Sunday Wrap

Happy Sunday,

The second wave of the pandemic has hit, and while hospitalizations and fatalities are still relatively modest, a host of restrictions are (rightly) being rolled out again across Europe and parts of the US to bring the infection rates back under control. As I discussed last Sunday, this will have some negative effect on the expected economic recovery path, possibly sending Q4 GDP back into negative territory – and it calls for further fiscal protection of the most exposed parts of society.

But there’s a silver lining to this pandemic. Along with the past few years’ troublesome political developments in many places (mostly) outside the European continent, including in the US, the UK and Russia, the pandemic has sharpened Europe’s understanding of the need for better cooperation and closer integration for both political and economic reasons.

So, this year we got the additions to the ESM and EIB arsenals as well as the common underwriting of parts of the national unemployment benefits, the SURE program. The ECB launched the PEPP and turned explicitly supportive of the fiscal action (for all constituencies of the eurozone), and more recently the mega-sized Next Generation EU blockbuster agreement was agreed and is now rolling through the ratification process.

The success of these big European initiatives are there for all to see, latest illustrated by the following two examples this past week:

The EU launched its first transaction related to SURE bonds, with EUR 10bn of 10-year bonds and EUR 7bn of 20-year bonds. In one of the biggest success stories in several years, investors placed orders in excess of EUR 230bn for the two issues with an impressive 578 investors bidding for the 10-year bond and 514 investors for the 20-year bond. For comparison, and in addition to the huge oversubscription, in the big traditional Italian and Spanish sovereign operations, you see typically 450-500 investors participate, while the first German green bond issue, admittedly for a more specialized audience, attracted orders from 200 investors. Some 60% of the new EU bonds were placed with investors in the eurozone, another 30% with other European investors, and just 10% with non-European investors, illustrating my long-running argument for fiscal expansion: Europe has a huge private sector savings surplus as the private sector has withdrawn from spending and investment. If the European public sector doesn’t step in to fill the gap, and borrow the money, then the private sector savings surplus will – by definition – have to be invested abroad for someone else’s benefit.

As my colleague, co-head of our Strategy Research team, Luca Cazzulani, has pointed out, the SURE bond issue sends two very clear messages: there is a huge demand for a euro-denominated safe asset and there is strong confidence in the new and enhanced European project. This is reflected in the pricing of the 10-year bond at -0.238% and of the 20-year bond at 0.13% (although still 37bp and 52bp more than comparable bunds.) As Citadel’s Angel Ubide added in a tweet, “maybe euro area governments will finally understand the advantages of the exorbitant privilege?” I think they will. It’s good to see that the European leaders will discuss the international role of the euro at one of their summits in the coming months. Stay tuned for much more on this.

The second example of the positive effects of the new European vision came on Friday night when – as the first of the major credit rating agencies - Standard & Poor’s changed its outlook for a eurozone country, Italy, in explicit recognition of the new European initiatives. They revised Italy’s sovereign outlook to “stable” from “negative” (while re-affirming the long- and short term rating at BBB/A-2), explaining the change with the extraordinary pan-European response, including by the ECB, which they see as balancing the negative effects of the pandemic. (The next ratings action for Italy will be from Moody’s on November 6. I’m pretty sure they won’t change anything on that occasion, but S&P has now taken the lead on how the rating agencies will – read: should - look at Europe, so stay tuned as the others start to get their heads around this new and deeper integrated Europe.)

Of course, as we move towards ever closer integration, the eternal question will pop up again whether to base policies on rules or on institutions with a mandate to exercise judgment – which brings me to my topic for today, namely the two major, presently ongoing reviews of existing policies of the fiscal rules and of monetary policy.

As you know, the fiscal rules are suspended until the end of next year to allow for the proper fiscal response to the pandemic, while the ECB's own review of its monetary policy strategy (after having missed the inflation target for years) is set to conclude around the middle of next year.

Both reviews kicked into a higher gear this past week. The European Fiscal Council delivered its fourth annual report with its recommendations and the German finance ministry hosted an outstanding workshop on the topic, while in Frankfurt the ECB had their first "the ECB listens" event to hear what civil society suggests for monetary policy.

