

Sunday Wrap

Happy Sunday,

The big news this weekend is of course the attack on Saudi Arabia's largest oilfields in Hijra Khurais, which may have caused a loss of more than half the daily Saudi crude production. Precisely how severe the damage is, and how long it'll take to restore full (or near full) capacity, I don't know, but I see informed people suggesting that oil prices may jump \$5-10 a barrel when markets open tonight in Asia.

I'll reserve judgement on prices and effects until I know more about the details, but, needless to say, an oil supply shock was just about the last thing the world needed now as it imposes a tax on households and (non-oil) businesses across the world at a time when the global economy is already slowing. With all the attention on the issue of low inflation, let me be very clear: This is not the type of inflation we want!

The economic slowdown already under way has long shifted the attention to the possible policy responses to help cushion the blow to income, asset prices and employment. But how to think about the details of the desired policy measures is far from obvious when a relatively normal global cyclical slowdown is almost certainly combined with a structural shift down in global growth due to Trump's trade policy - and now, possibly, a shift up for some time in oil prices. And adding to the complexity, policy measures will need to be calibrated also with a view to the big global challenges facing us all, including climate change and the excessively skewed income distribution in many countries.

In the best of circumstances, these are big challenges for the appropriate design of policies, but now add the fact that we are still in a low-inflation environment (hopefully not to be "addressed" by higher oil prices) with historically low interest rates across the world, putting limits on the efficiency of monetary policy, if not - as is increasingly argued - turning supposedly easing monetary policy into de facto contractionary monetary policy. And in Europe, and elsewhere, some argue that public sector debt levels are so elevated that this also puts limits on fiscal policy, so what is left if the downturn turns into a more severe recession, the question goes.

The short answer is: "A lot!" - but policymakers need to understand the complexity of the slowdown, the potential severity of it - and they need the courage to act boldly. Doing nothing is also a choice, of course, but it's almost certainly the wrong choice, and potentially a dangerous choice.

Erik F. Nielsen
Global Head of CIB Research
Group Chief Economist
(UniCredit Bank, London)
+44 207 826-1765
erik.nielsen@unicredit.eu

Bloomberg: UCGR, UCFR
Internet: www.unicreditresearch.eu

Below, I'll:

- Very briefly provide the global backdrop.
- Discuss Thursday's ECB decision and why markets got confused.
- Reflect on the prospect of fiscal easing in the key country, namely Germany.

1. The global backdrops - in less than 500 words.

As we in the UniCredit research team have long argued, the US is very likely to lead the cyclical global slowdown as it heads toward a (hopefully just mild) recession around mid next year. Our US recession probability model (based predominantly on labor market data) assigns a greater than 50% probability to a US recession within one year - and the inverted curves point in the same direction. The stimulus from the massive fiscal expansion is petering out, unit labor costs are rising, exports are suffering at the hands of particularly Chinese countermeasures to Trump's folly, and sentiment is beginning to turn. We expect the Fed to cut rates by 100bp between next week and spring 2020, but it'll only help cushion – not prevent – the downturn. The big unknown in US policy making, of course, is whether Trump and Congress might end up agreeing on yet another fiscal package next year as the economy slows ahead of the November 2020 elections. Unlikely, but not impossible, but even if they did, there is a big question whether it would have any measurable impact on growth until 2021, when a recovery probably is under way anyway. I'll leave that for another day.

Apart from hurting US exports, Trump's recklessness has hit primarily China so far, but the Chinese policy machine is already in full swing trying to compensate for the decline in exports by stimulating domestic demand. After having spent three years taming their excessive credit expansion, which saw the credit impulse (i.e. year-on-year credit expansion as a share of GDP) drop to -7% early this year from about +10% in 2016, Chinese credits are again being pushed out to stimulate domestic demand (mostly in old industries, unfortunately), taking the credit impulse back into (slightly) positive territory. And there has been some fiscal and quasi-fiscal stimulus as well. Short term, this is good news for the world because the Chinese credit impulse leads the global manufacturing PMI beautifully by some nine months. Longer term, however, one has to worry how they'll return to more sustainable levels again. This is also a topic for another day.

