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Will inflation become a 'monetary phenomenon' again?

Special

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Summary

- Despite negative rates or trillions worth of QE, inflation has remained stubbornly low as most of the factors underlying low inflation are beyond the central bank's control
- But the current crisis might be a catalyst for a radical change towards a more organized economic system. If so, could inflation then become a monetary phenomenon again?
- We look at three separate layers of additional inflation: the 6-foot economy, de-globalization, and increased coordination between fiscal and monetary policy
- While low inflation remains our base case, these factors bear close watching

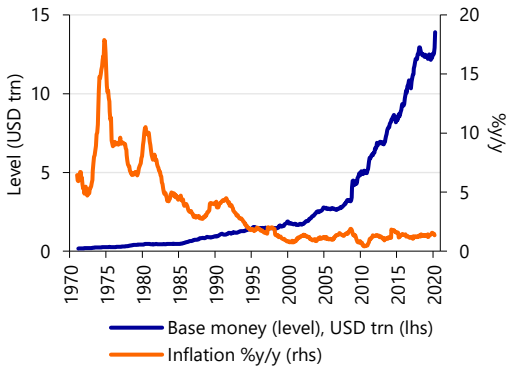
*"**Inflation is always and everywhere a monetary phenomenon** in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output [...] A steady rate of monetary growth at a moderate level can provide a framework under which a country can have little inflation and much growth. It will not produce perfect stability; it will not produce heaven on earth; but it can make an important contribution to a stable economic society"*

Milton Friedman in The Counter-Revolution in Monetary Theory (1970)

Lowflation: a one-way bet?

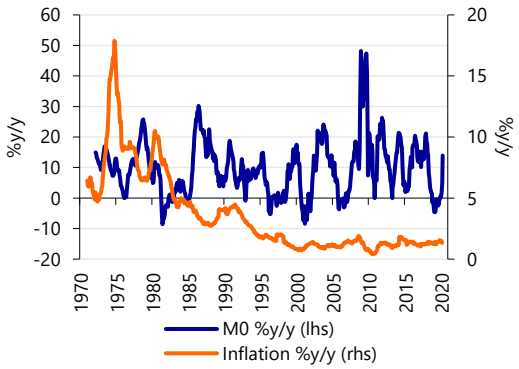
Milton Friedman and his monetarist following have long been making the case that an excessive expansion of the money supply is inherently inflationary. But the experience since the 1970s, and the last decade in particular, has actually been quite the opposite. The global monetary base has been increased by several multiples, yet inflation is really nowhere to be seen. In spite of the monetarists' predictions, inflation has been the dog that didn't bite. It didn't even bark, really.

Figure 1: Not much of a monetary phenomenon



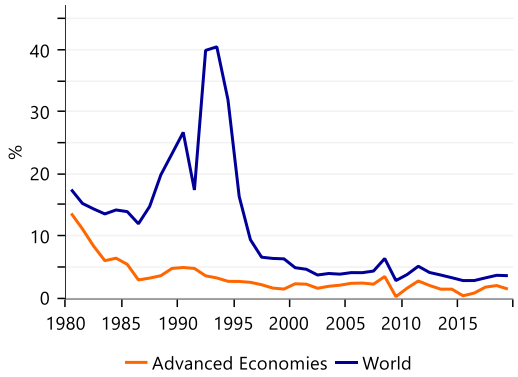
Note: Aggregate for US, Eurozone, Japan and UK; Base money in USD, core inflation BBP-weighted average
Source: Macrobond, Rabobank

Figure 2: Nor here!



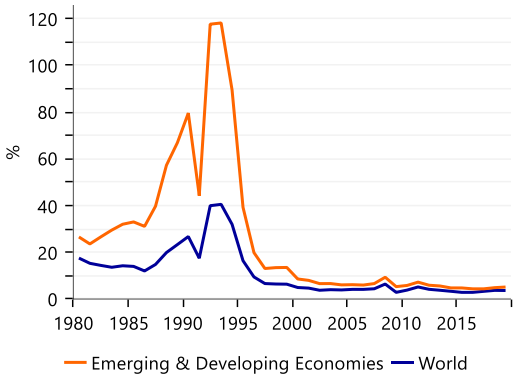
Aggregate for US, Eurozone, Japan and UK; Base money in USD, core inflation BBP-weighted average
Source: Macrobond, Rabobank

Figure 3: Inflation in advanced economies has been below 5% since 1985



Source: Macrobond, IMF WEO

Figure 4: And the developing world hasn't seen a figure above 10% since 1999

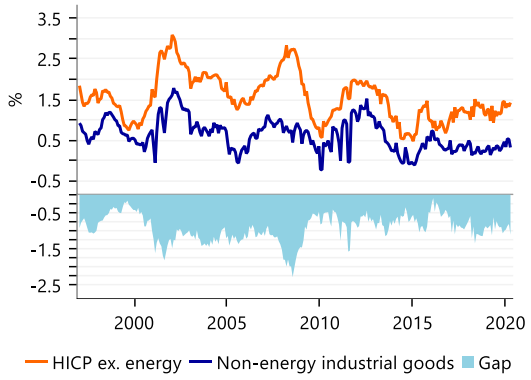


Source: Macrobond, IMF WEO

There have been a number of explanations for low and falling inflation. To name a few:

