and worry about the consequences later, or risk losing a huge chunk of their normally productive economies, forever.

The experience of the global financial crisis has shown that unorthodox monetary policy is something of an "event horizon", from which there is seldom a straightforward return. A good case in point would be the ECB, which took until 2018, ten years after the financial crisis, to stop its own QE programme, but never managed to shake off negative deposit rates and is now back on QE. Sweden's Riksbank too has famously tried to return to normalcy, raising its repo rate to zero in December 2019. That timing looks spectacularly ill-fated now. Japan has been in this situation since at least 2001 and there is almost no chance of them pulling away from the vicious circle of low (negative) rates and low productivity that seems to be gripping most major nations (Japanification). Only the US successfully flirted with a return to normal monetary policy in 2018, and that didn't last long either, though they did better than most.

Part of the problem here is the non-linearity and non-symmetry of monetary stimulus. At low (even positive rates) policy stops having a beneficial impact, and indeed can become detrimental to growth. But it doesn't seem that raising rates back again is actually beneficial, taking central banks to the "damned if you do, damned if you don't" black-hole of monetary policy. That looks likely to be the experience of many central banks currently trying to help their governments by lowering their borrowing costs as they try to spend their way out of the crisis.

Fiscal policy is no less easy a way out, though in the short-term, it provides a much bigger lift to the economy, so it is clear why so many governments are making it their principal tool given the paucity of monetary ammunition available to many of them.

But the problem with a 10% stimulus package this year, is what to do the following year? Failure to replicate means a switch from fiscal boost to fiscal drag. And like any drug, going "cold turkey" after a massive fiscal binge will rarely end happily. So governments tend to keep spending just to stay out of technical recession. It doesn't take too many years of this to end up like Japan, and debt-to-GDP ratios in excess of 300% - with no credible possibility of ever conventionally returning to sub-100% levels.

This spending can't be avoided though. Which begs the question, is there another way? A number of economists think there is. Though it is crossing a rubicon of conventional orthodoxy that can probably never be undone, and that may be why there is so much hesitation.

The answer is monetary financing of the deficit. In its most innocuous form, this could entail a nation's central bank converting its direct holdings of government securities purchased through quantitative easing, into non-interest bearing perpetual bonds. This is almost the same as saying that the debt has been annulled, but avoids the central bank having to write off its capital and perform yet another monetary conjuring trick of recapitalising itself with printed money. It is though, without the same fanfare, equivalent to what is otherwise called "helicopter money". Such policies had already been considered a likely endgame for economies such as Japan. Now, most economies will find themselves in a similar position. So if not now, when?

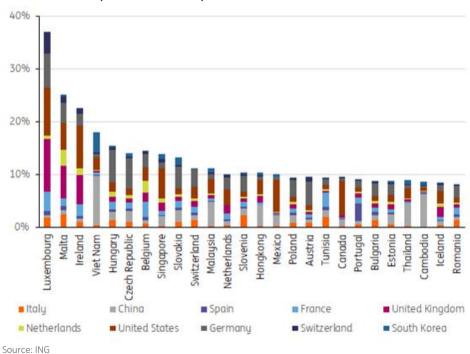
Robert Carnell

Countries hit most by the coronavirus value chain shock



In today's globalized world many companies participate in the value chain of a product. Economies have become increasingly vulnerable to shortages in the supply of intermediates caused by external factors like a fall out of production due to an event like Covid-19. Supply shortages especially hurt if it is difficult to source these products from an alternative supplier.

Fig 23 Top 25 countries most dependent on inputs from top ten countries most hit COVID19 (number of deaths)



In the current situation it is Covid-19 that has caused a lockdown in many countries. Our chart shows that small open economies in Europe and Asia are most dependent on inputs from countries that are hit most by the virus. The countries that have suffered most from the virus in terms of absolute casualties are also among the largest suppliers of world markets of exported goods and services. Luxembourg, Ireland, Singapore and Vietnam are among the most vulnerable countries, our calculations show. Of the G10, Canada ranks highest, given its high exposure to the United States.

It should be said that the type of exposure shown in the chart is non-linear. A small, low value, input can shut down an entire supply chain if unavailable elsewhere.

Small open economies also suffer from Covid- 19 through their export channel due to the fall out demand in countries that are in lock down. Among the larger (G10) economies, Germany has the most exposure to outfall of foreign demand, followed by Canada

The above does not mean that closed economies are by definition better off in this crisis. Whether a country is better off depends to a large extent on the economic severity of the damage caused by the lockdowns to contain the outbreak of the virus in their country itself. Relatively closed economies like the US are not as vulnerable as small open economies from disruptions in global value chains, but as this crisis shows, can be hard hit as well

Click here to read a more detailed version of our value-chain analysis

Raoul Leering, Timme Spakman

Will Covid-19 could leave a legacy of EM sovereign debt distresses?



Aside from significant socioeconomic challenges and the negative economic impact, many emerging markets countries have relied on portfolio flows. With the onset of the crisis, inflows we have seen over most of 2019 suddenly turned into hefty outflows, with investors having removed US\$83bn up to 23 March according to the IMF. Further challenges come for those countries that have overly relied on commodity exports and tourism, resulting in weaker fiscal revenues and current account balances.

Why have concerns on public debt sustainability and external vulnerabilities risen?

The policy space to support the economy differs hugely across emerging markets and it is here that we also look at public debt sustainability. Notably, we expect a spike in public debt ratios as many countries will run higher fiscal deficits (lower revenues and higher spending) while growth is coming in much lower. There are two additional pressure points worth mentioning: First, financing costs are increasing to reflect a higher risk premium, stretching budgets further. Second, many emerging market governments have borrowed in FX. With EM currencies having come under pressure recently (-9% based on J.P. Morgan EMCI), the local currency value of FX-debt outstanding and debt service is increasing.