But Europe has also been hit by the shifting global winds, and no place more so than in Germany, and not surprisingly so. The global slowdown is centered on trade in manufacturing, and the German economy is particularly exposed here: In Germany, the manufacturing sector contributes about 26% to total gross value added, compared with, e.g., less than 12% in France. And while exports account for 47% of GDP in Germany, it is only 32% in France.

As you know, the ECB delivered an impressive package on Thursday, but as I argued last Sunday, the marginal benefit to the economy of monetary easing in Europe is questionable. Instead of further attempts to "push on a string" (see Richard Koo's great piece on this in Tuesday's FT: [Why aggressive monetary easing is pushing on a string](#)), I'd argue that Europe needs three things: (i) a cyclical fiscal stimulus, e.g. via tax cuts to the lowest income groups, (ii) a big structural re-think of public investment and education, and (iii) preparatory work for a possibly profound shift in our policy thinking towards a deep coordination of fiscal and monetary policies aimed at potentially injecting central bank money straight into the economy, as proposed by Fischer, Hildebrand et al of BlackRock, as I mentioned last Sunday.

But for now, all we got is the ECB pushing still harder on the string, while the fiscal authorities keep their heads in the sand. In spite of the recommendations this past week from their own European Fiscal Board, chaired by professor Niels Thygesen, who has a long history of advocating fiscal prudence (to put it mildly) of separating investment from consumption, the finance ministers said that they are not inclined to address the clearly poorly designed fiscal rules. Depressing!

2. The ECB on Thursday: The controversy, the effects and what's next!

I assume you are familiar with the ECB's announcement on Thursday of: (i) an open-ended QE program involving both public and private assets, which will run at a monthly pace of EUR 20bn per month; (ii) a 10bp cut in the deposit rate to -0.50%, and (iii) strengthened forward guidance in which the calendar-based leg has been dropped while the state-contingent leg was strengthened with an explicit reference to inflation and inflation expectations needing to get back to the target; as well as two sets of measures to alleviate the additional cost to banks of these measures (which undermines the transmission mechanism), namely a two-tier system for reserve remuneration and easier terms for the TLTRO-III.

You also know how Draghi alerted us all the way back in Sintra about the need, in his assessment, of another big package, how that surprised most of his colleagues at the ECB, and how opposition in the Governing Council to such a package, particularly with respect to the QE component, started to build up in recent weeks. Indeed, this turned out to be a controversial package with a large number of dissenters, and some apparently ferociously so.

According to Der Spiegel, only a slight majority in the GC pushed through the QE decision, with "nearly" 12 members voting against it, including Benoit Coeuré and Villeroy de Galhau. ([Knappes Dutzend EZB-Ratsmitglieder verweigert Draghi Gefolgschaft](#)). I struggle to square this with Draghi's statement at the press conference that a good majority was in favour (and no vote had been necessary), but there is little doubt that Thursday's decision was made with the biggest opposition to Draghi during his years at the ECB.

In an (as far as I know) unprecedented move, Dutch Governor Klaas Knot put out an official statement after the meeting saying: "This broad package of measures, in particular restarting the APP, is disproportionate to the present economic conditions ... [and] there are increasing signs of scarcity of low-risk assets, distorted pricing in financial markets and excessive risk-seeking behaviour in the housing markets. The economic slowdown means it is unavoidable that it will take longer before the ECB reaches its inflation aim of below but close to 2%, but this is not to say that this aim is completely out of reach. Neither is there a risk of deflation, nor are there any signs pointing to a euro area-wide recession. The only observation is currently that the inflation outlook lags behind the ECB's aim. This is worrying, but it does not imply that restarting a far-reaching measure such as the APP is the appropriate instrument." [Klaas Knot comments on ECB policy measures](#)

To me, this is an unfortunate statement. Reasonable people can disagree on the appropriate policy measures, and policymakers can - and have always done, not only in Europe but also in the US and elsewhere - discuss where their assessment differs from the majority in speeches, interviews and articles; but to put out a two-paragraph postulating statement, including a rather relaxed view of the missing inflation target, seems troublesome to me. One has to hope that this is not the beginning of minority GC members shooting at each other and at the majority in virtual twitter style.

