

**Group Economics | 30 March 2022** 

# Global Monthly

Macro Research Team abn.amro.group.economics@nl.abnamro.com Bill Diviney: +31-6-4778-4657

# The growing stagflation risk

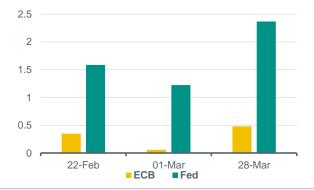
- The Russia-Ukraine conflict has led us to make major downgrades to our growth forecasts, but also upgrades to our inflation forecasts. This is raising the stakes for central bank policymaking
- Despite recent positive signs of a ceasefire, we continue to expect the conflict to trigger a lasting global trade re-alignment. We update our three scenarios outlining how we expect this to play out
- Also this month, we look at the viability of the EU's plan to reduce dependence on Russian energy
- Regional updates: We describe in more detail our forecast revisions for the <u>eurozone</u>, <u>Netherlands</u>, the UK and the US resulting from the fallout of the Russia-Ukraine conflict
- We also preview the French presidential election, where polls are pointing to a Macron win
- In China, the pandemic is driving new widespread lockdowns, adding to bottlenecks risks

# Global View: The Russia-Ukraine conflict is raising inflation, but significantly dampening growth

It has been a wild ride for financial markets since the Russian invasion of Ukraine in late February, with equity markets initially plunging, and expectations for interest rate rises being pared back. Equities have since recovered significantly from their lows, while expectations for tighter policy are now even greater than they were before the conflict broke out – particularly for the US Fed, and to a lesser degree the ECB. This reflects the significant but varied effects the conflict is having on the macro outlook, and the high degree of uncertainty over how these effects work their way through economies. The primary impact of the conflict is to push inflation (even) higher. This raises the stakes for central banks, because while there is a pressing need to get ahead of the inflation problem, policy also needs to balance this need against the rising risk of recession in advanced economies. This has been underscored by the recent plunge in consumer confidence measures across regions. However, the risk balance differs significantly between the eurozone and the UK on the one hand – where the growth hit could potentially be much larger – and the US on the other, where inflation is the significantly more pressing problem. Policymakers on both sides of the Atlantic are caught between a rock and a hard place, with a growing risk of stagflation. However, the Fed is still likely to raise interest rates much more aggressively than the ECB, with the Bank of England likely somewhere in the middle.

# Markets expect bigger rate rises than before the conflict

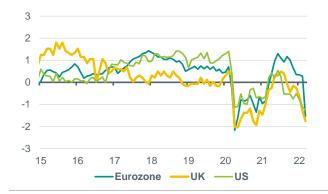
Market pricing for interest rate rises by end-2022, %



Source: Bloomberg, ABN AMRO Group Economics

# Consumer confidence has plunged across regions

Consumer confidence, standardised index



Source: Bloomberg, ABN AMRO Group Economics

# Peace talks are likely no game changer for the macro outlook, even if they succeed

We have made significant changes to our macro outlook following the Russian invasion of Ukraine in late February. As we had already indicated in early March, we now expect sanctions to lead to a lasting global trade re-alignment, with dependence on Russian energy and other commodities gradually reduced, and replaced with alternative sources. Although there has been progress in recent negotiations for a ceasefire between Russia and Ukraine, we do not view this as a reason to change our view. Even in the most optimistic de-escalation scenario, we cannot foresee a rapid return to the global trade environment that existed prior to the invasion. One reason for this is the withdrawal of western oil and gas companies from Russia. This is likely to cause a brain drain in technical expertise which will hit future Russian energy supplies. Another reason is that it is highly unlikely the conditions for removing sanctions (which have not been specified) would be met even in a de-escalation scenario. The question, then, becomes how long this global trade re-alignment takes, and how disruptive for economies it will be.

#### New base case: Energy and commodity supply shock lasting one year

Our new base case assumes, alongside the significant price shocks we are seeing in energy markets, that physical supply disruptions to key commodities are likely to worsen over the coming months as embargoes and self-sanctioning moves come into effect. This will have knock-on effects on supply chains, and there continues to be the potential for retaliatory moves by the Russian government (it remains unclear, for instance, how European energy companies will respond to demands for payments in Russian roubles). Energy prices (including electricity) are likely to remain elevated, alongside metals and agricultural commodities, with goods inflation therefore expected to spike further. Price spikes will induce selfrationing of supplies, leading to industry disruptions. This is coming alongside existing supply side bottlenecks, which are also likely to be worsened by the recent re-imposition of lockdowns in many parts of China amid the Omicron wave. Meanwhile, the hit to household purchasing power from the surge in energy bills is already weighing heavily on consumer confidence. All of this will ultimately hit growth. While financial conditions (mainly equity markets) have bounced back significantly off their lows, broadly tighter conditions will also weigh on confidence and activity. Note, we do not assume a complete cut-off in Russian oil and gas supplies to Europe in our base case scenario - this is something we reserve for a more negative scenario outlined below. In our new base case, we assume a period of very elevated prices and supply disruptions will last around one year, as new sources of non-Russian commodity supplies are secured and global trade flows re-adjust. However, even once supply disruptions ease, prices are likely to remain elevated thereafter, and this will continue to weigh on economic activity.

# Russia and Ukraine are major global commodity suppliers

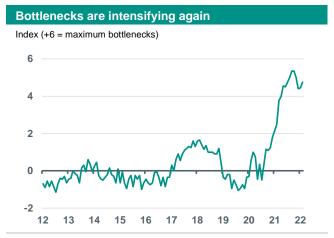
Russia (2022)	Russia	Global	Share	World rank	Ukraine (2022)	Ukraine	Global	Share	World rank
- Wheat (production, mln tons)	75	781	10%	3	- Wheat (production, mln tons)	33	781	4%	6
wheat export (mln tons)	33	197	17%	1	wheat export (mln tons)	25	197	12%	4
- Barley (production, mln tons)	18	146	12%	1	- Corn (production, mln tons)	40	1,203	3%	5
<ul> <li>Aluminium (smelter production)*</li> </ul>	3,700	68,000	5%	3	com export (mln tons)	32	177	18%	3
- Nickel (mine production)**	250,000	2,700,000	9%	3	- Barley (production, mln tons)	10	146	7%	3
<ul><li>Copper ore (mine production)*</li></ul>	820	21,000	4%	8	- Graphite (mine production)**	17,000	1,000,000	2%	6
<ul><li>Copper (refined production)*</li></ul>	920	26,000	4%	6	- Titanium mineral concentrates: Ilmentite	430	8,400	5%	7
- Lead (mine production)*	210	4,300	5%	4	- Titanium mineral concentrates: Rutile*	13	630	2%	6
<ul> <li>Gold (mine production)**</li> </ul>	300	3,000	10%	3	- Titanium & titanium dioxide **	5,400	210,000	3%	5
- Silver (mine production)**	1,300	24,000	5%	5	- Iron ore (mine production, usable ore)*	81,000	2,600,000	3%	6
- Palladium (mine production)***	74,000	200,000	37%	2	- Manganese (concentrate)*	670	20,000	3%	5
- Platinum (mine production)***	19,000	180,000	11%	2	- Nitrogen (fixed) - ammonia*	2,300	150,000	2%	13
reserves share (Platinum Group Metals)***	4,500,000	70,000,000	6%	2	- Silicon production*	49	8,500	1%	14
- Steel (raw steel)****	73	1,900	4%	5					
- Iron ore (mine production, usable ore)*	100,000	2,600,000	4%	5	Source: USGS, International Grains Council				
reserves crude iron ore*	14,000	180,000	8%	3	*data in thousand metric tons				
- Graphite (mine production)**	27,000	1,000,000	3%	4	**data in metric tons				
- Cobalt (mine production)**	7,600	170,000	4%	2	***data in kilograms				
<ul> <li>Vanadium (mine production)**</li> </ul>	19,000	110,000	17%	2	****million metric tons				
- Titanium (sponge production)**	27,000	210,000	13%	3					
- Potash*	9,000	46,000	20%	2					

