

**THE TIMES THEY
ARE A-CHANGIN'**

2021

**OUR CONVICTIONS,
YOUR RESOLUTIONS.**

Economic and financial outlook

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Commercial document intended exclusively for Professional Investors

■ December 2020

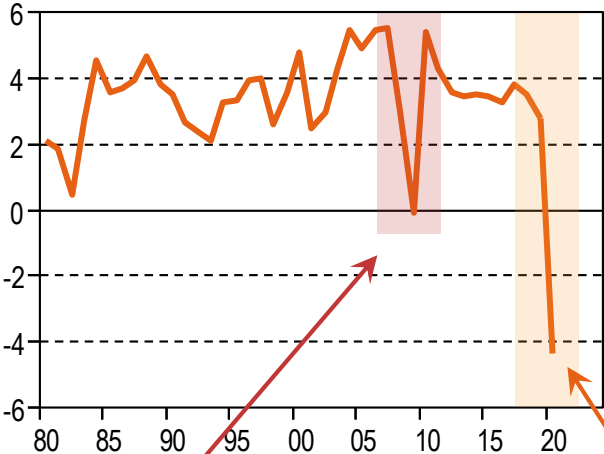


1. GLOBAL ECONOMY

An unprecedented shock

The contraction in global activity caused by the pandemic has been of an unprecedented magnitude

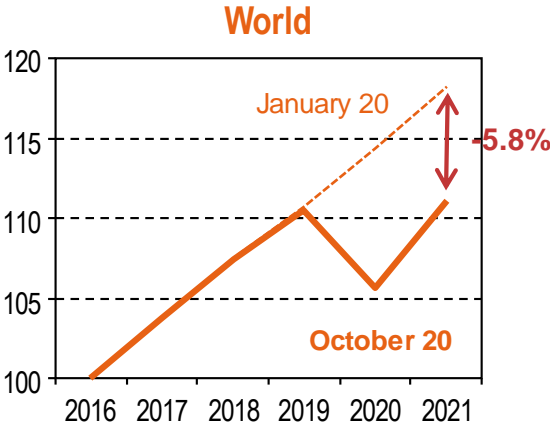
World GDP growth
(% year on year, volume)



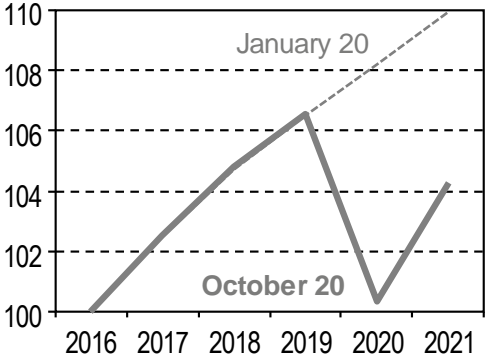
Great financial crisis

Covid-19 crisis!

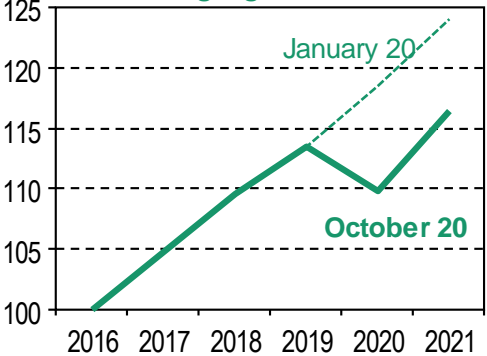
Real GDP
(2016 = 100)



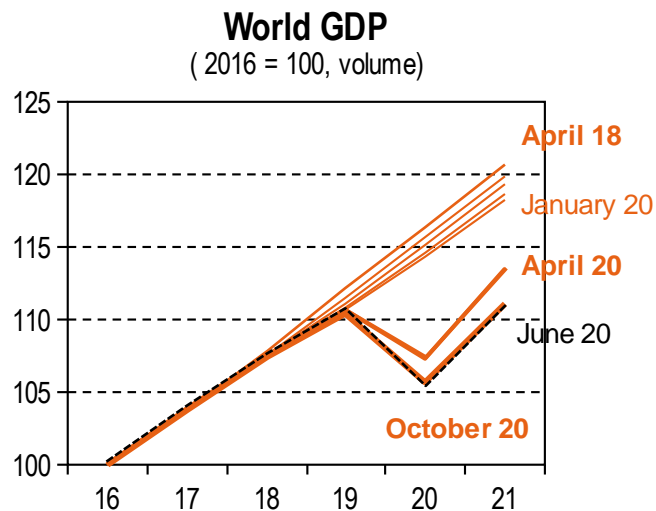
Advanced economies



Emerging economies

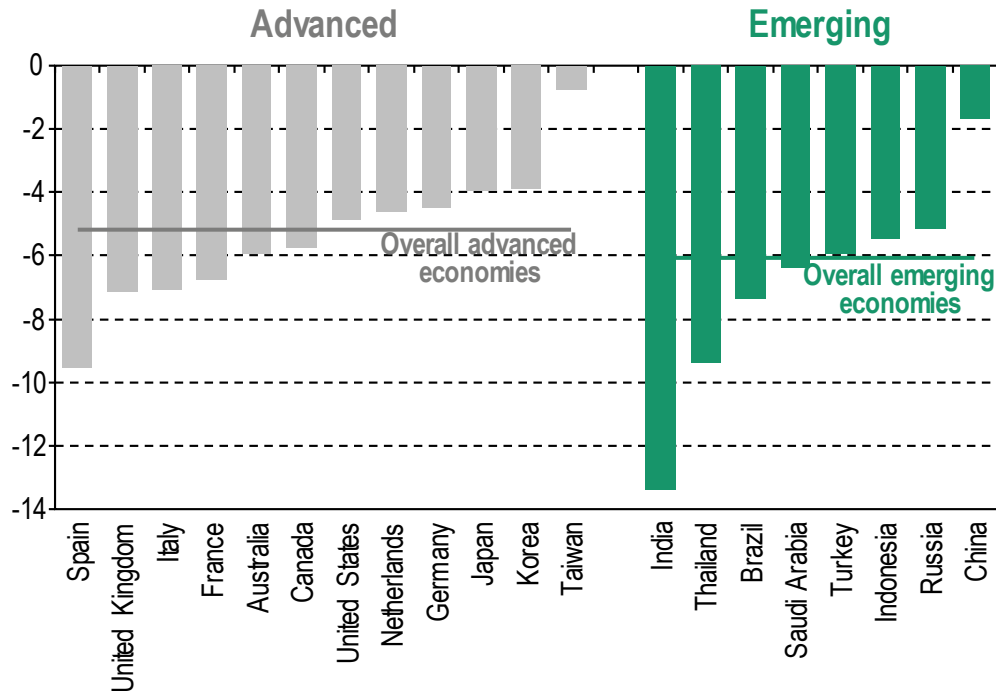


According to the IMF, most economies' GDP will still not be back on trend by end of 2021



Revisions to expected GDP levels for the year 2021

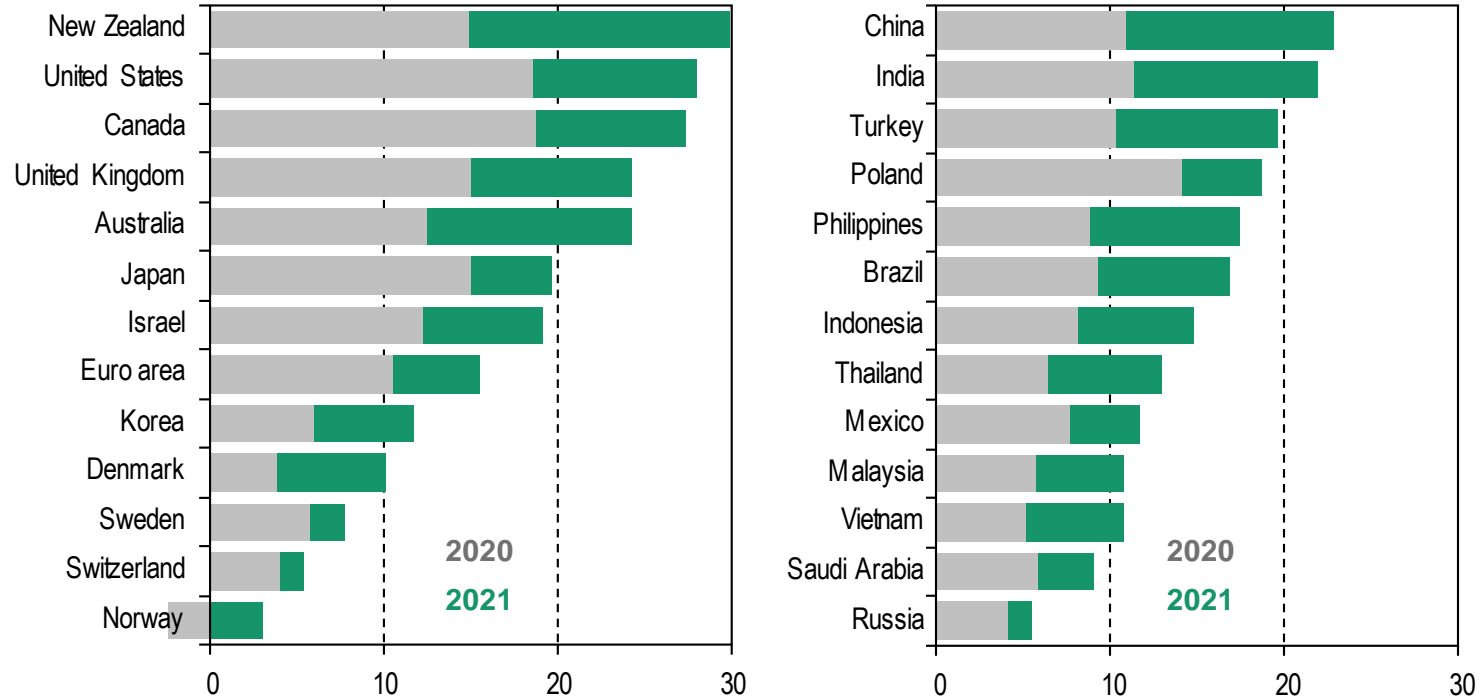
(October 2020 forecast versus October 2019 forecast, %)



In all economies the increase in public indebtedness will be significant

Increase in public debt

(Q4 2019 – Q3 2020, % of GDP)



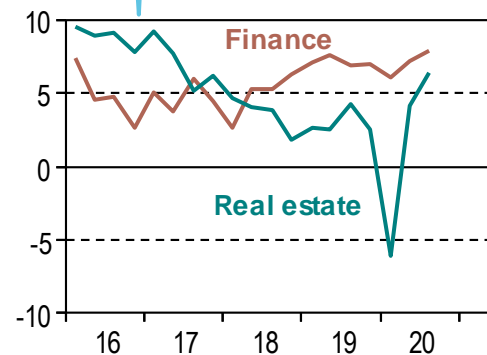
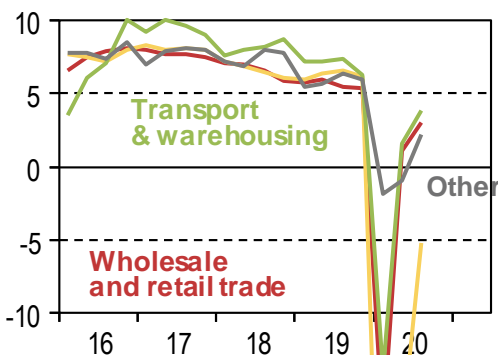
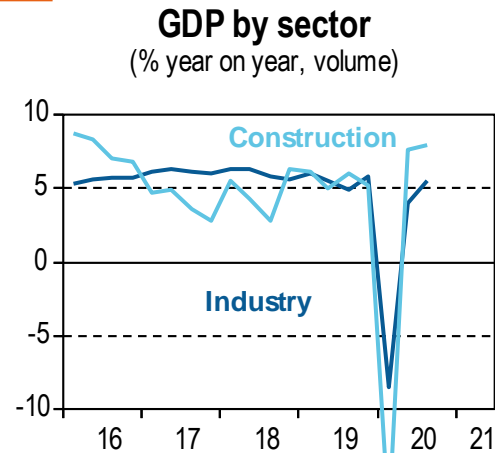
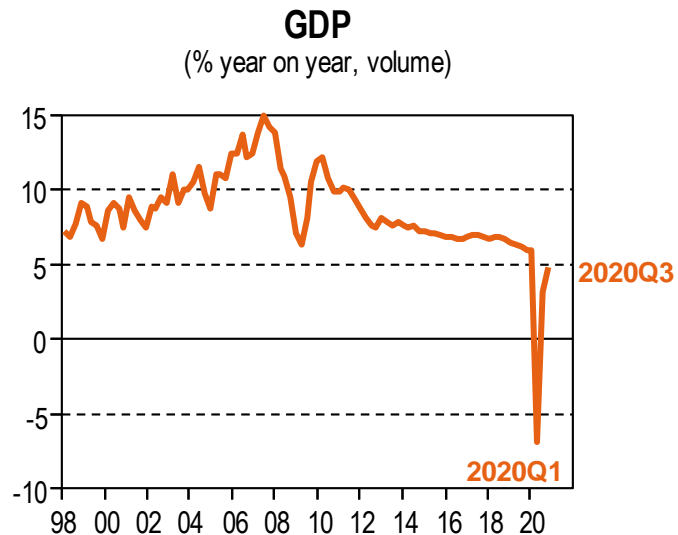


The 128th Canton Fair in Guangzhou, China, October 16, 2020. /Xinhua

2. CHINA

Relying on its own strengths

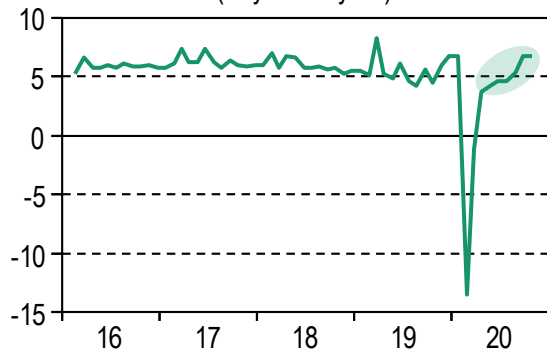
After a dramatic fall, activity has picked up rapidly



Most economic indicators are now back on track

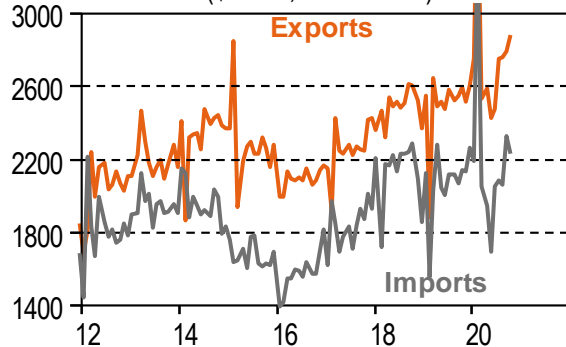
Industrial production

(% year on year)



Exports and imports

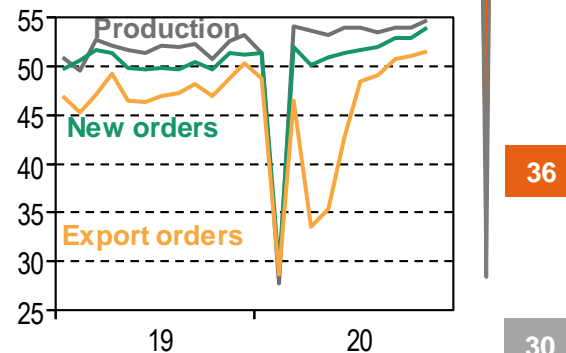
(\$ billion, annual rate)



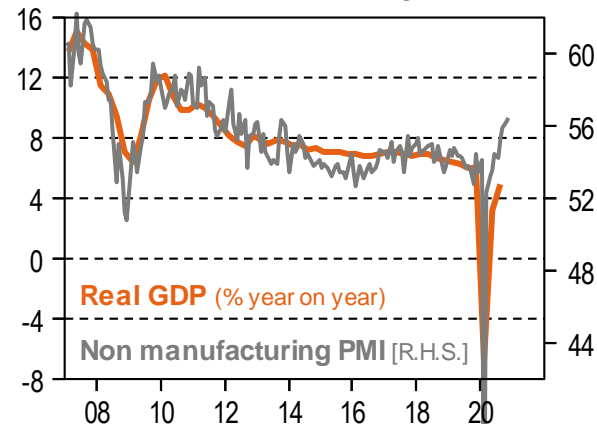
China NBS PMI index



Manufacturing PMI

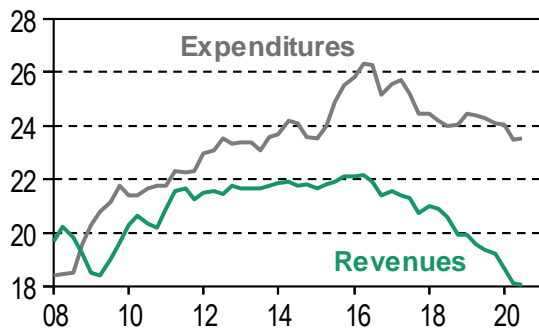
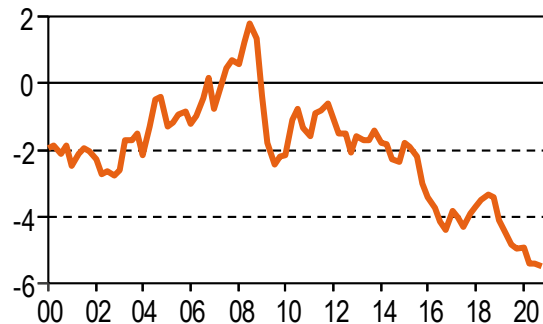


GDP growth & non manufacturing PMI

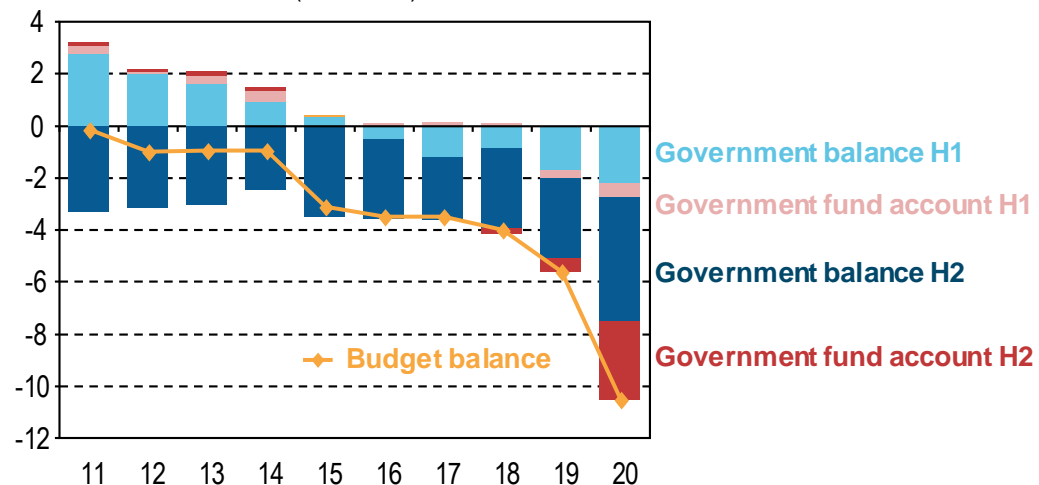


Fiscal support got stronger in the second half of 2020

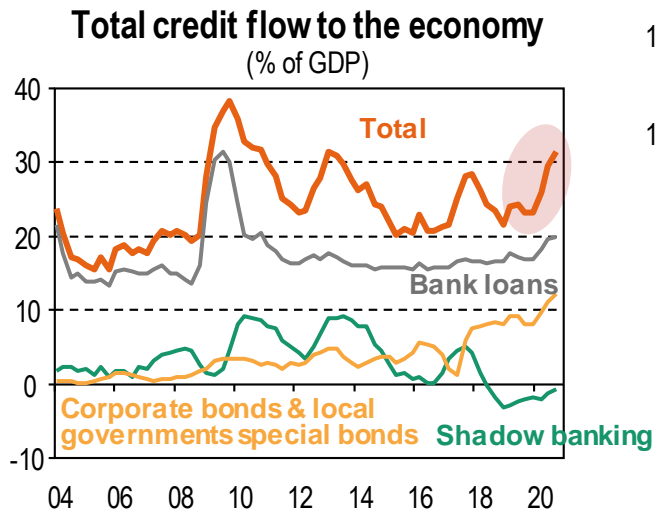
China government balance (% of GDP)



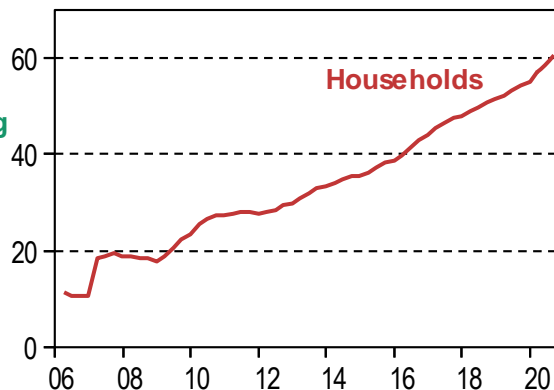
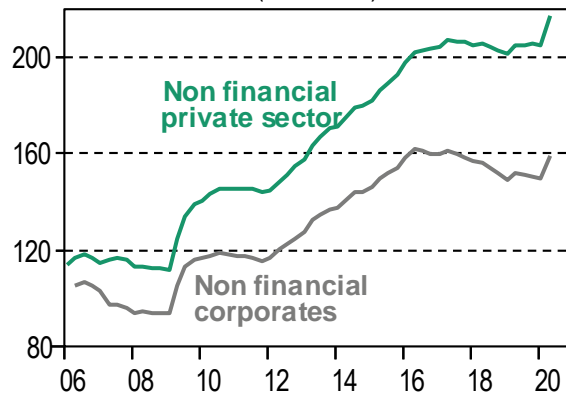
"Augmented" budget balance (% du PIB)



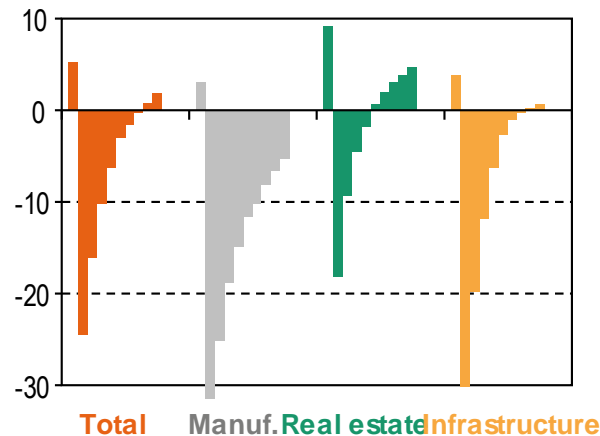
Credit growth has re-accelerated and investment is now increasing at an almost normal pace



Non financial private sector debt (% of GDP)



Fixed asset investment* (% year on year**, January to October 2020)



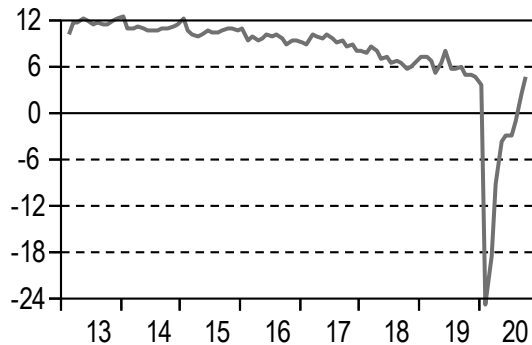
(*) FAI measures investment in fixed capital, but also includes land purchases, used facilities and equipment purchases & mergers and acquisitions.