I'll make four observations about the ECB decision:

First, as I discussed after Sintra, Draghi is clearly very concerned about the outlook, and probably more so when it comes to global developments and the impact on Europe, than about the undershooting of the inflation target, per se. He therefore wanted to leave as aggressively accommodative a stance on the table for Lagarde (who so far has indicated a view on monetary policy fully in line with Draghi's) as possible because he knows that Lagarde will be more of a "consensus builder" at the helm of the ECB, than the "charging from the front" leadership he stands for. And, given the number of relative hawks at the GC, Draghi had likely concluded that a consensus approach would not lead to what he sees as the necessary monetary policy stance for the period ahead. In a practical sense, this means that Lagarde is unlikely to have to drive big policy decisions for quite a long time.

Second, while the monetary toolbox is not empty - only (virtually) empty of presently politically acceptable tools - the implied suggestion from the press conference, and the reaction from the hawks, is that monetary policy is now max'ed out - and, in Draghi's words, that fiscal policy now needs to take over. As Draghi said: "If fiscal policy had been in place, or would be put in place, the side-effects of our monetary policy would be much less, the action of our decisions today would be much faster and therefore the need to keep in place some of these measures would be much less". The ECB tweeted these segments from the press conference afterwards, obviously to emphasize them.

Former IMF chief economist (and rumored Lagarde confidante) Olivier Blanchard tweeted: "Re: Draghi new measures. Wouldn't the euro area be better off today if there was a different fiscal/money mix. If, for example, fiscal deficits were, say, 1% of GDP higher, and the ECB could avoid negative rates, additional asset purchases, etc? Happy to hear disagreements" - As of this morning, he had received more than 600 "likes" and re-tweets, and few disagreements.

As I have discussed on several occasions, the argument that fiscal policy has not played its appropriate role is really rather simple: The single biggest beneficiary in terms of lower funding costs of QE has been governments with savings on interest payments of almost 2% of GDP since 2008. According to Bundesbank estimates, the German government has saved a whopping total of EUR 370bn between 2008 and 2018 and, for the benefit of populists, this is saving for present and future taxpayers, households and businesses alike!

But this enormous saving has been used, throughout Europe, to lower budget deficits (or even to generate fiscal surpluses), while, e.g., public investment and spending on education were cut, or at best kept unchanged, as a percent of GDP. Why did European governments, via contractionary fiscal stances, work their fiscal policy in the opposite direction of the ECB during years of sizable output gaps? (If you want it in "economics terms", with such accommodative monetary policy, the LM curve is basically flat, which means that the potential crowding out of private investment (via higher rates) from fiscal expansion is non-existent.)

Third, yes, markets got confused on Thursday, as illustrated by the wild swings in asset prices during the afternoon; but by Friday night, most markets had closed, relative to their pre-meeting, at levels which I suspect Draghi and the rest of the ECB would be pretty happy about: The impression that we are probably done with rate cuts, but that the curve will be flatter for longer, was reflected in the short-end underperforming the long-end. And the periphery out-performing the core (BTPs outperformed Bunds at the long-end) will help the transmission mechanism. They'll also be pleased to see European banks having outperformed the rest of a robust equity market by a good margin. Eurostoxx banks are up 3.3% relative to Wednesday's close, versus +1% for the general European index.

All in all, Thursday's package was close to our expectations with the noticeable exception of the open-ended QE. Therefore, we remain comfortable with our trajectory for the 2Y Schatz, which foresees a stabilization at -0.70% until year-end and a very moderate increase to -0.55% in 2020. On the other hand, we now see some downside risk to our forecasts of 10Y Bund yields rising to 0% at the end of 2020. The open-ended QE will probably lead to a further compression in real Bund yields, as scarcity of safe paper in the EMU becomes even more evident, so we should think about a slightly more pronounced flattening in the 2/10 segment of the Bund curve compared to our present forecasts (30bp at year-end). We remain happy with our 10Y BTP/Bund spread forecast of 125bp until the end of 2Q 2020. Stay tuned to my strategist colleagues