We have made sizeable downgrades to our growth forecasts for both European and US economies – we see growth being hit by a cumulative c.0.8pp over 2022-23 (see table below). While European economies are much more vulnerable to the effects of the conflict, due to their unique dependence on Russian gas, government support measures will to some extent dampen the growth impact in Europe. Another factor cushioning eurozone growth is the upward revision to growth in H2

2021, which adds c.0.2pp to 2022 growth. Were it not for these factors, we would have made an even bigger downgrade to our eurozone growth forecasts. Moreover, the downside risks for the eurozone and UK stemming from potential physical supply disruptions continue to be much bigger than for the US. On inflation, we have made even bigger upgrades to our forecasts, with eurozone inflation now expected to average 5.3% in 2022 (3.6% previously), and US inflation 6.9% (5.0%). Governments in the eurozone and UK have already stepped in to stem the macro-economic fallout, eg. through price caps or compensation (tax cuts) to households and industry, and this is preventing a more severe hit to growth than we would otherwise have forecast. For instance, just today Spain announced a EUR16bn (1.3% of GDP) plan to cushion the blow to households. However, governments will struggle to offset the inevitable disruptions to physical supplies of commodities and components. For instance, some car producers had to pause production in early March, due to a lack of cabling supplies from Ukraine. We expect these types of disruptions to intensify over the coming months. Indeed, order lead times have already started rising again according to the latest PMIs, and this drove a renewed rise in our bottlenecks index in March. All told, we expect the eurozone and UK economies to avoid technical recessions, as even in this new environment there is still room for recovery in the services sector after the pandemic, as was evident in the recent PMIs. However, growth will be significantly lower than we previously thought.

# Our growth and inflation forecast changes

	Annual average	New forecast	Previous forecast	Change (pp)
Eurozone GDP	2022	2.9	3.4	-0.5
	2023	2.2	2.5	-0.3
Eurozone inflation	2022	5.3	3.6	1.7
	2023	2.2	1.4	0.8
Netherlands GDP	2022	3.1	3.1	0.0
	2023	1.3	1.9	-0.6
Netherlands inflation	2022	5.3	3.6	1.7
	2023	2.7	2.2	0.5
US GDP	2022	3.1	3.8	-0.7
	2023	2.2	2.3	-0.1
US inflation	2022	6.9	5.0	1.9
	2023	3.2	2.1	1.1



Source: Refinitiv, ABN AMRO Group Economics

Source: ABN AMRO Group Economics

Meanwhile, high inflation significantly limits what monetary policy can do to offset the hit to growth. While a delay to ECB tightening initially looked more likely, commentary from Governing Council members continues to suggest an appetite to begin normalising policy. As such, we continue to expect asset purchases to end by Q3, and for lift-off to start this December with a 10bp hike. For the Fed, given the significantly bigger inflation problem the US is facing, the calculus has shifted even more in favour of rate hikes. As such, following the 25bp rate hike in March, we now expect the Fed to raise rates by 50bp at the May and June meetings, and subsequently at more gradual 25bp steps until the fed funds rate reaches 2.5-2.75% in early 2023. This represents an additional drag on growth in the US, alongside the hit to real incomes from higher inflation.

# Negative scenario – Supply disruptions last up to two years

In this scenario, we assume an abrupt, complete shut-off of Russian oil, gas and other commodities to Europe, with disruptions to supplies taking much longer to resolve – perhaps up to two years. The impact of a gas cut-off would be particularly negative, due to its reliance on physical (pipeline) infrastructure, and the lack of LNG terminal capacity to replace Russian supply in the near term. However, it will also be challenging to source other commodities from elsewhere at short notice, especially given the challenges in global shipping, which will be put under even more pressure in this scenario. In addition, we would expect a renewed tightening of financial conditions, chiefly on the back of equity market falls. The negative macro-economic effects will therefore be amplified, with more widespread and persistent industry stoppages, and explicit government rationing of energy supplies to prioritise households and critical industries. This scenario would lead to even higher inflation, and trigger technical recessions in the eurozone and UK economies. The US would see a bigger growth hit of 2-3pp as it would be hit harder by the knock-on supply chain disruptions in this scenario, while price spikes would weigh heavily on consumer confidence and consumption.

While governments will likely implement further support measures to cushion the blow in this scenario, central banks would continue to be constrained by high inflation in their ability to provide support to the economy. The ECB could resume asset

purchases if spreads on peripheral eurozone sovereign debt widen significantly, but for the US, we would only expect some modest slowing in the pace of rate hikes, given the risks around inflation and the more modest hit to growth.

# Positive scenario - More rapid and/or smoother trade re-alignment; disruptions lasting 6 months

This scenario assumes either a quicker realignment of global trade flows, or a smoother re-alignment whereby in a deescalation, the pressure to quickly reduce dependence on Russian energy is somewhat less. However, even in this more positive scenario, we would not expect European governments to row back on these commitments, or to unwind sanctions. Nonetheless, this more benign scenario could shorten the disruption to energy and other supplies to around 6 months. The US and perhaps some OPEC countries could raise oil output in order to fill the gap left by Russia, and/or Russian oil is bought by eg. China, freeing non-Russian supply to go to Europe. The same could apply to other commodities. This would depend crucially on sufficient shipping capacity being available. In this scenario, negative macro effects are less pronounced, with only limited industry stoppages. Growth would quickly rebound once supply disruptions ease. However, inflation would remain elevated on the back of continued high commodity and goods prices. (Bill Diviney, Aline Schuilling, Hans van Cleef, Arjen van Dijkhuizen)

We summarise in the below table the various macro implications of each scenario.

