Economy & Rates
New reference points

06/05/2020

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(figures and charts updated on 6 May 2020)

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Summary & Tables of forecasts

Summary
New reference points

- We are starting to get our bearings in the lockdown regimes that almost all countries have imposed on their productive systems to limit peoples' movements to the bare essential and, in so doing, to stem or slow the spread of the coronavirus. These bearings fall within a quite different reference point from what we are familiar with. In an ordinary recession, the level of activity drops by a few percentage points over several quarters. This time, production has plunged almost overnight by between 15% and 35%, depending on the country. In an ordinary recession, job destructions in a country such as the US amount to 3% of the labour force, also staggered over several quarters. In a long and severe recession such as the one in 2008-2009, this figure exceeded 6%. In the present recession, they have reached around 15% in a matter of just a few weeks. We could easily offer more examples. Banal as it is to say so, the reality is that this shock is unprecedented (see page 4). This obliges us to show humility when trying to predict what comes next, namely the lifting of lockdown measures.

- The lockdown was sudden. The decontainment period will be gradual. Distancing measures will persist for some time, and obviously no-one can be sure that there will not be another lockdown in case of a second wave. The re-opening of production and trade facilities will be reflected in a sharp recovery in production and consumption. We have seen this in China over recent weeks, and it will be the same story elsewhere. Given how depressed they are today, it is hard to imagine that consumer and business confidence indices can go any lower. April may well have been the "worst" month of this crisis. What follows will not be as bad, but this does not mean that the shock will be reversed rapidly. Firstly, it takes time and money to restart the economy. Secondly, the shock, as brief as it may be, is of such magnitude that it will cause lasting damage to production factors (rise in unemployment and bankruptcies) and productivity. Lastly, until a large-scale treatment of the Covid19 exists, the degree of uncertainty will remain higher than normal, leading to postponements of consumer and investment spending. In all cases, recovery profiles will be shaped in large part by the conditions of decontainment plans (see pages 13-17).

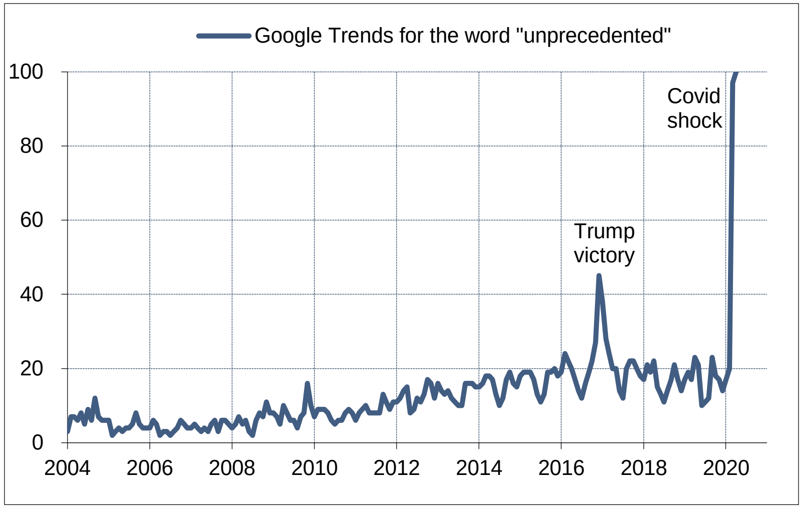
- The only truly reassuring point is that the economic policy response, in particular by central banks, appears proportional to the severity of the shock. By ensuring that financial institutions do not lack liquidity and that the real economy does not suffer from a credit crunch, they are preventing a financial crisis from adding to the health crisis and the economic crisis (see pages 18-23).

- The current crisis has raised – or, more precisely, revived – a few key questions about the future functioning of the world economy (see pages 24-29). One relates to the cost of the crisis or, put differently, the rise in public debt. On average in developed countries, debt/GDP ratios are set to climb by around 20pts. The solvency of states depends less on the level of debt than on the rate at which it can be refinanced. This is why central banks can be expected to prolong, more or less explicitly, the monetisation and the control of yield curves. A second question relates to the inflation regime that will emerge from this crisis. After a long disinflation phase (post-1980) and another phase of deflationary concerns (post-2008), some have argued that inflation will start rising again. This thesis, constantly contradicted by the facts over the past decade, reflects a misunderstanding of monetary policies. It overlooks the fact that money creation does not lead to runaway inflation when underemployment is so massive. In reality, the present shock is fundamentally deflationary. Another problem relates to globalisation. The present crisis, some armchair futurologists predict, will lead to a relocation of all production and sound the death knell of complex value chains. Unless the capacity for trade is constrained by some authoritarian hand in a sort of permanent semi-lockdown regime, it is hard to see why there would be a collective repudiation of the benefits of free trade (lower costs, more efficient production and extension of markets). That said, the global economy's dependence on China – one of the most visible facets of globalisation over the past 20 years – is likely to be called into question. Besides the fundamental reasons for criticising China, such as restricted access to its domestic market, non-compliance with competition rules and opacity, there are other more political ones. As November elections approach in the US, President Trump will probably step up his criticisms of China so he can pose as the protector of the American people. The trade war, which was the focus of so much attention since 2018 before being overshadowed by the coronavirus, can therefore be expected to stage a resurgence in the months ahead. Health-related uncertainty will recede, or so we hope, but economic, financial and political uncertainty is not over yet.

Unprecedented…

Use of the world "unprecedented " is itself… unprecedented ①. Even going far back in time, there has never been such a steep drop in business confidence both globally and in most countries considered individually ②. Nor has the number of unemployed ever risen so astronomically ③. Nor have central banks ever been so active in stemming the damage ④.

①



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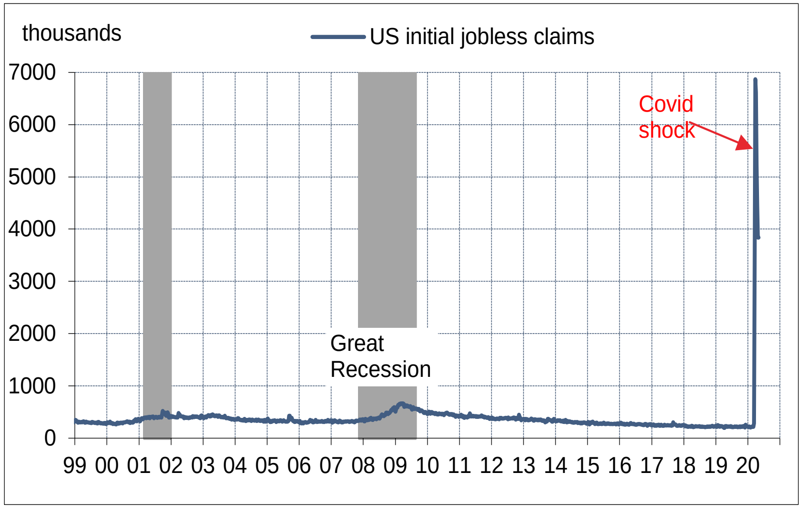

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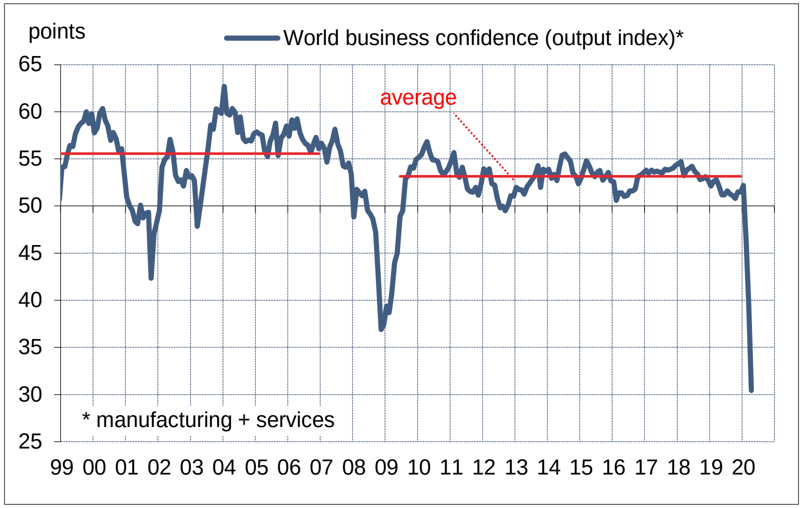

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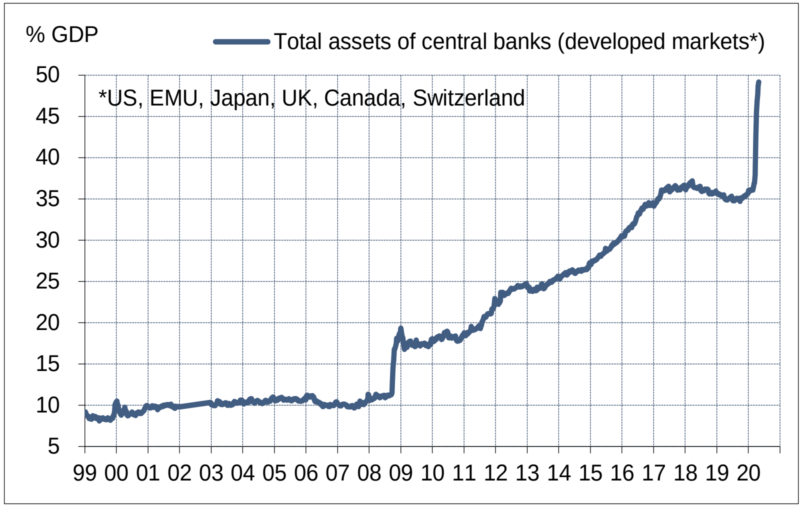


06/05/2020

Source: Google, Thomson Reuters, ODDO BHF

Table of forecasts (1)

Note for the reader – In view of the exceptional nature of the shock, forecasting is highly dependent on assumptions made about the length of lockdowns and the pace at which economies are restarted.

Our baseline assumption is a strict lockdown of around two months (from mid-March to mid-May in developed countries) and a gradual lifting of most distancing measures over two months.

Alternative scenarios are mainly on the downside and hinge on the evolution of the health crisis (second wave of infection or stricter decontainment conditions) and any lasting effects from the shock (rise in precautionary savings or tighter financial conditions).

See our *Eco Flash* of 21 April: *"Four profiles for a recovery"*

FORECASTS - REAL GDP GROWTH*

	Average			2019				2020				Consensus**		IMF***	
	2019	2020	2021	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2020	2021
World	3.1	*-4.0*	*6.5*											-3.0	5.8
US	2.3	*-5.8*	*5.4*	3.1	2.0	2.1	2.1	*-5*	*-41*	*31*	*15*	-4.0	3.9	-5.9	4.7
EMU	1.2	*-6.6*	*5.9*	1.9	0.6	1.2	0.4	*-14*	*-32*	*28*	*14*	-5.7	5.4	-7.5	4.7
- Germany	0.6	*-6.5*	*5.6*	1.9	-1.0	0.8	0.1	*-10*	*-36*	*28*	*13*	-5.0	4.5	-7.0	5.2
- France	1.3	*-7.8*	*6.8*	1.5	1.2	1.1	-0.3	*-21*	*-30*	*31*	*15*	-5.4	5.1	-7.2	4.5
- Italy	0.3	*-7.9*	*6.4*	0.8	0.5	0.3	-1.0	*-18*	*-33*	*31*	*13*	-7.5	4.5	-9.1	4.8
- Spain	2.0	*-7.1*	*7.0*	2.3	1.5	1.6	1.7	*-19*	*-31*	*31*	*14*	-5.7	5.2	-8.0	4.3
UK	1.4	*-7.2*	*6.1*	2.7	-0.6	2.1	0.1	*-9*	*-44*	*41*	*17*	-5.4	4.7	-6.5	4.0
Japan	0.7	*-6.8*	*3.5*	2.2	2.3	0.1	-7.1	*-8*	*-31*	*22*	*13*	-3.3	2.1	-5.2	3.0
China (y/y%)	6.2	*-0.3*	*8.6*	6.4	6.2	6.0	6.0	*-7*	*0*	*3*	*3*	2.0	7.8	1.2	9.2

* y/y or q/q annualised rate, except for Chine (y/y% only) **6 April 2020 ***14 April 2020

FORECASTS - RATES & FX

	Actual	Target		Last 5 years*		Average					
	05/05/2020	3M	12M	High	Low	2015	2016	2017	2018	2019	2020
Policy rate											
Fed funds	0.25	0.25	0.25	2.50	0.25	0.27	0.52	1.13	1.96	2.25	*0.50*
ECB deposit rate	-0.50	-0.50	-0.50	-0.20	-0.50	-0.20	-0.38	-0.40	-0.40	-0.43	*-0.50*
10Y rate											
US T-note	0.7	0.7	1.5	3.2	0.7	2.1	1.8	2.3	2.9	2.1	*0.9*
German Bund	-0.6	-0.5	-0.3	0.8	-0.6	0.5	0.1	0.4	0.5	-0.2	*-0.5*
French OAT	-0.1	0.0	0.0	1.2	-0.3	0.8	0.5	0.8	0.7	0.1	*0.0*
Forex											
EUR/USD	1.08	-	1.10	1.23	1.05	1.11	1.11	1.13	1.18	1.12	*1.09*
USD/JPY	107	-	110	124	101	121	109	112	110	109	*108*
USD/RMB	7.05	-	7.00	7.12	6.21	6.28	6.64	6.76	6.61	6.91	*7.03*

*monthly average

Source: consensus forecasts, IMF, ODDO BHF

Table of forecasts (2)

FORECASTS - KEY MACRO DATA for US, EMU, & France *

	Average			2019				2020			
	2019	2020	2021	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
United States											
Real GDP	2.3	-5.8	5.4	3.1	2.0	2.1	2.1	-4.8	-41.1	31.5	14.9
Private Consumption	2.6	-6.1	5.6	1.1	4.6	3.1	1.8	-7.6	-40.0	30.0	15.0
Nonresidential Investment	2.1	-7.6	6.3	4.4	-1.0	-2.3	-2.4	-8.6	-40.0	35.0	15.0
Residential Investment	-1.5	-2.6	2.5	-1.0	-3.0	4.6	6.5	21.0	-40.0	-5.0	20.0
Domestic Demand (contribution, %pt)	2.5	-5.5	5.3	1.9	3.7	2.3	1.6	-5.8	-37.5	26.9	14.0
Inventories (contribution, %pt)	0.1	-0.9	0.3	0.5	-1.0	0.0	-1.2	-0.6	-5.0	4.0	1.0
Net Exports (contribution, %pt)	-0.2	0.7	-0.2	0.8	-0.8	-0.2	1.9	1.7	-0.1	-0.2	-0.2
Inflation (CPI, % yoy)	1.8	1.2	2.9	1.6	1.8	1.8	2.0	2.1	0.5	0.9	1.2
Unemployment rate (%)	3.7	10.2	7.3	3.9	3.6	3.6	3.5	3.8	16.0	12.0	9.0
Euro area											
Real GDP	1.2	-6.6	5.9	1.9	0.6	1.2	0.4	-14.4	-31.7	28.1	14.1
Private Consumption	1.3	-7.2	6.9	1.7	0.7	2.0	0.5	-16.5	-32.9	28.9	15.0
Investment	5.5	-6.0	6.9	3.7	21.4	-14.4	18.9	-19.5	-33.1	30.7	14.6
Domestic Demand (contribution, %pt)	2.0	-5.0	5.4	2.0	4.7	-1.7	4.1	-13.3	-25.9	22.4	11.9
Inventories (contribution, %pt)	-0.4	-1.3	0.5	-1.3	0.2	-0.6	-0.5	-1.7	-7.2	4.9	2.0
Net Exports (contribution, %pt)	-0.4	-0.3	0.0	1.3	-4.4	3.7	-3.2	0.4	0.0	0.0	0.0
Inflation (HICP, % yoy)	1.2	0.8	1.7	1.4	1.4	1.0	1.0	1.1	0.3	0.8	1.1
Unemployment rate (%)	7.6	9.7	9.0	7.8	7.6	7.5	7.4	7.3	12.0	10.0	9.5
France											
Real GDP	1.3	-7.8	6.8	1.5	1.2	1.1	-0.3	-21.4	-29.9	31.3	14.9
Private Consumption	1.3	-7.7	7.4	2.0	0.7	1.7	1.2	-22.1	-29.0	30.0	15.0
Investment	3.7	-9.8	10.1	3.0	5.6	4.9	0.2	-39.5	-20.0	40.0	20.0
Domestic Demand (contribution, %pt)	1.9	-6.9	7.1	2.0	2.1	2.6	1.2	-24.2	-22.5	27.7	14.9
Inventories (contribution, %pt)	-0.4	-0.9	-0.2	0.8	-1.0	-0.4	-1.8	3.7	-9.0	3.0	0.0
Net Exports (contribution, %pt)	-0.1	-0.2	0.0	-1.3	0.1	-1.0	0.4	-0.5	0.0	0.0	0.0
Inflation (HICP, % yoy)	1.3	1.0	1.8	1.4	1.3	1.2	1.3	1.3	0.4	0.9	1.2
Unemployment rate (%)	8.2	9.8	9.0	8.4	8.2	8.2	7.9	8.0	11.7	10.0	9.5

* y/y or q/q annualised rate

Source: Thomson Reuters, ODDO BHF

Lockdown = Economic crash
(measuring the losses)

The "Great Lockdown" is having the effects of a natural catastrophe… but one repeated every day and everywhere

France - Activity & consumption loss due to the economic lockdown on April 23, 2020

Sectors / Products	Share of GDP	Activity loss*	Previous (April 9)	Contribution to GDP change	Share of household consumption	Consumption loss*	Previous (April 9)	Contribution to consumption change
	%	%		%-points	%	%		%-points
Agriculture	**2**	**-13**	**-10**	**-0.2**	**3**	**10**	**10**	**0**
Industry	**14**	**-39**	**-43**	**-5**	**44**	**-36**	**-38**	**-16**
- agri food	2	-5	-5	-0.1	15	9	9	1
- coking & refining	0.2	-79.5	-80	-0.1	4	-75	-80	-3
- electric, electronic equipement	1	-61	-72	-1	3	-49	-53	-1
- transport equipment	1	-72	-61	-1	6	-92	-94	-6
- other industrial goods	6	-45	-53	-3	13	-62	-66	-8
- energy, water, waste	2	-20	-53	-1	5	0	0	0
Construction	**6**	**-79**	**-88**	**-5**	**2**	**-78**	**-90**	**-1**
Market services	**56**	**-38**	**-39**	**-21**	**46**	**-32**	**-33**	**-15**
- trade, auto repair	10	-55	-56	-6	1	-79	-85	-1
- transport & warehousing	5	-63	-64	-3	3	-82	-83	-3
- hotels & catering	3	-91	-90	-3	7	-89	-92	-6
- information & communication	5	-34	-34	-2	3	-11	-12	0
- finance & insurance services	4	0	0	0	6	0	0	0
- real estate activities	13	-2	-1	-0.2	19	0	0	0
- scientifc & technical activities	14	-45	-47	-6	2	-56	-63	-1
-other services	3	-76	-77	-2	4	-79	-82	-3
Non-market services	**22**	**-14**	**-15**	**-3**	**5**	**-37**	**-39**	**-2**
TOTAL	**100**	**-35**	**-36**	**-35**	**100**	**-33**	**-35**	**-33**

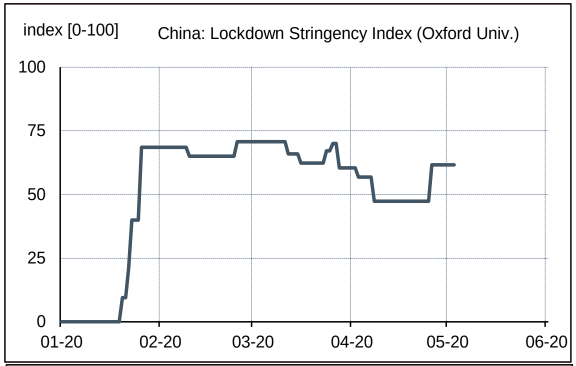
* INSEE estimate based on survey & non-conventional data (credit cards, internet research, qualitative information)

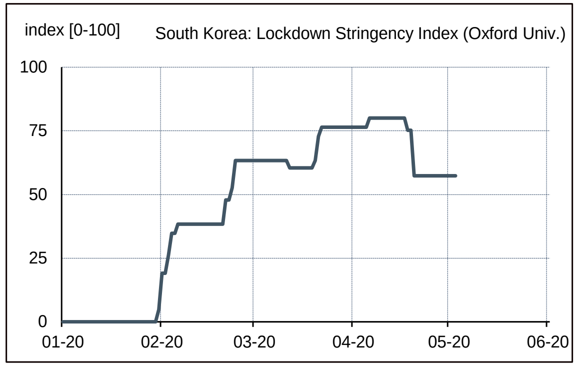
Immediate impact = reduction in the level of activity: around 15% to 35% (according to different national estimates)

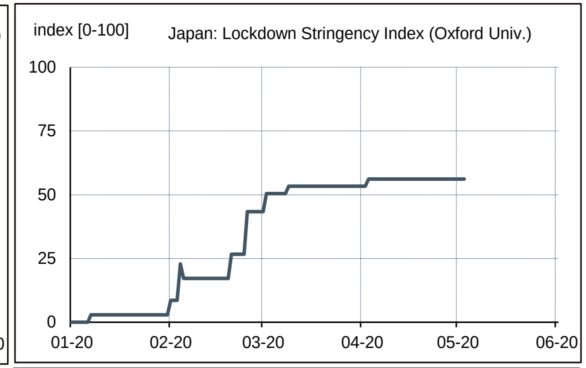
- These differences stem from the stringency of lockdowns, which varies between countries, as well as methodological choices by national accountants (adjustment of the usual tools to a radically new situation).
- In all cases, there are wide sectoral disparities (see table in France's case).
- One month of lockdown = a shock of 1.5 to 3 points on annual growth.

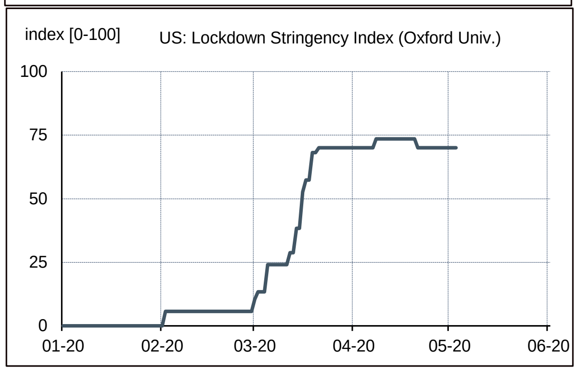
Source: INSEE, ODDO BHF

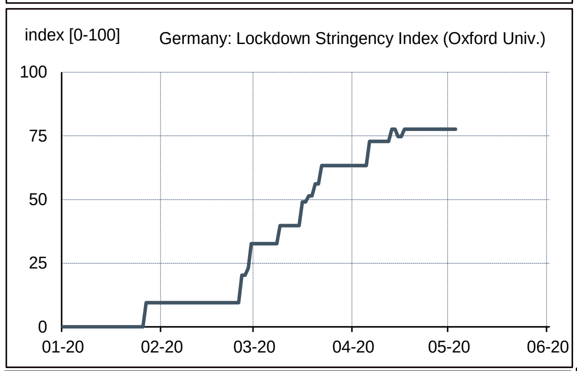
The lockdown is mainly determined by health concerns, but political motives can interfere given the economic cost (the case in the US)

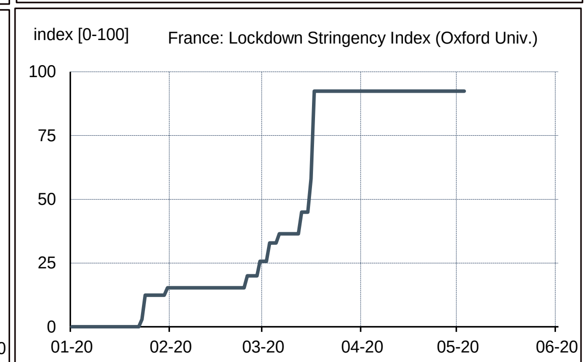


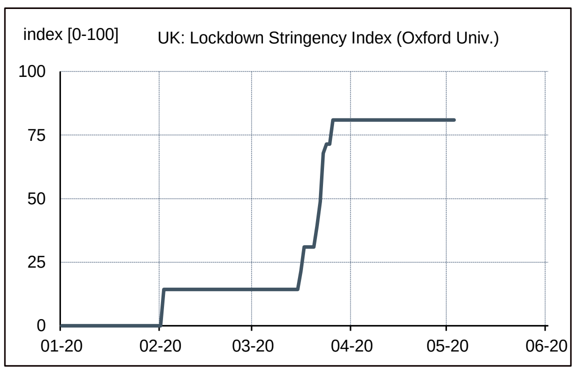


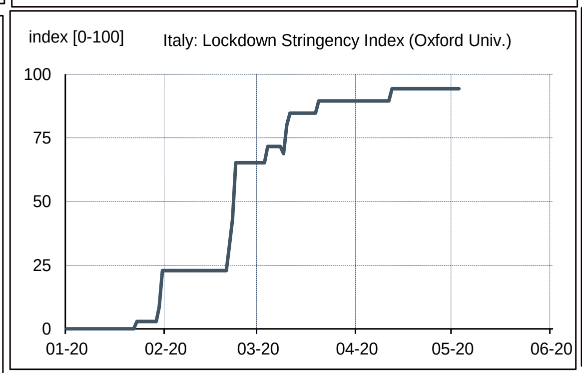


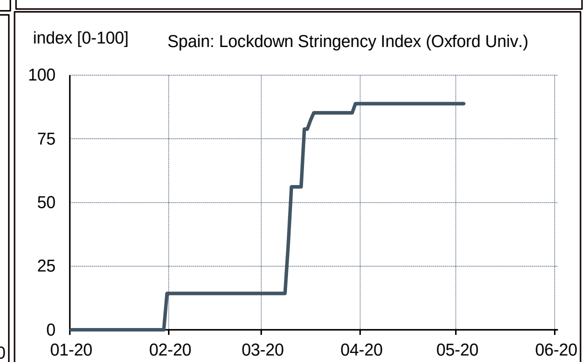












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Source: Oxford University, ODDO BHF

The plunge in activity has been so sudden and widespread that it has led to an unprecedented upheaval (in scale and time) of the economic outlook

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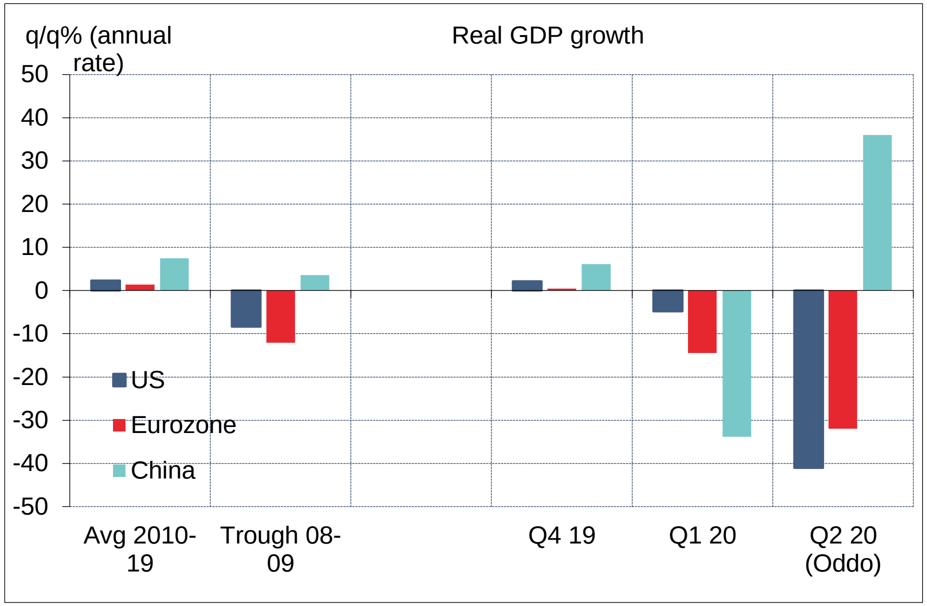

②

① The maximum negative impact on GDP will be recorded in Q1 in China but in Q2 in Europe and the US

- The magnitude of the shock is closely correlated to the lockdown conditions (start date of the lockdown, length and stringency). Preliminary estimates in national accounts are more fragile than usual because of a lack of data and sharp revisions are possible at a later date.

