

Economic and financial outlook

March 2022

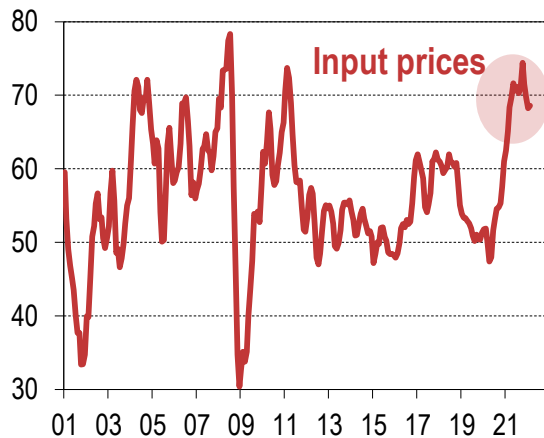
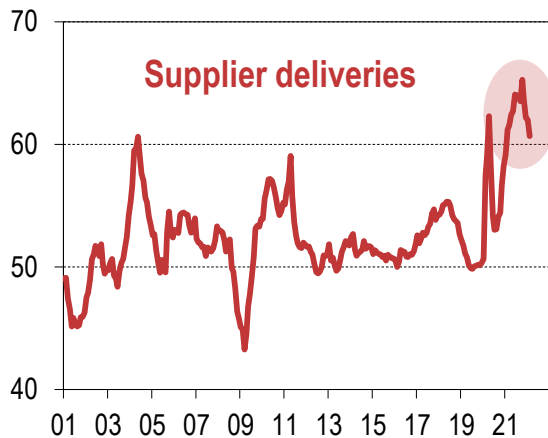


1. Global economy Under serious stress...

While in early 2022, supply side tensions were giving signs of levelling off...



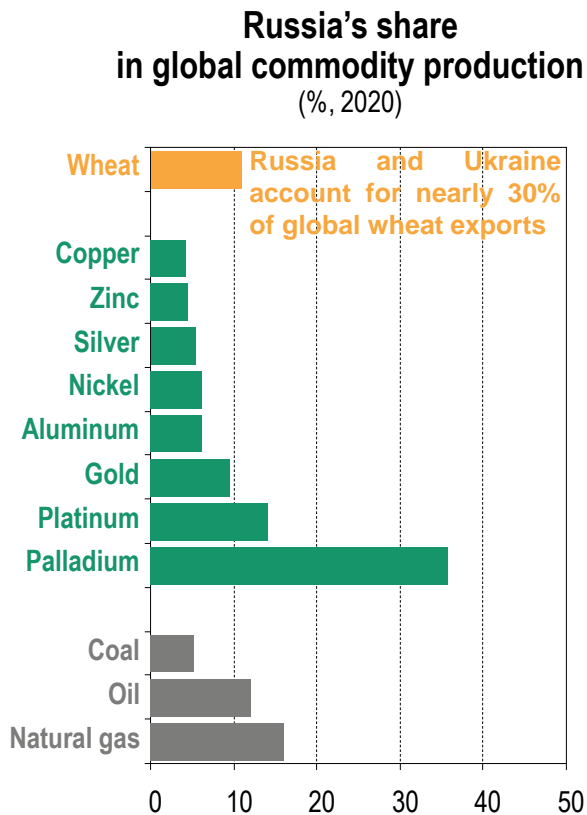
World manufacturing PMI



Cost of shipping (January 2019 = 100)

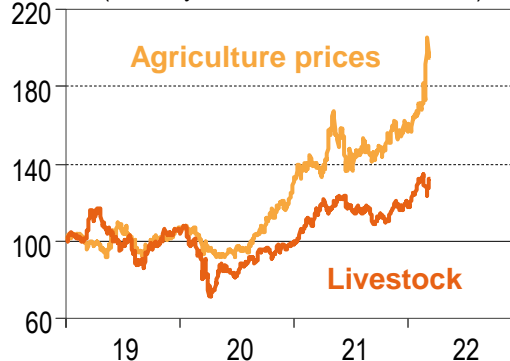


... the war in Ukraine will add to turbulences, delaying the normalization of production conditions and pushing commodity prices higher



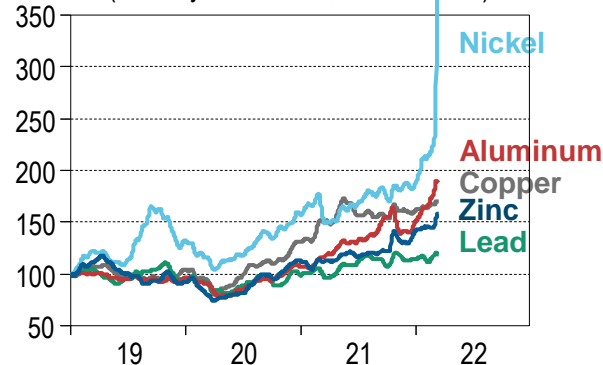
Agricultural commodity prices

(January 2019 = 100, GSCI indices)



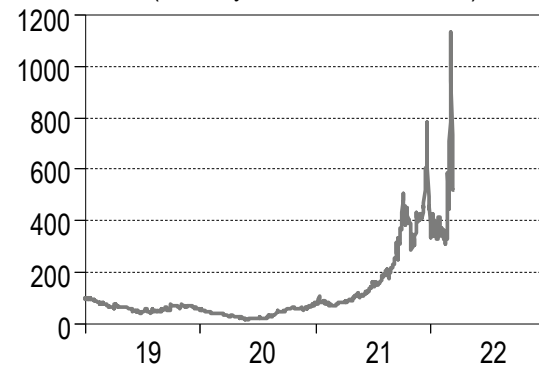
Metal prices

(January 2019 = 100, GSCI indices)



Natural gas price

(January 2019 = 100, in euros)



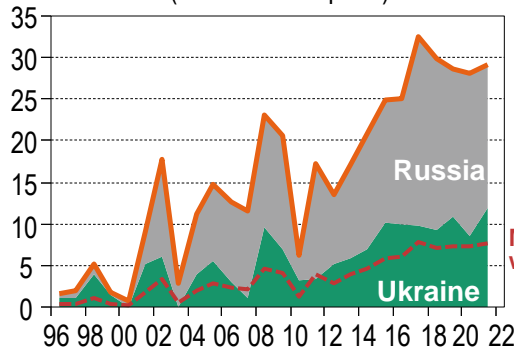
Oil price

(January 2019 = 100, Brent)

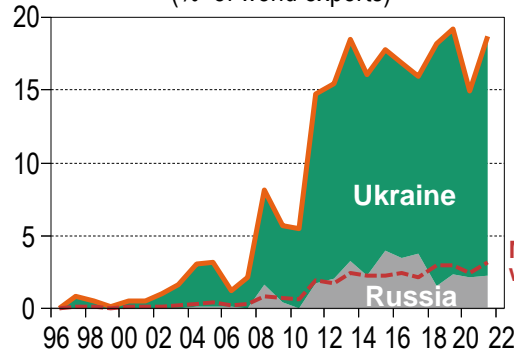


Memo: Ukraine and Russia are big exporters of grains

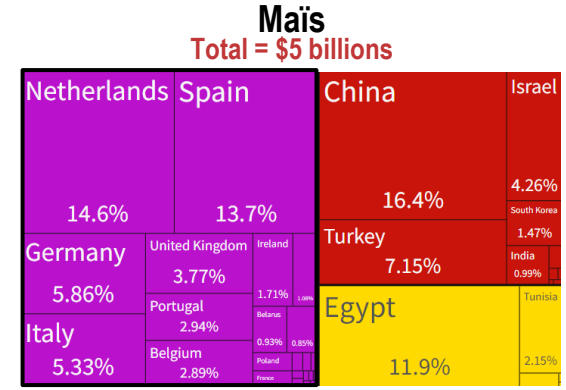
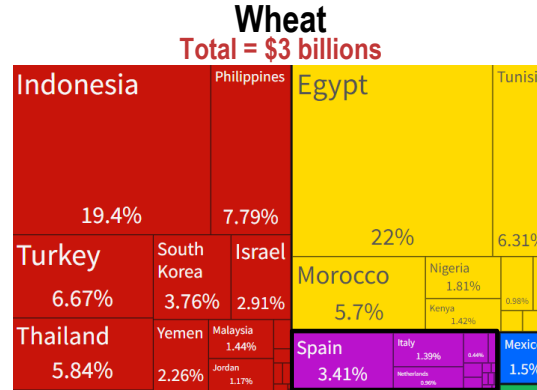
Wheat exports
(% of world exports)



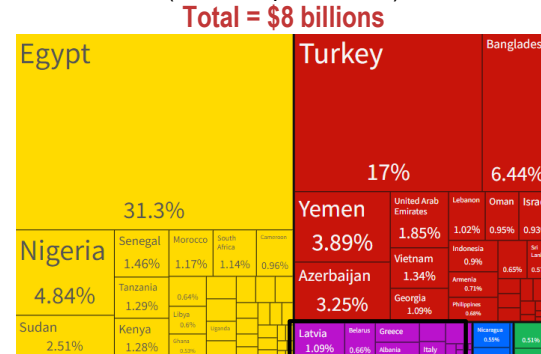
Corn exports
(% of world exports)



Importers of wheat and corn from Ukraine
(% of exports, 2019)



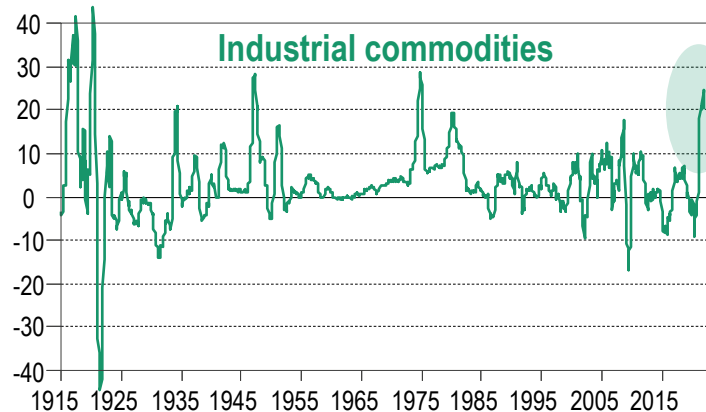
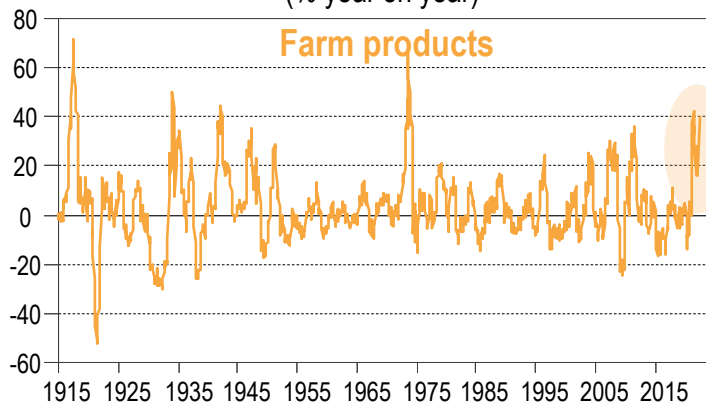
Importers of wheat from Russia
(% des exports, 2019)



Put in perspective, the current spike in prices is impressive... especially for raw materials!

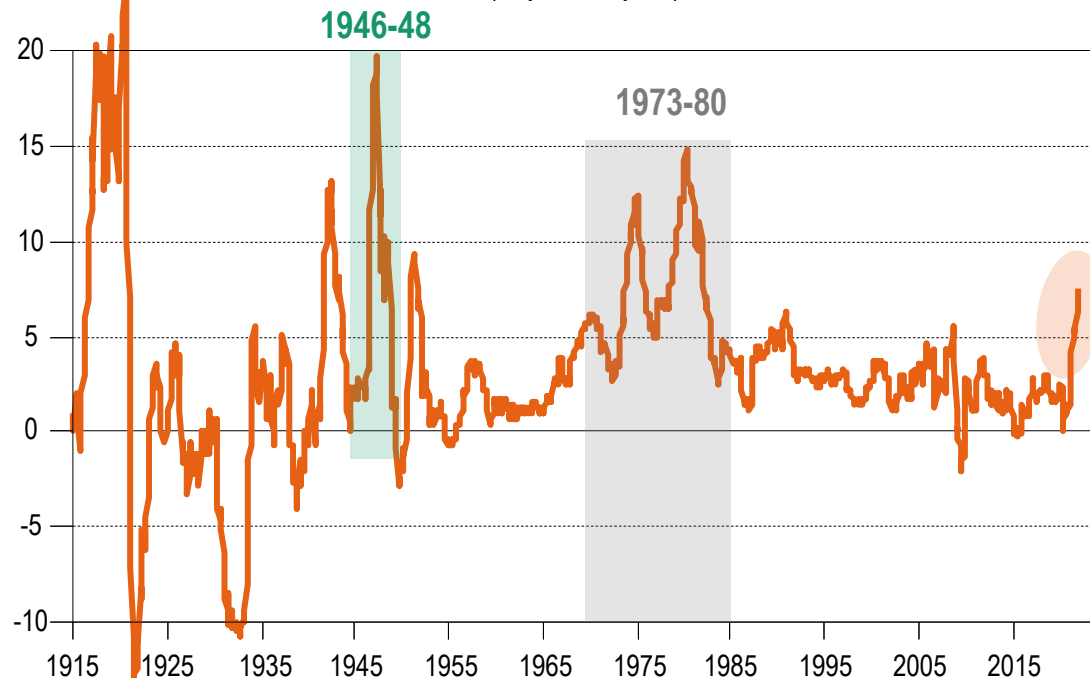
US producer prices since 1915

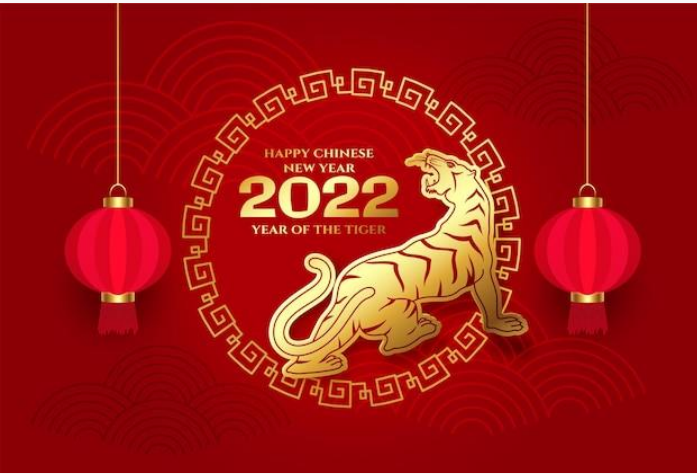
(% year on year)



US inflation since 1915

(% year on year)

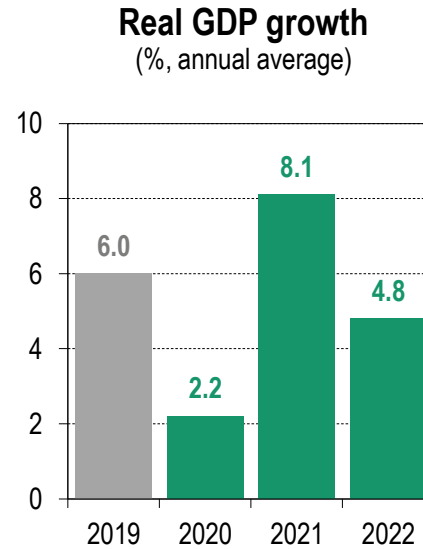
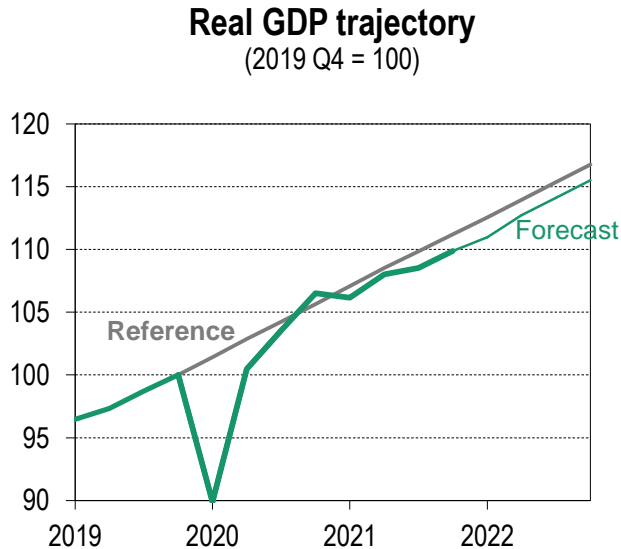




2. China

An ambitious 2022 growth target...

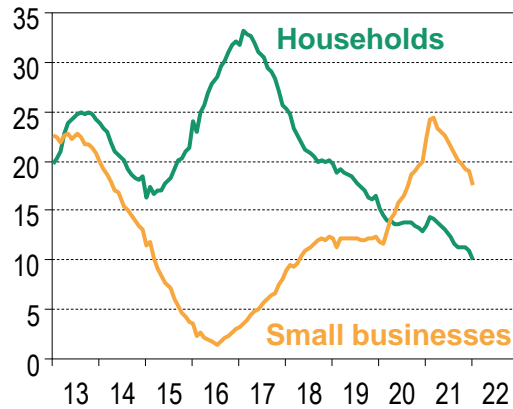
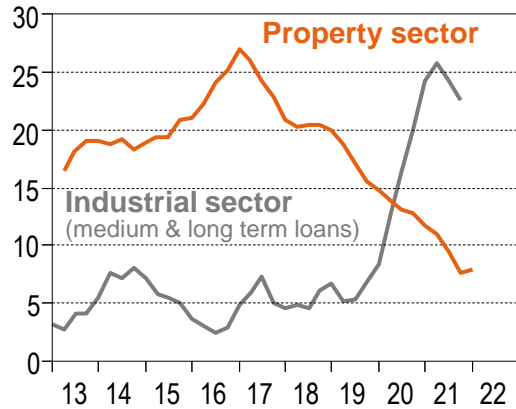
After a slowdown, growth should gradually accelerate...
the more so since authorities have set an ambitious target



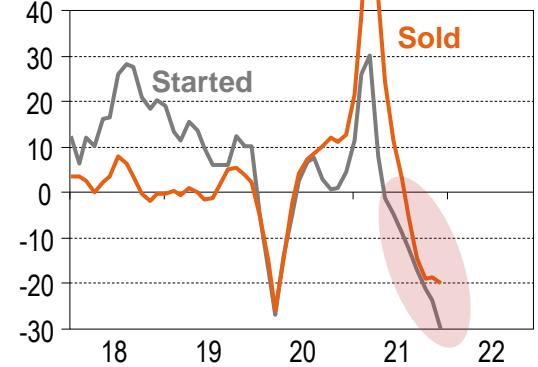
At the National People's Congress, authorities have set the GDP growth target at 5.5% in 2022.