	Supply shock (exc. gas) (BASE)	Lengthy supply shock (inc. gas) (NEGATIVE)	Rapid trade re-alignment (POSITIVE)
Scenario	Energy and commodity price spikes, with some physical supply disruptions	Complete Russian oil & gas supply cut-off; prolonged, widespread supply disruptions	Commodity prices remain elevated, but rapid/more smooth trade flow re-alignment leads to earlier end to supply disruptions
Description	Sanctions and self-sanctioning leads to significant reduction in oil, some gas (LNG), and other commodity imports from Russia. Prices are persistently elevated, with supply disruptions lasting around <u>one year</u> , until alternative supplies are secured.	As in the base case, but Russian oil and gas supply is completely cut-off, either through official embargoes or Russian retaliation to sanctions.  Trade re-alignment takes longer, leading to more persistent supply disruptions of up to two years.	Trade flows realign more quickly, shortening disruption to energy and other supplies to around <u>6 months</u> . The US and perhaps some OPEC countries raise oil output to fill the gap left by Russia, and/or Russian oil is bought by eg. China, freeing non-Russian supply to go to Europe. Same applies to other commodities.
Europe (eurozone/UK)	Much higher inflation (1.5-2pp higher than prior base), driven by energy (inc. electricity) prices primarily but also metals, food. Inflation surge hurts household purchasing power, weighing on consumption. Price spikes/supply disruptions lead to periodic industry stoppages. Government support partly offsets economic fallout, but cannot offset physical supply disruptions. GDP grow th is 0.8-1.5pp low er than prior base case.*	Even higher inflation, with gas cut-off leading to government rationing measures that prioritise households and critical industries. Pressure on supply chains and shipping leads to trade flow realignment taking much longer, leading to more prolonged industry stoppages. All of this w eighs on GDP, perhaps leading to a technical recession.	Inflation is still 1.5-2pp higher than prior base, but negative growth effects are less pronounced, with only limited industry stoppages. Growth quickly rebounds once supply disruptions ease.
US	Inflation c.2pp higher than prior base, with growth 0.8pp lower.	Inflation even higher, with growth 2pp lower vs prior base. Risk of a technical recession	Inflation 1-1.5pp higher than prior base, growth 0.3-0.5pp lower
ECB	Rate hikes follow base case, with risk of delay	Could step up asset purchases to stem spread widening, but high inflation a significant barrier to further easing	APP to end this year, with rate hikes following soon after
Fed	Rate hikes follow base case	Rate hikes could be slowed in case of recession, but depends on precise growth/inflation mix	Rate hikes follow base case
	-Risk sentiment: Cautious -Bund/US Treasurys rangebound for the coming months -EUR/USD: Move to 1.05	-Risk sentiment: Very negative -Bund yields sharply low er/UST low er -EUR/USD: Move to parity or below	-Risk sentiment: Improving -Bund/UST yields rise -EUR/USD: 1.10
Markets	Energy (2022-23 averages) Brent: USD 110-130/bbl WTI: USD 105-125/bbl	Energy (2022-23 averages) Brent: USD 130-160/bbl WTI: USD 125-155/bbl	Energy (2022-23 averages) Brent: USD 80-110/bbl WTI: USD 75-105/bbl
	TTF (m+1): 130-150/MWh TTF (y+1): 80-100/MWh	TTF (m+1): 150-200/MWh TTF (y+1): 100-150/MWh	TTF (m+1): 75-100/MWh TTF (y+1): 50-70/MWh

Source: ABN AMRO Group Economics

# Spotlight: Europe's plan to reduce dependence on Russian gas

Nick Kounis - Head Financial Markets & Sustainability Research | nick.kounis@nl.abnamro.com

- The European Commission has announced a plan to reduce the EU's dependence on Russian gas
- > REPowerEU plans aims to reduce an equivalent of two-thirds of its dependence this year
- An acceleration of the energy transition is an important element of the strategy
- The targets it has set out for this year may well prove to be too ambitious
- There is also a chance that coal may temporarily replace gas to some extent
- However, it is likely that the crisis will give an extra push to the transition over coming years

Russia's invasion of Ukraine has triggered a sharp deterioration of relations between Russia and the EU. Russia provides more than 40% of the EU's total gas consumption. This has triggered a desire by the EU to become independent of Russian gas. The European Commission (EC) has therefore last week launched a plan (see <a href="here">here</a>) to try and achieve this, with a more rapid clean energy transition as a key component of the plan. It announced measures to try to achieve full independence from Russian gas 'well before the end of the decade', starting with measures that are equivalent to two-thirds of its Russian gas consumption by the end of 2022. In this note, we take a closer look at the EC's measures. We also compare them to those in a similar plan by the IEA (see <a href="here">here</a>), which aims to bring down Russian gas imports by a third, with additional temporary options to increase these cuts to over a half, while still lowering emissions.

### The EC's plan to achieve independence from Russian gas

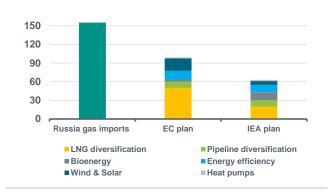
The strategy proposed by the EC, dubbed REPowerEU, contains a wide variety of measures, which are summarised in the charts below. Russian gas imports currently amounts to 155 billion cubic metres (bcm) (as of 2021).

#### Alternative sources of gas

An important part of the plan involves securing alternative sources of gas supply. It asserts that the EU could import 50 bcm more of LNG, while import pipeline diversification could secure another 10bcm. The target for additional LNG imports seems however difficult to meet, even though these have surged since the start of the year. The IEA's ten-point scheme factors in only a 20 bcm increase in LNG imports, as it notes that there is also higher demand from other importers. Meanwhile, separate to this plan, the EC also states the objective to be better prepared for future winters, i.e. to have existing gas storage infrastructures across the EU filled up to at least 90% of their capacity by 1 October each year. The IEA estimates that the gas injection in 2022 needs to be around 18 bcm, implying an increase in demand that is not captured by the figures in the plan.