(**) Growth in investment cumulated since the beginning of the year.

Retail sales have rebounded, but consumption was still not back on its former trend at the end of Q3 and the saving rate remained elevated

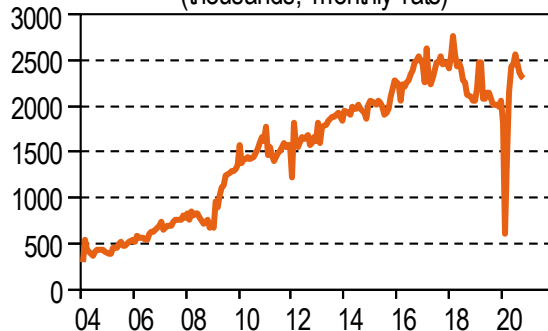
Retail sales

(% year on year, volume)



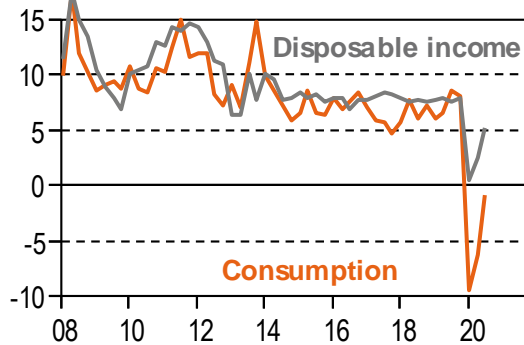
Car sales

(thousands, monthly rate)



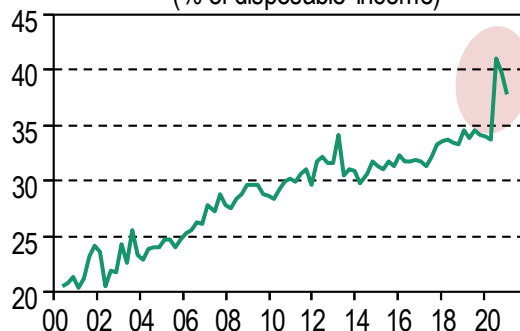
Urban income and consumption

(per capita, % year on year, nominal)



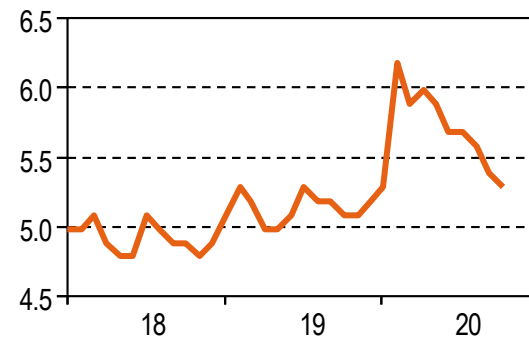
Urban saving rate

(% of disposable income)



Urban unemployment rate

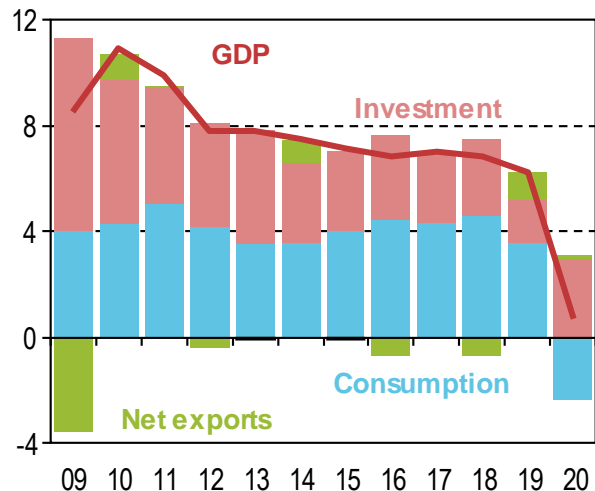
(%)



By year end, GDP should be back on its former trajectory

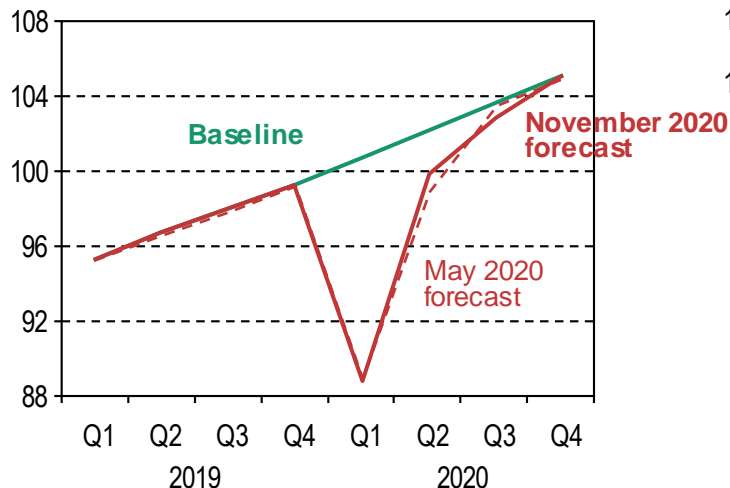
Contribution to cumulative real GDP growth

(%, over the first three quarters of each year)



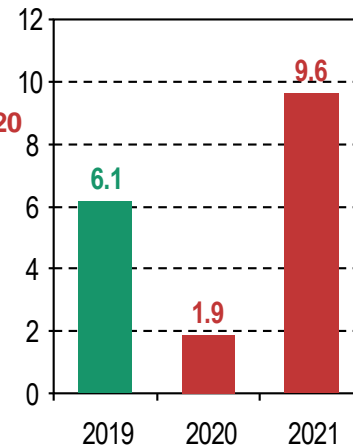
Real GDP trajectory

(January 2020 = 100)



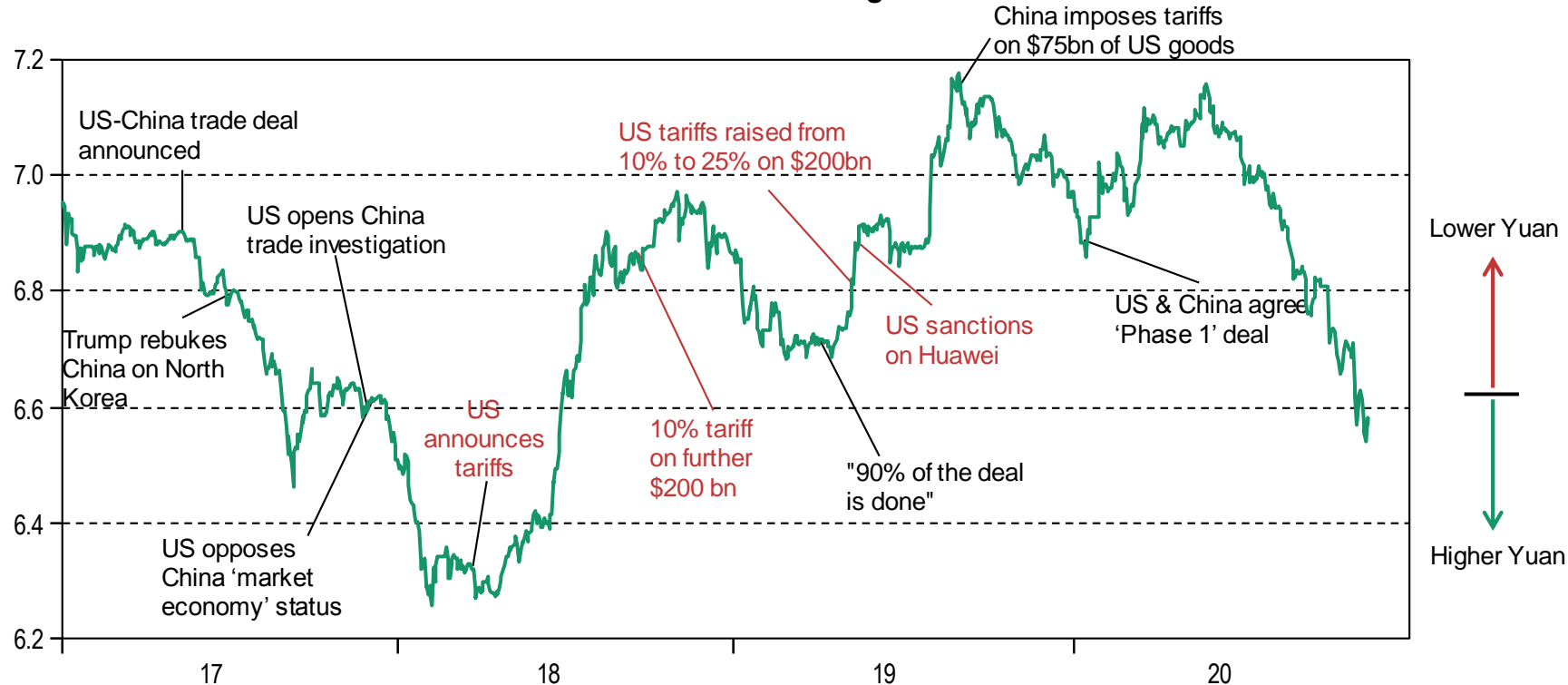
Real GDP growth

(%, annual average)

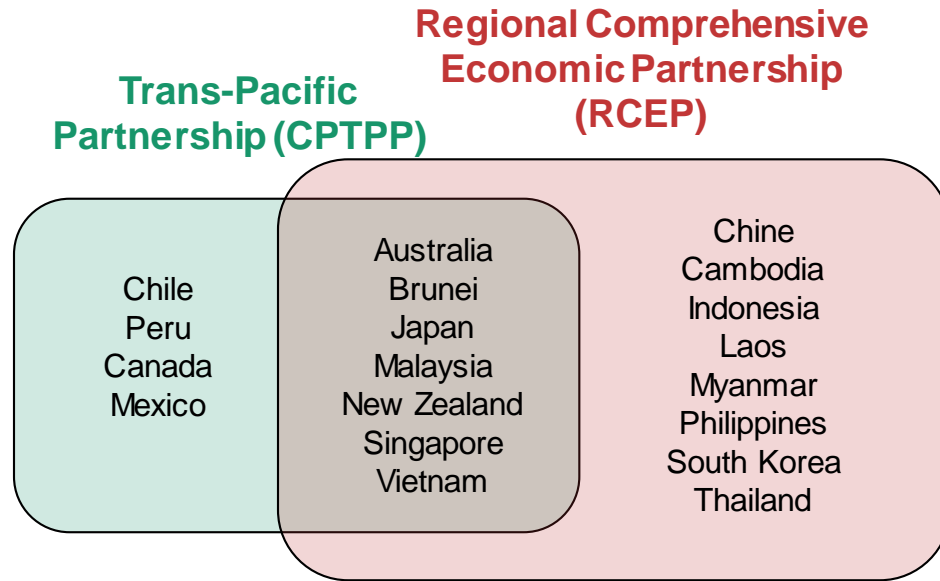


Since summer, the Yuan appreciated sharply against the dollar

Yuan / dollar exchange rate



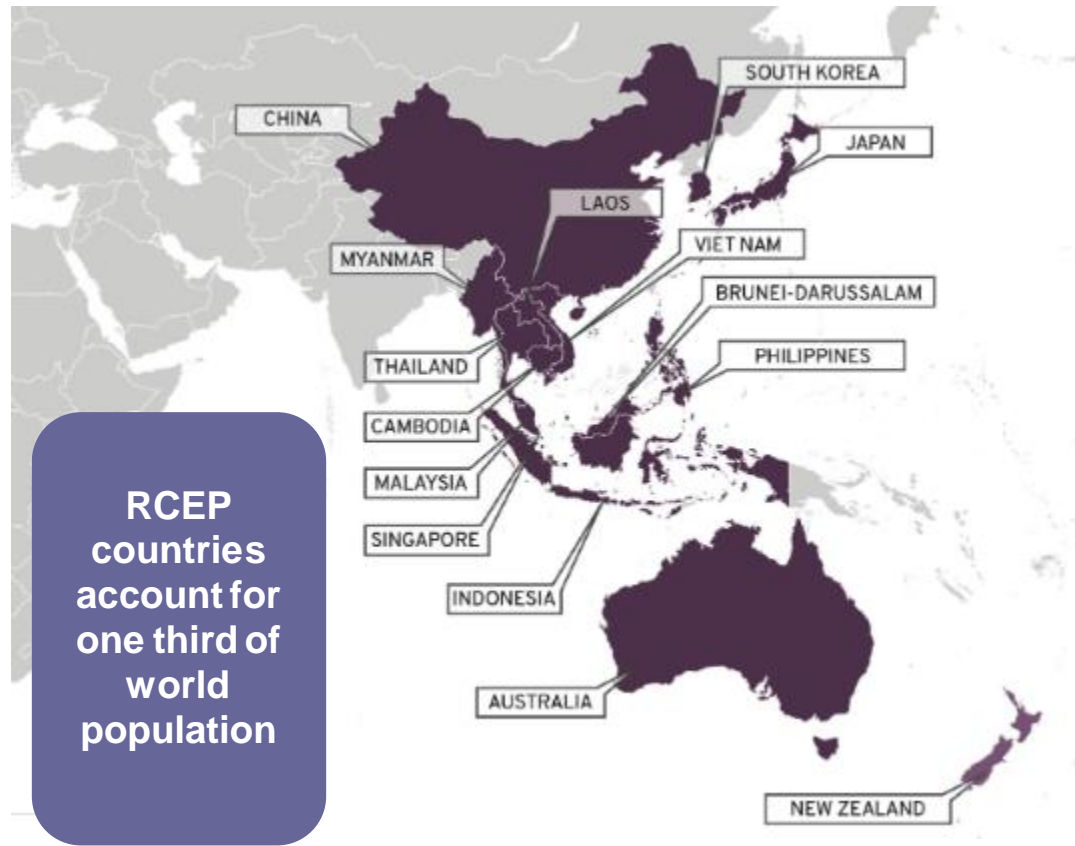
Tensions between the United States and China have led to a reshaping of trade relations across the Pacific



Two regional trade agreements, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP), will strengthen economic ties among East Asian countries.

The new agreements have moved forward without the United States and India, formerly considered key partners under the CPTPP and RCEP, respectively.

The new free trade area accounts for one third of world trade

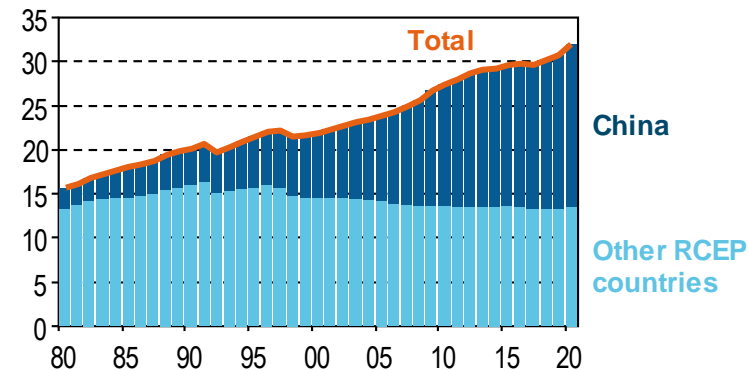


RCEP countries account for one third of world population

Share of RCEP countries

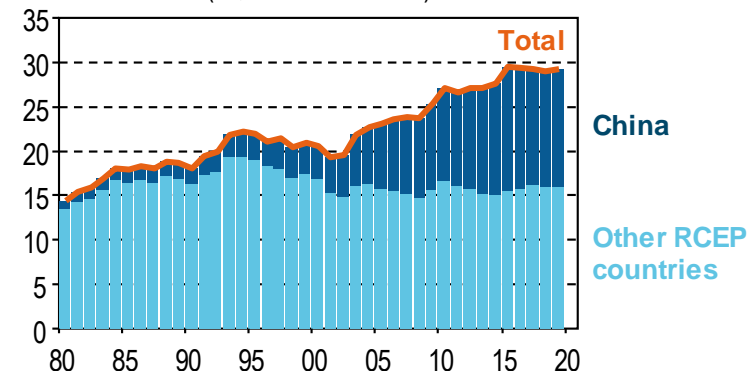
... in world GDP

(%, in PPP dollars)



... in world exports

(%, in current dollars)





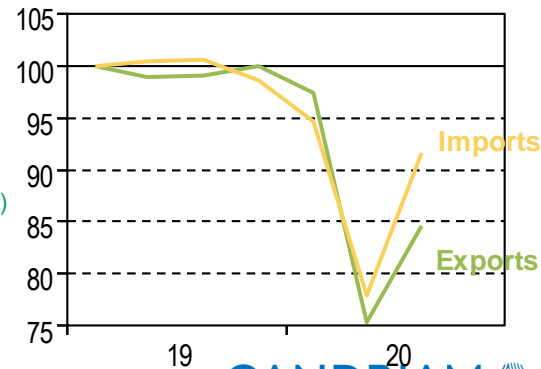
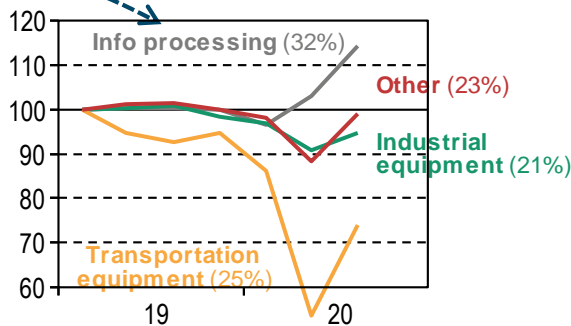
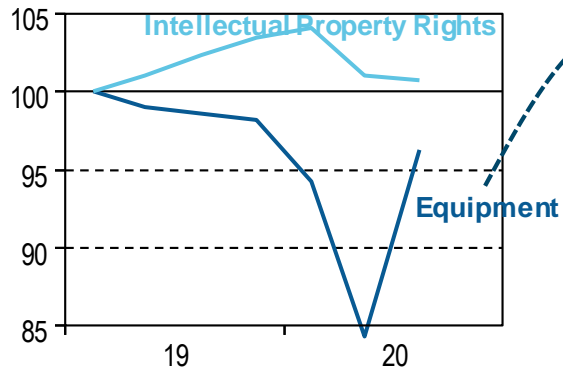
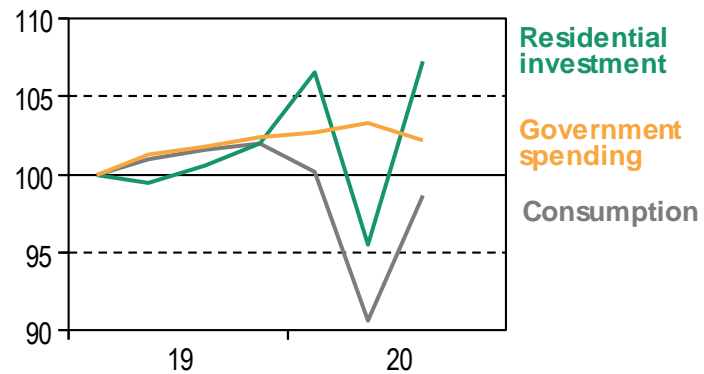
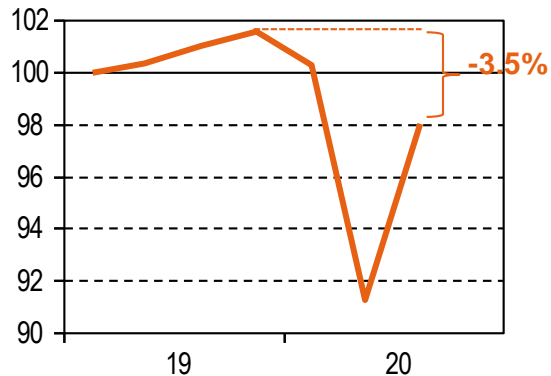
3. UNITED STATES

Uncertainties are dissipating...

