



# Economy & Rates

## The recovery in quarantine

**February 2020**  
(figures and charts updated on 13 February 2020)

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# Summary & Tables of forecasts

# Summary

## The recovery in quarantine



- Less than a month ago, the outlook for the world economy in 2020 appeared bright. The US and China had buried the hatchet for a while in their tariff war, removing a disruptive factor for trade and industrial production. Central banks reacted promptly to the weakening of economic conditions in 2019, and they planned to continue offering the maximum support possible with accommodative policies. Leading indicators had returned to an upward trajectory in the manufacturing sector. In short, the world economy was poised to emerge from the weakening phase that had begun two years earlier. Global growth had bottomed out at an annualised pace of around 3%. This appeared to be a floor. The future could only be better.
- And then, on 20 January, the coronavirus epidemic, which surfaced in the Hubei region of China, began to hit the headlines in the global press. This risk was not on any radar screens. One classification that has become somewhat notorious draws a distinction between two types of contingencies: “*known unknowns*” and “*unknown unknowns*”. The first of these can be reasonably well anticipated and evaluated; the second cannot. The fact that this new risk has emerged in China is a particular source of stress. Firstly, this country is not known for the transparency of its information, even in normal times. Secondly, it is a vital link in the functioning of the global economy. Isolating China from the rest of the world is what Trump dreamt of achieving by raising tariff barriers and forcing a rethink of the global production chain. The virus has managed to do this in a few days. We can only hope that it is temporary.
- Just as it was poised to celebrate the New Year, a period synonymous with frenetic spending and travel, China finds itself confined. Many countries have reduced or suspended their air, sea or rail links. A large party of the Chinese economy is at a standstill. More than ten working days have already been lost. The economy can only gradually be put back on the rails, since the authorities need to balance health considerations (stem the epidemic) with economic objectives (recreate normal working, travel, production and spending conditions). No-one has a reliable and exhaustive measure today of the macroeconomic disruption, but all anecdotal reports point to a severe shock for manufacturing, transport, property transactions, etc.
- To assess the damage, three things should be kept in mind:
  - *First*, economic conditions prior to the shock. At the start of 2020, the global industrial cycle was fragile but seemed to be going into remission. However, disruption to the production chain and trade in intermediate goods raises fears of a fresh erosion of business confidence, first and foremost in China and Asia, but also elsewhere. Highly industrialised and exporter countries such as Japan or Germany and industries such as the automotive sector appear very exposed on the face of it.
  - *Second*, the shock itself. We will make no secret that this is the most speculative point. The general pattern is that the sharp plunge in activity will be short-lived and followed by a brisk recovery. This is the famous V-shaped profile seen during the SARS shock in 2003 or after September 11. But how far will activity fall? A rough estimate is that Chinese growth, which was on a trend of 1.5% q/q before the virus, could well fall to zero or even lower in Q1. In view of the weight of China and its repercussions, world growth could drop from 0.75% q/q (3% annualised) to 0.25% (1% annualised). The expected recovery in global growth, and specifically European growth, has been postponed by a few months.
  - *Third*, counter-shock measures. In China, the virus has not destroyed demand, but it has created huge supply disruptions. A stimulus plan would not serve much purpose in the near term. The priority is to ensure that companies and banks do not run out of liquidity. The immediate response is to come on the monetary side. At a later stage, to boost the economic recovery, a fiscal stimulus remains a possibility. In the rest of the world, the shock from the virus has accentuated the accommodative bias of central banks, justifying more than ever a more active use of fiscal policy in countries that can afford it.

# Table of forecasts (1)



FORECASTS - REAL GDP GROWTH*													
	Average			2019				2020				Consensus**	
	2018	2019	2020	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021
World	3.7	3.1	2.9										
US	2.9	2.3	1.7	3.1	2.0	2.1	2.1	1.1	1.7	1.8	1.8	1.9	2.0
EMU	1.9	1.2	1.1	1.8	0.6	1.1	0.2	1.2	1.5	1.6	1.6	0.9	1.2
- Germany	1.5	0.5	0.7	1.9	-1.0	0.3	0.1	0.5	1.3	1.5	1.5	0.9	1.1
- France	1.7	1.2	1.3	1.2	1.5	1.0	-0.3	1.7	1.9	1.9	1.9	1.1	1.2
- Italy	0.7	0.2	0.3	0.9	0.3	0.2	-1.3	0.8	0.9	1.0	1.0	0.3	0.6
- Spain	2.4	2.0	1.8	2.1	1.4	1.6	2.1	1.7	1.8	1.9	1.9	1.6	1.6
UK	1.3	1.4	1.1	2.6	-0.4	2.0	0.1	1.6	1.2	1.2	1.2	1.1	1.5
Japan	0.3	1.2	0.3	2.6	2.0	1.8	-2.0	0.0	1.0	1.0	1.0	0.3	0.8
China (y/y%)	6.8	6.2	5.4	6.4	6.2	6.0	6.0	4.0	5.5	6.1	6.0	5.6	5.8