I'll address the issue in the following three segments:

- **Some common considerations on the issue of rules versus adaptive policy making.**
- **The specifics of the review of the fiscal rules.**
- **The specifics of the monetary policy review.**

1. Some basis considerations on the issue of rules versus adaptive policy making.

In both the review of the fiscal rules and of the monetary policy strategy, the decision makers face the choice between three fundamental routes:

First, they can (with some justification) claim that we simply live in temporarily unusual times, so we'll just wait out the storm and then return to the existing fiscal rules and the "below but close to 2%" inflation target. In both cases, however, this would be a mistake because it would ignore several deeper flaws in the design. I think that's pretty broadly recognized, so I very much doubt that this would be the conclusion of either of the two reviews.

Second, they can fiddle the rules, e.g. by simplifying and finessing the fiscal rules, and on the monetary policy side they could follow the Fed and introduce some more flexible language. I think that's what they'll end up doing, but, as I'll argue in the segments below, I think it's a mistake, or – more accurately – a missed opportunity for something better.

Third, I hope they'll go for that "something better": they could use the opportunity to adjust the old rulebook to reflect both what we have learned in recent years and to adapt a regime that'll be better fit to navigate the world we are likely to face in coming years. That would be my preferred option in both cases, but I doubt that the key decision makers have the courage to do it.

Before summarizing my views, let me set the stage on the fundamental issue of rules versus policy discretion by quoting Mario Draghi from a speech at the BIS in February last year. He observed that "there are two reasons why institutions [with a policy mandate] have proven superior [to rules based systems]. First, rules are generally static and require countries to adhere to specific actions, whereas institutions are required to achieve prescribed objectives. Rules therefore cannot be updated quickly when unforeseen circumstances arise, whereas institutions can be dynamic and employ flexibility in their approaches. That distinction matters hugely when underlying parameters and economic relationships change – as they often do. The distinction also matters for citizens, who ultimately care most about the results of economic policy rather than the actions taken by governments." Draghi's very readworthy speech, in its entirety, is here: Mario Draghi: Sovereignty in a globalised world.

So now you know where I'll be going …

2. The fiscal rules, and what they should do.

The - very valid – objective of the fiscal rules is to assure debt sustainability. It started with the almost comically simple rules of 3% of GDP budget deficit ceilings and 60% debt/GDP ceilings, with – for those with debt above 60% – a long-term plan of primary surpluses to gradually reduce the debt towards 60%. Later on, all sorts of interesting add-ons have been introduced to finesse the fiscal rules, including to take the business cycle into account, which introduced a reliance on output gaps and hence on the estimates of potential output. Yet, anyone having taken Macro 101 will know the enormous uncertainties associated with the estimates of potential output – and if you are not familiar with this, just take a look at the revisions done to the potential output estimates over time.

However, the real problem starts with the simple fact that debt sustainability is not easily definable, so we interpret it to mean that the debt level stabilizes. That, in turn, depends on the interest rate, the growth rate in the economy and on the primary budget balance, but the two first variables are mostly determined by structural factors which change (sometimes dramatically) over time. I won't bore you with the details on a Sunday morning, but just consider how, over the past couple of decades, we have moved from having the nominal interest rate higher than the nominal growth rate, to now being the other way around. This alone has vast implications for what level of debt is sustainable and means that the fiscal rules would need to change over time to reflect such fundamental changes. But they haven't done so. This has had important – and not always positive - implications for the Commission's fiscal recommendations.

Being now (appropriately) suspended provides a very good opportunity to take a real good look at the rules set-up. At a minimum, they'll need to be revised to take into account the much higher debt levels among all European sovereigns as a result of the policy responses to the pandemic, but one has to hope the decision makers will go much further than that.

As noted above, one can – and probably will – adjust the rules to introduce a degree of simplicity and transparency, while adjusting them to become smarter, e.g. by separating public consumption from public investment and treating them differently. With the risk of oversimplifying what the European Fiscal Board presented in its annual report this past week, it's broadly along these lines.

Another – and much more radical – suggestion was also presented this past week, and in no place less than what used to be the home of the high priest of fiscal rules, namely the German finance ministry. Along with the CEPR, the German finance ministry hosted, this past Thursday, a seminar on Europe's future fiscal rules, where former IMF chief economist, now PIIE Senior Fellow, Olivier Blanchard presented a radically approach, which he authored late last year with Jeromin Zettelmeyer at the IMF (formerly chief economist at the German economics ministry) and Álvaro Leandro of CaixaBank Research.

Blanchard and his co-authors argue that the EU should abandon the fiscal rules altogether and replace them with a set of "fiscal standards", which they identify as "qualitative prescriptions that leave room for judgment together with a process to decide whether the standards are met."