② The plunge in the 12-month economic outlook is more brutal than after the Lehman Brothers episode

- The downward revisions movement has not yet stabilised (consensus = lagging variable).
- In general, downward revisions for 2020 are not offset by upward revisions for 2021.

06/05/2020

Source: IMF, consensus, ODDO BHF

The uncertainty shock is greater than in the financial crisis of 2008 but of very different origin (health vs financial conditions)

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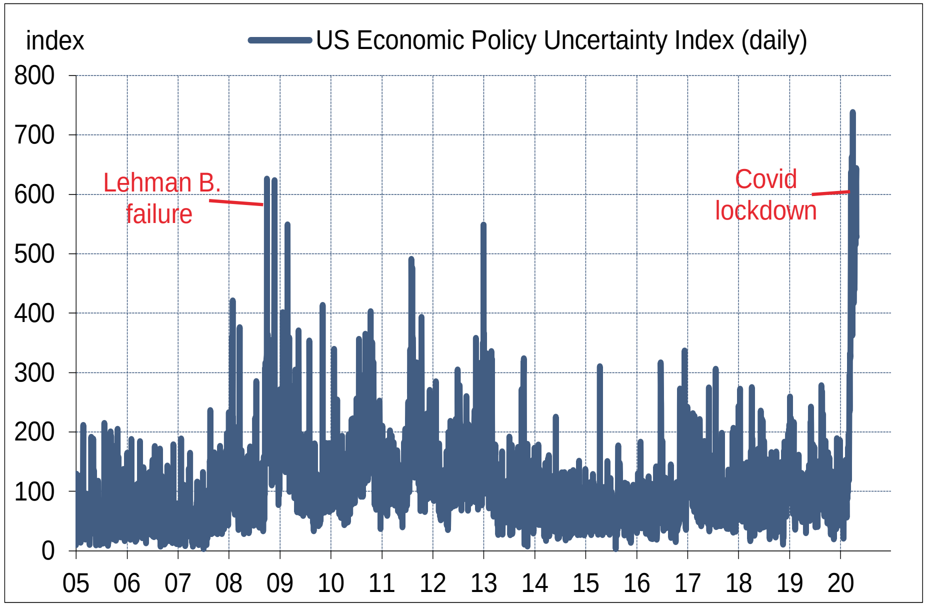

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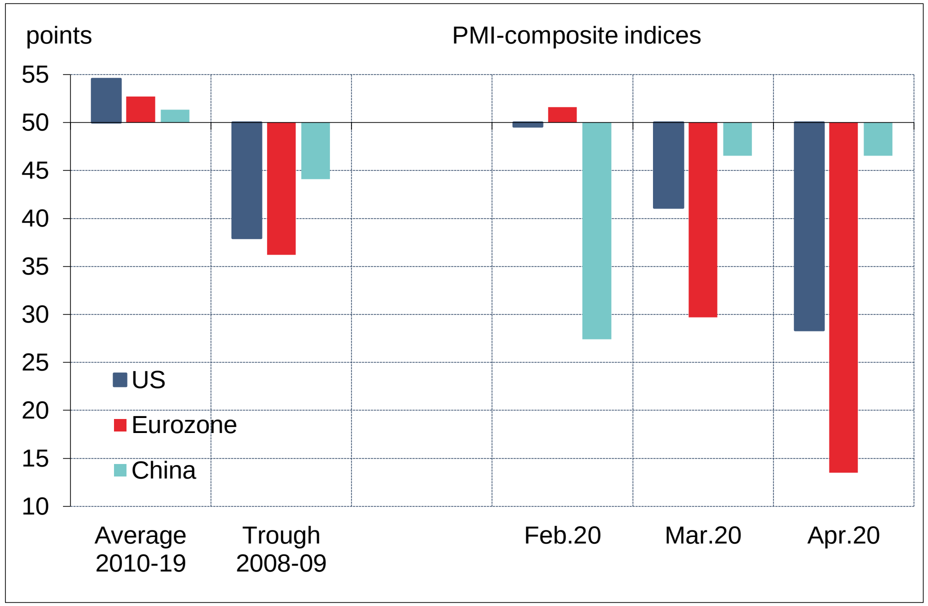

① Economic uncertainty has spiralled above the peak attained after Lehman Brothers' collapse

- Fundamentally, uncertainty relates to health conditions. Human life is at stake. The virus itself is poorly understood (fatality rates, contagion and aggravating factors), potentially creating a feeling of impotence. This situation is conducive to panic and paranoid behaviour.
- Repercussions in the political field: leaders are gambling on being re-elected/staying in power.
- Repercussions in the economic field: this is a totally exogeneous and unexpected shock (Black Swan).

② Business confidence indices hit new lows between February (China) and April (Europe, US)

Source: policyuncertainty.org, consensus, ODDO BHF

The lockdown is depriving the economy of tens of millions of people (the shock on income is better offset in Europe than in the US)

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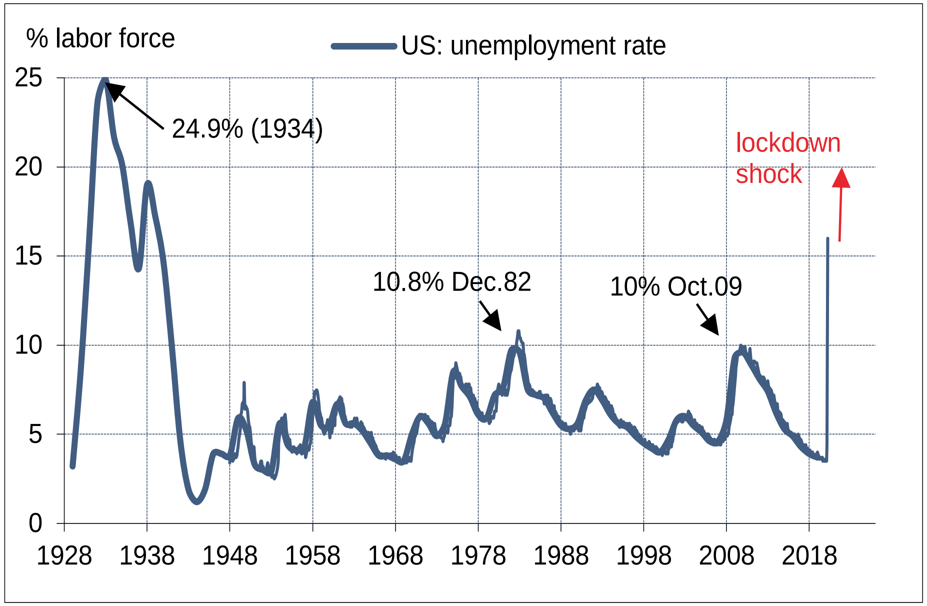

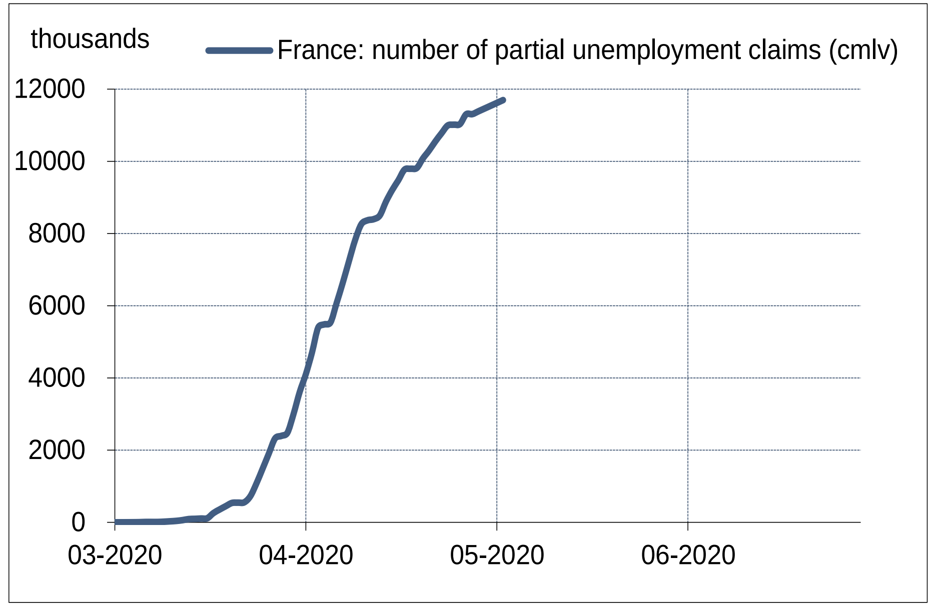

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① United States: unemployment is expected to reach its highest level since the 1930s, but only temporarily

- Close to 50m employees (≈30% of the total) are directly at risk, including those in retail (17m), leisure, hotels & catering (15m) and transport (8m). The historical peak unemployment rate (25% in 1934) is in sight. The *Paycheck Protection Program* is insufficient to support household income.

② Europe : intensive use of sort-time working schemes that subsequently aid a return to employment

- Temporary unemployment has proved its worth as a cushion against the economic shock (Germany's example in 2008-09). Today, more than 30m people are affected. The French system is currently the most intensively used (≈12m people, or more than half of private sector employees).

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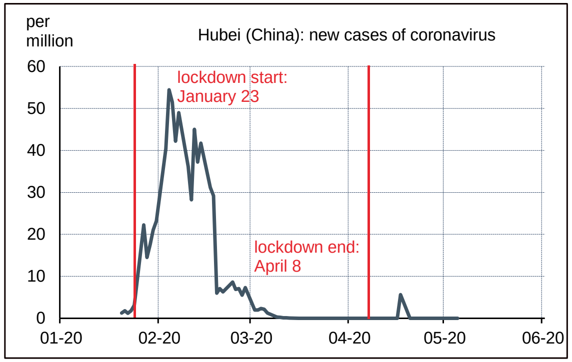
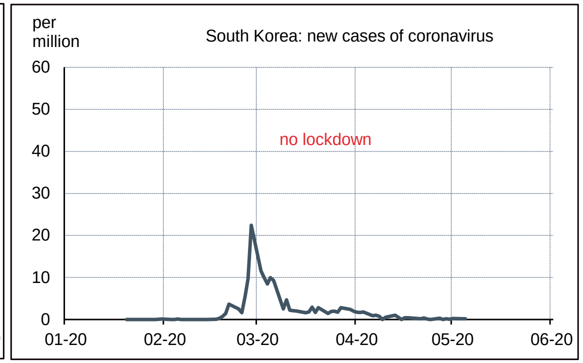
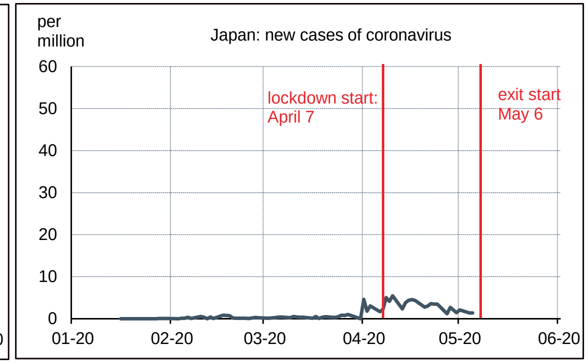
Source: Thomson Reuters, DARES, ODDO BHF

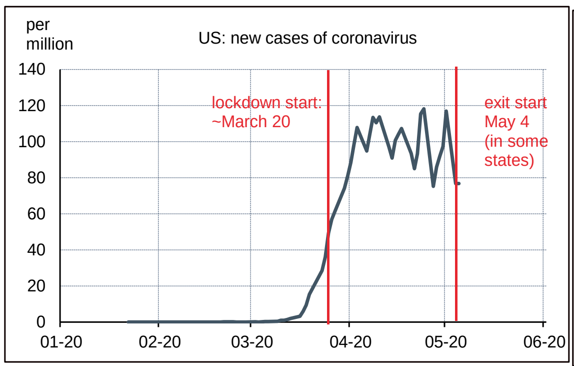
Decontainment = Recovery
(what recovery profile?)

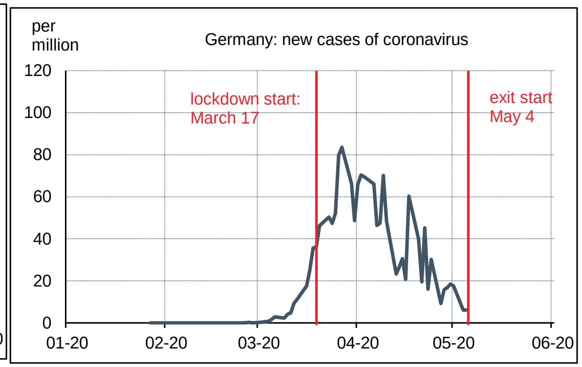
The lockdown has had the expected effect of flattening the new infections curve, easing pressure on health systems

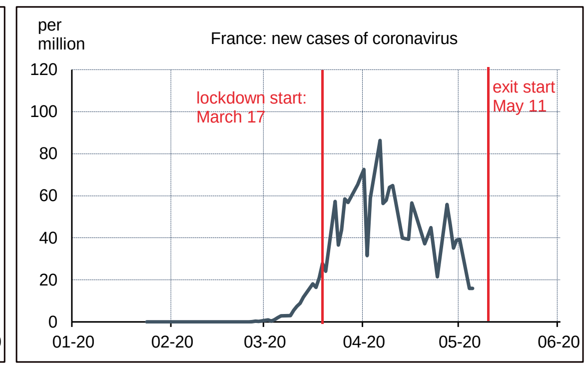


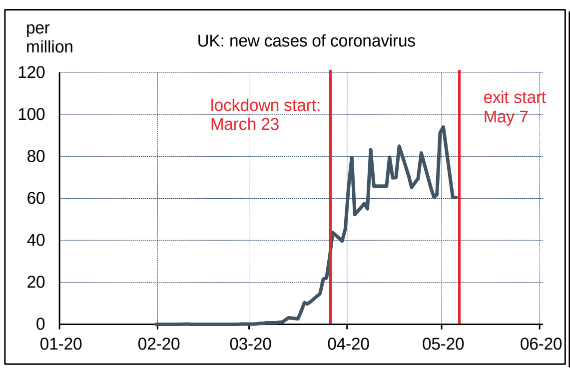


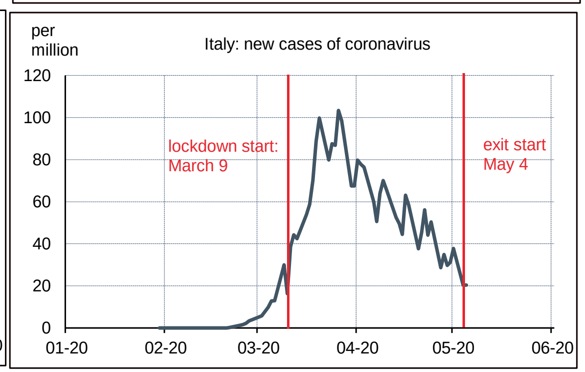


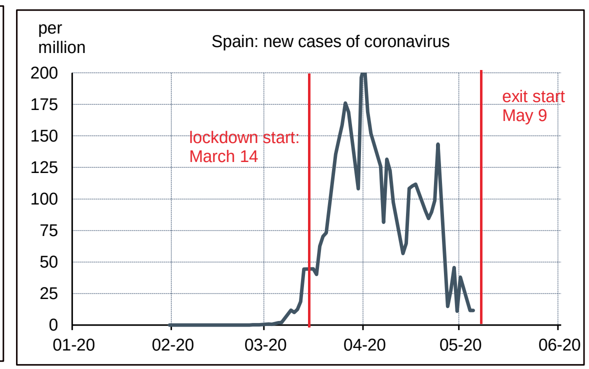










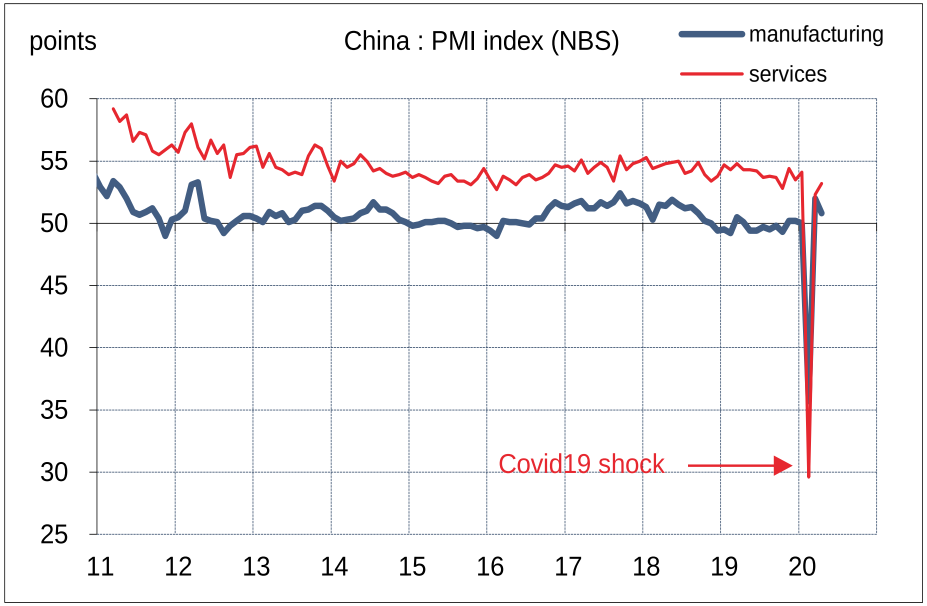


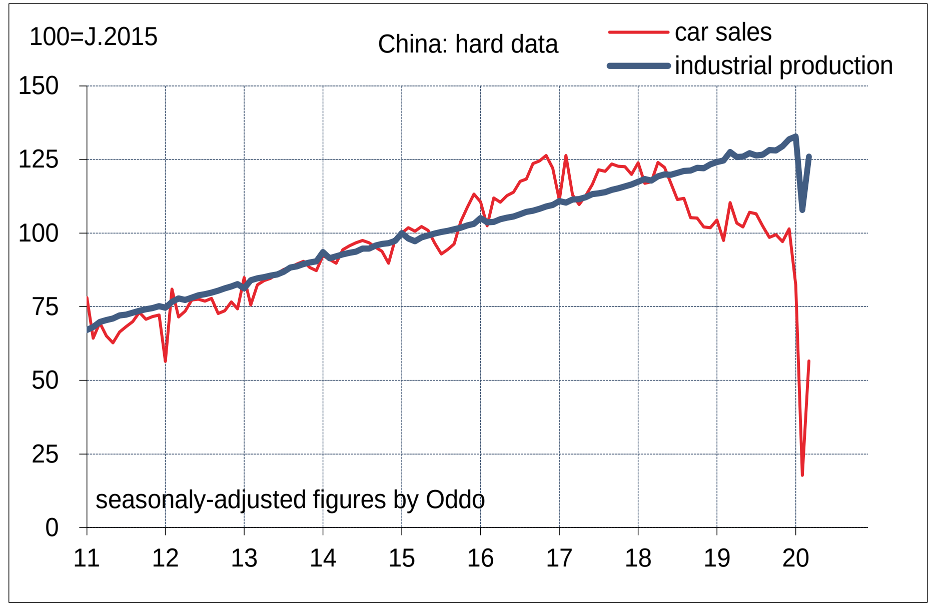
06/05/2020

Source: Thomson Reuters, ODDO BHF

In China, there was a severe slump during the lockdown, followed by a pronounced but partial recovery. It is too soon to predict what comes next

①





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Many signs of a partial restart of the Chinese economy in March after around six weeks of lockdown

- Some restrictions on travel and activity have been lifted, suggesting that considerable progress has been made on the health front. Even so, many experts are severely critical of the Chinese government's opacity when the coronavirus appeared, and there are doubts about the accuracy of official infection and death numbers.
- The sharp rebound in PMI indices in March should be viewed in context ①. It does not signal a return to pre-virus activity levels ② but a gradual re-opening of production sites and retail outlets. The recovery is vulnerable to two risks: i/ a second wave of infections, and ii/ a slump in demand from the principal export markets – Europe and the US – which are themselves partly closed.

06/05/2020

Source: Thomson Reuters, ODDO BHF

In view of its atypical character (origin, suddenness and severity), this crisis is hard to compare with recessions recorded over the past 50 years

Recessions & Recoveries

		Growth before recession* (a)	Rate of GDP fall (b)	Rate of GDP recovery (c)	GDP growth after recovery** (d)	Quarters in recession	Time to recover	**Shape** If (c) > -(b): V or √ if (d) > (a) If (c) < -(b): U or L if (d) < (a)
US	_1953-54	5.3	-2.4	4.4	8.0	4	5	√
	_1957-58	2.0	-7.2	7.3	6.8	2	4	√
	_1960-61	6.2	-1.8	4.8	7.6	3	4	√
	_1969-70	4.2	-0.5	2.2	3.3	5	3	**V**
	_1973-75	5.5	-2.5	5.1	5.0	5	7	**V**
	_1980	4.0	-4.4	7.9	8.6	2	3	√
	_1981-82	4.0	-2.6	5.0	8.6	4	6	√
	_1990-91	2.8	-2.7	2.2	3.7	2	4	**U**
	_2001	3.2	-1.7	2.3	2.1	1	2	**V**
	_2007-09	2.3	-2.7	2.3	2.7	6	13	**U**
France	_1968	5.7	-21.1	36.2	13.3	1	1	√
	_1974-75	5.6	-2.7	6.4	4.2	4	2	**V**
	_1980	3.4	-0.8	2.0	2.6	3	2	**V**
	_1992-93	1.3	-1.2	1.2	3.3	3	4	**U**
	_2008-09	2.2	-3.1	2.4	1.6	5	7	**L**
	_2012-13	1.2	-0.2	2.8	1.2	2	1	√
Germany	_1962-63	4.6	-7.4	19.4	10.3	2	1	√
	_1966-67	4.1	-3.1	10.0	7.0	3	1	√
	_1974-75	4.0	-2.3	5.9	5.8	5	3	√
	_1980-82	3.8	-1.1	3.3	4.1	10	5	√
	_1992-93	4.6	-2.0	1.7	1.8	4	5	**L**
	_2001-02	3.0	-0.9	1.9	2.9	4	2	**V**
	_2002-03	3.0	-2.1	0.8	2.9	3	8	**L**
	_2008-09	3.4	-7.0	4.1	2.7	4	8	**L**
	_2012-13	2.1	-1.8	4.3	2.9	2	1	√

*2-year average before recession **1-year average after recovery

Recap	√	3.9	-4.6	9.3	7.0	3	3	
	V	4.1	-1.5	3.3	3.3	4	3	
	U	2.2	-2.2	1.9	3.2	4	7	
	L	3.3	-3.5	2.3	2.2	4	7	

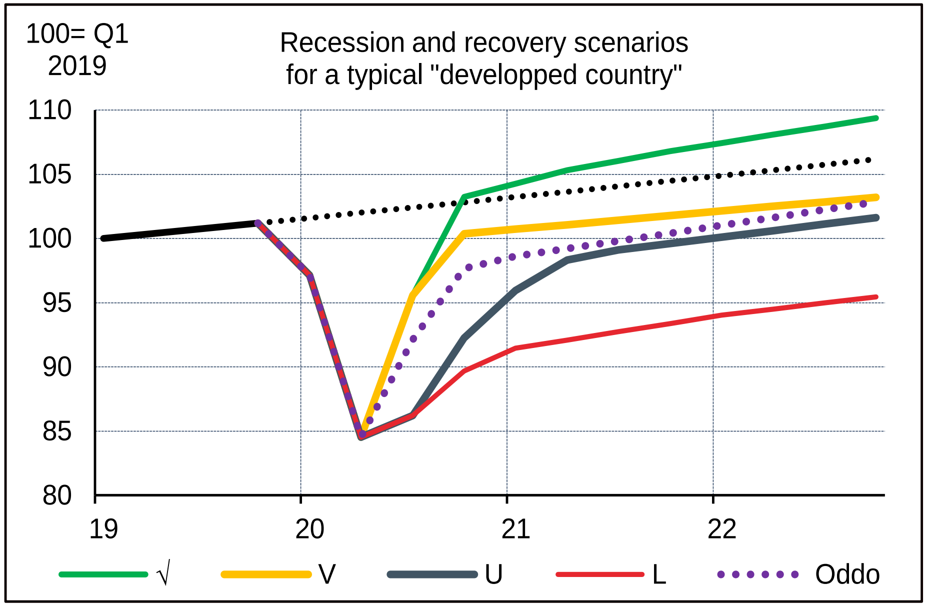
An examination of business cycles in the US and Europe over the past 50 years reveals two stylised facts:

- The most severe recessions have tended to be followed by stronger recoveries (this was the most frequent configuration before the oil shocks of the 1970s).
- The longest recessions have tended to be followed by more faltering recoveries (with a double-dip risk).

Source: ODDO BHF

The recovery scenario will be largely be influenced by the terms of decontainment measures (date, extension and duration)

①



GDP growth for a typical "developed country" under diferent scenarios of recession and recovery (%)						
	Precrisis trend	√	V	U	L	Oddo base case
2020	1.6	-5.4	-6.2	-10.5	-11.1	-7.7
2021	1.6	11.0	7.3	9.1	3.4	7.2
2022	1.6	2.6	1.4	2.7	2.5	2.4
Oddo probabilities		10%	35%	35%	20%	

②

① A scenario-based analysis obliges us to clarify assumptions about the pandemic and the effectiveness of aid measures.

- √-shaped profile – Very optimistic scenario. Rapid end of the pandemic and high multiplier of stimulus measures
- V-shaped profile – Successful decontainment, with no subsequent disruptions (2nd wave). Hesitant investment
- U-shaped profile – Distancing measures maintained. Rising bankruptcies. Persistent unemployment
- L-shaped profile (possible W variant) – Various negative scenarios (see IMF): delayed decontainment, 2nd wave of the pandemic in 2021, tightening of financial conditions

② Our baseline scenario (today) lies between U and V, reflecting probable differences between countries.