In Q3, the growth rebound has been spectacular

GDP and its components

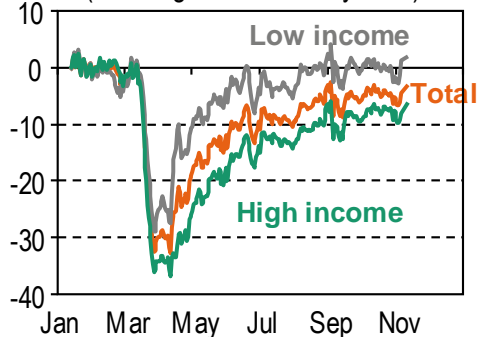
(2019 = 100, volume)



By inducing higher income earners to spend less on services, the pandemic has curbed activity in sectors employing low income workers

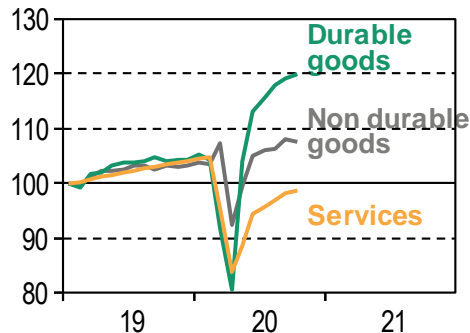
Consumer spending tracker by income level

(% change since January 2020)



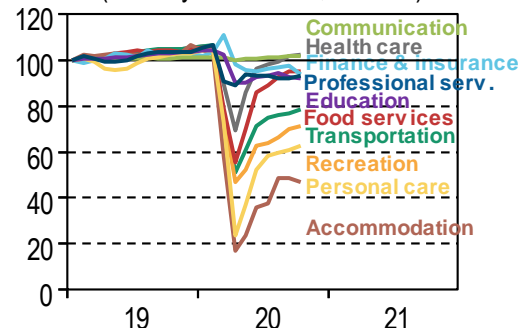
Consumption

(January 2019 = 100, nominal)

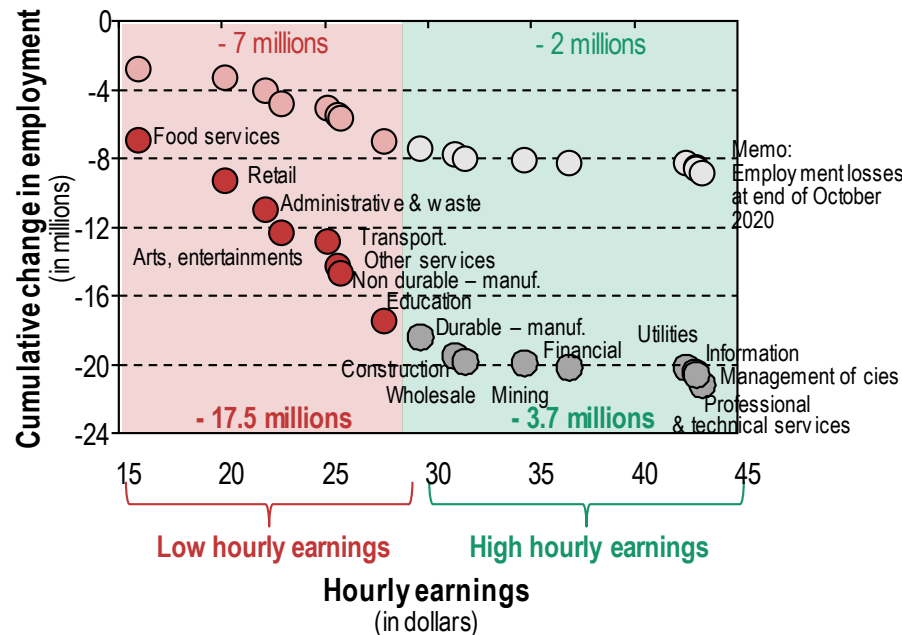


Services

(January 2019 = 100, nominal)



Cumulative job destruction by sector between February and April 2020 by salary level

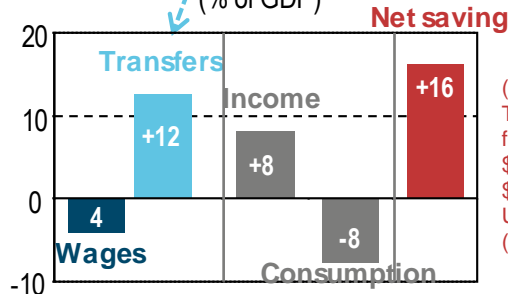


The government jumped in and borrowed the savings of the higher income earners to compensate those affected by the shock!

Change in budget balance between Q1 and Q2 2020

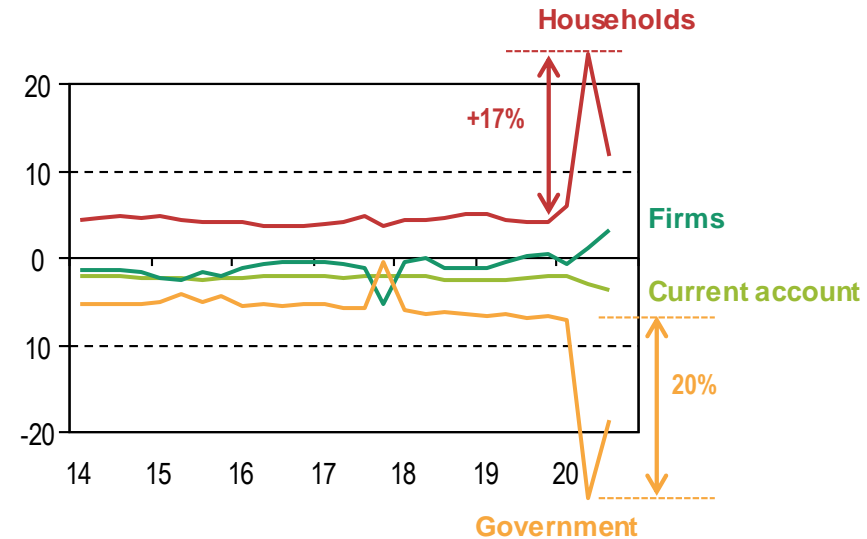
	Billions of dollars (annual rate)	% of GDP
Loss of tax revenue	294	1.5
Increase in spending	4 167	21.3
Transfers to persons*	2 393	12.3
Transfers to States	762	3.9
Subsidies	1 011	5.2
incl. PPP	609	3.1
Deterioration of the budget balance	4 460	22.8

Change in household saving between Q1 and Q2 2020 (% of GDP)



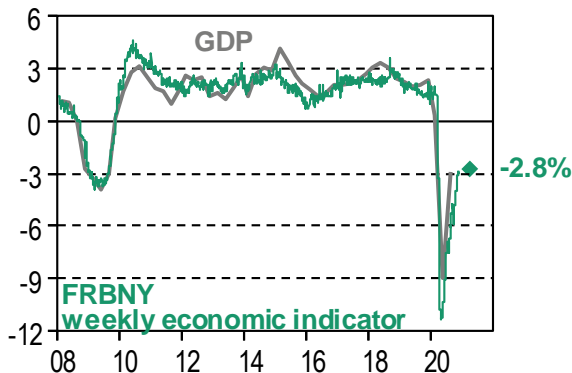
(*) Transfers to households:
 Trump check ~\$1100 billion (\$1,200 per adult for a couple with an income of less than \$150,000, decreasing between \$150,000 and \$198,000).
 Unemployment benefits ~\$1,000 billion (including \$790 billion from the CARES Act).

Net lending (+) / borrowing (-) (% of GDP)

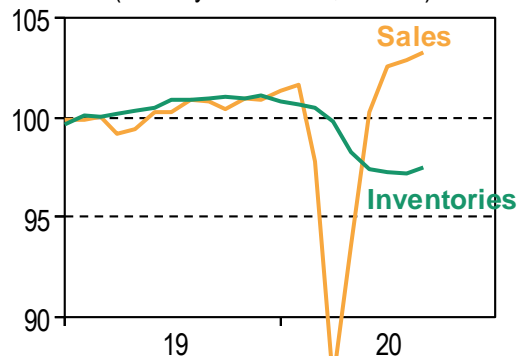


In November, indicators were not pointing to an abrupt stop in activity...

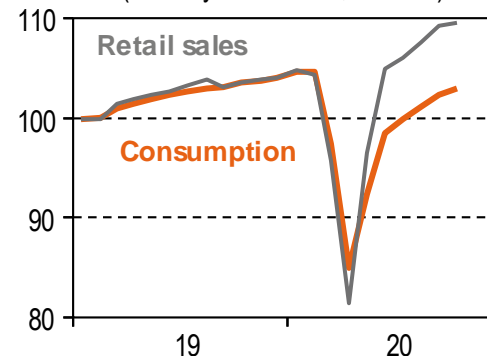
Weekly economic indicator (% year on year)



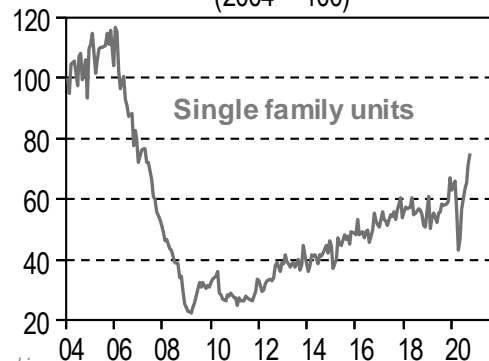
Business inventories and sales (January 2019 = 100, volume)



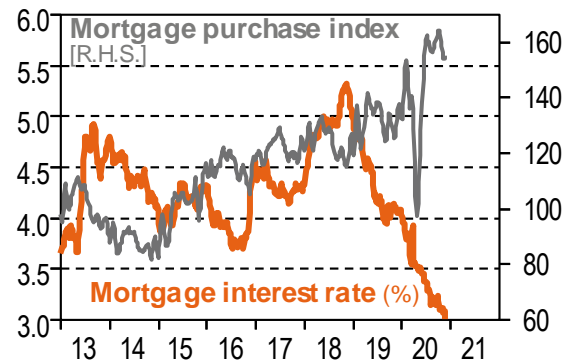
Consumption and retail sales (January 2019 = 100, nominal)



Housing starts (2004 = 100)



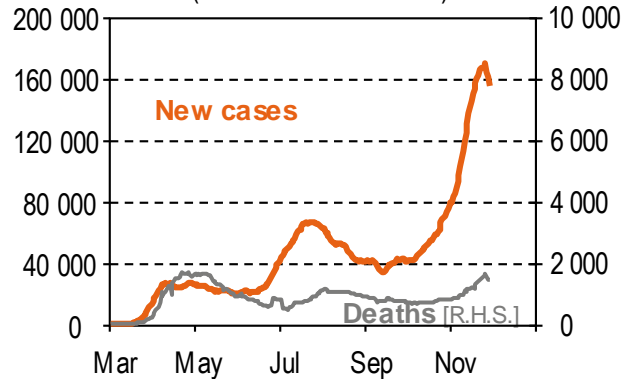
Mortgage purchase index



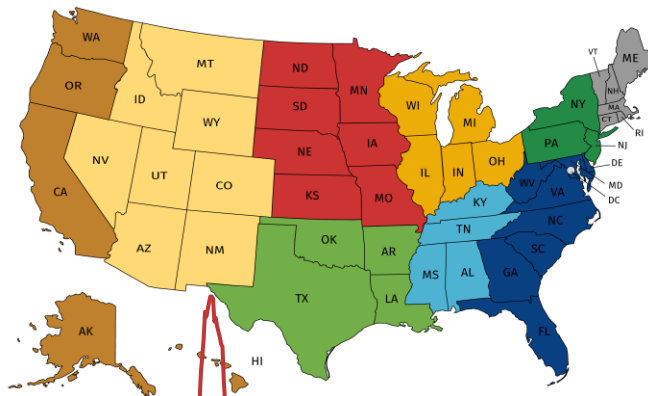
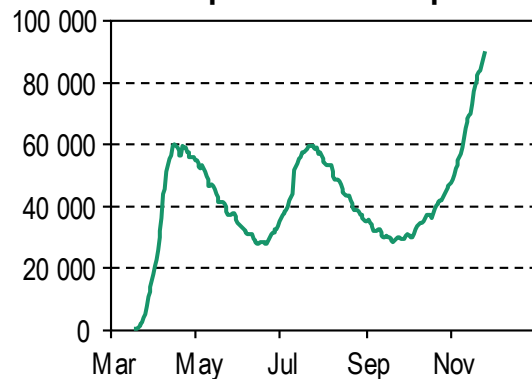
... but since October the surge in new cases has kept accelerating

New daily COVID-19 cases, deaths

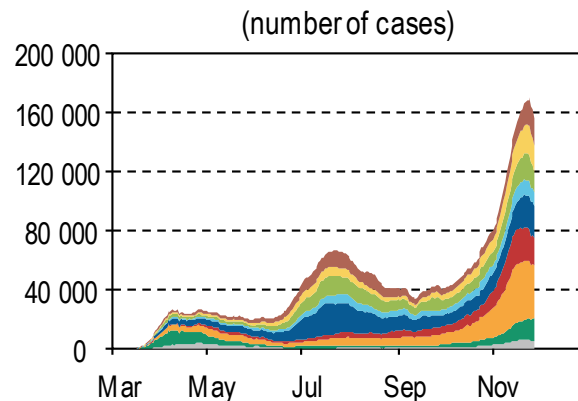
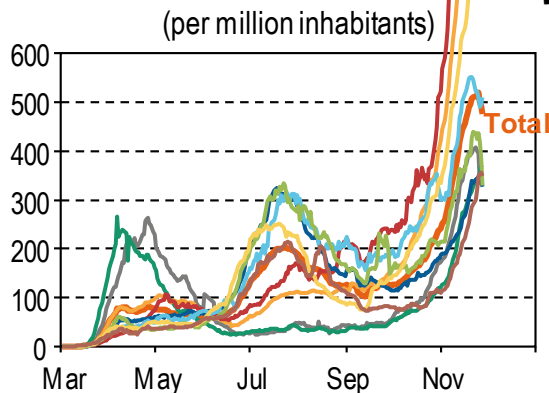
(smoothed over 1 week)



Hospital beds occupied

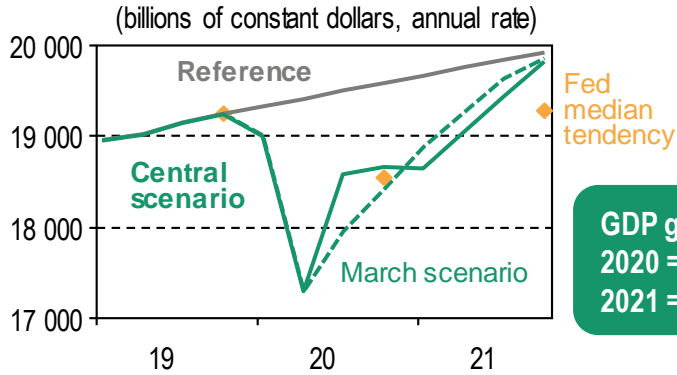


New daily Covid-19 cases



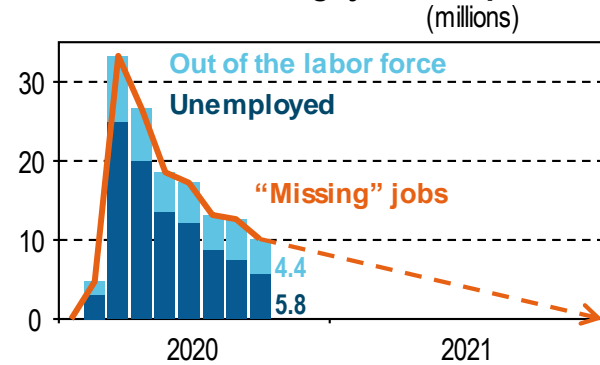
The perspective of mass vaccination has made the return of the economy on its former track by end of 2021 more likely

Real GDP



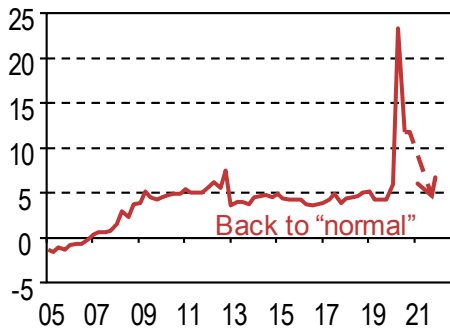
GDP growth
2020 = -3.7%
2021 = 4.6%

“Missing” jobs compared to “normal”

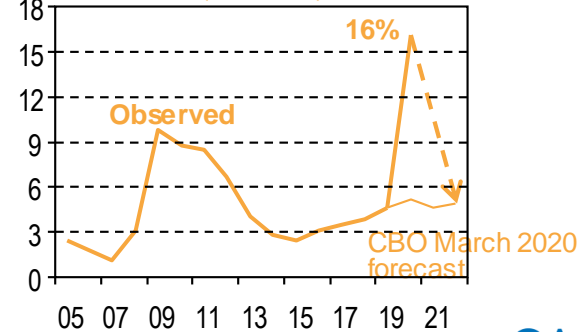


Given the growth of the working-age population, **10.7 million jobs** need to be created in order to bring the unemployment rate to 3.5% by end of 2021.

Household financial saving



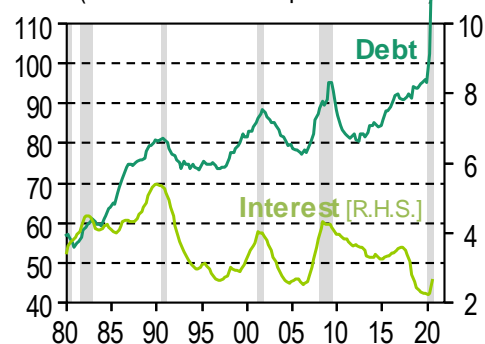
Federal budget deficit



While the shock on business investment is likely to be easily absorbed...

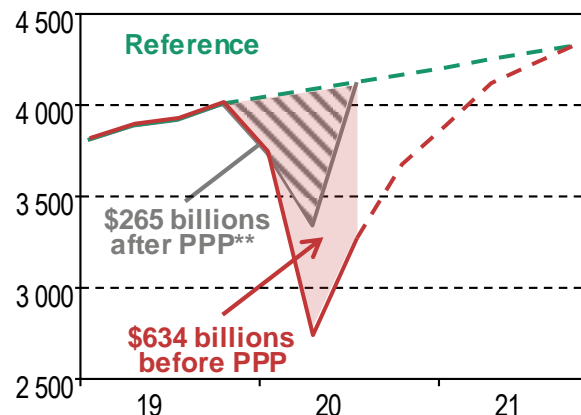
Debt of non financial corporations

(% non financial corporates GDP)



Firms results*

(\$ billion)



(*) Proprietors income and corporate profits.

(**) \$369 billions of loans have been turned into grants by end of Q3 according to the BEA.

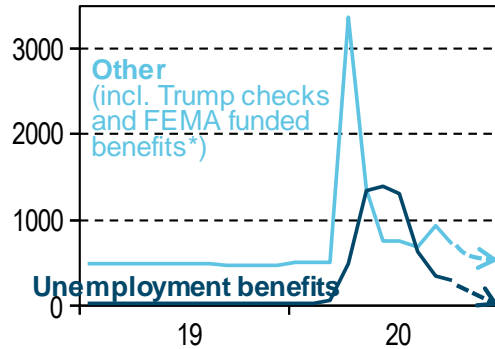
The share of the most affected sectors in both investment and profits is relatively low and their share in PPP has been relatively high.

	Most affected sectors		Other sectors
	(billions of dollars)	% du total	(billions of dollars)
Productive investment	112	5%	2 119
Value added	1 571	7%	19 862
Memo: employment (millions)	25	16%	132

... more support for those who lost their jobs is needed to allow consumption to return to normal

Transfers to households

(\$ billion, annual rate)



Without a quick additional support, the end of exceptional allowances for the unemployed and the exhaustion of ordinary unemployment benefits will weigh on consumption from the beginning of 2021 on: activity will drop and unemployment will rise.

(*) Federal Emergency Management Administration program

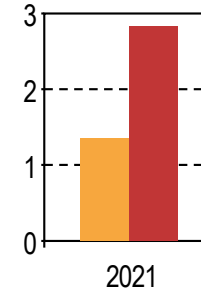
Evolution of the employment gap in three scenarios

(millions of missing jobs)



Growth losses

(in GDP points)

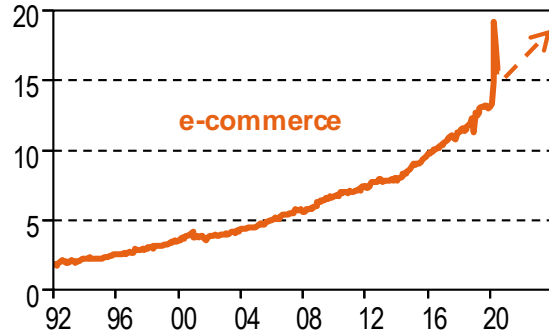


Without additional support, in 2021 GDP would be reduced by 1.5 points if social distancing disappears (yellow scenario) and by nearly 3 points if social distancing persists (red scenario).

Bringing the economy back to normal calls for the recent changes in consumers' behaviors to be temporary (I)

Share of e-commerce in retail sales

(% of retail sales ex food services)



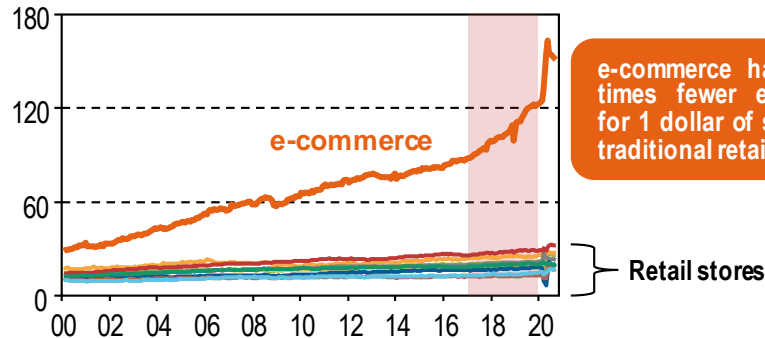
With 4% annual growth in retail sales and assuming unchanged productivity trends and market shares, employment in the retail sector would increase by 700,000 by 2022.

If the market share of e-commerce continues to increase rapidly (+5% in 2 years), employment in retail trade will stop growing.

If, in addition, retail sales slow down (3% annual growth instead of 4%), **employment in the retail sector could drop by 300,000.**

Sales to employment

(\$ thousand, annual rate)

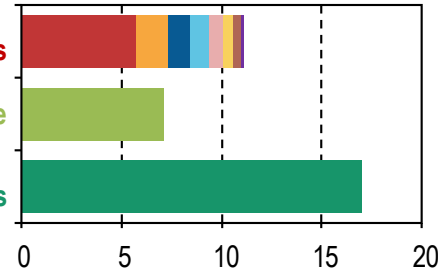


e-commerce has 6 to 7 times fewer employees for 1 dollar of sales than traditional retail.