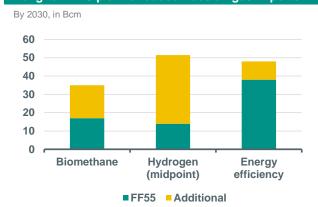


By end 2022 for EC, Within a year for IEA, in Bcm



Source: EC, IEA, ABN AMRO Group Economics

## Long-term EC plan to reduce Russian gas imports



Note: FF55 states for "Fit for 55", the EU's plan to reduce GHG emissions by 2030. Source: EC. ABN AMRO Group Economics

### Speeding up the transition

The other significant part of the plan involves a stepping up or frontloading of the clean energy transition. The EC recommends to boost the Fit for 55 proposals with higher or earlier targets for renewable energy and energy efficiency. We set out the measures on this front below:

- (1) Increasing EU production of biomethane to 35 bcm per year by 2030. This is a doubling of the existing objective and would also result in 3.5 bcm this year.
- (2) Accelerating renewable hydrogen ambitions to 15 million tonnes by 2030, on top of the 5.6 mt under Fit for 55, which can replace 25-50 bcm of Russian gas. Two-thirds of the increase would be imported, and the rest produced in the EU.
- (3) Accelerating the roll-out of rooftop solar PC systems by up to 15TWh this year, saving 2.5 bcm of gas this year.
- (4) Front loading the roll-out of heat pumps by doubling the deployment over the next five years resulting in a cumulative 10m units. This would save 12 bcm. The EC seems to assume 1.25m units will be installed this year, saving 1.5 bcm.
- (5) Wind and solar front loading, replacing 20 bcm by the end of this year. Through to 2030, faster deployment would accommodate for higher production of renewable hydrogen (savings to 2030 of Russian gas discussed above).
- (6) Increased energy saving measures saving an extra 10bcm by 2030. Temporary energy saving measures this year for instance, turning down the thermostat for buildings by 1 degrees save 14 bcm.

The EC proposes steps to facilitate the above ambitions. For instance, the EC would bring forward the implementation of the Innovation Fund, with the aim of supporting the switch to electrification and hydrogen. In May, it will also publish a recommendation for the simplification and shortening of permitting for renewable energy projects. The Commission will also help further develop the value chain for solar and wind energy and for heat pumps.

# Short-term targets may not be met, while problems with gas could lead to more of a role for coal

The targets for the energy transition in the EC's plan for 2022 might be difficult to achieve over such a short time horizon. The EC's plan still would need to be approved and implemented, which will take time. In addition, the faster roll-out of wind and solar may not yield as much in the coming months as targeted. For instance, the IEA's plan estimates that an accelerated deployment of new wind and solar projects could bring down gas use by only 6 bcm over the next year. On the other hand, the IEA does have a proposal to step up generation from bioenergy power plants, currently operating at 50% of total capacity, that could reduce gas use by further 13 bcm, which does not appear to be included in the EU plan. Still, the overall transition plans of the IEA factors in lower gains and somewhat longer time horizon compared to REPowerEU.

Finally, the problems with gas supply, could also lead to more of a role for coal in the near term, which of course leads to slower progress with emissions reduction in the near term. Coal emits ca. 50% more CO2e than natural gas. Frans Timmermans, who leads the EC's work on transition and climate policy, is quoted by the Financial Times saying that "one could imagine you stick with coal a bit longer but only if you speed up the transition to renewables". The IEA estimates that coal-to-gas switching could cut gas demand by up to 22 bcm. This is not part of the 10-point plan but presented as a temporary option to further reduce dependence by up to half in the near term.

# An extra impetus to speed up the transition over coming years

Despite some doubts about the near term fruits of the plan, we do think that the more urgent impetus to achieve independence from Russian gas will accelerate the transition over the coming years. The EC's medium term plans imply additional progress compared to Fit for 55 to 2030, as well as quicker progress up to that point.

This Spotlight is an extract from our **Sutainaweekly publication**.

# **Eurozone: Economy hit by the Russia-Ukraine conflict**

Aline Schuiling – Senior Economist | aline.schuiling@nl.abnamro.com

- The eurozone economy is already being hit by the energy and commodity supply shocks resulting from the Russia-Ukraine conflict, with activity and sentiment indicators dropping in March
- ▶ The ECB has announced its intention to scale back policy accommodation. It will gradually reduce its asset purchases during Q2. The end of purchases and the first rate hike are data-dependent

Just as the eurozone economy was bouncing back from COVID-related restrictions in February, the escalation of the Russia-Ukraine conflict seriously clouded the economic outlook. Around 40% of Europe's gas imports are from Russia and around 25% of its oil imports. In addition, Russia and Ukraine are significant suppliers of other commodities and intermediate goods that are essential inputs for Europe's industrial sector. Indicators of activity and sentiment have dropped sharply lower following the outbreak of the conflict. For instance, the forward-looking parts of the PMIs and consumer confidence plummeted in March (see graph), with consumer confidence falling almost to the low point that was registered during the first wave of the pandemic. Indeed, we expect soaring energy prices will result in only moderate consumption growth in the first half of this year, despite the post-lockdown rebound in services consumption. Moreover, indicators for Germany's industry have collapsed, with the Ifo business climate in industry falling at a record pace in March. The drops in these eurozone indicators look to be in line with our base scenario for the economy of modest quarterly growth (of around 0.3-0.4% qoq) in the first half of this year, which is below the consensus forecast and also below the ECB's most recent projections.

Inflation has also soared due to jumps in energy and other commodity prices. Prices are expected to remain elevated for a considerable time. Supply chain disruptions have also raised the inflation rate of global industrial goods. These disruptions have been intensified by the Ukraine war and sanctions on Russia, which came over and above disruptions related to new pandemic-related lockdowns in China. Finally, services price inflation is still lifted by the normalisation of holiday and entertainment related prices following lockdowns, as well as by energy related price rises of transport services. Although these effects will probably keep inflation at levels well above the ECB's symmetrical 2% target for a while, underlying inflation is subdued. Indeed, wage growth has eased in recent quarters (see graph). Wage growth is expected to strengthen during this year and the next, but the impact on underlying inflation should be buffered by rises in labour productivity.

At its March meeting, the ECB announced a gradual reduction in the amount of monthly APP asset purchases during Q2. In addition, the 'calibration of net purchases for Q3 will be data-dependent', while any adjustments to the key ECB interest rates will take place 'some time' after the end of the net purchases and be 'gradual'. Given the ECB's hawkish tilt and its eagerness to reduce policy accommodation, we still expect net asset purchases to end in September. We have also pencilled in a 10bp deposit rate hike in December of this year and an additional one in March of next year. After that, we expect rate hikes to be aborted, or at least put on ice, with the deposit rate at -0.3% by the end of 2023. Having said that, there is a significant risk that this policy tightening is delayed, depending on the precise growth-inflation mix.

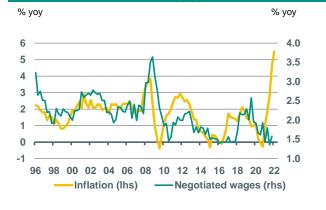
# Consumer confidence & forward looking parts of PMI

Dotted line: Boom-bust for PMIs; long-term average for consumer confidence



Source: Refinitiv, ABN AMRO Group Economics

# Inflation has soared, but wage growth has declined



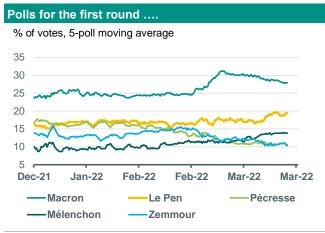
Source: Refinitiv, ABN AMRO Group Economics

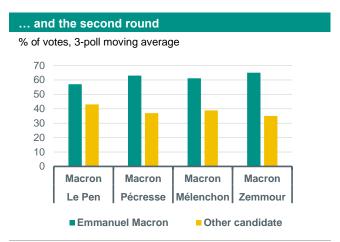
# French presidential election: five more years for Macron?