06/05/2020

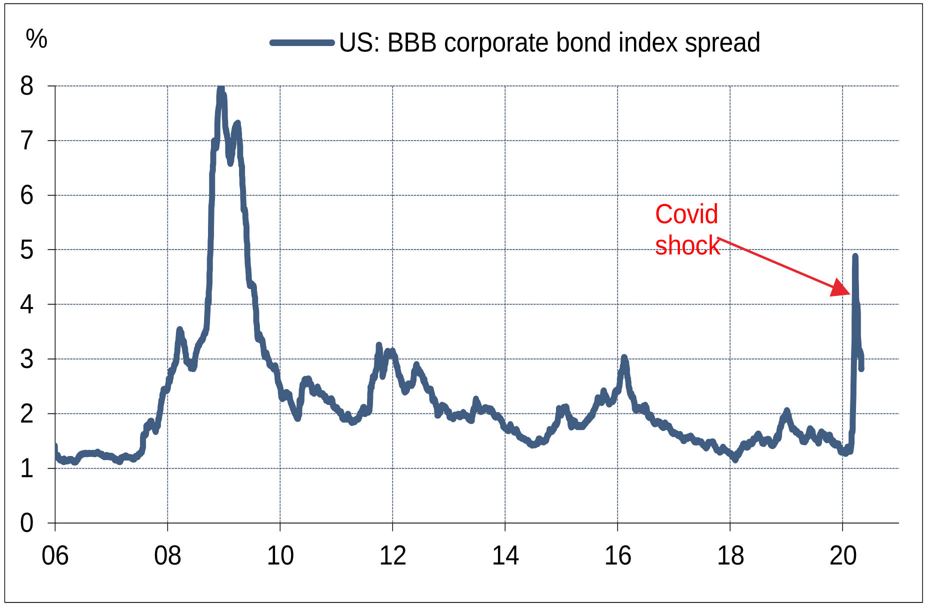
Source: ODDO BHF

ODDO BHF

The role of central banks
(avert a credit crunch)

The Covid-19 shock has triggered panic reactions (± durable) in all markets, especially credit segments

①



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① US: after initial strains (weaker than in 2008), credit spreads have narrowed (but not totally)

- In the years prior to the shock, US company debt had risen sharply, creating strains on some types of credit (high yield and leveraged loans) or some sectors (shale oil).

② Europe: strains on sovereign spreads, principally in Italy

- Since 2018, Italian risk has spiked from time to time depending on political developments. The Covid-19 shock has revived the usual dividing lines between countries on the question of mutualising debts (coronabonds). After its initial hesitancy, the ECB appears determined to stabilise intra-zone spreads, but its task is complicated by the legal uncertainty surrounding its asset purchases (CJEU vs Karlsruhe court).

06/05/2020

Source: Thomson Reuters, FRED, ODDO BHF

The Covid-19 shock is stimulating demand for liquidity. Companies are drawing down their credit lines, while banks are becoming more cautious

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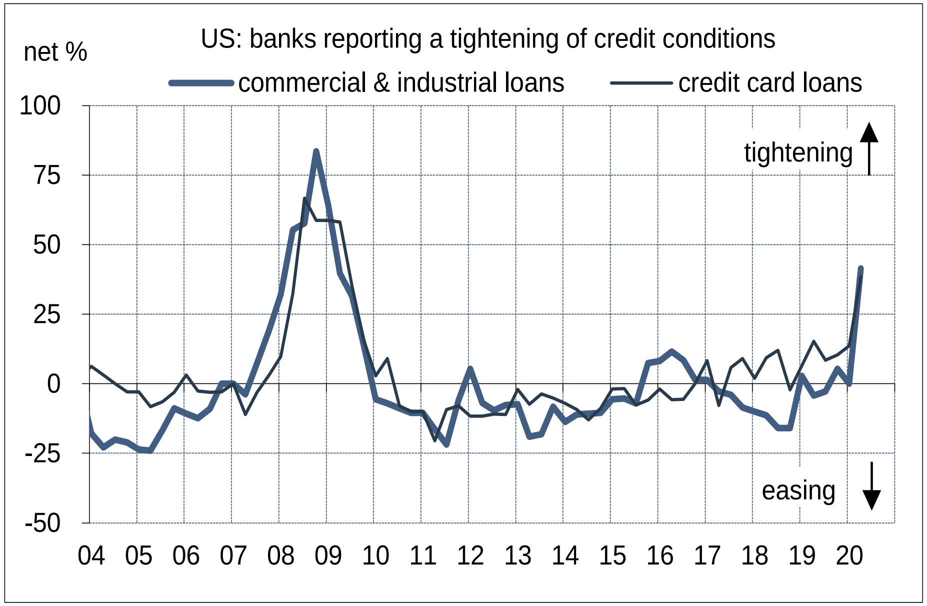

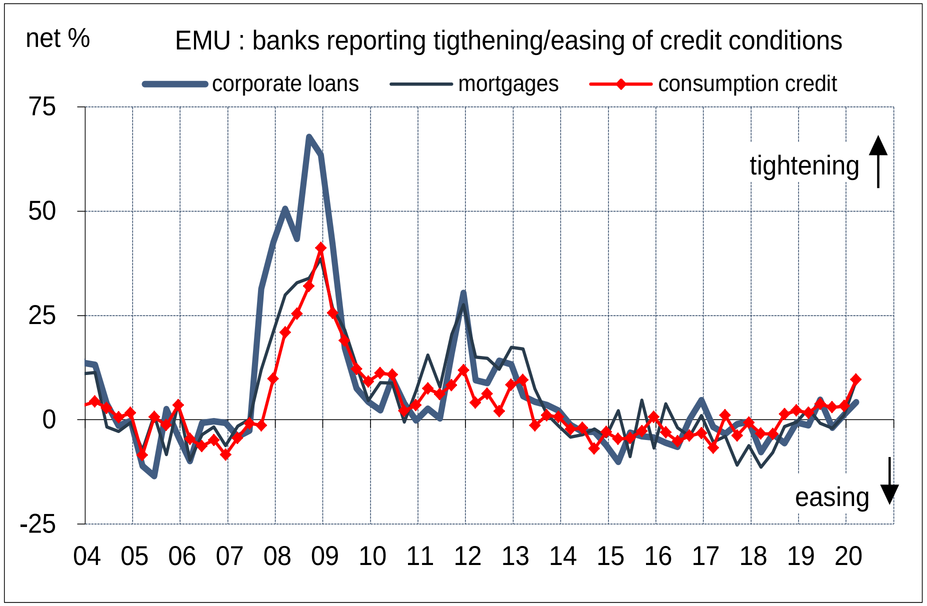

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With the upheaval of economic conditions resulting from the lockdown, loan standards have been tightened for companies, more so in the US to date than in Europe.

- ① The Fed's latest survey (23 March – 3 April 2020) reveals a tightening of loan standards for companies, as well as strong demand for credit by large corporates. Standards are also being tightened for consumer loans, but demand has fallen sharply in this segment – a logical consequence of weaker spending during lockdowns.
- ② The ECB's latest survey (19 March - 3 April 2020) points to a generally modest tightening of loan standards in all credit categories. Demand from companies has surged, as the Covid-19 shock has forced them to draw down their bank liquidity lines.

06/05/2020

Source: Fed, ECB, ODDO BHF

Central banks are the front line of the defence to avert a credit crunch. They are acting as lender & buyer of last resort

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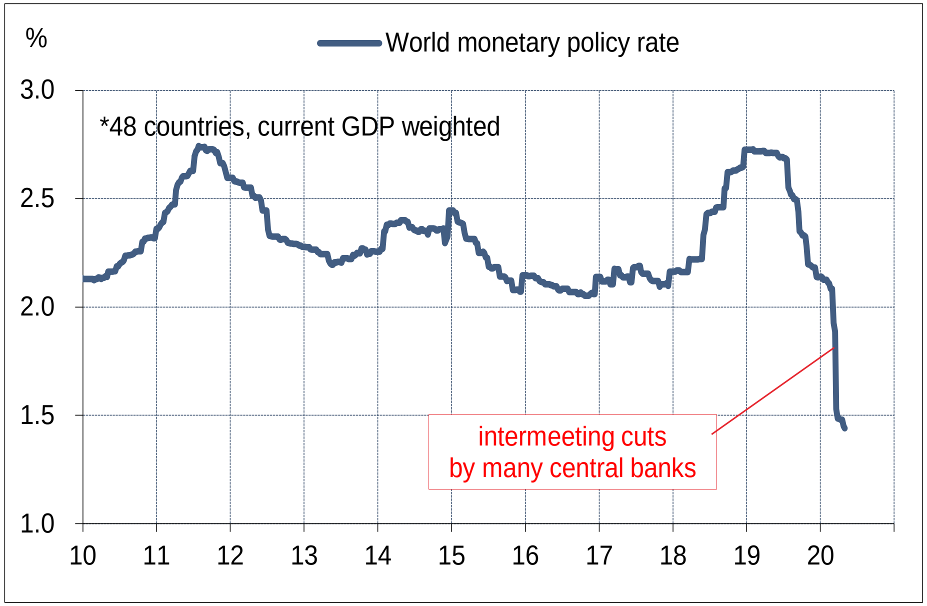

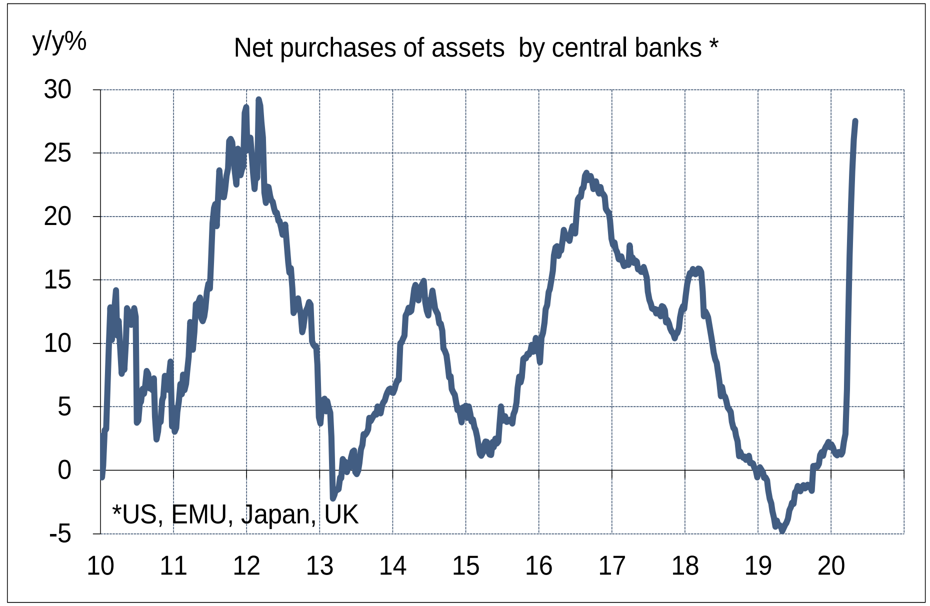

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Subject to the same pressures, all the leading central banks are moving in the same direction to avoid market dislocations and to supply abundant liquidity.

- Aggressive policy rate cuts. World policy rates have reached a new low ①
- Almost unlimited supply of liquidity and credit to the financial sector and (indirectly) to the real economy
- Supply of dollar liquidity (swap lines, Fed's FIMA facility)
- Reactivation or creation of asset purchase programmes in unprecedented proportions ②

06/05/2020

Source: Thomson Reuters, ODDO BHF

The Fed's monetary policy is unlimited through the size of its security purchases and the scope of its interventions

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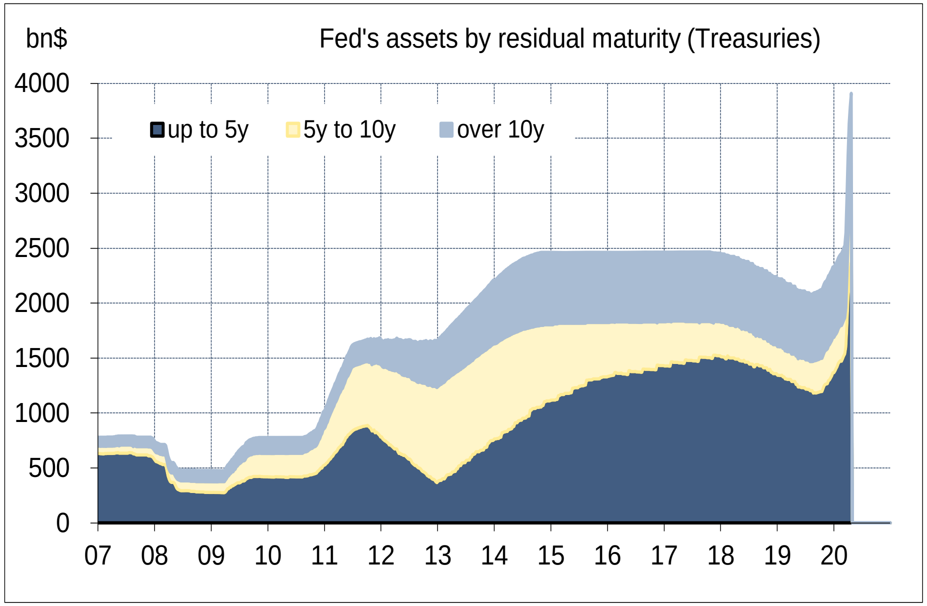

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Federal reserve banks consolidated statement (bn$)

Assets	1 Jan.2020	22 Apr.2020	Liabilities	1 Jan.2020	22 Apr.2020
Gold/FX Reserves *	18	18	Banknotes	1759	1848
Loans	0	122	Deposits	2032	4372
- o/w PD credit facility	0	32	- o/w held by banks	1549	3100
- o/w MMMF liq.facility	0	49	- o/w T'sy account	404	950
- o/w PPP liq.facility	0	8			
Repo	256	158			
Central bank swap	4	410			
Securities	3740	5534			
- o/w Treasuries	2329	3909			
- o/w MBS	1409	1622			
Other assets	156	332	Other liabilities (incl.capital)	382	353
TOTAL	**4174**	**6573**	**TOTAL**	**4174**	**6573**

* not all Gold/FX reserves recorded in FRB accounts, gold valued at historical cost

PD: primary dealer , MMMF: money market mutual fund, PPP: Paycheck Protection Program

An avalanche of acronyms illustrating the number of Fed interventions : ZIRP + QE + RP + CPFF + PDCF + MMLFL + PMCCF + SMCCF+ $ swaps + FIMARF, etc.

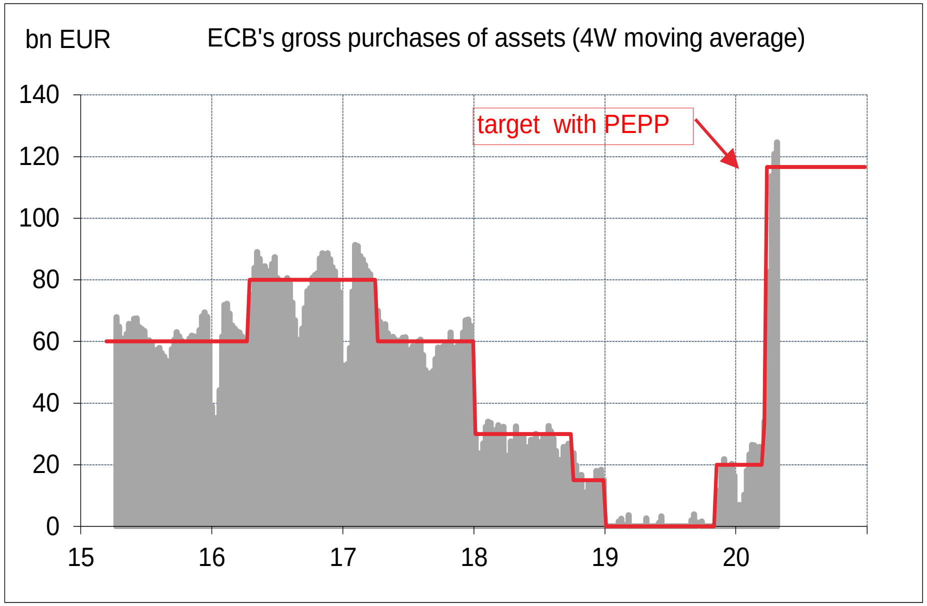
- In an evolving stress situation, the Fed has rolled out multiple liquidity and credit facilities. In the present case, these exist for banking institutions, money-market funds, commercial paper, sovereign bonds ①, mortgage-backed securities, loan securitisations, the ETF market including high yield funds and the international dollar market ②. Regulatory constraints have been loosened. The Fed is also intervening to back loan guarantees provided by the Treasury ($450bn in the framework of the $2.2tr package adopted by Congress) to aid small businesses and local administrations.

06/05/2020

Source: Fed, ODDO BHF

The ECB is almost as activist as the Fed. However, each stress episode rekindles the risk of financial fragmentation in the Eurozone

①



②

Eurosystem consolidated statement (bn€)					
Assets	3 Jan.2020	24 Apr.2020	**Liabilities**	3 Jan.2020	24 Apr.2020
Gold	471	510	Banknotes	1289	1330
FX Reserves	347	360			
Lending to EZ banks	618	912	Deposits	2446	3040
- o/w LTRO	616	912	- o/w held by banks	1867	2133
			- o/w EZ residents	313	564
			- o/w non EZ residents	266	343
Securities	2847	3052			
- o/w gov.bonds (PSPP)	2103	2190			
- o/w corp.bonds (CSPP)	184	207			
- o/w PEPP (emergency)	0	97			
Other assets	382	513	Other liabilities	929	977
			(incl.capital & reevaluation account)		
TOTAL	**4664**	**5347**	**TOTAL**	**4664**	**5347**

① Adding the extension of QE and the creation of the new programme (PEPP), the ECB's intervention is unprecedented

- The PEPP (*Pandemic Emergency Purchase Progamme*) has new characteristics. The initial package (€750bn) is not fixed in volume and duration (already €120bn in five weeks). New assets are eligible: Greek debt and short-term commercial paper. Self-imposed limits per issuer/issue have been suspended given the emergency nature of the programme.

② The ECB has significantly loosened the terms of the TLTROs and got the PEPP off to a very strong start

- The PEPP is the ECB's principal intervention tool because of its huge flexibility. There are no plans at present to use the OMT (the tool created in 2012 during the sovereign debt crisis).

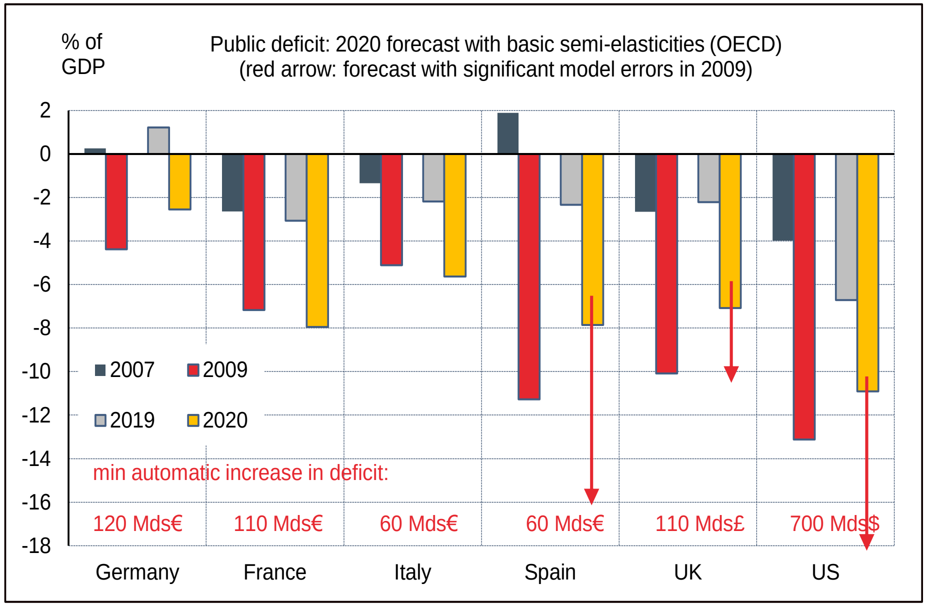
Source: ECB, Bloomberg, ODDO BHF

Question for the post-crisis period

(Debt / Inflation / Globalization)

Public finances are the second line of defence. The shock on deficits looks set to be equal to or greater than that in 2009

①



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Public debt (% of GDP)

	2007	2010	Change	2019	2020 (min forecast*)	Change
Germany	64	82	+18 pts	59	**66**	**+7 pts**
France	65	85	+21 pts	99	**113**	**+14 pts**
Italy	104	119	+15 pts	136	**150**	**+14 pts**
Spain	36	61	+25 pts	97	**111**	**+14 pts**
UK	42	75	+33 pts	85	**98**	**+13 pts**
US	65	95	+31 pts	111	**128**	**+17 pts**

*forecast with deficits computed with OECD semi-elasticities

① Impact on public deficits

- Cyclical deterioration (responsiveness to economic conditions following standard semi-elasticities). As a rough guide, each point of lost growth raises the deficit by around half a point (in exceptional circumstances, tis is probably underestimated). Added to this are discretionary aid/stimulus measures.

② Impact on public debt

- On average, the debt/GDP ratio should rise by around 15-20pts in 2020 in G7 countries, i.e. >100% (with the exception of Germany).

06/05/2020

Source: Thomson Reuters, ODDO BHF

In Europe, the divisions (north/south, laxist/virtuous) seen during sovereign debt crises (2010-15) are re-emerging

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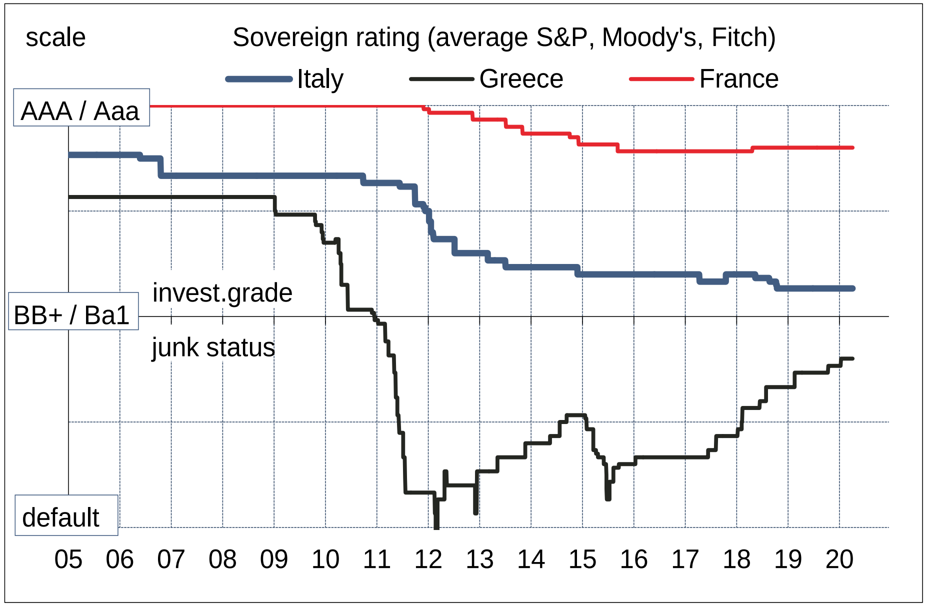

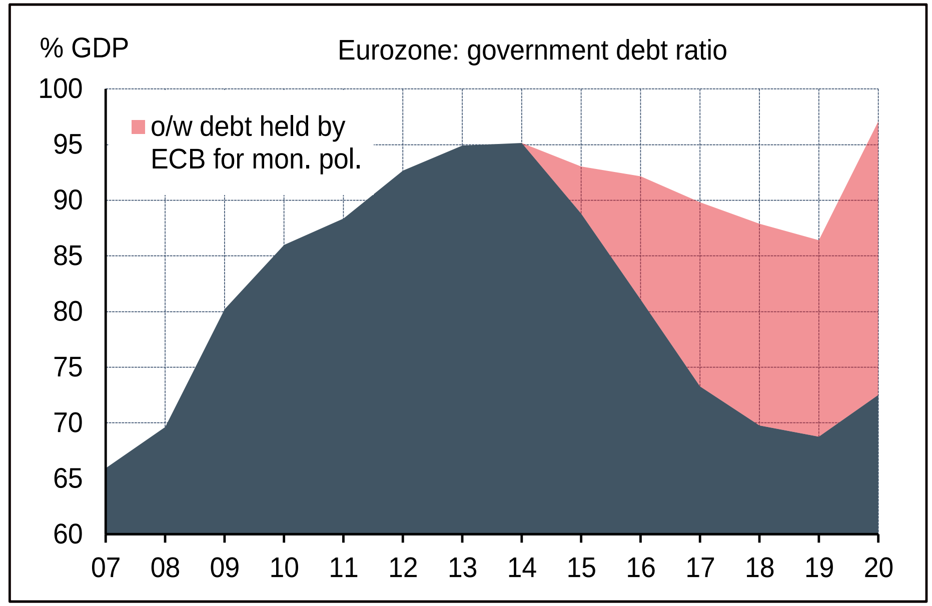

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There is no critical debt "sustainability" threshold. Maastricht (60%) or Reinhart-Rogoff (90%) type criteria are not applicable in a low interest-rate environment, and nor are sovereign ratings ①.

What options are there with high debt?