Fourth, and in spite of it all, I remain very unsure whether this latest package will have any measurable effect on growth, unless we get some new fiscal policy thinking in the capitals. As I discussed last Sunday, there is increasing evidence that we have hit, if not passed, the reversal rate (i.e. the rate when it becomes counterproductive to cut any further). The flatter-for-longer curve will hurt banks' profitability (and therefore the transmission mechanism) and while the offsetting measures will help some, it is still a matter of digging the hole of upside-down policies still deeper, as I discussed before the summer break. And will credit demand increase on the back of the lower rates and easier TLTRO conditions? I really doubt it. The -entirely unscientific - survey I did of a (small) number of our corporate clients the last couple of days certainly lends absolutely no support to this hope.

So, as Draghi said, it really is "over to the fiscal" now, and more than anywhere else. While both the ECOFIN in general and the Commissioner seemed to put their heads deep into the sand at their meeting this last week in Helsinki, I'll focus today only on Berlin.

3. The German fiscal option still not really on the table.

On fiscal policy in Germany, there is good and bad news. The good news is that - in spite of the general perception in the foreign press - there is movement in the thinking in and around Berlin, not least because of the high probability of being in a ("technical") recession already, but probably also because of the rapidly increasing level of anxiety in the manufacturing sector, particularly for autos. And as we approach November, when Trump is supposed to decide on tariffs for cars, this focus will surely intensify.

The bad news is that the narrative at the highest level in Berlin remains depressingly timid, and that the self-imposed debt-brake is a virtually unmovable object....

When outlining the 2020 budget in the Bundestag on Tuesday, Finance Minister Scholz said that he still wants to stick to a roughly balanced budget, the so-called "schwarze Null", next year, and while Germany could deploy "many, many billions" of euros, "there must be a crisis to do it". Of course, as noted by one of Berlin's most respected journalists in terms of reading the political dynamics, the SZ's Cerstin Gammelin, in Wednesday's paper, Scholz spent a total of 12 seconds on the "schwarze Null", versus close to half an hour on the need for policies (including investment) on climate change and the "many many billions" available if Germany were to be hit by a more severe recession.

I think this referred to his message in his August statement, at which time Scholz suggested that additional expenditures of EUR 50bn, or about 1.5% of GDP, could be implemented in the case of an "emergency". At that time, Merkel supported the line of "no fiscal stimulus needed", although she signaled some flexibility when she acknowledged that "we're heading into a difficult phase [and] we will react depending on the situation".

As pointed out by my colleague, our chief German economist Andreas Rees, Scholz' speech in the Bundestag this past week establishes that a slight technical recession in Germany will not be enough to trigger a fiscal stimulus package, but, as argued by Andreas, there are two events which would be likely to trigger a change of mind in the German government, namely an outright escalation in US-Chinese trade tensions and a hard Brexit.

The problem with either adverse scenarios is that counter-cyclical fiscal policies are likely to come (too) late. Even if the government has a finalized concept readily at hand, the additional public spending would probably take place after the incident.

But how much leeway does the government actually have?

First, and importantly, keep in mind that there is a difference between the debt-brake, which is enshrined in the constitution, and the "schwarze Null", which is no more than a sexy (if poorly argued) political declaration.

In "normal" non-crisis times, the German debt brake stipulates a maximum structural fiscal deficit of 0.35% of GDP. A higher deficit triggered by a slowdown and caused by lower tax revenues is possible but it'll have to be repaid later in a recovery. Higher discretionary ad-hoc spending by the government is not allowed in a "moderate" slowdown but only in case of a deep recession or a natural disaster. Hence, Tuesday's remarks by Scholz simply refer to such a worst-case scenario.

An abrogation of the debt brake is very difficult to imagine because it would need a two-thirds majority in both the Bundestag and Bundesrat, and we are far from such a majority.

There may be some hope of more fiscal leeway because of some EUR 40bn sitting in a "control account", accumulated since 2016 (because of "too tight" policies, relative to the debt-brake), which is available, according to professors Fiedler and Hallerberg in an FAZ op-Ed this last week. As they (correctly) argue, employing this money would compromise the "schwarze Null" political rule, but the government should obey the constitution, not silly populist political slogans.

