

EUR: The 2022 euro area supply crisis

The era of cheap energy is over; exposing high credit risks ahead

The price of Germany's electricity over the next year has climbed over \$1000pb in Brent oil energy equivalent terms. This is far from normal. It's a crisis that stems not only from restrained energy supply from Russia but a series of unfortunate issues elsewhere too. In addition to energy restraints, the euro area is facing the full brunt of climate change with flash floods and record droughts, combined with slowing trade with China and US recession risks. However, we think the bigger challenge Europe will face this winter is not inflation, but stagflation. Altogether it's why we expect EUR/USD to fall to 0.90 this winter, inflation to climb further to multi-decade highs before peaking, GDP to decline over the coming year and the ECB to first raise rates in response to higher inflation, and then cut next year as the energy-induced recession continues. Will Germany run out of gas? Probably not. That's due to LNG supply, but even more due to falling industrial demand. High prices and falling demand of an essential such as energy is not good for growth, but it gives hope that blackouts in Germany won't be the story of early 2023.

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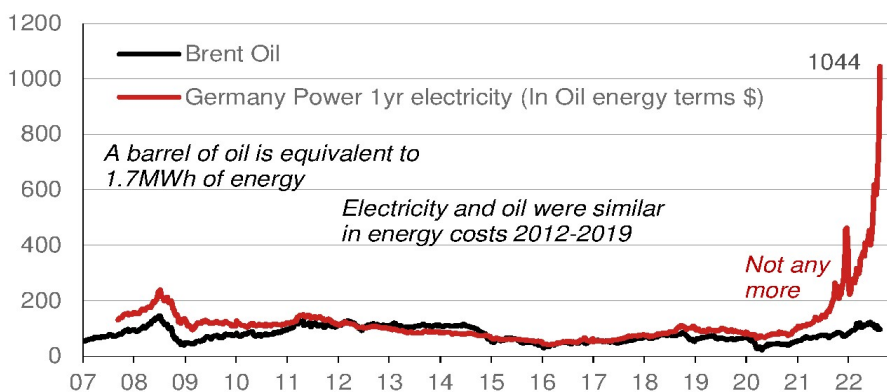
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Fig. 1: The cost of electricity in Germany compared to that of fuels such as oil

Rising in exponential fashion, making it hard to quantify, and what this means for the euro area economy



Source: Nomura, Macrobond

Executive summary:

- Challenges:** The euro area is facing three simultaneous shocks: 1) the energy crisis 2) record droughts and 3) falling global growth with exports to China notably lower. Severe recession risks are likely to continue to build if Europe is unable to meet energy demand this winter. This could result in abnormally high prices weighing on production, the risk of sporadic blackouts or forced rationing of energy for industry. Droughts have added to the current pile-on, reducing food crop yields and increasing energy demand over summer, thereby making the price of avoiding a winter crisis all the more expensive. On top of all this, Europe's largest trade partner, China, is facing significant headwinds itself (e.g., droughts, blackouts and a prolonged battle with COVID-19), which is likely to lead to lower demand for European exports too.
- Economic impact:** The economic consequences cannot be understated. We forecast four consecutive quarters of negative GDP growth for the euro area, commencing in Q3 22, and culminating in the level of GDP falling by at least 1.5%. Inflation is set to rise markedly as all-time high energy prices spill over onto the non-energy

materially to a more adverse outcome, whereby GDP growth is weaker or negative for longer, and inflation is higher and more persistent.

- Policymaker scenarios:** Up until now, the fiscal response has been largely muted. A number of countries have implemented limited measures to better support households, but as of this writing there is no joint fiscal support. In our view, should energy prices remain as elevated as they are now, the likelihood of a unified approach is markedly higher. As for monetary policy, we believe the energy crisis reinforces the need to tighten in the near term (we expect +50bp in September and October, and +25bp in December and February) owing to upside risks to inflation, and reinforces the need to ease further down the line (where we anticipate cuts of 25bp in May and June 2023) as Europe comes to terms with its recession and inflationary concerns fade.
- Market impact:** Is all the bad news not already in the price? We would strongly argue it is not. Based on our assumptions, EUR/USD is likely to fall to 0.90 this winter with its terms of trade shock pointing to 1980s levels of 0.65 as a possibility. Is 0.65 too extreme? Perhaps yes if Europe's terms of trade were to eventually improve with lower energy prices. But if prices remain extreme over this winter and the next, then it becomes a lot more difficult for EUR to climb back above parity to the USD. The cost of European manufacturing inputs is much higher and European exports will need to stay competitive. Credit markets are pricing in the higher risk of a recession, but the tightness in recent weeks has been odd to see. Then there is our "Mr.market" measure of European equities vs rates. Equities are not pricing in the risk of a recession; so far they've price in a mild slowdown and less so than the PMIs already imply. The risk to all this bearishness is if European governments unite to alleviate the terms of trade crisis and reduce the collapse in the euro area trade balance. Then perhaps China stimulates its economy, or the Fed performs a dovish pivot faster than we expect. But winter is coming, and *we remain short EUR/USD* looking for 0.975 by endSeptember, 0.95 by October and 0.90 in December.

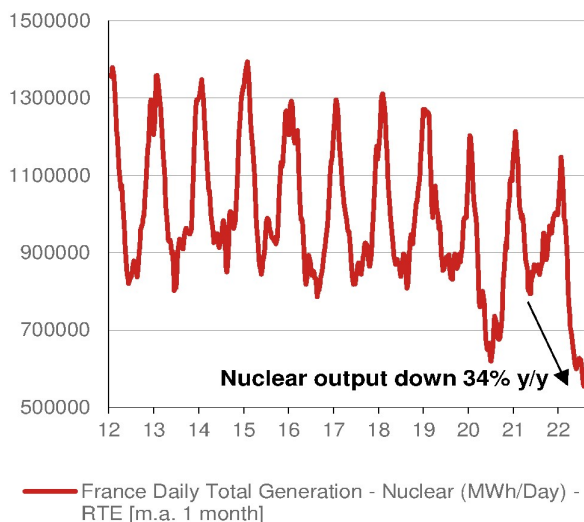
The three challenges for Europe

1. The supply of energy: it's not just a difficulty with Russia

The challenge for the euro area when it comes to energy is that supply of natural gas and other energy (coal, refined fuels) is heavily constrained with sanctions coming into place. But it's not just Russia cutting energy to Europe, it's France too. Due to the unplanned maintenance of nuclear reactors damaged from corrosion and cracked pipes, combined with heat waves and low river levels, nuclear power generation is 34% lower than August 2021.

Fig. 2: France is suffering from nuclear power outages

With around 50% of French reactors in maintenance, it's pushing power generation 34% lower vs last summer



Source: Nomura, Bloomberg

Fig. 3: Russian gas supply to northern Europe is close to turning off

It will be difficult for Europe to replace this key supply in winter months



Source: Nomura, Macrobond

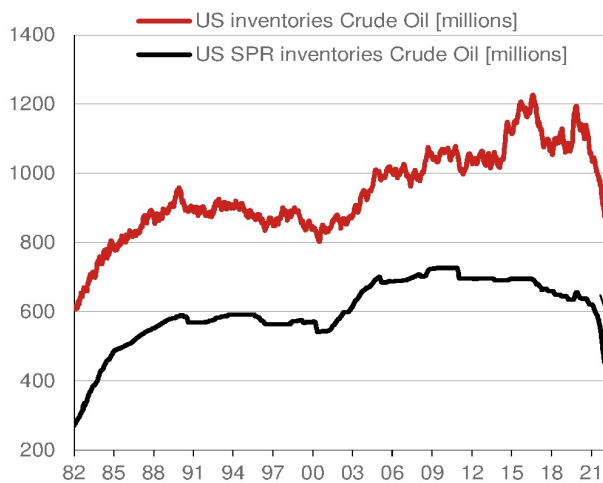
The good news is that there has been enough supply of natural gas to build up healthy levels of European storage before winter heating season arrives. The bad news is that if Russia's supply remains as low as it is, drawdowns of those winter storage levels could be more rapid than usual — even in an average winter, let alone a cold one. LNG exports from the US and elsewhere will help soften the storage withdrawal, but it's unclear whether enough time has passed for global infrastructure to have responded to the near complete loss of Russia supply in time. When the US Freeport LNG terminal turns back online in October (representing roughly 2% of US natural gas domestic production), it will be a bit of good news for energy markets.

If the crisis deteriorates when the winter months arrive, we may also witness energy nationalism. Countries with high levels of LNG infrastructure (such as the UK or Spain) may wonder why it needs to be re-exported to Germany. Already we've seen the UK National Grid put a contingency plan together to shut the interconnector gas pipelines (exporting 75 mcm/day) to the Netherlands and Belgium if UK supplies run severely short. Such an act would be highly self-defeating in the long run thanks to the lack of storage in the UK. It would risk the breakup of the single market for energy in Europe, but it shows it's possible and politicians have the option (e.g., Norway has already taken steps to curb its electricity exports thanks to low levels of water at hydropower plants).

Outside of gas, oil is also a factor to consider. The EU aims to curb all imports of Russia oil by end-December, the US strategic petroleum reserve (SPR) drawdown comes to an end in October (it might be extended, but it is unclear as of the time of writing) and Saudi Arabia has hinted at OPEC+ production cuts ahead (next meeting 5 September). Oil might have been weaker in recent weeks, but it's also unclear whether global supply will hold at these levels.

Fig. 4: The US may end the SPR release end-October - that could boost oil prices

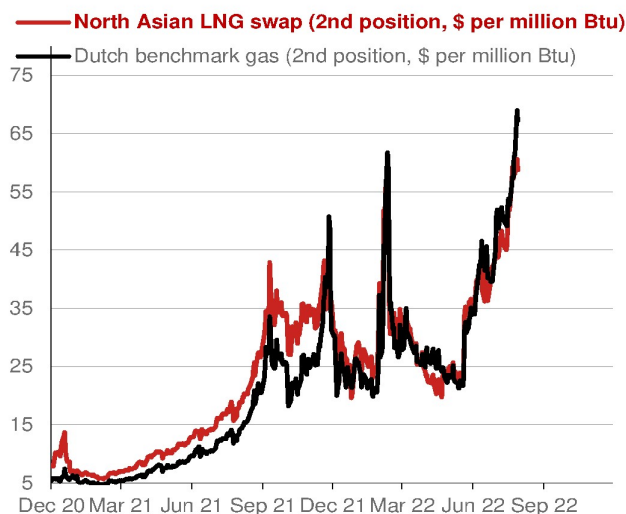
How high would oil prices be without the Strategic petroleum reserve drawdown?