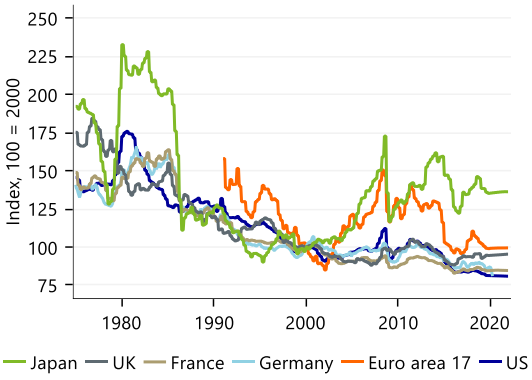
- **Central bank independence and inflation-targeting.** In order to minimize the "inflation bias" of monetary policies, many governments have provided their central banks with an increasing degree of legal independence. This trend was first apparent among advanced countries –and in 1990, the RBNZ was the first to formally adopt inflation-targeting as we now know it– and then it spread towards emerging and developing countries. Whilst inflation-targeting has had a strong impact on reducing inflation expectations, this structural shift towards independence has been a necessary but not yet sufficient condition to produce lower inflation.
- **Wage moderation.** There have also been a number of significant changes to labour markets and its institutions since the 1980s. Strongly unionized manufacturing industries have declined, and employment in these sectors has effectively been replaced by less organized employment in private services. This broke the wage-price spirals. Meanwhile, emphasis on inflation targeting, including wage growth as a precursor and of market forces in general, all increased throughout advanced countries, alongside a series of deregulatory policies, a continuous drive for shareholder value, and concerns over "international competitiveness".
- **Positive supply shocks.** The rise of the Asian economies and the increased openness of international trade has provided the global economy with a big positive supply shock, leading to a steady inflow of cheap goods. The rise of technological advance and *just-in-time delivery* combined with simple and/or complex *global value chains* led to a rise in efficiency levels, contributing to falling prices or low price pressures in internationally traded goods. This, in turn, kept inflation rates in advanced economies well below what it would otherwise have been. This is illustrated in figures 5 and 6.
- **Inflated asset prices.** From the mid-2000s and starting in Japan, the expansion of the monetary base accelerated. Many other central banks joined the party after the GFC and gradually increased their presence further down the credit curve, fuelling asset prices rather than some real economy 'animal spirits'. After all, more expensive houses implies less money to spend on goods and services. These programmes have also been linked to rising inequality and, hence, an increased preference for saving in (quasi-)financial assets rather than investing in real assets. There is a lot of idle money *not* chasing a lot of goods, basically.
- **Focus on 'sound' government finances**. The neoliberal 'household model' of government finances appears to be common sense, but misses the crucial point that government deficits are effectively a mirror image of private sector savings. A too narrow focus on government deficits is unnecessarily restrictive most of the time and has led to periods of sustained underspending. Policy makers seem to have missed that monetary policy is definitely not the only game in town.

Figure 5: Euro area goods price inflation consistently below average since mid-1990s



Source: Macrobond

Figure 6: Import prices have generally fallen vis-à-vis overall GDP deflator*



*) This is obviously influenced by FX rate developments as well. Here: import price deflator divided by GDP deflator
Source: Macrobond

The narrative of structural disinflation has been incredibly strong, despite the equally persistent fears of the monetarists. But the last few years' convulsions of populism have already flagged that we're likely to see some structural changes. Because rather than sustainable and widely shared prosperity, economic neoliberalism is increasingly seen as having produced wage stagnation, working poverty, and ever more wealth inequality.

The current crisis might therefore be a catalyst for a radical change towards a more organized, less liberal, economic system. If so, could inflation then become a monetary phenomenon again?

… or is Covid-19 a watershed?

In *Looking beyond the Covid-19 crisis*, we explained that this crisis presents the global economy with complex interactions between supply and demand shocks. We also found that supply may not return to pre-pandemic levels for a longer time, as certain activities remain subject to limitations. Job and income losses by households and lower investment by businesses following the lockdowns were also mentioned as factors that are likely to extend the recovery. The effects on economic growth beyond the short-term horizon are less obvious, but there are potential 'scarring' effects caused by structural shifts in the labour market, global trade, lower private R&D investment, lower entrepreneurship and increased 'zombification'.

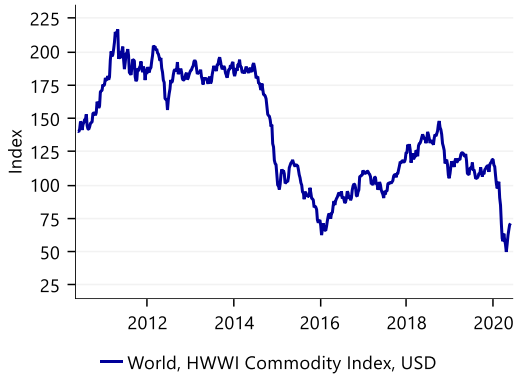
We have to look at inflation through the same prism, as this pandemic has markedly different implications in the short- and the long-term.

Short-term: further disinflation ahead

The short-term impact of Covid-19 shock is likely to be deflationary: for the time being, we will effectively see a continuation of the old pattern.

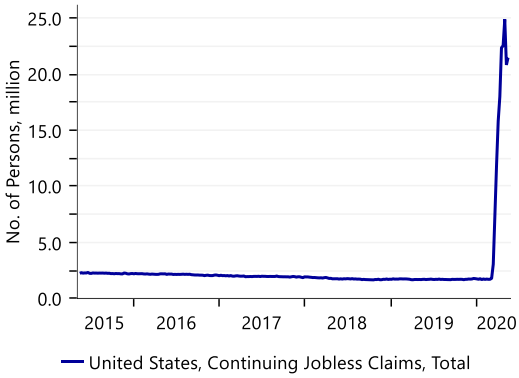
Most prominently, commodity prices have fallen markedly. The plunge in oil prices comes first to mind, as it is really hard to forget that WTI settled in negative territory, but the sudden drop in aggregate demand has been felt in lots of other commodity spaces as well. There have also been big declines in metal prices which are particularly associated with global economic activity, such as copper and zinc. As market sentiment improved following the relaxation of the lockdown measures, commodity prices have recouped some of their losses. However, the house view is that investors are underpricing macroeconomic risks, whereas the oil market already feels bloated. *RaboResearch* expects spot Brent prices to be anchored at USD 30/bbl at least until the glut of crude oil storage anchored offshore is worked off in the months ahead. **Globally, producer price inflation is already in deflationary territory, and is likely to remain so for the foreseeable future.**

Figure 7: Commodity prices remain a deflationary force for the time being



Source: Macrobond

Figure 8: Millions and millions have become unemployed



Source: Macrobond

It's also very clear that the recession will lead to a dramatic rise in unemployment, most so in countries with flexible labour markets. The US are, again, the most prominent example. The data on continuing claims for unemployment insurance point to 20-25 million unemployed; the real number of unemployed may be even higher, despite a remarkably positive employment report (see also here). In any case, those still lucky to have a job won't be asking for a raise anytime soon. Meanwhile, capacity utilization has plummeted, and so have profits.