Bringing the economy back to normal

calls for the recent changes in consumers' behaviors to be temporary (II)

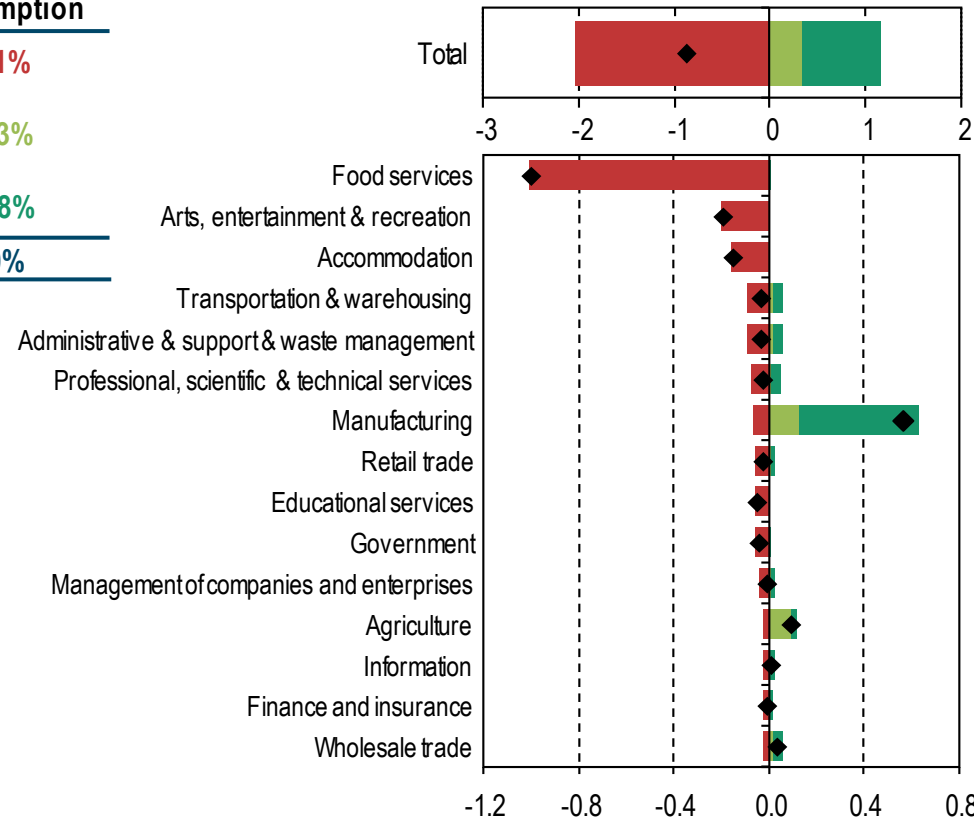
Share in goods and services consumption (%)



- Affected service sectors**
- Purchased meals and beverages
 - Membership clubs, sports centers, parks, theaters, and museums
 - Accommodations
 - Gambling
 - Air transportation
 - Other recreational services
 - Ground transportation
 - Food furnished to employees

Shocks	Impact on consumption
-10%	-1,1%
+4%	+0.3%
+5%	+0.8%
Total	+0%

Impact of the change in consumption behavior on employment (millions)



The new President's program should help the U.S. economy deal with these risks

In the short run, Joe Biden announced that he would extend the CARES Act to continue to support those who have lost their jobs and provide additional assistance to state and local governments.

In the longer run, the various components of its Build Back Better program will aim to :

- Modernize U.S. infrastructure in a way that contributes to the fight against global warming but also improves the resilience and productivity of the economy;
- Improve access to education and the quality of the education system;
- Use public spending to create quality jobs;
- Increase the minimum wage and implement a "new social contract" by strengthening the role of unions and collective bargaining.

Fully implemented and financed in part by tax increases*, these measures could increase the average annual growth rate by 1 point over 2021-24, thus facilitating the adjustment of the U.S. economy to possible changes in behavior caused by the pandemic.

This, however, presupposes that in the absence of a Senate majority, the new Biden Administration will be able to convince a few Republican Senators to pass the necessary budget laws by simple majority (which the Budgetary Reconciliation Process makes possible provided that the public deficit is not sustainably increased).

(*) See nextslide.

N.B. Calibrating the budgetary cost of the measures proposed by Joe Biden

Spending and receipts of the Build Back Better program

(\$ billion, 2021-30)

Child Care and Education

Support Child Care and Universal Pre-K	-500
Increase K-12 Education Funding	-600
Increase Higher Education Spending	-1 600
Subtotal	-2 700

Health Care and Long-Term Care

Expand Health Insurance Coverage	-1 900
Support Elder Care and Long-Term Care	-600
Fund Rural Health, Mental Health, and Opioid Crisis	-300
Reduce Health Costs	450
Revenue Feedback from Health Plan	300
Subtotal	-2 050

Social Security, SSI, and Retirement

Expand Social Security	-400
Expand Supplemental Security Income	-700
Expand Tax Breaks for Older Americans	-50
Subtotal	-1 150

Infrastructure, Environment, Other Domestic Spending

Invest in Green Infrastructure and American Innovation	-3 000
Expand Affordable Housing	-750
Provide Universal Paid Leave	-550
Other Domestic Spending	-150
Subtotal	-4 450

National Security and Immigration

End Wars in Afghanistan and Middle East	550
Pass Immigration Reform	200
Subtotal	750

Total spending **-9 600**

Tax Policy

Increase Corporate Taxes	1 800
Increase Individual and Pass-Through Taxes	1 400
Increase Social Security Payroll Tax Maximum	900
Establish a Financial Risk Fee on Large Banks	100
Improve Tax Compliance	100

Total receipts **4 300**

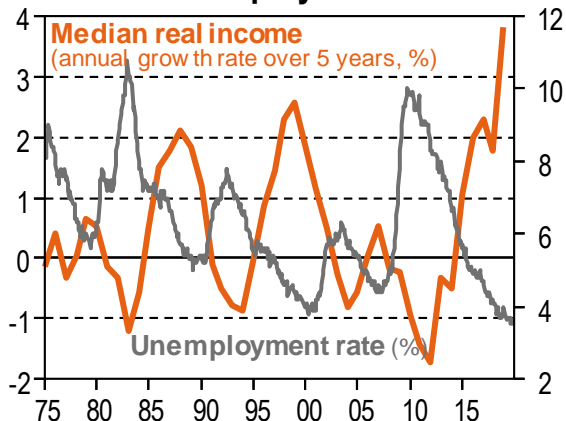
Net Interest **-300**

Total Deficit **-5 600**

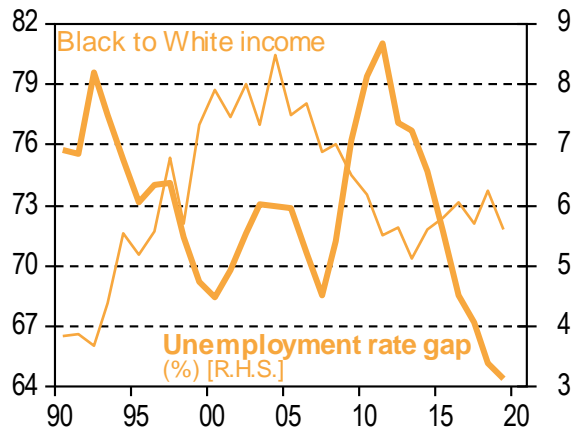
The redefinition of the Fed's full employment objective should also facilitate the adjustment of the U.S. economy to possible changes in behavior linked to the pandemic

Unemployment rate and income gaps, by race

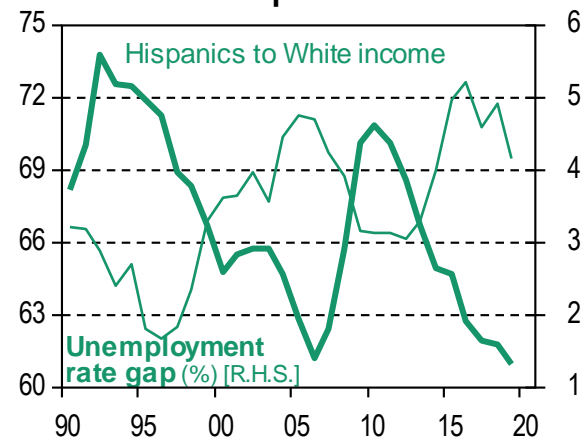
Median real income and unemployment rate



Black

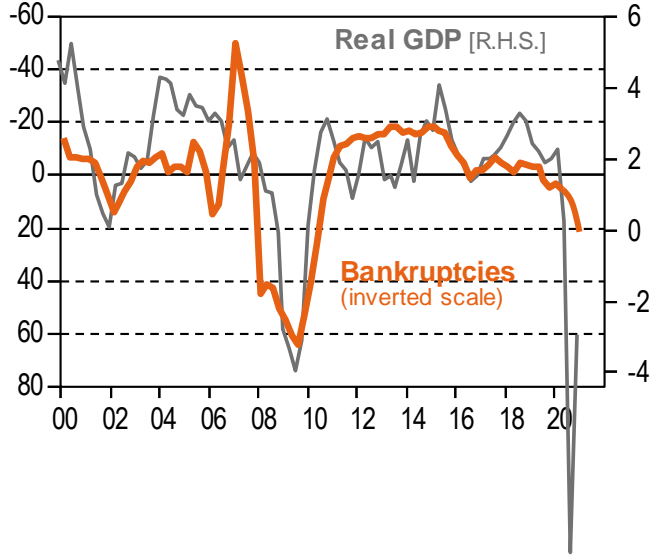


Hispanics

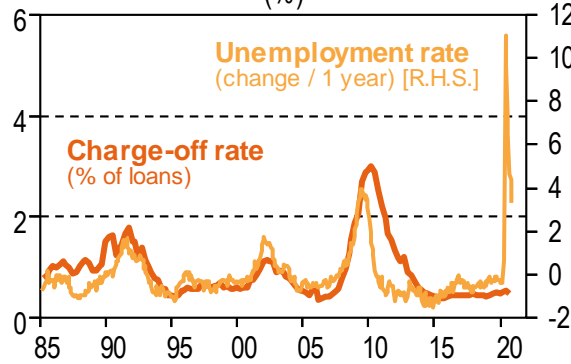


Bankruptcies will rise in the coming months but banks have already started to increase their provision for loan losses

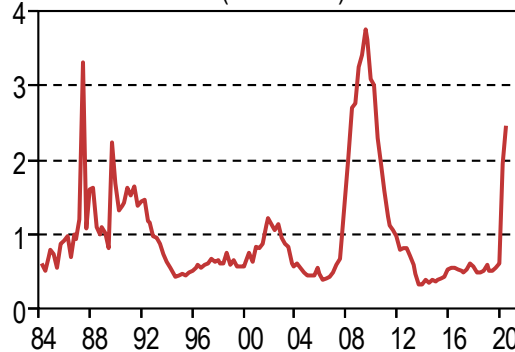
Bankruptcies and activity (% year on year)



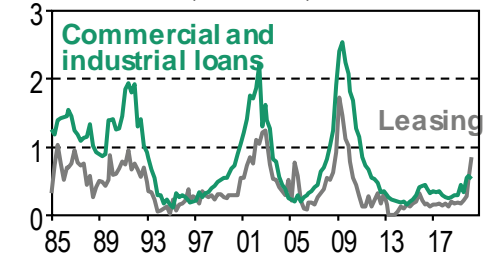
Charge-off rate and unemployment rate (%)



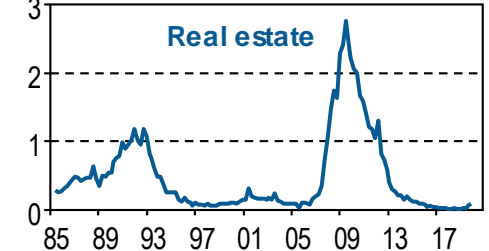
Provisions (% of loans)



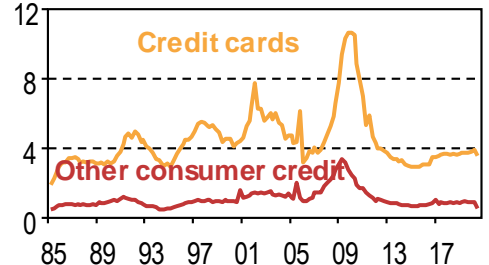
Charge-off (% of loans)



Real estate

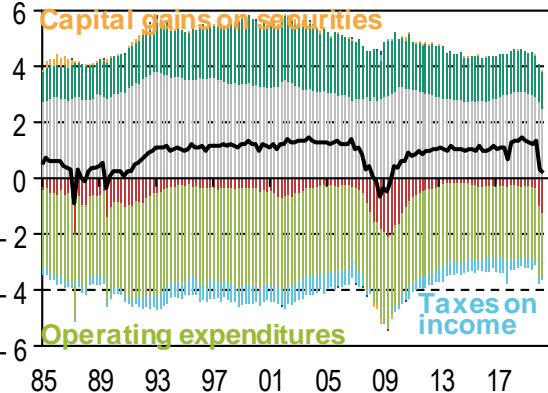
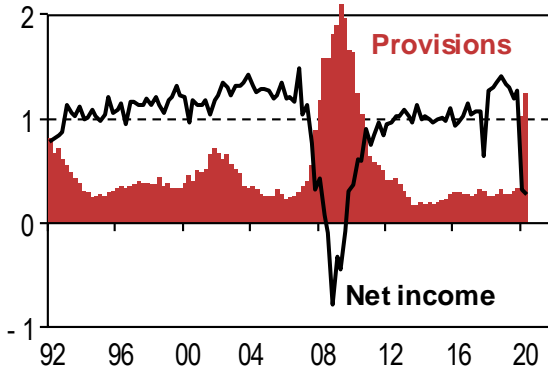


Credit cards



Only a deep worsening of the economic situation in 2021 could significantly deteriorate banks' equity ratio

Banks net income
(% of assets)

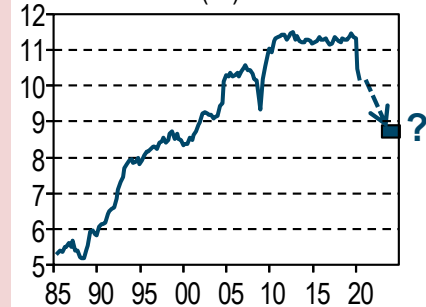


Banks assets
(billions of dollars)

Loans to firms 5300	{	Loans secured by real estate		
		- Nonresidential	1 550	50
		- Construction & development	380	15
				175
Loans to households 4725	{	Other loans	4 180	
		Mortgage loans	2 860	95
		Home equity lines	325	10
		Loans to individuals	1 700	135
		Total loans	~11 000	
		Securities	4 500	50
		Corporate bonds	500	
		Goodwill	400	
		Other assets	5 600	
		Total	~21 000	530
		Losses with a \$230 billion net income before provisions		300

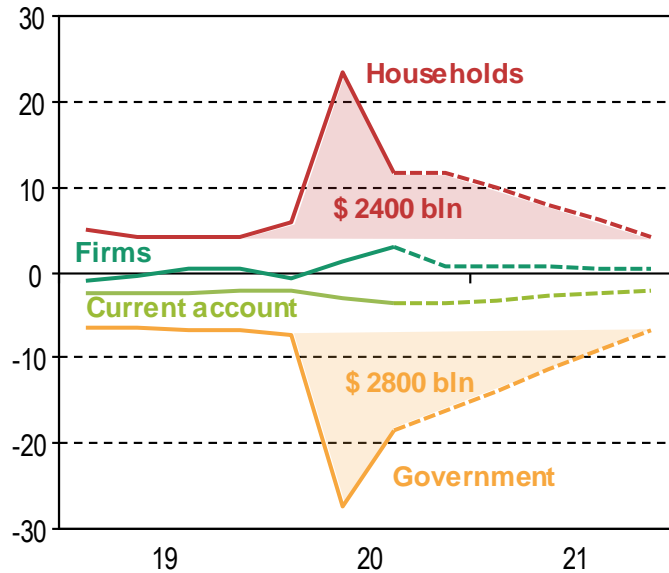
Losses if the unemployment rate reaches 10%

Capital ratio
(%)

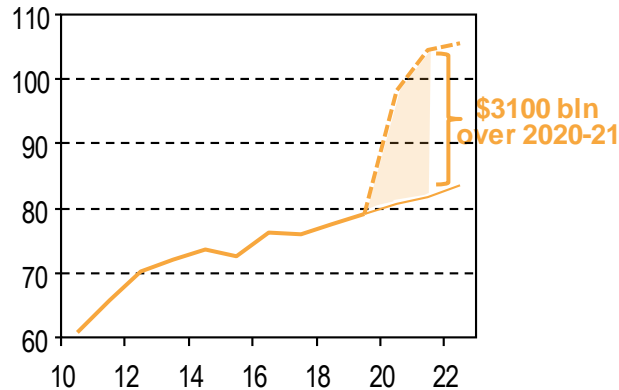


By end of 2021 an increase in public debt of at least \$3 trillions will have to be absorbed

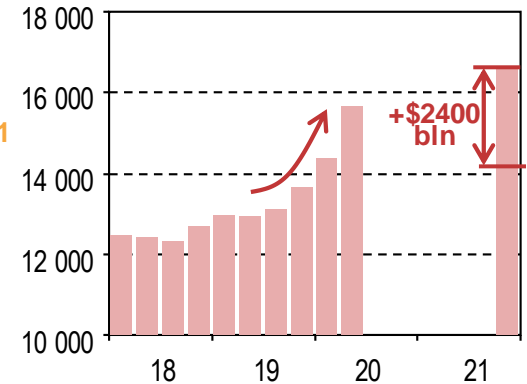
Net lending (+) / borrowing (-)
(% of GDP)



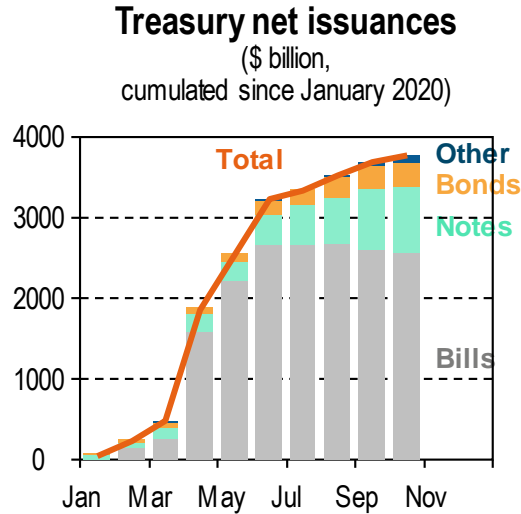
Federal debt
(% of GDP)



Deposits and money market funds held by households
(\$ billion)

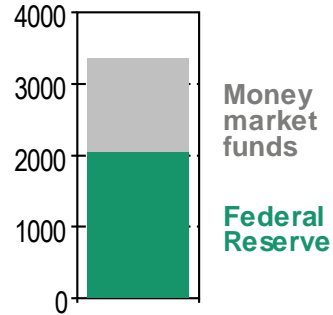


In 2020H1, government securities issuances have been absorbed by money market funds and the Federal Reserve



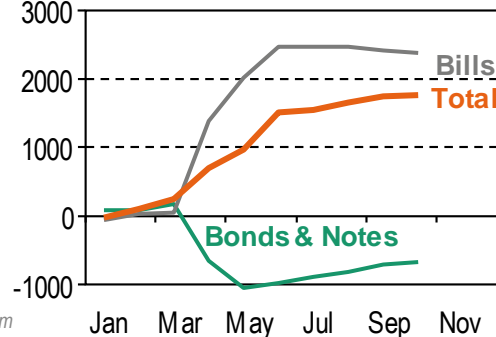
Treasury net purchases in H1 2020

(\$ billion)



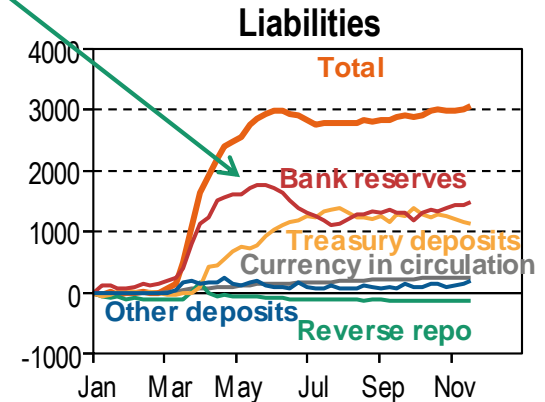
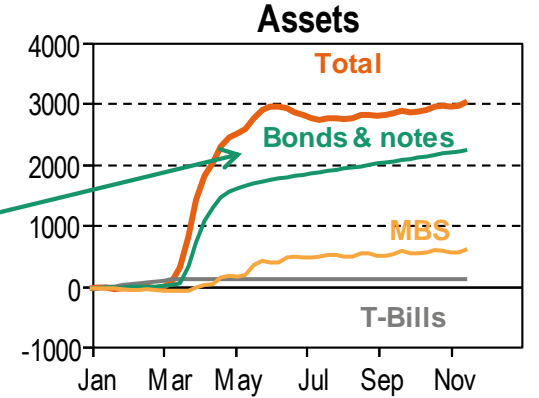
Treasury issuances net of Federal Reserve purchases

(\$ billion, cumulated since January 2020)



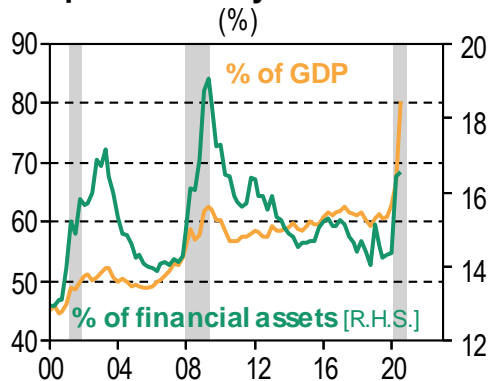
Federal Reserve balance sheet

(\$ billion, cumulated change since January 2020)

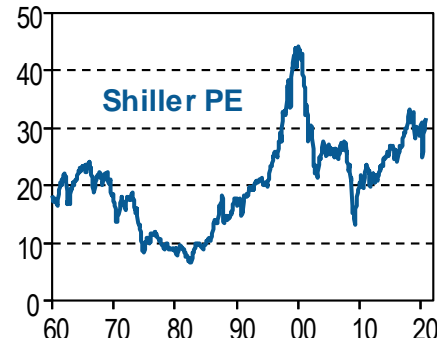
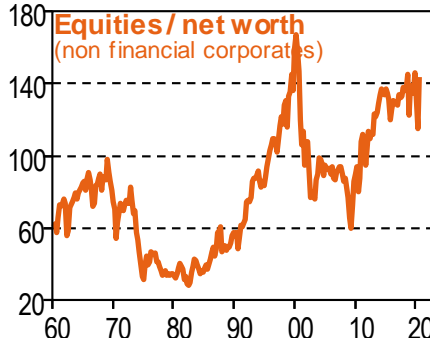


In a low interest rate environment, however, the massive accumulation of liquidity could lead to a dangerous increase in asset prices

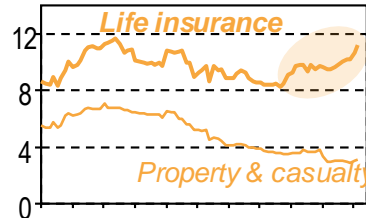
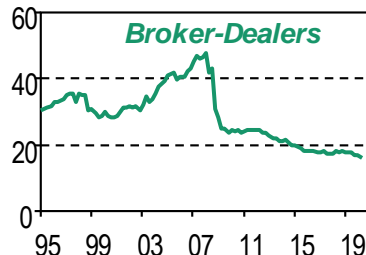
Deposits held by households



Valuation elements of the stock exchange

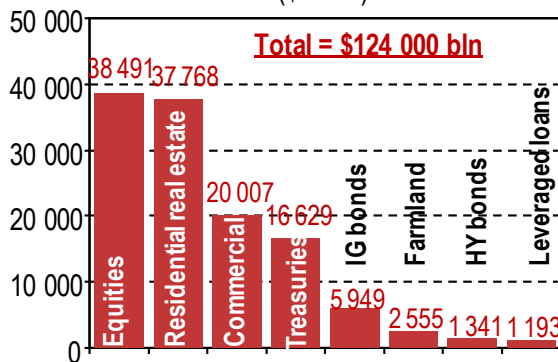


Ratio of assets to equity

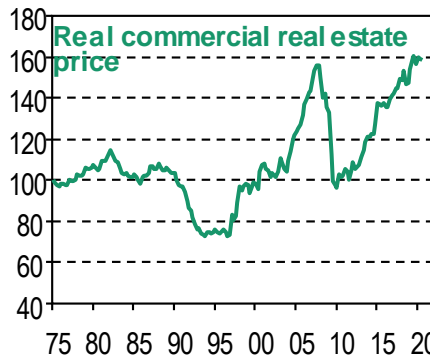


Market size of assets

(\$ billion)

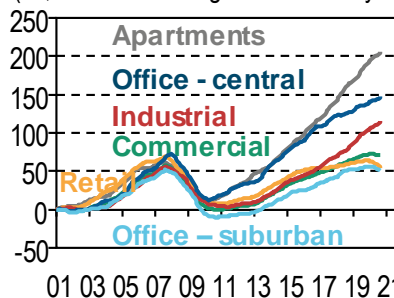


Commercial real estate

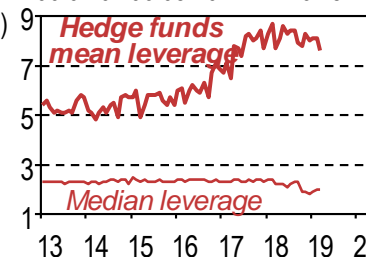


Commercial real estate prices

(%, cumulated change since January 2001)



Hedge funds mean leverage

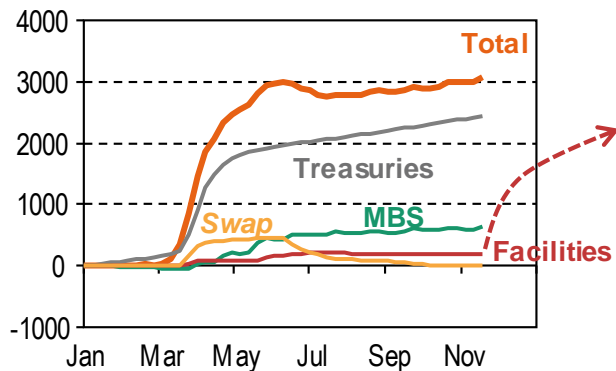


Leverage is computed by the Federal reserve as the ratio of hedge funds' gross notional exposure (including derivative notional exposures and the nominal value of all long and short positions) to net asset value.