Source: Nomura, Macrobond

Fig. 5: Comparison of Asian LNG prices vs European gas futures

The scarcity of gas is a global phenomenon



Source: Nomura, Macrobond, Bloomberg

The price of energy in Europe is multiples higher than the US

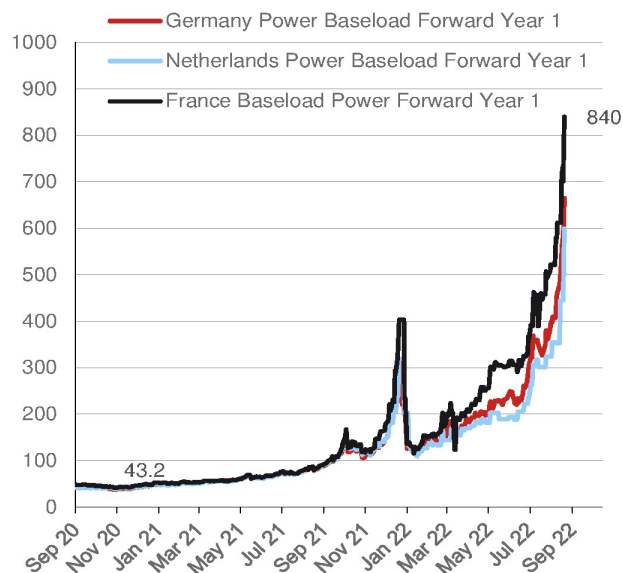
There has been nothing normal about 2022 when it comes to Europe's energy markets. The exponential fashion in which prices of electric power generation are rising for over the next year suggests that Europe faces the risks of a lack of supply, too much demand and the consequent power blackouts. There could be a limit at some point, but with European governments willing to subsidise energy costs to consumers and firms, it has become much more difficult to gauge where the move will end. What we can say is that energy prices are nearly 20x higher than two years ago in France, with Germany probably just a week or so behind in reaching similar levels. The input cost of European manufacturing and services just became a lot more expensive and for an export-led economic model such as Germany's, exporters may need a weaker currency to remain competitive.

This is not only a European story; higher energy prices in Europe are likely to eventually feed through elsewhere, but not as quickly. As the US and other markets increase their

LNG exports, making their natural gas supplies less landlocked, their economies too could experience inflationary pressures from natural gas prices. Keep an eye on US Henry hub natural gas prices when the Freeport LNG terminal comes back online (around early October). At full capacity, it can export up to 2% of US production, while small it's worth remembering price is set by the marginal buyer and will be a factor to consider for US economists as well.

Fig. 6: Long-dated electricity contracts are nearly 20x higher in France

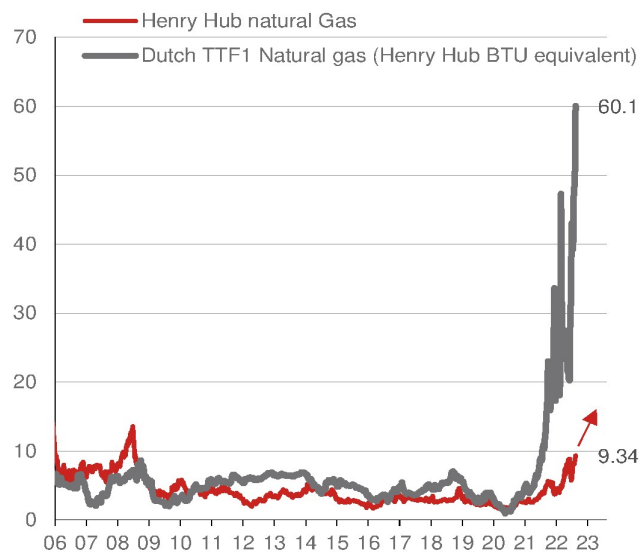
Europe's energy crisis is becoming worse exponentially



Source: Nomura, Bloomberg

Fig. 7: European gas prices are 6x higher than the US

Production in the US is much cheaper, making the US more competitive. LNG exports could eventually push US gas prices higher too but that will take time



Source: Nomura, Bloomberg

Natural gas storage levels are getting higher, but demand needs to fall in winter

Natural gas storage levels in the EU are currently close to their long-run average, with Germany's level now reaching 80%, and on track towards achieving the target of being 95% full by November. The EU also aims to reduce natural gas usage by 15% across the block to reduce the need for potential gas rationing. Germany's injections into gas storage have been impressively higher than average, thanks to LNG supplies but also lower industrial demand thanks to energy prices. Despite Russian supplies of gas falling to around 10% of pre-pandemic levels, the EU's ability to build gas storage before winter seems impressive.

From the above, one might conclude that perhaps Germany doesn't have as much of a problem as once believed. Unfortunately, energy prices would completely disagree with that statement. A few reasons follow offering an explanation.

Storage rising to historical norms is a good thing, however we need to consider:

1. What's good for storage might not be so good for Germany's growth. There are clear signs in surveys that industrial energy demand is dropping in response to higher prices. This is allowing gas storage to build despite lower supply.
2. In a normal winter, gas supplies are not enough to fuel demand in Europe, even with Russia at full capacity. This is why Europeans built storage facilities in the first place. Global LNG supplies over the summer have been concentrated on supplying European storage. However, in the winter, supply will be spread out more globally. With long-term contracts likely to send LNG cargoes out across Asia in their heating season too, it raises the risk of less LNG supply in the winter than what we've seen over this past summer. Combine that with Russia nearly cutting off European gas supplies (currently at just 10% or so of pre-pandemic levels), it will make for a tougher winter than usual. This is why the president of the Federal Network Agency warned that even if Germany can reach its gas storage target of 95% capacity by November, it would only cover about 2-1/2 months of heating, industrial and power demand if Russia cuts off supplies completely, which is still a possibility.

3. The problem might not be this winter — it's the next. After this winter, from a potentially lower starting point of storage in the spring, it is likely to be harder to reach the same level of storage next year with less supply from Russia in the spring season as we had in 2022. Hopefully global LNG supplies continue to improve, but it's unclear whether it will be fast enough.
4. Germany is injecting more gas into storage than ever before, but potentially at the expense of other EU members with net injections at the EU level roughly in line with typical averages (see below).

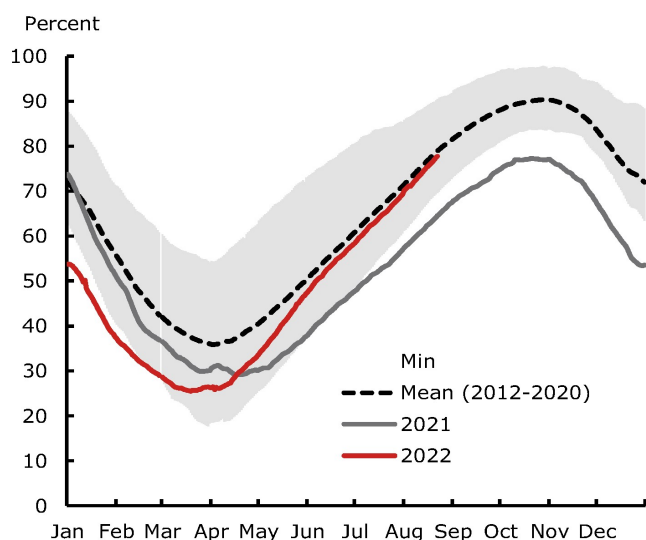
Will Germany run out of gas?

In a normal year of gas consumption, with such little supply from Russia (and the risk of even less) then yes Germany could run out of gas this winter. However, nothing about this crisis is normal. Industrial demand for natural gas in Europe is falling while LNG supplies have been re-routed to Europe at very attractive high prices vs Asia, allowing storage to build in line with historical norms. When Germany's energy levy applies from October and governments in Europe pass some costs onto consumers and industry demand continues to fall, it may result in allowing Germany to keep the lights on.

- **Base case: Germany doesn't run out of gas if it follows the above. But energy costs are likely to remain high.** Imports of energy are currently down 15% on the year and as long as Europe is able to avoid a cold winter, it's unlikely storage would be depleted.
- **What if it's a cold winter?** If it is a cold winter, then perhaps demand is 15% above baseline. Then gas may run out in March assuming similar levels of energy imports. That timeline shifts earlier if energy imports fall 25%; it could be February when storage is depleted, with December as the most extreme option if all energy imports were curtailed.

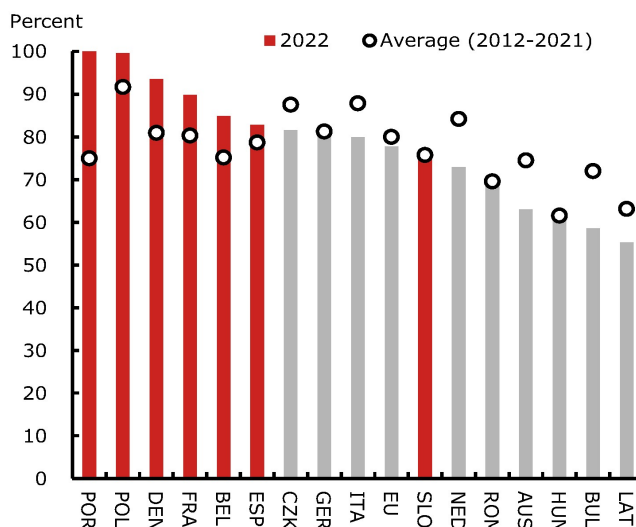
Assuming Russian supplies remain low or zero, we need to monitor for four important factors. 1) Whether LNG supplies remain at this level over the winter or if long-term contracts and Asian winter demand pull some of those cargoes away and 2) The amount of industrial demand destruction that follows as a result of high energy prices; 3) Whether the European single market for energy remains united or if energy nationalism (cutting off pipelines) creeps in. And most important, 4) whether it is a cold winter.