Aline Schuiling and Sonia Renoult (aline.schuiling@nl.abnamro.com, sonia.renoult@nl.abnamro.com)

- On 10 April the first round of the French presidential elections will be held and on 24 April the second round
- **Emmanuel Macron is running well ahead in the polls for each round**
- His policy plans focus on reforming the pension system, cutting taxes for companies and households, extra spending on education, energy transition, health care and families and further European integration
- The plans should have moderate impact on economic growth and government finances in 2022-23, but they could have a favourable impact on France's longer term growth potential
- The likely continuation of the Macron presidency means that the impact of the elections on financial markets should remain limited

The first round of the French presidential elections will be held on 10 April. Recent polls have shown a clear rise in the popularity of Emmanuel Macron since the announcement of his candidacy early March. It seems his popularity was also boosted by the uncertainties related to the escalation of the Russia-Ukraine conflict, which might have reduced the desire for political change in France and other countries. Another factor working in favour of the centrist Macron is that both the left and the right sides of the political spectrum are fragmented. Competition between left and right wing candidates is reducing the probability that any one of them will end up close to Macron. The polls for the second round of voting give Macron a clear lead over any of the other candidates he might be faced with.





Source: various polling organisations

Source: various polling organisations

The main issue on Macron's economic agenda is reforming the pension system. The reform entails raising the retirement age to 65 from 62, as well as providing a minimum of EUR 1,100 per month when full retirement is completed. Besides reforming the pension system, Macron wants to support employment and economic growth by cutting corporate taxes by around EUR 7bn. Household income will be supported by another EUR 7bn tax cut. On the expenditure side Macron wants to raise spending on education (by EUR 12bn), energy transition (EUR 10bn), health care (EUR 8bn) and families and children (EUR 5bn). The total extra costs of EUR 50bn (equal to 2% of GDP), should not – according to his plans - result in extra government debt.

The impact of Macron's policy plans on economic growth and government finances in 2022-2023 should be relatively limited. Still, the planned pension system reforms and measures aimed at stimulating employment could raise potential GDP growth in the longer term and help improve government finances. Financial markets have not priced in any radical changes in France's politics. Given the likely victory of Emmanuel Macron this year and his strong lead in the polls, we expect the impact of the election on financial markets to remain modest.

A more extensive note on the elections and the policy plans of the main candidates can be found here.

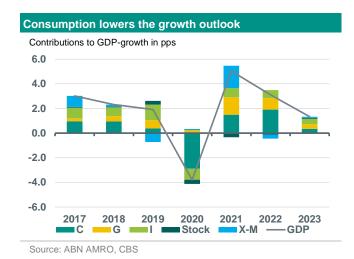
# The Netherlands: Russian invasion lowers growth outlook

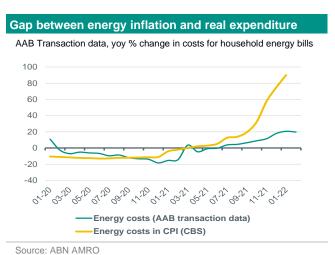
Nora Neuteboom – Senior Economist | <u>Nora Neuteboom @nl.abnamro.com</u>
Jan-Paul van de Kerke – Economist | <u>Jan-Paul van de kerke @nl.abnamro.com</u>

- The Russian invasion of Ukraine has changed the growth outlook; with the biggest hit to growth likely in 2023 (we downgrade our forecast from 1.9% to 1.3%)
- The tight labor market and buoyant savings dampen the negative effects of inflation on consumption
- > The full impact of higher energy prices on purchasing power will be visible in the second half of 2022

The Russian invasion of Ukraine has significantly impacted the growth outlook for the Dutch economy, necessitating a forecast downgrade. As things stand, we expect the economy to expand by 3.1% in 2022. While we revised our quarterly growth forecasts for 2022 downwards, the second estimate of Q4 21 GDP released last Friday showed an upward adjustment compared to the first estimate. The positive spillover effect of this into 2022 has offset the effect of our lower quarterly projections and therefore our GDP growth for 2022 stays unchanged. The main downward revision to growth is in 2023, for which we have lowered our forecast from 1.9% to 1.3%.

In February, the HICP for the Netherlands stood at 7.3% yoy, 1.4pp higher than the eurozone average of 5.9% yoy. Energy is the main driver, with roughly half the price rise caused by rising gas and electricity prices. Higher energy costs and pandemic-related supply bottlenecks also have knock-on effects on core inflation (Dutch core HICP was 2.7% in February). HICP will likely average 5.5% in 2022 and 2.4% in 2023. This is mainly because the war puts additional pressure on supply chains and energy and food costs.





# Consumer spending will be mostly hit in the second half of 2022

The relatively bright labor market prospects for consumers and the build-up of additional savings during the lockdown period, would appear to bode well for private consumption. However, consumer sentiment and especially the forward-looking components declined from -30 in February to -39 in March, the lowest since March 2013, most likely because of the high headline inflation figures. Indeed, the biggest drag to consumer spending in our new forecasts comes from inflation. But timing is a critical factor here: around 60% of the Dutch household have fixed energy contracts (between 1 and 5 years). While the Dutch CPI estimates that energy prices have risen around 90% y/y in February – based on the assumption that every household renews their energy contract every single month – our own transaction data show that the average Dutch household currently pays only around 20% more for their energy bill than this time last year (see graph above). This gap can be explained by the fact that most households have fixed contracts, and even those that have variable contracts only face price rises twice a year. Also, we note that higher energy prices feed slowly into higher food and manufacturing prices for consumers, and therefore the effects of inflation on purchasing power will come fully into force from mid-2022 onwards.

# UK: Between a rock and a hard place

Bill Diviney – Senior Economist | bill.diviney@nl.abnamro.com

- The key headwind to the economy has quickly shifted from the pandemic, to the Russia-Ukraine war
- Real incomes could see their biggest fall in over 65 years. This significantly complicates the job of policymakers, with a need to bring inflation down weighed against the significant risk of recession

The UK's recovery from the pandemic continued to outperform expectations in late 2021 and into early 2022. The Omicron wave had a limited impact, with the government relying on voluntary social distancing, in contrast to the strict lockdowns of 2020. Since then, the authorities have gone even further, scrapping almost all remaining restrictions – including mandatory self-isolation in the event of a positive test – in a bid to 'live with covid'. As a result, the economy finally surpassed its prepandemic peak in January, largely driven by growth in the pandemic-sensitive services sector. Since then, the main headwind facing the economy has moved very swiftly from the pandemic, to the war in Ukraine and the accompanying intensification of supply-side bottlenecks. The first order impact of the war is via energy prices (see this month's Global View). UK consumers were already due to be hit hard in their wallets via a planned rise in the household energy bill cap, which delayed the effects of earlier rises in wholesale gas prices. Energy bills will rise by some 54% in April, and this does not incorporate the most recent rise in gas prices following the Russian invasion of Ukraine – which will be visible in the next semi-annual rise in the cap, due in October. This comes alongside surging petrol, food, and other goods prices, and more moderate rises in services inflation linked to the reopening of the economy.