It's all pointing towards weakened price pressures ahead, and the barely positive figures for CPI inflation may very well turn negative in the months ahead (we zoom in on the Eurozone in the next paragraph). The various government stimulus measures, which are designed to make up for all the losses in income, do provide a short-term counterbalance that should eventually limit the disinflationary or deflationary impact of this crisis. In its wake, the corporate landscape may change dramatically. With SME's likely to lose out and the rise of monopolists (or government-regulated giants) and monopsony power, these changes may also lay the groundwork for structural changes in future price setting.

What does the Old 'New Keynes' have to say?

To get an idea of the potential downward price pressure we may still rely on the 'traditional' New Keynesian Phillips-curve model, which basically stipulates that future inflation is based on:

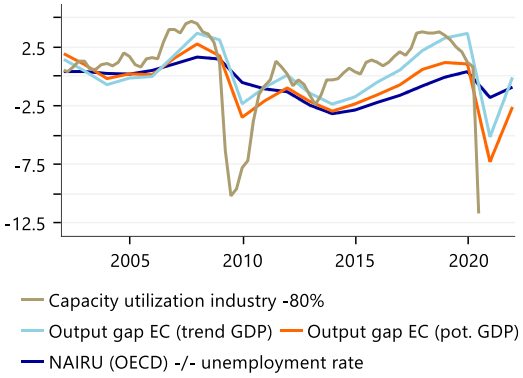
1. a weighted average of current inflation and inflation expectations;
2. a cyclical component measuring the amount of spare capacity (or unemployment gap); and
3. relative import prices (which, certainly in the euro area, is heavily influenced by energy prices).

Unfortunately, there is considerable discussion on how the output gap (or unemployment gap) is best measured (see figure 9, below, for some examples). This is even more so now as the impact of lockdowns, the disproportionate impact on services and the government support measures may render these measures as less reliable under the Covid-19 shock.

However, in the recent past there has even been more discussion about the output gap *parameter* itself (for a short and insightful discussion we refer to a speech by Philip Lane, the ECB's Chief Economist) and the uncertainties surrounding it. For example there is a body of research suggesting that the relationship between (core) inflation and measures of spare capacity has weakened over time, in part because *i)* wage growth has remained more subdued due to a decline in wage bargaining powers, *ii*) declining productivity growth and *iii)* because of a slower and/or weakening pass-through from wages onto inflation (driven by global competition), an issue we explored here ourselves.

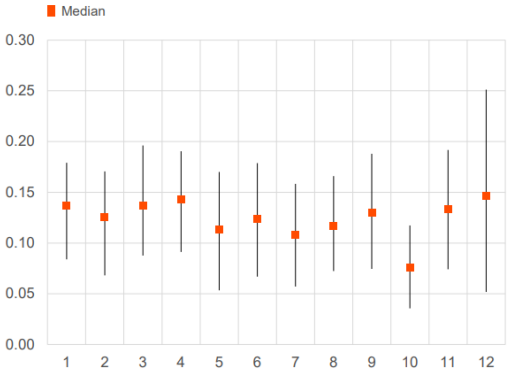
But let's for a moment assume that the Phillips curve is not dead, but just not as steep as it used to be. Can we still get some idea of the disinflationary impact of the shortfall in demand?

Figure 9: Many measures, many possible demand shortfalls



Source: Macrobond

Figure 10: Estimated Phillips curve slope across twelve specifications*



*) Regression coefficients on HICPx inflation on standardised slack measures (i.e. impact of rise in 'output gap')

Source: ECB

Our current economic projections for the euro area foresee a 9.1% drop in GDP followed by a 6.1% recovery in 2021. We expect the unemployment rate to spike at around 10.5% by mid-2021, around 2.5 %-points higher than before the Covid-19 shock.

If we plug these projections into our in-house inflation model, we find that average inflation is likely to drop to around 0.3% for 2020 (the lowest since 2016) before recovering towards 1.5% in 2021, albeit largely due to a 'V-shape' in energy prices and German VAT-effects[1]. Due to the slow closure of the output gap, core inflation, on the other hand, may not improve much into 2021 and hence will remain 'too low for comfort'. **Figure 11 shows our baseline projections.**

Considering the uncertainties highlighted above (our Phillips-curve parameter is at the low-end of the range in figure 10) as well as the fact that this Covid-19 shock is a very complex set of interacting supply and demand shocks, it is more insightful to look at a range of combinations of demand gap measures and Phillips-curve parameters to assess the boundaries of the expected disinflation rather than relying on one particular model. Using the range of parameters from Lane (2019) and combining that with several demand gap measures and projections, we get figure 12.

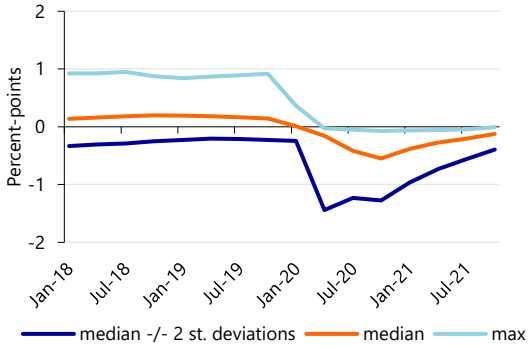
Figure 11: Rabobank baseline inflation projection for Eurozone HICP

Annual growth rates

	Total HICP	Core	Energy	Food/alc/tob
2017	1.5	1.0	4.9	1.8
2018	1.8	1.0	6.4	2.2
2019	1.2	1.0	1.1	1.8
2020E	0.3	0.6	-6.9	2.9
2021E	1.5	0.8	4.8	2.3
2022E	1.0	0.4	3.4	1.8

Source: Rabobank

Figure 12: Range of possibilities for Covid-19 demand shock impact on inflation (%-points)



Source: ECB, Rabobank

[1] We are also assuming a -0.5%-point contribution from the temporary VAT-rate cut in Germany for 2020H2, based on a 50% pass-through rate from the 3%-point VAT cut. Germany's share in the Eurozone HICP implies a -0.5% (temporary) fall in inflation in 2020H2, followed by a positive contribution in 2021 as the VAT cut is unwound.