• Repudiation / restructuring	⇨ Reputational cost / Weakening of the financial system
• Inflation	⇨ Easier said than done (the major risk is deflation)
• Austerity	⇨ Risk of a fresh recession (double dip of 2012), deflationary pressures
• Monetisation/ financial repression	⇨ Expansion of central bank balance sheets ②/ Yield Curve Control

06/05/2020

Source: ECB, Bloomberg, ODDO BHF

Italy is the critical point, both at the financial level (level of debt, rating) and, perhaps even more so, at the political level (Euroscepticism)

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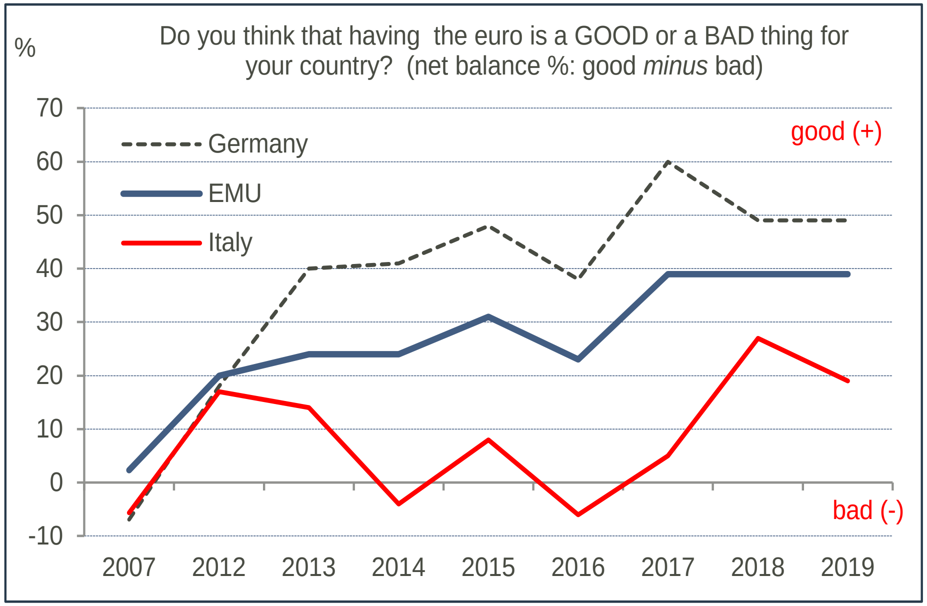

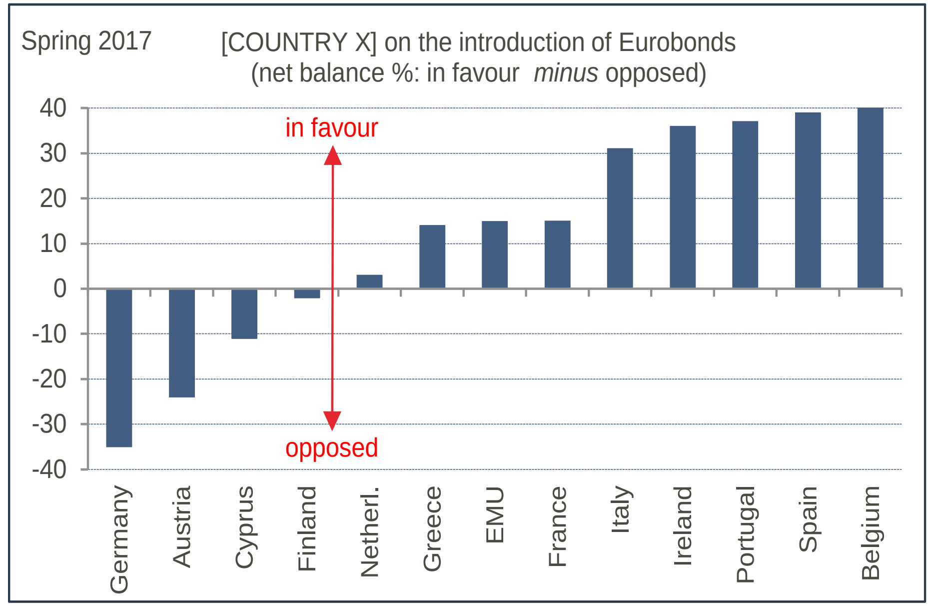

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① The health crisis poses pressing questions about the utility of European institutions relative to national states

- Commitment to the euro was tested several times during sovereign debt crises (2010-2015) or the immigration crisis (2015). It emerged stronger in all countries; not so much in Italy.

② A debt mutualisation is unlikely. A mutualisation of spending via a Recovery Fund is being studied.

- The current crisis is the pure example of an exogeneous and symmetrical shock (≠ the endogenous and asymmetrical shocks of the years 2010-2015). In theory, this justifies a mutual response, including for funding. But this is rejected by Germany (and its Dutch proxy). There is a very serious risk of encouraging parties favourable to the euro's disintegration, in particular in Italy.

06/05/2020

Source: Eurobarometer, ODDO BHF

The Covid-19 shock is fundamentally deflationary (more unemployment, more bankruptcies). It is desirable for central banks to facilitate a reflation

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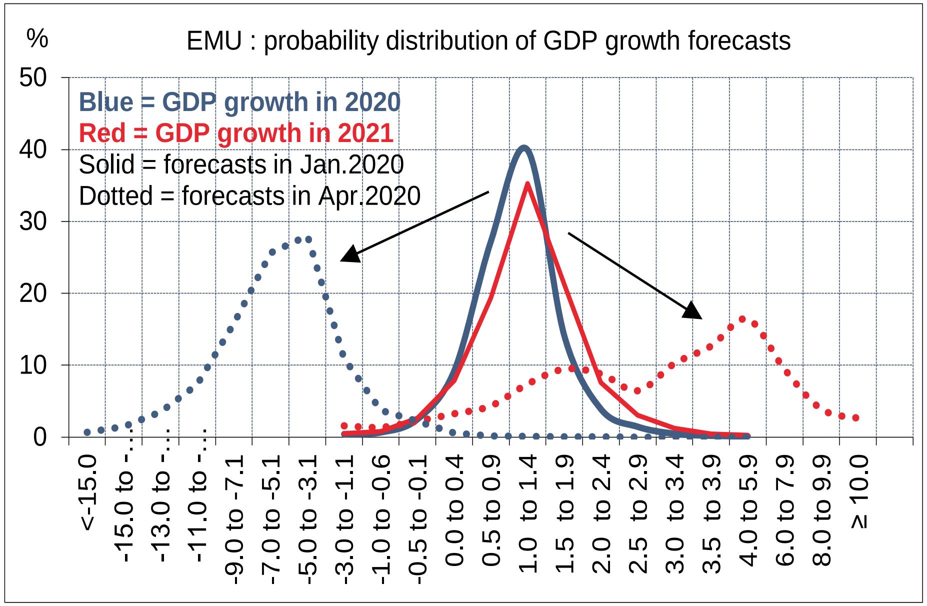

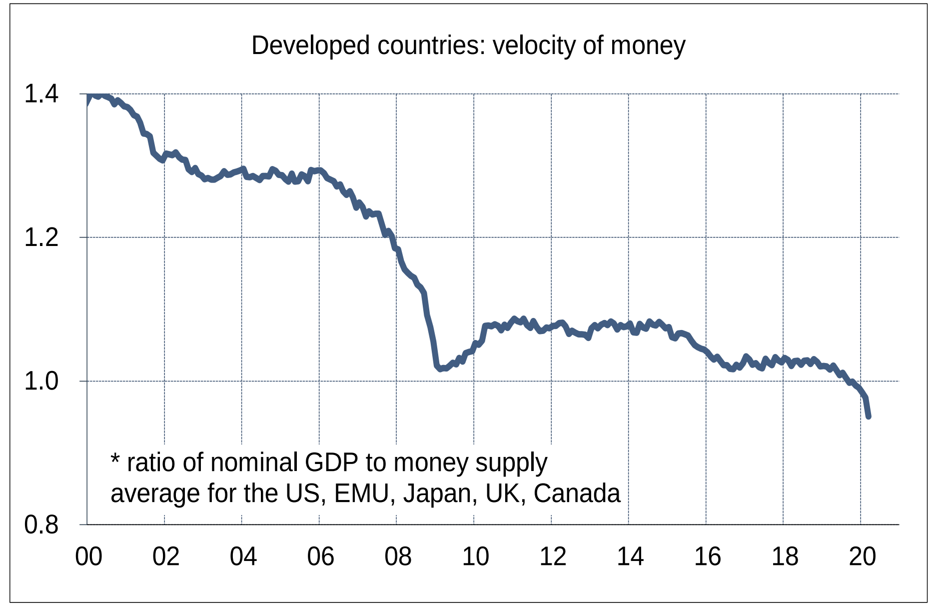

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① Reminder: the pre-Covid-19 world was not inflationary. The shock considerably accentuates underemployment

- Example - Pre-shock, eurozone growth scenarios were generally distributed around a zone of +1/+1.4%. Post-shock, they have shifted to -5/-9% in 2020 and +4/+6% in 2021. The result is a widening of the output gap. It will take at least two years for GDP to return to its end-2019 level.

② Reminder: money creation is not inflationary in an underemployment situation

- The theory that ultra-accommodative monetary policies will cause inflation to spiral has been continuously contradicted by the facts since 2010. This theory was (is) put forward to discredit unconventional monetary policies, which actually aimed to reduce deflation risk.

06/05/2020

Source: Thomson Reuters, ODDO BHF

China's opacity about the coronavirus is an ideal angle of attack for a US President seeking re-election

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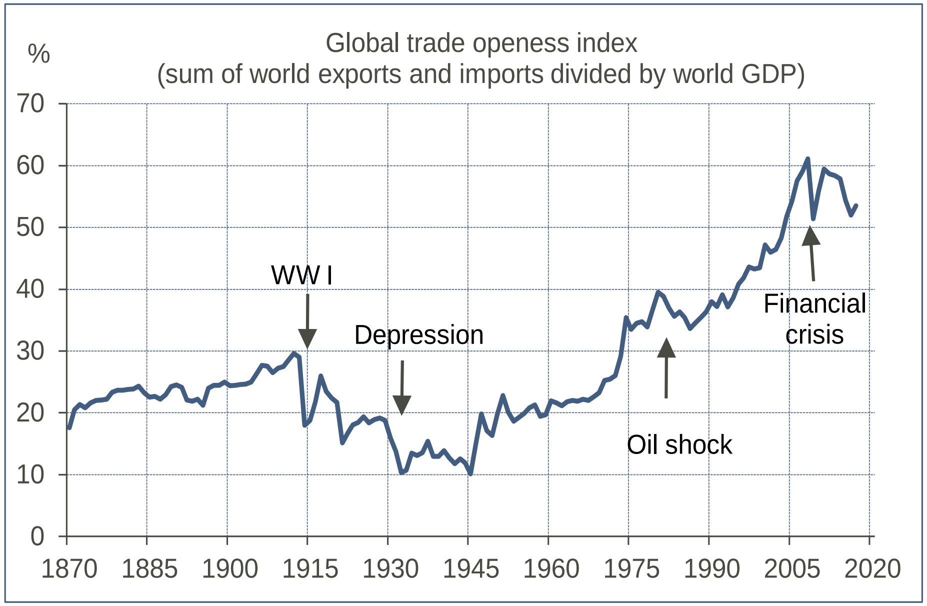
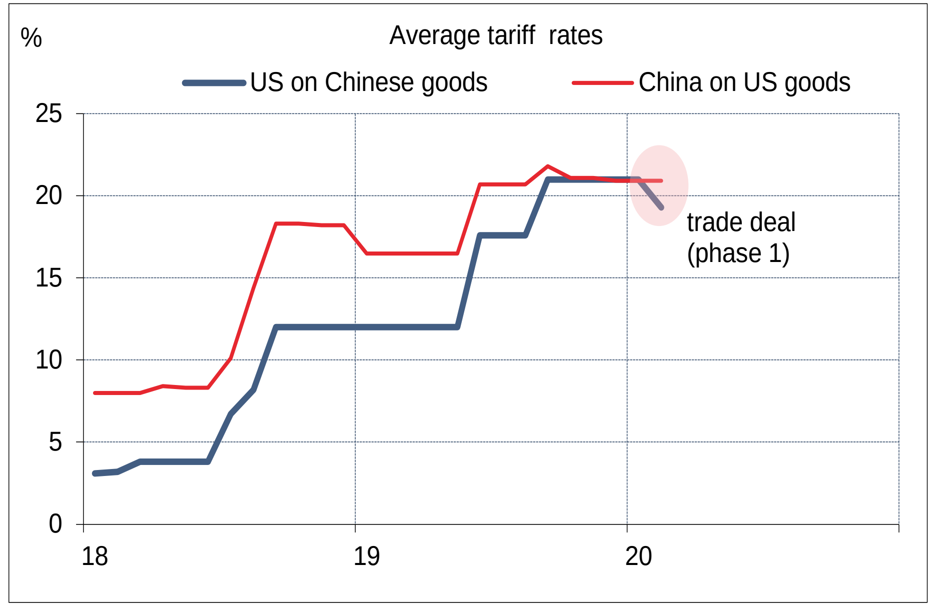




②

① The world economy is organised as an open system, since this is quite simply the most effective one

- The negative shock on trade is temporary, as was the case in 2008...

② The appearance of the coronavirus turned attention away from US-China strains, which had intensified since 2018, but mutual grievances have fundamentally not been resolved

- President Trump hoped to stand for re-election with an unequalled economic track record: historically low unemployment and record stockmarket indices. This is no longer the case, but to compensate he has every reason to step up his anti-China rhetoric. A revival of the trade war is a serious risk.

06/05/2020

Source: OurWorldinData, PIIE, ODDO BHF

Appendix – statistics and charts

1. Real GDP growth in the major countries (% quarterly change)
2. Contributions to real GDP growth: G7 countries
3. Real GDP growth: G7 countries + China
4. Real GDP growth: countries of Asia excl. China-Japan (selection)
5. Real GDP growth: other countries (selection)
6. Industrial production: G7 + emerging countries (selection)
7. Consumer price inflation: G7 countries + China
8. Consumer price inflation: emerging countries (selection)
9. Unemployment rates: G7 countries
10. Purchasing managers' confidence (PMI indices): G7 + BRIC countries
11. Consumer confidence: developed countries (selection)
12. Car sales: G7 countries + China + Brazil
13. Central bank policy rates: developed countries (selection)
14. Central bank policy rates: emerging countries (selection)
15. Central bank balance sheets: developed countries (selection)
16. Currency reserves: world and principal holders
17. Current account balances: G7 countries + China
18. Current account balances: emerging countries (selection)
19. Exchange rates against the EUR or USD: major currencies
20. Government debt (as % of GDP): European countries (selection)
21. Sovereign ratings: European countries (selection)
22. Bank financing by the Eurosystem
23. Bank loans to the private sector: European countries (selection)
24. 10-year government bond yield

Appendix 1
Real GDP growth in the major countries (% quarterly change)

	GDP 2017	Weights 2017		Real GDP change (Q/Q non annualised, %)																					
	bn $	current $	PPP $	2015				2016				2017				2018				2019				2020	
		%	%	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
World *	**80322**	100.0	100.0	**0.9**	**0.9**	**0.9**	**0.7**	**0.9**	**1.0**	**0.7**	**1.0**	**1.1**	**1.0**	**1.2**	**1.1**	**0.9**	**0.9**	**0.8**	**0.7**	**0.9**	**0.8**	**0.7**	**0.6**	**-3.4**	e
Developed countries	42505	52.9	35.2	0.8	0.5	0.4	0.2	0.5	0.3	0.5	0.6	0.7	0.6	0.7	0.7	0.4	0.6	0.3	0.3	0.6	0.4	0.4	0.1	-2.2	e
Asia excl.Japan	19697	24.5	33.8	1.5	1.7	1.6	1.4	1.6	2.0	1.4	1.3	1.5	1.6	1.8	1.5	1.4	1.4	1.4	1.4	1.3	1.2	1.1	1.3	-5.7	e
US	19519	24.3	15.2	0.8	0.7	0.3	0.0	0.5	0.5	0.5	0.5	0.6	0.5	0.8	0.9	0.6	0.9	0.7	0.3	0.8	0.5	0.5	0.5	-1.2	
EMU	11769	14.7	10.7	0.7	0.4	0.5	0.4	0.6	0.3	0.4	0.8	0.7	0.7	0.8	0.8	0.3	0.4	0.2	0.4	0.5	0.1	0.3	0.1	-3.8	
- Germany	3665	4.6	3.3	-0.2	0.6	0.5	0.4	0.8	0.6	0.2	0.4	1.2	0.6	0.9	0.7	0.1	0.4	-0.1	0.2	0.5	-0.2	0.2	0.0	-	
- France	2592	3.2	2.2	0.5	-0.1	0.4	0.2	0.6	-0.3	0.2	0.6	0.8	0.7	0.7	0.8	0.2	0.2	0.3	0.5	0.4	0.3	0.3	-0.1	-5.8	
- Italy	1951	2.4	1.8	0.2	0.4	0.2	0.5	0.3	0.2	0.5	0.3	0.5	0.4	0.4	0.5	0.0	0.0	-0.1	0.1	0.2	0.1	0.1	-0.3	-4.7	
Japan	4860	6.1	4.2	1.4	0.1	-0.1	-0.4	0.5	0.2	0.2	0.3	1.1	0.4	0.6	0.4	-0.5	0.5	-0.8	0.6	0.5	0.6	0.0	-1.8	-	
UK	2640	3.3	2.3	0.5	0.7	0.4	0.7	0.2	0.5	0.5	0.6	0.6	0.3	0.3	0.4	0.1	0.5	0.6	0.2	0.7	-0.2	0.5	0.0	-	
Switzerland	680	0.8	0.4	-0.3	0.0	0.6	0.4	0.4	0.5	0.6	0.4	0.1	0.7	0.7	1.0	1.0	0.8	-0.4	-0.1	0.4	0.4	0.4	0.3	-	
Canada	1650	2.1	1.4	-0.5	-0.3	0.4	0.1	0.5	-0.5	1.0	0.6	1.2	1.2	0.4	0.4	0.5	0.4	0.6	0.2	0.2	0.9	0.3	0.1	-	
Australia	1387	1.7	1.0	0.9	0.1	1.1	0.6	0.9	0.7	0.2	1.0	0.3	0.6	1.0	0.5	0.9	0.7	0.3	0.2	0.5	0.6	0.6	0.5	-	
China	12062	15.0	18.0	1.8	1.8	1.7	1.6	1.5	1.9	1.7	1.6	1.6	1.8	1.7	1.6	1.5	1.8	1.6	1.5	1.6	1.5	1.3	1.5	-9.8	
Hong Kong	342	0.4	0.4	0.6	0.6	0.5	0.1	-0.3	1.5	1.1	1.1	0.6	0.9	0.8	1.1	1.5	-0.1	0.1	-0.3	0.9	-0.4	-3.0	-0.3	-	
India **	2652	3.3	7.5	1.7	2.7	1.9	1.3	2.9	3.0	1.1	0.7	1.9	1.6	2.7	2.2	1.2	1.0	1.6	1.6	1.5	1.0	1.0	1.1	-	
Korea	1624	2.0	1.7	0.9	0.2	1.5	0.7	0.4	1.0	0.5	0.8	0.9	0.5	1.5	-0.1	1.0	0.6	0.5	0.9	-0.4	1.0	0.4	1.3	-1.4	
Indonesia **	1015	1.3	2.5	1.1	1.1	1.3	1.4	1.1	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.4	1.2	1.3	1.1	1.3	1.2	1.2	-	
Taiwan	575	0.7	1.0	0.6	-1.4	-0.1	0.0	0.8	0.9	0.4	0.9	0.8	0.5	1.2	0.8	1.1	0.3	0.2	0.8	0.7	0.7	0.5	1.9	-1.5	
Thailand	455	0.6	1.0	0.5	0.4	1.5	0.8	0.7	0.8	0.9	1.1	0.8	1.3	1.2	0.7	1.7	0.8	-0.1	1.3	0.8	0.4	0.2	0.2	-	
Malaysia **	319	0.4	0.7	1.4	1.0	0.9	1.2	1.0	1.1	1.2	1.4	1.6	1.4	1.5	1.1	1.2	0.7	1.4	1.4	1.0	1.1	0.8	0.6	-	
Philippines	314	0.4	0.7	1.1	2.1	1.3	2.1	1.3	2.1	1.3	1.6	1.7	1.8	1.6	1.4	1.6	1.6	1.2	1.9	0.7	1.5	1.9	2.2	-	
Singapore	338	0.4	0.4	-0.4	1.2	1.2	0.0	0.7	1.0	0.8	1.8	0.6	0.3	2.3	1.4	1.2	0.2	0.2	-0.2	0.9	-0.7	0.6	0.1	-2.8	
Brazil	2053	2.6	2.5	-1.1	-2.2	-1.4	-0.8	-0.9	-0.1	-0.7	-0.5	1.6	0.4	0.1	0.3	0.7	0.0	0.5	0.0	0.0	0.5	0.6	0.5	-	
Chile	278	0.3	0.4	0.1	1.0	-0.1	1.1	0.6	-0.5	0.5	0.4	-0.8	0.9	1.8	0.9	1.3	0.9	-0.2	0.9	0.2	0.8	0.8	-4.1	-	
Mexico	1157	1.4	1.9	0.6	1.0	1.2	0.0	0.6	0.4	1.1	1.1	0.5	0.3	-0.3	1.2	1.3	-0.2	0.3	0.1	-0.1	-0.1	-0.1	-0.1	-1.6	
Russia **	1579	2.0	3.2	-2.8	-0.4	0.2	-0.1	-0.2	-0.4	0.2	0.9	0.8	0.5	0.1	-0.8	2.1	0.6	0.3	-0.2	-0.1	0.8	1.2	0.3	-	
Poland	527	0.7	0.9	1.2	0.7	1.1	1.2	-0.2	1.3	0.2	2.3	1.0	1.0	1.1	1.7	1.4	1.3	1.3	0.7	1.4	0.7	1.2	0.2	-	
Turkey	853	1.1	1.7	1.9	1.4	1.6	0.6	0.5	1.1	-3.1	5.8	1.5	1.7	1.8	2.3	1.2	0.0	-1.2	-2.8	2.0	1.1	0.8	1.9	-	
South Africa	349	0.4	0.6	0.5	-0.7	0.1	0.3	-0.4	0.8	0.2	0.1	-0.1	0.8	0.7	0.8	-0.7	-0.1	0.5	0.4	-0.9	0.7	-0.1	-0.3	-	

* as usual, world weighting is based on real GDP at PPP exchange rate (IMF data)

** for those countries, seasonaly-adjusted figures by ODDO BHF

Source: Thomson Reuters, ODDO BHF

06/05/2020

Appendix 2
Contributions to real GDP growth: G7 countries

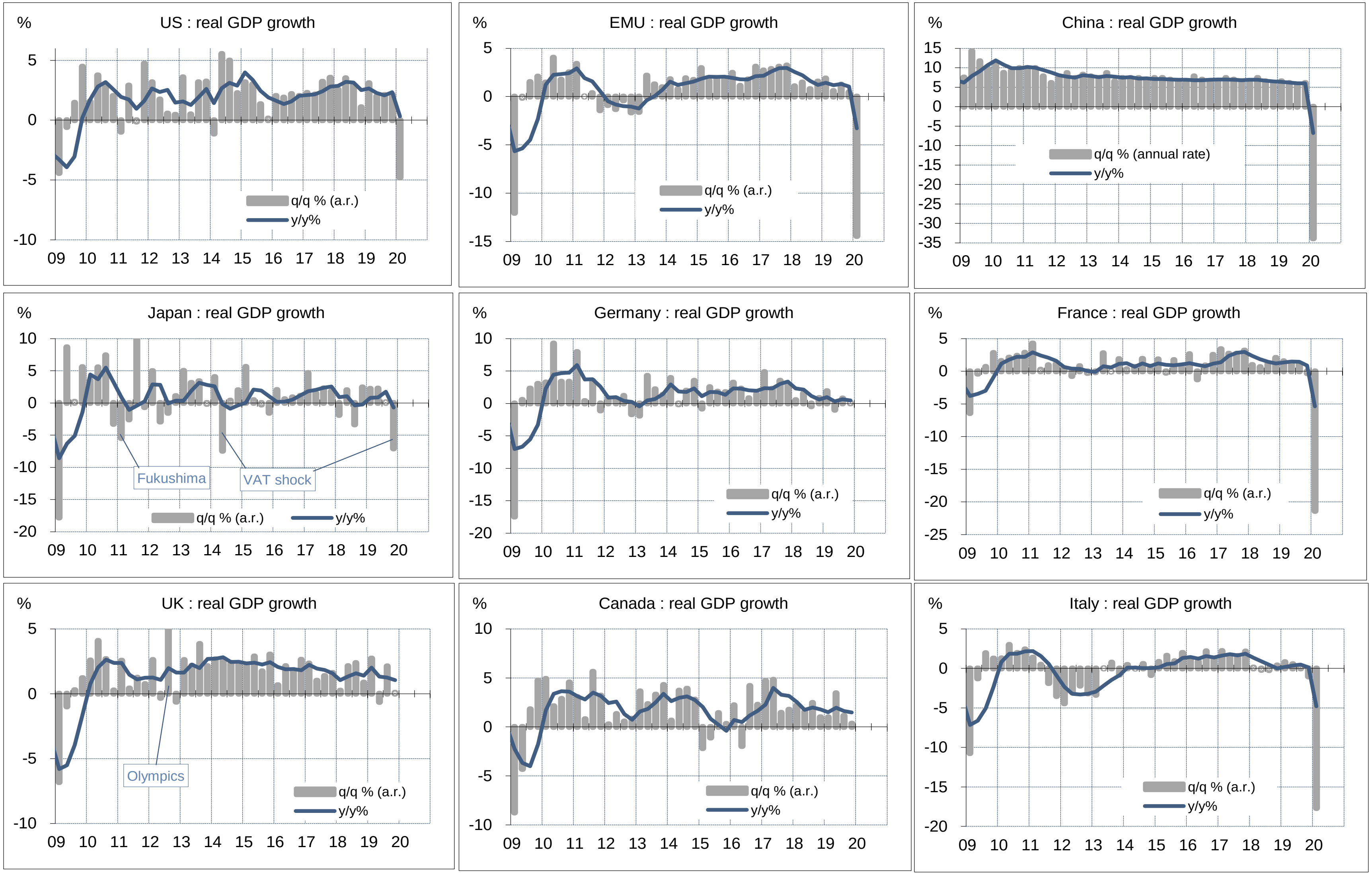
Real GDP change (Q/Q non annualised, %) and contributions to growth *