All told, with inflation expected to top 7% over the coming months, but wage growth rising at a more moderate 5% pace, the Office for Budget Responsibility (OBR) estimates real incomes will fall by the most since records began (c.65 years ago) on a per capita basis. The near-term concern continues to be the effect of higher inflation on expectations, and the risk of a wage-price spiral. With time, however, we think the hit to real incomes will increasingly weigh on consumption and employment. Indeed, while we have raised our inflation forecasts significantly – to 6.8% on average in 2022, up from 4.8% previously – we have also made a major downgrade to our 2022 growth forecast, to 3.9% from 5.2% previously.

# Real incomes to fall the most in over 65 years

Annual change in real disposable income per person, %



Note: 2022 is OBR estimate. Source: OBR, ABN AMRO Group Economics

# Inflation is much less demand-driven in the UK

Percentage points vs trend / Job vacancies per unemployed person



Source: Refinitiv, ABN AMRO Group Economics

All of this is turning policymaking into a tightrope act, with a need to bear down on inflation on the one hand, while staving off a recession on the other. The government has responded swiftly with support measures to ease the hit to household incomes – including cuts to fuel duty and to income taxes, which will dampen the hit to growth from higher inflation by around 0.3pp over the coming year. Meanwhile, the Bank of England has been pushing in the other direction by raising interest rates. Already, it has moved somewhat more quickly than we expected, raising its policy rate three times since December to 0.75%. We expect a further two 25bp hikes in the coming months. However, the MPC has become more equivocal in its policy guidance of late, indicating that further tightening 'might' be appropriate rather than being 'likely' – a reflection of the significant downside risks to the growth outlook, which is likely to do most of the Bank's tightening work for it. Indeed, the UK faces a very different environment to the US, for instance, where inflation is being boosted not only by supply-side problems but also above-normal demand. As a result, and unlike the Fed, we expect the BoE to pause in its policy tightening in the second half of this year, as it weighs the effect of weaker growth in bringing down inflation.

# US: Consumers brace for the energy price-rate hike squeeze

Bill Diviney - Senior Economist | bill.diviney@nl.abnamro.com

- > The jump in energy prices is compounding the hit to real incomes from already-high inflation
- This will ultimately weigh on consumption, leading us to downgrade our growth forecasts
- An even steeper rise in interest rates will pose an additional headwind to growth as 2022 progresses

US consumers, already squeezed by nearly a year of high inflation, are facing new headwinds in the form of a surge in energy prices, and now a likely much steeper rise in interest rates. The US is largely insulated from the risk of energy supply disruptions faced by Europe resulting from the Russia-Ukraine conflict, as it is mostly energy independent. However, it is vulnerable to some of global price shock effects. In particular, gasoline prices move much more in sync with global oil prices in the US, given the lower component of energy taxes embedded in prices. As a result, pump prices have surged 18% just over the past month alone – the biggest monthly rise since at least the aftermath of the global financial crisis, when oil prices were rebounding from much lower levels. Households will be spared some of the pain European households face from higher utility gas prices and home heating costs, as US natural gas prices have not risen to anywhere near the same extent as in Europe. However, the hit from higher gasoline prices is still big enough to represent a large negative real income shock. On the back of this, and in contrast to producer sentiment (which according to the latest PMIs is holding up for the time being), March saw a further plunge in consumer confidence, which had already fallen on the back of more broadly elevated inflation over the past year; confidence is now by some measures even lower than during the 2020 downturn.

We expect the hit to real incomes and confidence to result in weaker consumption growth this year and next, and have significantly downgraded our GDP growth forecast for 2022 to 3.1% in 2022, down from 3.8% previously. The downgrade is driven almost entirely by weaker private consumption; we now expect growth to be a full percentage point below the current Bloomberg consensus in both 2022 and 2023, at 2.2% and 1.4% respectively. While services should continue recovering from the end of pandemic restrictions, discretionary goods consumption is likely to see a bigger hit than previously thought.

#### Michigan consumer sentiment now lower than in 2020 CB Consumer Confidence, index UM Consumer Sentiment, index 160 120 130 100 100 80 70 60 40 40 18 19 20 21 22

University of Michigan

Source: Refinitiv, ABN AMRO Group Economics

Conference Board



Source: Bloomberg, ABN AMRO Group Economics

As if this were not enough for consumers to contend with, the Fed has continued its aggressively hawkish *volte-face*, and is signalling an even steeper rise in interest rates. This is already pushing longer term interest rates significantly higher, with mortgage rates jumping 1.5pp over the past month to 4.5% at the end of March – the highest since early 2019. With markets reacting in a sanguine manner to hints of larger 50bp rate hikes, we think this gives the Fed the green light to raise rates by 50bp at the May and June meetings. Thereafter, we expect more gradual 25bp rate rises at each meeting, until the target range for the fed funds rate reaches 2.5-2.75% – a little above its neutral estimate of 2.4% – by early 2023. From there, we expect the Fed to pause as a base case, although this depends naturally on inflation and on how much the economy has slowed by that point. Our base case is that although inflation will still be above target, that it will have significantly fallen by then. We also think consumption growth will have cooled. Provided the Fed is on track to bring inflation back to target, we think it will seek to steer the economy to a soft landing rather than accentuate any slowdown more than is necessary. Should the Fed continue hiking, however, excessively tight policy could ultimately trigger a more lasting downturn.