This analysis basically shows that the disinflationary impact –besides from lower energy prices and expectation effects– could range from as low as -1.5%-points to (at best) -0.1%-points, with the median impact being roughly -0.5%. The median is fairly close to our own projection.

However, should the impact turn out to be -1.0%-point or even -1.5%-point, euro area inflation would fall firmly into deflationary territory!

Long-term: Three layers of inflation

The Covid-19 shock and the policy response potentially offers a structural break; at the very least, it is clear that several factors that fuelled the disinflationary trend in the past four decades are now under duress. Many political leaders have come to realize that unmitigated capitalism or liberalism isn't sacrosanct and the same can also be said about central bank independence (e.g. the Bank of England closely cooperates with the HM Treasury; the Fed's credibility was at stake in 2019 as it cut rates under pressure from a vocal president; or the ECB's Draghi and Lagarde calling for fiscal stimulus, or even a fiscal union).

So after the initial negative shock to supply and demand, we could look at the long-term outlook for inflation through three different layers:

1. The **six-feet economy** and other increased levels of 'precautionary regulation' would lead to rising costs for businesses, i.e. lower productivity at the same level of demand. This is already fairly obvious for businesses operating in hospitality, travel or in other sectors that require physical contact, but firms that are active in manufacturing, construction may have to re-design their processes as well. When demand picks up, firms will have to translate these costs into higher prices. US-Europe air fares may soon double, although a fair question then is whether that doesn't destroy demand? (for now, however, ticket prices are down).
2. **De-globalization**. The Great Recession, Brexit, the US-China trade (now Cold) war and Covid-19 have all demonstrated that firms face a trade-off between operational efficiency and operational resilience. Just-in-time processes where inputs are coming in from all over the world are very cost efficient, *if* there are no interruptions. But effectively, this 'operational leverage' creates similar risks as financial leverage at the firm level and exposes strategic vulnerabilities at the country level. If we are indeed about to see a reversal or at least a shortening of the supply chains, there will be lower imported deflation from emerging markets. Automation of certain tasks or activities on domestic soil could be another strategy to avoid rising costs, but the impact of the latter is hard to gauge.
3. **Integrated fiscal and monetary policies**. If rolled out on a global scale, this would mark a structural break in policy response and offers a possibility to 'get the money where it is needed most'. The massive rise in base money (see again figures 1 and 2) has been associated with a concomitant collapse in the velocity of this money. Whilst some of the spikes in base money were absolutely needed to stabilize financial markets during crises, the 'conventional' QE programmes haven't proved to be very effective in stimulating the economy. Fiscal policies are much better suited to directly inject money into the real economy and allow for a much more targeted approach**. If joint 'MMT-like' approaches are indeed successful, which has to be seen still, inflation can make a comeback after the crisis ends.** This would also provide a way out of the debt trap. However, the normalisation of the debate around 'helicopter money' creates a risk as well: large scale monetization may be the forbidden fruit that leads to rampant inflation[2].

We will now dig a little bit deeper into these three layers, in order to gauge what it means, how it could be measured and monitored, and how likely it actually is to happen.

[2] Whether such a scenario materializes largely hinges on the quality and independence of governance and institutions – yet exactly those properties may be under pressure from populist forces.

1. Six-feet economy

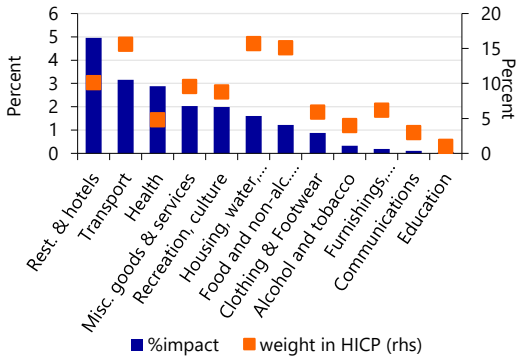
As argued, the six-feet economy could push up the cost of products and services and, hence, also their prices for end-users, provided that demand has returned to 'normal'. The thinking here is that if all companies are faced with the same regulations domestically or even *globally*, it wouldn't make sense NOT to pass through higher costs onto the end-users. The energy sector is a useful example here: oil price changes are usually passed on swiftly and fully onto consumers in the form of higher gas prices. Now of course, there will be some sort of competition from other sectors in the economy that are not held back by regulations such as the 6-feet distancing measures, but such substitution effects only go some way. After all, most people would not like to entirely give up vacations, eating out, or gym memberships for alternatives such as your garden, meal takeaways/deliveries, or park runs. Meanwhile, also in 'goods producing' sectors and construction are regulations likely to force companies to re-design their production processes. This would likely lead to higher production costs or require investments with front-loaded costs.

Figure 13: Top 10 of most-affected sub-components in HICP

Item	*HICP weight (%)*
Hospital Services	0.7
Medical Products, Appliances & Equipment	2.0
Out-Patient Services	2.1
Social Protection	1.7
Accommodation Services	2.0
Catering Services	8.1
Package Holidays	1.6
Recreational & Cultural Services	2.2
Transport Services	2.7
Operation of Personal Transport Equipment	8.7

Note: 2-digit categories
Source: Macrobond, Rabobank

Figure 14: Which HICP component is most affected by social-distancing Covid-19?



Note: 1-digit categories
Source: Macrobond, Rabobank

In a recent piece we concluded that about 23% of the US economy could be (significantly) affected by ongoing social-distancing measures in the foreseeable future (i.e. after the lifting of lockdown measures, so long as an effective vaccine has not been found.) After all, in some sectors of the economy teleworking and/or adhering to the 1.5m distancing rule is simply not possible.