\* y/y or q/q annualised rate

\*\*10 February 2020

Revision post-Coronavirus  
(very tentative)

FORECASTS - RATES & FX											
	Actual	Target		Last 5 years*		Average					
	13/02/2020	3M	12M	High	Low	2015	2016	2017	2018	2019	2020
<b>Policy rate</b>											
Fed funds	1.75	1.75	1.75	2.50	0.25	0.27	0.52	1.13	1.96	2.31	1.75
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
<b>10Y rate</b>											
US T-note	1.6	1.6	2.0	3.2	1.5	2.1	1.8	2.3	2.9	2.1	1.7
German Bund	-0.4	-0.4	-0.1	0.8	-0.6	0.5	0.1	0.4	0.5	-0.2	-0.3
French OAT	-0.2	-0.1	0.1	1.2	-0.3	0.8	0.5	0.8	0.7	0.1	-0.1
<b>Forex</b>											
EUR/USD	1.08	-	1.10	1.23	1.05	1.11	1.11	1.13	1.18	1.12	1.10
USD/JPY	110	-	110	124	101	121	109	112	110	109	110
USD/RMB	6.98	-	6.80	7.12	6.20	6.28	6.64	6.76	6.61	6.91	6.91

\*monthly average

Source: consensus forecasts, IMF, ODDO BHF

14/02/2020

# Table of forecasts (2)



FORECASTS - KEY MACRO DATA for US, EMU, & France *											
	Average			2019				2020			
	2018	2019	2020	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>United States</b>											
Real GDP	2.9	2.3	1.7	3.1	2.0	2.1	2.1	1.1	1.7	1.8	1.8
Private Consumption	3.0	2.6	2.3	1.1	4.6	3.1	1.8	2.1	2.1	2.1	2.1
Nonresidential Investment	6.4	2.1	0.4	4.4	-1.0	-2.3	-1.5	1.0	2.0	2.0	2.0
Residential Investment	-1.5	-1.5	3.4	-1.0	-3.0	4.6	5.8	4.0	2.5	2.5	2.5
Domestic Demand (contribution, %pt)	3.2	2.5	2.1	1.9	3.7	2.3	1.7	2.0	2.1	2.2	2.2
Inventories (contribution, %pt)	0.1	0.1	-0.4	0.5	-1.0	0.0	-1.3	-0.5	0.0	0.0	0.0
Net Exports (contribution, %pt)	-0.4	-0.2	0.0	0.8	-0.8	-0.2	1.9	-0.4	-0.4	-0.4	-0.4
Inflation (CPI, % yoy)	2.4	1.8	2.3	1.6	1.8	1.8	2.0	2.3	2.2	2.3	2.3
Unemployment rate (%)	3.9	3.7	3.4	3.9	3.6	3.6	3.5	3.5	3.4	3.4	3.4
<b>Euro area</b>											
Real GDP	1.9	1.2	1.1	1.8	0.6	1.1	0.2	1.2	1.5	1.6	1.6
Private Consumption	1.4	1.3	1.4	1.6	0.9	2.0	0.8	1.5	1.7	1.7	1.7
Investment	2.4	4.2	0.7	1.3	22.5	-14.3	-0.4	2.4	2.2	2.5	2.5
Domestic Demand (contribution, %pt)	1.4	1.8	1.2	1.4	5.1	-1.9	0.7	1.5	1.6	1.6	1.7
Inventories (contribution, %pt)	0.0	-0.4	-0.2	-0.7	-0.1	-0.4	-0.6	-0.1	0.0	0.0	0.0
Net Exports (contribution, %pt)	0.4	-0.3	0.1	1.3	-4.4	3.5	0.1	-0.3	0.0	0.0	0.0
Inflation (HICP, % yoy)	1.8	1.2	1.3	1.4	1.4	1.0	1.0	1.3	1.2	1.3	1.4
Unemployment rate (%)	8.2	7.6	7.2	7.8	7.6	7.5	7.5	7.3	7.2	7.1	7.0
<b>France</b>											
Real GDP	1.7	1.2	1.3	1.2	1.5	1.0	-0.3	1.7	1.9	1.9	1.9
Private Consumption	0.9	1.2	1.5	1.4	1.1	1.7	1.0	1.5	1.8	1.8	1.8
Investment	2.8	3.6	2.5	2.2	5.2	5.4	1.2	2.1	2.1	2.1	2.1
Domestic Demand (contribution, %pt)	1.3	1.8	1.8	1.4	2.2	2.7	1.3	1.6	1.8	1.8	1.8
Inventories (contribution, %pt)	-0.3	-0.4	-0.4	1.1	-0.8	-0.5	-1.6	0.1	0.1	0.1	0.1
Net Exports (contribution, %pt)	0.7	-0.2	-0.1	-1.3	0.0	-1.2	0.0	0.0	0.0	0.0	0.0
Inflation (HICP, % yoy)	2.1	1.3	1.4	1.4	1.3	1.2	1.3	1.5	1.3	1.4	1.5
Unemployment rate (%)	8.7	8.2	7.8	8.4	8.2	8.2	7.9	7.9	7.8	7.7	7.6