Where do we see signs of sovereign debt distress?

Since the start of the year, the amount of EM US\$-denominated bonds trading above 10% yield has more than doubled from around US\$90bn (10% of bonds outstanding) at the start of the year to currently US\$190bn (21%). Many of those have been hit hard by the commodity price shock while for others, the current crisis exacerbates already weak public debt sustainability. For now, concerns are concentrated around frontier markets rather than larger emerging markets economies. Based on market pricing, we find signs of debt distress for Angola, Argentina, Ecuador, Gabon, Lebanon, Sri Lanka, Surinam, Tajikistan and Zambia as well as to a lesser extent for Ghana, Iraq, Nigeria and Oman.

Where could relief come from?

The IMF and World Bank have set up emergency funding programmes of US\$50bn and US\$12bn, respectively, with more on the way. Both institutions have also issued a joint statement calling for debt payment suspensions from bilateral creditors for World bank IDA countries with an invitation to G20 leaders to make assessments and an endorsement sought by the 16/17 April virtual Spring Meetings. On the one hand, multilateral support and debt relief could ease the pressure for some sovereigns while on the other hand, there is a risk that private sector investors will be asked to bear a share of the burden.

Leaving debt distresses aside, what else is important to watch?

Over the last week, rating downgrades have come through, mainly affecting commodity producers as fiscal and external vulnerabilities increase. However, we have also found a large divergence in those, with some Middle Eastern and CIS sovereigns boasting strong buffers (Azerbaijan, Kazakhstan, Kuwait, Qatar, Russia, Saudi Arabia and the UAE) while others are more vulnerable (including Angola, Nigeria and Oman). Among the larger emerging market economies, Mexico and South Africa were also downgraded mainly on lower growth prospects in the former and public debt sustainability concerns in the latter.

Trieu Pham

Fig 24 ING global forecasts

			2020F					2021F		
	1Q	2Q	3Q	4Q	FY	1Q	2Q	3Q	4Q	FY
United States										
GDP (QoQ%, ann)	-6.0	-40.0	22.0	10.0	-7.0	5.0	4.0	3.5	3.0	3.4
CPI headline (YoY%)	1.9	-0.9	-1.3	-1.3	-0.4	-0.9	1.5	1.8	1.8	1.0
Federal funds (%, eop)1	0.25	0.25	0.25	0.25		0.25	0.25	0.50	0.75	
3-month interest rate (%, eop)	1.45	0.85	0.75	0.6		0.55	0.5	0.75	0.95	
10-year interest rate (%, eop)	0.65	0.50	0.75	0.75		1.00	1.00	1.25	1.50	
Eurozone										
GDP (QoQ%, ann)	-15.2	-16.0	13.0	7.5	-5.0	2.5	2.0	2.0	2.0	3.2
CPI headline (YoY%)	1.1	0.6	0.8	1.0	0.9	1.3	1.4	1.4	1.4	1.4
Refi minimum bid rate (%, eop)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
3-month interest rate (%, eop)	-0.340	-0.350	-0.350	-0.400		-0.400	-0.400	-0.400	-0.400	
10-year interest rate (%, eop)	-0.47	-0.50	-0.40	-0.35		-0.25	-0.20	-0.20	-0.15	
Japan				·						
GDP (QoQ%, ann)	-1.0	-27	18	1.8	-5.0	0.5	0.9	0.9	0.9	0.9
CPI headline (YoY%)	0.5	-0.1	0.5	0.3	0.3	0.7	1.2	0.9	0.7	0.9
Excess reserve rate (%)	-0.1	-0.1	-0.1	-0.1		-0.1	-0.1	-0.1	-0.1	
3-month interest rate (%, eop)	0.00	0.05	-0.05	-0.10		-0.05	-0.05	-0.05	-0.05	
10-year interest rate (%, eop)	0.00	-0.20	-0.10	0.00		0.00	0.00	0.00	0.00	
China										
GDP (YoY%)	3.6	3.9	4.0	4.5	4.0	5.8	5.9	5.6	5.7	5.8
CPI headline (YoY%)	5.0	4.5	3.5	2.4	3.9	2.0	2.2	2.5	2.5	2.3
PBOC 7-day reverse repo rate (% eop)	2.2	2.0	2.0	2.0		2.0	2.0	2.0	2.0	
10-year T-bond yield (%, eop)	2.60	2.45	2.50	2.60		2.70	2.80	2.90	3.00	
UK										
GDP (QoQ%, ann)	-5.5	-35.0	20.0	8.0	-6.1	3.5	2.4	1.5	0.5	2.6
CPI headline (YoY%)	1.7	0.8	0.8	1.2	1.1	1.4	1.9	1.9	1.8	1.8
BoE official bank rate (%, eop)	0.10	0.10	0.10	0.10		0.10	0.10	0.25	0.25	
3-month interest rate (%, eop)	0.6	0.3	0.3	0.3		0.3	0.4	0.4	0.4	
10-year interest rate (%, eop)	0.35	0.2	0.4	0.5		0.8	0.9	1.1	1.3	
EUR/USD (eop)	1.10	1.12	1.15	1.2		1.18	1.15	1.12	1.10	
USD/JPY (eop)	108	105	100	100		102	105	108	110	
USD/CNY (eop)	7.20	7.25	7.00	6.90		6.80	6.70	6.60	6.50	
EUR/GBP (eop)	0.89	0.89	0.88	0.85		0.85	0.85	0.85	0.85	
Brent Crude (US\$/bbl, avg)	53	20	35	45	38	50	60	60	63	58

GDP forecasts are rounded to the nearest whole/half number, given the large magnitude and uncertainty surrounding our estimates Source: ING forecasts

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