In order to get an idea of how and to what extent this could affect inflation, we have 'mapped' the sectors from that study onto the components in the Eurozone HICP (at 4-digit level). For some goods or services this is pretty straightforward: if 23% of the sector's jobs is affected and the good or service is produced entirely in that sector (say, accommodation services provided by the hospitality sector), then that service or good provided is also affected by 23%. For some goods and services, this is less obvious (i.e. food being produced by the agricultural and food industry and being supplied to households by the retail sector). Appendix A provides a bit more background to the method and assumptions employed. Although this exercise, therefore, is not without some important caveats[3], the upshot is that **some 19% of the components in inflation could be affected by social-distancing measures**.

Figure 13 shows the top ten (on a 2-digit level); the results are not entirely surprising. By multiplying the percentage of jobs affected for the production of that good or service by the share in the HICP index, we can get an idea of the total expected impact on inflation. This is

[3] For each component at the 2- or 3-digit level we identified the two key sectors most relevant to the production and/or distribution of that item to consumers. So for instance, for food we assumed this is agriculture and food industry. In some cases – such as healthcare services and education – the link is direct and very obvious, but in other cases it is less so.

shown in figure 14, where we zoom out on the 1-digit HICP level. **Prices of restaurants and hotels, transport and healthcare as well as prices of miscellaneous goods and services and recreation and culture (which includes package holidays) stand out in this analysis.**

So how much could inflation rise by social-distancing? Clearly this is a much harder question to answer as it very much depends on the *elasticity of demand*. First of all this would depend on the existence of (close) substitutes for certain goods and services. Secondly this would depend on how much room companies have to adjust their profit margins.

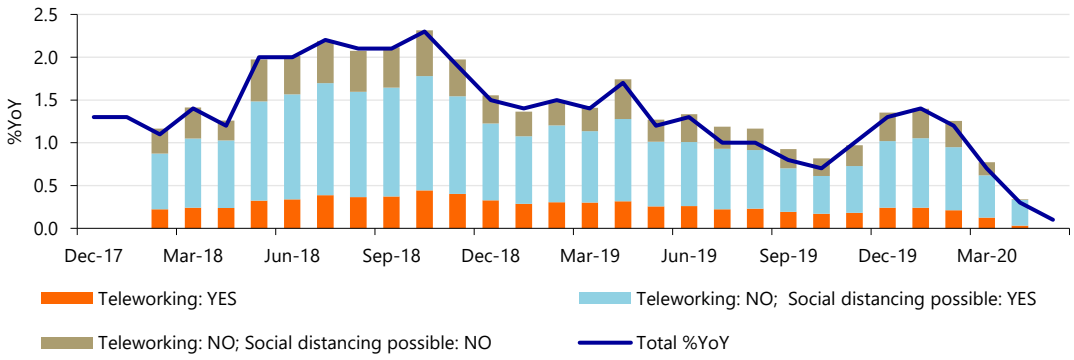
One, albeit very simplistic, approach is to assume that companies would try to compensate lower-revenues (or higher costs) by raising prices to such an extent that their gross margins remain unchanged (take a restaurant that raises its menu prices by 40% for being forced to operate at 60% of normal capacity). In practice, though, this is not realistic nor is it possible because *i)* costs can still be cut by changing production and distribution, *ii)* clients will switch to take-away meals, *iii)* taking a (temporary) hit in margins could drive out other competitors. In other words, the impact is likely to be much less and much slower over time as well.

So even though 19% of the components in the HICP is likely to be affected and as such offers some gauge of social-distancing rules exposure[4], **we cannot make a serious stab at the potential impact on inflation**. More qualitatively, perhaps, we could argue that this is likely to be the least important factor in 'turning around' inflation over time. But perhaps in combination with de-globalization and especially monetary and fiscal policy pressures it could act as an amplifier.

What we can do – for *monitoring purposes*, however – is to break the HICP down into three parts: *i)* products and services that are predominantly produced in sectors that are likely to be unaffected by social-distancing rules, *ii)* products and services that may be mildly affected (no teleworking possible, but social-distancing possible), *iii)* products and services that are likely to be significantly affected because they are produced in sectors where teleworking and social-distancing are not possible.

As figure 15 shows, there is no evidence so far (April data) that prices of goods and services that are significantly affected by social-distancing rules are rising any faster than prices of other goods and services. In fact, for now the evidence points to the contrary. But in a way this is not very surprising as in some sectors (take package holidays and flights), companies have tried to lure clients with price-cuts whilst in others supply fell to near-zero in March-April. **As such these data will only become of interest once the economy has fully escaped the lockdown and demand is recovering.**

Figure 15: For now, the inflation-contribution of 'most-affected components' has fallen disproportionally; HICP inflation %YoY broken down into 3 parts



Source: Rabobank

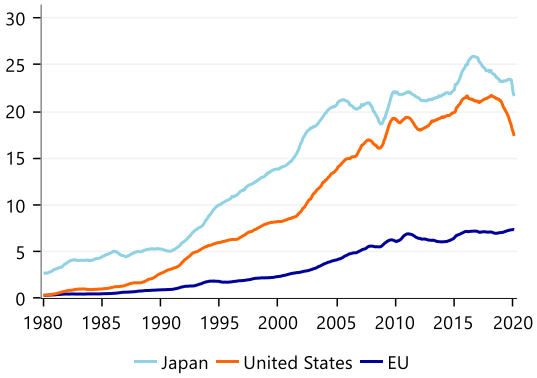
[4] If all prices would be hiked in these social-distancing hit sectors by 5% (which is probably a more realistic guess), its contribution to overall prices would be 1%.