\* y/y or q/q annualised rate

Source: Thomson Reuters, ODDO BHF

14/02/2020

# Virus and economy

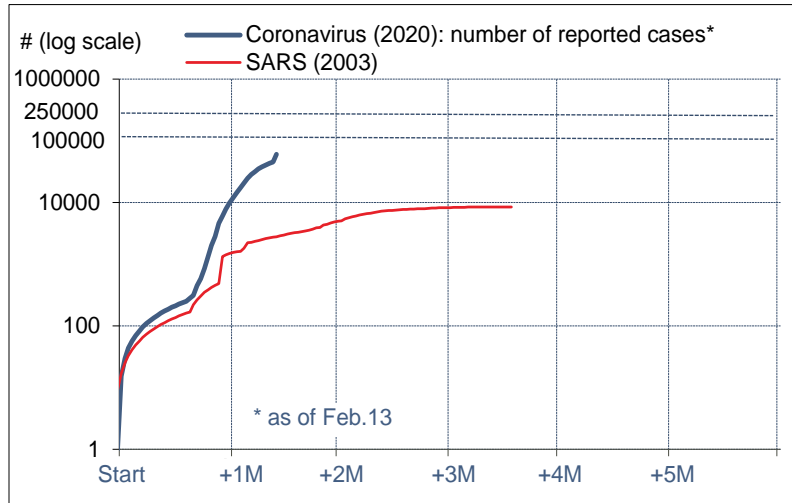
(A few basic reminders)

# In search of a benchmark – the case of SARS

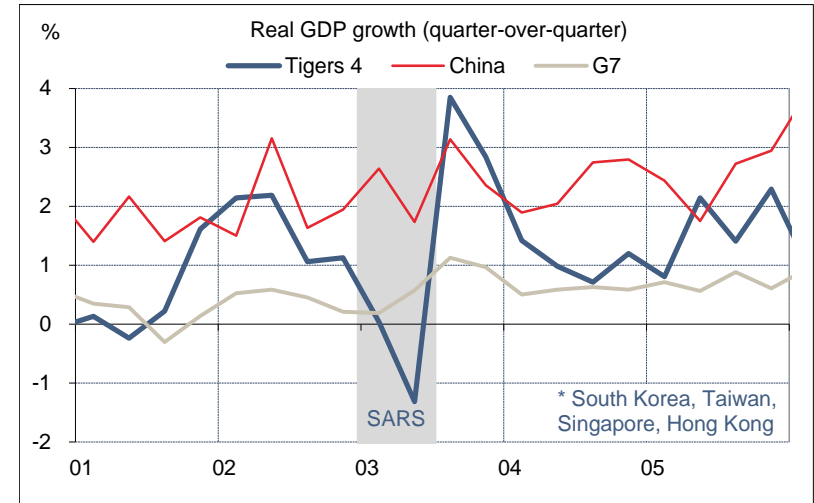


Analogies have their limits, but we need some sort of benchmark. The case of SARS in Asia is the most useful one. During this epidemic, the anxiety lasted for around three months from March to June 2003 ①. Non-essential travel (tourism) plunged by more than 50% at the time ②. The growth profile of impacted countries had a V shape ③. In the rest of the world, the impact on business confidence was near negligible ④.