Policy-driven credit restraint has heavily weighed on residential investment

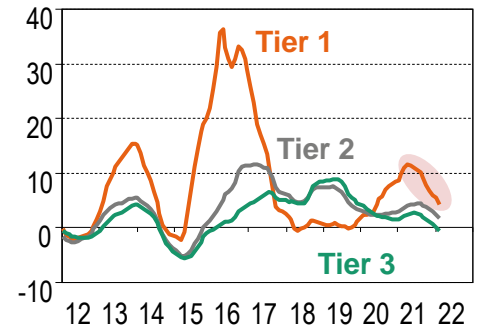
Bank loans
(% year on year)



Residential building started and sold
(% year on year)



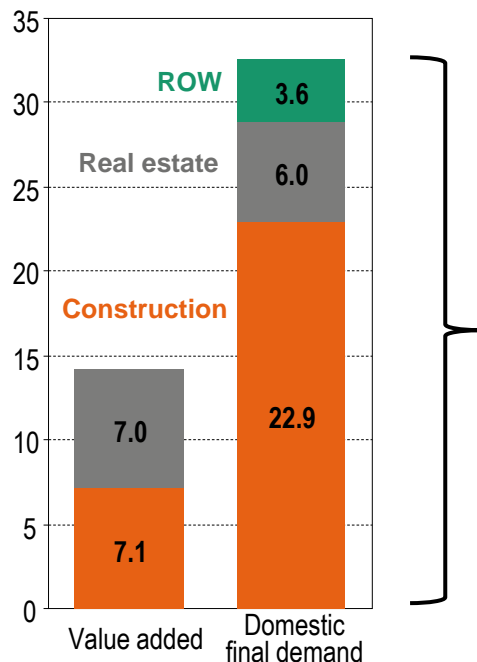
Housing prices
(2nd hand residential buildings, % year on year)



Construction and real estate account for 30% of China's final demand

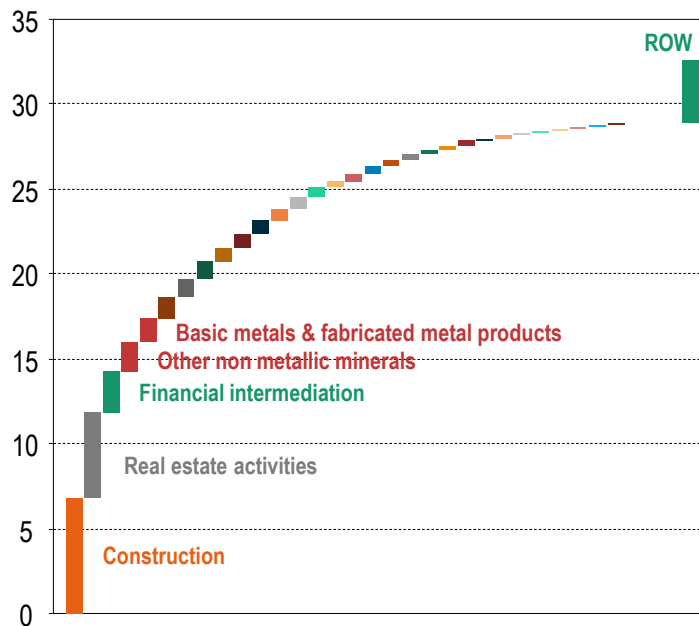
The final demand addressed to the construction and real estate sectors is more than twice the size of the value added of the two sectors

(% of GDP, 2018)



Origin of value added in domestic final demand of construction & real estate

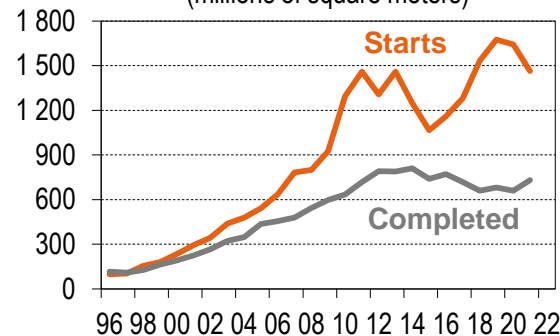
(% of GDP, 2018)



If housing starts don't recover somewhat, the drag on growth would be significant and long lasting

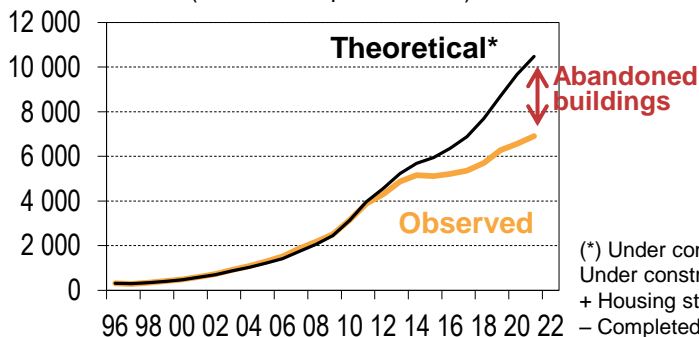
Residential construction

(millions of square meters)



Residential buildings under construction

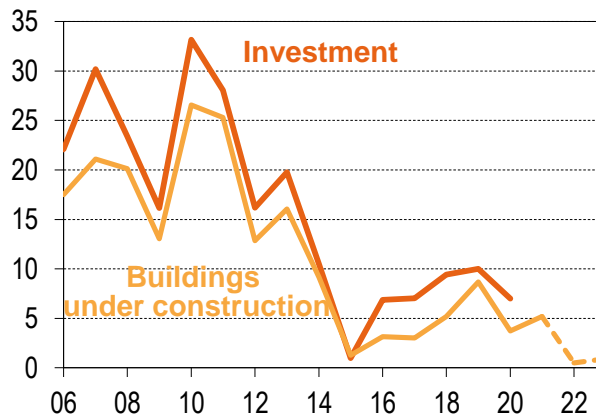
(millions of square meters)



(*) Under construction (t) =
Under construction (t-1)
+ Housing starts (t)
- Completed building (t-1)

Real estate firm's investment

(% year on year)



Assuming buildings started stabilize at their Q4 2021 level, real estate investment contribution to GDP growth would fall from 1.5% to 0% in 2022.

After the recent National People's Congress, Beijing is planning for fiscal spending growth of 8.4% this year, up from actual fiscal spending growth of 0.3% in 2021

The central government counts on local governments to leverage up notably through their funding vehicles (LGFVs), and will also encourage SOEs to ramp up infrastructure spending (railways, power grid...).



3. United States

“The labor market is extremely tight”*

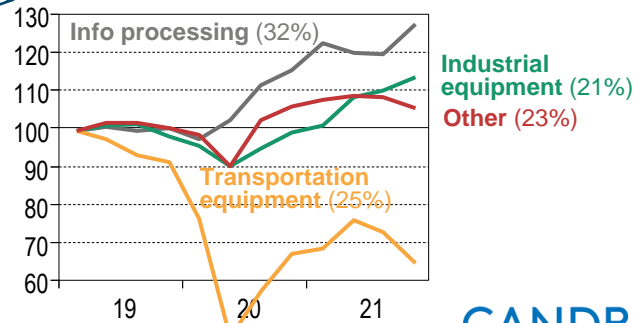
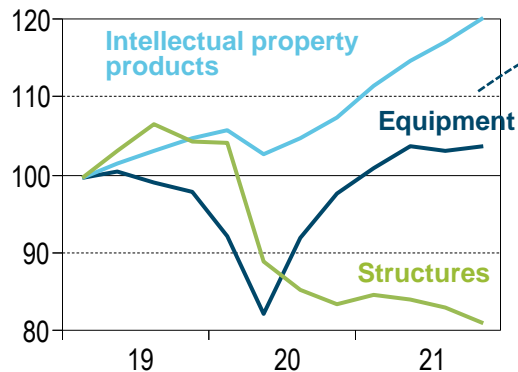
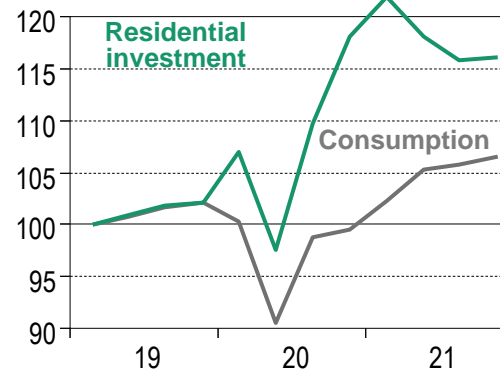
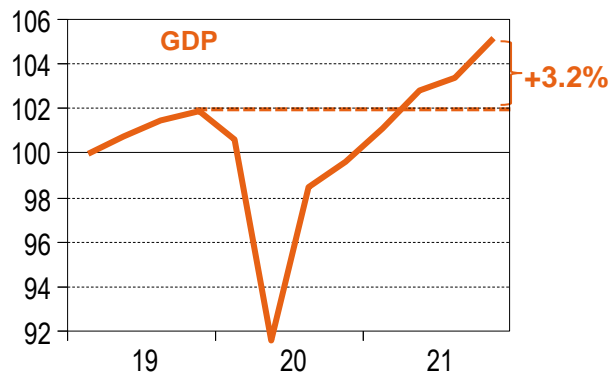
() Semiannual Monetary Policy Report to the Congress*

Jerome Powell
Nominated for second term as Chair of US Federal Reserve

GDP rose sharply in the fourth quarter of 2021...

GDP and its components

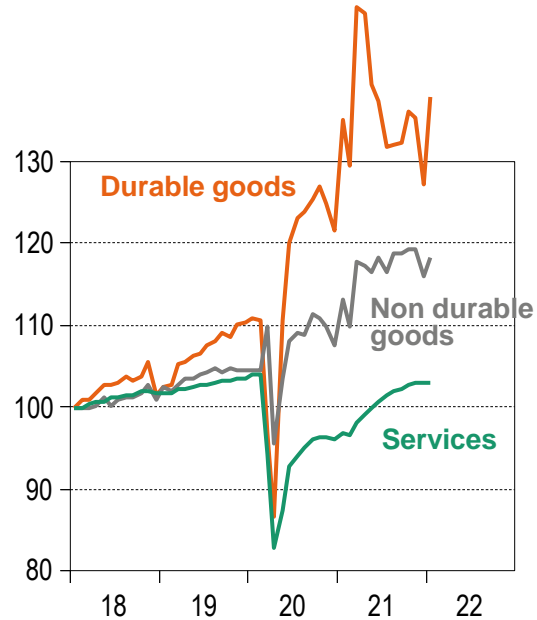
(2019 Q1 = 100, volume)



... supported in particular by inventory rebuilding

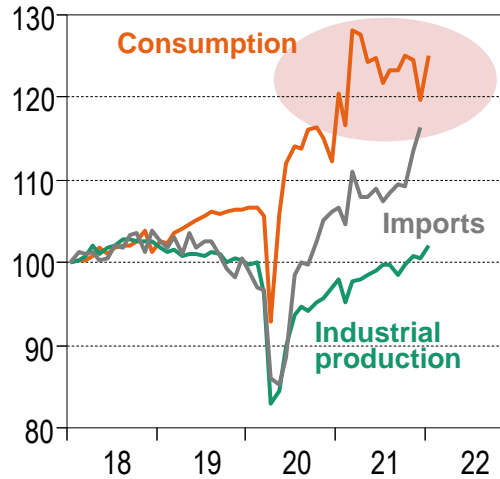
Consumption

(January 2018 = 100, volume)



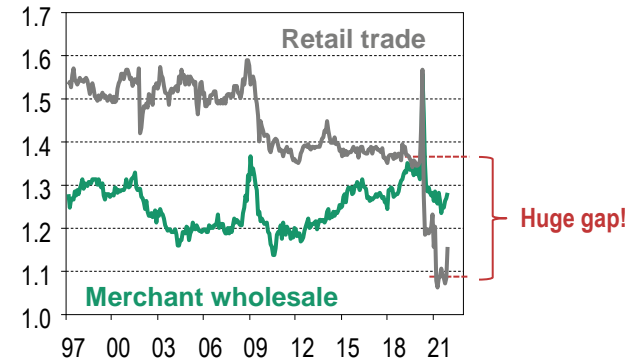
Consumption, production and imports of goods

(January 2018 = 100, volume)



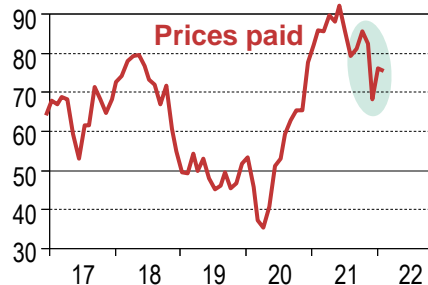
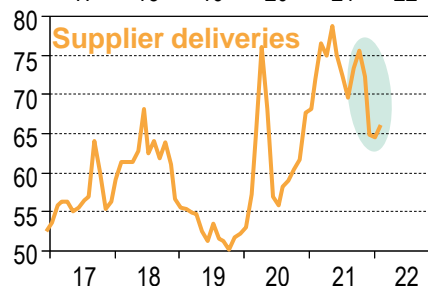
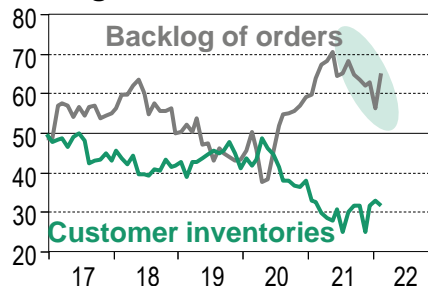
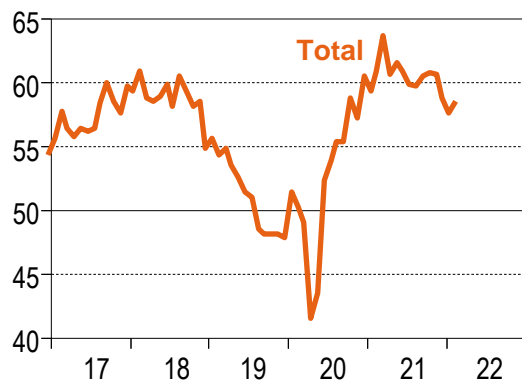
Real inventory to sales ratios

(volume)

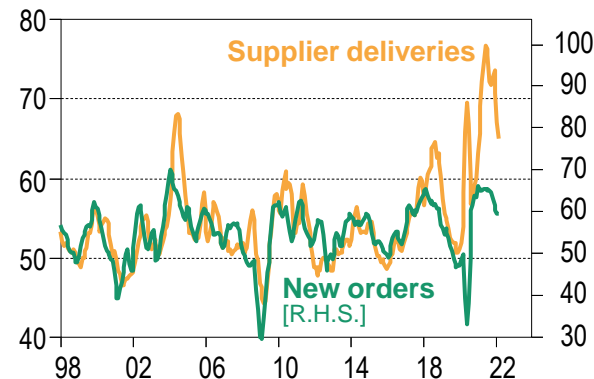


Tensions in the manufacturing sector are still holding back production and stopped easing in February

ISM manufacturing

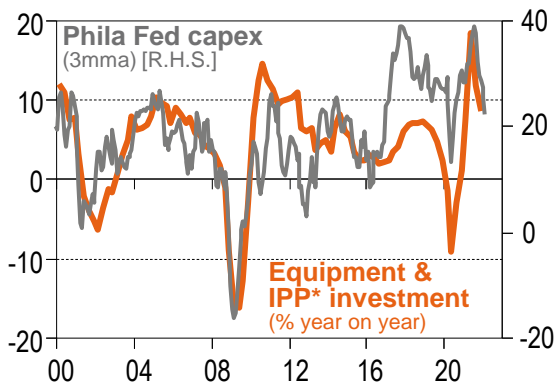


Supplier deliveries and new orders (manufacturing sector, 3 months moving average)



Business investment should continue to support growth in 2022

Phila Fed survey and investment



Core new orders and shipments

(\$ billion)



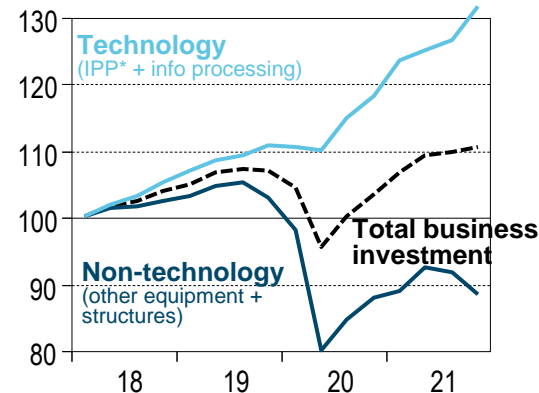
Equipment investment & change in capacity utilization rate



(*) Intellectual Property Products

Gross fixed capital formation

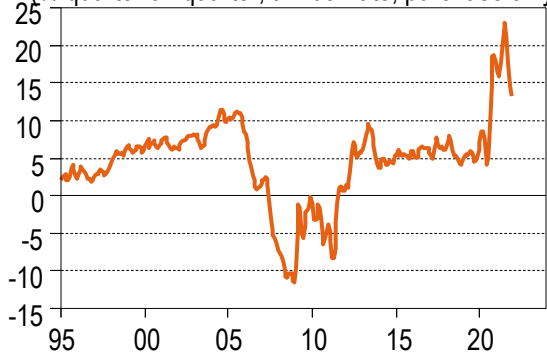
(2018 Q1 = 100, volume)



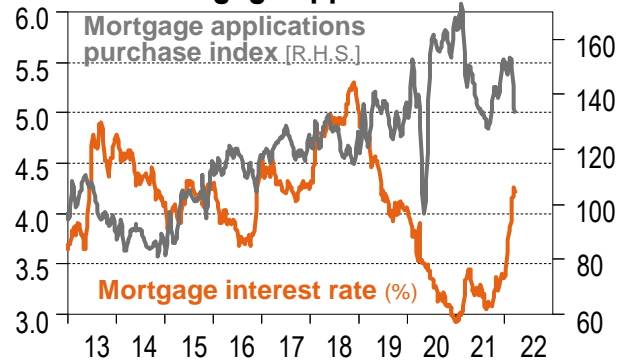
Rising home prices and higher mortgage rates are reducing affordability...

FHFA house price index

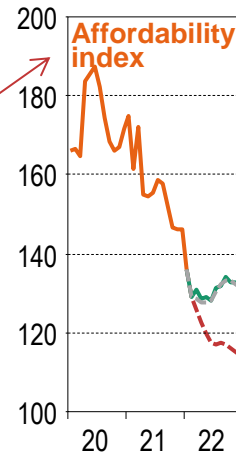
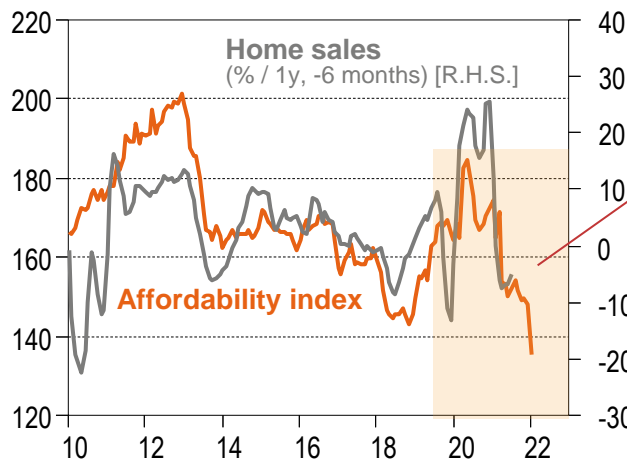
(% quarter on quarter, annual rate, purchase only)



Interest rates and mortgage applications



Home sales and affordability



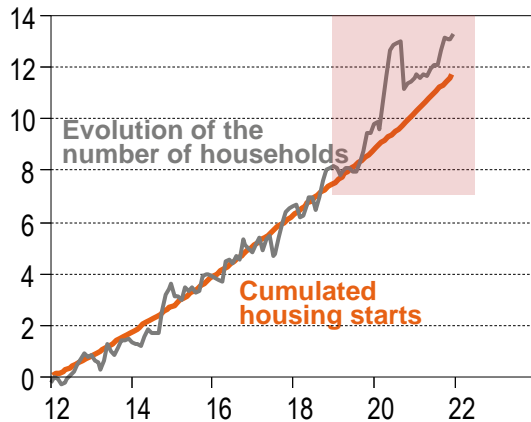
Slowdown in home prices and mortgage rates stable at 4.2%

15% rise in home prices and decrease in mortgage rates to 3.4%

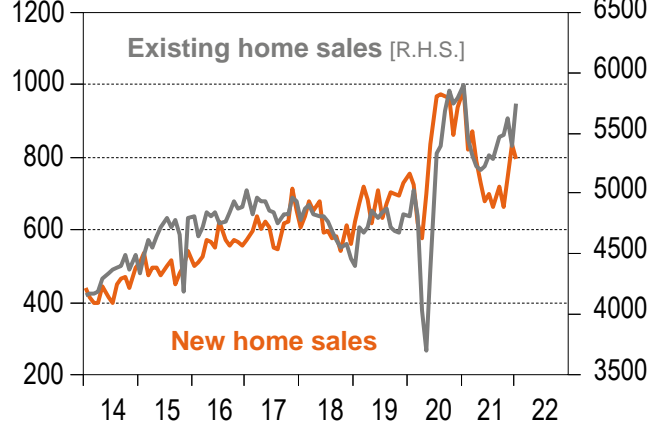
15% rise in home prices and mortgage rates rise to 4.7%

... but the existing construction backlog will keep residential investment strong for several more months

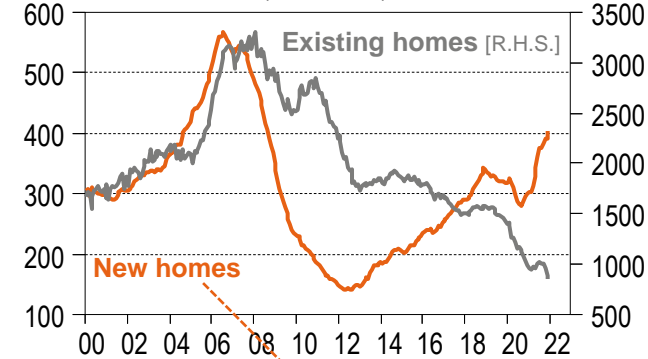
A measure of the underbuilding gap
(millions, cumulated since January 2012)