2. De-globalization

As we've discussed, the relationship between measures of domestic slack and inflation has proved rather weak, and one hypothesis is that the globalization of product, capital and labour markets has played a significant role. This suggests that *global* slack next to *domestic* slack would help to explain low inflation. The positive supply shock, in particular from China but also from other emerging economies, added billions of people to the global labour force. Technological advances have ensured that there are plenty of ways for these people to compete with workers in advanced economies; this is where the global value chains come into play. Even though production in China did become more expensive over time, the difference in labour costs hasn't converged yet. Meanwhile, production shifts to other (cheap labor) 'frontier' economies, who hope to hitch their wagon to the globalization train. As a result, the expansion of global supply may continue at a faster pace than global demand.

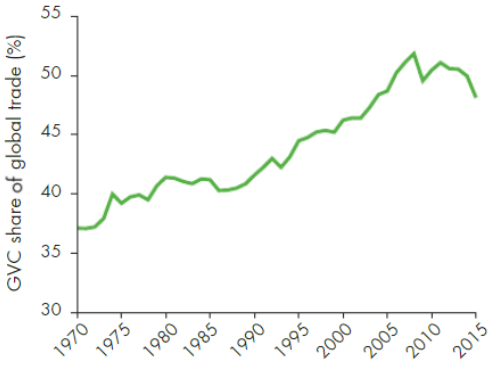
This source of disinflation has been really difficult to quantify, mostly due to specification and identification problems. For instance: when a goods-producing sector in the euro area experiences a positive demand shock, prices tend to rise, and this typically leads to an increase in the imports from lower-wage countries. Controlling for these effects, Auer and Fischer found in 2010 that European producer prices fall between 3.2% and 4.8% when lower-wage-country growth in manufacturing rises by 1% above trend. They also conclude that this result is largely driven by Chinese exports: when Chinese exporters capture 1% of the European market, producer prices decrease about 5%[5].

Figure 16: Rising share of China in total goods imports



Source: Macrobond

Figure 17: Global value chains share in global trade has started to fall



Source: World Bank – World Development Report 2020

Looking over the past 20 years, the share of Chinese imports in total EU imports has risen by around 5%-points (see figure 16), which - employing the elasticity above – would translate into a 'decline' of producer prices by around 25%, or -1.5% annually. Even if a sizeable part of that decline was to be absorbed by the corporate sector in the form of higher profit margins, this indicates that globalization may have indeed played a significant role in keeping inflation down in advanced economies over the past decades.

In the light of Covid-19, the post-GFC landscape and the geopolitical tensions that have erupted since 2016, we could turn this argument around and make the case that such **disinflationary forces are likely to become much smaller or even become inflationary forces going forward**:

- Protectionist forces may lead to de-globalization in the form of falling trade exposures; to some extent this has already been happening in recent years; the trade/Cold war between the US and China as well as trade tensions more globally.

[5] Autor and others have looked at the US and find that many firms shut down in the face of Chinese competition: that is harder to measure because output –and jobs– just collapse: for example, in furniture production.

- As companies re-assess their exposures (with some companies re-shoring part of their activities) and inventory policies, we may see even see a decline in global value chains; the share of GVC's in global trade basically stabilised since 2008 and recent data are also pointing at a reversal in some areas.
- The 'business model' of importing goods from emerging markets made by cheap labor under liberal regulations may be under increased scrutiny as well, anti-globalisation forces take a stronger hold on public opinion.

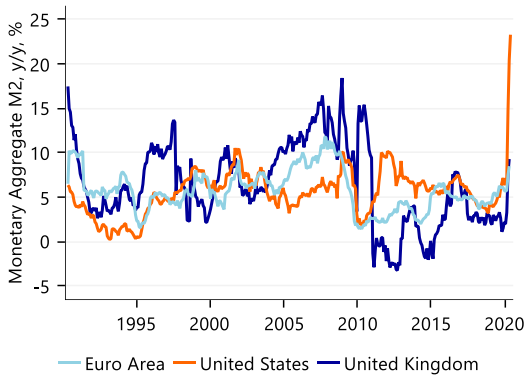
3. Integrated fiscal and monetary policies

Whilst the Bank of England and the HM Treasury already concluded in the middle of March that they had a better chance of softening the economic blow of Covid-19 if they teamed up and provided struggling businesses and households with enough cash, it took a while before European leaders were able to organize a similar coordinated response. But what initially started off with a major gaffe (*"We're not here to close spreads"*) is now **gradually morphing into a more coherent monetary and fiscal policy**. The last couple of weeks saw some big shifts: *i)* the ECB pro-actively expanded its PEPP from EUR 750bn to EUR 1,350bn and pledged to reinvest the maturing principal payments until at least the end of 2021; *ii)* following the Merkel-Macron initiative, the European Commission proposed a EUR 750bn EU recovery package, in large part financed by the issuance of new EU bonds, and *iii)* Germany announced an EUR 130bn stimulus package (ca. 4% of 2019 GDP) that includes temporary VAT cuts, cash handouts to families, capped social security contributions and a EUR 50bn fund earmarked for investments in climate change and innovation.

This U-turn is particularly remarkable for a government that was once very proud of its *schwarze Null*-policy. So proud even, that it actively tried to export similar policies to other euro area member states under the flag of 'structural reforms'. Even as many economists have long called for the German government to abandon this rule, it had been reluctant to suspend it. The Covid-19 crisis has finally led the government to concede and to abolish its spending constraints. The additional spending will lead to substantially higher government deficits and to an increased issuance of bonds, which in turn increases the pool of assets to be held by the private sector. This 'unconventionally' loose fiscal stance is complementary to the 'conventional' quantitative easing programmes, as the central bank then swaps these new bonds with its reserves (NB. At this stage there is no *net* creation of assets). This helps to depress the government's financing costs and the liquidity has effectively bypassed the financial system.

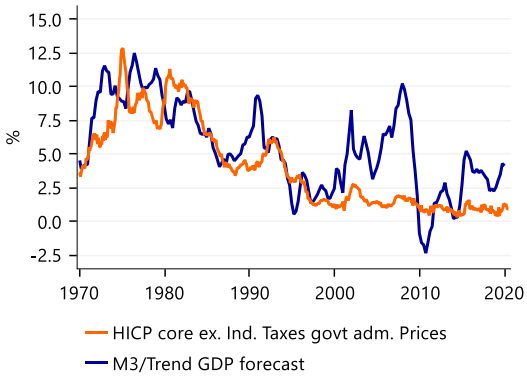
The rise in government deficits could prove to be the missing link between quantitative easing and inflation.