	Pre-crisis	Crisis	Post-crisis	2015				2016				2017				2018				2019				2020
	1999-2007	Q3 08-Q2 09	2010-2019	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
US																								
Real GDP qoq %	**0.7**	**-1.0**	**0.6**	**0.8**	**0.7**	**0.3**	**0.0**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.5**	**0.8**	**0.9**	**0.6**	**0.9**	**0.7**	**0.3**	**0.8**	**0.5**	**0.5**	**0.5**	**-1.2**
- Inventories	0.0	-0.3	0.0	0.5	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	0.3	-0.2	0.0	0.3	-0.2	0.0	-0.3	0.5	0.0	0.1	-0.2	0.0	-0.2	-0.1
- Net exports	-0.1	0.3	-0.1	-0.4	0.0	-0.3	-0.1	-0.1	0.1	0.0	-0.3	0.0	-0.1	0.1	-0.2	0.0	0.2	-0.5	-0.1	0.2	-0.2	0.0	0.4	0.3
- Final demand	0.8	-1.0	0.6	0.7	0.8	0.7	0.3	0.8	0.6	0.7	0.5	0.7	0.6	0.5	1.2	0.6	1.0	0.7	0.3	0.5	0.9	0.6	0.4	-1.4
Japan																								
Real GDP qoq %	**0.3**	**-1.6**	**0.3**	**1.4**	**0.1**	**-0.1**	**-0.4**	**0.5**	**0.2**	**0.2**	**0.3**	**1.1**	**0.4**	**0.6**	**0.4**	**-0.5**	**0.5**	**-0.8**	**0.6**	**0.5**	**0.6**	**0.0**	**-1.8**	-
- Inventories	0.0	-0.5	0.0	0.3	0.5	-0.3	-0.1	0.0	0.4	-0.5	-0.3	0.2	0.0	0.5	0.1	-0.3	-0.1	0.3	0.0	0.2	-0.1	-0.2	0.1	-
- Net exports	0.1	-0.4	0.0	0.0	-0.1	-0.1	0.0	0.3	0.1	0.3	0.3	0.1	-0.3	0.5	-0.1	0.1	0.0	-0.2	-0.5	0.5	-0.3	-0.2	0.4	-
- Final demand	0.2	-0.7	0.2	1.0	-0.2	0.4	-0.3	0.2	-0.4	0.5	0.2	0.8	0.7	-0.5	0.5	-0.2	0.6	-1.0	1.1	-0.1	0.9	0.5	-2.4	-
Germany																								
Real GDP qoq %	**0.4**	**-1.7**	**0.5**	**-0.2**	**0.6**	**0.5**	**0.4**	**0.8**	**0.6**	**0.2**	**0.4**	**1.2**	**0.6**	**0.9**	**0.7**	**0.1**	**0.4**	**-0.1**	**0.2**	**0.5**	**-0.2**	**0.2**	**0.0**	-
- Inventories	0.0	-0.5	0.0	0.1	-0.5	0.1	0.1	0.1	-0.1	0.0	0.6	-0.1	0.2	-0.1	0.0	-0.2	0.2	0.8	-0.3	-1.0	0.2	-0.9	0.6	-
- Net exports	0.2	-0.9	0.0	-0.4	0.6	-0.4	-0.5	-0.4	0.7	-0.2	-0.6	0.7	-0.2	0.5	0.1	0.1	-0.2	-1.0	-0.2	0.5	-0.5	0.7	-0.6	-
- Final demand	0.2	-0.3	0.4	0.1	0.5	0.8	0.8	1.1	0.0	0.4	0.4	0.6	0.6	0.5	0.6	0.2	0.4	0.1	0.7	1.0	0.1	0.4	0.0	-
France																								
Real GDP qoq %	**0.6**	**-0.9**	**0.3**	**0.5**	**-0.1**	**0.4**	**0.2**	**0.6**	**-0.3**	**0.2**	**0.6**	**0.8**	**0.7**	**0.7**	**0.8**	**0.2**	**0.2**	**0.3**	**0.5**	**0.4**	**0.3**	**0.3**	**-0.1**	**-5.8**
- Inventories	0.0	-0.6	0.0	0.2	-0.4	0.5	0.3	-0.4	-0.7	0.4	-0.4	0.8	-0.6	0.2	0.0	0.0	0.1	-0.4	-0.3	0.3	-0.2	-0.1	-0.4	0.9
- Net exports	-0.1	0.0	0.0	-0.2	0.4	-0.6	-0.4	0.1	0.3	-0.4	0.2	-0.7	0.8	-0.2	0.5	0.1	-0.1	0.2	0.2	-0.3	0.0	-0.3	0.0	-0.2
- Final demand	0.6	-0.3	0.3	0.5	0.0	0.5	0.3	0.9	0.1	0.2	0.8	0.8	0.5	0.7	0.3	0.1	0.1	0.4	0.5	0.4	0.5	0.7	0.3	-6.6
Italy																								
Real GDP qoq %	**0.4**	**-1.7**	**0.0**	**0.2**	**0.4**	**0.2**	**0.5**	**0.3**	**0.2**	**0.5**	**0.3**	**0.5**	**0.4**	**0.4**	**0.5**	**0.0**	**0.0**	**-0.1**	**0.1**	**0.2**	**0.1**	**0.1**	**-0.3**	**-4.7**
- Inventories	0.0	-0.4	0.0	0.7	-0.3	0.4	0.0	0.1	0.2	0.1	-0.1	-0.2	0.6	-0.2	0.3	-0.4	0.1	-0.2	0.2	-0.7	0.1	0.3	-0.7	-
- Net exports	0.0	-0.3	0.1	-0.7	0.0	-0.4	0.2	-0.5	0.0	0.0	-0.1	0.5	-0.5	0.1	-0.2	0.1	-0.4	0.3	-0.2	0.6	0.0	-0.4	0.6	-
- Final demand	0.4	-1.0	-0.1	0.2	0.7	0.2	0.3	0.7	0.0	0.5	0.5	0.2	0.4	0.5	0.4	0.3	0.2	-0.2	0.2	0.2	0.0	0.2	-0.1	-
EMU																								
Real GDP qoq %	**0.6**	**-1.4**	**0.3**	**0.7**	**0.4**	**0.5**	**0.4**	**0.6**	**0.3**	**0.4**	**0.8**	**0.7**	**0.7**	**0.8**	**0.8**	**0.3**	**0.4**	**0.2**	**0.4**	**0.5**	**0.1**	**0.3**	**0.1**	**-3.8**
- Inventories	0.0	-0.4	0.0	0.2	-0.3	0.3	0.0	0.1	-0.2	0.0	0.2	0.1	0.1	-0.2	0.0	0.0	0.0	0.3	-0.3	-0.4	0.1	-0.2	-0.1	-
- Net exports	0.0	-0.2	0.1	0.2	-1.2	0.8	-0.5	-0.1	0.0	0.0	-0.2	0.6	-1.1	1.5	0.4	-0.1	-0.1	-0.4	0.1	0.3	-1.2	0.9	-0.8	-
- Final demand	0.5	-0.8	0.3	0.3	1.8	-0.6	0.9	0.7	0.4	0.4	0.7	0.0	1.7	-0.5	0.5	0.4	0.4	0.3	0.6	0.5	1.2	-0.5	1.1	-
UK																								
Real GDP qoq %	**0.7**	**-1.4**	**0.5**	**0.5**	**0.7**	**0.4**	**0.7**	**0.2**	**0.5**	**0.5**	**0.6**	**0.6**	**0.3**	**0.3**	**0.4**	**0.1**	**0.5**	**0.6**	**0.2**	**0.7**	**-0.2**	**0.5**	**0.0**	-
- Inventories	0.0	0.0	0.0	0.4	-1.3	0.1	1.0	-1.0	-0.7	1.1	-1.0	-0.1	-0.2	0.0	0.1	0.0	0.5	-0.3	0.9	2.7	-3.3	-1.2	-1.6	-
- Net exports	0.0	0.0	0.0	-0.8	0.9	-0.2	-0.3	-0.1	0.3	-1.6	1.4	0.3	0.0	0.1	-0.1	0.0	-0.2	0.4	-1.0	-2.6	2.8	1.4	1.5	-
- Final demand	0.8	-1.4	0.5	1.0	1.1	0.5	0.0	1.2	1.0	1.0	0.2	0.3	0.4	0.2	0.4	0.0	0.3	0.4	0.3	0.5	0.4	0.4	0.2	-

** do not sum up exactly due to roundings*

Source: Thomson Reuters, ODDO BHF

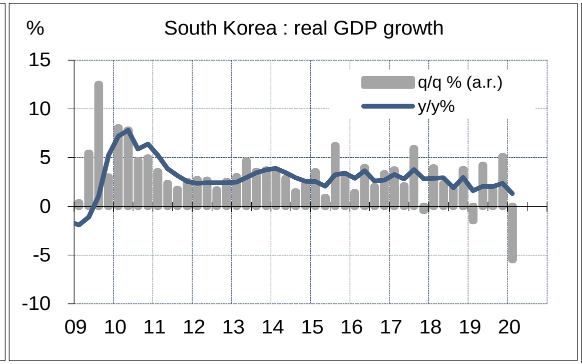
Appendix 3
Real GDP growth: G7 countries + China

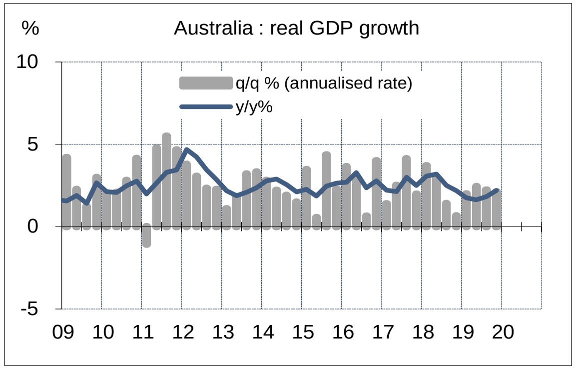


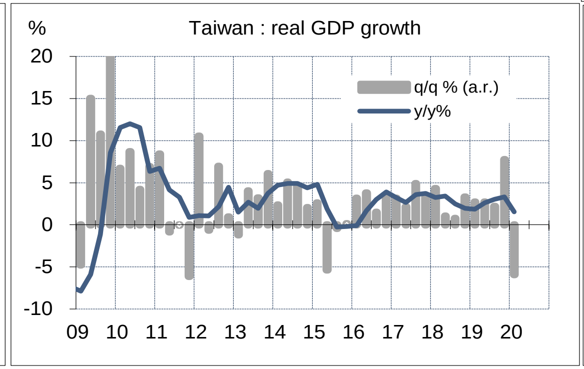
06/05/2020

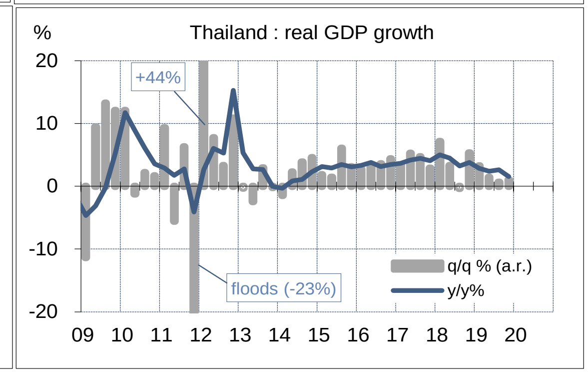
Source: Thomson Reuters, ODDO BHF

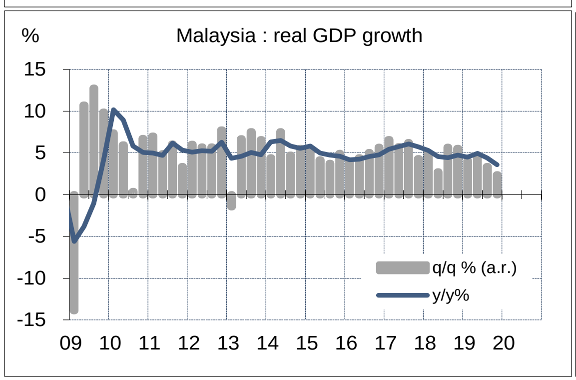
Appendix 4
Real GDP growth: countries of Asia excl. China-Japan (selection)

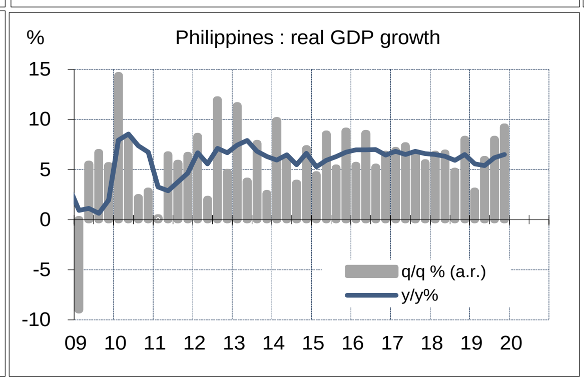


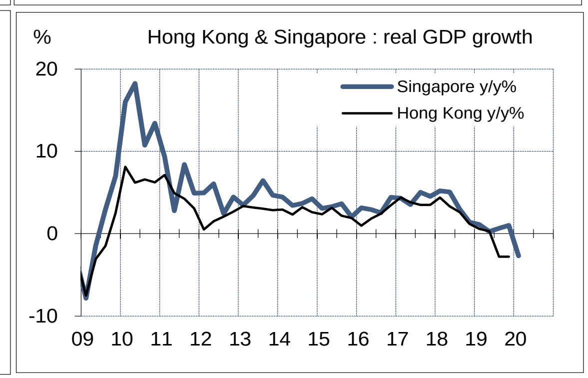








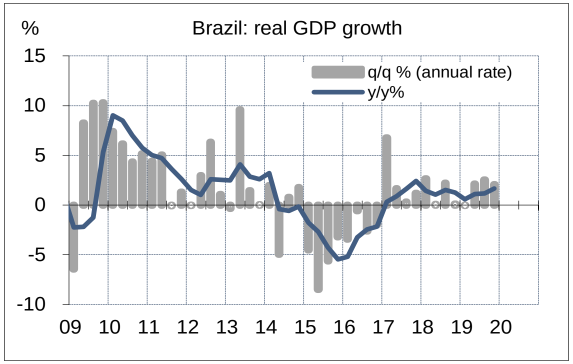


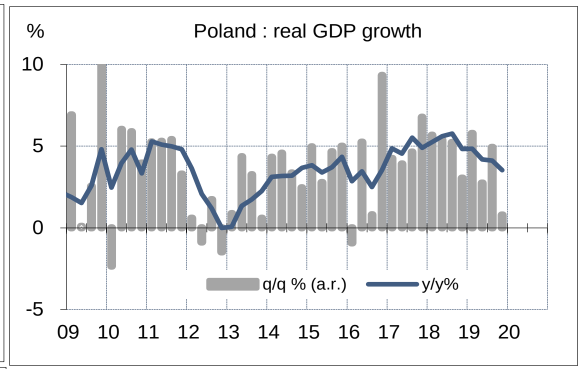


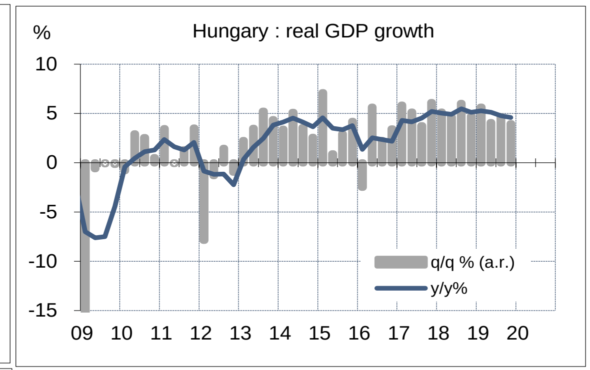
06/05/2020

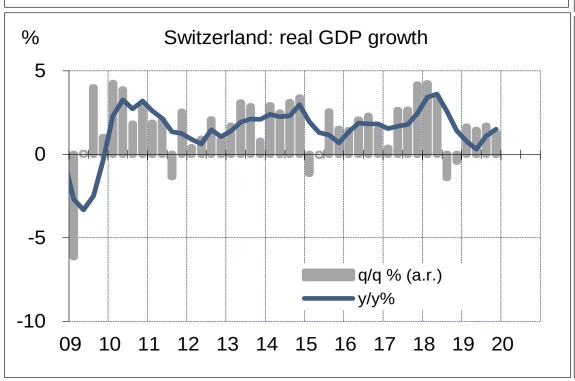
Source: Thomson Reuters, ODDO BHF

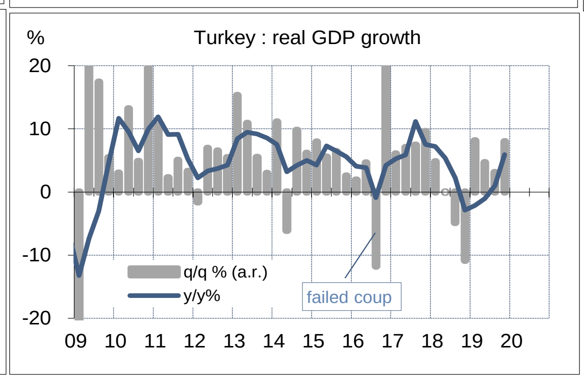
Appendix 5
Real GDP growth: other countries (selection)

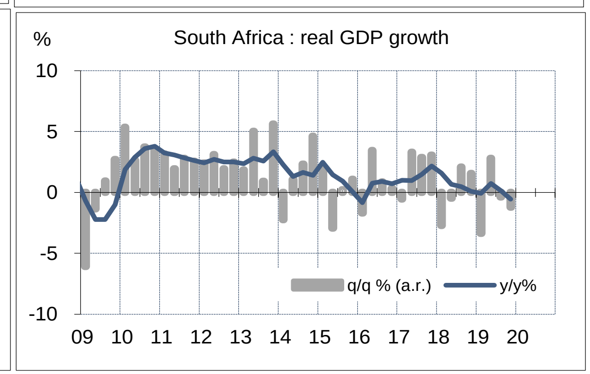












Source: Thomson Reuters, ODDO BHF

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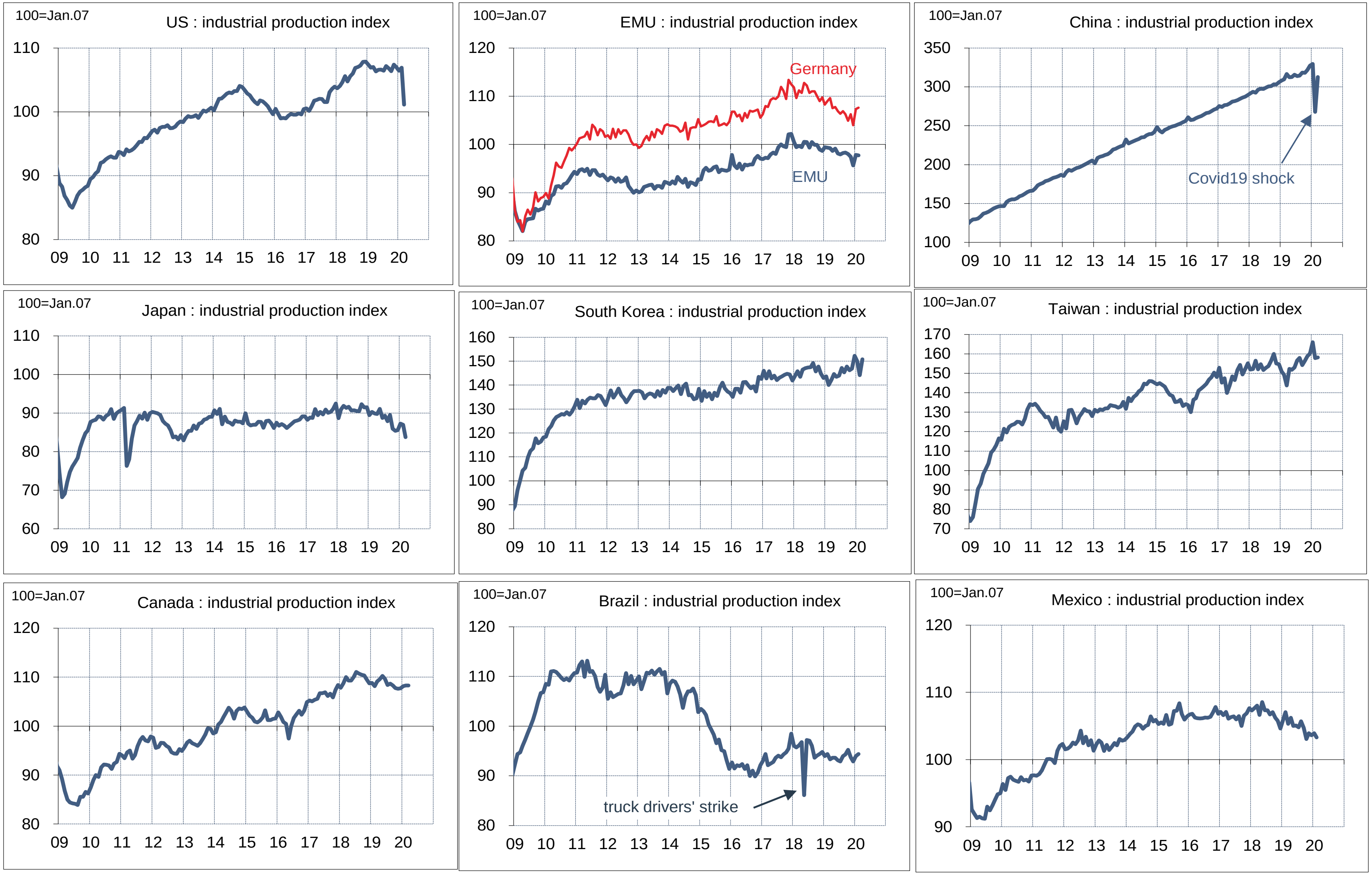
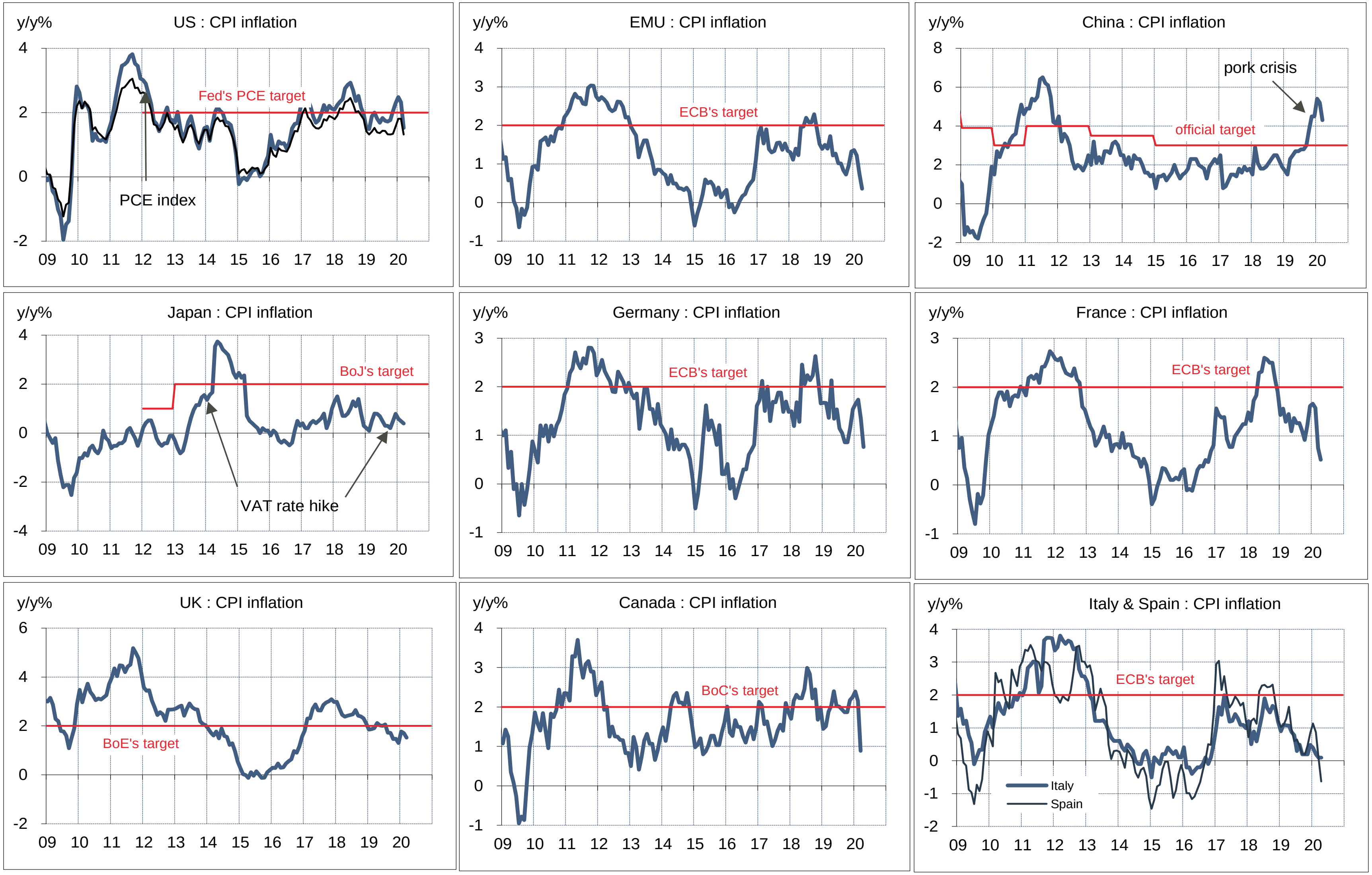
Appendix 6
Industrial production (index): selected countries



Source: Thomson Reuters, ODDO BHF

06/05/2020

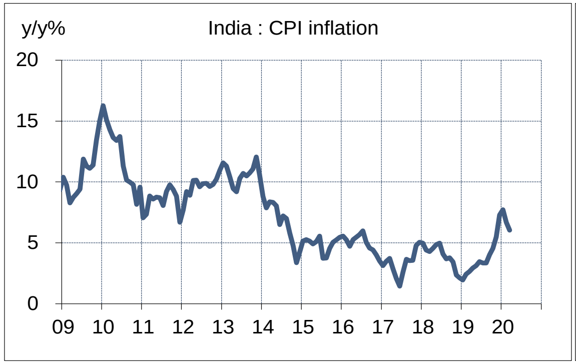
Appendix 7
Consumer price inflation: G7 countries + China

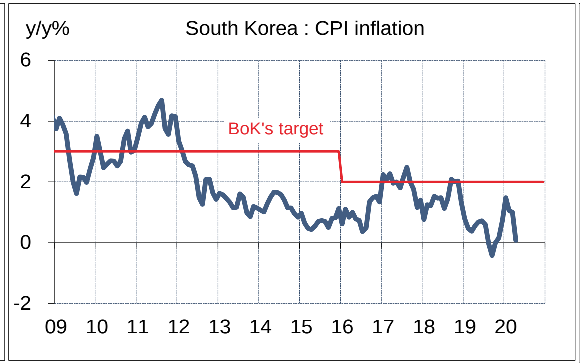


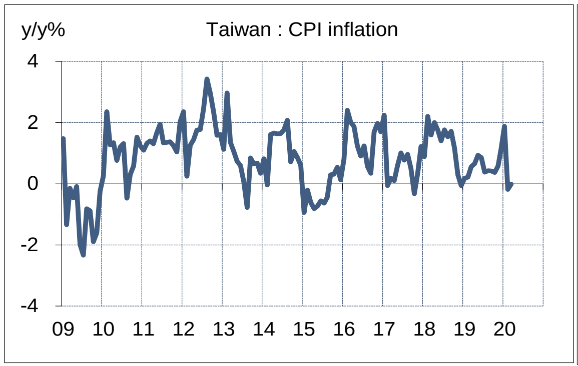
06/05/2020

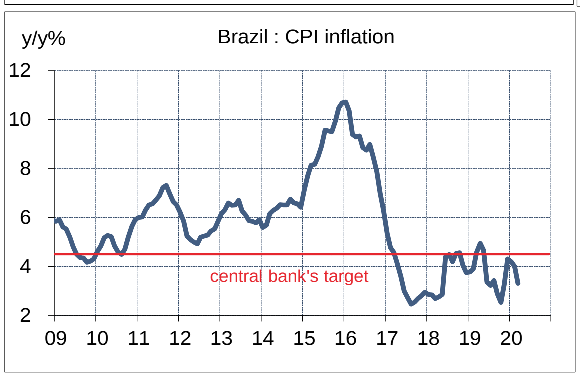
Source: Thomson Reuters, ODDO BHF

Appendix 8
Consumer price inflation: emerging countries (selection)