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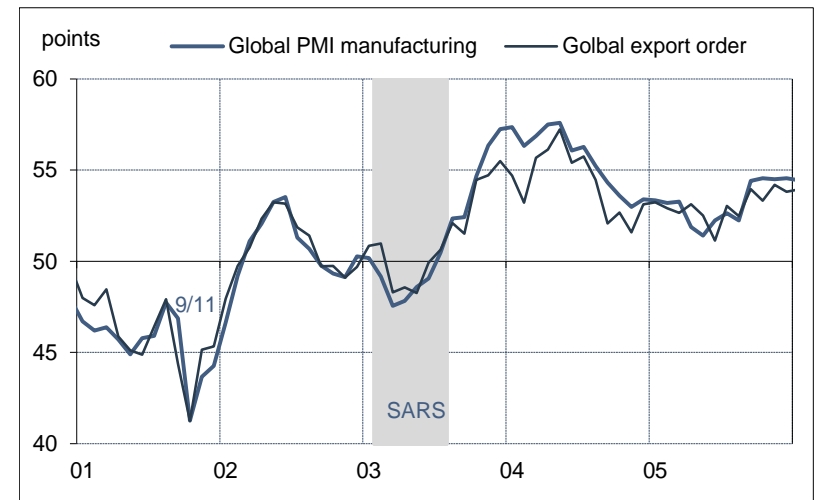
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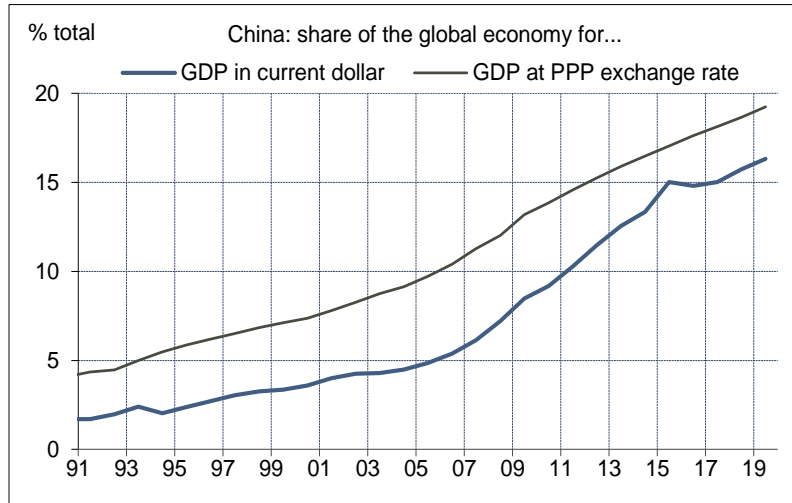


# China 2020 ≠ China 2003



After it joined the WTO in December 2001, China underwent an extraordinary transformation. Its GDP represents between 15% and 20% of the world total (depending on how it is measured) ①. The share of exports of manufactured goods is close to 20% ②. The number of outbound tourists has soared ③. Even though its growth trend has been slowing over the past decade, China's contribution to world growth has stabilised at >30% ④.