Figure 18: Money, money, money!



Source: Macrobond, Rabobank

Figure 19: Monetary overhang has expanded; what if this is unleashed eventually?



Source: Macrobond, Rabobank

Whilst central bank policies mostly led to an increase in the monetary base M0, this came with a collapse in the money multiplier. But currently there are also rapid increases in broader money aggregates, such as M3. In April, M3 rose 8.5% y/y in the euro area and even 16.8% y/y in the United States (see figure 18 above). This indeed indicates that the (government-guaranteed) cash already has started to flow into the real economy – which certainly did not happen during the QE programmes of the 2010s.

To the monetarists this indeed looks like the perfect set-up for a future rise in inflation. The transaction equation $M * V = Q * P$, an economic identity, indeed seems to suggest so: with the quantity of produced goods and services Q being depressed by the lockdowns and the expected sluggish recovery and M rising at a pace of ca. 10% year-on-year, it is essential that money velocity V continues its decline or the price level P will inevitably have to go up. In the short-term, such a decline in velocity is indeed a very realistic scenario.

Fewer transactions can take place in a 6-feet economy, while households and businesses are uncertain and prefer savings over spending and investments. But as time passes, and if Covid-19 eventually turns into something of 'two or three years ago', the velocity of money may very well pick up to its pre-crisis level at a faster pace than the economy's production level Q. **If governments and central banks then don't drain this cash in time, the monetarists' prophesies may come true: it will indeed lead to higher inflation.**

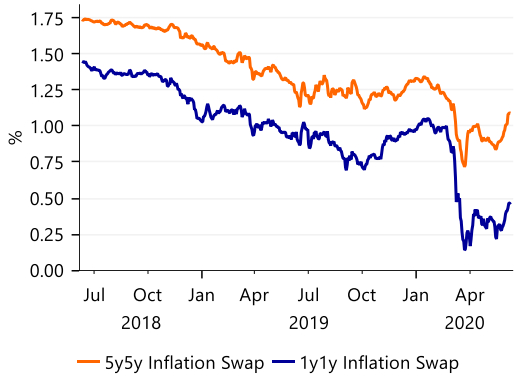
How likely is this?

In this piece we have argued that the Covid-19 shock –once we're past the first hurdle of negative supply and demand shocks– presents itself as a *potential trigger* for a structural change in inflation dynamics in the medium term, driven by rising social-distancing costs, falling imported disinflation and, crucially, fuelled by the joint operation of monetary and fiscal policy. However, the extent to which these additional layers to our baseline inflation forecast (see again figure 11) would actually materialize will also depend on two key conditions:

1. Wage growth needs to follow CPI
2. Expectations should shift higher as well.

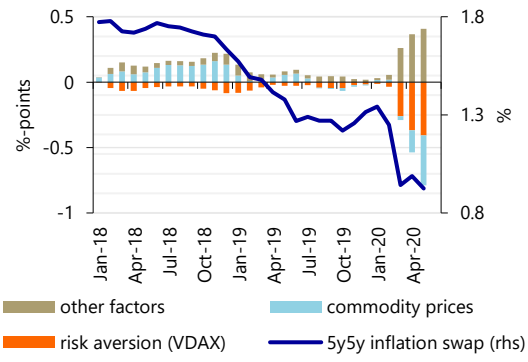
In a sense, the stance of central banks is pivotal here. For if they were to allow wage growth and inflation to rise above their targets for quite some time, this could set off a more sustained rise in inflation through a positive wage-price spiral and rising inflation expectations. In the case of the euro area, the ECB was already looking at its price stability mandate as part of its strategic review. A tweak of its current medium-term inflation objective of "below but close to 2%" to a much simpler "2%", which was seen as a likely outcome, could be perceived as a signal that the ECB would let inflation run above 2% for a while to make sure it gains enough momentum.

Figure 20: Inflation swaps have plummeted to new record lows...



Source: Macrobond, Bloomberg

Figure 21: ... mostly due to elevated risk aversion and falling commodity prices



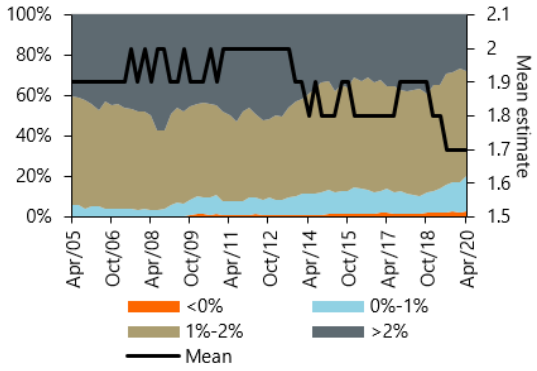
Source: Bloomberg, RaboResearch

Are markets concerned yet?

The short answer is **no**. Both the 1y1y and the 5y5y inflation linked swap dropped to an all-time low in the middle of March (5y5y at 0.72%!), so this doesn't at all suggest that the market is concerned about higher inflation going forward. The timing of these lows fuels the suspicion that the decline in the inflation linked swaps was partly driven by large falls in inflation risk premia. Indeed, looking at the 5y5y inflation swap, our econometric model suggests that the increase in volatility and elevated risk aversion (the VDAX serving as a proxy) led to a 40 bps decline in the 5y5y swap rate up until May. Another 40 bps was due to the sharp fall in commodity (oil) prices.