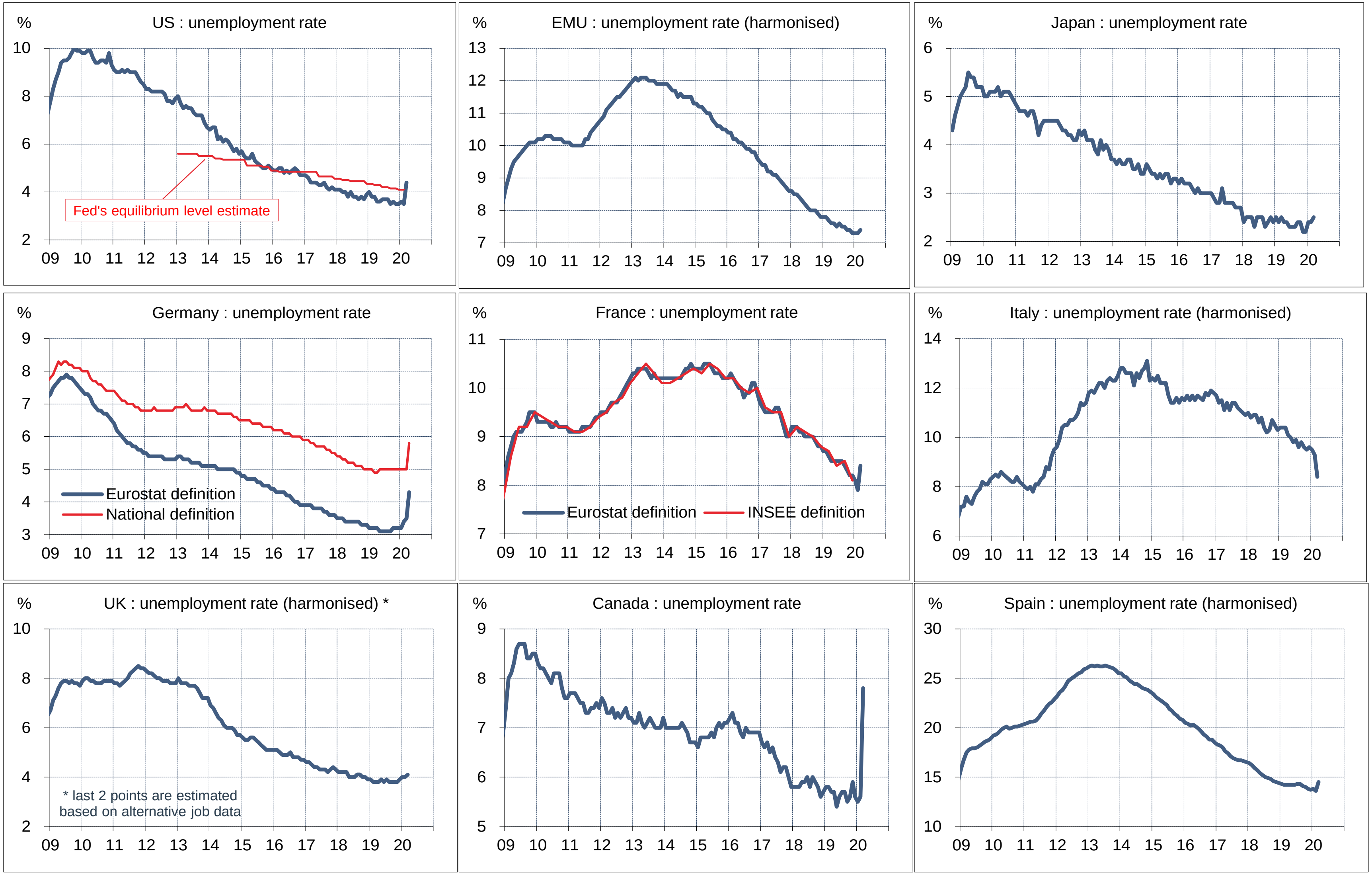




06/05/2020

Source: Thomson Reuters, ODDO BHF

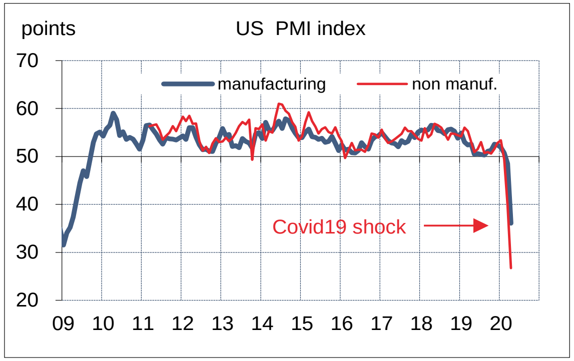
Appendix 9
Unemployment rates: G7 countries

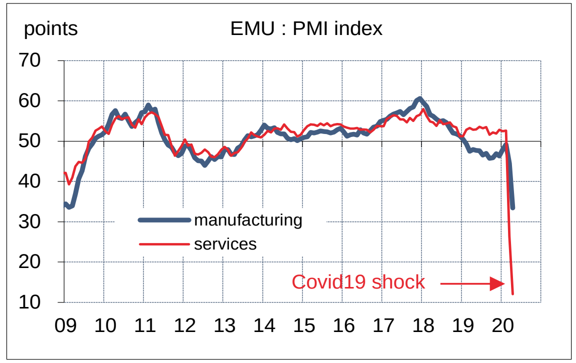


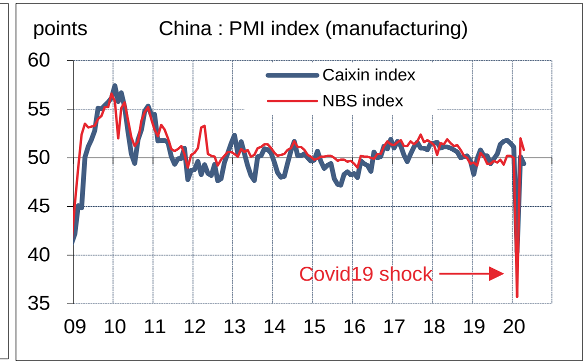
06/05/2020

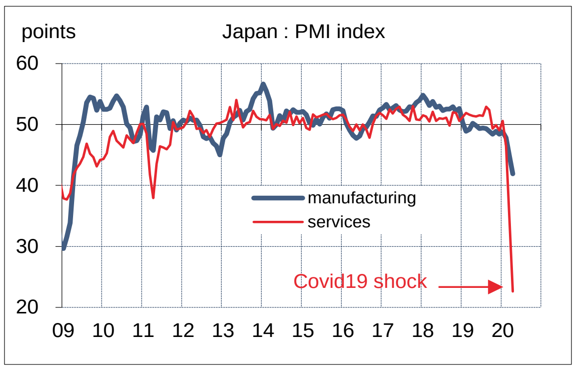
Source: Thomson Reuters, ODDO BHF

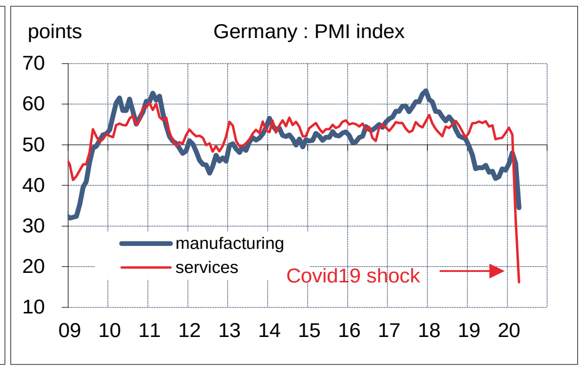
Appendix 10
Purchasing managers' confidence (PMI indices): G7 + BRIC countries

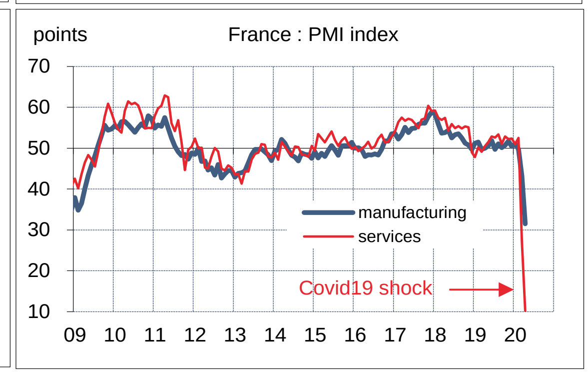


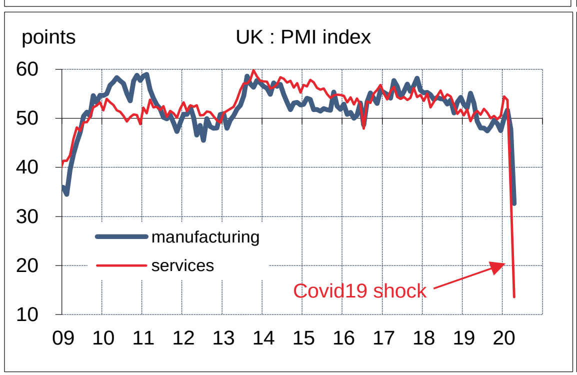


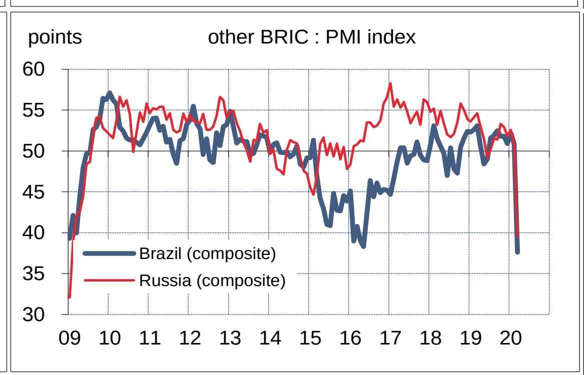


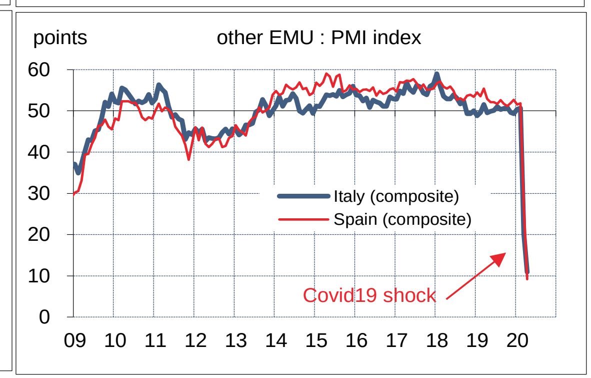








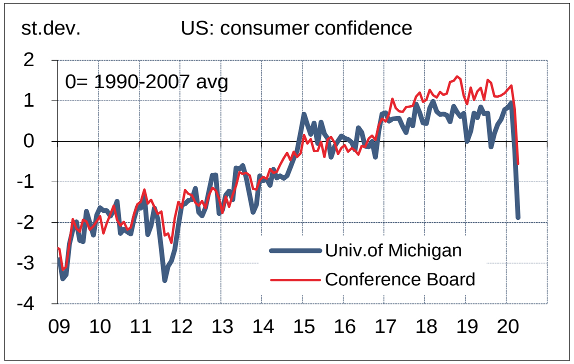


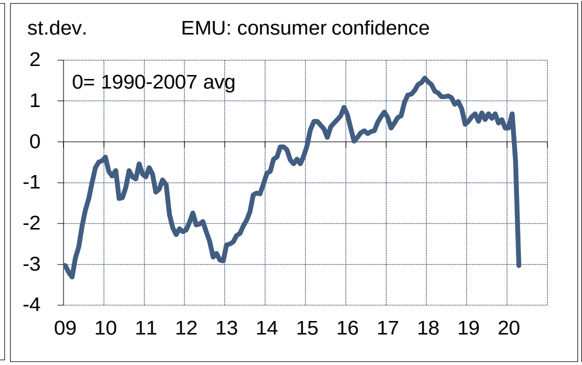


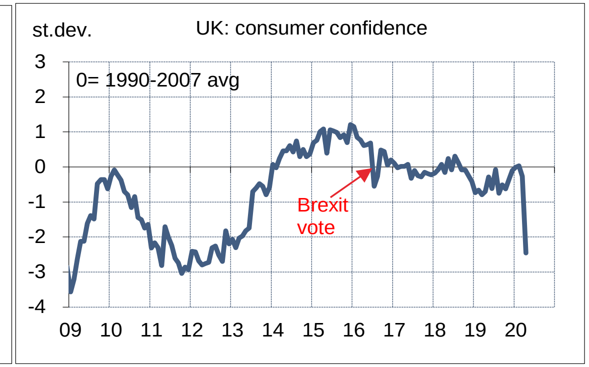
06/05/2020

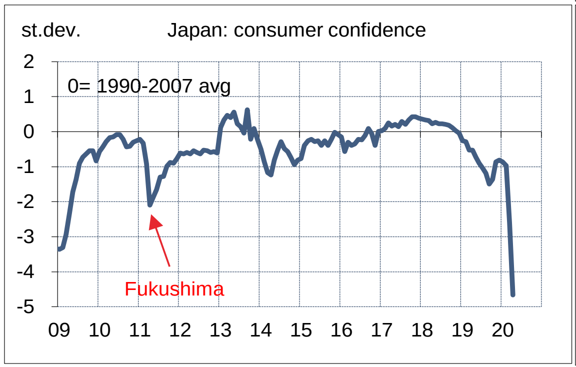
Source: Thomson Reuters, ODDO BHF

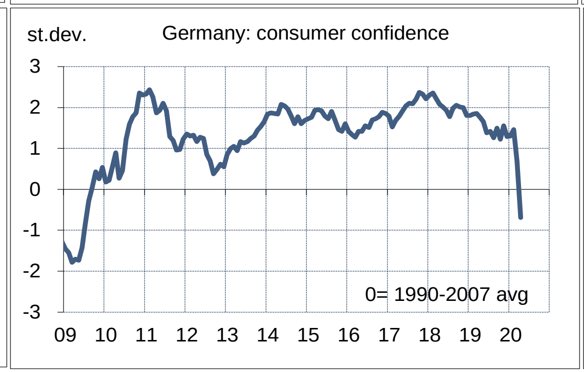
Appendix 11
Consumer confidence: developed countries (selection)

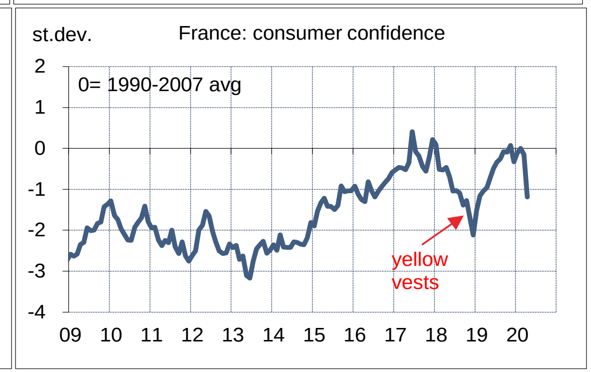


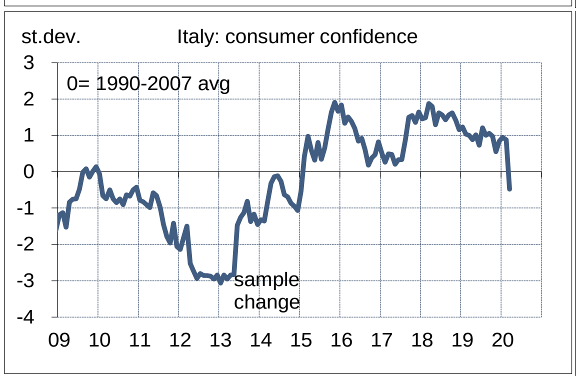


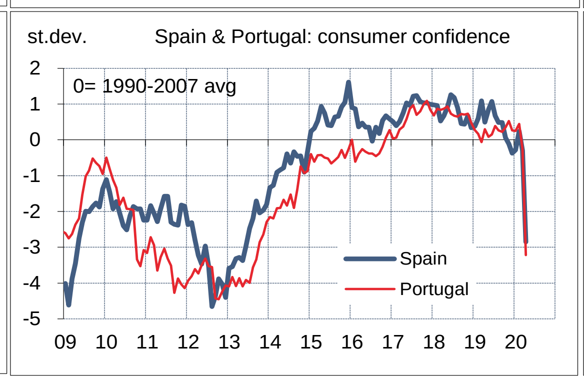


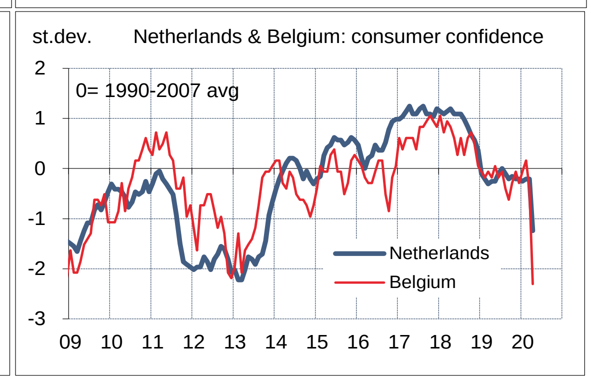








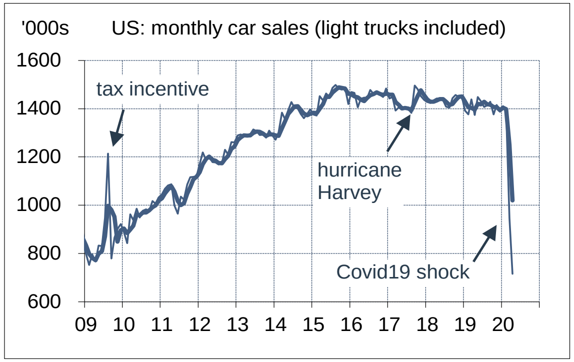


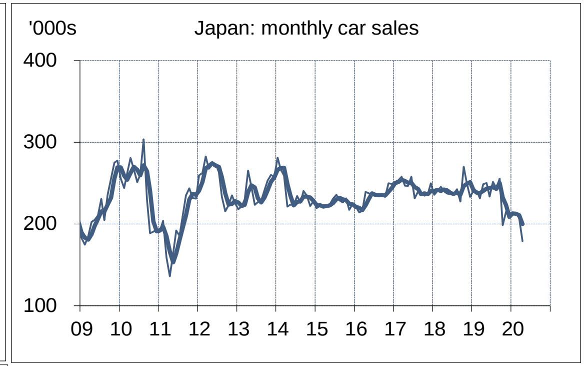


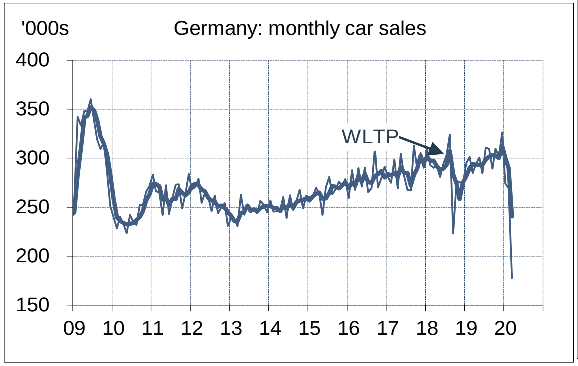
06/05/2020

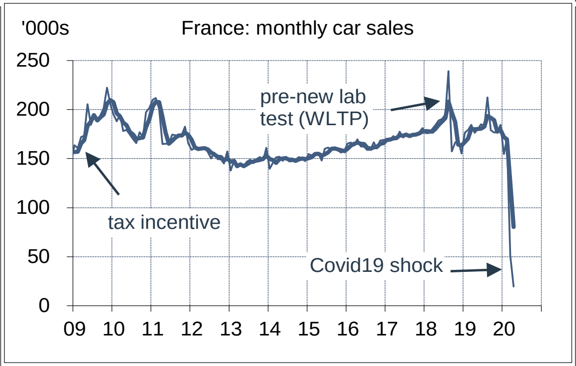
Source: Thomson Reuters, ODDO BHF

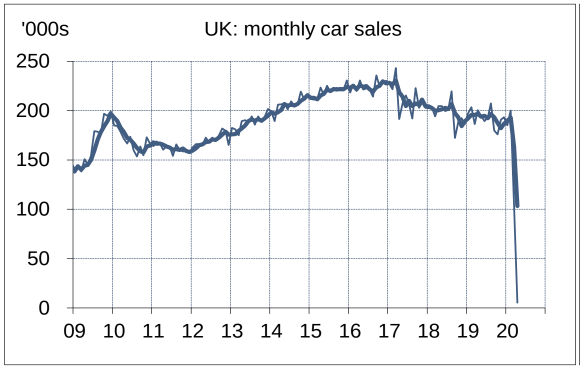
Appendix 12
Car sales: G7 countries + China + Brazil

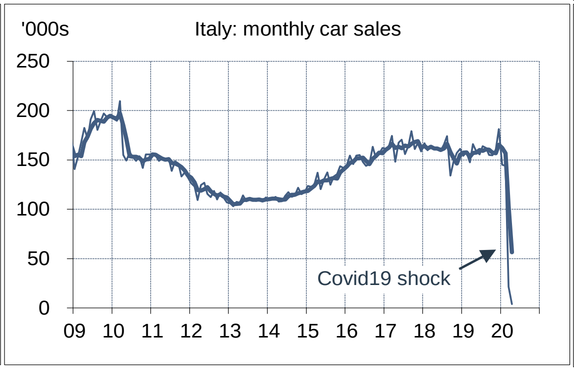


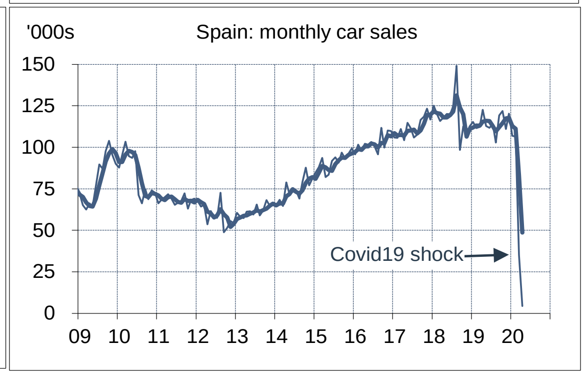






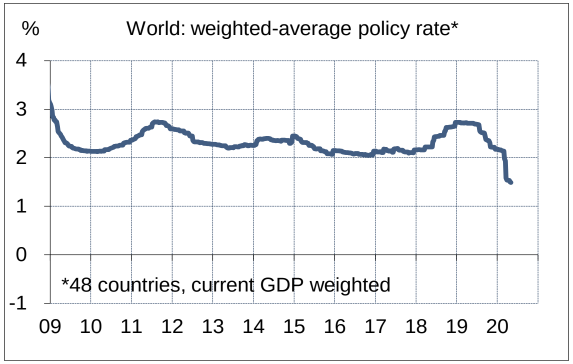


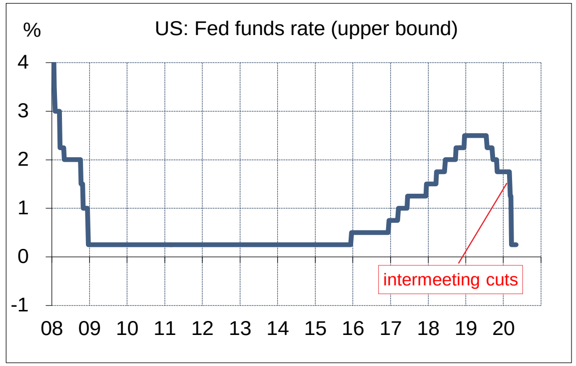


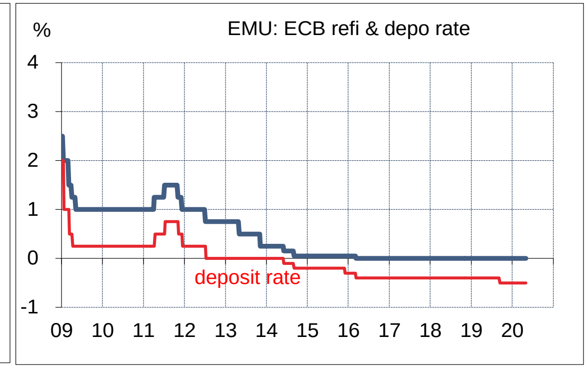


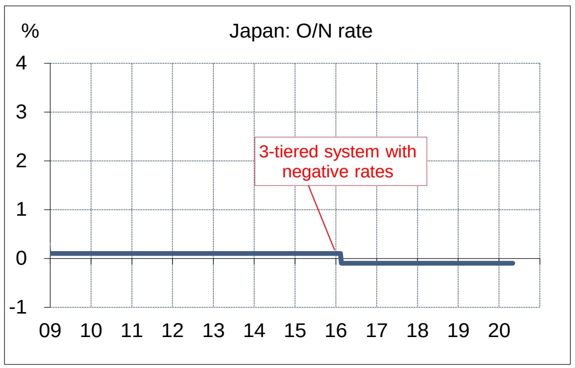
Source: Thomson Reuters, ODDO BHF

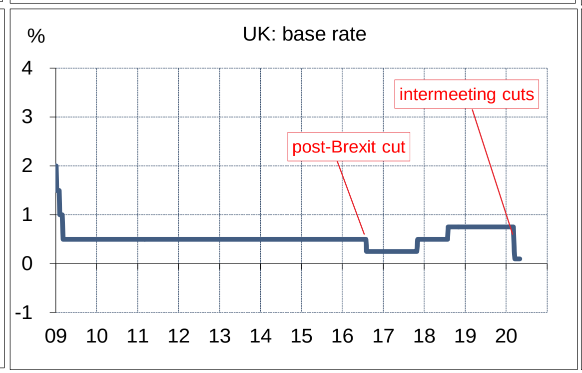
Appendix 13
Central bank policy rates: developed countries (selection)