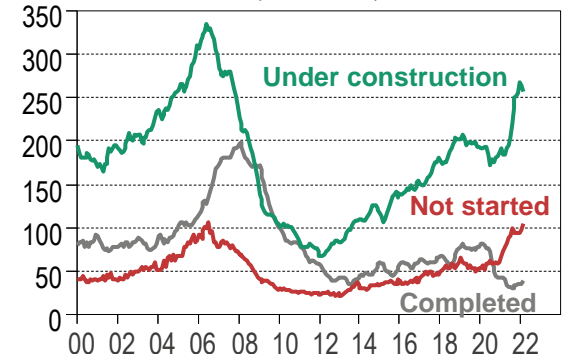
Home sales
(thousands, annual rate)



Home inventories
(thousands)

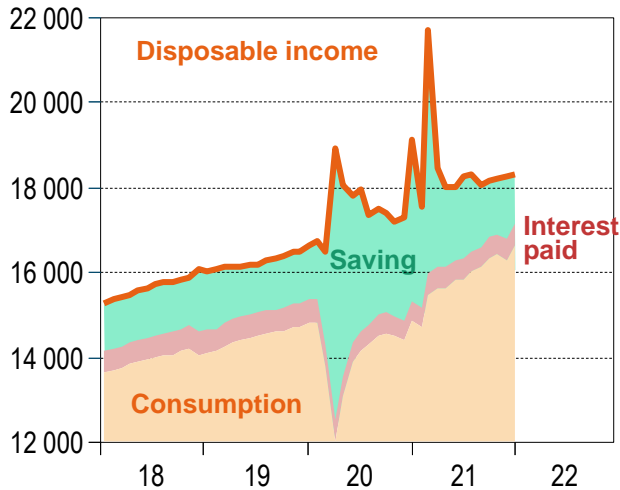


New homes for sale
(thousands)

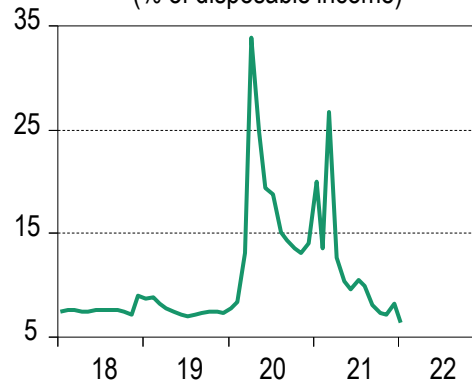


Fiscal support has faded, but the high pace of job creations and still untouched accumulated excess savings will help keep consumption growing

Consumption, income and saving (\$ billion)

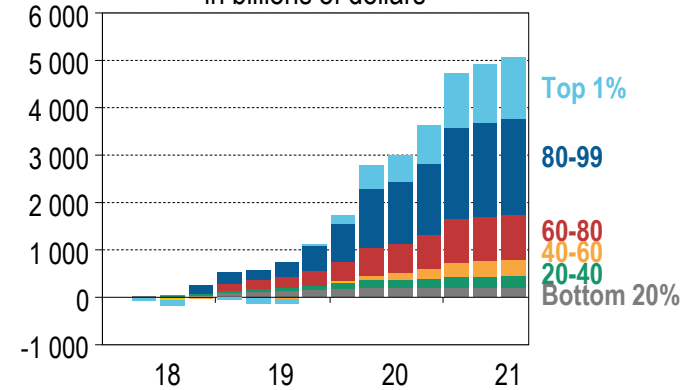


Saving rate (% of disposable income)

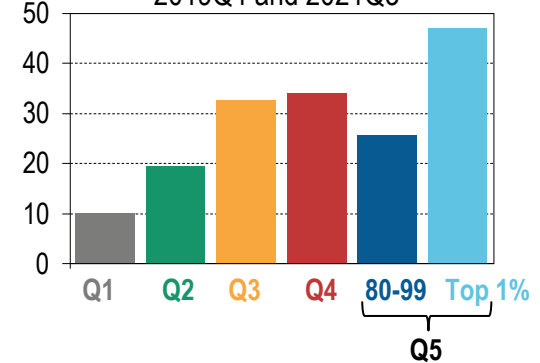


Deposits by income quintile

Cumulative change since 2018Q1
in billions of dollars

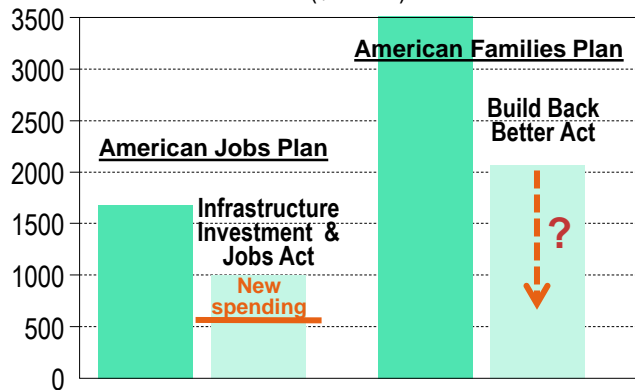


% change between
2019Q4 and 2021Q3

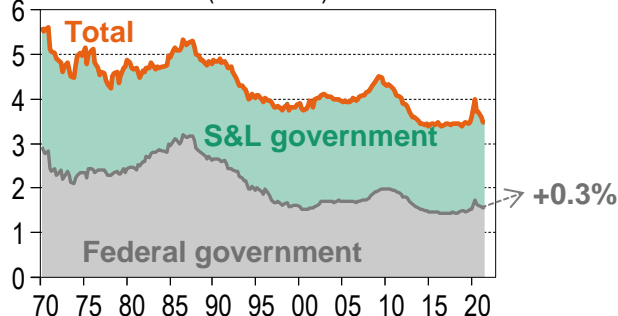


The bipartisan Infrastructure Investment and Jobs Act passed, but the Build Back Better Act seems “buried”

Build Back Better
(\$ billion)



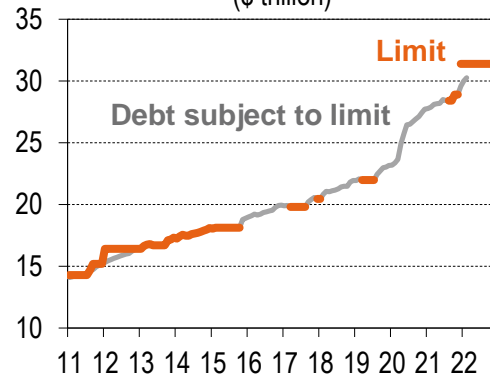
Government investment
(% of GDP)



➤ Debt limit

The Congress voted on December 15 to raise US federal borrowing authority by \$2.5 trillion. It is expected to allow the country to cover its debt obligations into 2023.

Federal debt limit
(\$ trillion)

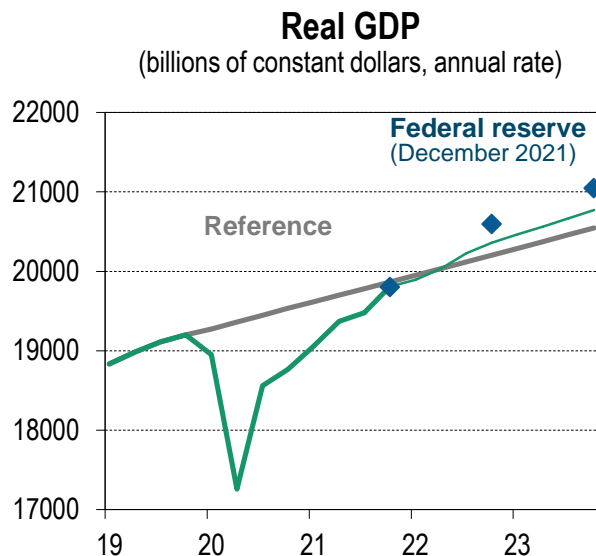


➤ The FY2022 Budget has finally been voted

The Senate passed an omnibus appropriations bill to fund the federal government through the remainder of the fiscal year. The bill includes over \$1.5 trillion of regular appropriations – an increase of more than 6 percent from last year – including supplemental funding related to the Russian war in Ukraine.

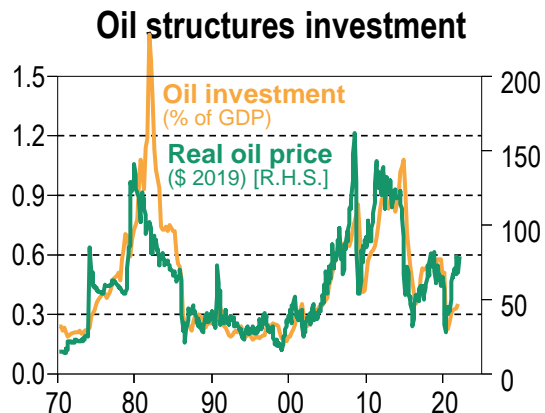
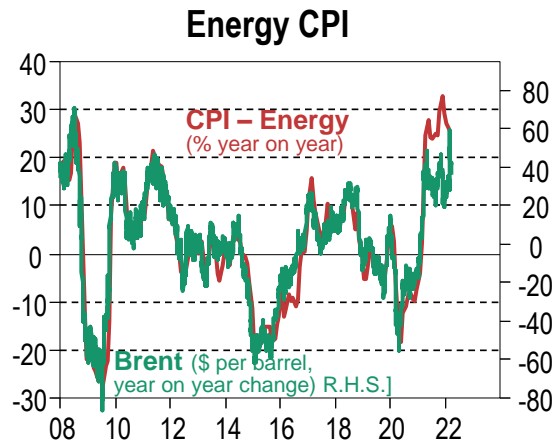
The Child Care Tax Credit was not extended for 2022 : families will lose \$190 billion (i.e. 1% of disposable income)

Despite heavy turbulences, US growth should remain above 3% in 2022... unless oil prices jump to \$150 and stay there



GDP growth

2021 = 5.7%
2022 = 3.5%
2023 = 2.3%



Impact of higher energy prices on CPI and GDP growth (%)

Oil per barrel at
\$150 vs \$110

Impact on
CPI

+1.3

Impact on
GDP

Consumption

-1.3

Oil investment

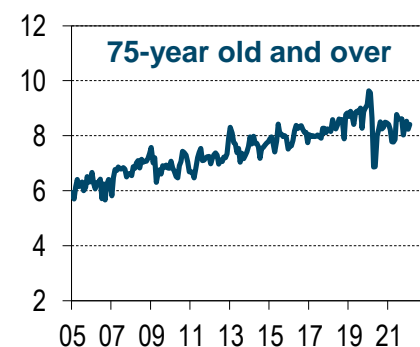
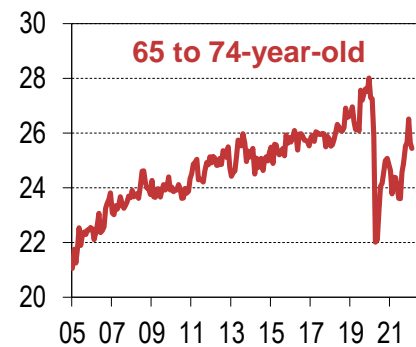
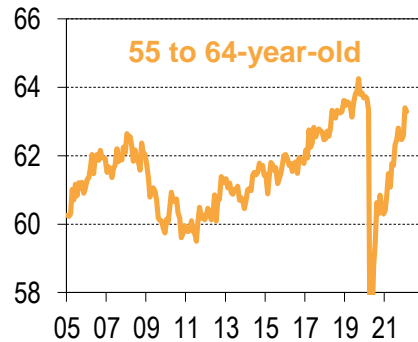
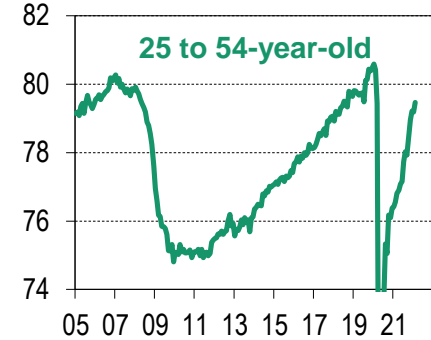
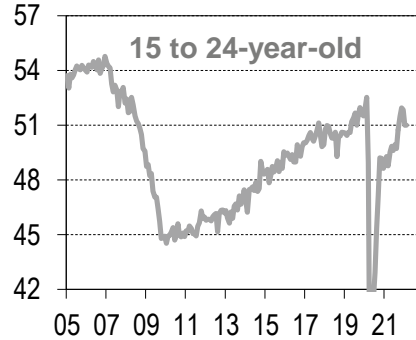
+0.4

Total

-0.9

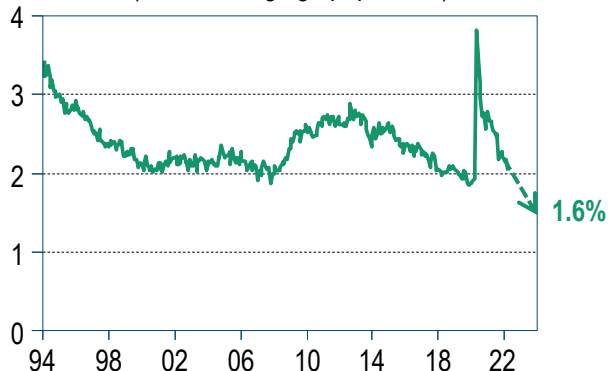
The U.S. economy is now at “maximum employment”

Employment rates by age
(%)

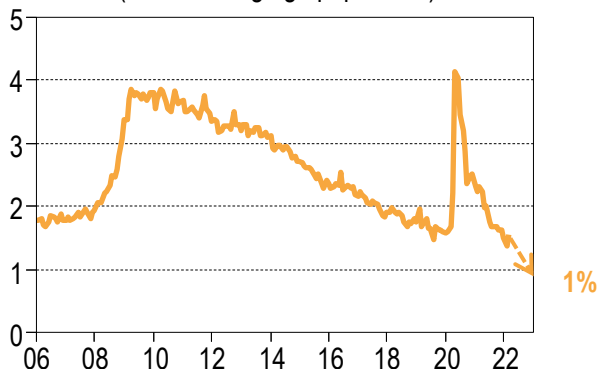


The pool of available workers calls for a sharp deceleration in jobs creations

Not in the labor force who currently want a job (% of working age population)



Part time for economic reasons (% of working age population)



A “generous” estimate of the pool of available workers

Not in the labor force who want a job
at 1.6% of working age population

1 100 000

Part time for economic reason
at 1% of working age population
(divided by 2)

750 000

Unemployment rate at 3%

1 350 000

Pool of available workers

= 3 200 000

Number of months before depleting the pool

Monthly pace
of job creation
(thousands)

100 200 300* 400 500 600

Number of months

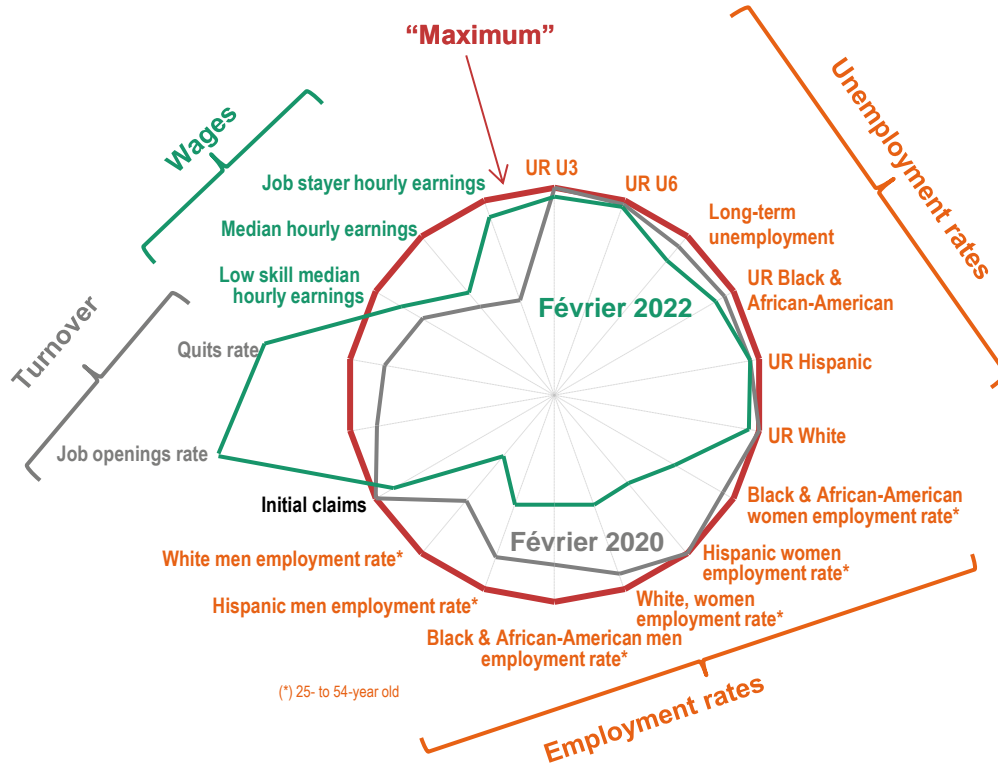
55 20 12 9 7 < 6

(*) Assuming 300 000 jobs are created per month, the pool of available workers will be depleted in 12 months.

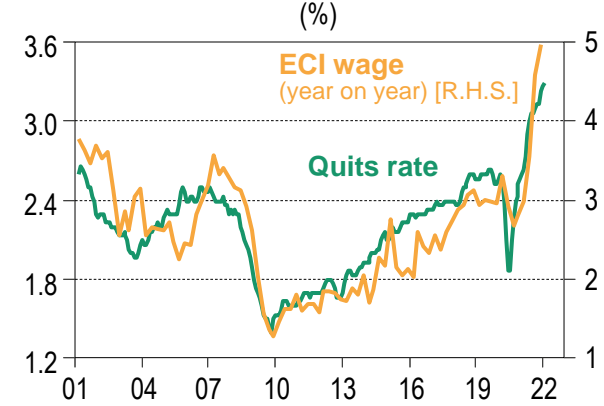
➔ Once the pool of available workers is depleted, job creations will have to adjust to the “natural” increase of the labor force (i.e. 40 000 jobs per month) !

The increase in labor turnover is pushing wages up...