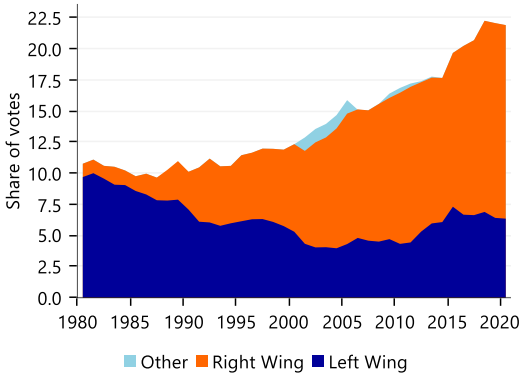
Moreover, the latest *ECB Survey of Professional Forecasters* didn't reveal anything really shocking either. The mean point estimate for long-term inflation declined from 1.8% to 1.7% in Q2 last year and remained at this relatively low level since. The width of this 'fan' of forecasts has increased a bit, however: the probability of inflation remaining between 0% and 1% rose from 14.8% to 17.3%, while the probability of inflation rising to above 2% rose from 26.7% (a survey-low) to 27.8%. This may be indicative of the interesting current set-up, which deserves close attention as the economy recovers from the Covid-19 shock.

Figure 22: Economists' long-term inflation expectations have declined as well



Source: ECB Survey of Professional Forecasters

Figure 23: Rising populism in Europe



Source: Macrobond

Concluding remarks

While low inflation remains our base case, the current crisis might be a catalyst for a radical changes towards a more organized economic system. We look at three separate layers of additional inflation: the 6-foot economy, de-globalization, and increased coordination between fiscal and monetary policy. Especially the second two layers should also be seen against a changing (geo)political backdrop. Indeed, if it wasn't for a much more politically polarized world, an international race for economic and political dominance (predominantly fought between the US and China) which has now gone far beyond the 'currency wars', the old-fashioned way of dealing with an economic shock could perhaps have sufficed.

But rising *populism* – in part fuelled by lacklustre economic performance since 2008 – has prepared the soil for a break in the dominance of monetary policy over budgetary policy. Meanwhile, de-globalization forces already became apparent after the GFC and the downward trend in Global Value Chains and are likely to gain pace beyond Covid-19.

Although inflation may soon become a 'monetary' phenomenon again, this would ironically only be due to a tacit recognition of the arguments of Marxist (Kalecki) and post-Keynesian/heterodox (Keen, Kelton) economists that a change in the political-economy structure was needed first; by contrast, relying on Friedman's neoliberal laissez-faire economic model actually makes money largely irrelevant for inflation, or at least incapable of generating it.

Appendix A – Social distancing impact on HICP

We have taken the findings in a recent piece on social-distancing and its impact on sectors in the economy as a starting point. In that piece we concluded that about 23% of the US economy could be (significantly) affected by ongoing social-distancing measures in the foreseeable future. Hence, for 25 sectors we have a distribution over:

- Teleworking possible: YES
- Teleworking possible: NO; Social distancing possible: YES
- Teleworking possible: NO; Social distancing possible: NO (share = social distancing score)

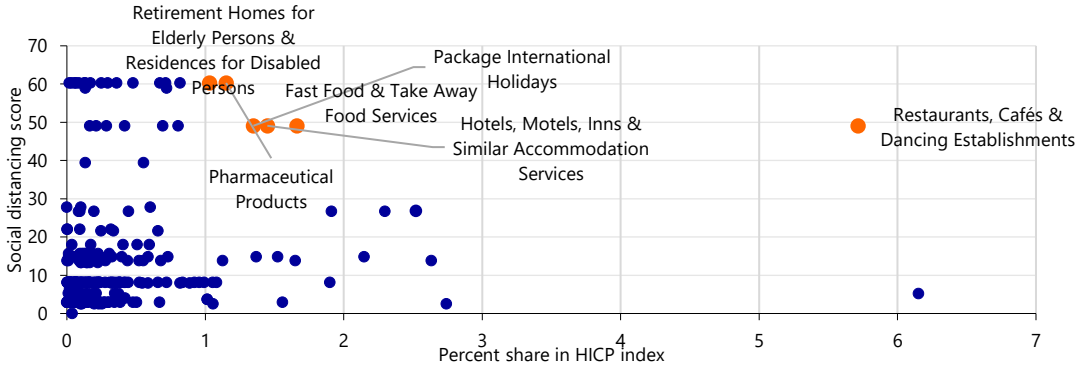
The latter share is the most relevant as that share is an indication of social-distancing issues. The next step is to map the 280 different components of the Eurozone HICP (on a 4-digit level where possible) onto these sectors[6]. Ideally one would like to have a "supply" table (such as can be found here) that links the goods and services produced to the sectors where those goods and services are produced. In other words the bread you buy from your bakery is affected by social-distancing rules in i) agriculture, ii) food-processing industry, iii) distribution, iv) the retail sector.

Unfortunately, such supply tables do not fully take into account the way those goods and services are being distributed – which in fact is crucial in this particular case. After all, even if a good is produced in a sector where teleworking is totally possible, it still needs to be distributed through stores that do need to adhere to social-distancing rules. So the focus in such supply tables is too much on the producer end rather than consumer end. The other issue we came across was that the granularity was rather limited due to the high level of aggregation. So ultimately what these data are showing is that hospitality services are produced by the hospitality sector and food products by the food manufacturing industry…

So eventually we decided for a more simple rule: we chose the two sectors that were most likely to be involved in the production and/or distribution of a particular good or service (fiction books = media + retail sector) and we gave them an equal weight. In some cases that would only be one sector (education → education).

The higher the share of a component in the HICP and the higher the (weighted) score for social-distancing impact the more likely it is that social-distancing rules would influence inflation over time. This is also shown in the scatter plot below (the top-6 items, which score highest by their contribution) are shown in orange). To aggregate to higher HICP levels we aggregated the data by using the 2020 HICP weights (so, food = rice + bread + eggs etc.). Due to the fact that goods/services prices are a weighted average of sector-scores, our aggregated HICP-affected score (19.4%) therefore differs from the aggregate sector score of 23%.

Figure 24: Social distancing scores vis-à-vis weights in HICP index



Source: Rabobank

[6] We assumed that the 'production and distribution' of goods and services is not materially different between the US and the Eurozone, but this can be refined of course.

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