Against this backdrop, restoring the Federal Reserve's ability to stabilize debt markets is important

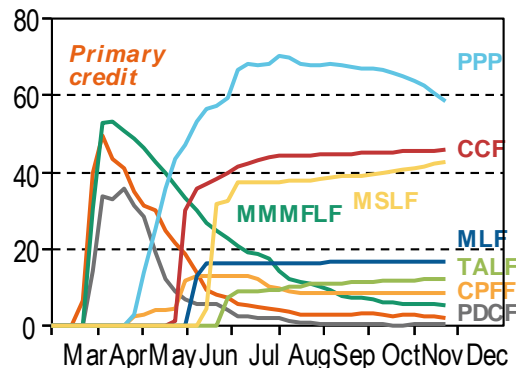
Federal Reserve assets

(\$ billion, cumulated change since January 2020)



New Fed facilities put in place since March 2020

(\$ billion)



PPP: Paycheck Protection Program Facility
MMMFLF: Money Market Mutual Fund Facility
CCF: Corporate Credit Facilities
CPFF: Commercial Paper Funding Facility
PDCF: Primary Dealer Credit Facility
MLF: Municipal Liquidity Facility
Term Asset-Backed Securities Loan Facility
MSLF: Main Street lending facility

Treasury contributions allocated to the new facilities

\$50 billions

out of the ESF \$90 billions

CPFF \$10 bln (ESF*)
MMMFLF \$10 bln (ESF)
PMCCF \$10 bln (ESF)
SMCCF \$10 bln (ESF)
TALF \$10 bln (ESF)

\$165 bln out of the

\$454 bln of the CARES Act

MSLF \$75 bln
PMCCF \$40 bln
SMCCF \$15 bln
MLF \$35 bln

Following the Treasury's request, the Federal Reserve will return the unused portion of the above funds, allowing the Congress to reappropriate $454 - 25 = \$429$ billion.

(*) Exchange Stabilization Fund

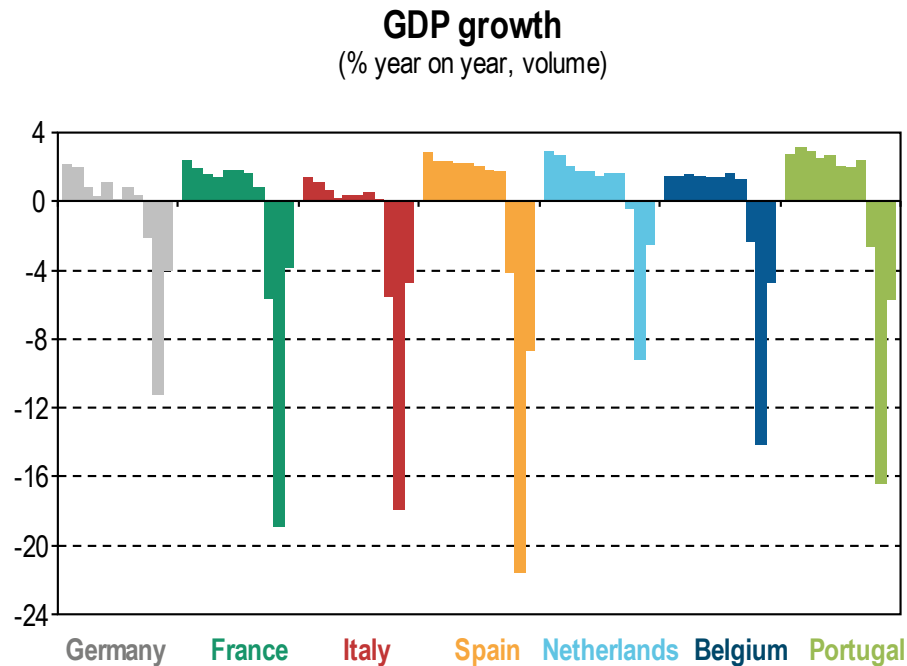
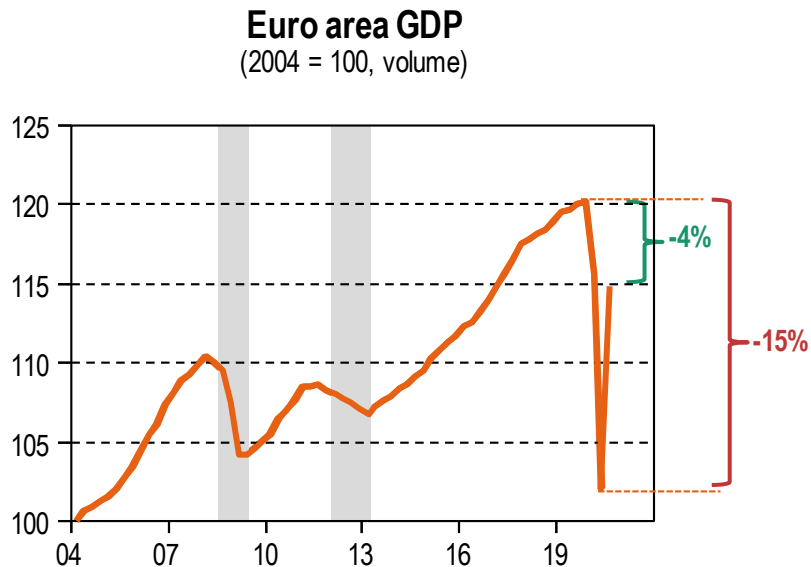


The Parliament approved the European Budget and an ambitious support plan... but their implementation is suspended.

4. EURO AREA

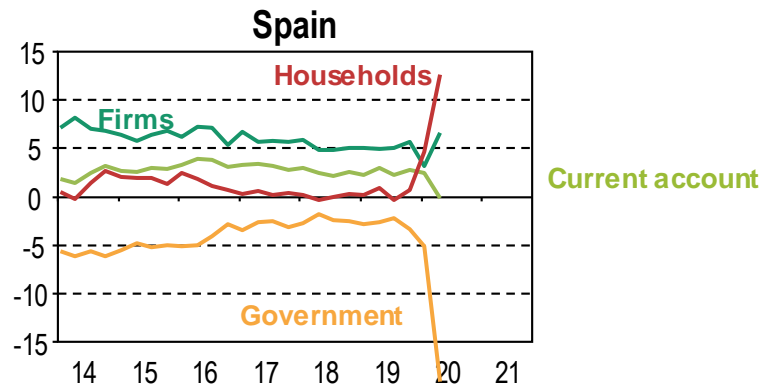
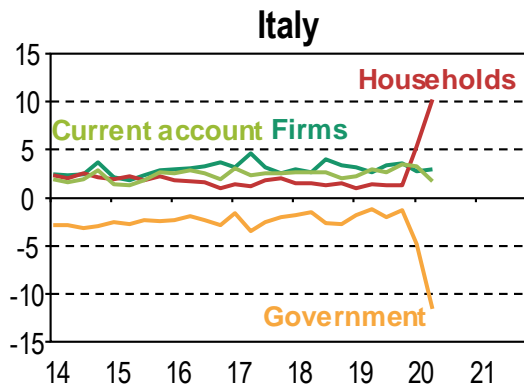
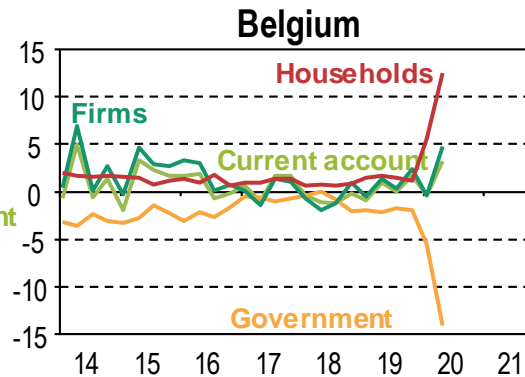
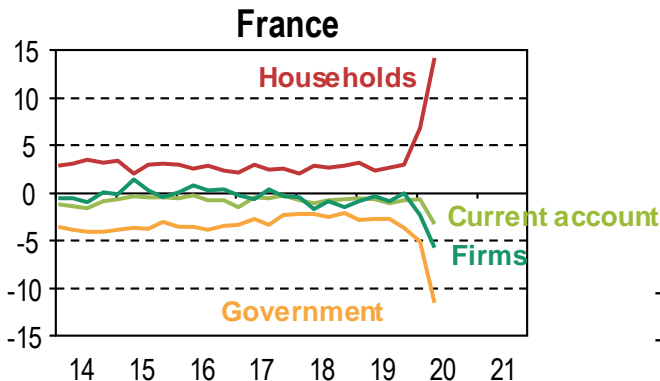
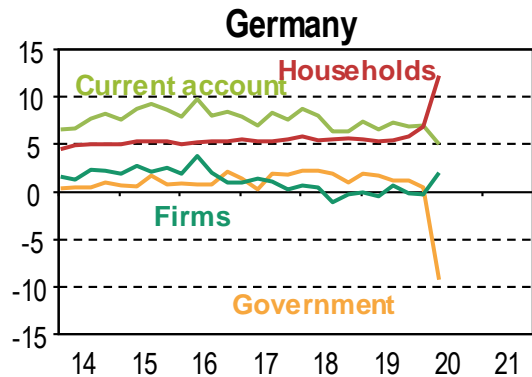
**A recovery...
threatened by the “second wave”?**

As in the United States, the economy rebounded in the third quarter



As in the United States, massive public deficits have faced the sharp rise in private savings

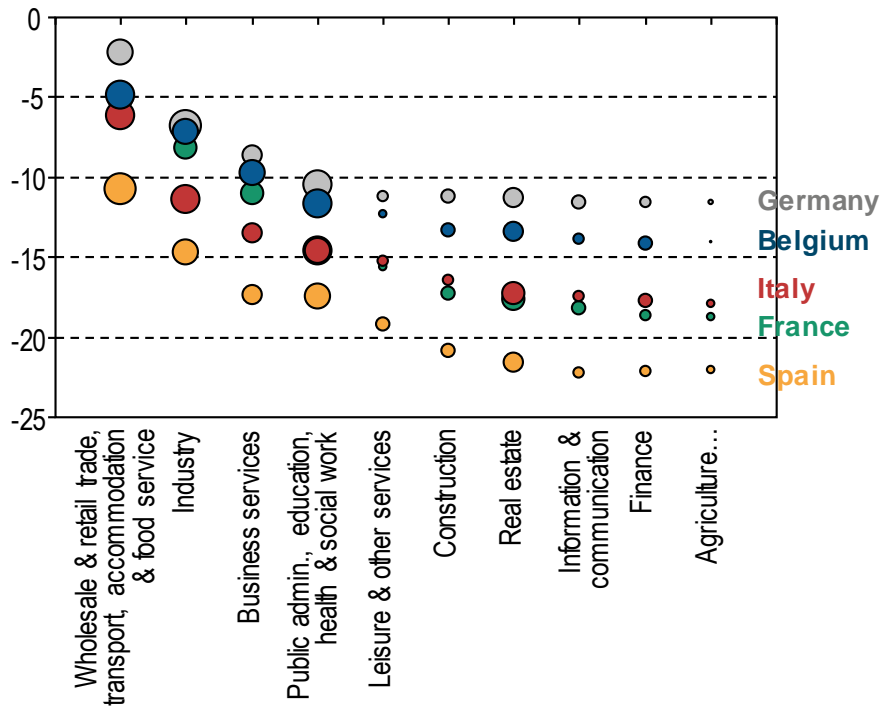
Net lending (+) / borrowing (-)
(% of GDP)



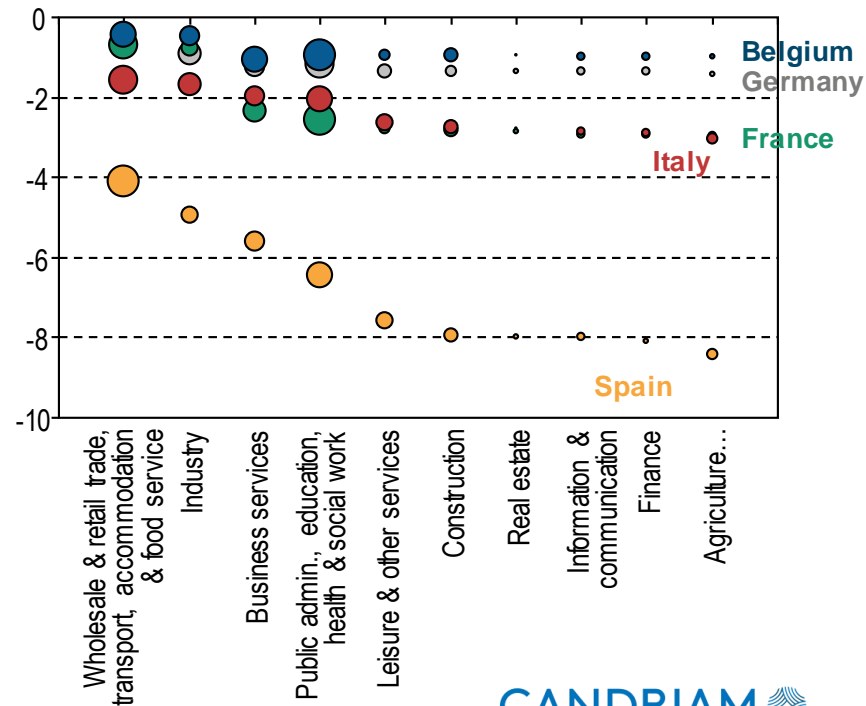
The shock on employment is far from having been the same across the area

Cumulated contributions by sectors (% 2020Q2 as against 2019Q4)

Contributions to growth

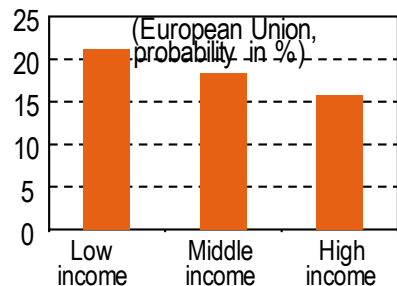


Contributions to employment

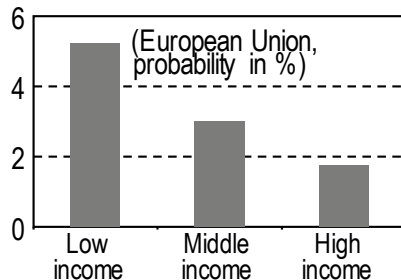


Low-skilled workers and low income earners were the most affected... in the Southern part of Europe in particular

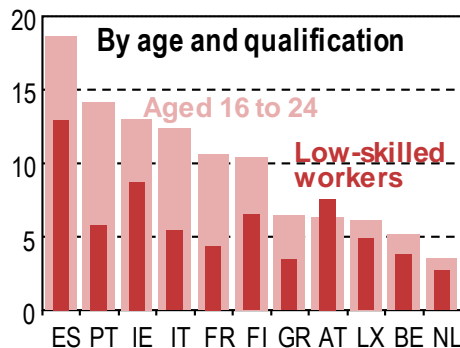
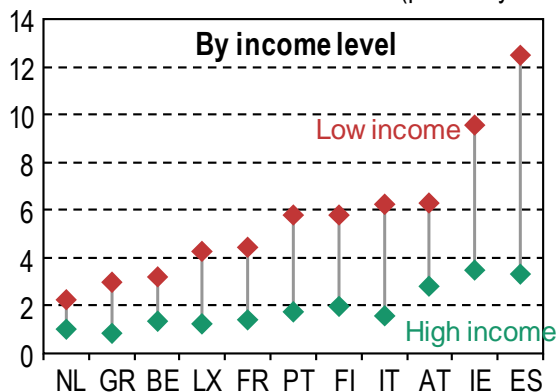
**Risk of temporary lay off
or reduced hours**



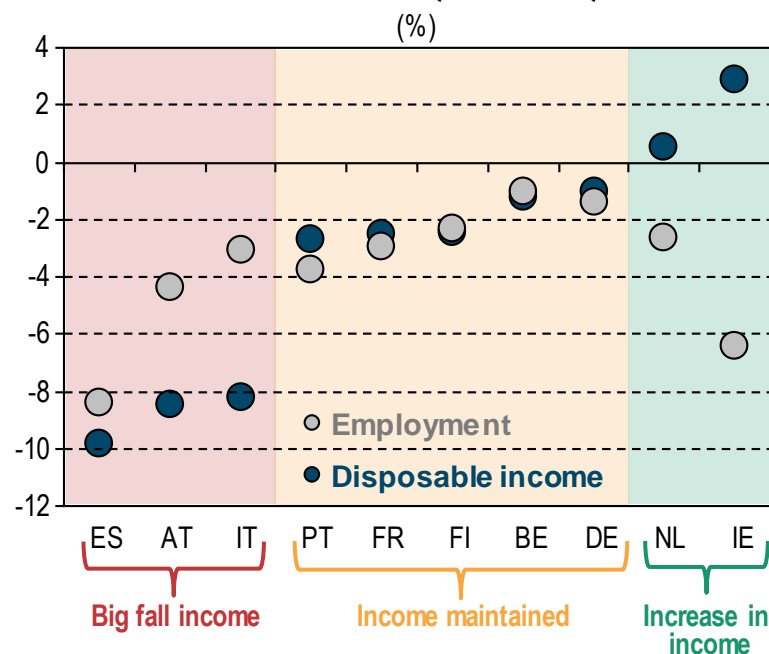
Risk of losing job



Risk of losing job by country
(probability in %)



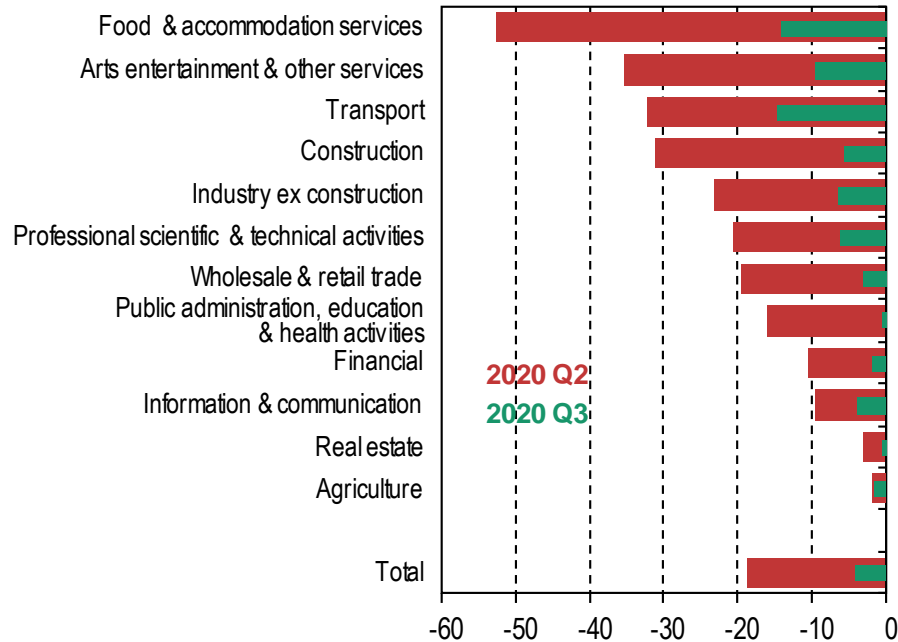
**Change in disposable income and employment
between 2019Q4 et 2020Q2**



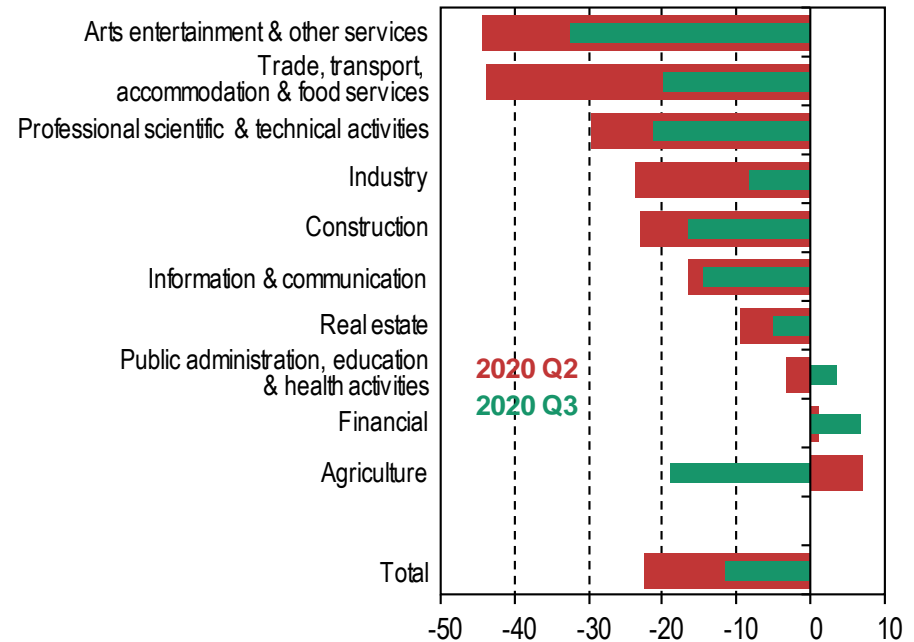
At the end of the third quarter, activity was far from being back to normal in the most affected sectors... in Spain in particular

Value added by sector (% change since 2019 Q4)

France



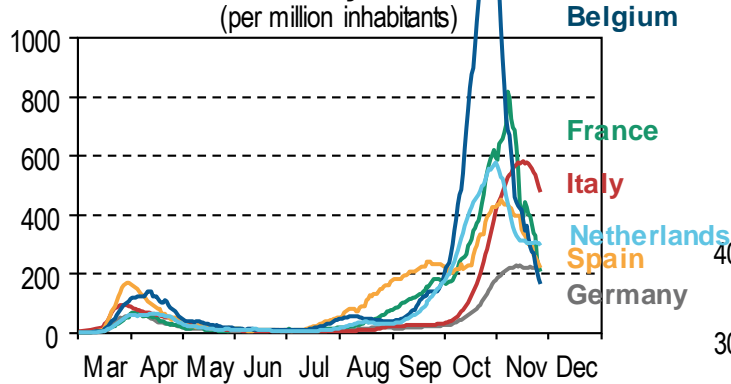
Spain



The renewed surge in Covid-19 cases since the beginning of October...