Also this week, news media reported that the government may circumvent the debt brake by considering a "shadow budget" to boost public investment for infrastructure and climate, and Economics Minister Altmaier proposed the establishment of a non-profit trust to attract private capital for climate change spending. The trust would grant interest-free loans to private households and companies.

But I wouldn't hold my breath for such gimmicks to have a meaningful role. The bottom line is that the government should use all the fiscal space they have under the constitution, and then start work to revise the debt brake, e.g. to allow for investment to grow at an appropriate rate, as implicitly recommended by the European Fiscal Council and many others.

At the end of the day, fiscal rules on the deficit and debt levels reflect stunningly troublesome attempts by sitting politicians to tie the hands of future politicians, thereby undermining the very democracy to work for. It's time for a profound re-think of public policy in Europe!

And on that note, I wish you a continued good Sunday.

Best

Erik

Legal Notices

Glossary

A comprehensive glossary for many of the terms used in the report is available on our website: [link](#)

Disclaimer

Our recommendations are based on information obtained from or are based upon public information sources that we consider to be reliable, but for the completeness and accuracy of which we assume no liability. All information, estimates, opinions, projections and forecasts included in this report represent the independent judgment of the analysts as of the date of the issue unless stated otherwise. We reserve the right to modify the views expressed herein at any time without notice. Moreover, we reserve the right not to update this information or to discontinue it altogether without notice. This report may contain links to websites of third parties, the content of which is not controlled by UniCredit Bank. No liability is assumed for the content of these third-party websites.

This report is for information purposes only and (i) does not constitute or form part of any offer for sale or subscription of or solicitation of any offer to buy or subscribe for any financial, money market or investment instrument or any security, (ii) is neither intended as such an offer for sale or subscription of or solicitation of an offer to buy or subscribe for any financial, money market or investment instrument or any security nor (iii) as marketing material within the meaning of applicable prospectus law. The investment possibilities discussed in this report may not be suitable for certain investors depending on their specific investment objectives and time horizon or in the context of their overall financial situation. The investments discussed may fluctuate in price or value. Investors may get back less than they invested. Fluctuations in exchange rates may have an adverse effect on the value of investments. Furthermore, past performance is not necessarily indicative of future results. In particular, the risks associated with an investment in the financial, money market or investment instrument or security under discussion are not explained in their entirety.

This information is given without any warranty on an "as is" basis and should not be regarded as a substitute for obtaining individual advice. Investors must make their own determination of the appropriateness of an investment in any instruments referred to herein based on the merits and risks involved, their own investment strategy and their legal, fiscal and financial position. As this document does not qualify as an investment recommendation or as a direct investment recommendation, neither this document nor any part of it shall form the basis of, or be relied on in connection with or act as an inducement to enter into, any contract or commitment whatsoever. Investors are urged to contact their bank's investment advisor for individual explanations and advice.

Neither UniCredit Bank AG, UniCredit Bank AG London Branch, UniCredit Bank AG Milan Branch, UniCredit Bank AG Vienna Branch, UniCredit Bank Austria AG, UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia, UniCredit Bank Czech Republic and Slovakia Slovakia Branch, UniCredit Bank Romania, UniCredit Bank AG New York Branch nor any of their respective directors, officers or employees nor any other person accepts any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection therewith.

This report is being distributed by electronic and ordinary mail to professional investors, who are expected to make their own investment decisions without undue reliance on this publication, and may not be redistributed, reproduced or published in whole or in part for any purpose.

This report was completed and first published on 15 September 2019 at 15:23.

Responsibility for the content of this publication lies with:

UniCredit Group and its subsidiaries are subject to regulation by the European Central Bank

a) UniCredit Bank AG (UniCredit Bank, Munich or Frankfurt), Arabellastraße 12, 81925 Munich, Germany, (also responsible for the distribution pursuant to §34b WpHG). Regulatory authority: "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany.

b) UniCredit Bank AG London Branch (UniCredit Bank, London), Moor House, 120 London Wall, London EC2Y 5ET, United Kingdom. Regulatory authority: "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany and subject to limited regulation by the Financial Conduct Authority, 12 Endeavour Square, London E20 1JN, United Kingdom and Prudential Regulation Authority 20 Moorgate, London, EC2R 6DA, United Kingdom. Further details regarding our regulatory status are available on request.

c) UniCredit Bank AG Milan Branch (UniCredit Bank, Milan), Piazza Gae Aulenti, 4 - Torre C, 20154 Milan, Italy, duly authorized by the Bank of Italy to provide investment services.