Fig. 8: Natural gas storage level in EU



Source: Nomura, Gas Infrastructure Europe (GIE)

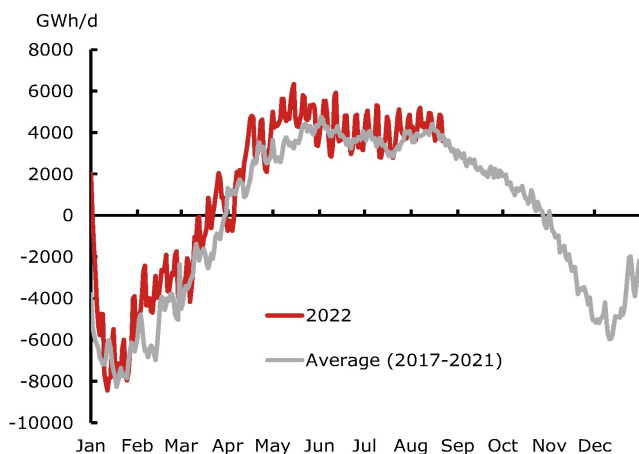
Fig. 9: Natural gas storage level by country



Note: 1. As of 22 August 2022, 2. Countries with their storage levels above long-run average is in red, otherwise in gray.

Source: Nomura, Gas Infrastructure Europe (GIE)

Fig. 10: EU's net natural gas injection to storage



Note: Net injection is the difference between injection to and withdrawal from storage.
Source: Nomura, Macrobond

Fig. 11: When does Germany run out of gas?

		Consumption		
		-15%	0%	+15%
Imports	-100%	Jan 23	Jan 23	Dec 22
	-50%	Mar 23	Feb 23	Jan 23
	-40%	-	Feb 23	Jan 23
	-25%	-	-	Feb 23
	-15% (current)	-	-	Mar 23
	-10%	-	-	Mar 23
	0%	-	-	-

Source: Bloomberg, GIE, Nomura. Note: In the above, we take into account the balancing act of lower supply vs. lower or higher demand. Imports of -100% provides an understanding of how long Germany would be able to rely on gas storage without any imports from November onwards. Imports of -40% is a scenario whereby Russia cuts off all gas exports and Germany is unable to replace by other sources (i.e. continues to import from other sources at a normal pace). Imports of -25%, at present the most likely scenario, is one whereby Russian gas exports are mostly cut off however Germany is able to replenish a small component. Consumption of +15% represents a colder than average winter, requiring more gas demand than is typical, whereas consumption of -15% is the EU's self-stated aim for member countries; we note that gas consumption in Germany from Jan to Jul 2022 is already 16% lower than over the same period in 2021. We assume Germany begins peak consumption season, classified as November to March, with gas storages levels of 95%.

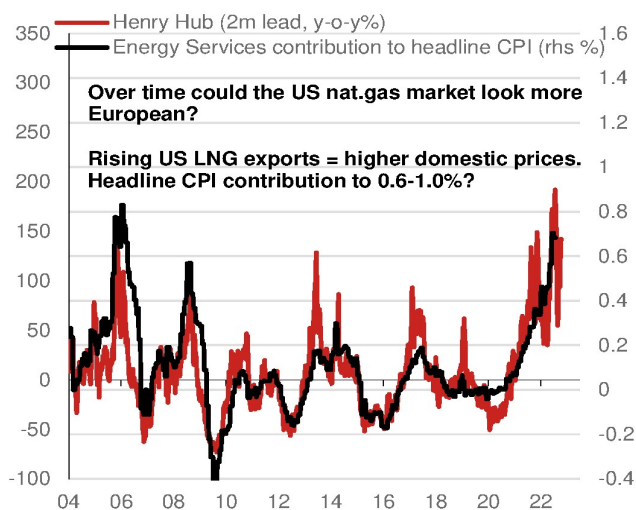
The EU's supply crisis could have potential spillover effects to the US

The US has a lot of natural gas production, but the problem is most of it is landlocked. This is why despite globally higher prices of LNG gas, domestic prices of natural gas in the US is multiples lower than in Europe. It will take time to happen, but as US LNG exports continue to climb, perhaps European and US prices will converge at a much healthier and lower level overall — but that would be higher for US domestic users than it is now. It's a similar story for Asia, where the largest LNG importer in the world is China, followed by Japan and Korea. All are in competition for lower carbon emission sources of energy such as natural gas in the LNG market.

If the European crisis is solved by an increase in global LNG supply (excluding Russia), then perhaps that may leads to overall higher levels of natural gas prices for all. The caveat to that is if Russia is able to increase its own LNG shipments to non-sanction aligned countries making overall global supply of natural gas equal to before. However, let's bear in mind that offsetting the loss of pipeline flow in Europe is a big project that is likely to take years for LNG to recover. It's possible, but unlikely to be done quickly.

Fig. 12: US Henry Hub natural gas y-y% vs US CPI for energy services

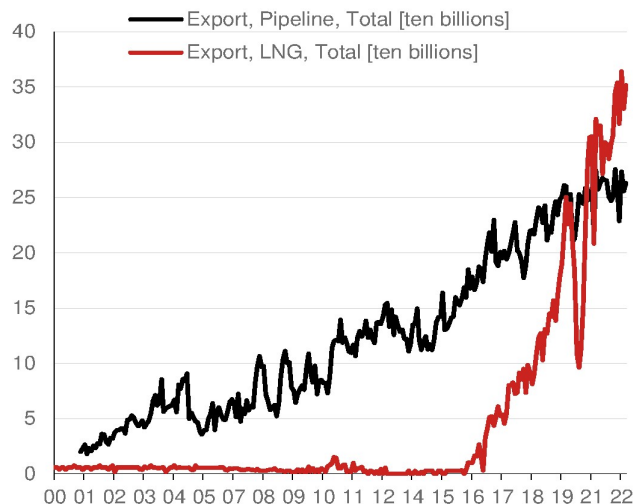
As the US looks to boost LNG exports, could this boost US CPI?



Source: Nomura, Bloomberg, Macrobond

Fig. 13: US exports of LNG making records (cubic feet)

Could US natural gas prices converge with global prices ahead?



Source: Nomura, Macrobond

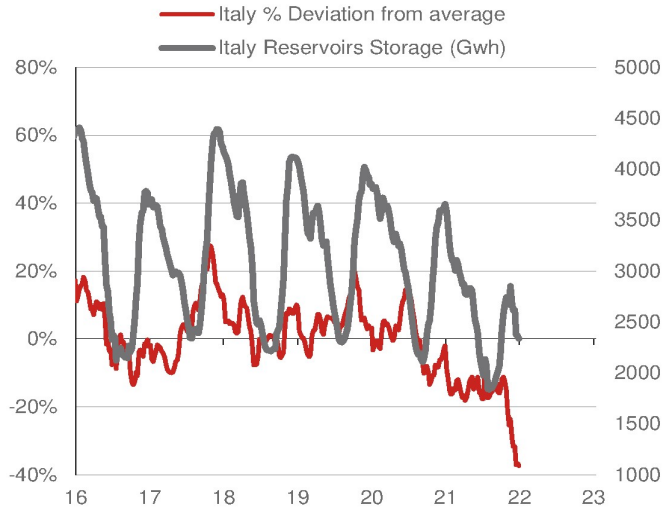
2. Record droughts adding to food and energy supply concerns

Droughts, high food prices and the logistics crisis on the Rhine

- **Many new records set in Europe:** The summer of 2022 has seen 40°C reached in the UK for the first time in history, the driest conditions for Spain and Portugal in 1,200 years and a record set for total area burnt in Europe by wildfires (4x the average recorded since 2006, and nearly 2x the previous record seen across this time). It's one of the most intense heat waves for Europe in our lifetimes. In response, reservoir levels in Europe are dropping far below seasonal norms. Italy's reservoir water levels are 37% below average with less extreme, but still low figures for other EU countries. Not only is this now a problem for crops and hydroelectric power generation, but it could have spillover effects into next year if we have another dry winter. It brings back memories of Cape Town's "Day zero" water crisis in 2018, where after several dry years it required extreme water demand reduction policies to avoid a complete water emergency.
- **Food supply under pressure:** The exceptionally hot and dry weather conditions in much of Europe this summer continued to *reduce yield outlooks* for the EU's summer crops. The crops most markedly affected are grain maize (-8.6% at EU level), sunflowers (-5.5%) and soybeans (-9.6%). Current yield forecasts for these crops are between 12% (sunflowers) and 16% (grain maize) below the 5-year average. This comes at a time when global food supplies are stretched with the conflict in Ukraine and heat waves *in China* (the worst heatwave in six decades), India and parts of the US over the past year. Hence it is surprising to see the price of food 1) lower over recent months and 2) showing no clear sign in futures at least of higher prices in Europe. Combine that with record-high energy prices for farmers along with fertilizer costs, which leads to: are food futures another market that is looking mispriced? The good news is if they remain at current prices and ignore all the above, ultimately the lags should feed through and push CPI inflation lower. It would be odd to see, but welcome good news for 2023.
- **But won't the rains fall again?** Yes they will, but the question is whether they be enough to offset the lack of rainfall built up over this summer into next year. A good example of this is the river Rhine. A few weeks ago after months of drought conditions, the river fell below key levels for river barge cargo. Thanks to the recent strong rains in Switzerland we have seen some well-needed relief and water levels have recovered. However, August to October are typically the driest months of the year for the Rhine, with the lack of rain and snow at its source until November. 2018 was a similarly dry year, and eventually water levels improved. This year the Rhine fell below 40cm at Kaub much earlier than it did in the year than 2018, and below 78cm leads to significantly reduced traffic volumes. The river levels could drop again before the end of October (the forecast suggests *it drops below 71cm* this weekend). This is why with the backlogs of river cargo freight, it will take a while to resolve, and we can't rule out water levels dropping again or continued high transportation costs.