# China: Pandemic and Ukraine headwinds threaten the growth target

Arjen van Dijkhuizen – Senior Economist | arjen.van.dijkhuizen@nl.abnamro.com

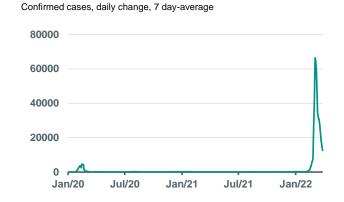
- > A flare-up of Omicron and wider lockdowns pose risks to Chinese growth and global supply chains
- Although Ukraine adds to inflationary pressures, we expect piecemeal easing to continue
- > Still, we cut our 2022 growth forecast from 5.1% to 5.0%, below the government's target of 5.5%

Activity data for January-February came in much stronger than expected, illustrating that piecemeal easing has started to filter through. Still, drags are intensifying: the spread of Omicron is causing a widening of lockdowns, while the Ukraine conflict will weigh on global growth and adds to inflationary pressures and capital outflows. We expect ongoing easing measures and an acceleration in credit growth, but Beijing's growth target for 2022 of 5.5% – as announced during the NPC in early March – may prove too ambitious. All in all, we have changed our quarterly growth profile a bit and this has resulted in marginal changes in our annual growth forecasts for 2022 (down from 5.1% to 5.0%) and 2023 (up from 5.3% to 5.4%)

### Lockdowns broaden, with the central government prioritizing covid containment as Omicron spreads

The highly contagious Omicron variant has led to more severe outbreaks, with daily cases (although still low from an international perspective) much higher than during the initial and subsequent outbreaks. Hence, Omicron is hampering the shift in strategy from a centralised 'zero cases' approach to a decentralised 'dynamic clearing', with president Xi and other representatives of the central government once more stating the importance of pandemic containment. In recent weeks, local authorities have stepped up lockdown measures, with around 70 cities (incl. large ones such as Shanghai and Shenzhen) with a combined GDP share of ±40% having been or still in some form of lockdown. Although these lockdowns differ in terms of severity and will likely not last as long as the initial lockdowns, economic activity is already being affected (illustrated by a drop in for instance traffic movements). This is adding to supply disruptions (in line with our expectation that Omicron would delay the normalisation of supply chains), even though local governments over time have generally become more successful in safeguarding key factories and ports from the effects of tighter restrictions.

#### Omicron driving the most severe covid-19 outbreak so far



#### Why China needs to balance relations beyond Russia





Source: Refinitiv, ABN AMRO Group Economics

# Although the Ukraine crisis adds to inflationary pressures, we expect piecemeal easing to continue

Inflationary pressures abated recently, but the commodity spikes following the Ukraine conflict will likely lead to a delay in the further easing of pipeline pressures. With CPI inflation remaining well below target, we expect further piecemeal policy stimulus and a cautious relaxation of macroprudential regulation (including for real estate). We expect Beijing to tolerate an acceleration in credit growth, as stability is key for the authorities in a politically important year. That also explains recent measures taken to stem the rout in China's equity markets. The biggest risk to the outlook stems from a potential escalation of US-China tensions, should the US judge China is going too far in supporting Russia. At the moment, our base case does not include a US/western imposition of severe sanctions against China (such as higher tariffs). China is carefully balancing its external relations given the importance of the US/west as an export destination (see also <u>Will Beijing help Moscow?</u>), while we think the US would want to avoid additional inflationary pressures stemming from such measures.

Source: Bloombera

# Key views on a page

The post-pandemic recovery is being hampered by the Russia-Ukraine conflict. The services recovery is being weighed by the inflation hit to real incomes, while industry faces new headwinds from higher commodity prices and a delay to the normalisation – in some cases intensification – of supply bottlenecks. Lockdowns in China add to these risks. We still expect inflation to decline this year, but the jump in commodity prices and supply disruptions is delaying this. We expect energy prices to remain high over the next few years, with sanctions on Russia triggering a lasting trade realignment. Upside inflation risks mean the Fed is likely to raise rates much more quickly than we thought previously. The ECB has signalled its intent to normalise policy, and we continue to expect rates to start rising in December. Europe will also continue to feel the global spill-over effects of tighter US monetary policy over the coming year, pushing bond yields higher and ultimately dampening growth.

#### Macro

# **Eurozone** – Just when the eurozone economy was bouncing back from COVID-related restrictions in February, the escalation of the Russia-Ukraine conflict seriously clouded the economic outlook. Indicators for activity and sentiment have dropped sharply lower in March. We expect GDP growth to be around the trend rate in 2022H1 (around 0.3-0.4% qoq) and to pick-up modestly in 2022H2 and 2023 (to around 0.5-0.6% qoq). Inflation will remain elevated for a while, lifted by jumps in energy and other commodity prices, renewed disruptions in global supply chains and normalisation of prices of holiday and leisure related services. Underlying inflation still is subdued. Wage growth has eased in recent quarters.

Netherlands – Dutch Statistics revised 2021 growth figures upward. Growth now stands at 5% in 21 (4.8% before). This carries over to growth in 22, together with a rebound due to the phasing out of Covid restriction in January we expect the economy to expand by 0.3% in Q1 2022. The war in Ukraine however lowers the growth outlook. Second and third quarter growth will be modest and fourth quarter growth will be flat. We expect the drag on growth stemming from inflation to come fully into force in the second half of 22. For 22 as a whole growth this means growth is expected at 3.1%. We have lowered our forecast for 23 growth from 1.9% to 1.3%.

**US** – We have significantly downgraded our growth forecast for 2022, to 3.1% from 3.8%, while making further major upgrades to our inflation forecasts. Consumption growth is likely to slow this year, as real incomes are being squeezed by high inflation and – increasingly – tighter monetary policy. While there is still significant room for the services sector to recover following the easing of the Omicron wave, the pace of recovery is likely to be slower than we thought previously. Should the Fed raising rates beyond our current expectation, there is a risk of a more prolonged downturn.

China – Activity data for Jan-Feb came in much stronger than expected, illustrating that piecemeal easing has started to filter through. Still, drags are intensifying: the spread of Omicron is causing a widening of lockdowns, while the Ukraine conflict will weigh on global growth and adds to inflationary pressures and capital outflows. We expect ongoing easing measures and an acceleration in credit growth, but Beijing's growth target for 2022 of 5.5% - as announced during the NPC in early March - may prove too ambitious. All in all, we have changed our quarterly growth profile a bit and this has resulted in marginal changes in our annual growth forecasts for 2022 (down from 5.1% to 5.0%) and 2023 (up from 5.3% to 5.4%).

#### **Central Banks & Markets**

ECB – At its March meeting, the ECB announced a gradual reduction in the amount of monthly APP asset purchases during Q2. Next, the 'calibration of net purchases for Q3 will be data-dependent'. Moreover, any adjustments to the key ECB interest rates will take place 'some time' after the end of the net purchases and will be 'gradual'. Given the ECB's hawkish tilt and its eagerness to reduce policy accommodation, we expect that net asset purchases will end in September. We have also pencilled in a 10bp rate hike in December 22 and another one in March 23. After that, we expect rate hikes to be aborted, or at least put on ice. There is a significant risk that this policy tightening is delayed, depending on the growth-inflation mix.

Fed – Given persistently elevated inflation in the US, and upside risks to the outlook, we expect the Fed to begin hiking rates in 50bp steps in May and June. Thereafter, we expect 25bp hikes until the Fed reaches our estimate of the terminal rate of 2.5-2.75% in early 2023. Thereafter, we expect the Fed to pause, assuming inflation is moving back towards its 2% target. In May, we expect the Fed to announce the unwind its balance sheet, initially at a gradual pace, but eventually for this to run at \$100bn per month. There is a risk that the Fed reduces the balance sheet at an even faster pace, via outright Treasury sales, potentially using it as a tool in its fight against inflation.