Regulatory authority: "Bank of Italy", Via Nazionale 91, 00184 Roma, Italy and Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany.

d) UniCredit Bank AG Vienna Branch (UniCredit Bank, Vienna), Rothschildplatz 1, 1020 Vienna, Austria. Regulatory authority: Finanzmarktaufsichtsbehörde (FMA), Otto-Wagner-Platz 5, 1090 Vienna, Austria and subject to limited regulation by the "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany. Details about the extent of our regulation by the Bundesanstalt für Finanzdienstleistungsaufsicht are available from us on request.

e) UniCredit Bank Austria AG (Bank Austria), Rothschildplatz 1, 1020 Vienna, Austria. Regulatory authority: Finanzmarktaufsichtsbehörde (FMA), Otto-Wagner-Platz 5, 1090 Vienna, Austria

f) UniCredit Bulbank, Sveta Nedelya Sq. 7, BG-1000 Sofia, Bulgaria. Regulatory authority: Financial Supervision Commission (FSC), 16 Budapeshta str., 1000 Sofia, Bulgaria

g) Zagrebačka banka d.d., Trg bana Josipa Jelačića 10, HR-10000 Zagreb, Croatia. Regulatory authority: Croatian Agency for Supervision of Financial Services, Franje Račkoga 6, 10000 Zagreb, Croatia

h) UniCredit Bank Czech Republic and Slovakia, Želetavská 1525/1, 140 92 Praga 4, Czech Republic. Regulatory authority: CNB Czech National Bank, Na Příkopě 28, 115 03 Praga 1, Czech Republic

i) ZAO UniCredit Bank Russia (UniCredit Russia), Prechistsenskaya nab. 9, RF-119034 Moscow, Russia. Regulatory authority: Federal Service on Financial Markets, 9 Leninsky prospekt, Moscow 119991, Russia

j) UniCredit Bank Czech Republic and Slovakia, Slovakia Branch, Šancova 1/A, SK-813 33 Bratislava, Slovakia. Regulatory authority: CNB Czech National Bank, Na Příkopě 28, 115 03 Praha 1, Czech Republic and subject to limited regulation by the National Bank of Slovakia, Imricha Karvaša 1, 813 25 Bratislava, Slovakia. Regulatory authority: National Bank of Slovakia, Imricha Karvaša 1, 813 25 Bratislava, Slovakia

k) UniCredit Bank Romania, Bucharest 1F Expozitiei Boulevard, 012101 Bucharest 1, Romania. Regulatory authority: National Bank of Romania, 25 Lipscani Street, 030031, 3rd District, Bucharest, Romania

l) UniCredit Bank AG New York Branch (UniCredit Bank, New York), 150 East 42nd Street, New York, NY 10017. Regulatory authority: "BaFin" – Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany and New York State Department of Financial Services, One State Street, New York, NY 10004-1511

Further details regarding our regulatory status are available on request.

ANALYST DECLARATION

The analyst's remuneration has not been, and will not be, geared to the recommendations or views expressed in this report, neither directly nor indirectly.

All of the views expressed accurately reflect the analyst's views, which have not been influenced by considerations of UniCredit Bank's business or client relationships.

POTENTIAL CONFLICTS OF INTERESTS

You will find a list of keys for company specific regulatory disclosures on our website <https://www.unicreditresearch.eu/index.php?id=disclaimer>.

RECOMMENDATIONS, RATINGS AND EVALUATION METHODOLOGY

You will find the history of rating regarding recommendation changes as well as an overview of the breakdown in absolute and relative terms of our investment ratings, and a note on the evaluation basis for interest-bearing securities on our website <https://www.unicreditresearch.eu/index.php?id=disclaimer> and <https://www.unicreditresearch.eu/index.php?id=legalnotices>.