Fig. 14: Droughts in Italy are weighing on water reserves

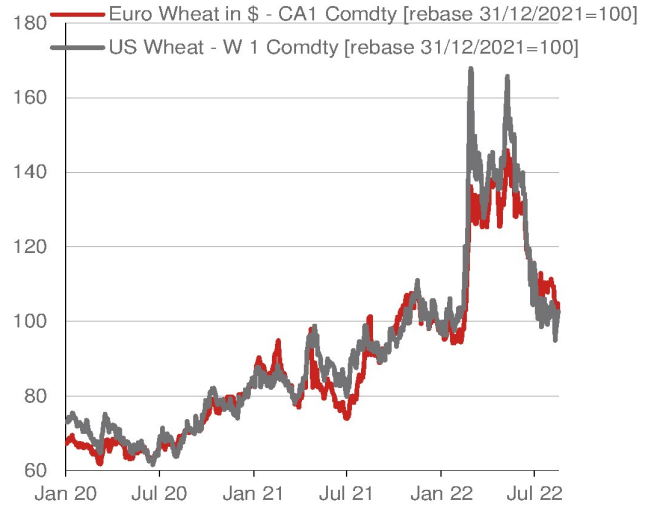
Italy's hydro reservoirs are 37% below average levels and falling



Source: Nomura, Bloomberg

Fig. 15: Europe and US wheat prices have fallen

And there is not much of a geographical premium either (3%)



Source: Nomura, Bloomberg

The economic impact via delivery costs: The logistics crisis on the Rhine

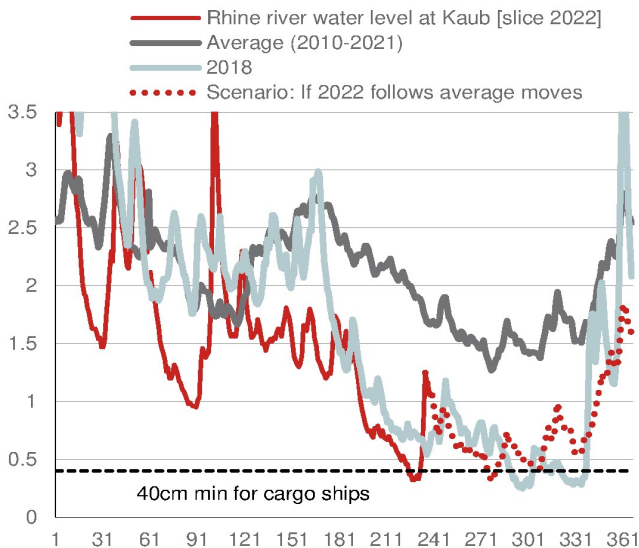
The summer drought has had a welcome dash of heavy rains boosting water levels on the Rhine, but the river levels are falling quickly and the impact on Germany's logistics is likely to be felt in upcoming growth figures and PMI surveys. Why does it matter?

1. An average river barge is capable of carrying 2,500 tonnes, while more than 110 trucks would be needed to carry the same load.
2. The cost of transporting freight down one of Europe's most important rivers remains historically high (still 8x higher than average), with a backlog of river barges to come.
3. Around 30% of Germany's coal, iron ore and natural gas is transported along the river or roughly 70-80% of the 223mn tonnes of cargo transported via ship in Germany each year travels the Rhine.

It's a big deal for logistics, likely to push up the cost of transportation and weigh on "just in time" industrial production schedules.

Fig. 16: Could the Rhine in Germany run dry? (metres depth at Kaub)

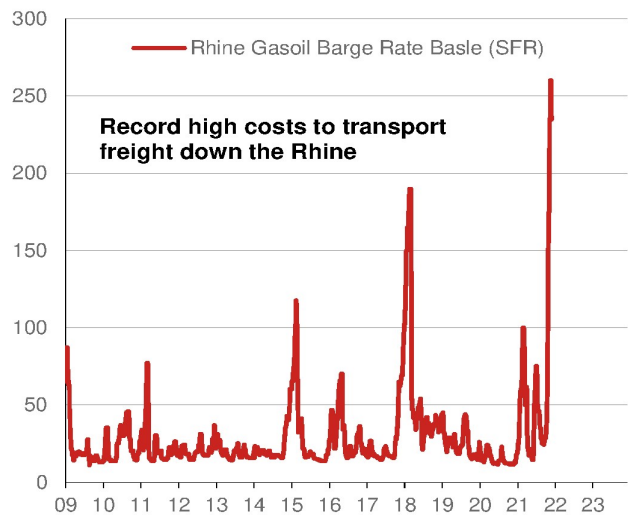
Rhine water levels bounced back but if it's like 2018, levels could fall again



Source: Nomura, Macrobond

Fig. 17: Freight shipping costs for the Rhine at record highs

Barge costs likely to fall with fresh rain but it's still very expensive



Source: Nomura, Bloomberg

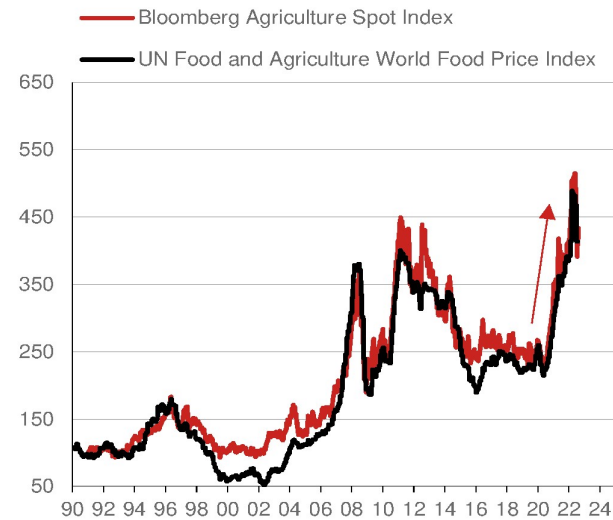
Food: European droughts and energy prices to push food prices higher

Recent rains have alleviated the near-term drought situation in pockets, but with China and parts of the US suffering from droughts too along with constrained food supplies in Ukraine, it's surprising to see food prices as measured by financial futures not breaking higher.

It's a different story for official CPI figures in the euro area with food CPI rising nearly 12% on the year. This is due to the CPI of food capturing other factors. The energy required to process the food and transportation, wages and other overhead costs too. That likely explains part of the wedge between commodities and food CPI. Either way — with food security much lower and crop yield uncertainty high, we suspect continued food inflation to continue to weigh on European growth ahead (see [The differentiating impact of high oil and food prices on economies](#)).

Fig. 18: Global food prices have fallen off the highs

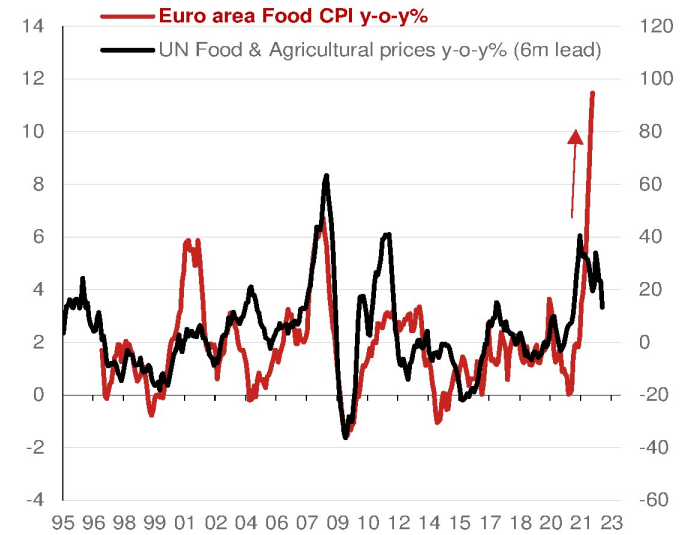
But remain elevated



Source: Nomura, Macrobond

Fig. 19: UN Food index vs Euro area official Food CPI

Official CPI capturing much hotter food inflation than global prices



Source: Nomura, Macrobond

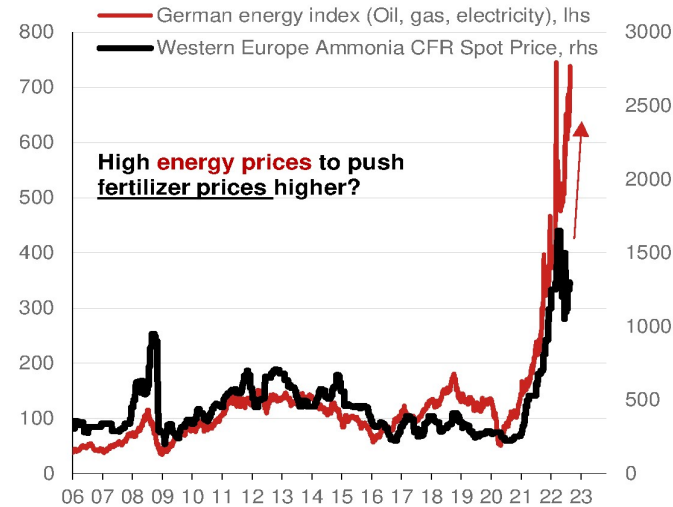
Higher energy also boosts food prices via fertilizer prices

The energy crisis may also sow the seeds of an even bigger food crisis next year, with potentially lower crop yields ahead. Thanks to high natural gas prices it's also raising the price of a key food input — fertilizer. About 38% of Europe's production capacity for ammonia (a key input for fertilizer) is now reduced or completely curtailed (according to CRU Group). Farmers are likely to respond by using either less fertilizer, raising prices or a combination of both. A recipe for stronger food inflation ahead.

See [What if food prices go sky-high?](#)

Fig. 20: Higher energy prices = higher fertilizer prices

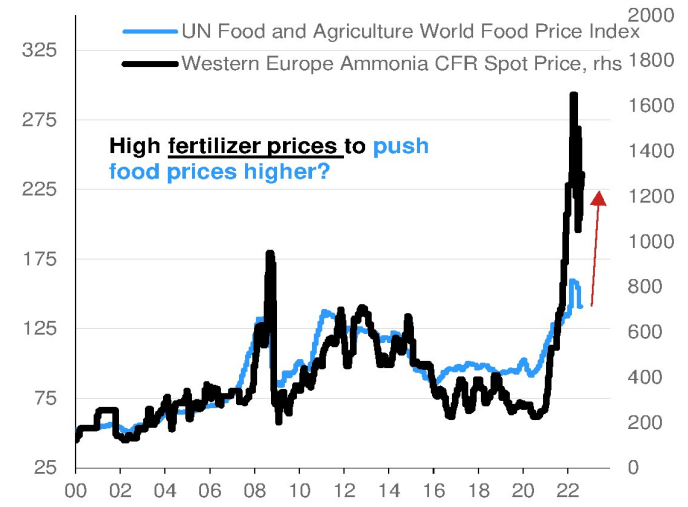
A key input for crop yields



Source: Nomura, Bloomberg

Fig. 21: High fertilizer prices to boost food prices ahead?