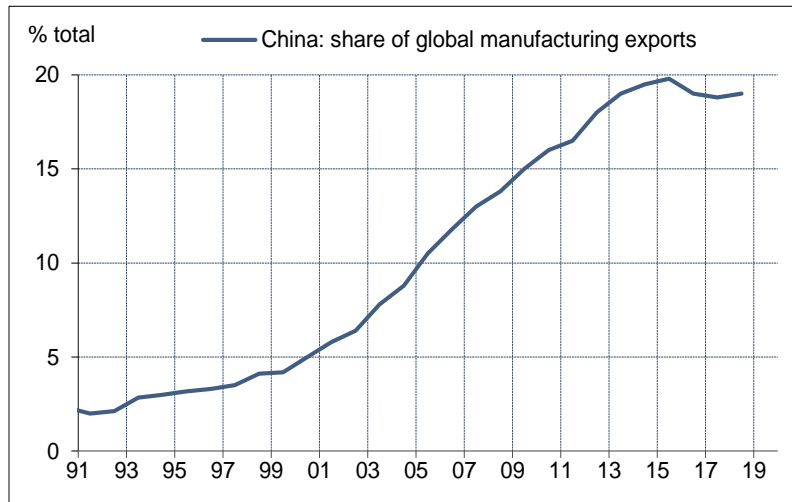
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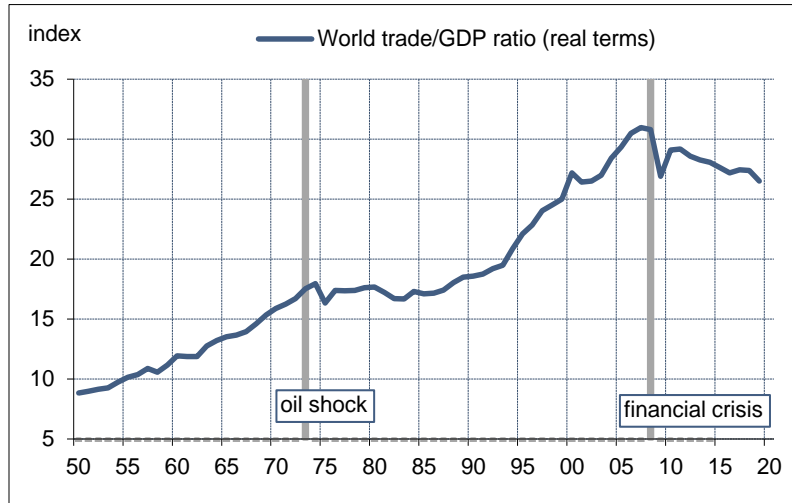


# Globalisation 2020 ≠ Globalisation 2003

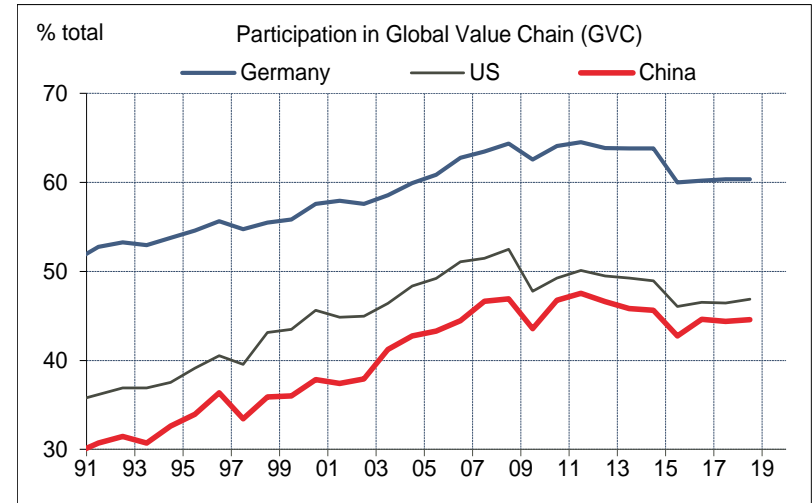


In the 1990s and 2000s, world trade grew at around twice the pace of GDP, reflecting the extension of value chains. This upward trend was halted by the global financial crisis of 2008 ①. The US-China tariff war of 2018-2019 also took a toll on trade ②. Globalisation is not increasing any more ③. But China continues to reinforce its position as a supplier of intermediate goods ④.