Bond yields – We expect US yields to move higher as we are in the middle of an aggressive rate hike cycle. As the 10y US treasury yield is relatively low, driven by safe haven demand, the 2s10s of the curve is expected to move sideways, and we expect the 10y yield to move higher once the safe haven premium is priced out. For euro rates, we revised our 10y Bund yield forecast slightly higher to 0.6% at the end of 2022, as spillovers from the US seem to be more significant than initially thought. Once ECB rate hikes are priced out we expect short term euro rates to fall and that the Bund curve will bull steepen.

**FX/EURUSD** – We now expect investor sentiment to be cautious as opposed to negative, and as a result we think that there is less upside for the dollar versus the euro. However, the widening rate spread should still support the dollar versus the euro. Moreover, the eurozone and UK economies will continue to be much more negatively affected by the Ukraine war than the US economy. So we are still positive on the US dollar versus the euro, but we see less upside than the parity we indicated a few weeks ago. Our new year-end forecast for EUR/USD is 1.05.

Main economic/financial forecasts									
GDP growth (% yoy)	2020	2021	2022e	2023e	Inflation (%)	2020	2021	2022e	2023e
United States	-3.4	5.7	<b>↓</b> 3.1	<b>↓</b> 2.2	United States	1.2	4.7	<b>↑</b> 6.9	<b>↑</b> 3.3
Eurozone	-6.5	5.3	<b>↓</b> 2.9	<b>↓</b> 2.2	Eurozone	0.2	2.6	<b>↑</b> 5.3	<b>↑</b> 2.2
Japan	-4.5	1.7	<b>↓</b> 2.4	<b>↑</b> 1.8	Japan	0.0	-0.2	<b>↑</b> 1.2	↑ 0.9
United Kingdkom	-9.4	7.5	↓ 3.9	↓ 1.8	United Kingdkom	0.9	2.6	<b>↑</b> 6.8	↑ 3.9
China	2.2	8.1	↓ 5.0	<b>↑</b> 5.4	China	2.5	0.9	2.5	2.0
Netherlands	-3.8	5.0	3.1	<b>↓</b> 1.3	Netherlands	1.1	2.8	<b>↑</b> 5.5	<b>↑</b> 2.4
Policy rate	28/03/2022	+3M	2022e	2023e	10Y interest rate	28/03/2022	+3M	2022e	2023e
Federal Reserve	0.50	↑ 1.50	↑ 2.50	↑ 2.75	US Treasury	2.48	<b>↑</b> 2.60	<b>↑</b> 2.70	<b>↓</b> 2.25
European Central Bank	-0.50	-0.50	-0.40	-0.30	German Bund	0.58	<b>↑</b> 0.60	<b>↑</b> 0.60	↑ 0.90
Bank of Japan	-0.10	-0.10	-0.10	-0.10	Japanese gov. bonds	0.25	0.20	0.20	0.20
Bank of England	0.75	↑ 1.25	↑ 1.25	1.25	UK gilts	1.62	<b>↑</b> 2.00	<b>↑</b> 2.00	2.00
People's Bank of China	3.70	3.60	3.60	3.60		0	0	0	0
Natural resources	28/03/2022	+3M	2022e	2023e	Currencies	28/03/2022	+3M	2022e	2023e
Brent - Oil USD/barrel	112.5	<b>↑</b> 120	<b>↑</b> 133	<u>↑</u> 110	EUR/USD	1.10	<b>↓</b> 1.08	<b>↓</b> 1.05	1.05
WTI - Oil USD/barrel	106.0	<b>↑</b> 115	<b>↑</b> 128	<b>1</b> 05	USD/JPY	123.9	<b>↑</b> 119	120	124
Henry Hub - Gas USD/mn	5.51	4.0	3.5	3.5	GBP/USD	1.31	↓ 1.30	<b>↑</b> 1.28	1.25
TTF - Gas EUR/MWh*	67.7	<b>↓</b> 35	35	25	EUR/GBP	0.84	↓ 0.83	↓ 0.82	0.84
Gold - USD/oz	1,923	<b>1</b> 2,000	1,500	1,300	USD/CNY	6.37	6.30	<b>↑</b> 6.30	<b>↑</b> 6.30

Source: Refinitiv, Bloomberg, ABN AMRO Group Economics

\* Brent, WTI, Henry Hub: active month contract; TTF: next calender year

# **Macro Research Team**

 $\textbf{Sandra Phlippen}, \textbf{Chief Economist} \mid \underline{\textbf{sandra.phlippen@nl.abnamro.com}}$ 

Aline Schuiling, Senior Economist | aline.schuiling@nl.abnamro.com

Arjen van Dijkhuizen, Senior Economist | arjen.van.dijkhuizen@nl.abnamro.com

Bill Diviney, Senior Economist | bill.diviney@nl.abnamro.com

Jan-Paul van de Kerke, Economist | jan-paul.van.de.kerke@nl.abnamro.com

Nick Kounis, Head of Financial Markets Research | nick.kounis@nl.abnamro.com

Nora Neuteboom, Senior Economist | nora.neuteboom@nl.abnamro.com

# **FX & Rates Research**

Georgette Boele, Senior FX & Precious Metals Strategist | <u>georgette.boele@nl.abnamro.com</u>

Jolien van den Ende, Fixed Income Strategist | <u>jolien.van.den.ende@nl.abnamro.com</u>

# DISCLAIMER

This document has been prepared by ABN AMRO. It is solely intended to provide financial and general information on economics. The information in this document is strictly proprietary and is being supplied to you solely for your information. It may not (in whole or in part) be reproduced, distributed or passed to a third party or used for any other purposes than stated above. This document is informative in nature and does not constitute an offer of securities to the public, nor a solicitation to make such an offer.

No reliance may be placed for any purposes whatsoever on the information, opinions, forecasts and assumptions contained in the document or on its completeness, accuracy or fairness. No representation or warranty, express or implied, is given by or on behalf of ABN AMRO, or any of its directors, officers, agents, affiliates, group companies, or employees as to the accuracy or completeness of the information contained in this document and no liability is accepted for any loss, arising, directly or indirectly, from any use of such information. The views and opinions expressed herein may be subject to change at any given time and ABN AMRO is under no obligation to update the information contained in this document after the date thereof.

Before investing in any product of ABN AMRO Bank N.V., you should obtain information on various financial and other risks and any possible restrictions that you and your investments activities may encounter under applicable laws and regulations. If, after reading this document, you consider investing in a product, you are advised to discuss such an investment with your relationship manager or personal advisor and check whether the relevant product—considering the risks involved—is appropriate within your investment activities. The value of your investments may fluctuate. Past performance is no guarantee for future returns. ABN AMRO reserves the right to make amendments to this material.

© Copyright 2022 ABN AMRO Bank N.V. and affiliated companies ("ABN AMRO)