With only the 2008 GFC as a case study it's not clear



Source: Nomura, Macrobond

3. Global recession risks and slower trade with China

Trade: The China slowdown is likely to weigh on European trade too

When US rates tend to dominate price action in global fixed income, it can be easy to forget that for the euro area, China is a bigger trade partner than the US. What happens in China plays a significant role in Europe's growth cycle. Depending on the month, exports to China could represent up to 3% of Germany's GDP and as hence contributes much more to the volatility in the cycle with the ebb and flow of global trade. EU exports to China have been in decline over the past year, down 10% and tends to signal where European manufacturing PMIs will head next.

Therefore we do not particularly find it encouraging to see China's credit impulse turning lower again (on the 6m change via social financing below), as it tends to lead global PMI new orders too.

Fig. 22: China's credit impulse and PMI new orders

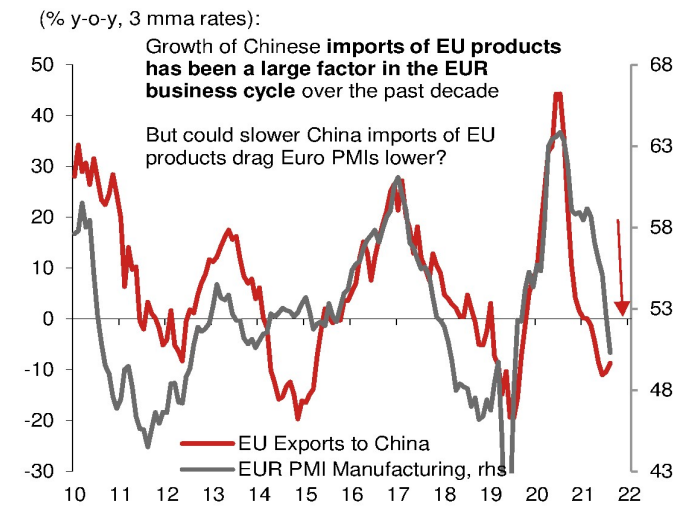
Clear signs a pick up could be under way later this year...but first comes the drop?



Source: Nomura, Macrobond

Fig. 23: China's import growth of EU exports vs euro area PMI

China's imports of EU products in a slowdown



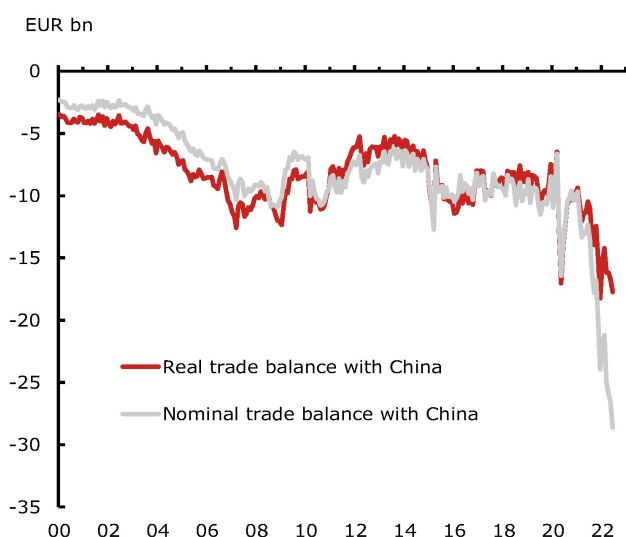
Source: Nomura, Macrobond

As a result, *both the nominal and real trade balance with China has been worsening*

since the pandemic, with the former largely affected by higher prices of imported goods, and the latter largely influenced by the difference in responses to Covid cases by euro area countries and China. As long as China retains its Zero Covid Strategy (ZCS), then it's not clear why the euro area trade balance with China should recover unless Europeans cut back on expenditure of China's goods too.

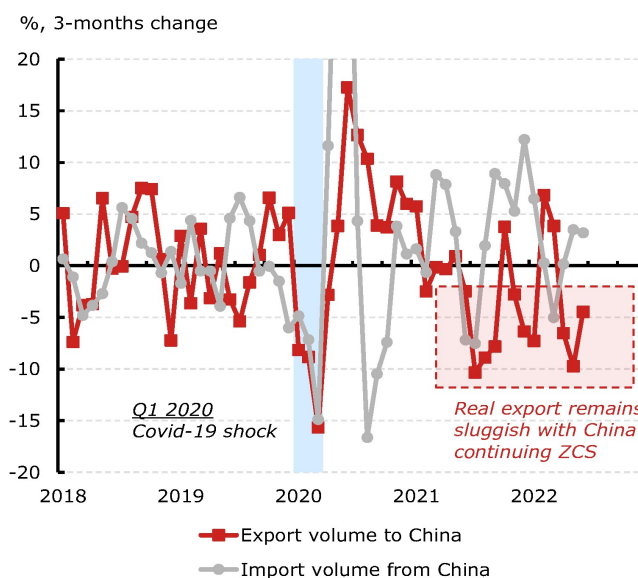
Nomura's China economics team expects some moderate adjustment in ZCS after the CCP's 20th National Party Congress conference (likely to be held in October or November 2022). Until this event ends, China's top leaders are unlikely to make any big decisions regarding rising Covid cases, as it could influence their competition for key posts. Therefore, a further moderation of ZCS measures may be seen after the conference. However, a full shift to living-with-Covid is yet to be seen, in our view. We expect Beijing will maintain its restrictive ZCS, at least until March 2023, when National People's Congress will be held (see *Asia Insights - China: H2 preview – An uneven recovery amid Covid and the deteriorating property sector*).

Fig. 24: Euro area's trade balance with China (seasonal adjusted)



Note: Seasonal adjustment for real trade balance is done by Nomura.
Source: Nomura, HAVER

Fig. 25: Euro area's goods trade with China in real terms



Note: Seasonal adjusted series. Adjustment by Nomura.
Source: Nomura, HAVER

Policymakers' response

Inflation makes this a very different recession in comparison to those of the recent past

HICP inflation in the euro area currently stands at almost 9% and is likely to rise further in the coming months. Moreover, the risks to our view lie to the upside bearing in mind the above discussion about surging energy prices and the impact of drought on crop yields (and thereby potentially agricultural prices).

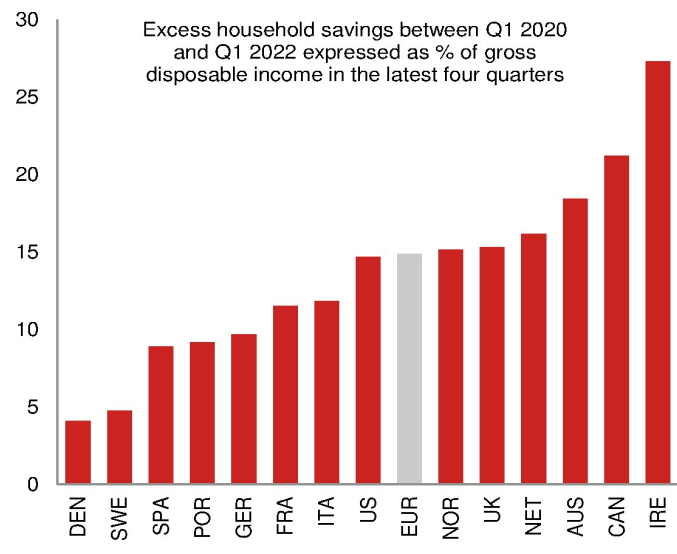
While a good portion of the rise in inflation we've seen across Europe thus far can likely be attributed to supply-side issues, demand too is playing a role. Pent-up demand in the aftermath of the virus continues to be released, and in this respect (some) households have sizeable savings buffers to potentially deploy. As a result, and with official interest rates at such low levels, the central bank doesn't have much option other than to tighten monetary policy – loosening is not (presently) a realistic option, in our view.

When it comes to dealing with limiting the negative-growth impact of surging energy bills fiscal policy is the only game in town, and even then that may be running out of bullets with the NGEU in full swing, governments having already provided some fiscal support and debt/deficit levels still high relative to GDP following the pandemic.

Monetary policy: The ECB will continue to hike but cut when credit risks are clear

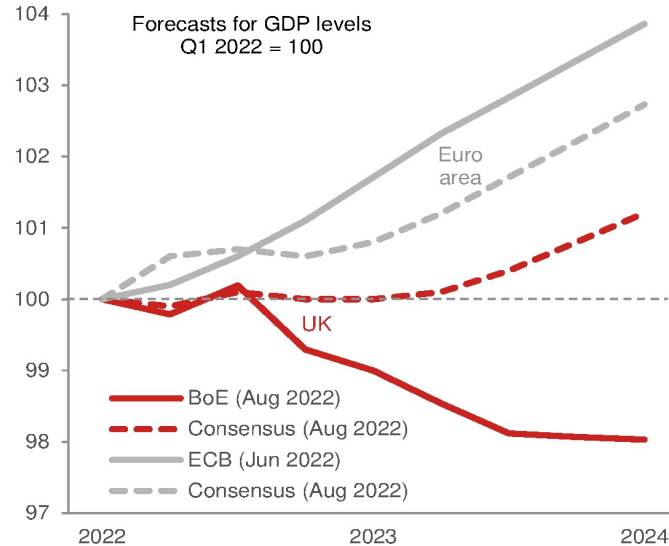
We should reiterate our ECB view at this juncture. In response to rising inflation (and despite the impending recession we are forecasting) we're looking for the central bank to continue raising interest rates in the near term. Specifically we expect a second 50bp hike in early September followed by another 50bp move in October then 25bp hikes in December and February to end the hiking cycle (for a terminal deposit rate of 1.50%). Market pricing is similar out to February 2023, but the market seems to expect further hikes thereafter for a terminal deposit rate of 2%.