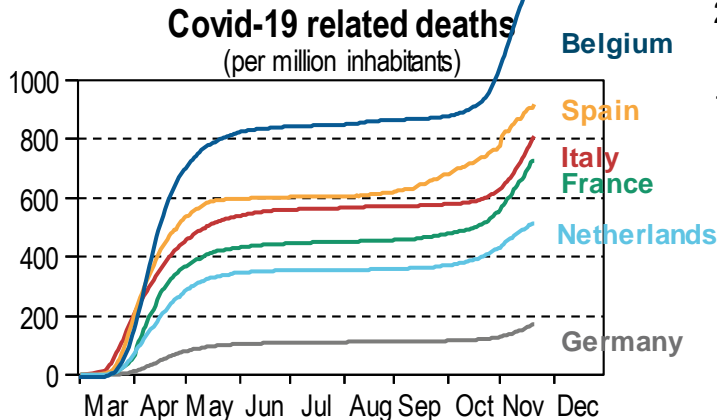
New daily cases

(per million inhabitants)



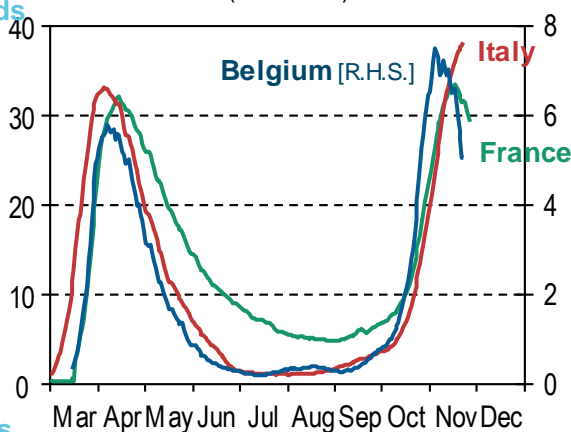
Covid-19 related deaths

(per million inhabitants)



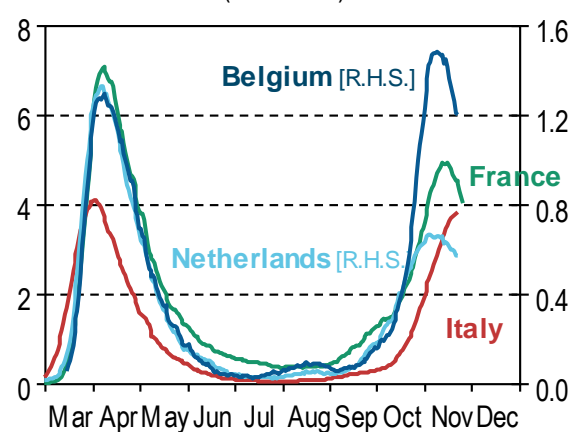
Hospital beds occupied

(thousands)



ICU beds occupied

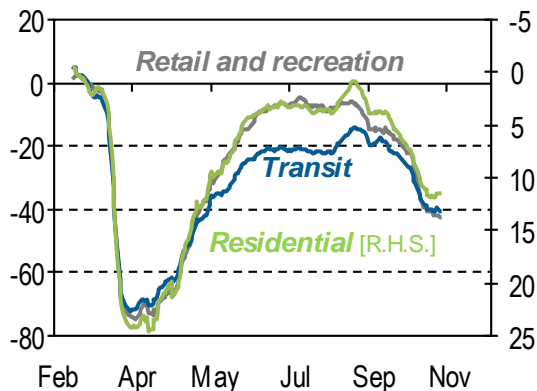
(thousands)



... has again curbed activity

Google mobility trend in the euro area*

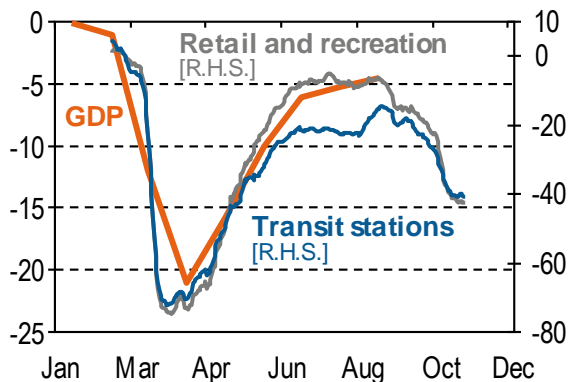
(% compared to normal, smoothed over 7 days)



(*) Calculated over the 11 largest euro area countries

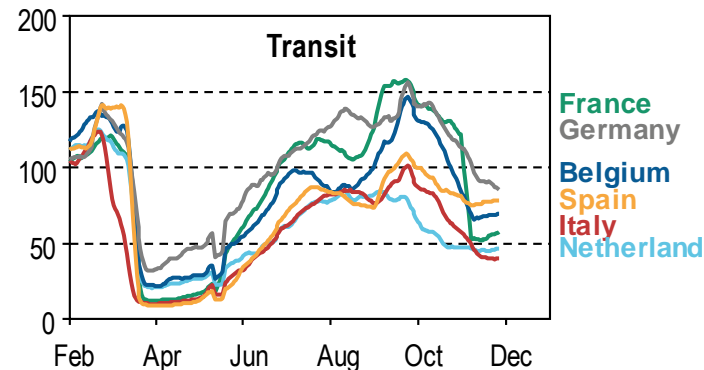
GDP compared to reference trend

(%)



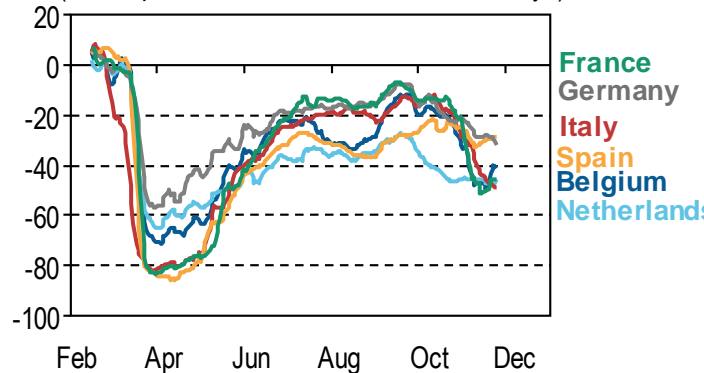
Apple mobility trends

(routing requests, January 13, 2020 = 100, smoothed over 7 days)



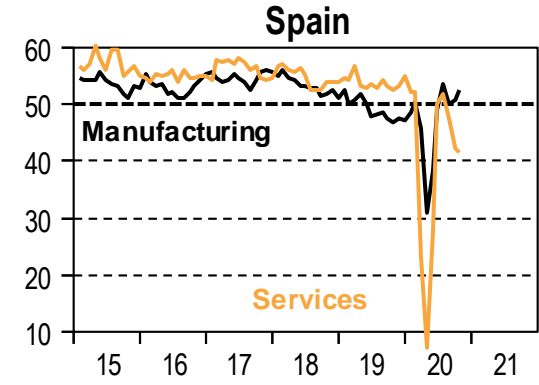
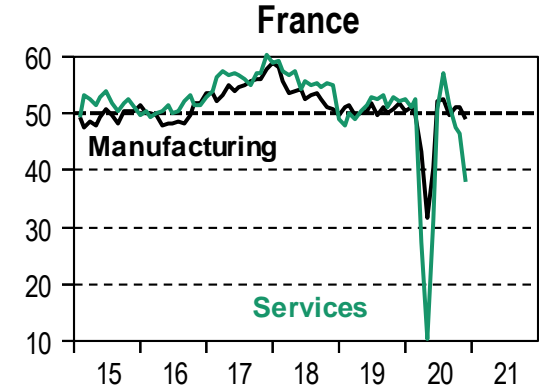
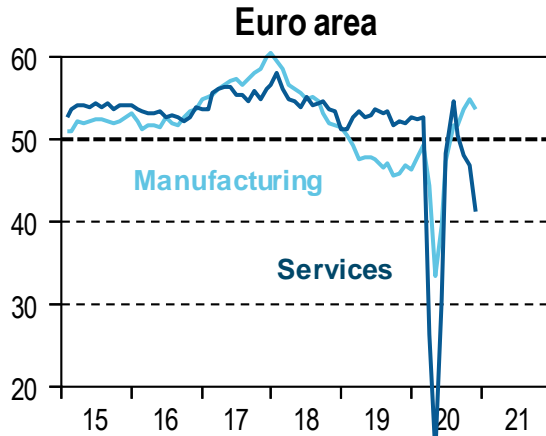
Google transit stations

(% compared to normal, smoothed over 7 days)

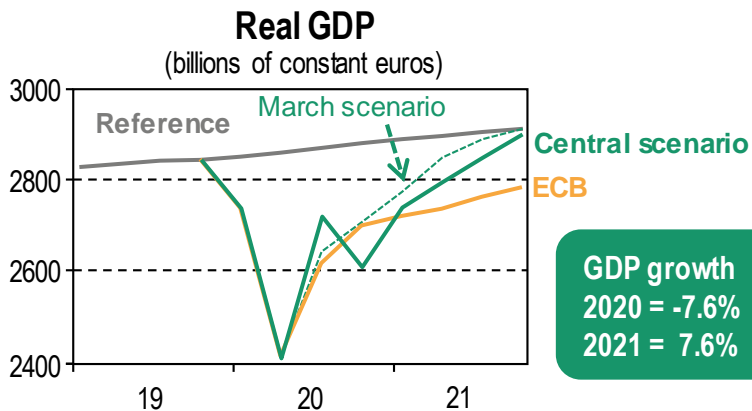


In November, services PMIs fell back

PMI indices

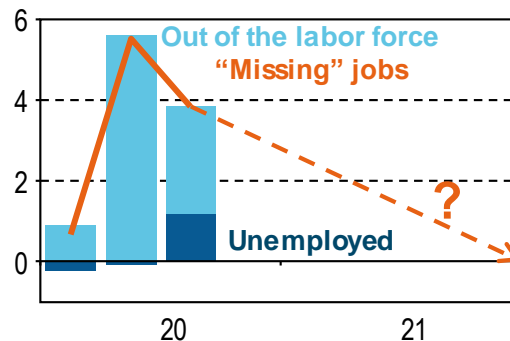


As in the United States, however, the prospect of massive vaccination makes possible a scenario of a return of the economy to its long-term trend by the end of 2021



"Missing" jobs compared to "normal"

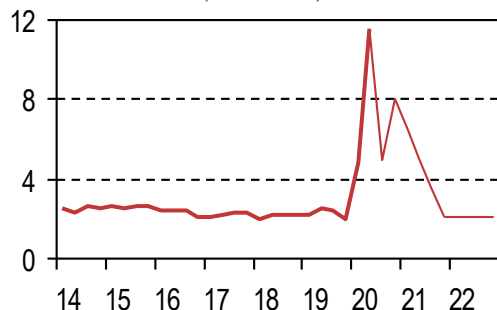
(millions)



Given the strong increase in the number of workers having left the labor force, 3.9 million jobs need to be created in order to return to 7.4% unemployment by the end of 2021.

Households financial savings

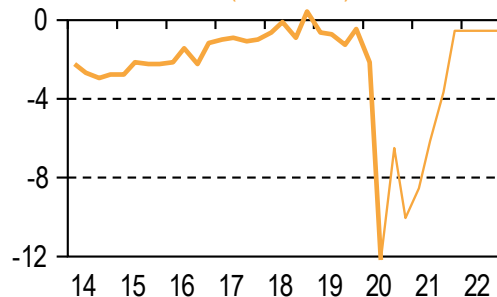
(% of GDP)



Financial saving
(% of GDP)
2020 = 7.2%
2021 = 4.3%
2022 = 2.1%

Budget balance

(% of GDP)

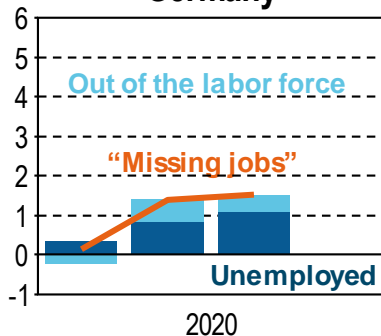


Budget balance
(% of GDP)
2020 = -7.6%
2021 = -4.7%
2022 = -0.5%

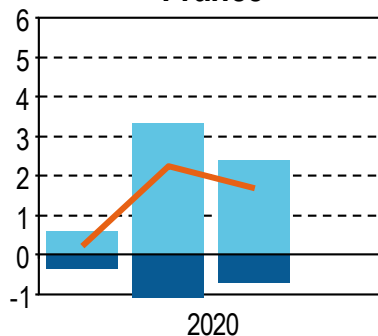
The crisis will however affect significantly labor markets notably in Southern countries where unemployment was already high

Missing jobs compared to “normal” (% of working age population)

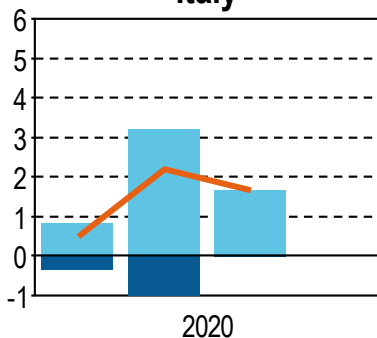
Germany



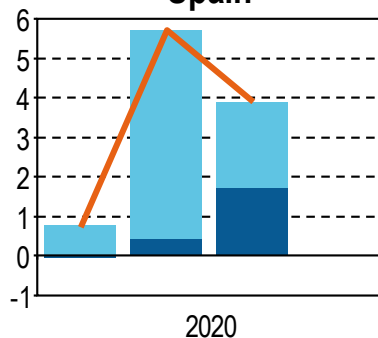
France



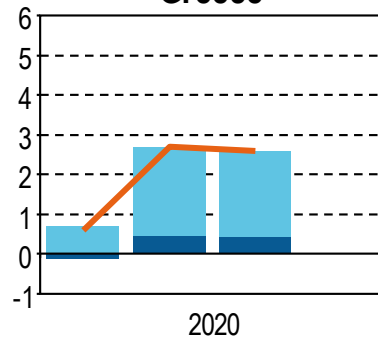
Italy



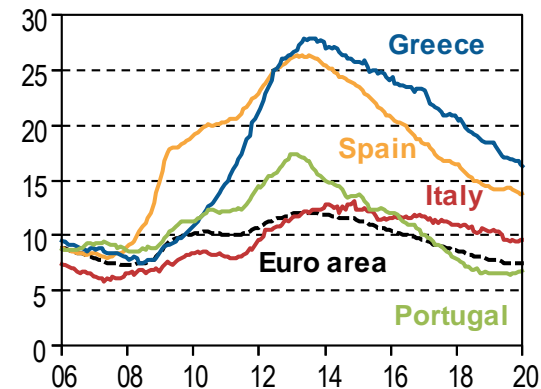
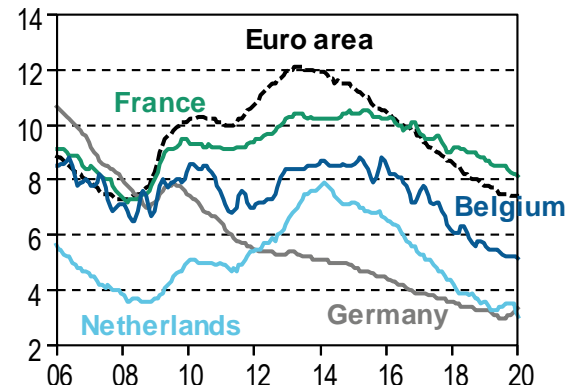
Spain



Greece



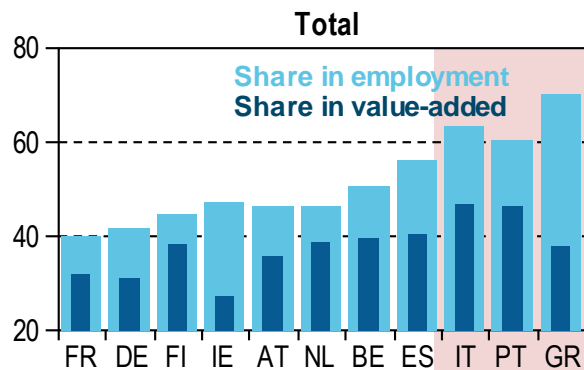
Unemployment rate (%)



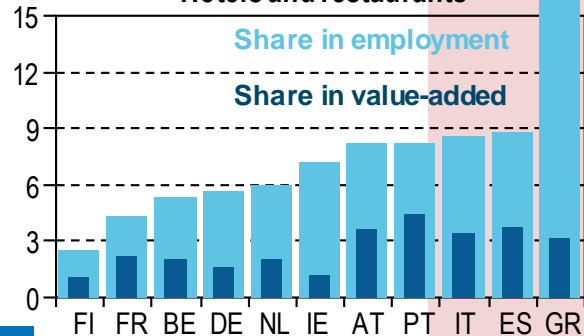
This crisis particularly affects small firms and the less-educated workers ... mainly in Southern countries

Share of small firms

(< 50 employees, % of total ex financial sector, 2018)

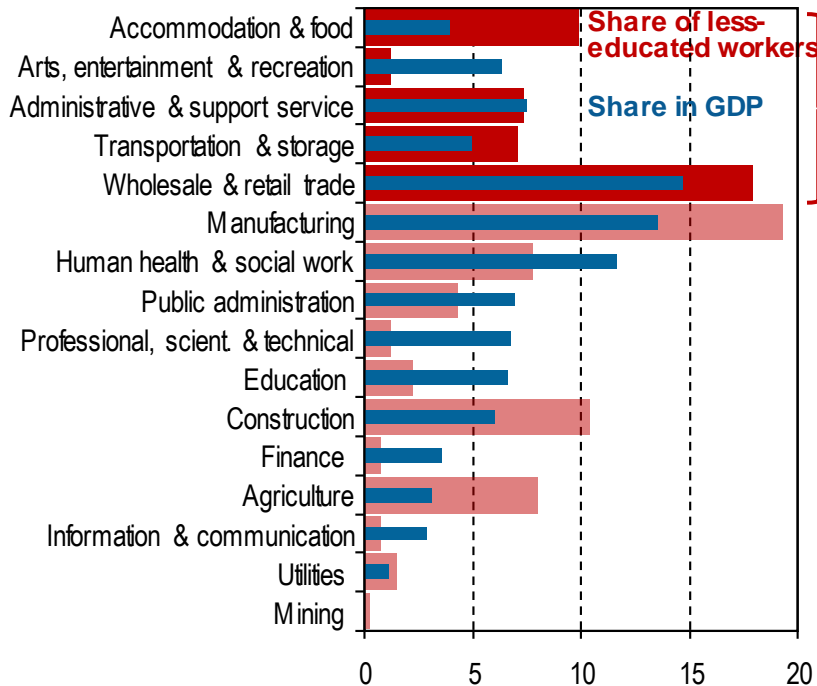


Hotels and restaurants



Sectors' share in GDP and in lower educated workers employment

(%, euro area, 2018)

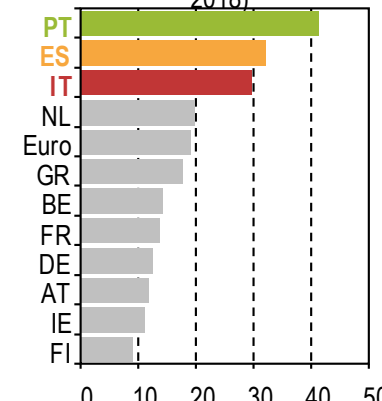


Most impacted sectors

27% of GDP
34% employment
47% of less-educated employment

Share of jobs held by persons with less than upper secondary education

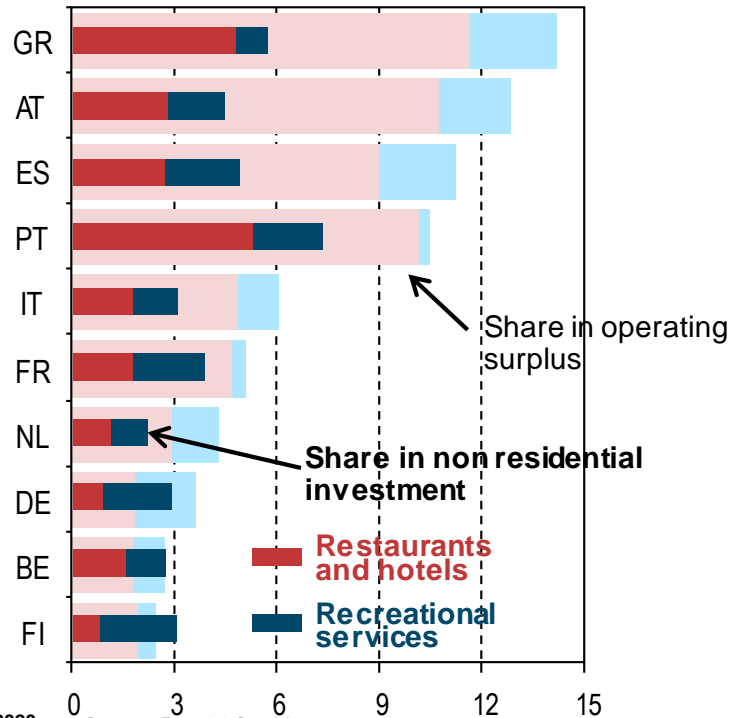
(% of employment in each country, 2018)



The share in investment of the most affected sectors is relatively small, but in many countries the support to firms has been modest...