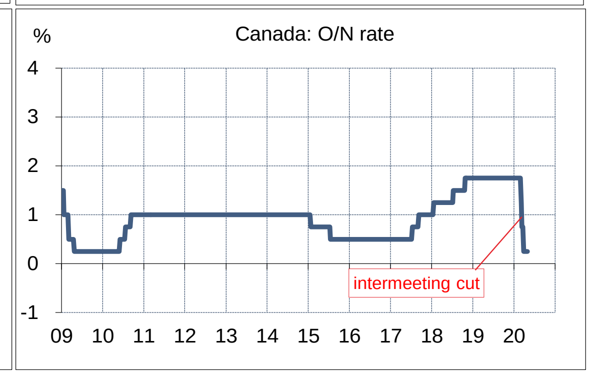


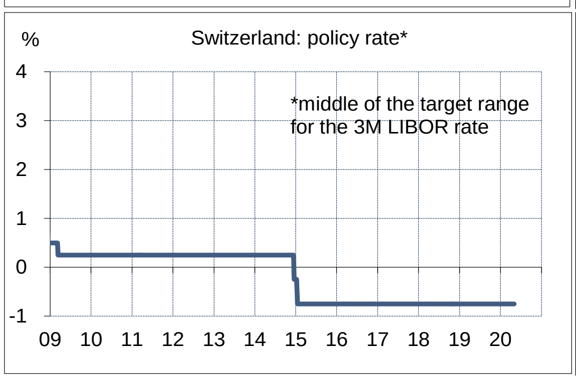


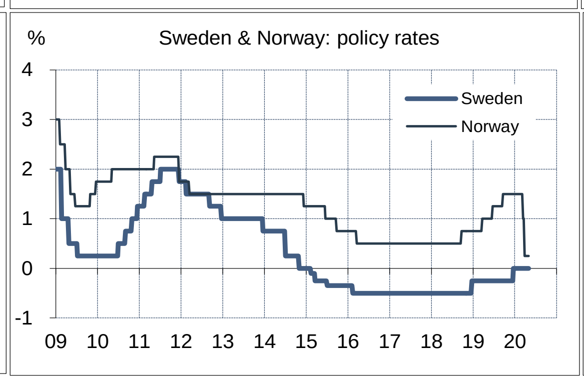


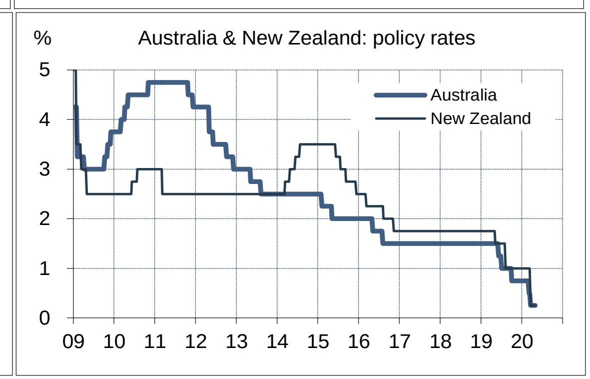








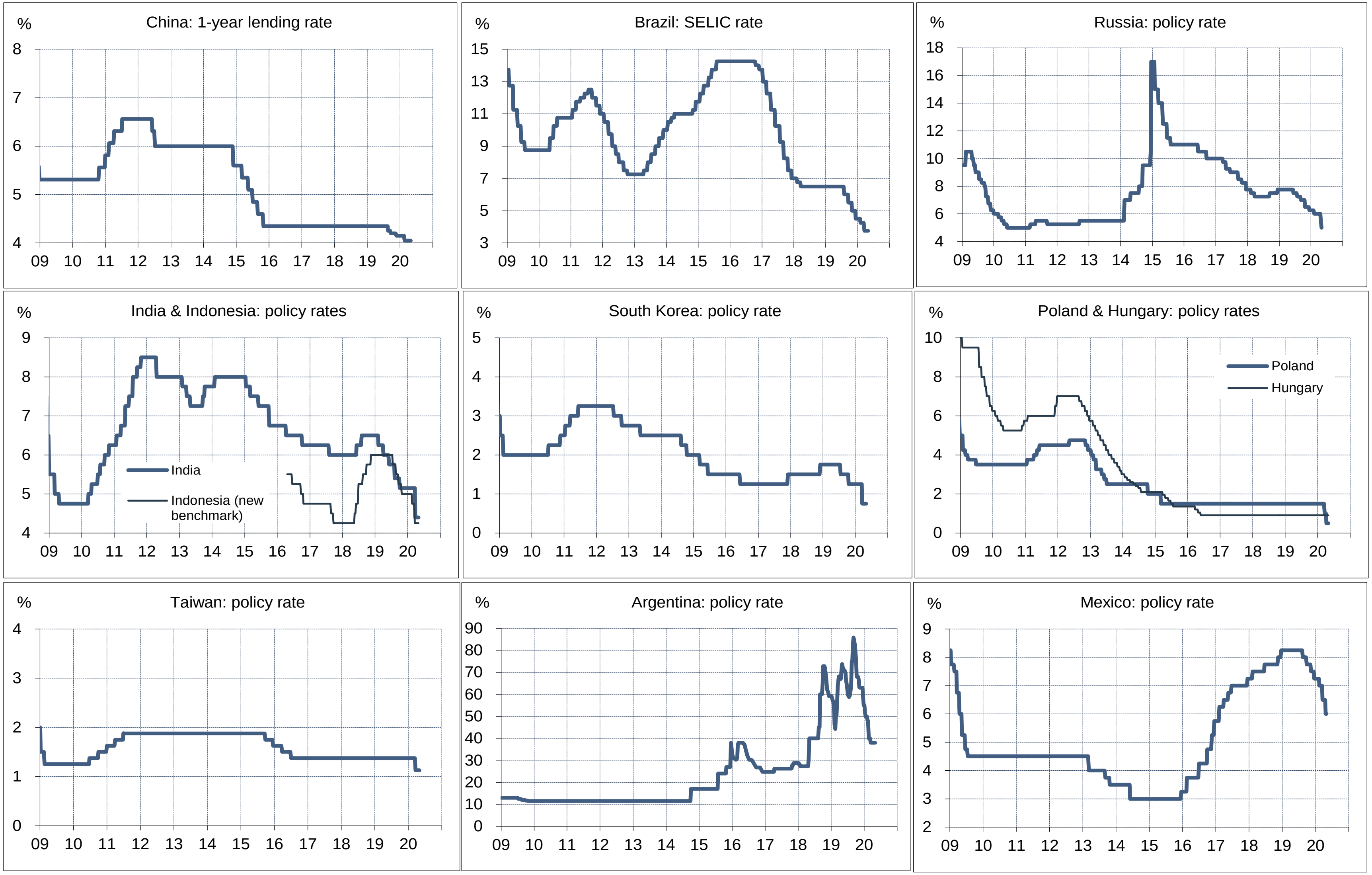




06/05/2020

Source: Thomson Reuters, ODDO BHF

Appendix 14
Central bank policy rates: emerging countries (selection)



Source: Thomson Reuters, ODDO BHF

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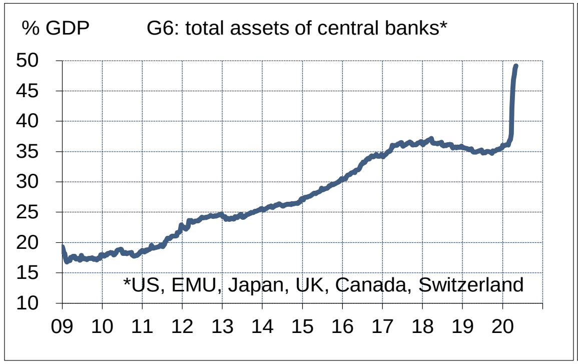
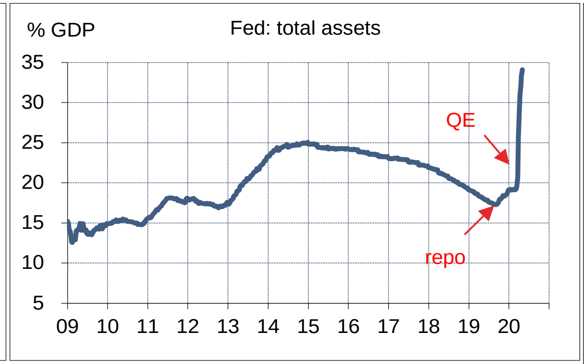
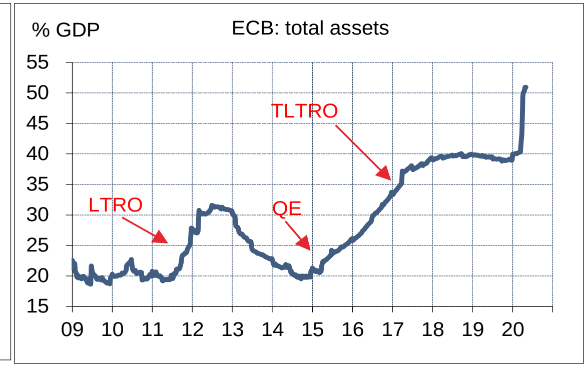
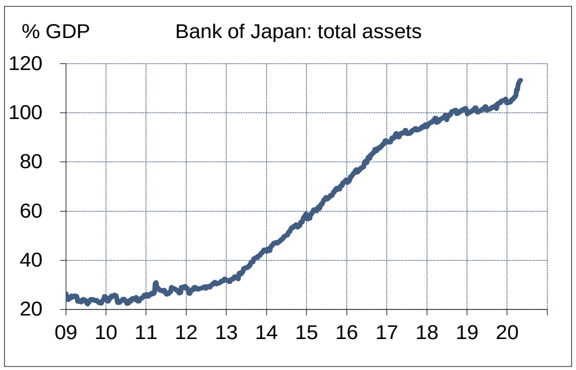
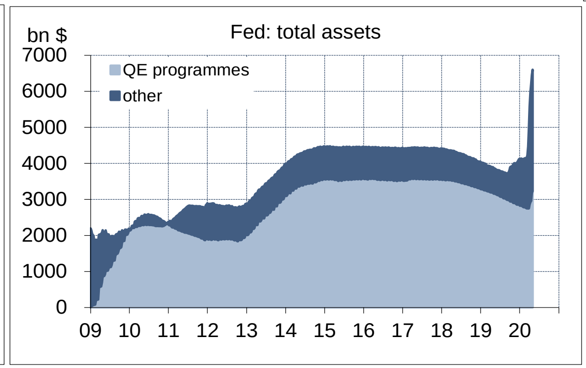
Appendix 15
Central bank balance sheets: developed countries (selection)

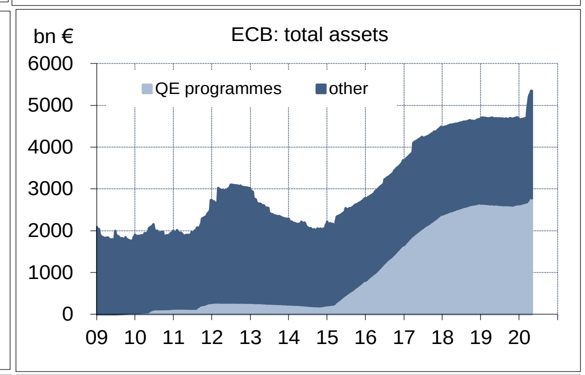


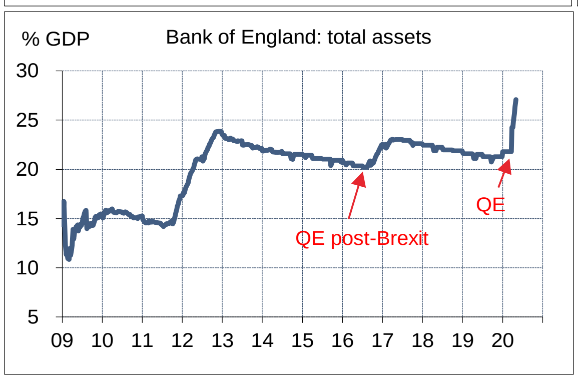


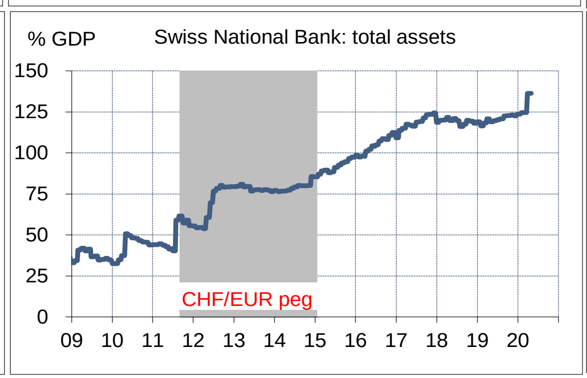


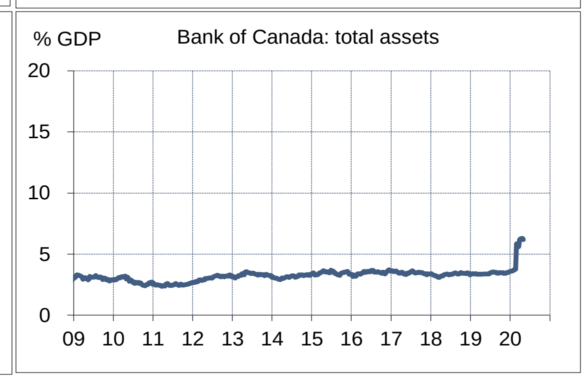












Source: Thomson Reuters, ODDO BHF

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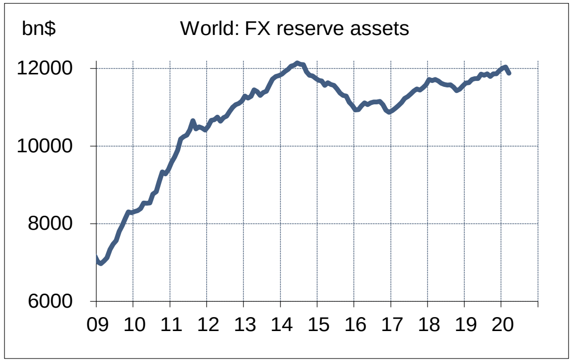
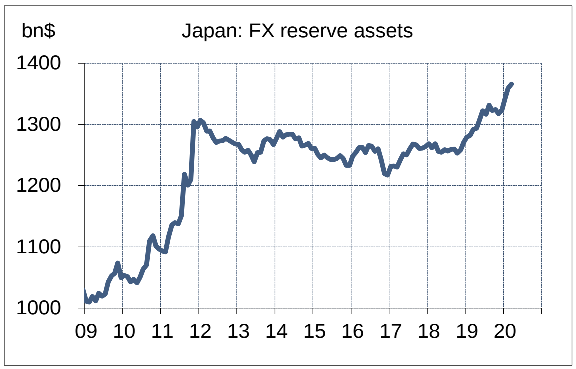
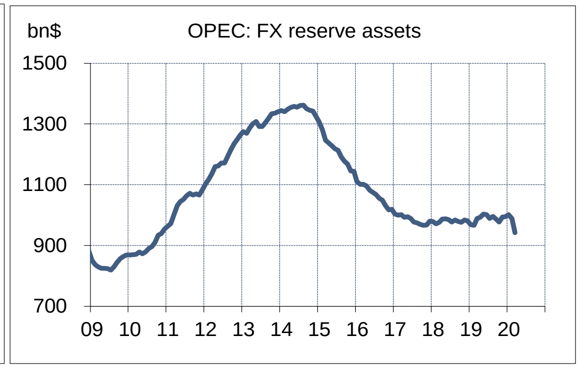
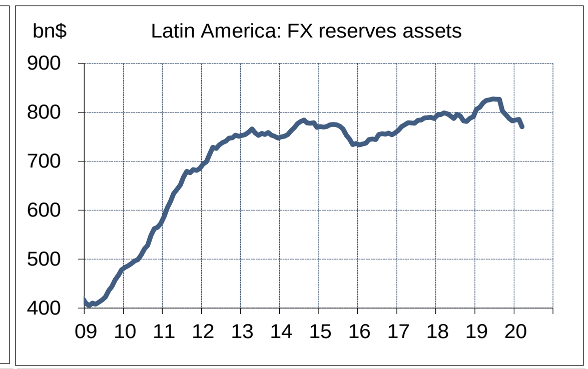
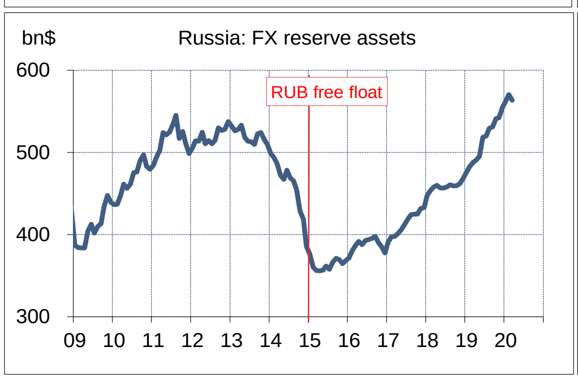
Appendix 16
Currency reserves (in US$): world and principal holders

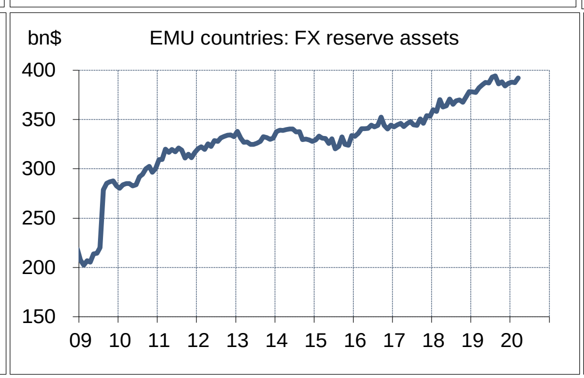


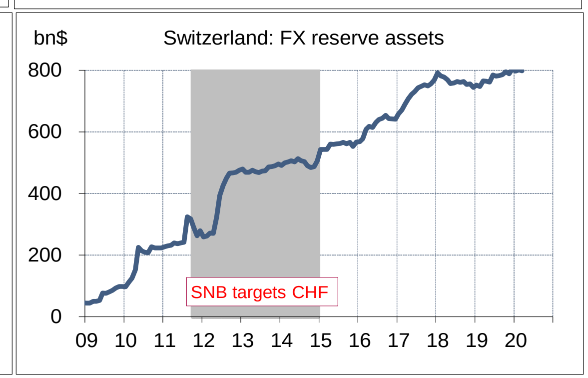








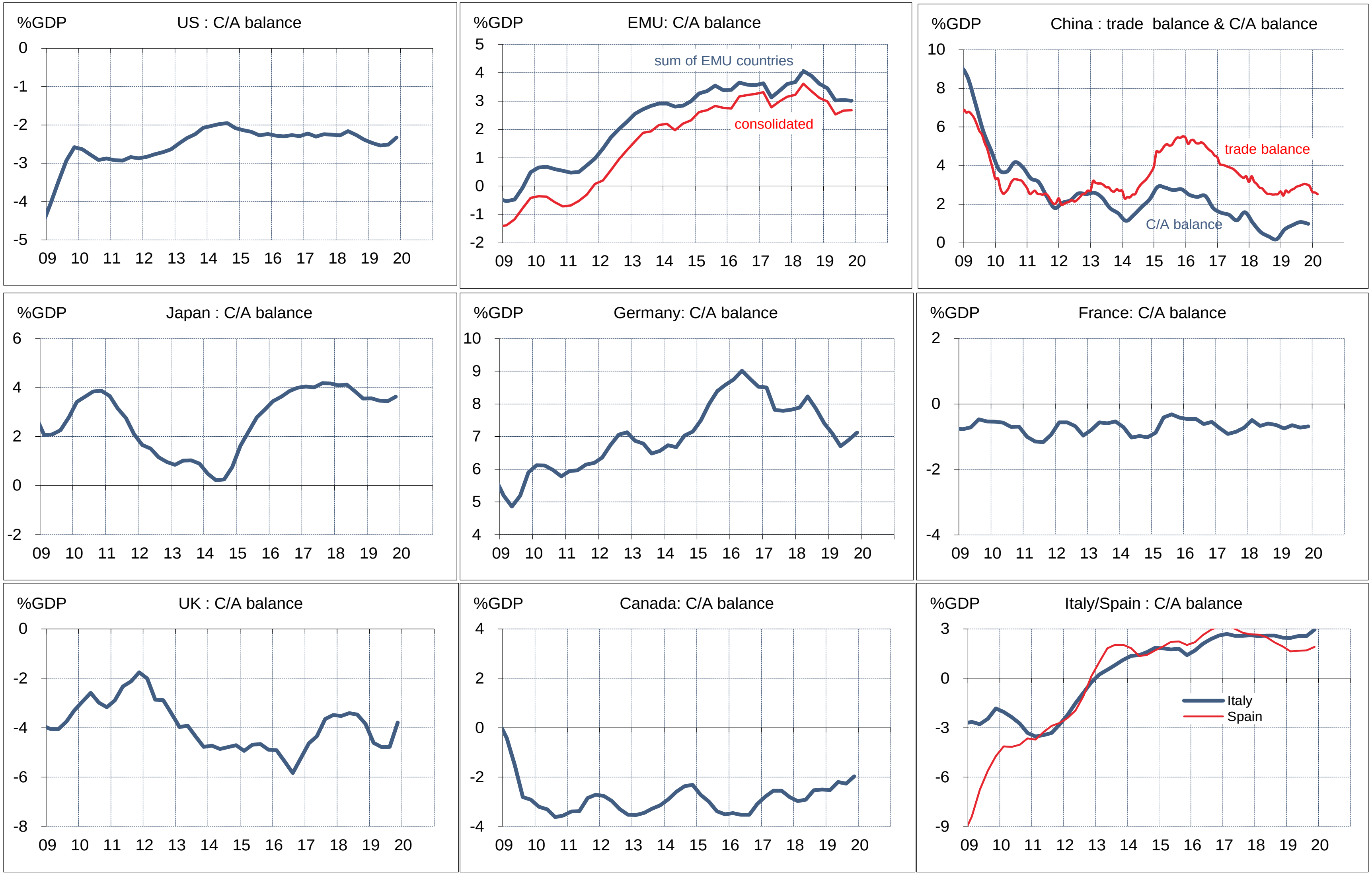




06/05/2020

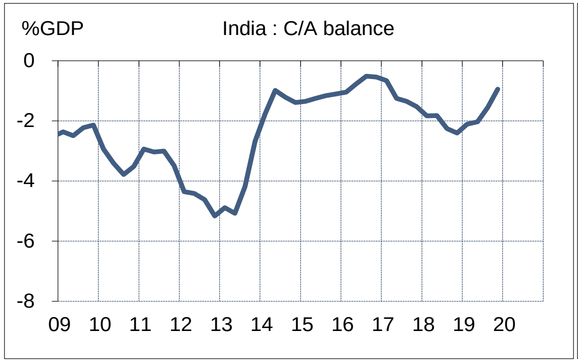
Source: Thomson Reuters, ODDO BHF

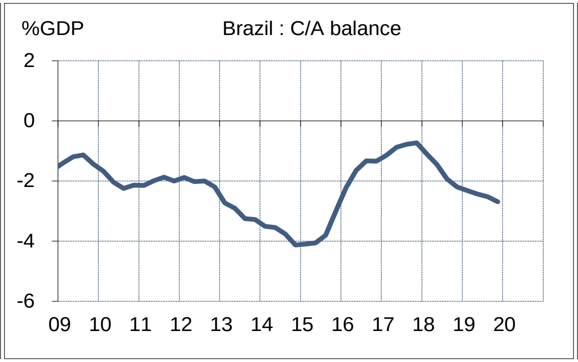
Appendix 17
Current account balances (% of GDP): G7 countries + China

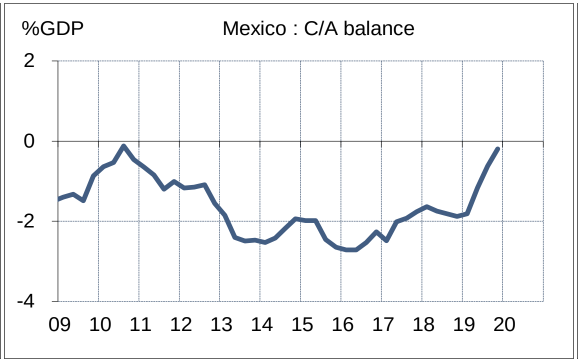


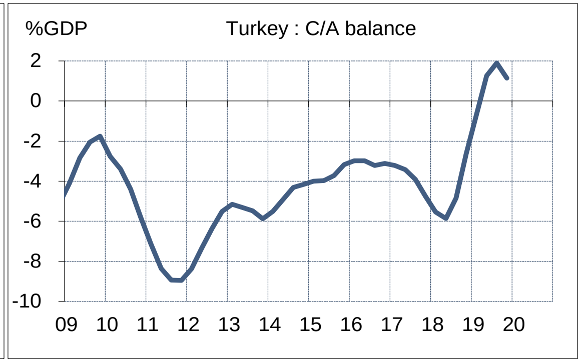
Source: Thomson Reuters, ODDO BHF

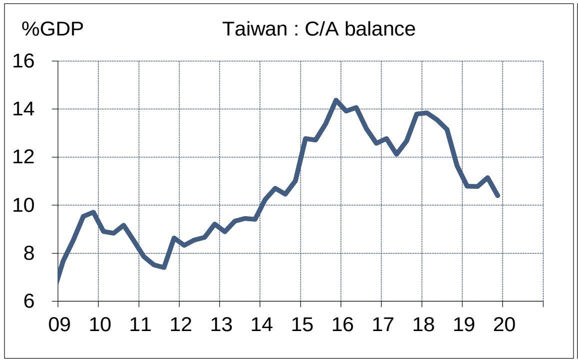
Appendix 18
Current account balances (% of GDP): emerging countries (selection)

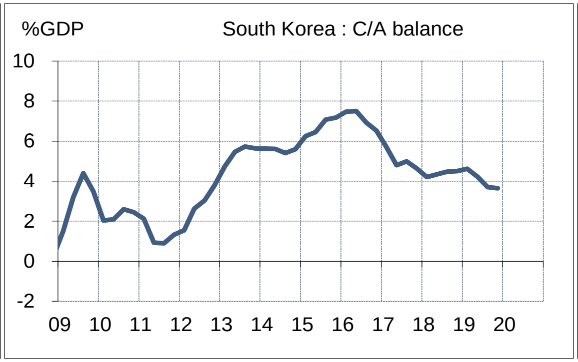


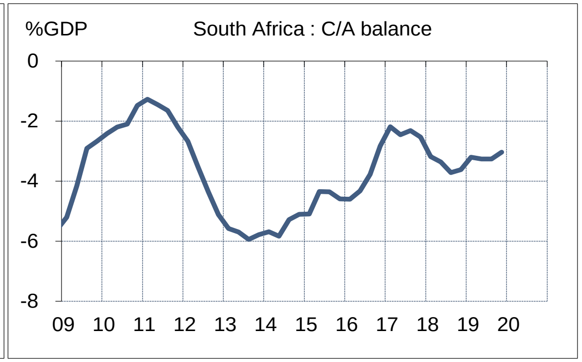






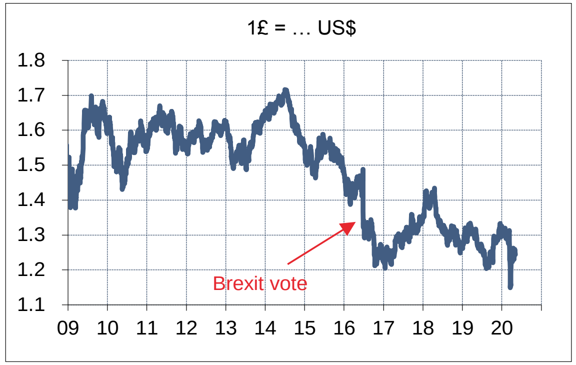


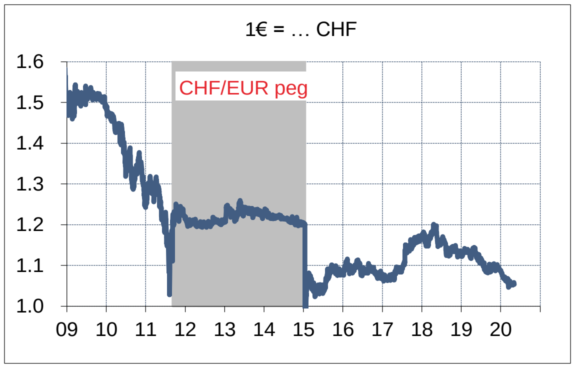


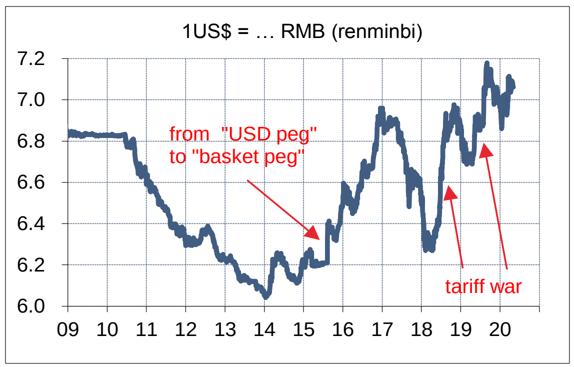


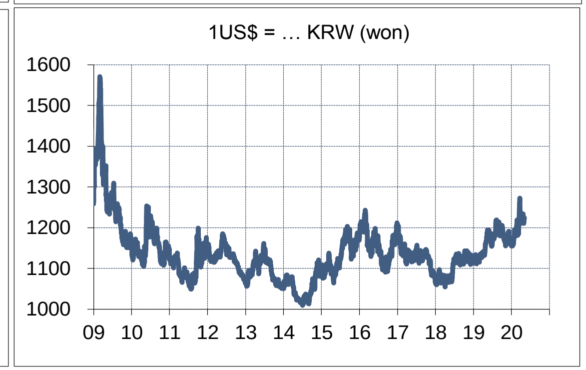
Source: Thomson Reuters, ODDO BHF

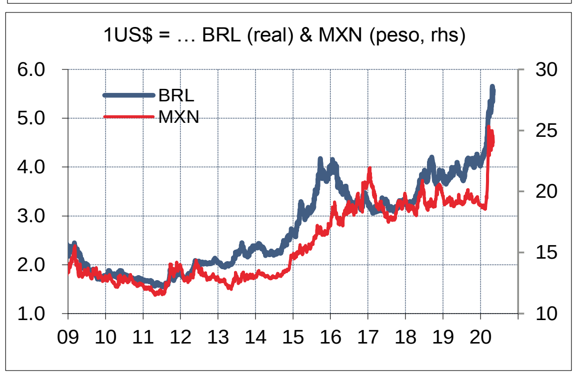
Appendix 19
Exchange rates vs EUR or US$: major currencies