Fig. 26: Savings buffer not enough to prevent recession



Source: National statistics offices, Haver Analytics

Fig. 27: Downgrade expected to consensus/ECB forecasts



Source: ECB, Bank of England, Bloomberg

How might the latest surge in energy prices and risks to energy supply further ahead influence our view on the ECB? We think it will reinforce the need to tighten (as higher costs ultimately seep into wages, inflation expectations and domestic inflation), but equally support the need to loosen policy next year (we have modest 25bp cuts in May and June next year). The argument here is that as the price of inelastic energy and food continues to rise, it will constrict real disposable incomes for spending on other non-essential goods and services. In turn, the output gap could turn negative and ultimately push up on unemployment, down on wages and down on inflation too.

This is how the Bank of England adjusted its forecasts in its latest Monetary Policy Report (MPR) at the start of this month. The Bank is far more pessimistic on the growth outlook than the ECB, though to be fair the last time the ECB adjusted its forecasts was in June and much water has passed under the bridge since then – so we might expect significant downward revisions to growth at its forthcoming meeting on 8 September.

The ECB forecasts inflation falling back to target (2%) by the end of 2024, but bearing in mind the uncertainties involved in forecasting right now it is probably placing more weight on current data and near-term expectations for inflation than anything further out. Should the ECB revise down its GDP forecasts materially at its September meeting then the staff may even see inflation falling below target at the end of the horizon (though that could be counterbalanced by the fact that inflation is proving more sticky than originally thought).

In short – surging energy prices are likely to do little to stop the ECB from tightening monetary policy in the near term. However, as time goes on and the impact is felt more obviously through demand (we expect a four-quarter recession starting in Q3 this year), the ECB could well respond by easing policy. The greater the energy-induced inflation is in the near term, the greater may be the need to raise interest rates now and cut them later.

EU fiscal: EU joint fiscal looks to be lacking

One issues related to the current Next Generation EU (NGEU) common fiscal response is that it was designed in the wake of the pandemic and intended to improve the outlook of Europe's economies over time, especially those where sovereign debt ratios were high and slow growth had been embedded even before the pandemic – Italy and Spain being the largest recipient countries of the scheme. It was not designed to provide subsidies to households to combat a very different crisis – that of surging energy inflation – but rather to be focused on investment projects to support medium-term trend growth. In the words of the ECB:

“In the short term, NGEU aims to support the recovery [from Covid]. In the medium term, it is designed to act as a catalyst for the modernisation of the EU economies”

While the NGEU was designed as a one-off measure to combat the fall-out from Covid, as the ECB says it “has long supported a common macroeconomic stabilisation function to complete the economic and institutional architecture of Economic and Monetary Union (EMU)”. This might have been particularly handy to deal with the effects of the energy crisis that Europe now faces. While a joint European fiscal response should not be ruled out, as it stands it seems unlikely at present with the NGEU still in what might be described as its probationary period and with such pan-European plans difficult to both get right and achieve multi-lateral agreement on. Even if a plan were to be agreed upon, it could take many months before coming to fruition.

The EU has responded to the crisis by setting minimum levels of gas storage (80% by 1 November 2022, with a preference for 85% and targets in future years of 90%) and jointly reduce gas demand. However, there seems to be little discussion of anything more concrete, particularly in the way of joint financial support, to address the issue. That said, should energy prices remain as elevated as they are currently this could raise the likelihood of a joint fiscal response.

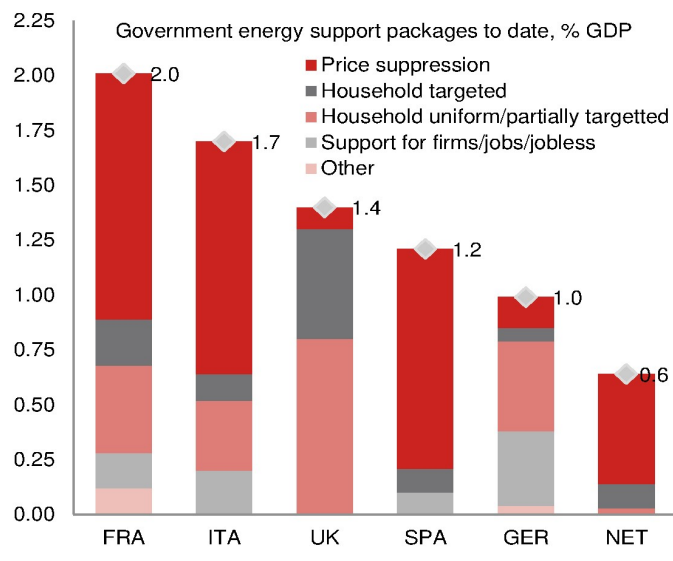
Whatever the case, just as with Covid and the sovereign debt crisis before it, the escalating energy crisis risks once again testing Europe’s currency union and its lack of fiscal union. Fully funded (by national governments) fiscal support to offset the impact on households of rising energy prices would (as we’ve seen in the UK’s latest suggestion) be costly indeed, raising the risk that this crisis could yet morph into something more existential for the euro area. Italy’s bond spreads have been generally trending upwards, though at least the ECB’s action (the Transmission Protection Instrument) is helping limit the scale of widening. Still, it feels like the onus should be more on fiscal rather than monetary policy setters to manage the current crisis.

National fiscal: Government subsidies may not be enough given the move in energy

The speed with which energy prices have moved makes it difficult for fiscal support packages to keep up. In the UK just this week ministers have been briefed on a plan that could see over £100bn of support to keep the household energy price cap unchanged at its current level of just under £2k per year. But the cost of such a plan is unknown and will depend on the evolution of energy prices from here.

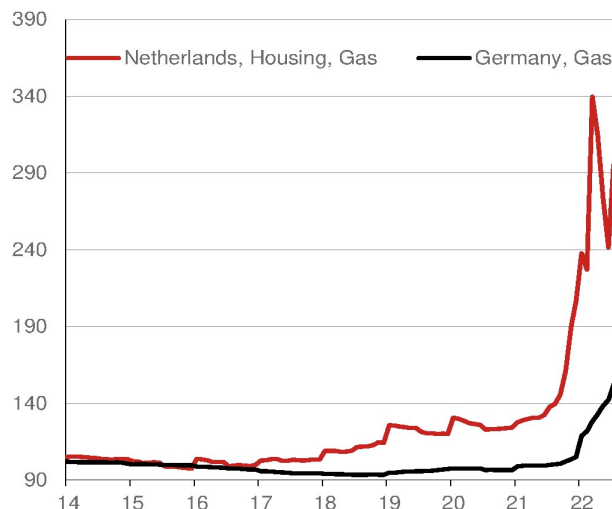
Across the euro area countries have already announced national fiscal plans of varied sizes to deal with at least a portion of the rise in energy bills. We have distilled analysis published by the IMF and *Financial Times* into Figure 28, which shows the measures taken thus far by Europe’s key economies as a proportion of their GDP. As the IMF argues, it may be better for governments to focus on providing direct support to households to help with higher energy prices (rather than attempting to influence the price that consumers pay), to incentivise households to limit their demand where they can (Figure 28 shows that the UK and Germany have done less on price suppression measures and more on fiscal transfers, for example). Targeting energy prices risks blunting Adam Smith’s invisible hand whereby it is the job of the market to ration demand and raise investment in energy.

Fig. 28: The scale of energy support packages across Europe



Source: Financial Times, IMF

Fig. 29: CPI for natural gas: Germany's consumers are not paying the full price of natural gas just yet compared to peers



Source: Nomura, Macrobond

Economic impact

Inflation and growth: The Economic costs of the energy crisis

The economic consequences of the ongoing energy crisis cannot be understated, with both growth and inflation being adversely affected. The Bundesbank recently cut its forecasts for growth. We anticipate the ECB to radically reduce their GDP growth forecasts at the September meeting as the Bank of England did in their August MPR (Figure 27). At the moment, we anticipate euro area GDP growth to be negative for four consecutive quarters, beginning Q3 22, and for GDP to drop by approx. 1.5%.

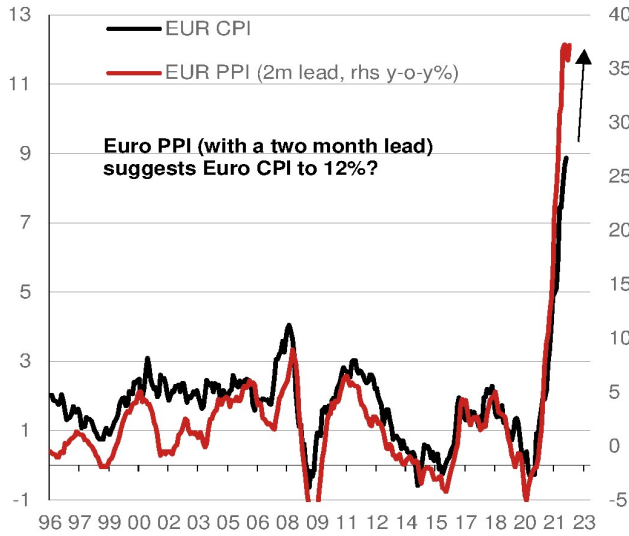
However, we acknowledge the risks are squarely skewed to the downside (even if our forecasts are well below consensus already). After all, our forecasts effectively assume no explicit rationing of gas – something which may yet come to pass. A lack of gas undoubtedly weighs on industry’s ability to produce. Similarly, second-round effects from price spillovers to non-energy subcomponents of HICP will only exacerbate Europe’s cost of living crisis given current muted wage growth. And in particular growth in the the euro area – and Germany especially – is potentially far more at risk than the UK, for example, being so dependent on Russian energy.

The Bundesbank estimates HICP inflation will remain elevated in coming months, spiking in September as government subsidies on fuel and rail tickets expire. Ultimately, the impact on European CPI is difficult to gauge, with several government energy interventions. After a long period of subsidizing energy costs levies have now been introduced in Germany, but then followed by VAT cuts to help offset it. French prices are capped by the government with EDF (Figure 28) largely taking the hit, but looking ahead there is uncertainty over what energy price hike for consumers will be decided in January when the current cap expires. In the UK the government has provided some subsidies for the October price cap hike but again it is unclear what will happen in January and April (especially in light of a new incoming Prime Minister early next month) when prices for the average household could reach over £6,000 per year (up to 20% of the average UK disposable income, up from just 3-4% in 2019).

Furthermore, the effect on inflation of any government measures to support households or businesses will depend heavily on the measure in question. That is to say, whether the measure is intended to reduce the unit cost of energy (and thus weighing on inflation), or whether the support is provided as a means to withstand price rises. This is why some countries (i.e., the UK and Germany) have seen higher inflation compared to others (i.e., France and Italy).