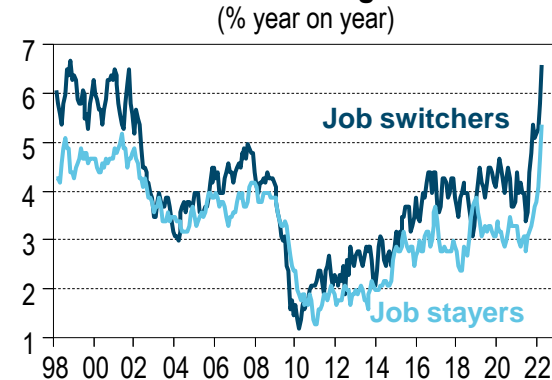
Labor market evolution compared to maximum employment



ECI wage and quits rate

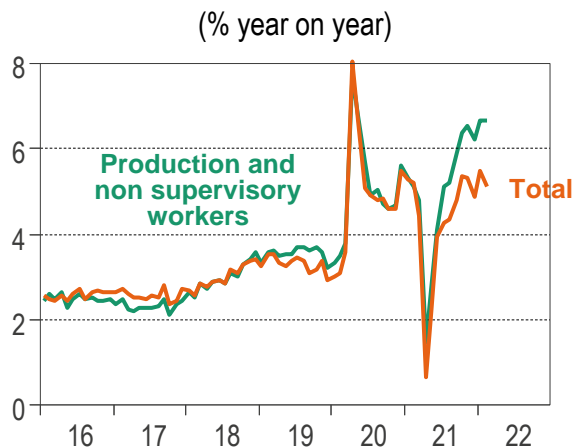


Median wages

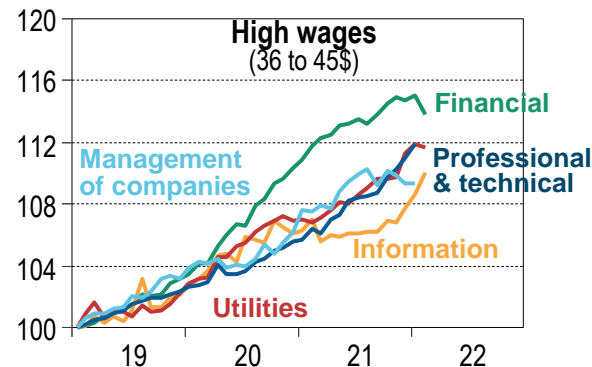
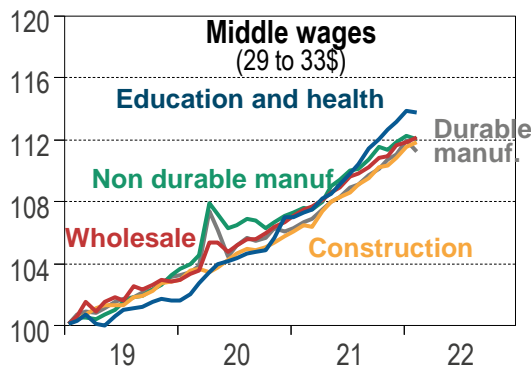
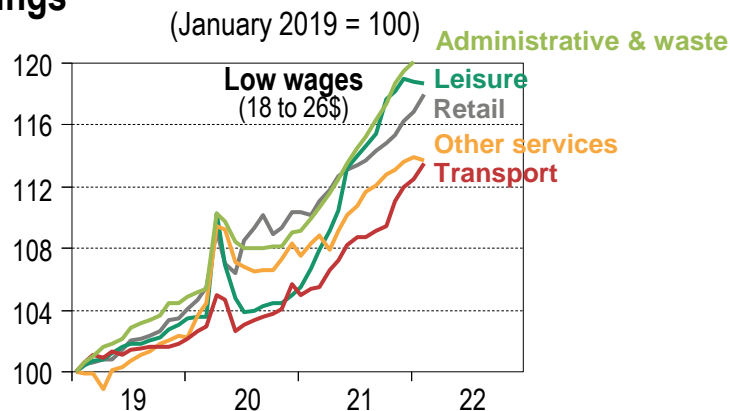


... particularly for low-paid workers

Average hourly earnings

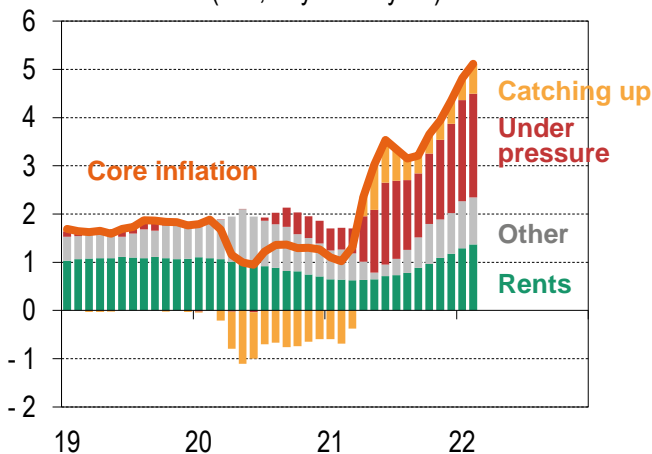


"If wages were to be rising persistently and materially above inflation and productivity gains, that could put upward pressure on prices or downward pressure on margins, and you can find yourself in what we used to call a wage price spiral. We don't have evidence of that yet. Productivity has been very high."
J. Powell, November 3, 2021

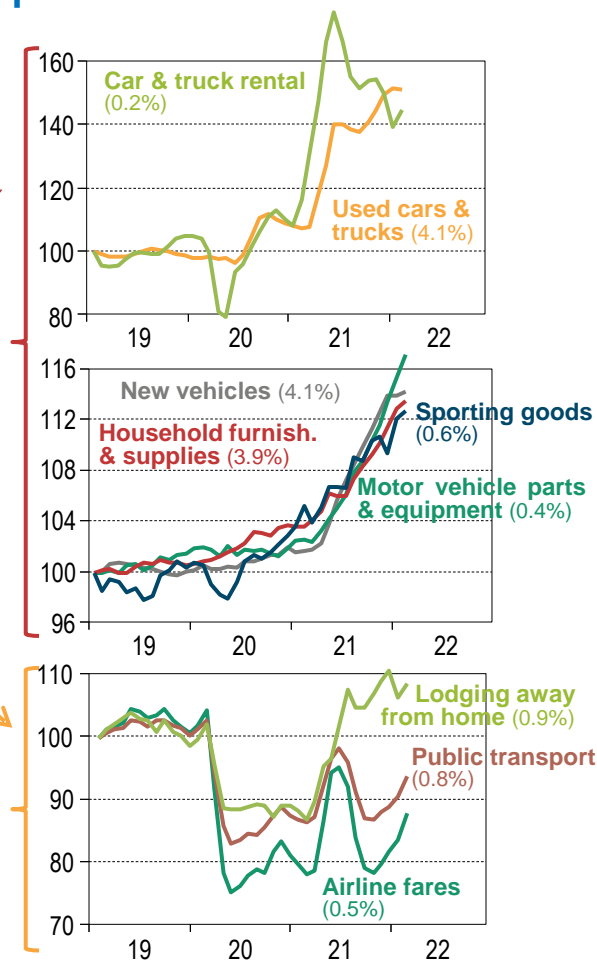
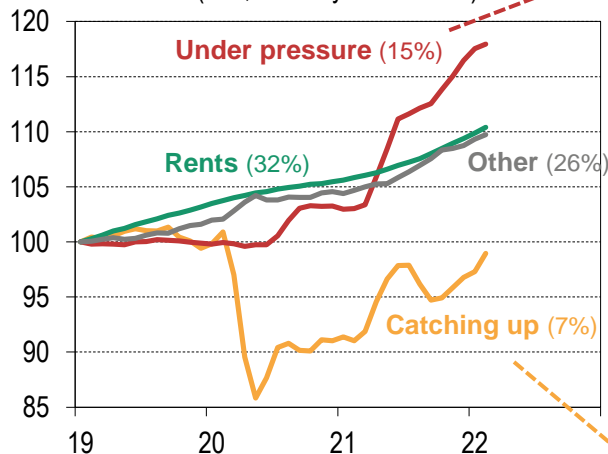


Up to now, the acceleration in inflation largely reflects lasting supply/demand imbalances related to the pandemic

Contribution to total inflation
(CPI, % year on year)

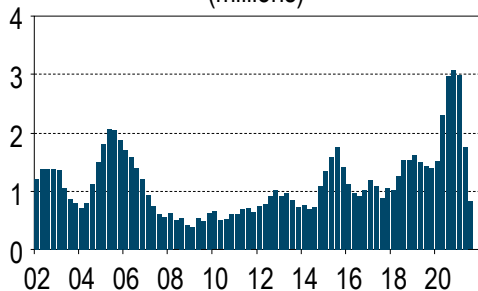


Core components by behavior
(CPI, January 2019 = 100)

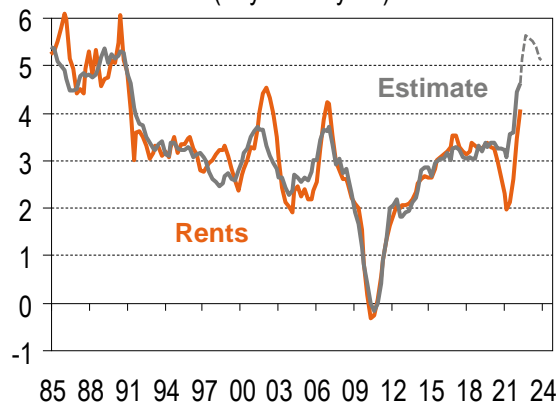


The pickup in rents is likely to accelerate further

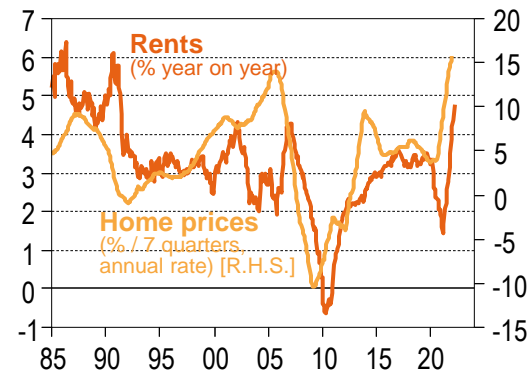
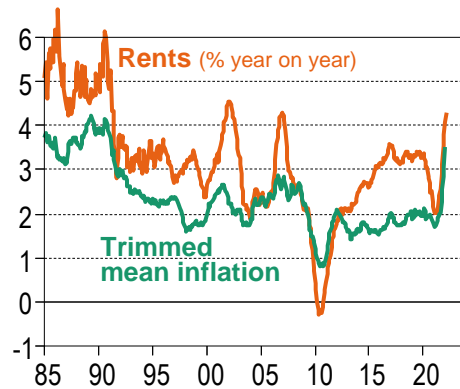
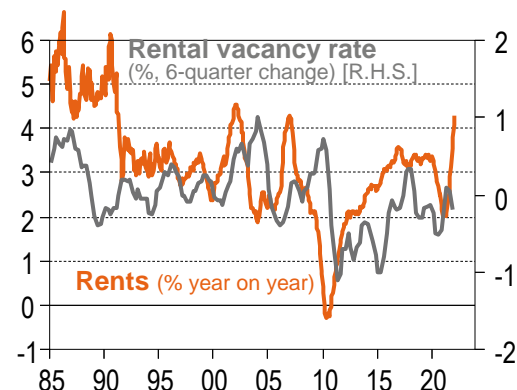
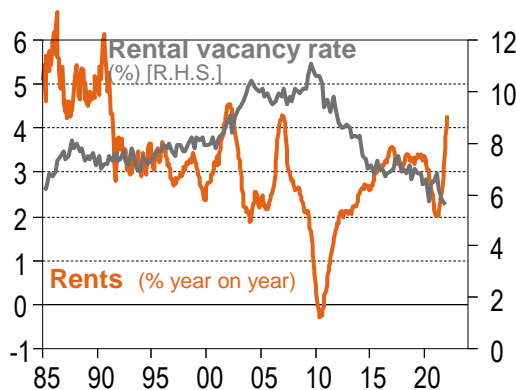
Households' formation
(millions)



Rents
(% year on year)

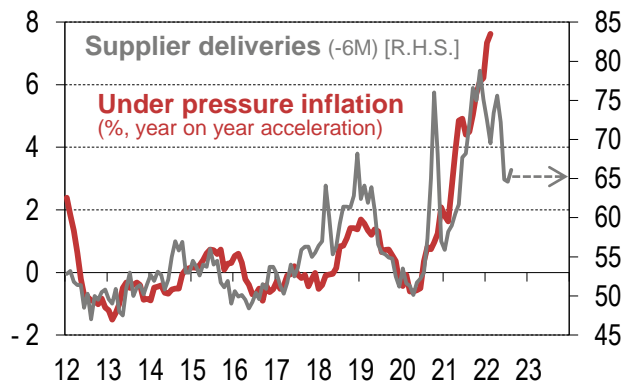


Factors driving rents



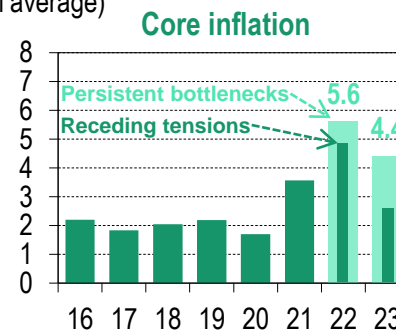
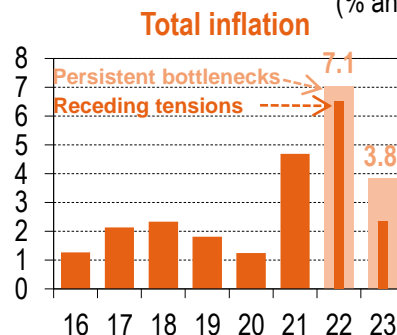
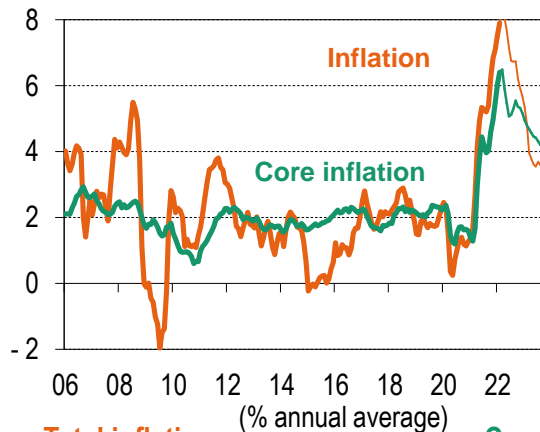
Persistent supply chains tensions could keep inflation at a relatively elevated level

ISM supplier deliveries and inflation



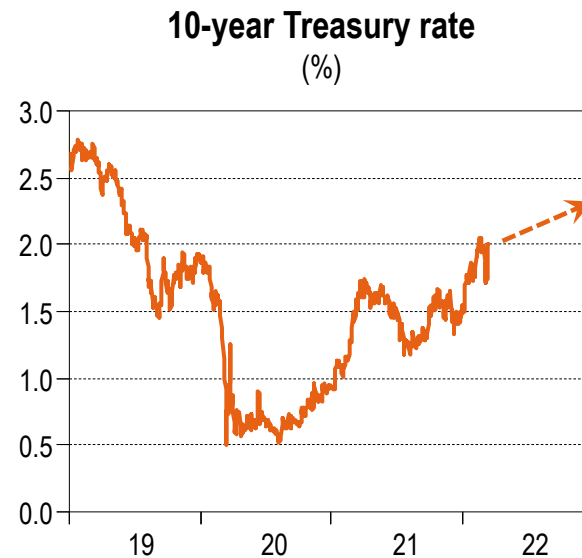
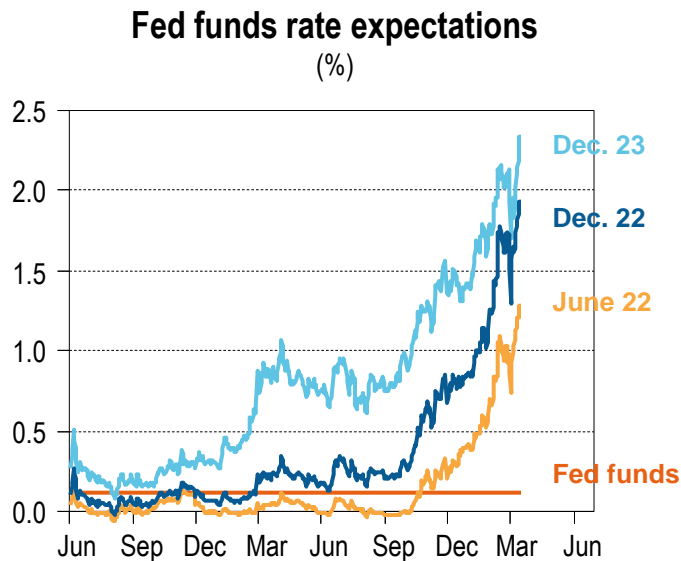
Inflation with persistent bottlenecks

(% year on year)



Persistent tensions could easily add 0.5% to total inflation in 2022 and 1.4% in 2023.

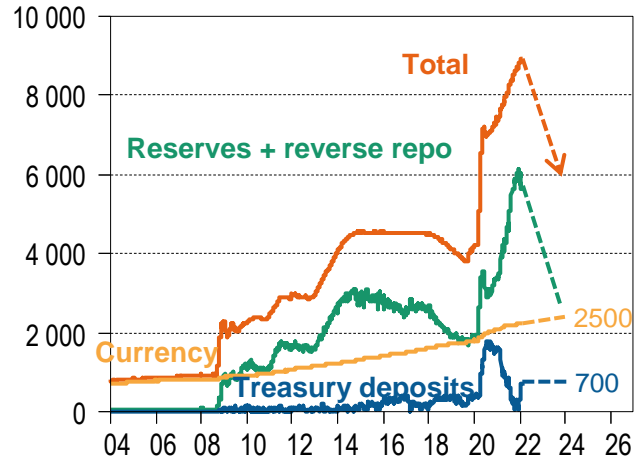
Having reached its maximum employment target and confronted with ongoing supply tensions, the Federal Reserve has no choice but to cautiously tighten its monetary policy



The size of its portfolio gives the Fed additional leverage to curb activity... should this be necessary!

Federal Reserve liabilities

(\$ billion)



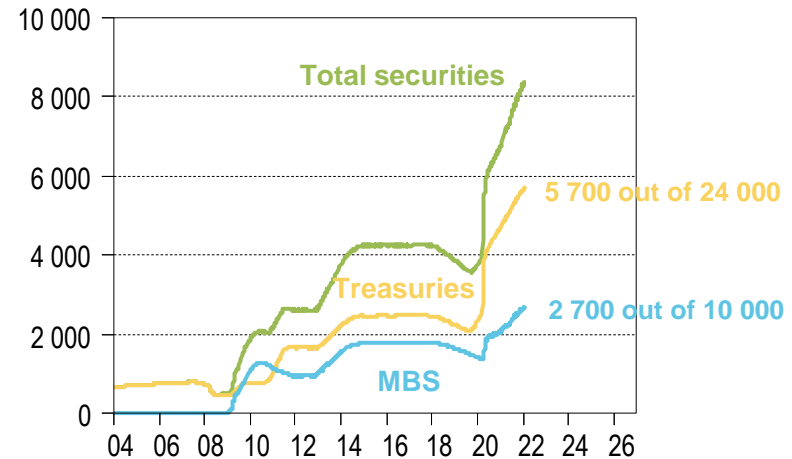
Normalizing the size of the Fed balance sheet could imply a decrease of roughly \$3 000 billion...

... to be achieved by selling part of the securities held outright.

This could lead to the Fed getting rid of all its MBS holdings*.

Securities held outright

(\$ billion)



(*) "In the longer run, the Committee intends to hold primarily Treasury securities in the SOMA, thereby minimizing the effect of Federal Reserve holdings on the allocation of credit across sectors of the economy."

Principles for Reducing the Size of the Federal Reserve's Balance Sheet, January 26, 2022

4. Euro area

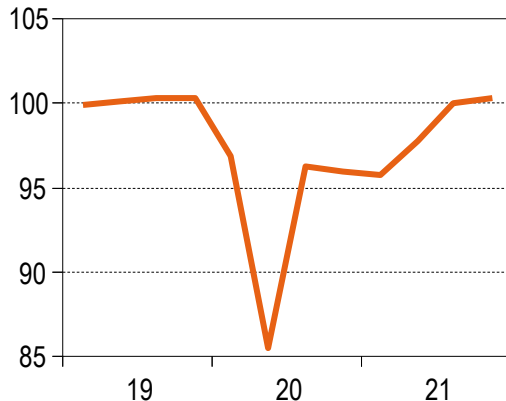
A delicate balancing act for the ECB



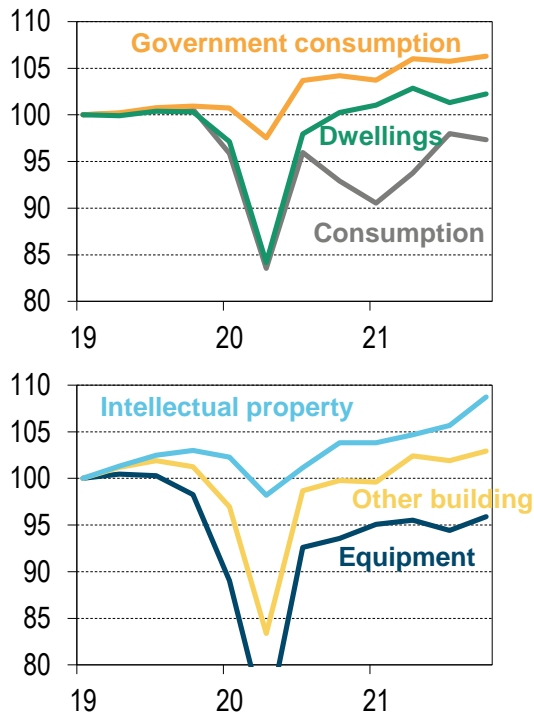
Christine Lagarde
ECB press conference, February 3, 2022

By the end of 2021, economic activity had returned to its pre-pandemic level

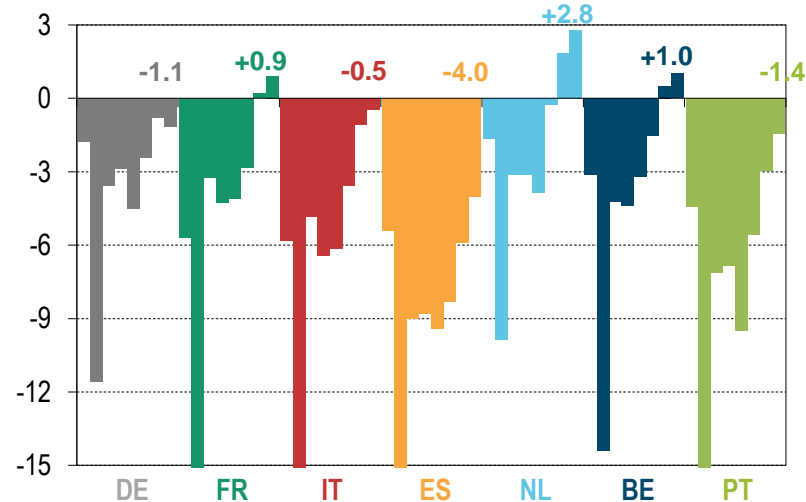
Euro area real GDP
(2019 Q1 = 100)