ADDITIONAL REQUIRED DISCLOSURES UNDER THE LAWS AND REGULATIONS OF JURISDICTIONS INDICATED

You will find a list of further additional required disclosures under the laws and regulations of the jurisdictions indicated on our website

<https://www.unicreditresearch.eu/index.php?id=disclaimer>.

E 19/3

UniCredit Research*

Macro Research



Erik F. Nielsen
Group Chief Economist
Global Head of CIB Research
+44 207 826-1765
erik.nielsen@unicredit.eu



Dr. Ingo Heimig
Head of Research Operations
& Regulatory Controls
+49 89 378-13952
ingo.heimig@unicredit.de

Head of Macro Research



Marco Valli
Head of Macro Research
Chief European Economist
+39 02 8862-0537
marco.valli@unicredit.eu

European Economics Research



Dr. Andreas Rees
Chief German Economist
+49 69 2717-2074
andreas.rees@unicredit.de



Dr. Loredana Federico
Chief Italian Economist
+39 02 8862-0534
loredanamaría.federico@unicredit.eu



Stefan Bruckbauer
Chief Austrian Economist
+43 50505-41951
stefan.bruckbauer@unicreditgroup.at



Daniel Vernazza, Ph.D.
Chief International Economist
+44 207 826-7805
daniel.vernazza@unicredit.eu



Tullia Bucco
Economist
+39 02 8862-0532
tullia.bucco@unicredit.eu



Edoardo Campanella
Economist
+39 02 8862-0522
edoardo.campanella@unicredit.eu



Walter Pudschedl
Economist
+43 50505-41957
walter.pudschedl@unicreditgroup.at



Chiara Silvestre
Economist
chiara.silvestre@unicredit.eu



Dr. Thomas Strobel
Economist
+49 89 378-13013
thomas.strobel@unicredit.de

EEMEA Economics Research



Dan Bucsa
Chief CEE Economist
+44 207 826-7954
dan.bucsa@unicredit.eu



Gökçe Çelik
Senior CEE Economist
+44 207 826-6077
gokce.celik@unicredit.eu



Mauro Giorgio Marrano
Senior CEE Economist
+43 50505-82712
mauro.giorgiomarrano@unicredit.de



Florin Andrei, Ph.D.
Senior Economist, Romania
+40 21 200-1377
florin.andrei@unicredit.ro



Artem Arkhipov
Head, Macroeconomic Analysis
and Research, Russia
+7 495 258-7258
artem.arkhipov@unicredit.ru



Hrvoje Dolenc
Chief Economist, Croatia
+385 1 6006-678
hrvoje.dolenc@unicreditgroup.zaba.hr



Dr. Ágnes Halász
Chief Economist, Head of Economics and
Strategic Analysis, Hungary
+36 1 301-1907
agnes.halasz@unicreditgroup.hu



Ľubomír Koršňák
Chief Economist, Slovakia
+421 2 4950 2427
lubomir.korsnak@unicreditgroup.sk



Kristofor Pavlov
Chief Economist, Bulgaria
+359 2 923-2192
kristofor.pavlov@unicreditgroup.bg



Pavel Sobišek
Chief Economist, Czech Republic
+420 955 960-716
pavel.sobisek@unicreditgroup.cz

UniCredit Research, Corporate & Investment Banking, UniCredit Bank AG, Am Eisbach 4, D-80538 Munich, globalresearch@unicredit.de
Bloomberg: UCCR, Internet: www.unicreditresearch.eu

MR 19/3

*UniCredit Research is the joint research department of UniCredit Bank AG (UniCredit Bank, Munich or Frankfurt), UniCredit Bank AG London Branch (UniCredit Bank, London), UniCredit Bank AG Milan Branch (UniCredit Bank, Milan), UniCredit Bank AG Vienna Branch (UniCredit Bank, Vienna), UniCredit Bank Austria AG (Bank Austria), UniCredit Bulbank, Zagrebačka banka d.d., UniCredit Bank Czech Republic and Slovakia, ZAO UniCredit Bank Russia (UniCredit Russia), UniCredit Bank Romania.