Fig. 30: EUR PPI (2m lead) vs CPI y-o-y%

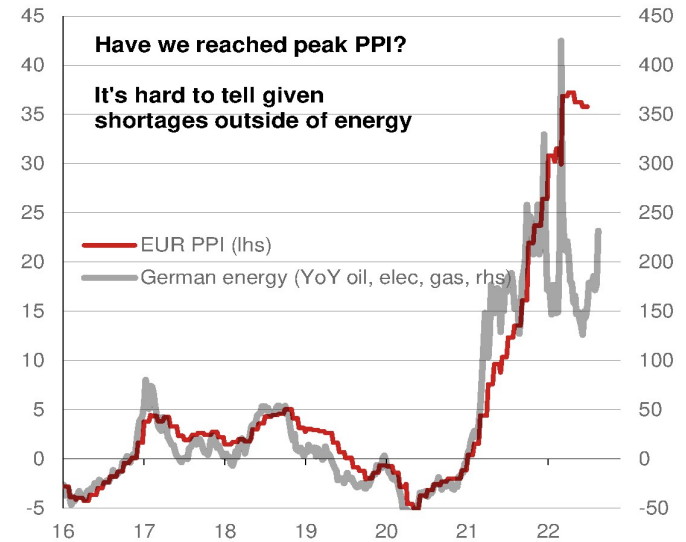
CPI might beat many forecasts if PPI is any guide



Source: Nomura, Macrobond

Fig. 31: Euro PPI vs Germany's energy prices

With energy prices continuing to rise - it's really hard to call peak PPI



Source: Nomura, Macrobond

Market Impact

Mr.Market: European credit stress to get worse, equities look mispriced

There is a disconnect between equity and credit markets pricing of the current economic situation. European crossover credit spreads are roughly as wide as the March 2020 COVID-19 market panic levels. This is reasonable, given the severe economic downturn on the way. What is therefore odd is that equity markets are not as forward-looking as they would usually be given the warning signs. Our "Mr.Market" measure of growth pricing in the market (equities y-o-y% performance versus rates) suggests a mild slowdown to average levels of growth and no recession. We see credit to be pricing in the risks more appropriately (to eventually widen further given firms are yet to feel the full hit of energy prices) and European equity markets to be completely mispriced compared to the recession to come.

Fig. 32: The tightening of European credit in recent weeks is odd

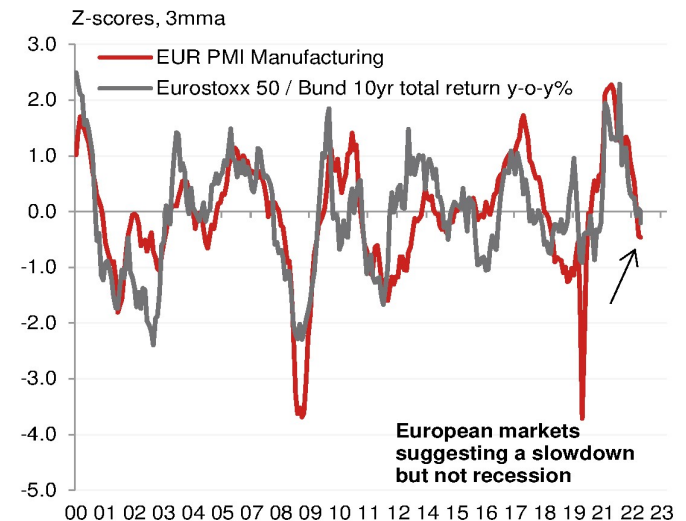
But the trend is higher this year



Source: Nomura, Bloomberg

Fig. 33: Mr.Market: European equity and rates markets don't price in a severe recession

Mr.Market is not looking for further falls in PMIs!?



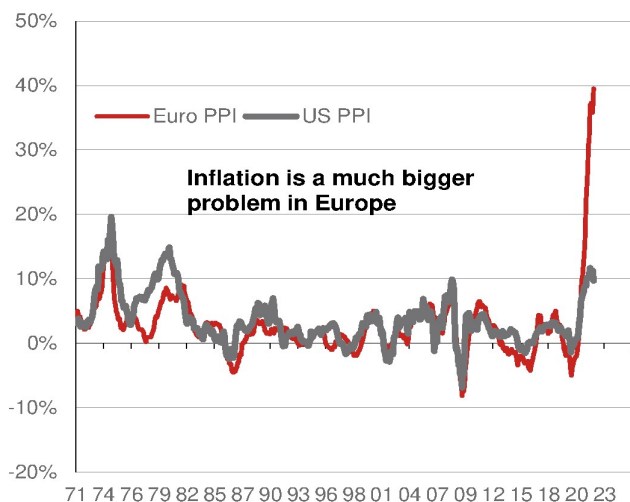
Source: Nomura, Macrobond, Bloomberg

FX: The rise in European inflation is lowering EUR's fair value

We wrote back in May *EUR isn't cheap if you consider FEER and PPI*. The price of energy in Germany has since tripled in price (see 1yr German baseload), making European manufacturing even less competitive on the Global stage. EUR's fair value as measured by PPI (less manipulated by government taxes/subsidies than CPI) has fallen further to 1.05 and is likely to keep on falling with the pass through of energy costs to come. From an inflation point of view the ECB would probably prefer a stronger currency to tame inflationary pressures from import costs. But the FX component is largely irrelevant compared to the underlying inflation of imported energy so should receive less focus. Instead, as a German exporter, with the cost of production rising — a weaker currency to remain competitive would probably be welcomed.

Fig. 34: European producer price inflation vs US

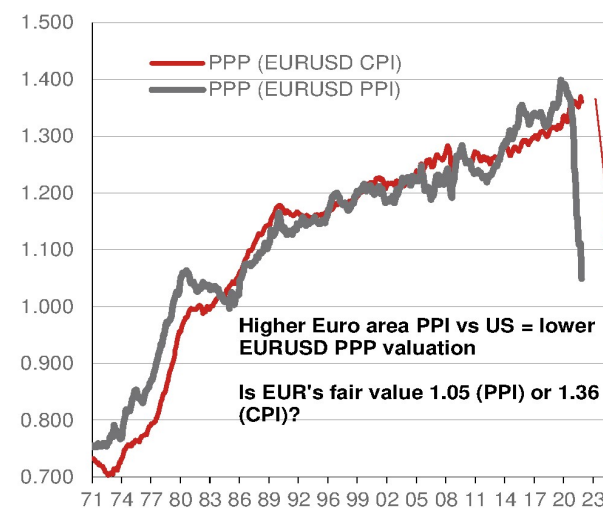
y-o-y%, Stagflation a much bigger concern in Europe



Source: Nomura, Macrobond

Fig. 35: EUR PPP fair valuations

CPI vs PPI estimates



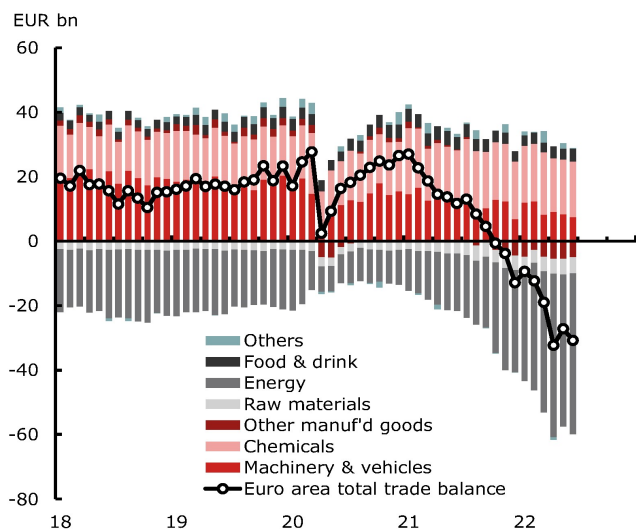
Note: We use 1980-2000 for the reference period
Source: Nomura, Macrobond

FX: Worsening basic balance will weigh downwards on EUR

A resilient trade surplus was one factor that made euro area's current account to remain in surplus since the European debt crisis. However, the increase in energy prices and the import volume turned this to deficit last year, and the weak momentum has been continuing (Fig. 36). The latest current account (for June 2022) was just marginally positive, and is much smaller than long-run average since 2012. As a result, the trend of euro area's basic balance has been negative and this is likely to suppress EUR from the currency's supply-demand perspective (Fig. 37).

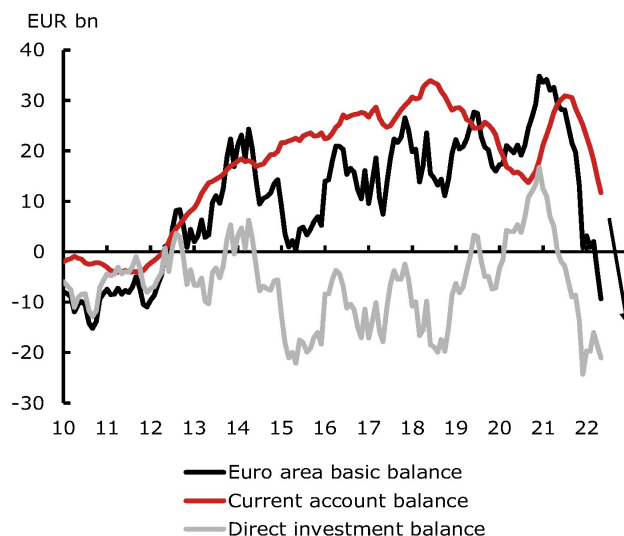
Energy rationing could also lead to a significant fall in exports and boost imports of non-energy goods. Note that the euro area has a trade surplus in chemicals, if energy rationing leads to a shortfall in energy intensive products in chemicals, metals, plastics, ceramics and more it could accelerate the decline in the euro area trade balance too.