Euro area GDP components
(2019 Q1 = 100, 4 largest economies)



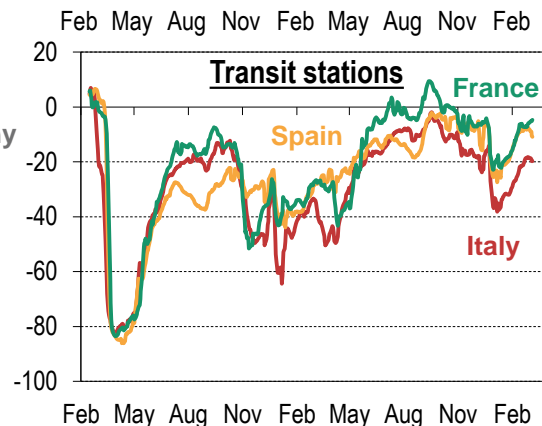
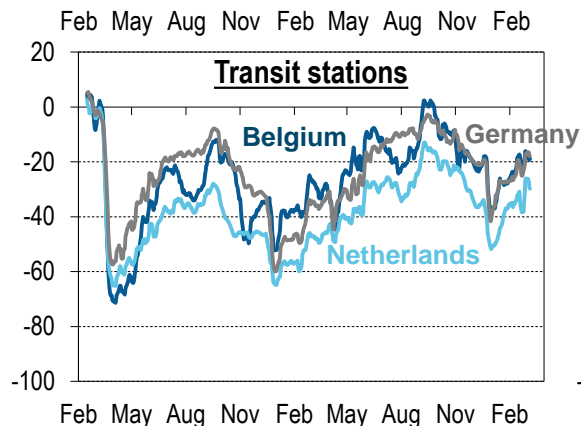
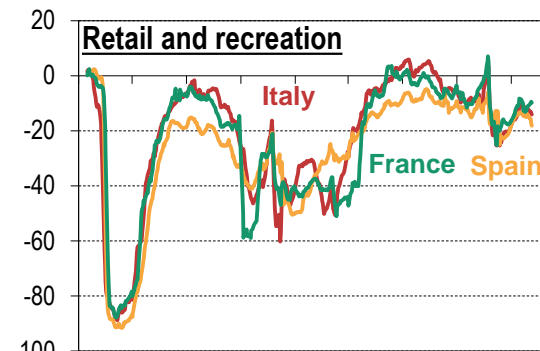
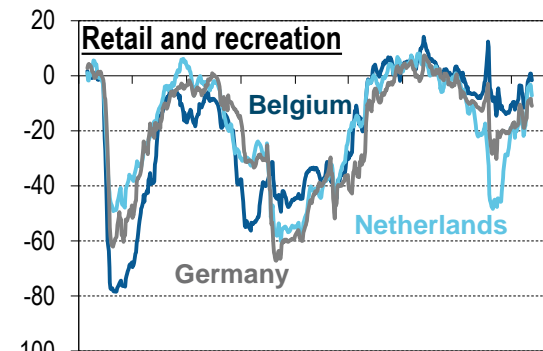
Real GDP growth by country
(% compared to 2019 Q4 – 2021 Q4)



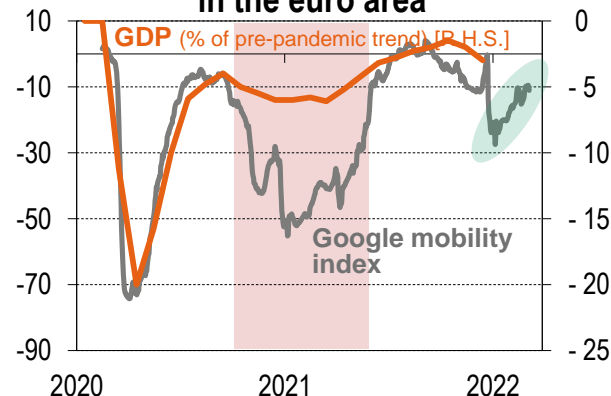
The Omicron wave had less of an impact on activity than previous waves

Google mobility trends

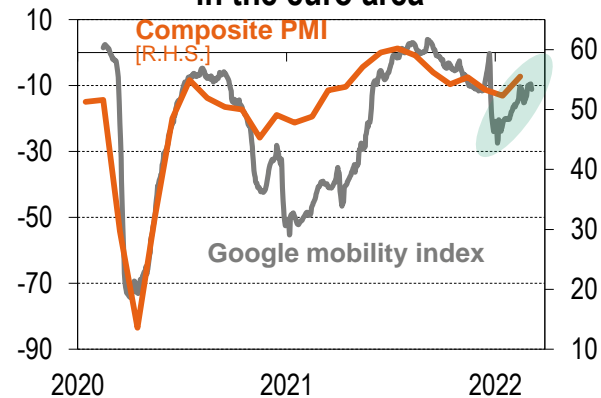
(% compared to January 2020, smoothed over 7 days)



Google mobility and GDP in the euro area



Google mobility and composite PMI in the euro area



Services production was only temporarily affected by the Omicron wave



European Commission surveys

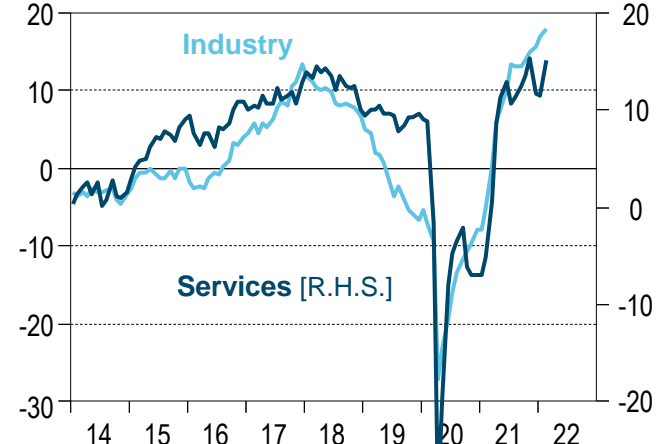
PMI indices



Production expectations



Employment expectations

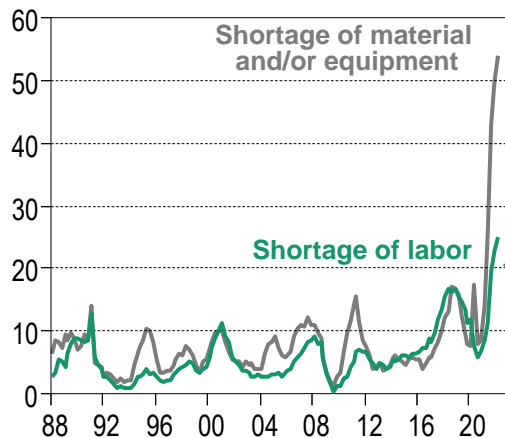


While supply constraints were continuing to curb manufacturing activity...

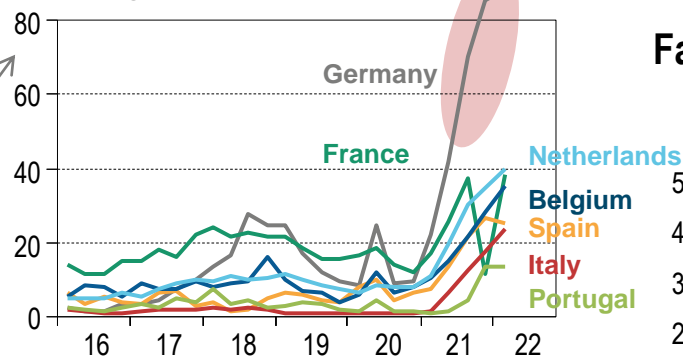
Factors limiting production in industry

(EC quarterly business survey, % of firms)

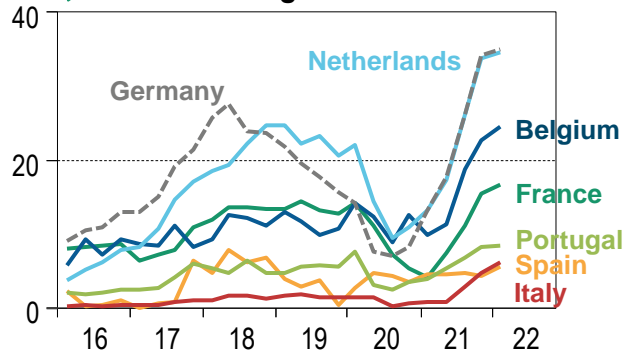
Euro area



Shortage of material and/or equipment



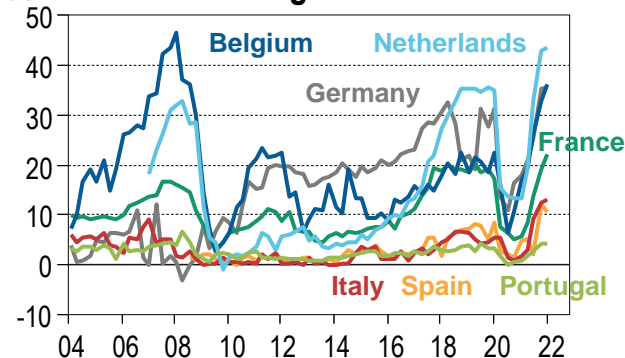
Shortage of labor



Factors limiting services production

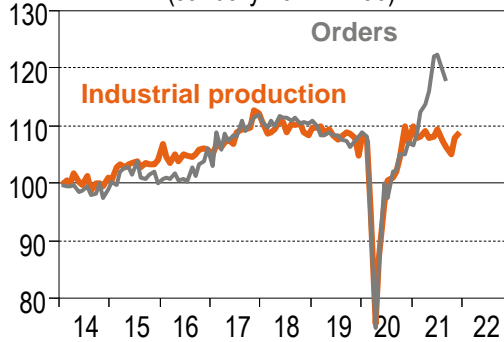
(EC quarterly business survey, % of firms)

Shortage of labor

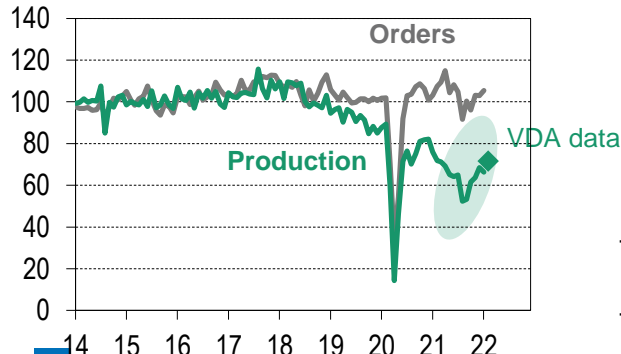


... German car production was about to recover

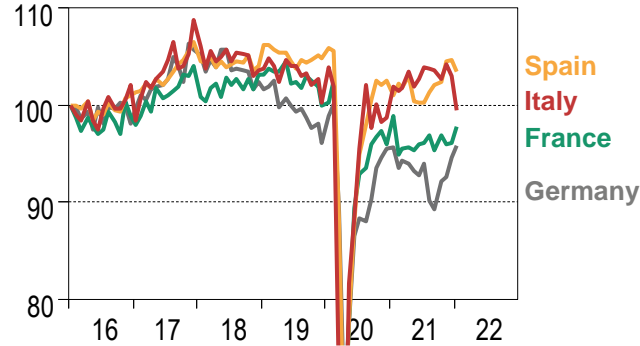
Euro area industrial production and new orders
(January 2014 = 100)



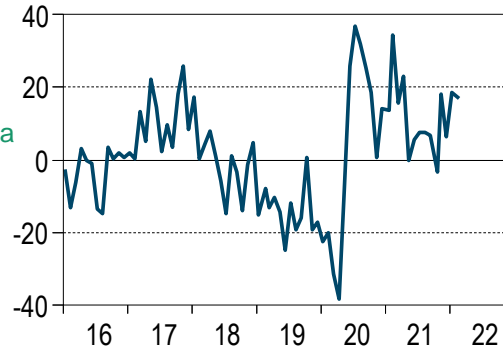
German car production and orders
(2015 = 100)



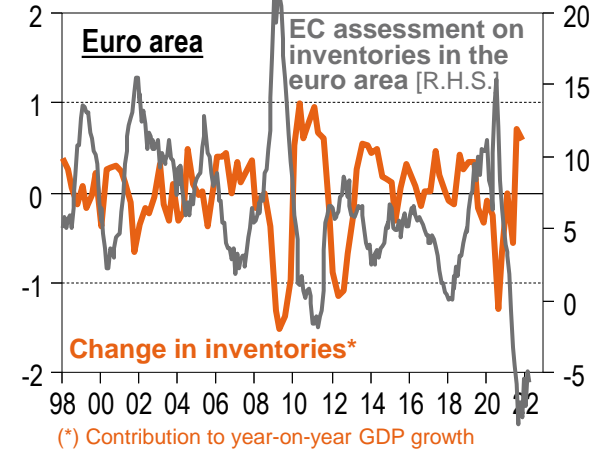
Industrial production by country
(January 2014 = 100)



IFO expectations for car production

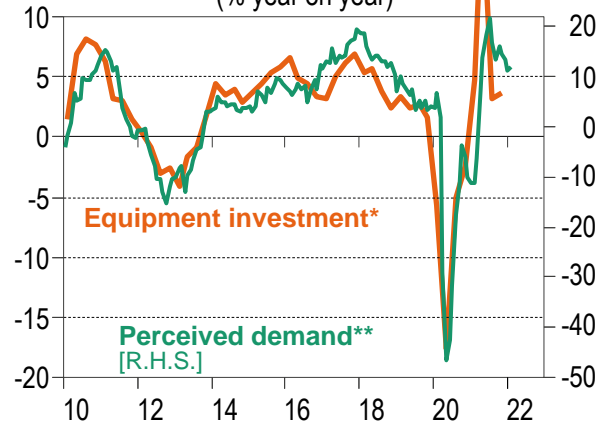


Firms' assessment of inventories
(European Commission survey)

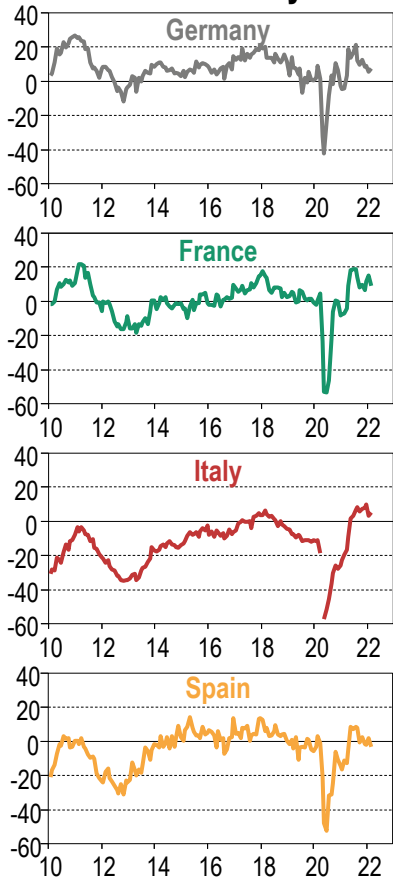


The recent dynamism of demand is supporting moderate growth in business investment... especially since companies are in a healthy financial situation

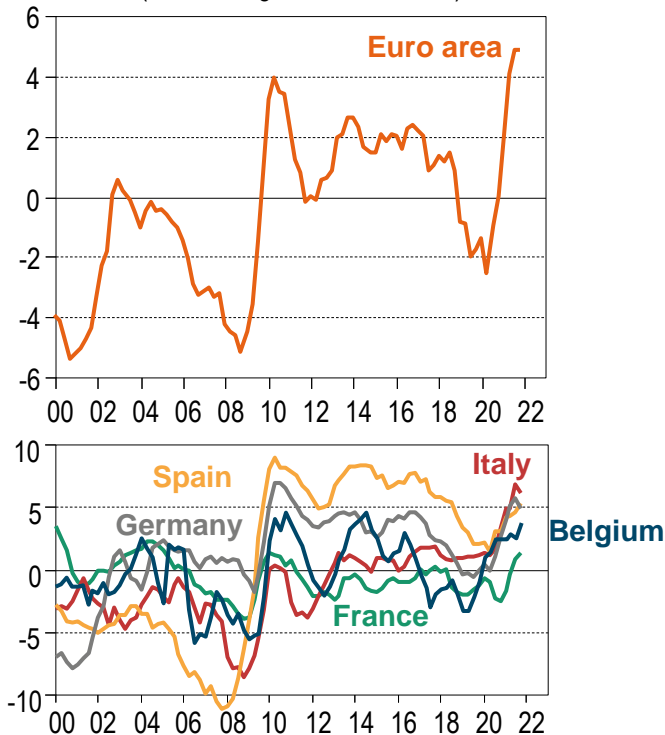
**Euro area
equipment investment
and perceived demand**
(% year on year)



Perceived demand by country**



**Nonfinancial
corporations' financial saving rate**
(% of NFC gross value added)



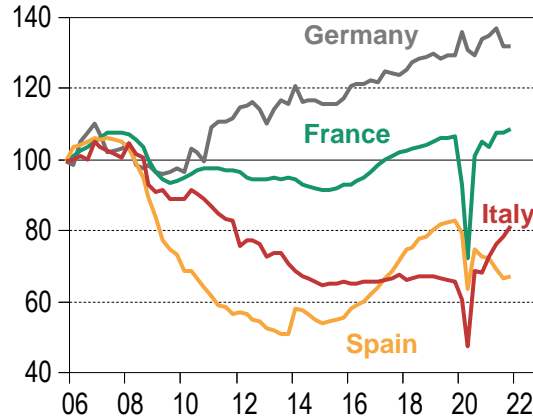
(*) % year on year (including intellectual property rights).