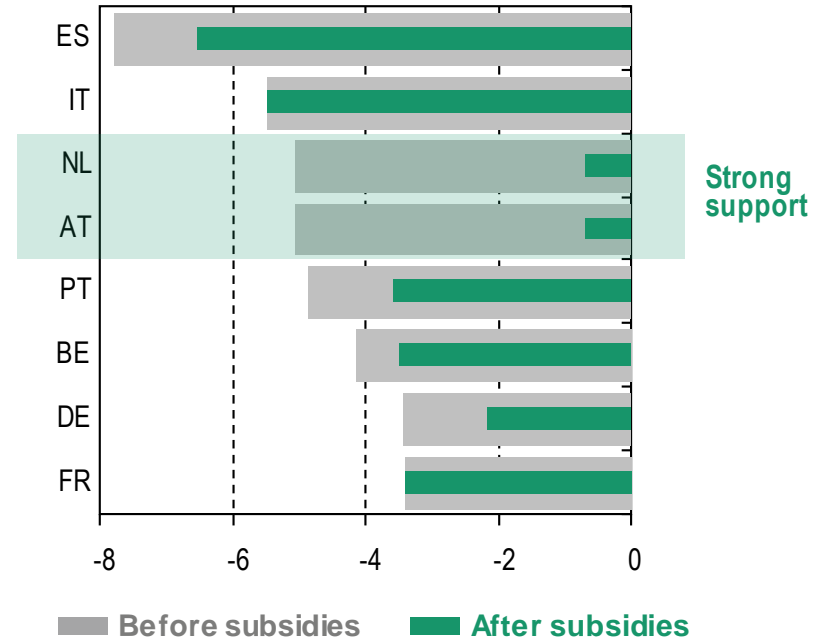
Share of the most affected sectors in operating income and in investment

(total economy, %, 2019)



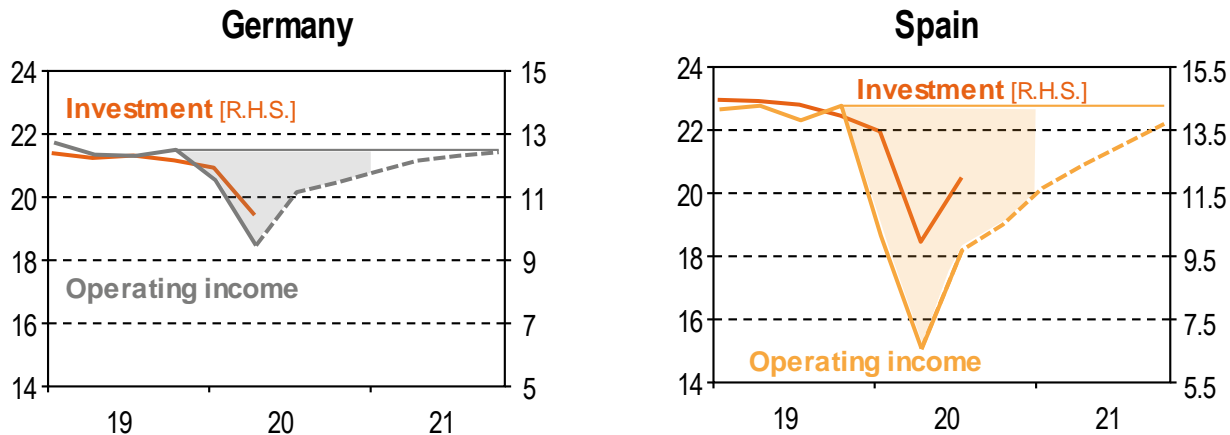
Operating losses before and after subsidies

(% of trend GDP, 2020)



... and in the most affected countries the risk of an investment contraction is real

Non financial corporates operating income and investment (% of 2019 GDP)



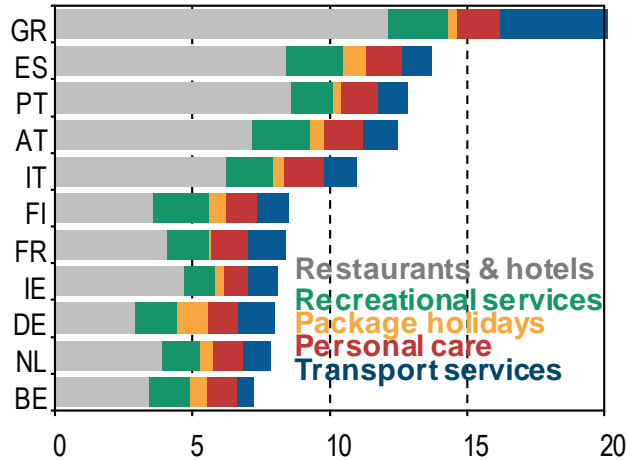
Operating income losses as a share of reference gross investment

Germany		Spain	
2020	2021	2020	2021
13	3	36	11

All in all, some euro zone countries may have difficulties to return to their previous growth trajectory by end of 2021

Effect on demand of protracted social distancing

Consumption by product
(% of country GDP)

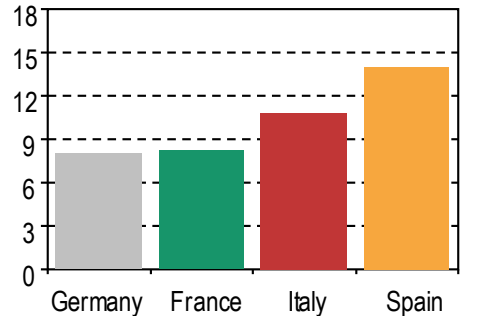


Demand for some services may be slow to return to normal: a 10% drop in the consumption of services affected by social distancing would take two points off Greece's growth and more than one point off that of Spain, Portugal, Austria and Italy.

Effect on supply of possible coming bankruptcies

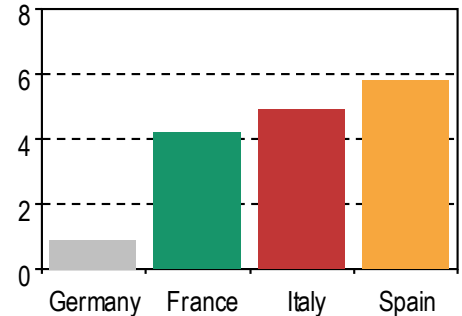
According to a study by the ECB, the fall in activity could lead to the bankruptcy of the most vulnerable firms. As long as the labor force "freed up" by these bankruptcies is not re-employed and other firms are not appearing, the potential of the economy will be lower.

Employment at risk*
(% of non financial corporations' employment)



(*) Total number of employees working in firms at risk of exit (defined as firms with negative working capital and high leverage) in each country as a percentage of the workforce of the non-financial corporation sector.

Capital at risk**
(% of capital stock)

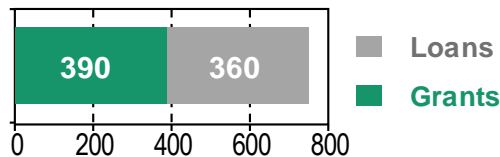


(**) Assuming 40% of capital is scrapped after firm exit.

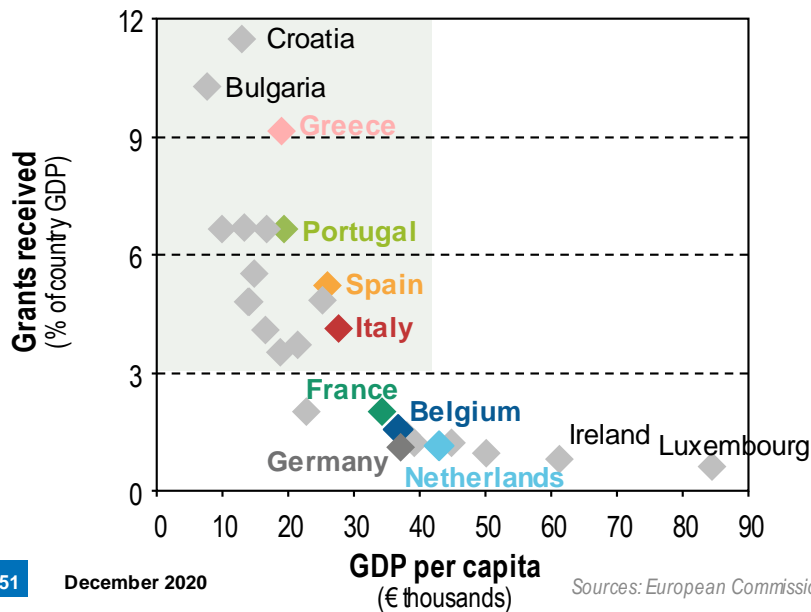
Next Generation EU funds should help the most affected countries, but their disbursement will be spread over several years

Next Generation EU

(€ billion)

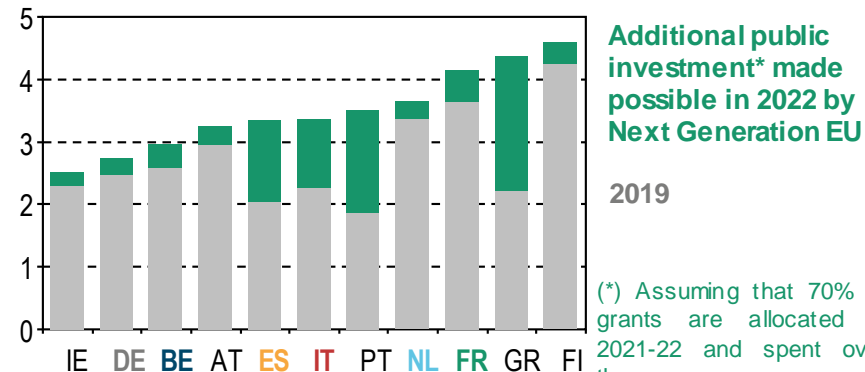
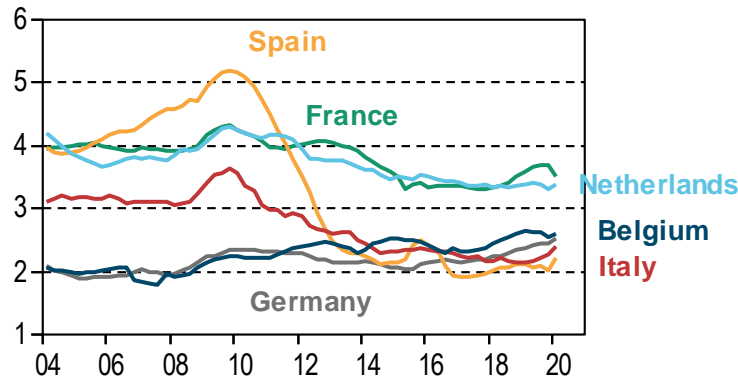


Who will receive the €390 billion in subsidies?



Gross public investment

(% of GDP)



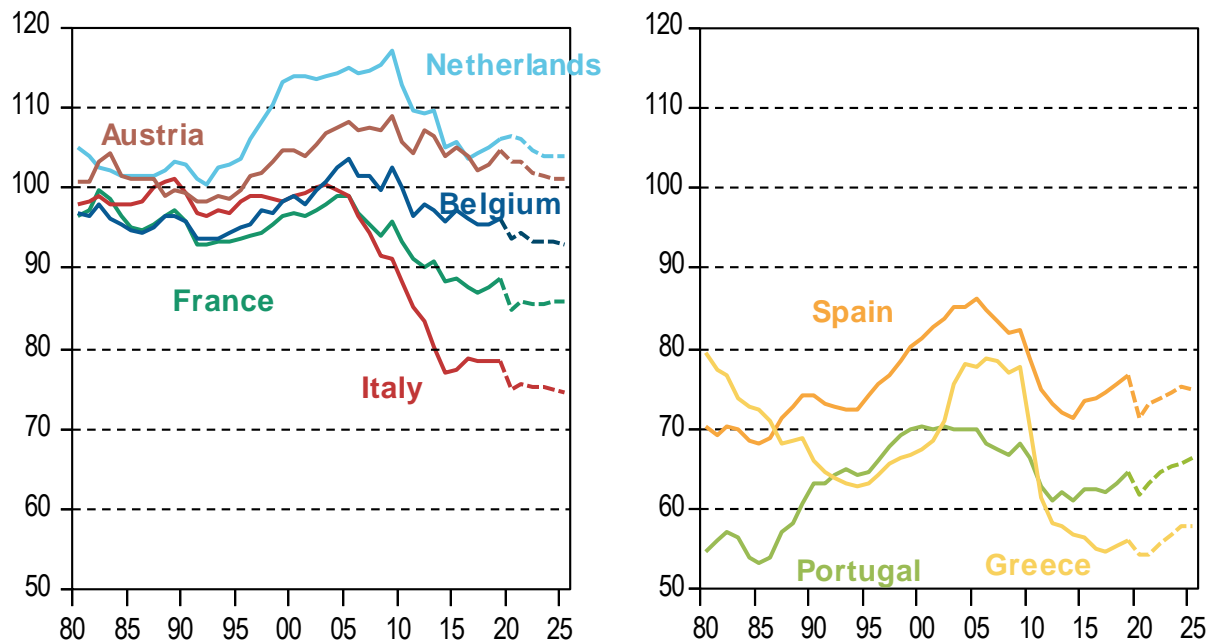
(*) Assuming that 70% of grants are allocated in 2021-22 and spent over three years.

Sources: European Commission, Refinitiv Datastream, Candriam

The crisis is thus likely to further widen the gap in living standards between euro zone countries

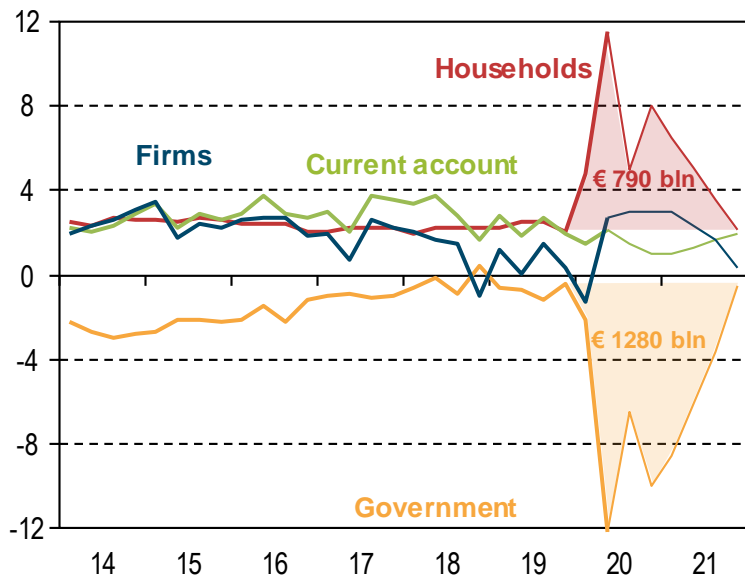
Country GDP per capita versus Germany

(PPP dollars, IMF forecasts)



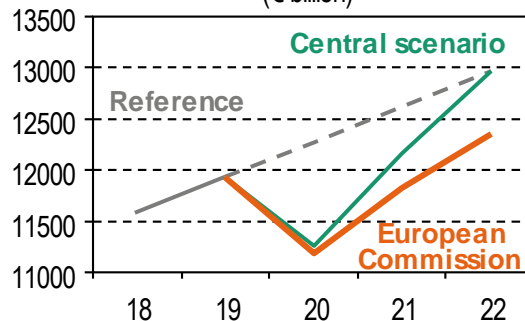
More public debt will have to be financed and the savings that are the counterpart will have to be mobilized

Net lending (+) / borrowing (-)
(% of GDP)



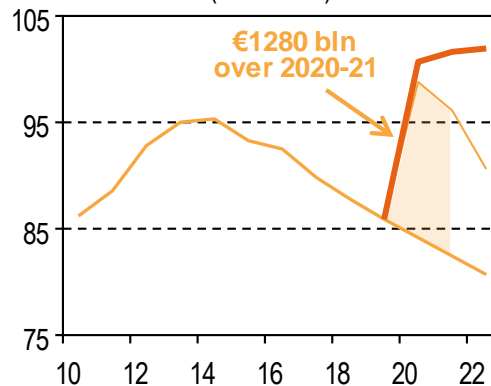
Nominal GDP

(€ billion)



Euro area governments' debt

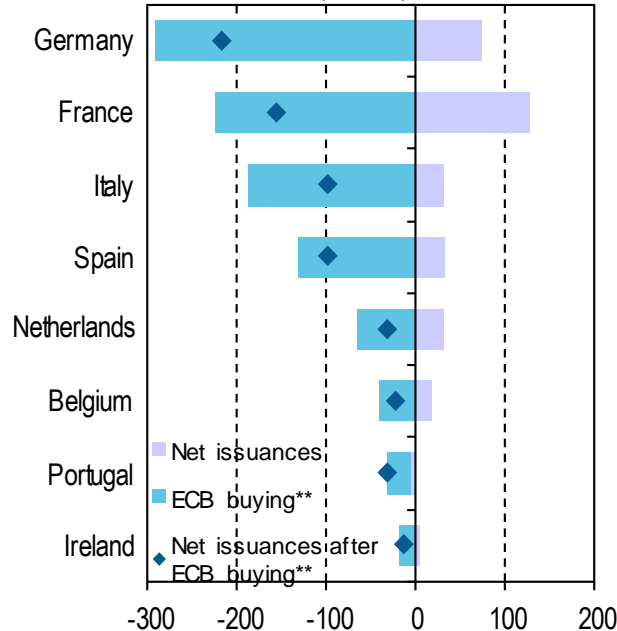
(% of GDP)



European Commission
(€1600 bln of additional debt by end of 2021 and €2100 bln by end of 2022)

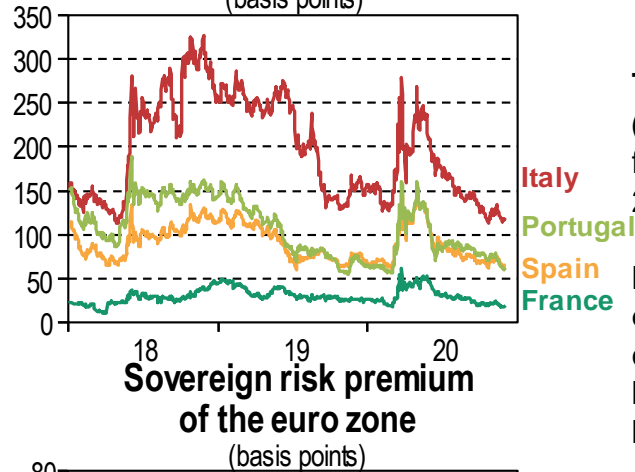
The ECB will greatly facilitate this mobilization!

Net government bonds issuances and ECB buying in 2021**
(€ billion)

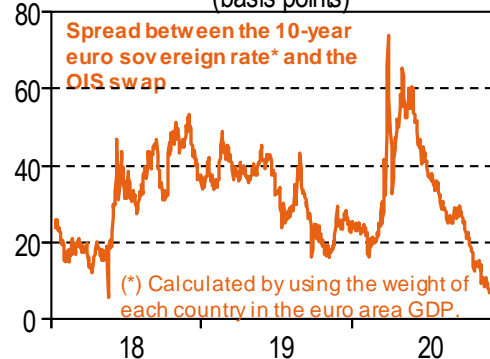


(*) Assuming that government bond purchases through the APP average 15 billion euros per month and the size of PEPP is increased by an additional €500 billion in 2021.

Interest spreads against Germany
(basis points)



Sovereign risk premium of the euro zone
(basis points)



(*) Calculated by using the weight of each country in the euro area GDP.