Fig. 36: Euro area's trade balance by type of goods



Note: Seasonal adjusted series.
Source: Nomura, HAVER

Fig. 37: Euro area's basic balance



Note: All series are 12-month moving average.
Source: Nomura, HAVER

FX: Terms of trade point to EUR/USD towards 0.65

Whether using the Bundesbank, the IMF or daily proxies for terms of trade on Bloomberg (the price of European exports vs its imports), the euro area seems to be experiencing a terms of trade crisis. With the price of its imports significantly higher (thanks to energy), the terms of trade has fallen back to the levels last witnessed in the 1980s when EUR traded around 0.70 to 0.80 vs the USD (in legacy terms). Using a ratio of euro area terms of trade vs the US (via GDP implied price deflators for the terms of trade) it points to a valuation closer to 0.65 for EUR/USD. Perhaps this is too extreme and 0.70 to 0.80 is more realistic. But it's a signal that is too powerful to ignore and raises our conviction that EUR is likely to be **falling towards 0.95 and over the winter towards 0.90 too.**

Fig. 38: If this is a re-run of the 1970s - we are only just at the start of a big trend in EUR

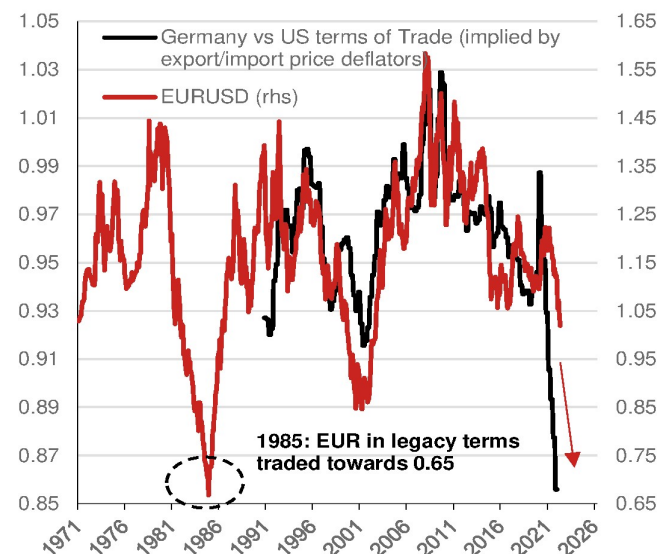
A terms of trade shock to 1970s levels could seriously hit EUR's valuation



Source: Nomura, Macrobond

Fig. 39: EUR's terms of trade collapse signals a move to 1985's level of 0.65?

We should not underestimate the impact that this is having on EUR trade flows



Source: Nomura, Macrobond

FX: What about rates or global growth factors; won't ECB hikes help?

We can't completely dismiss rates spreads or global growth pricing. If the ECB were to hike rates far in excess of market pricing (a terminal rate around 2% next year) or if fiscal

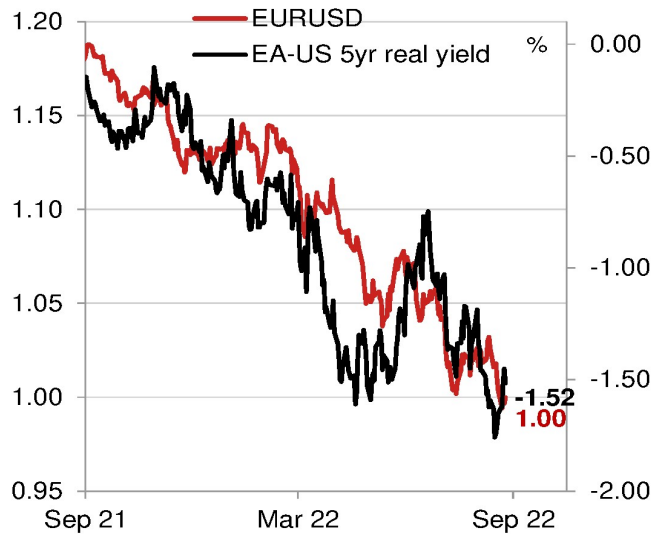
spending in the EU or abroad were to raise global growth expectations EUR would find support and climb above parity.

For now, rates spreads and EUR/USD have broken apart in the nominal space, if one were tracking 2yr swap spreads it would point to EUR at 1.07; 5yr swap spreads also give a similar message. It's why we've tended to put more weight on 5yr real yield spreads (adjusting for inflation expectations), but even that relationship can be fickle.

Then there is global growth — EUR tends to be a pro-cyclical currency rising with the manufacturing cycle and falling too. We've seen global PMIs take a turn for the worse and EUR follow with it. So is the bad growth news already in the price of EUR? We would argue no, on a trade-weighted basis the EUR is still not that weak historically. It would take another 12% fall before we reach the lows (nominal effective exchange rate) before we would argue perhaps EUR is looking extended. **That would put EUR/USD towards 0.88.**

Fig. 40: EUR/USD vs 5yr real rates

EUR's relationship with rates is fickle - but rates are pulling it down too



Source: Nomura, Bloomberg

Fig. 41: Euro's REER vs Global growth

EUR is not a buy until global growth turns around



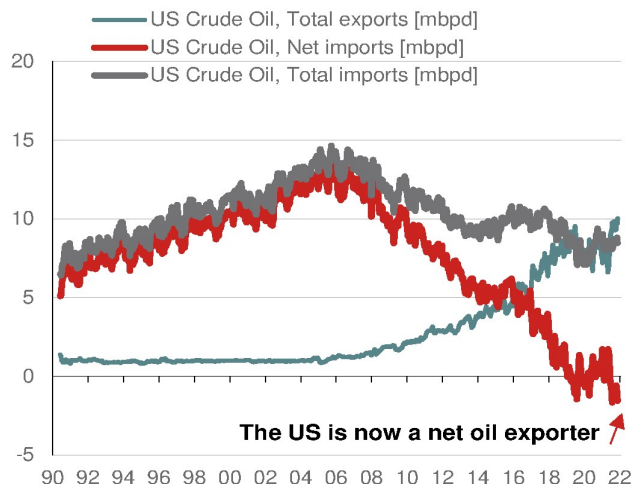
Source: Nomura, Macrobond

FX: The US is an energy exporter and the USD benefits from higher energy prices

It's not just a European story — the US has come a long way in its energy security, which will likely play a big part of how the USD trades. The US is now a net exporter of crude oil, which is a key differentiation between the US and the energy importing euro area. The relationship already demonstrates how the USD largely tends to follow its terms of trade. If Europe remains largely cut off from Russian gas supplies for the foreseeable future, it's hard to argue why the terms of trade for the euro area should improve vs the US, a factor that weighs on the EUR to the benefit of the USD.

Fig. 42: The US now exports a lot of oil

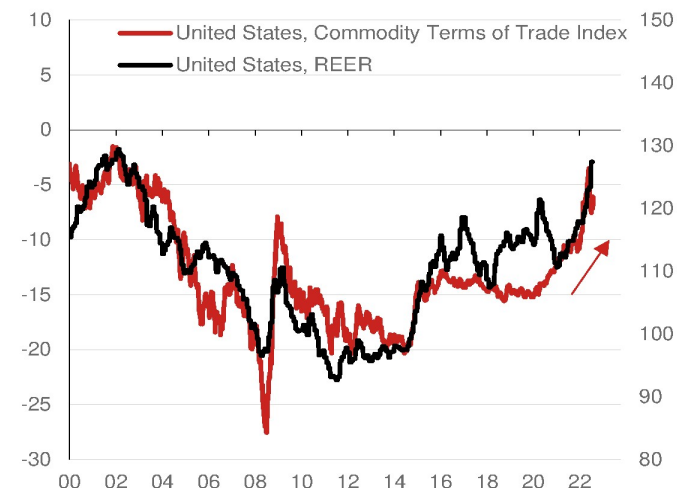
This changes the impact of oil on the USD



Source: Nomura, Macrobond

Fig. 43: US terms of trade and the broad USD

Clear signs that rising terms of trade for the US is a boost for the USD medium term



Source: Nomura, Macrobond

The key dates ahead

Fig. 44: Key Events on Euro Area Inflation

Date	Country	Event	Descriptions and Implications
End August		Disappearance of €9 German monthly train ticket	A big pick up in September German CPI expected, given it costs €86 for Berlin's inner city monthly public transport fare, and €115 in Hamburg
5-Sep-22		UK leadership contest	If Liz Truss becomes a new PM, lower taxes is expected, but uncertain for energy crisis. Also, BoE reform fear may increase policy uncertainty. If a Rishi Sunak is chosen, this may soften market fear.
In September		Free tickets for most trains operated by Renfe from September to December	This may lower Spanish CPI is expected until for December data, but power rising may offset this slightly.
In Sep-Oct		French government will increase fuel discount (From 18 cents per litre to 30 cents per litre)	Fuel prices could reach as €1.50 per litre, if combined with TotalEnergies' discount. Lower French CPI data for September and October.
5-Sep-22	-	32nd OPEC and non-OPEC Ministerial Meeting	OPEC may cut output to correct a recent oil price decline, according to the Saudi Arabia's leaders comment on late August
11-Sep-22		Russia regional elections	Will this increase tensions between Russia and Ukraine?
25-Sep-22		Italian election	Right wing coalition likely to win, and anti-EU stance likely be much softer than before. However, this may let Italy closely tied with Russia, based on its current policy stance.
1-Oct-22		Germany will likely introduce consumer levy on gas	The levy will be imposed until March 2024, at €2.419 per kWh. The household will face additional annual costs of about €290 due to this levy.
1-Oct-22		Germany will cut sales tax on natural gas	The VAT will be 7% from 19%, which is expected to cost about €14bn in lost revenue. The lower rate will expire at the end of March 2024.
21-Oct-22		US Strategic Petroleum Reserve drawdown ends	A roughly 1 million b/d has been released from the SPR from April. This might be extended depending on the result of US mid-term election
In November		US Freeport LNG exports is likely to be back online	Following a closure in June, the plant will likely to reoperate from November. A roughly 2 billion cubic feet per day of LNG is expected to be delivered by end-November.
In Nov-Dec		French government will lower fuel discount (From 30 cents per litre to 10 cents per litre)	Higher French CPI for November and December data, with smaller subsidy.
In Q4 2022		CCP's 20th National Congress	Top leaders will compete for key posts during this once-in-a-decade leadership change. Beijing is likely to maintain the status quo in terms of the ZCS, and moderation thereafter.
In January 2023		French government will end fuel discount (From 10 cents per litre to no subsidies)	Higher French CPI from January data, but the government may extend the policy

Source: Nomura, media articles

Appendix A-1

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- Quantitative analysis of price variations.
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