Blanchard, Zettelmeyer and Leandro make two key contributions to the debate. They provide the analytical underpinning of how one should think about sovereign debt sustainability. I call it a contribution even though it's pretty straight-forward math because – amazingly – it is still not widely incorporated in the policy (and public) debate. It really is a topic that goes much beyond debt/GDP levels, and as the authors note, given the complexity of the issue, "it is an illusion to think that EU fiscal rules can be simple. But it is also an illusion to think that they can ever be complex enough to accommodate most relevant contingencies".

The second contribution to this debate is their recommendation – based on the first point – to abandon the fiscal rules in favor of fiscal standards, and to add a process to decide whether the standards are met. As they write, "central to this process would be country-specific assessments using a stochastic debt sustainability analysis methodology, led by the European Commission. Violations of the standard should preferably be adjudicated by an independent institution, such as the ECJ (or a specialized chamber), rather than by the European Council."

While not necessarily subscribing to every detail of their proposal, I'm a fan and I highly recommend anyone interested in this important topic to read their paper from September last year: Redesigning the EU Fiscal Rules: From Rules to Standards.

Unfortunately, I don't think the politicians will go this far, but then again, as Bob Dylan reminded us some 60 years ago, "The Times They Are A Changing". Who would have thought that the German finance ministry would host a debate on this topic with such an open mind. In addition to tipping my hat to Blanchard and his two co-authors, I tip my hat to the BMF's chief economist Jakob von Weizsäcker and his colleagues for having turned the ministry into one of the centers for an open-minded discussion of some of the biggest European issues.

3. The ECB's policy review, and what they should do.

Also this past week, on Wednesday, the ECB took the first of several steps to solicit views of civil society for the ongoing review of the monetary policy strategy. The virtual event is here: ECB Listens event.

To be sure, policymakers need to pay attention to solicit views on policies from the general public and – related – to explain policies so everyone can understand them. So, in this light, the ECB's initiative is a positive one.

At the same time, as Draghi observed in one of his last speeches as ECB president in October last year, "since policymakers face substantial uncertainty, they should strive to base their decisions on expert knowledge. This is crucial for acquiring a deep understanding of a subject, making informed decisions in a way that distinguishes the technical from the political and adjusting those decisions in the light of new evidence … Today, however, we are living in a world where the salience of knowledge in policymaking is being challenged. Trust in objective facts, born of research and provided by impartial sources, is diminishing, to be replaced by subjectivity and the fragmentation of opinions into echo chambers. In this setting, it would be easy for policymakers to mirror what they believe to be the public mood: to turn away from expertise and adopt more partial perspectives, and to follow instinct rather than reason. But this does not typically serve the public interest. History teaches us that when decisions are intended to have a lasting and positive impact, they are based on thorough research, accurately established facts and long experience." Hear, Hear. His speech is here: Policymaking, responsibility and uncertainty.

So let me return to the three fundamental choices facing the ECB:

First, they could decide that we have been through some exceptional times which have – temporarily – compressed inflation, but eventually, structural factors and the new fiscal activism will bring back inflation so, let's wait out the storm and stick with the long-held definition of price stability, so let's keep the strategy of inflation targeting, and things will be good again one day. (And, hey, "price stability" could have been interpreted as lower than 2% inflation so long as it's positive, so no damage done to reputation or the economy.)

However, those widely circulated charts of inflation and the ever-changing inflation forecasts by the ECB to suggest a return to the target within the forecasting period is just around the corner are – in my assessment – too damaging to just keep a stiff upper lip and keep claiming we'll get there. The risk to inflation expectations (and ultimately the risk of getting stuck at near-zero inflation, let alone deflation) is just too great – and it would deny the ECB the opportunity to think deeper about the issue and adjust accordingly. Hence, I would be very surprised if this were to be the outcome.

Alternatively, the ECB could adopt the Fed approach and fiddle with the definition, maybe even copy it, and introduce something like what Jay Powell calls "a flexible form of average inflation targeting", implying that their (revised) target is "moderately above 2 percent for some time". Personally, I don't think they would ever copy the Fed (if for no other reasons than it wouldn't look good), but I also strongly doubt that the route the Fed has chosen is the best one for the ECB (and maybe not for the Fed either.)