(**) Composite indicator: $0.7 \times \text{industry production trend} + 0.3 \times \text{services recent evolution in demand}$

Except in Spain, residential investment is recovering despite supply constraints and rising real estate prices

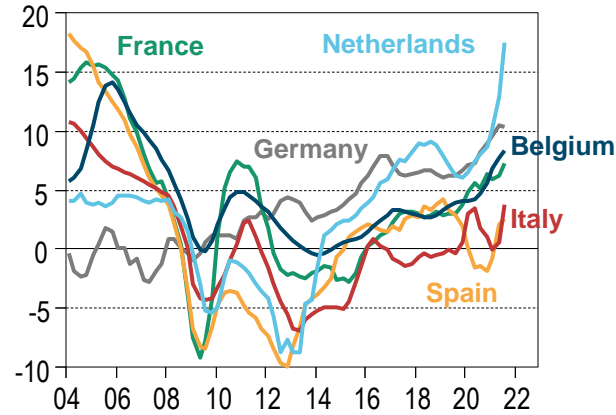
Residential investment

(2006 Q1 = 100)



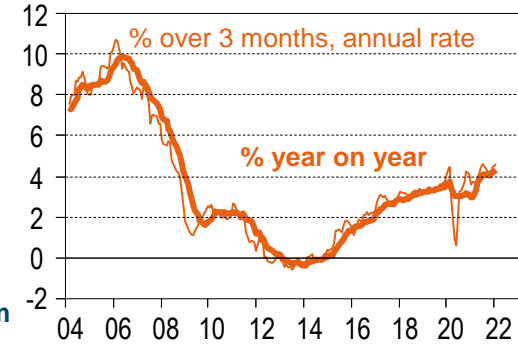
Residential property prices

(% year on year)

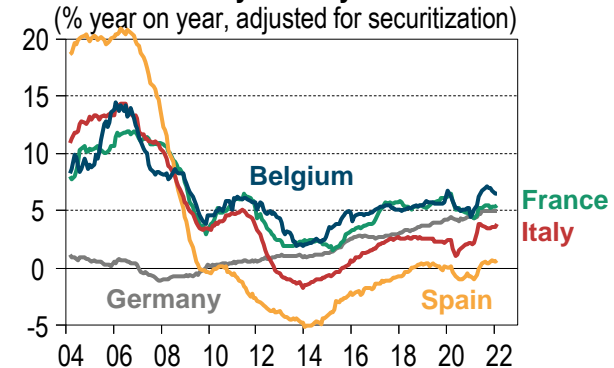


Loans to households

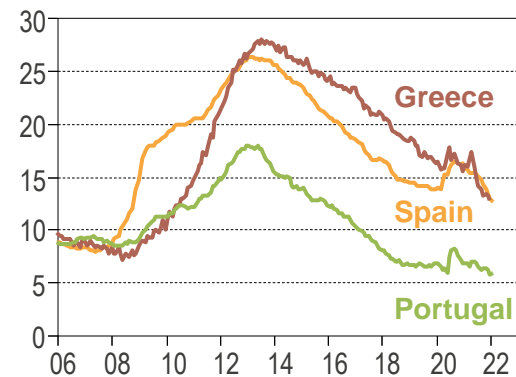
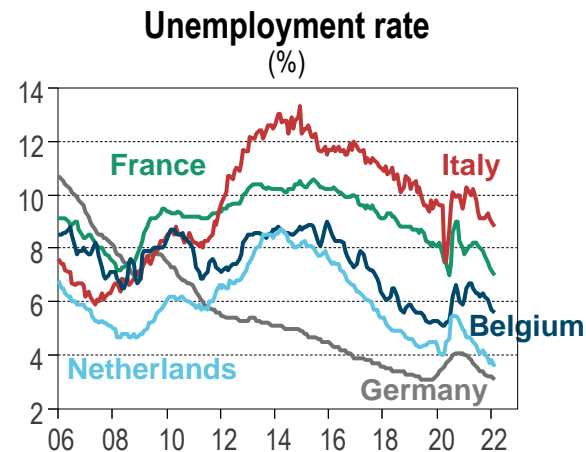
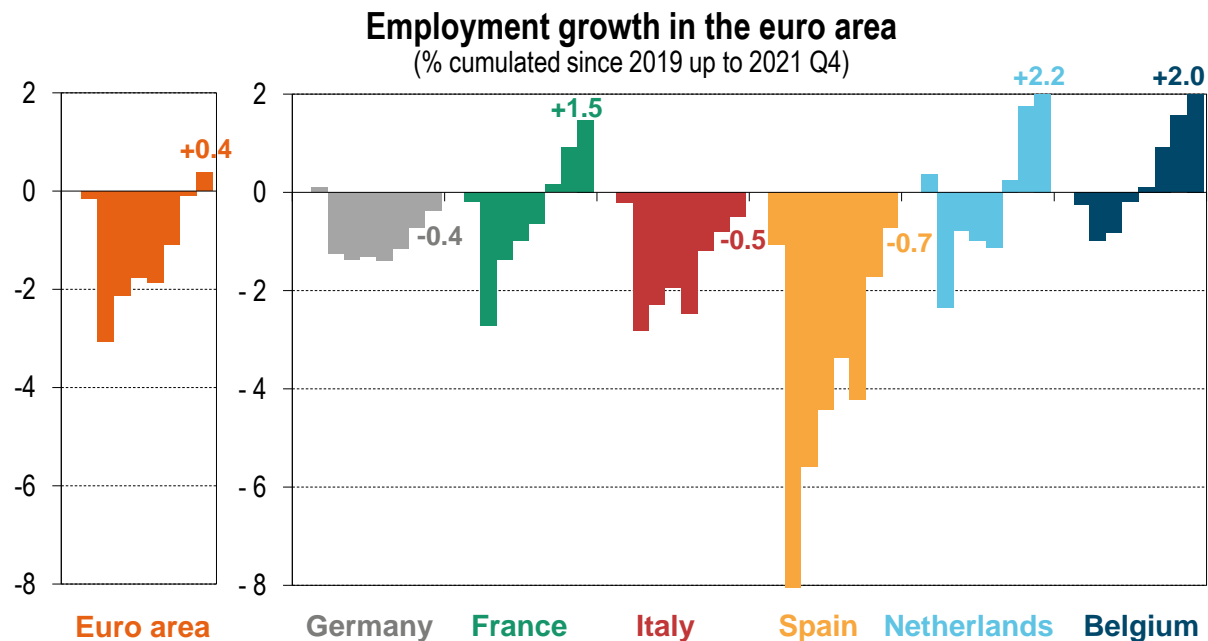
Euro area



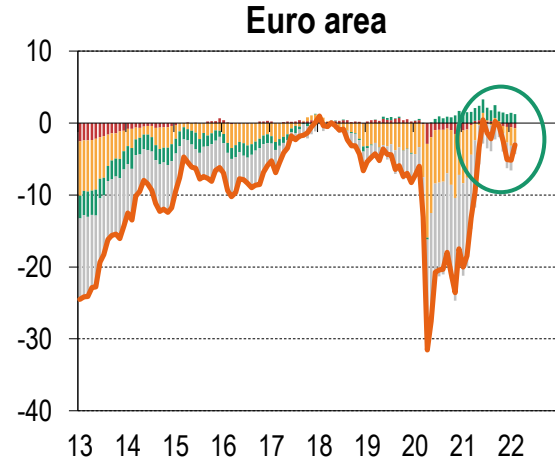
By country



The ongoing improvement in the labor market supports income...

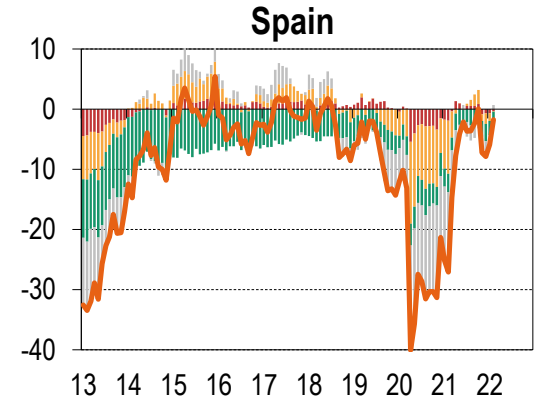
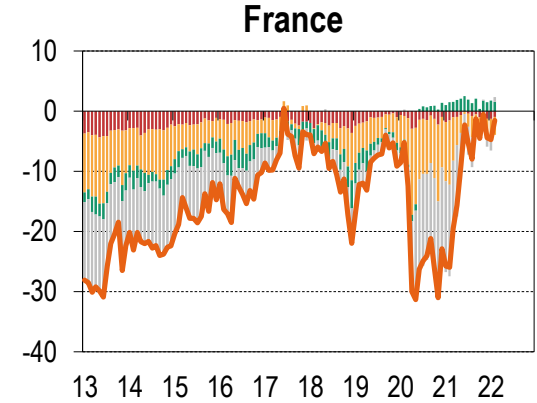
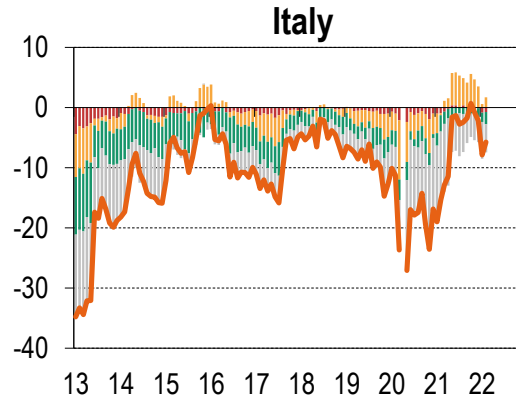
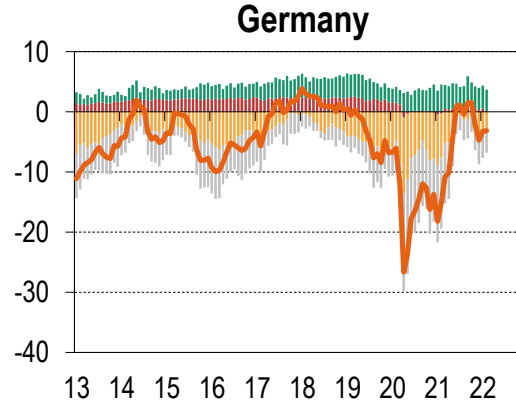


... and household confidence



— Consumer confidence (next 12 months)
— Unemployment
— Savings
— General economic situation
— Financial situation

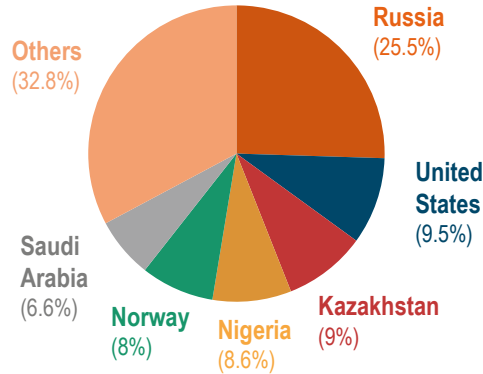
Consumer confidence



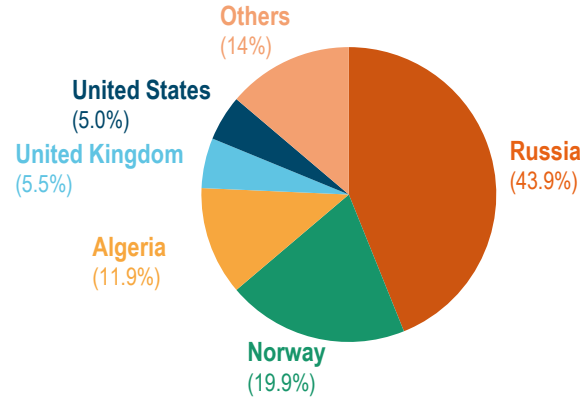
The Ukrainian war is a clear risk for growth, as Europe is heavily dependent on Russia for energy

EU main suppliers for oil and natural gas

Crude oil & petroleum products
(shares, %, 2020)

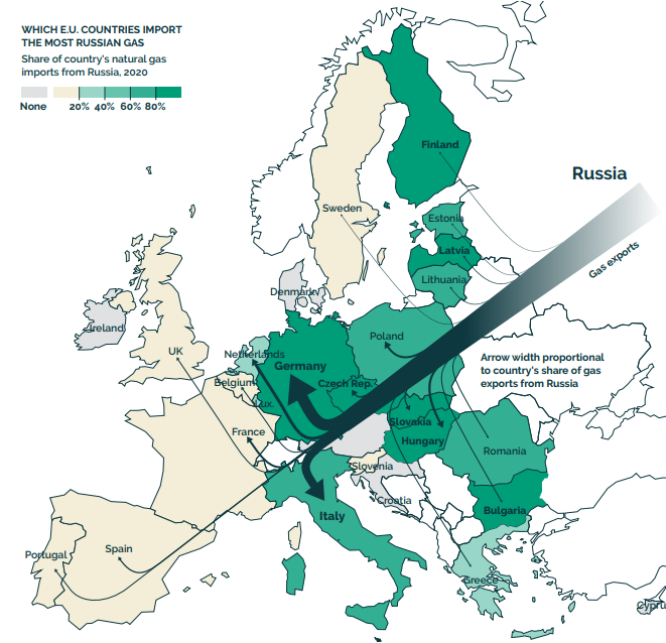


Natural gas
(shares, %, 2020)



Central and Eastern Europe would suffer the most from a Russian energy blockade

WHICH EU COUNTRIES IMPORT THE MOST RUSSIAN GAS
Share of country's natural gas imports from Russia, 2020



Even if energy prices follow market expectations...

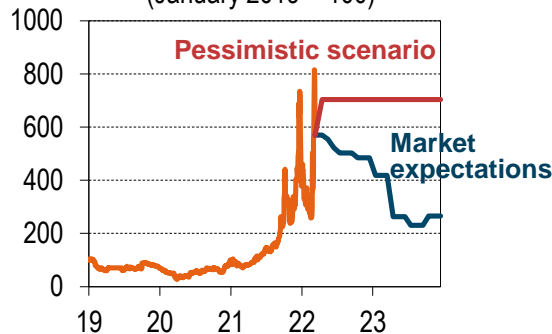
Natural gas price

(January 2019 = 100)



Electricity price

(January 2019 = 100)



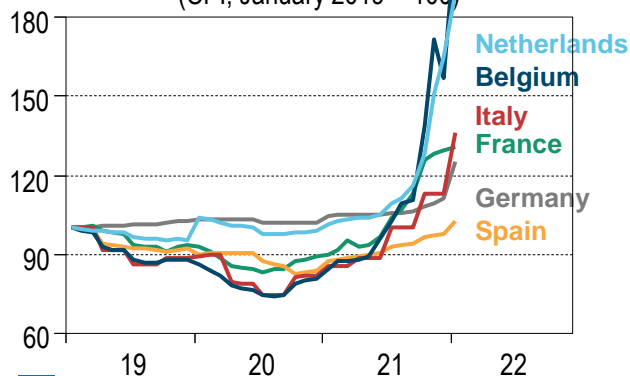
Oil price

(dollars per barrel, Brent)



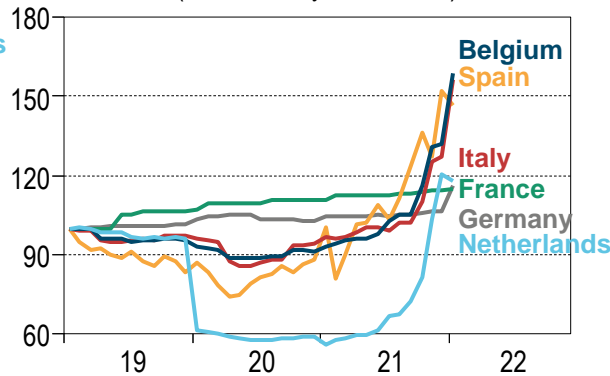
Natural gas consumer price

(CPI, January 2019 = 100)



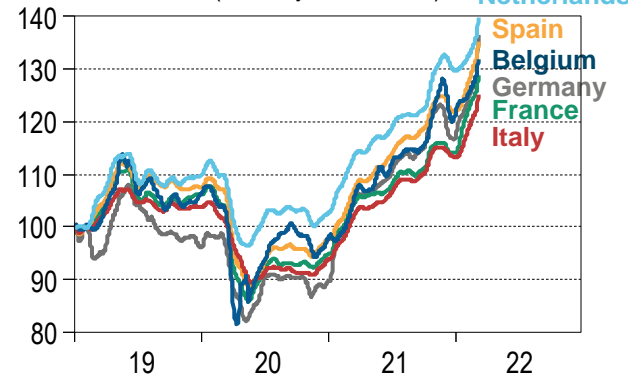
Electricity consumer price

(CPI, January 2019 = 100)



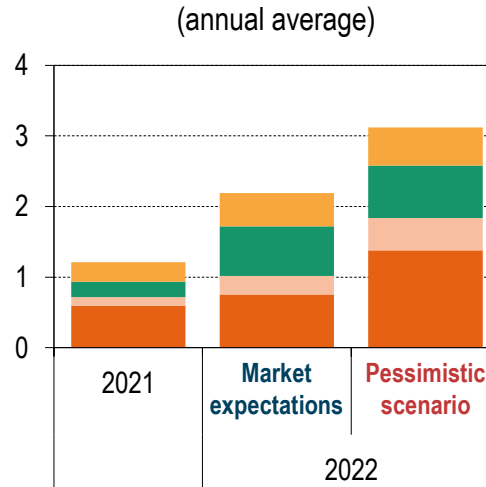
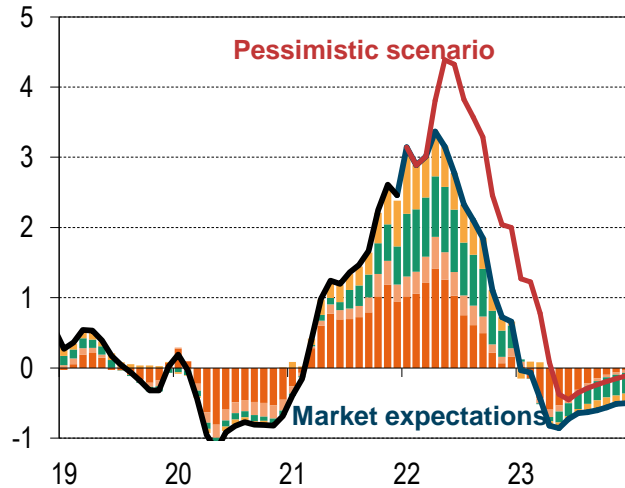
Gasoline price

(January 2019 = 100)

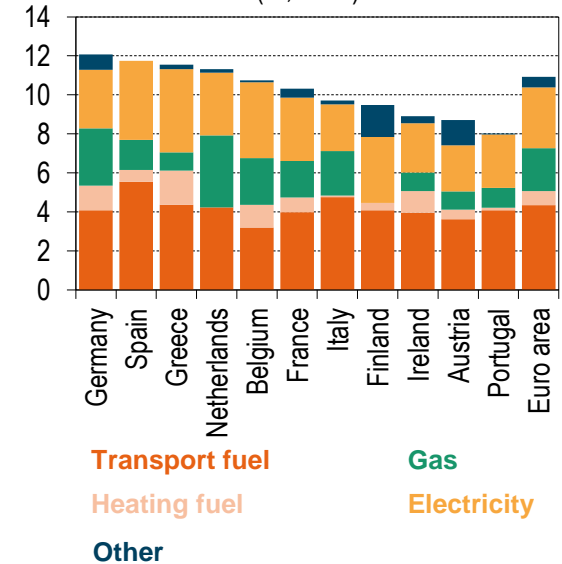


... energy will add more than 2% to inflation in 2022

Energy contribution to euro area inflation (% year on year)

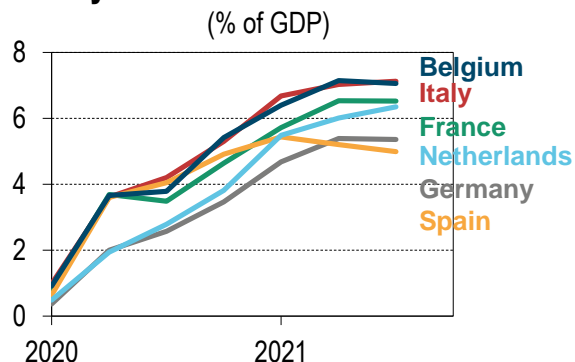
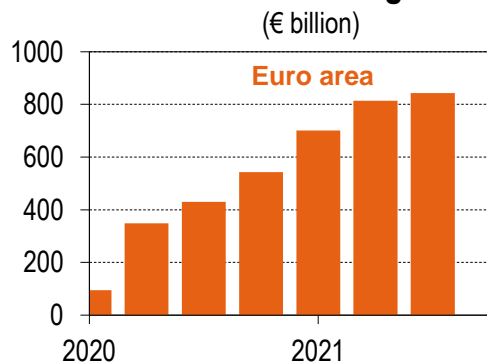


Energy weights in CPI (%, 2022)

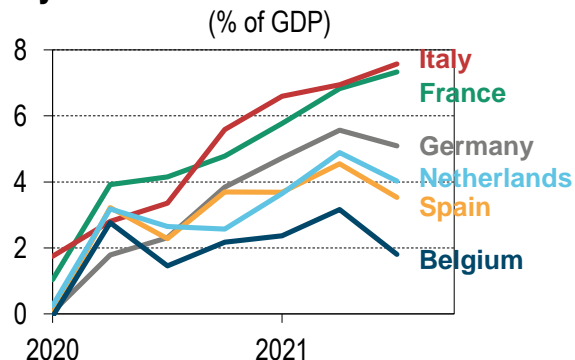
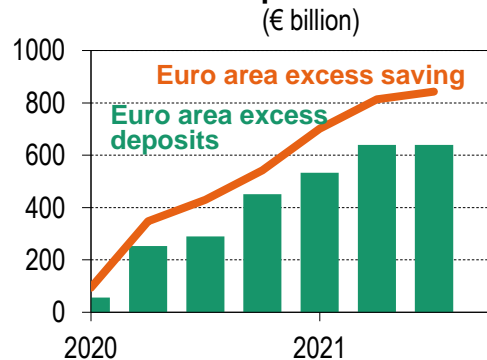


Measures taken by governments and accumulated excess savings could help cushion the erosion of household purchasing power... for a few months!