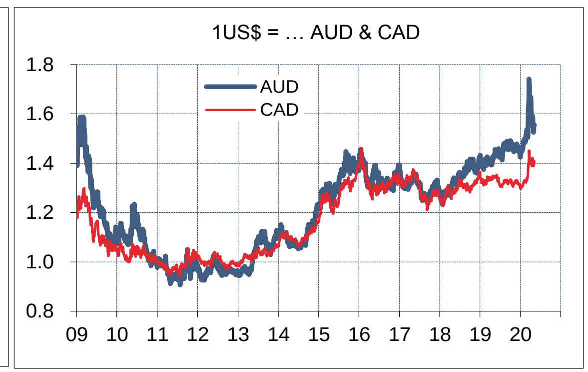












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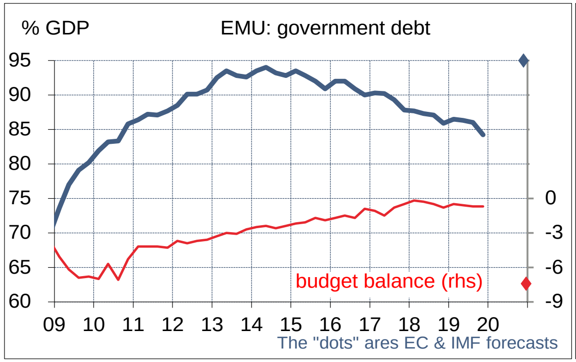
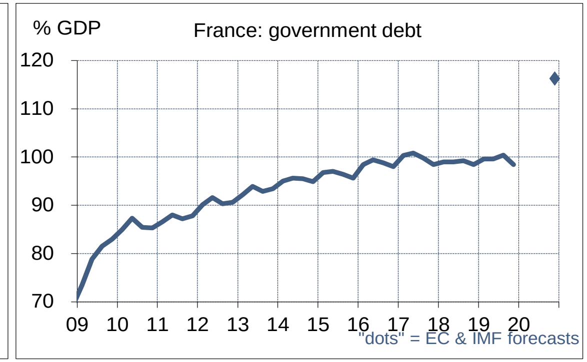
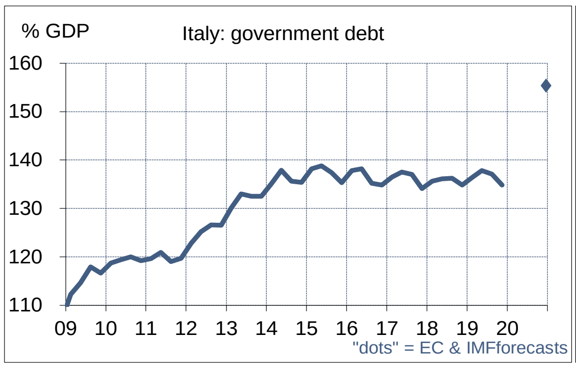
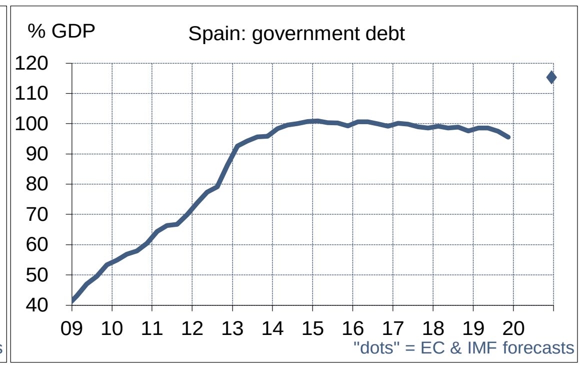
Source: Thomson Reuters, ODDO BHF

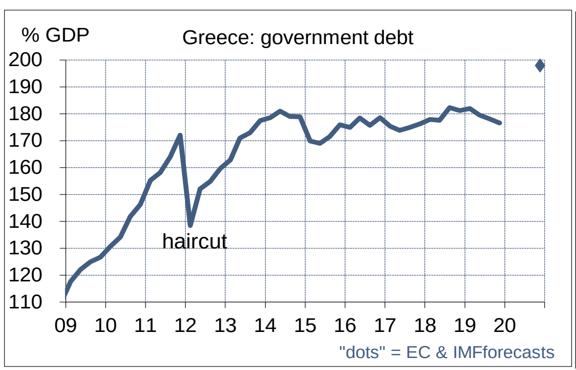
Appendix 20
Government debt (as a % of GDP): European countries (selection)

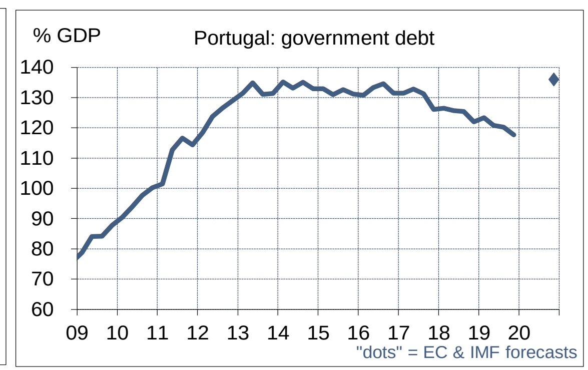












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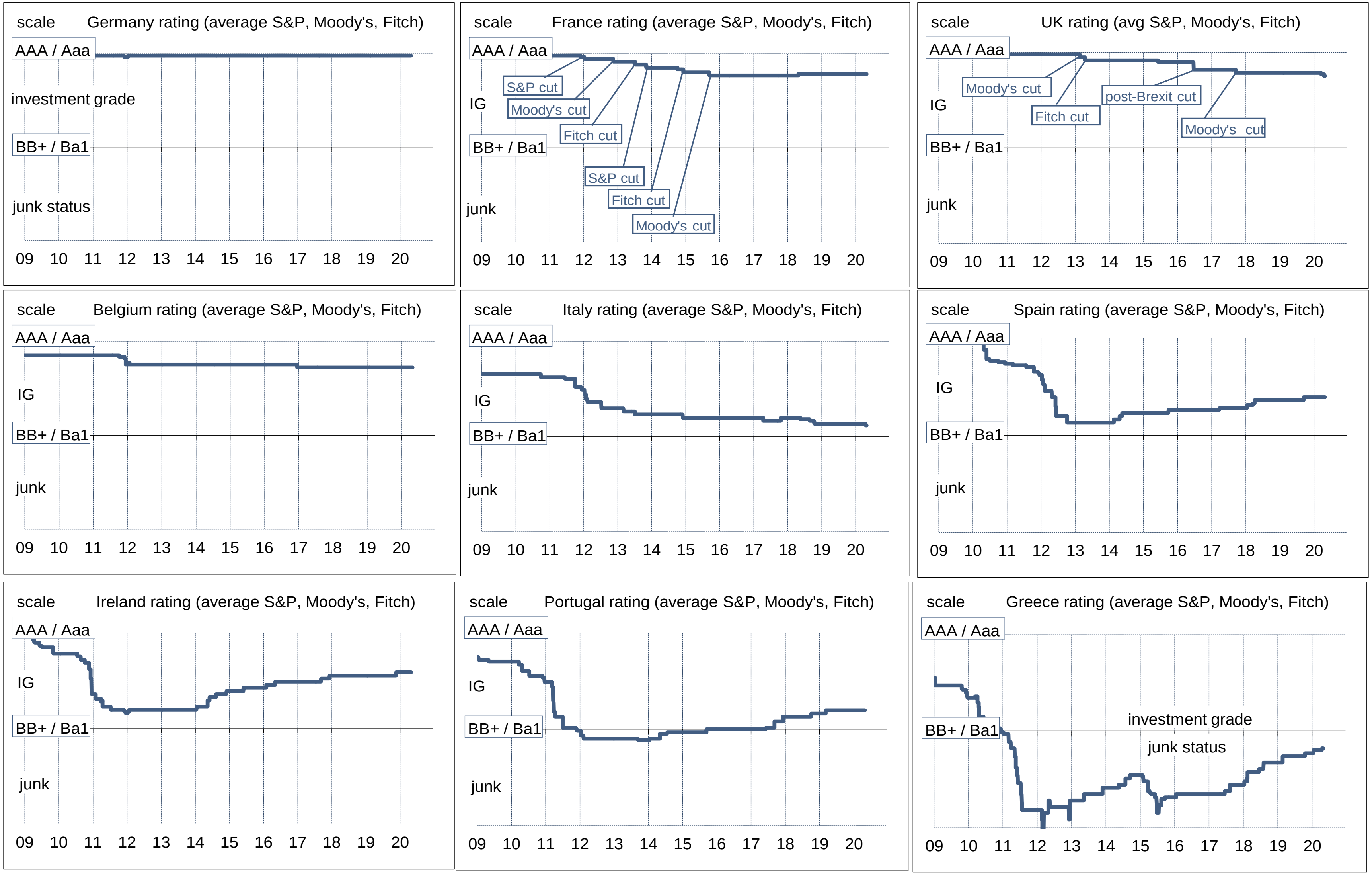
Source: Thomson Reuters, ODDO BHF

Appendix 21
Sovereign ratings: European countries (selection)



Source: Bloomberg, ODDO BHF

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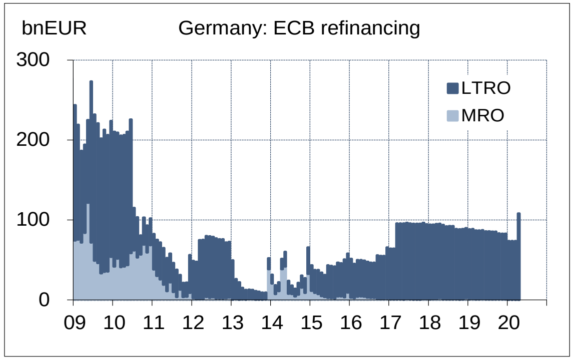
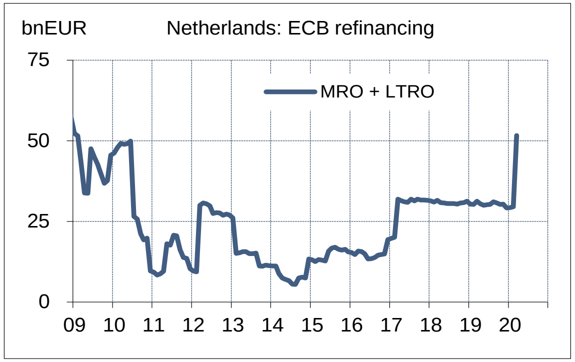
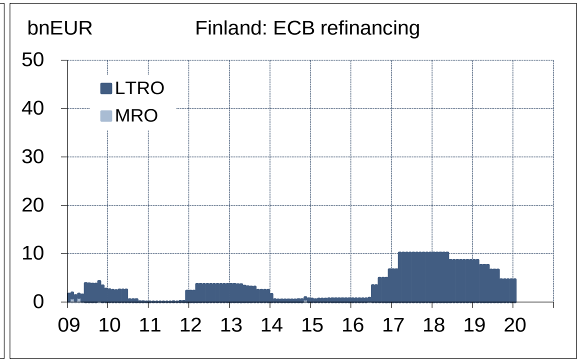
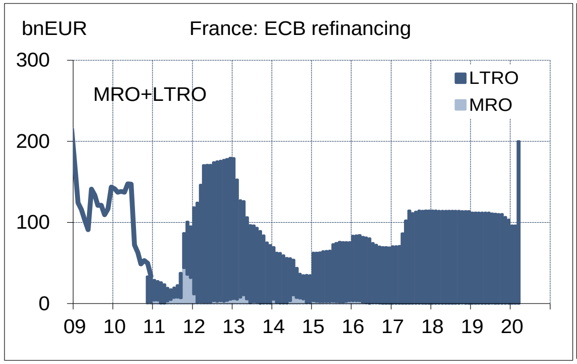
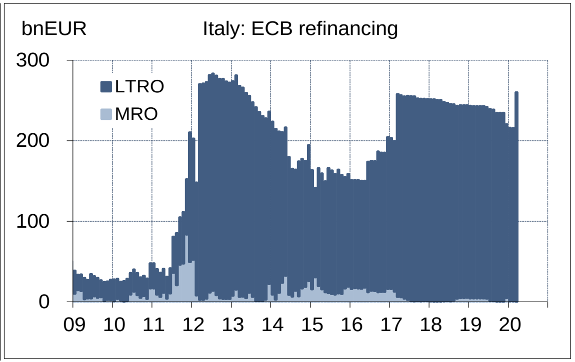
Appendix 22
Bank financing by the Eurosystem

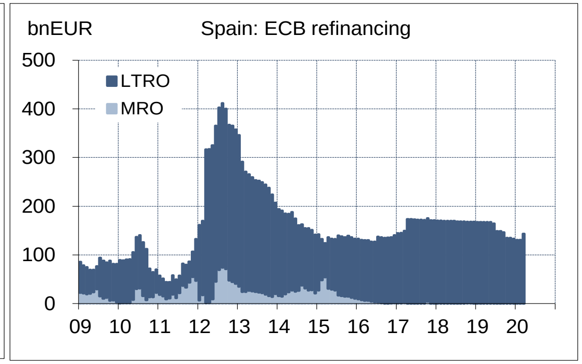


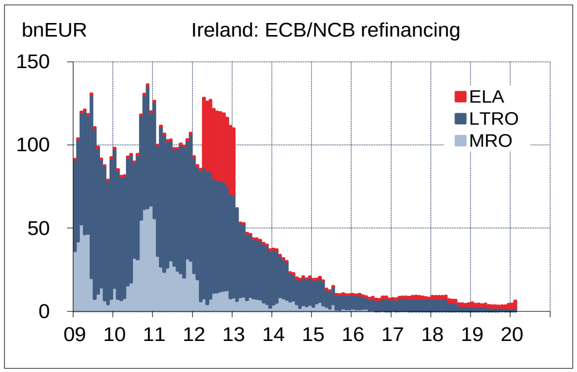


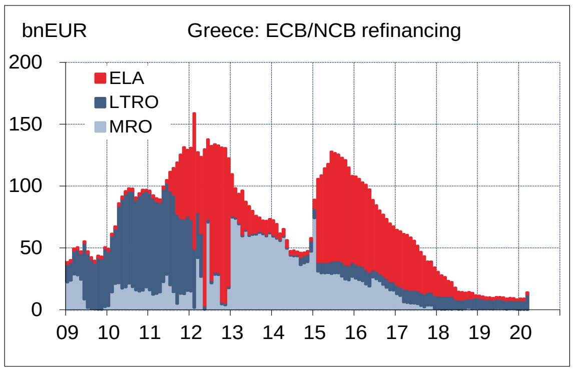


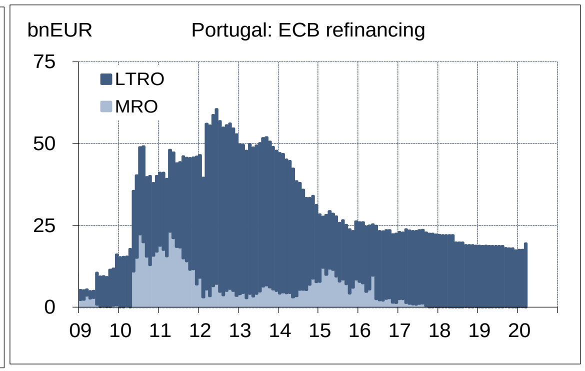












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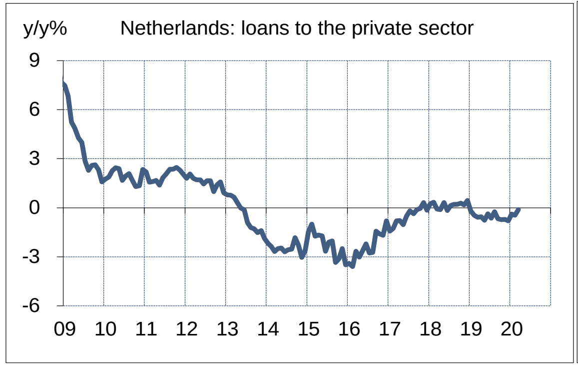
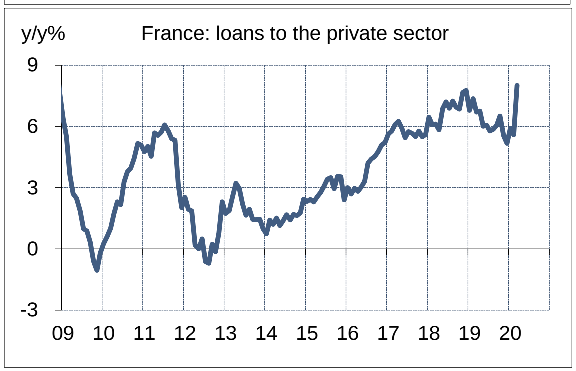
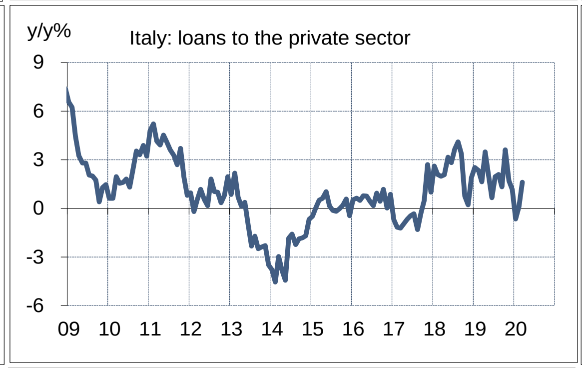
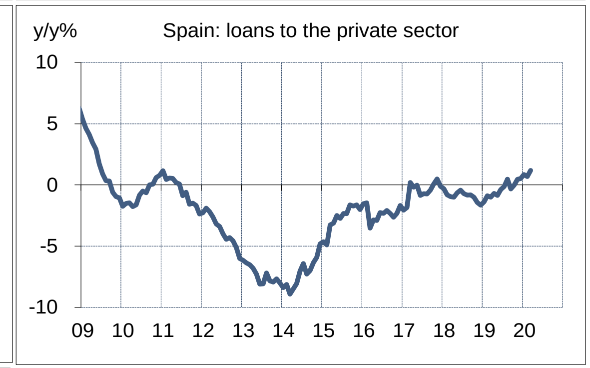
Source: Thomson Reuters, ODDO BHF

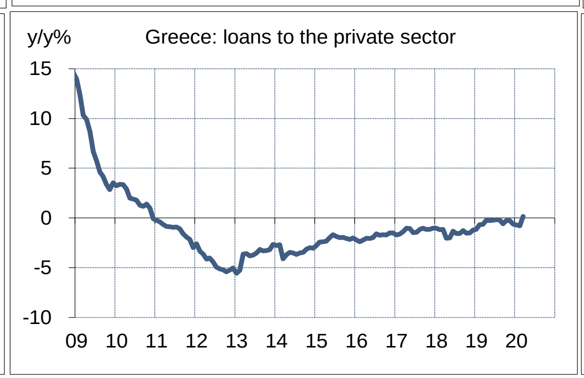
Appendix 23
Bank loans to the private sector: European countries (selection)

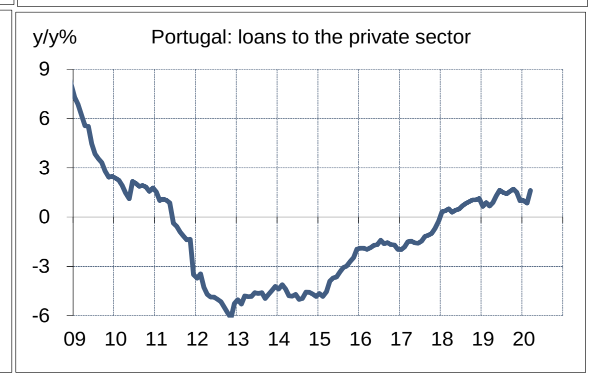












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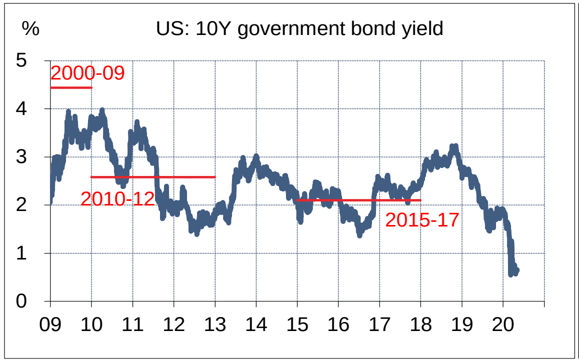
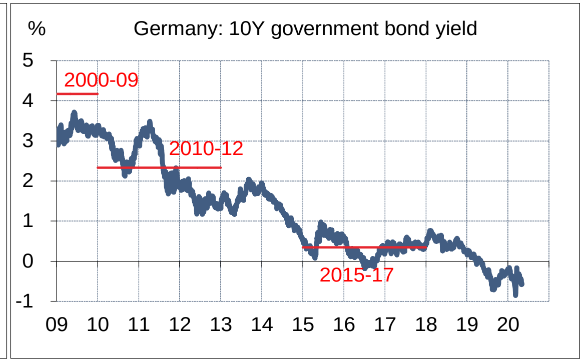
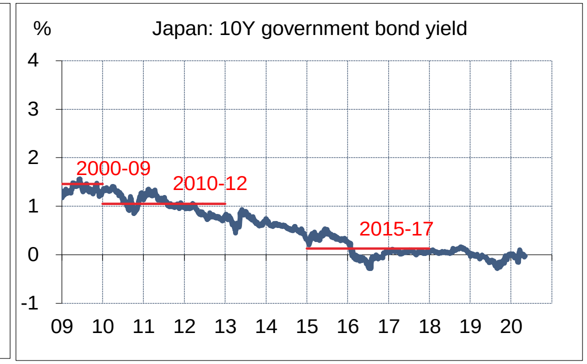
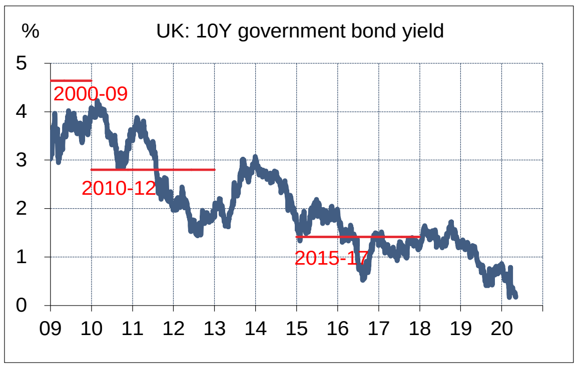
Source: Thomson Reuters, ODDO BHF

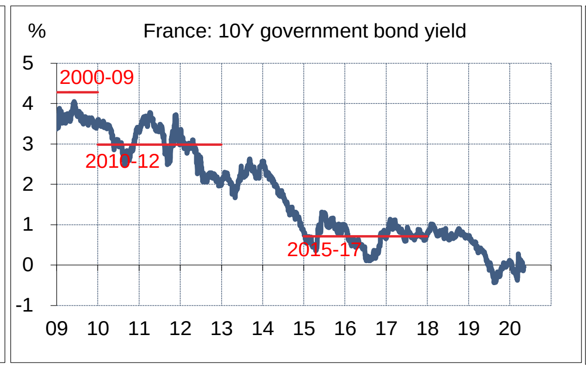
Appendix 24
10-year government bond yield

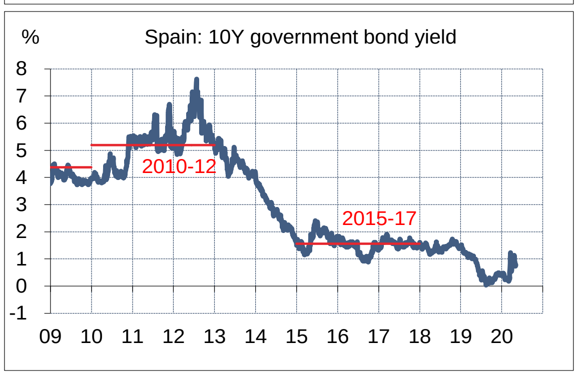


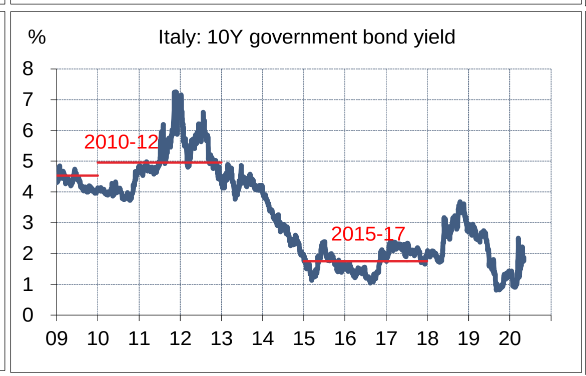


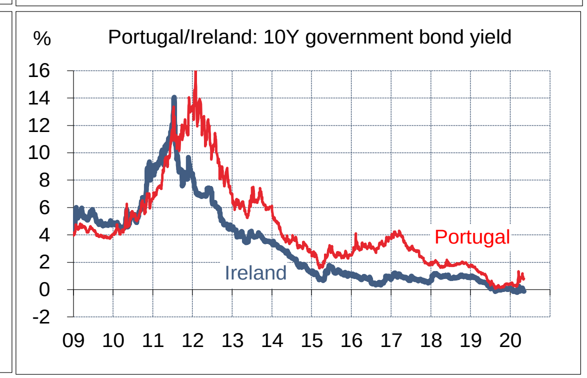












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