I have two key problems with the Fed approach, particularly as it would apply to the ECB:

First, remember that inflation targeting is about creating self-fulfilling inflation expectations. But for that to happen, you need, first, to have credibility that you can indeed deliver inflation at the target, and, second, you need the private sector – households, corporates and financial markets – to be able to extend the past performance into the future, to create those expectations. After all, inflation expectations are largely adaptive, so people (and markets) need to see inflation at x% before they start believing in it for the future.

Yet, the credibility of having been able to deliver is, at best, questionable now (the Fed only hit 2% or above for core PCE inflation once since 2012, namely in 2018), but maybe more importantly, how is the private sector supposed to create those (self-fulfilling) expectations if we don't know what exactly the base is (no longer past inflation near the target, but some average for an unidentified period) or for what future period the average applies? In other words, in my assessment, by explicitly introducing "flexibility" and (undefined) "averages", the Fed may have undermined the very core of what inflation targeting is all about.

Second, we are all supposed to understand that this new regime will lead to a period of higher inflation than in the past. But if a central bank has struggled to get inflation to 2%, why should we expect it to be able to deliver a period of higher inflation than 2%? To me, that's virtually the same issue as we had when the idea of dealing with the low inflation was to simply raise the target to e.g. 4%. In other words, at a minimum, show me the tools that will now be employed, rather than just say a new (higher) target without explaining – and employing – the tools to get there.

That all said, unfortunately, I think the ECB will indeed end up simply fiddling the language around the target, rather than being bold and acknowledge that – at least for now – the role and capabilities of monetary policy have changed.

My view is that the ECB should articulate a three step-approach to its policy strategy, but – explicitly - adjustable any time the ECB sees a need to deviate, and subject to a major review again in five years.

But before summarising what I think they should do, let's be sure we all appreciate the critical need to raise inflation and inflation expectations. A higher, but still modest, inflation rate (of at least 2%, but happily up to e.g. 4%) is needed because of the effective lower bound for interest rates and hence the policy space available to the central bank to fight the downturns – and because a higher inflation rate facilitates the all-important relative price changes.

So, given the years of struggle with the inflation target, it's time to be open about what can and cannot be achieved on a yearly basis and, more fundamentally, accept that also in monetary policy matters are "institutions and policy judgment" better for the outcome than "rules".

In super-compressed form, here are my suggested three-step suggestion for the ECB's monetary policy strategy:

First, so long as inflation (defined over 12-18 months, for example) is below e.g. 3%, or even 4%, monetary policy will be designed to prevent any tightening of monetary conditions in any national constituency of the ECB. To be clear, these are basically the words (without the 3% reference) used by Philip Lane in his blog to describe the present monetary policy response to the fiscal expansion in reaction to the pandemic. A strategy that has worked very well indeed.

Second, I would overlay this with some form of price level targeting. The ECB should quantify the gap between the average price level now and what it would have been if the target had been met, and set out a long-term strategy to restore that level (adjusted forward as well, of course.) This would facilitate the very important – and ultimately inevitable – relative price changes that will be needed in the years to come as the economy adjusts to the post-pandemic structures. Of course, price level targeting could become pro-cyclical in periods of big price shocks, hence the need for being explicit about the ECB's commitment to adjust if things change.

Third, also to be made explicit up front, once any one the two clauses of (a) the max inflation over a rolling period, and (b) the price level definition have been met, monetary tightening will be introduced by raising the interest rates. Balance sheet reduction will not be employed until a "normal" interest rate environment of positive real rates along an upward sloping yield curve has been in place for some time and deemed insufficient for price and financial stability objectives.

Radical? Maybe, but it's time to be bold!

And on that note, I hope you'll stay safe and healthy and remain supportive of your local communities which may include small businesses and people who suffer more than us during this pandemic.

Best
Erik

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

Legal Notices

Glossary

A comprehensive glossary for many of the terms used in the report is available on our website: https://www.unicreditresearch.eu/index.php?id=glossary

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 25 October 2020 at 12:23.

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 §85 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), Prechistenskaya 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 20/1

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
loredanamaria.federico@unicredit.eu

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

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

International Economics Research

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

EEMEA Economics Research

Dan Bucşa
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

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

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

Dr. Ágnes Halász
Chief Economist, Head, 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

Anca Maria Negrescu
Senior Economist, Romania
+40 21 200-1377
anca.negrescu@unicredit.ro

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

Pavel Sobíšek
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 20/2

*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.