Excess financial saving accumulated by households since Q4 2019



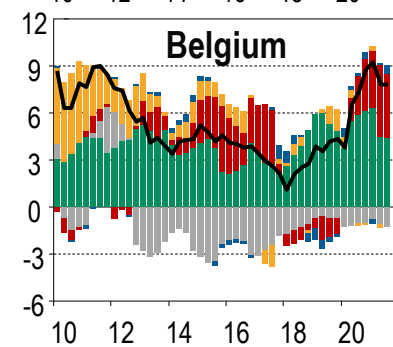
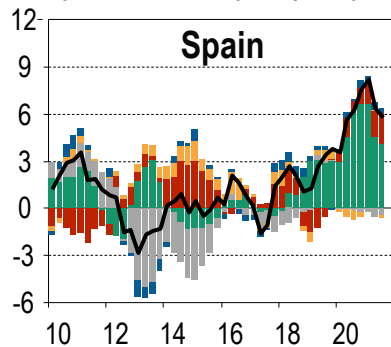
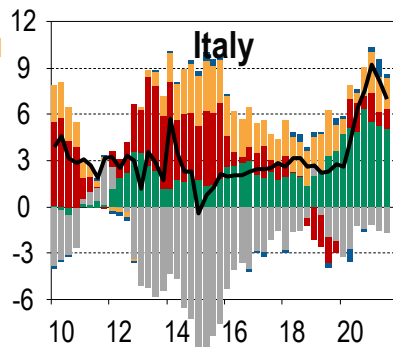
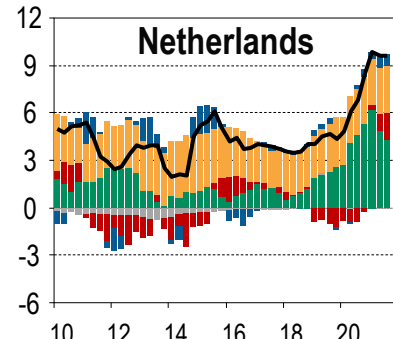
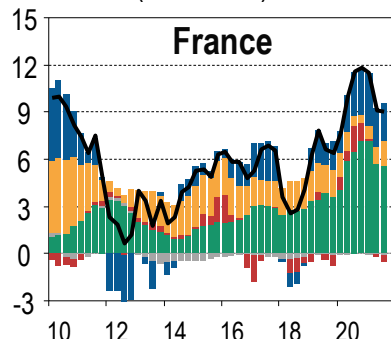
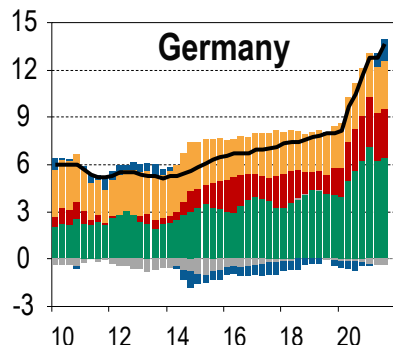
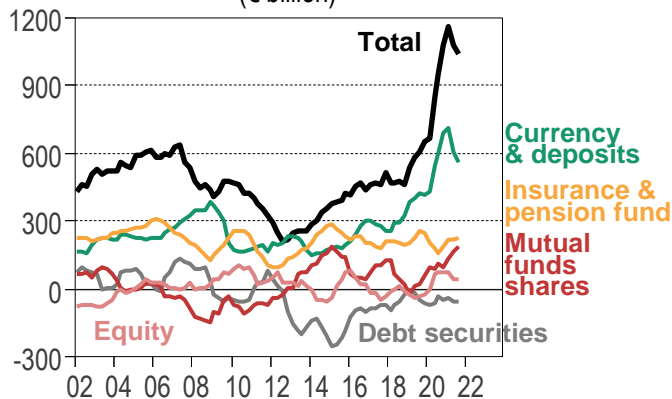
Excess deposits accumulated by households since Q4 2019



Memo: in most countries, the increase in deposits accounted for most of the saving accumulation

Households net acquisition of financial assets (% of GDP)

Euro area households net acquisition of financial assets
(€ billion)

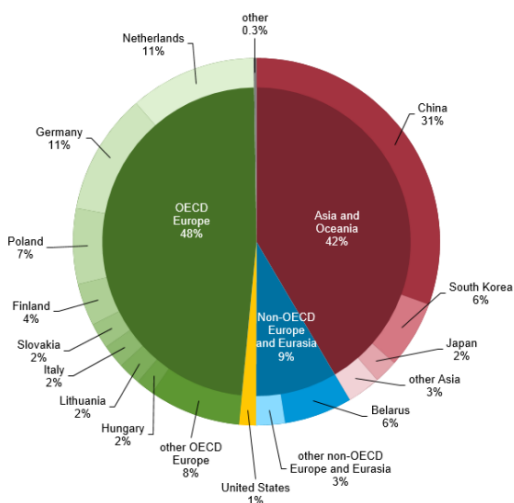


Debt securities
Currency & deposits
Mutual funds shares

Insurance & pension fund
Other
Total

Even if Russian oil is embargoed by the Allies, some offsets could be found and prevent prices to stay excessively high

Russia's crude oil exports by destination (2020)



Russia exported around 6 mbd of crude oil and petroleum products in 2021, of which half were destined to Europe.

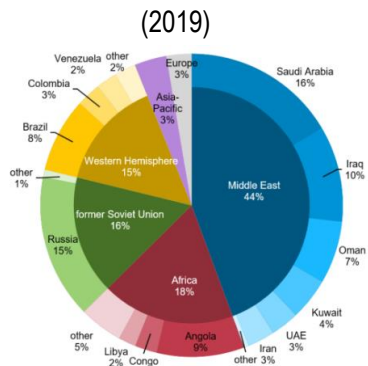
Using 60 million of the more than 1.5 billion of strategic reserves could right away add 2 mbd for 1 month.

Saudi Arabia, the UAE, and Iraq could step in and close part of the gap.

A deal with Iran could increase the oil supply by 1 mbd, so could an easing of sanctions on Venezuela.

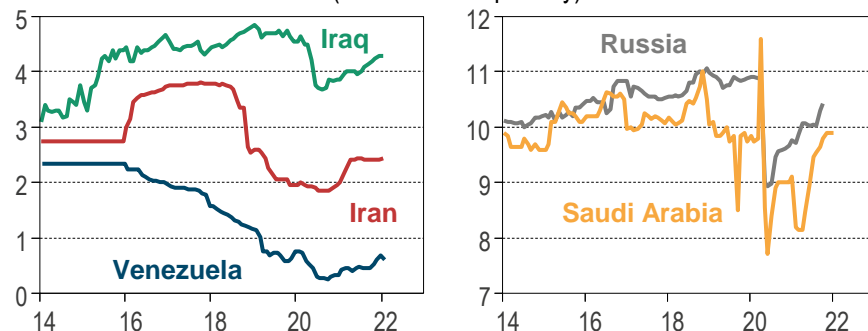
US production of shale oil has already started to pick up with increasing prices.

China's crude oil imports by destination (2019)



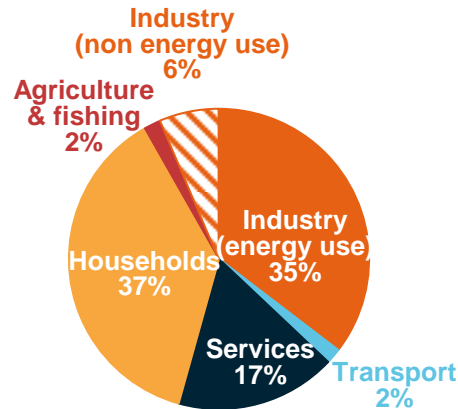
China, imported 10.1 mbd of crude oil on average in 2019 of which more than 4 mbd from the Middle East.

OPEC+ crude oil production (million barrels per day)



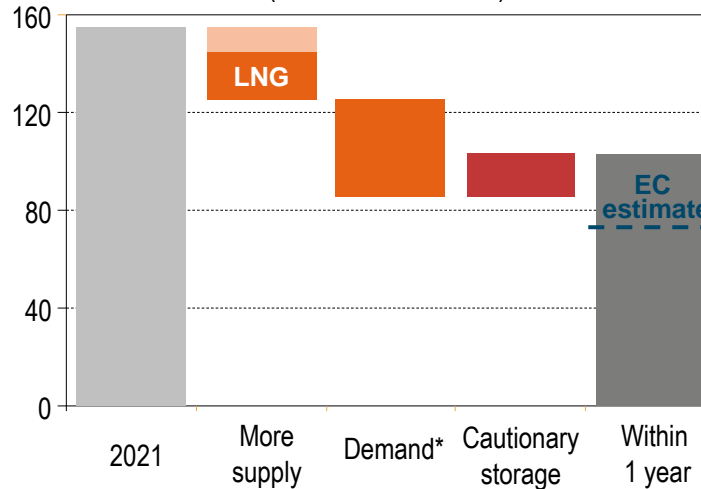
A full cut of Russian gas would be much more problematic

Natural gas usage (%, 2019)



By how much can the EU cut its gas import from Russia within one year?

(billion cubic meters)



EU's annual call on Russian gas imports could fall by more than a third within one year...

even by more than half according to the EC.

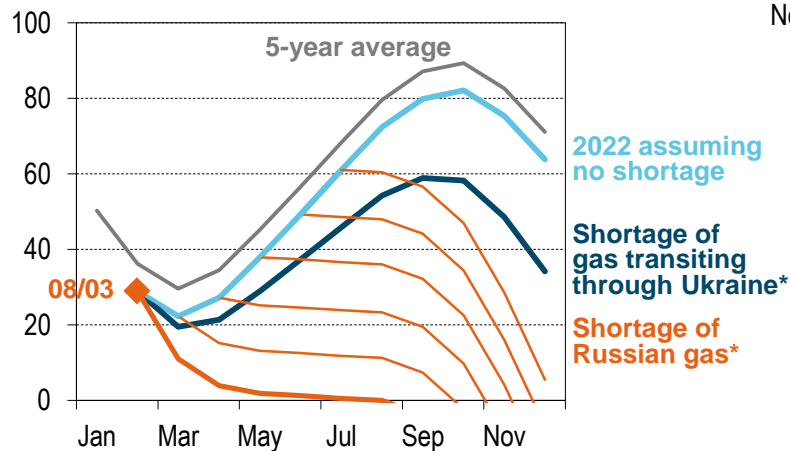
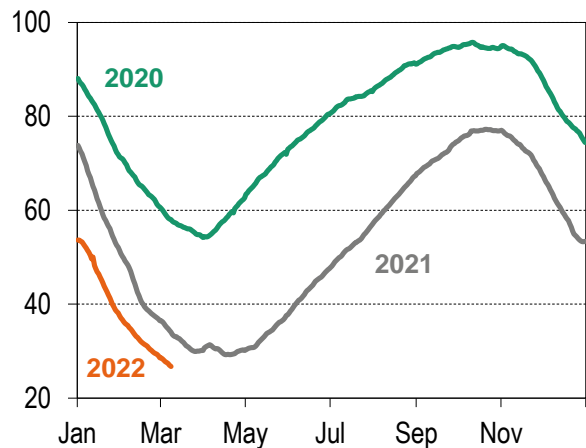
"The EU could theoretically increase near-term LNG inflows by some 60 bcm, compared with the average levels in 2021. However, this would mean exceptionally tight LNG markets and very high prices."

"A temporary shift from gas to coal- or oil-fired generation could reduce gas demand for power by some 28 bcm before there was an overall increase in the EU's energy-related emissions."

(*) Speed up the replacement of gas boilers with heat pumps, Accelerate energy efficiency improvements in buildings and industry, turning down the thermostat for buildings' heating by 1°C would reduce gas demand by some 10 bcm a year.

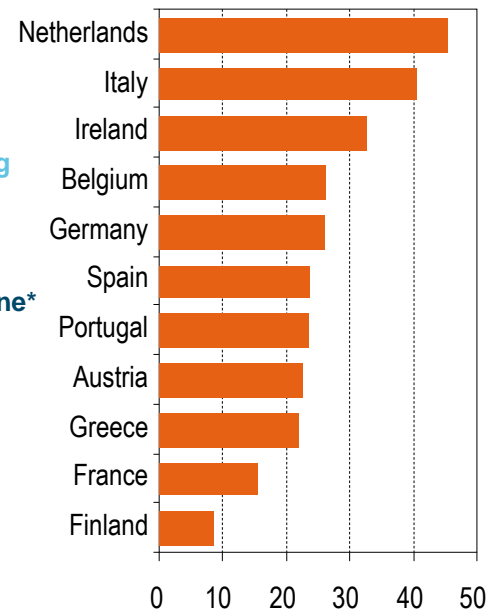
With natural gas inventories at an all time low, the EU should only be able to avoid shortages... in the first half of 2022...

Natural gas inventories (% of storage capacity)



(*) Assuming Russia provides 40% of our annual gas consumption and 10% transits through Ukraine.

Share of gas in energy mix (%)

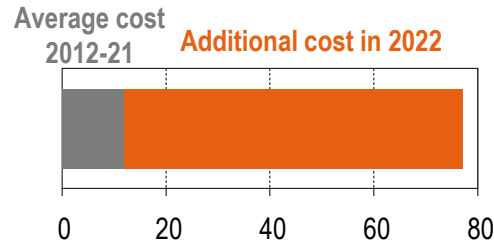


... and the cost of rebuilding inventories for next Winter is going to be high



Europe has been a prominent beneficiary of the increasing role played by the United States in the LNG market. Due to its higher prices, Europe has managed to attract US LNG cargos otherwise destined for Asia, to compensate for lower Russian gas supplies.

Cost for filling up storage in April-Oct 2022 (€ billion)



If companies do not increase storage, Gazprom might continue keeping the market very tight. However, if companies store lots of gas, Gazprom might be tempted to flood the market.

Until the summer, the EU would likely be able to survive large-scale disruption to Russian gas supplies, based on a combination of increased LNG imports (to the limited extent this is technically possible) and possibly some marginal demand-side measures such as industrial gas curtailments.

In the longer run, the situation is more problematic. While some spare import capacity is available, reaching the scale required to entirely replace Russian volumes would be at best extremely expensive, and at worst physically impossible.

For the time being, sanctions are meant to be narrowly targeted in order to impact Russia without affecting the euro area's energy imports

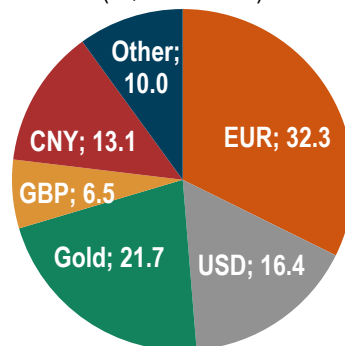
The Allies have *partially cut Russia from Swift, trying not to directly affect our energy imports from Russia.*

The freeze on Russian central bank assets will make it increasingly difficult for the Central Bank to keep the ruble stable.

The Russian economy has been impacted. On top of a possible confidence shock, the Central Bank of Russia has raised its key rate to 20% (from 9.5%) to slow down deposit withdrawals and counter the ruble depreciation (the RUB has already depreciated by close to 50% against the dollar since mid-February). The CBR has also decided to put in place capital controls.

Currency decomposition of Russia's international reserves*

(%, June 2021)



*\$643.2bn on 18 February 2022

Ruble exchange rate

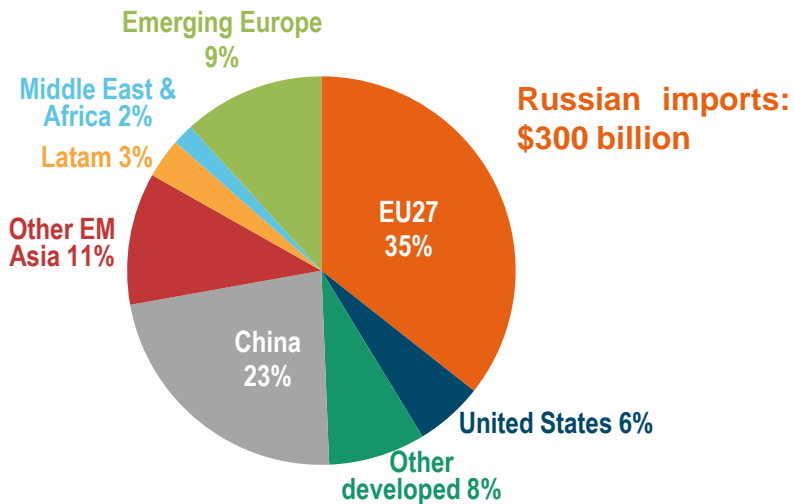
(January 2021 = 100, vs USD)



The direct trade impact of a fall in Russia's imports should not be dramatic for growth, although some European countries may be more affected

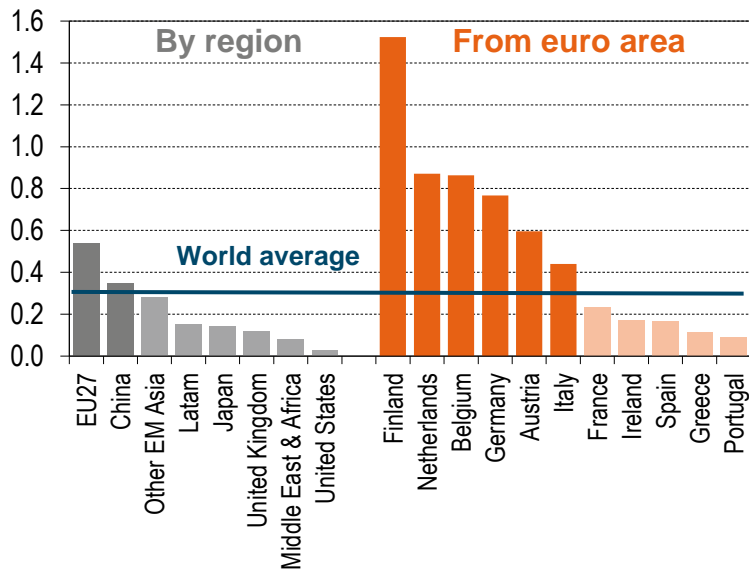
Russia goods imports by origin

(% of total imports, 2021)



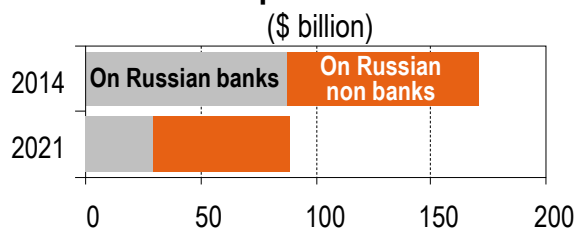
Exports to Russia by country

(% of each region or country GDP)



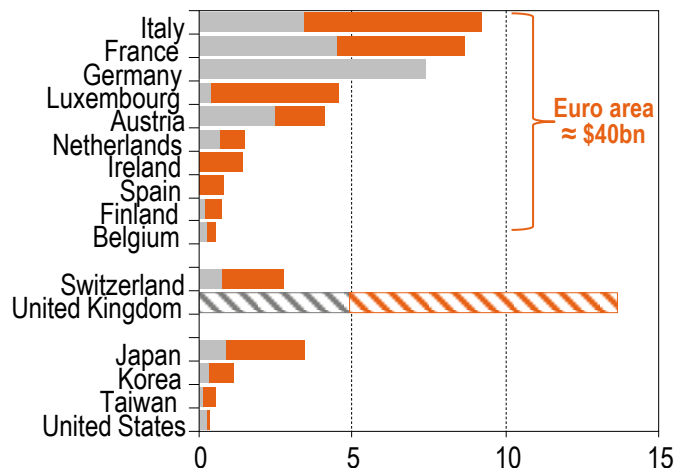
Banks' exposure to Russia has significantly decreased since 2014 and is rather limited but cutting banks from SWIFT could have unintended consequences

Banks exposure on Russia



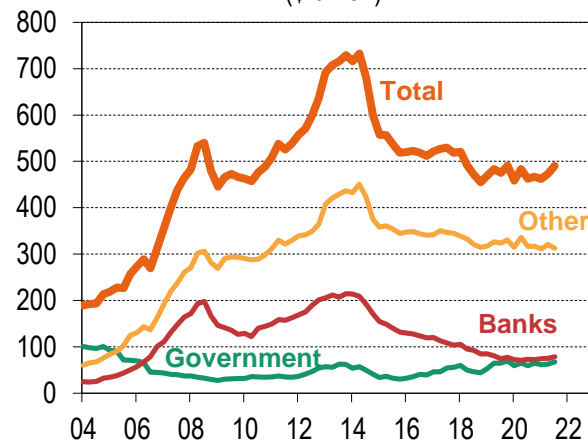
Selected countries exposure of banks

(\$ billion, 2021 Q3)

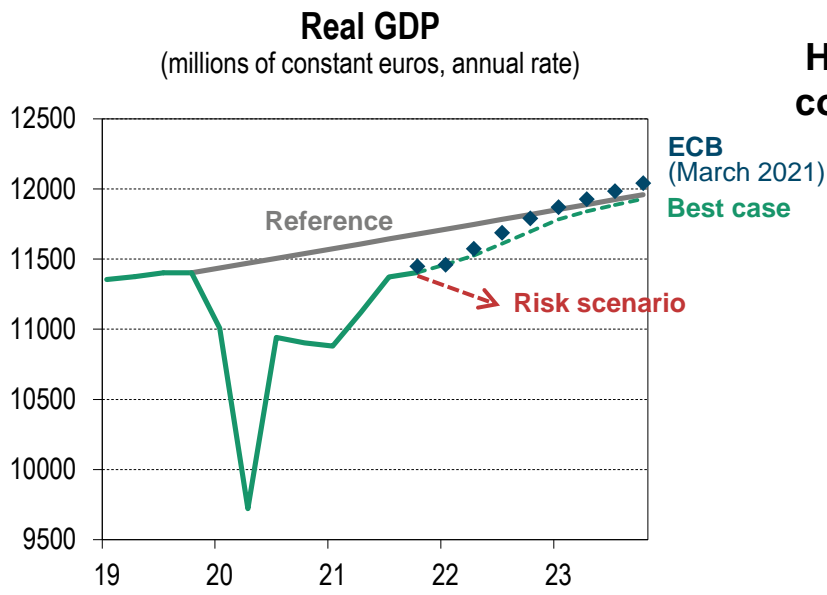


Russia's total external debt

(\$ billion)



If tensions on the energy market do not worsen materially and assuming solid government support, GDP growth could still be above 3% in 2022



How the Russia-Ukraine war could affect euro area growth

Higher inflation
Loss of exports

This could be partly offset by new governments support measures and dipping into excess savings.