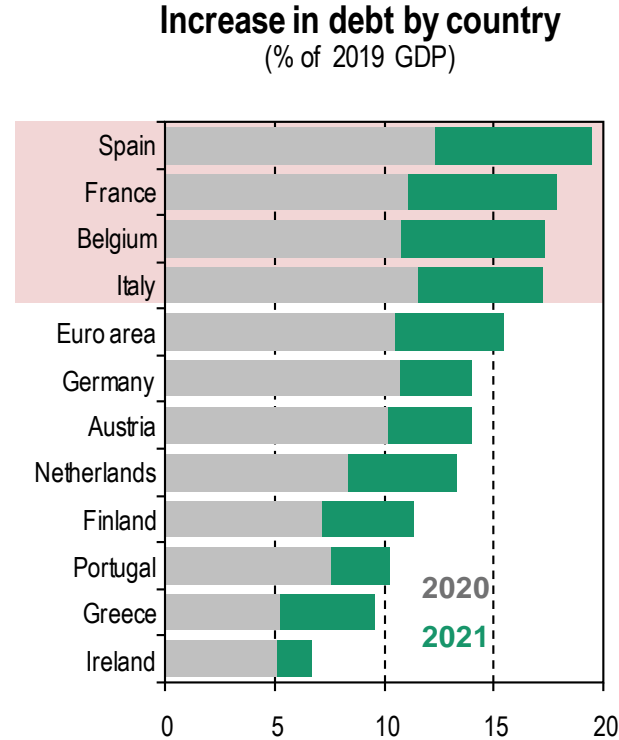
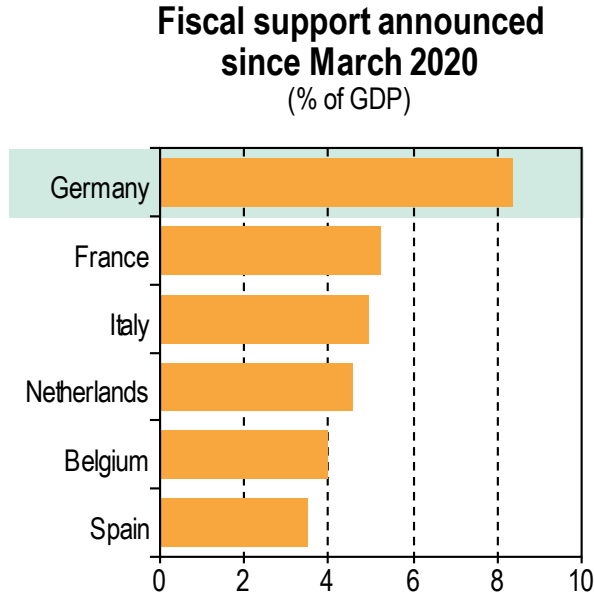
Main measures already taken by the ECB

Targeted refinancing operations (TLTROs) at interest rates ranging from -0.5% to -1.0% between June 2020 and June 2021.

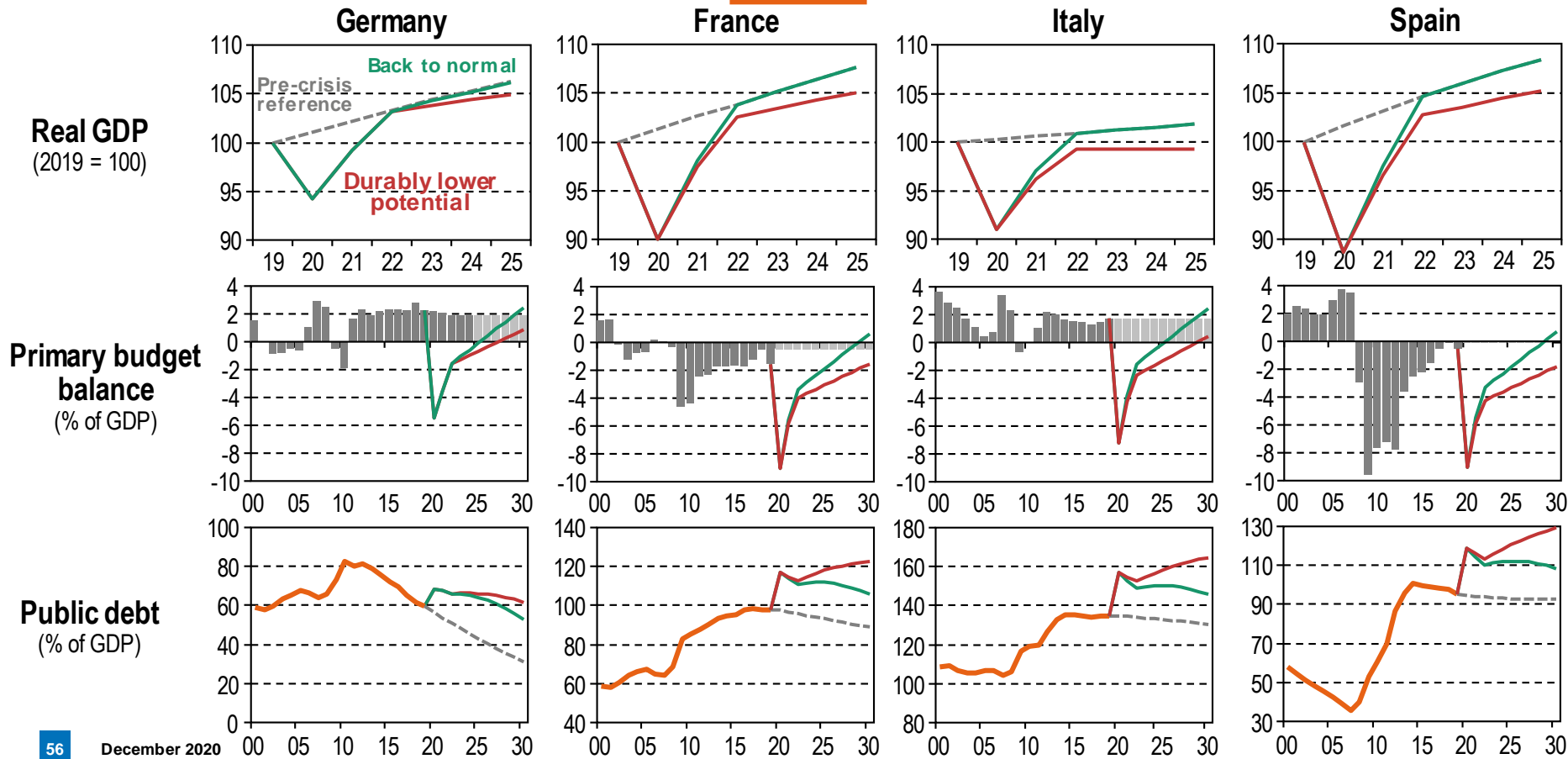
Increase in net asset purchases of 120 billion euros until the end of the year (in addition to the 20 billion euros per month foreseen before the crisis).

Launch of a new €1,350 billion Pandemic Emergency Purchase Program (PEPP). This program is flexible: its size, duration and composition can be adjusted.

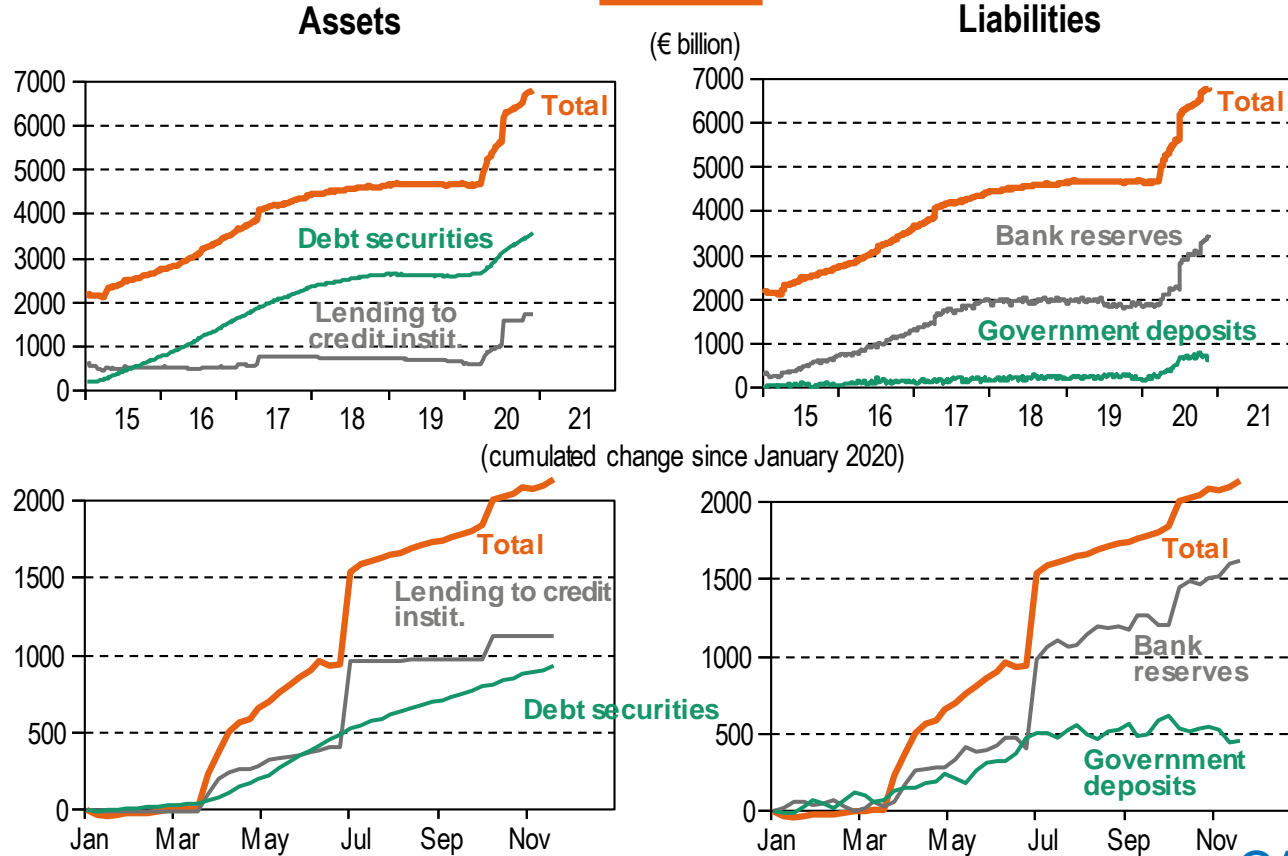
The crisis will nevertheless seriously deteriorate the financial trajectory of the most indebted States



In the coming years, euro countries risk being forced to keep moving towards more financial solidarity

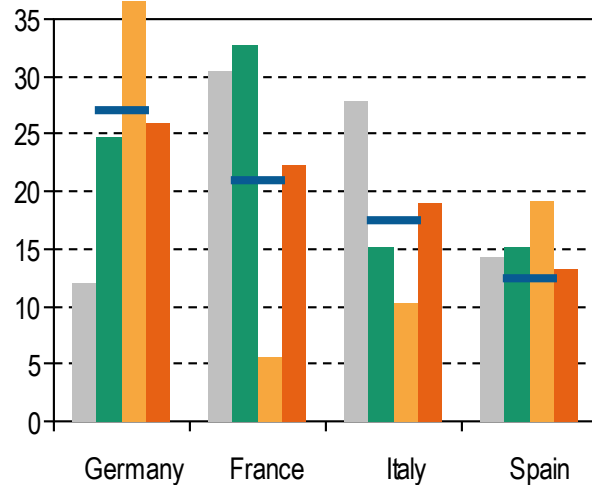
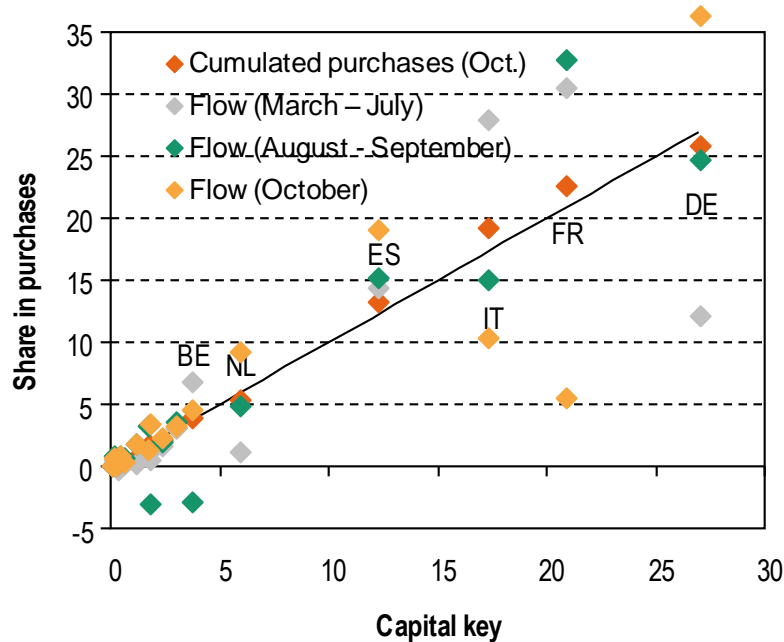


Memo: ECB balance sheet



Memo: ECB Public Securities Purchase Program (PSPP)

Public Sector Purchase Program

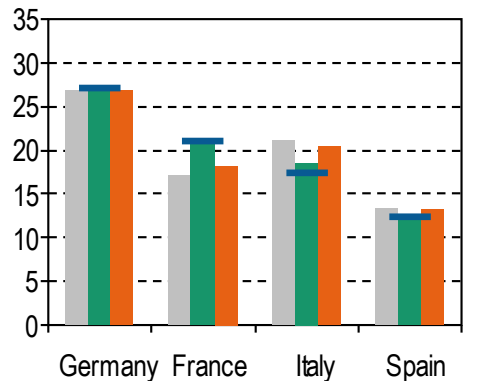
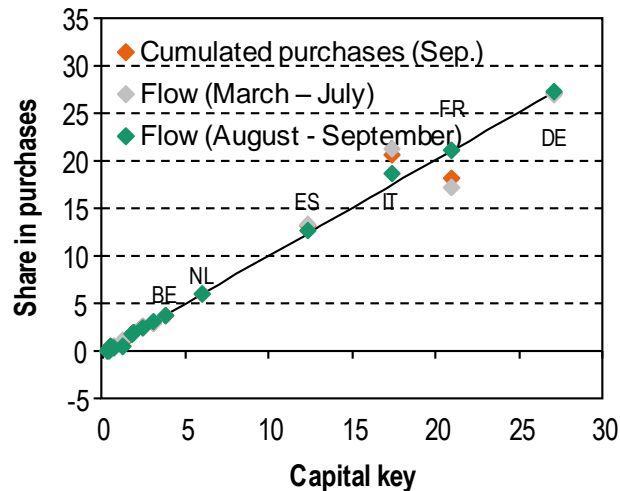


- Cumulated purchases (Oct.)
- Flow (March - July)
- Flow (August - September)
- Flow (October)
- Capital key

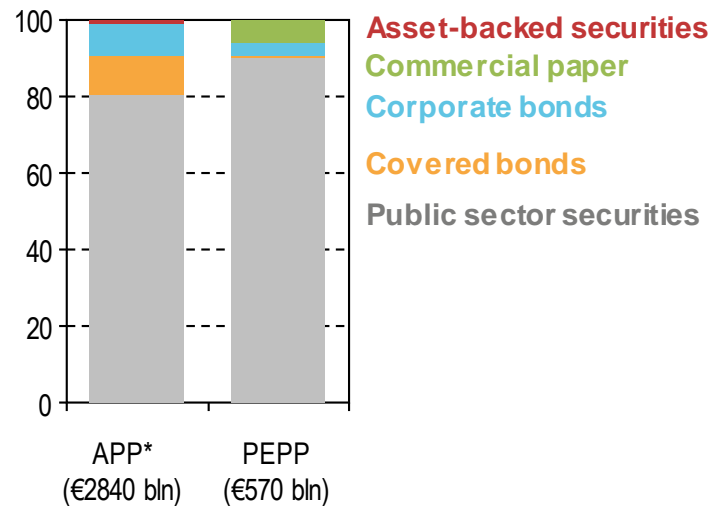
Memo: ECB Pandemic Emergency Purchase Program (PEPP)

Pandemic Emergency Purchase Program

Assets composition of ECB purchase programs (%, end of September 2020)



- Cumulated purchases (Sep.)
- Flow (March – July)
- Flow (August - September)
- Capital key

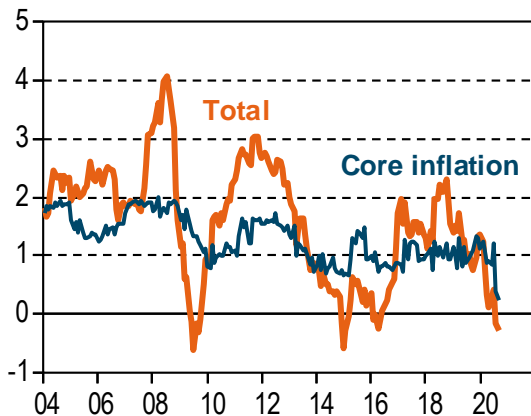


(*) Asset Purchase Programs

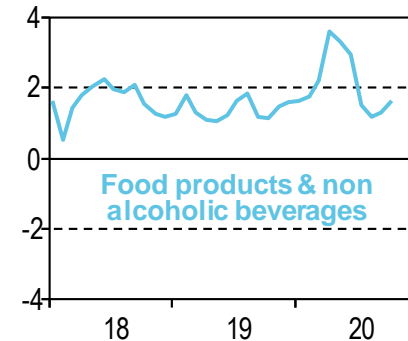
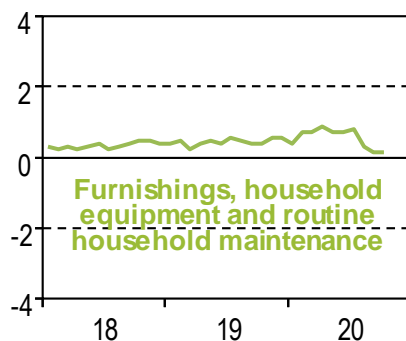
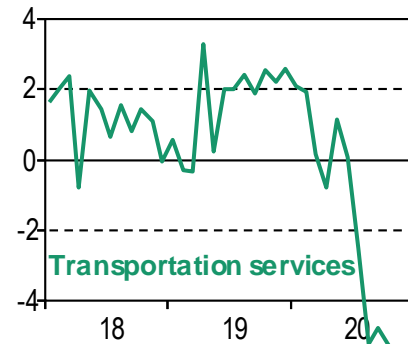
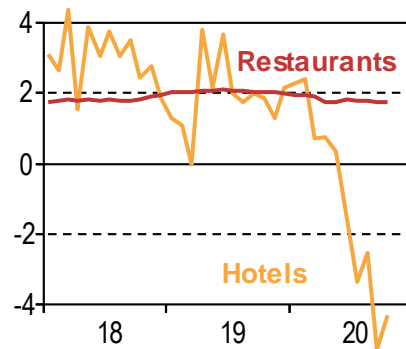
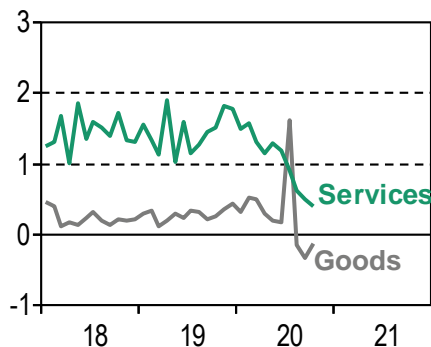
Memo: Euro area CPI

Consumer Price Index

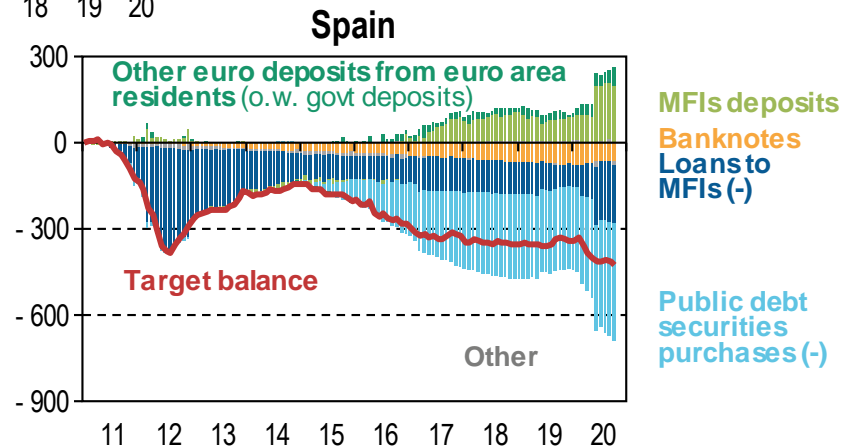
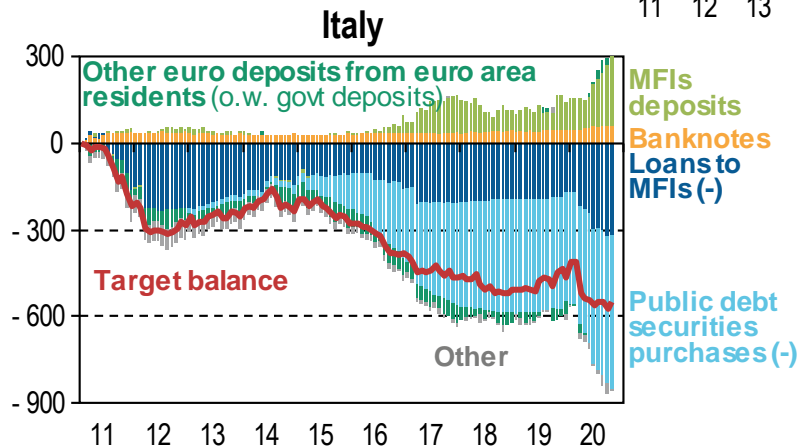
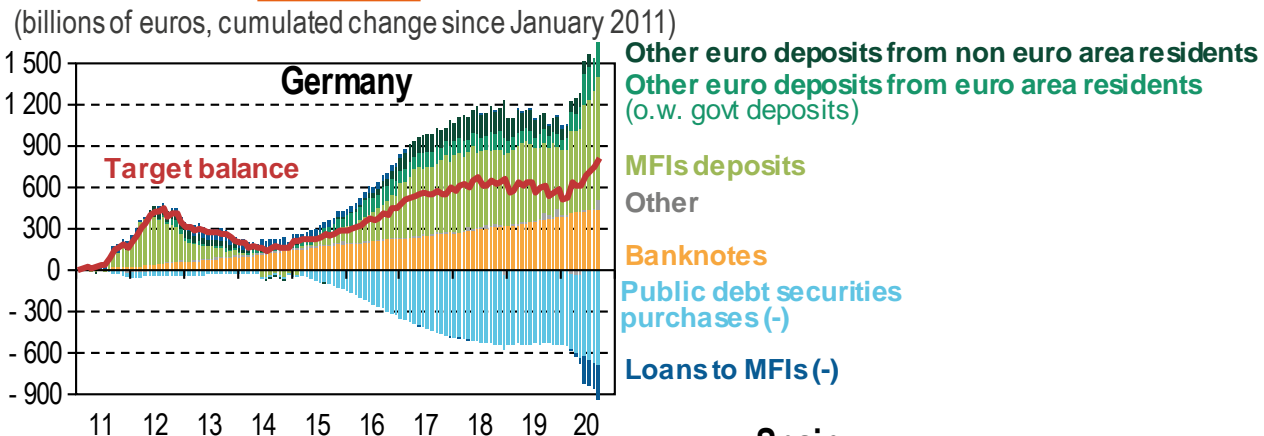
(% year on year)



Core inflation



Memo: national central banks balance sheet and contribution to Target balance



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