Energy shortage
... and confidence shock

GDP growth

2021 = 5.2%

2022 = 3.4%

2023 = 2.5%

Memo: a full cut in imports of Russian energy products – especially natural gas – would trigger a recession

Main transmission channels to the euro area

Consumption channel: higher natural gas – and electricity – prices reduce households' real disposable income and purchasing power.

Intermediate goods channel: natural gas is an input in the production processes of many firms. Besides the energy sector itself, which mostly transforms natural gas into other forms of energy, other large-scale users of gas are producers of chemicals, basic metals, non-metallic minerals (glass, cement, ceramics, etc.) and food and beverages.

Direct trade impact (a ban on euro area exports to Russia)

Indirect trade impact (lower growth in the rest of the world)

Impact on growth

2% higher inflation (with oil prices at \$150 and elevated natural gas prices).
GDP growth lowered by 1.8%.

A 10% gas rationing shock is estimated to reduce euro area GDP by about 0.7%. **If all natural gas imported from Russia is missing, GDP growth would be lowered by 2%.**

GDP growth would be lowered by 0.75% of GDP.

GDP growth would be lowered by 0.2% of GDP.

Possible policy offsets

This will be partly offset by new governments support measures and lower excess savings.

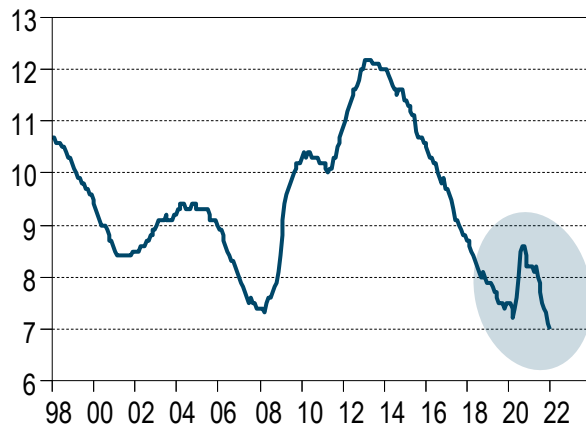
By end of 2021, our natural gas needs could be reduced by 33% to 50% of what we import from Russia.

Additional fiscal support could step in

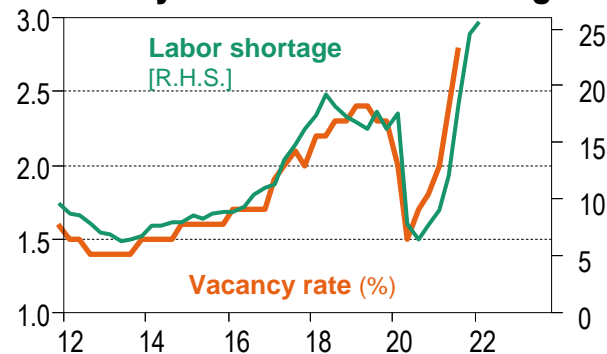
Total impact on GDP \approx -4.8%

The ECB is in a difficult position: while downside risks to growth have mounted, the labor market is very tight

Euro area unemployment rate (%)

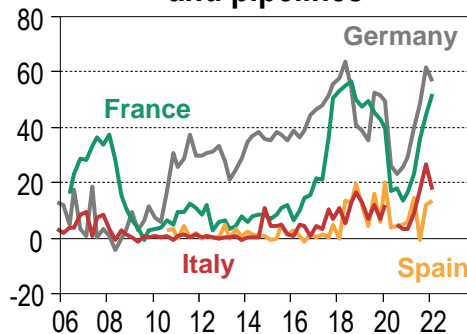


Vacancy rate and labor shortage

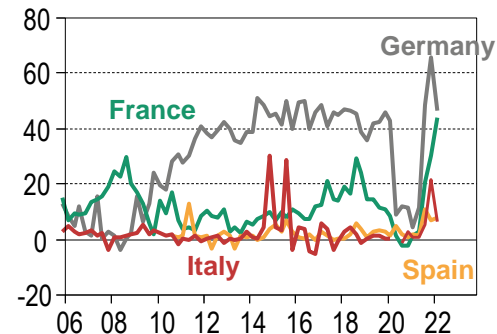


Labor shortages in two selected sectors

Land transport and pipelines

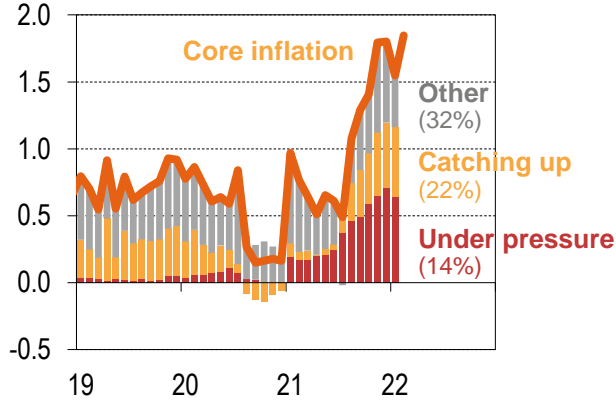


Accommodation



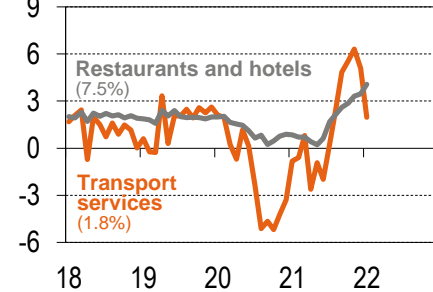
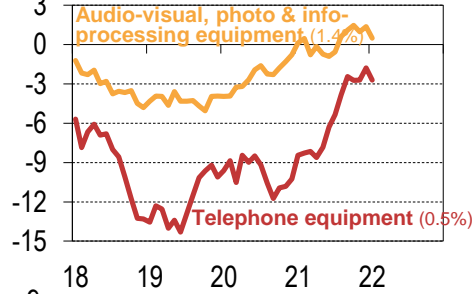
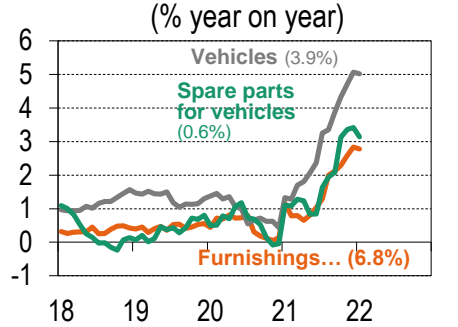
As in the United States, the rise in underlying inflation can be explained by the pressures arising from the pandemic (I)

Contribution to euro area inflation
(% year on year)

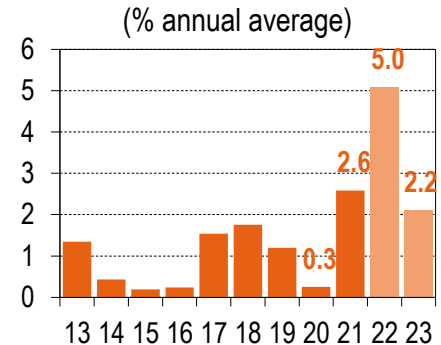
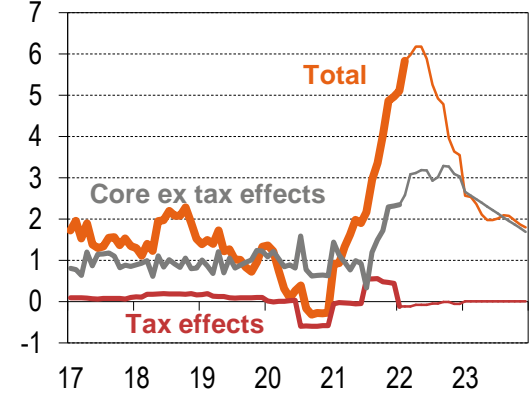


Under pressure

Catching up

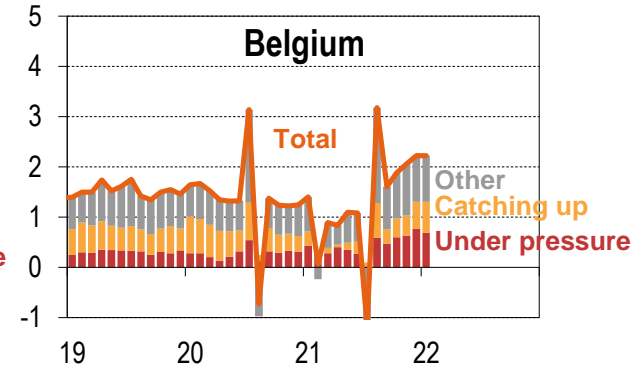
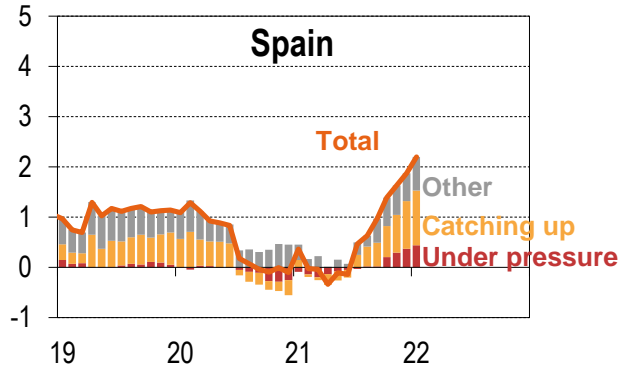
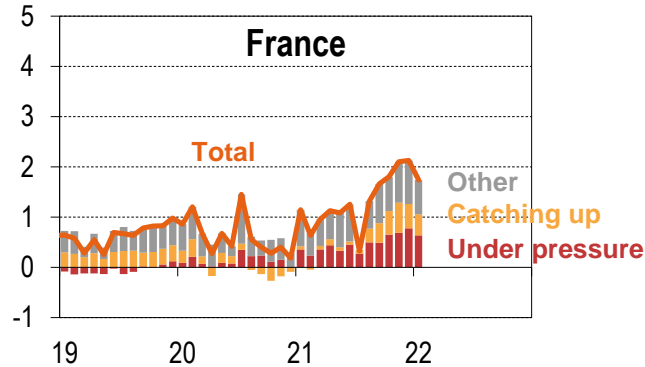
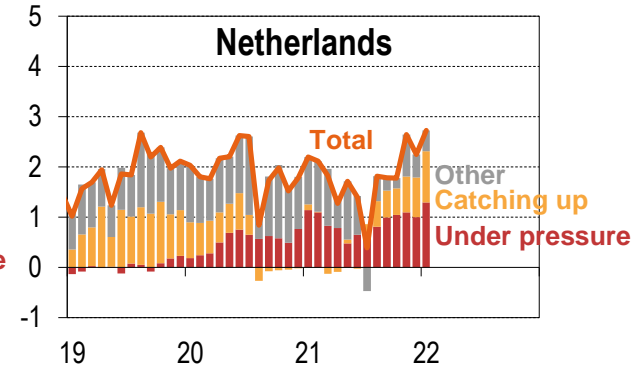
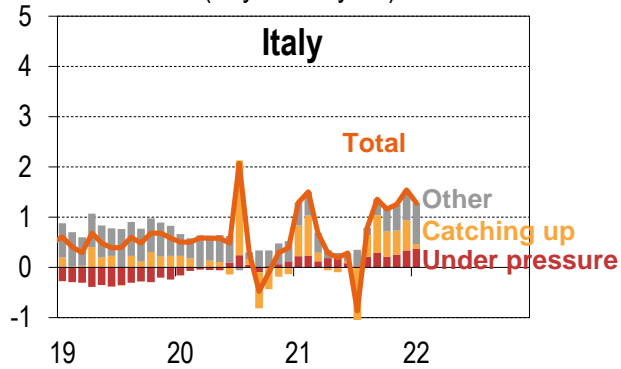
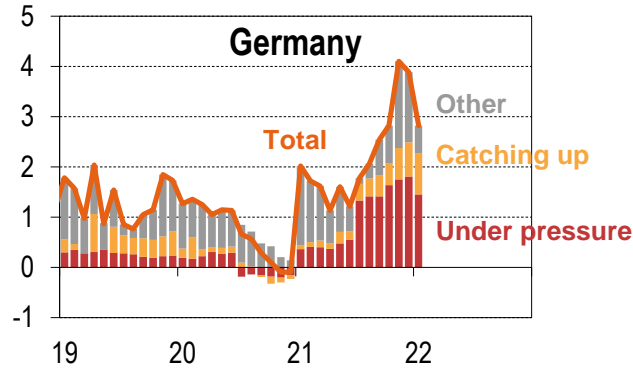


Inflation forecast
(% year on year)

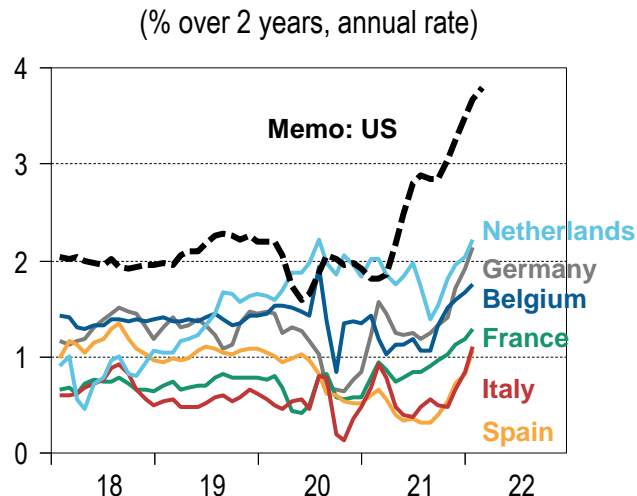
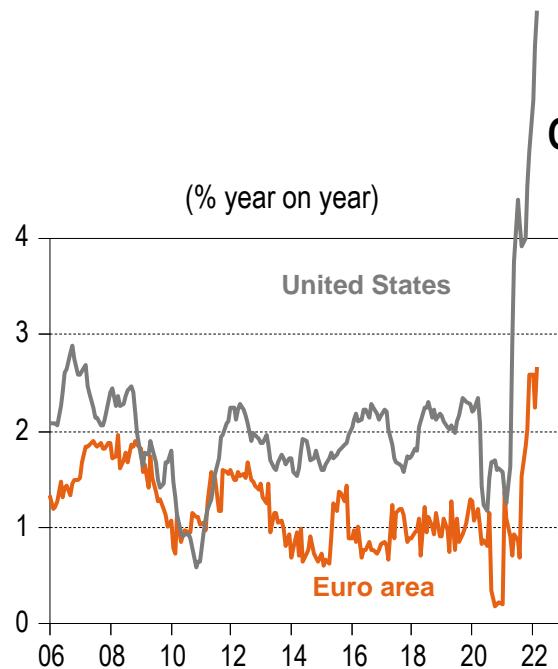


As in the United States, the rise in underlying inflation can be explained by the pressures arising from the pandemic (II)

Contribution to core inflation (% year on year)

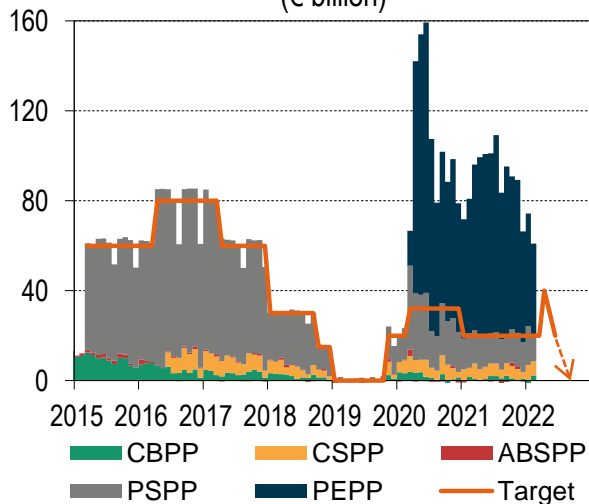


The dynamics of inflation is however much less worrying than in the United States



The ECB has now to perform a delicate balancing act...

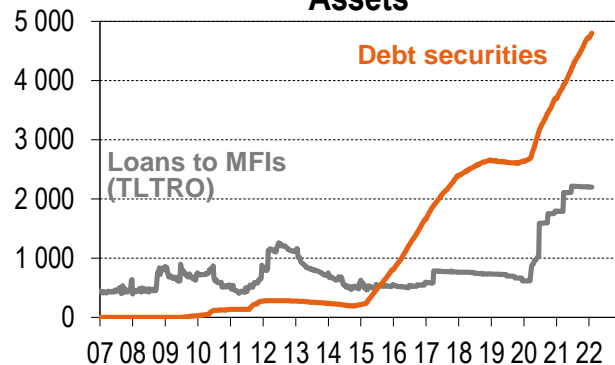
Eurosystem monthly purchases (€ billion)



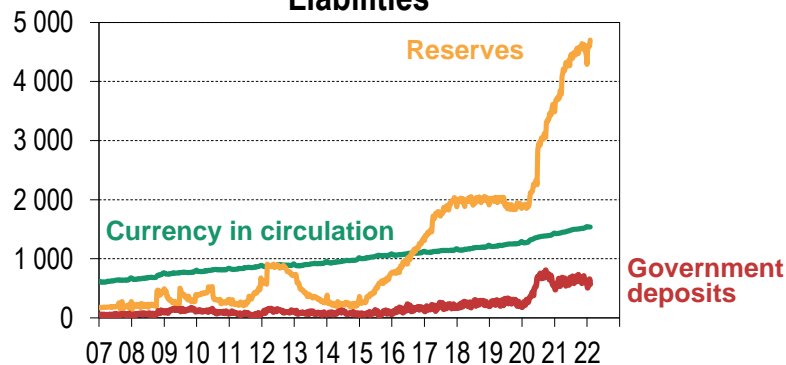
- **PEPP holdings will be fully reinvested at least to the end of 2024** and PEPP's flexibilities will be retained for the reinvestment phase so that **reinvestments can be "adjusted flexibly across time, asset classes and jurisdictions at any time"**.
- Purchases under the APP will be raised from the current €20bn/month to €40bn in April and then lowered to €30bn in May, €20bn in June... before it is stopped in Q3.

Eurosystem balance sheet (€ billion)

Assets

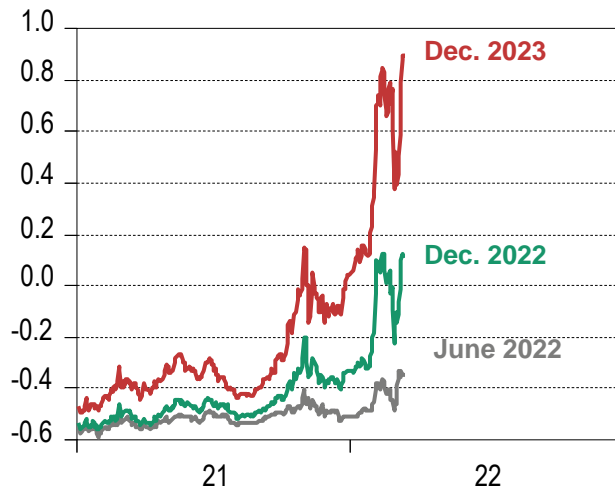


Liabilities

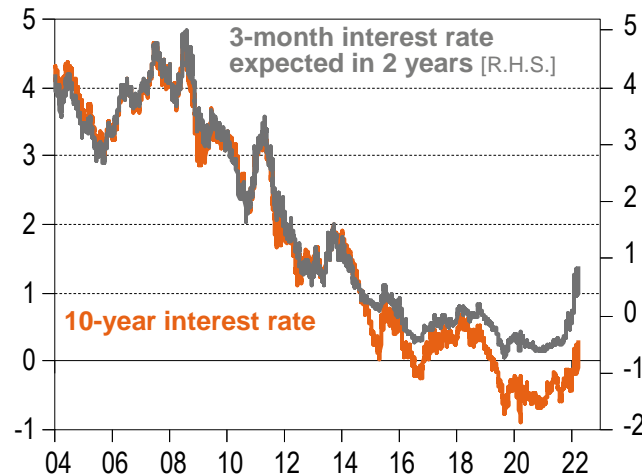


... and remain ready to tighten if “second round” effects are looming

3 months Euribor future contracts
(%)



10-year German sovereign rate
and short-term rate expectations
(%)





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