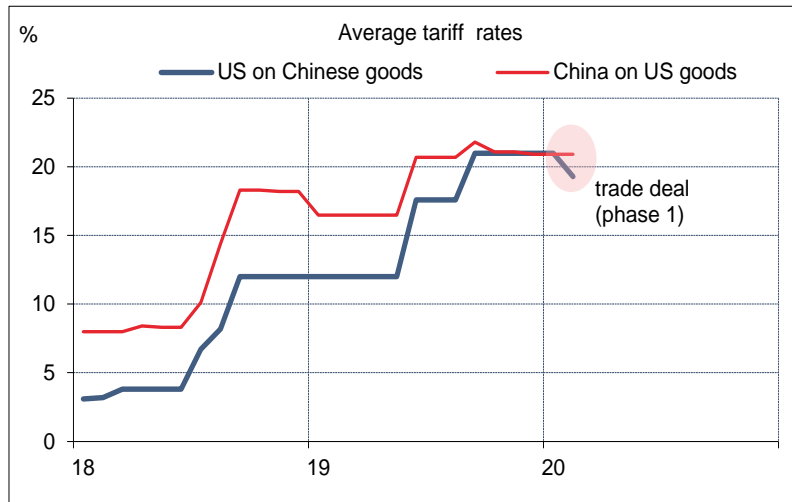
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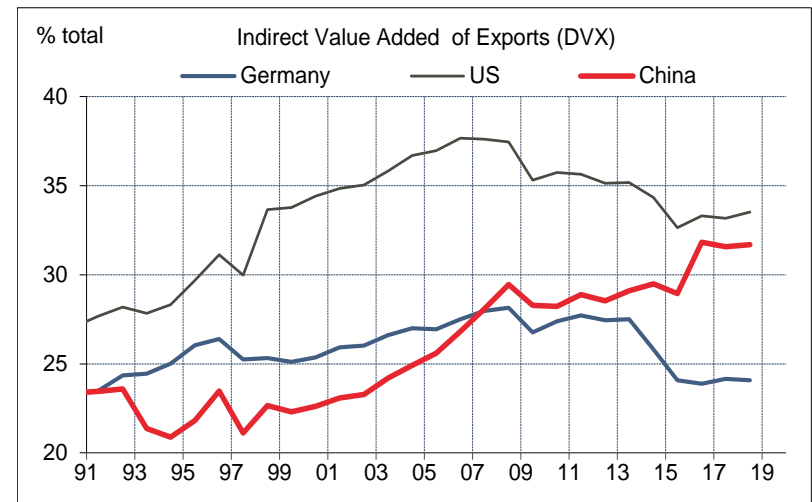
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# Shock and repercussions

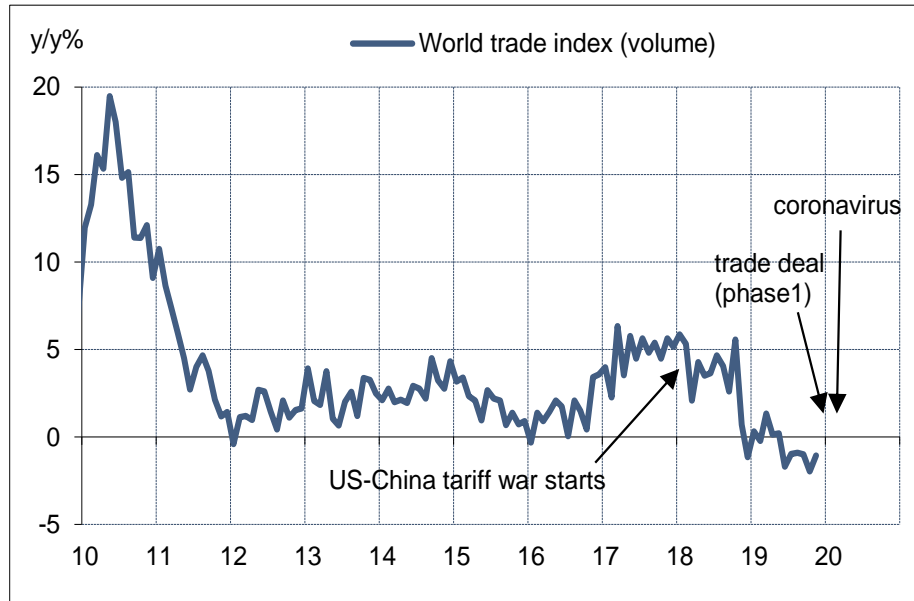
(back of the envelope calculations)

# Situation before the shock (1)

## World trade & industrial production



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① In 2019, the volume of world trade decreased slightly (-0.4%)

- The first drop since the financial crisis, but of a far lower magnitude (-13% in 2009)
- Slowdown of trade = a consequence of trade barriers erected since 2018 and uncertainties about the global value chain (organisation of industrial production and China's place)
- Signs of stabilisation towards the end of 2019

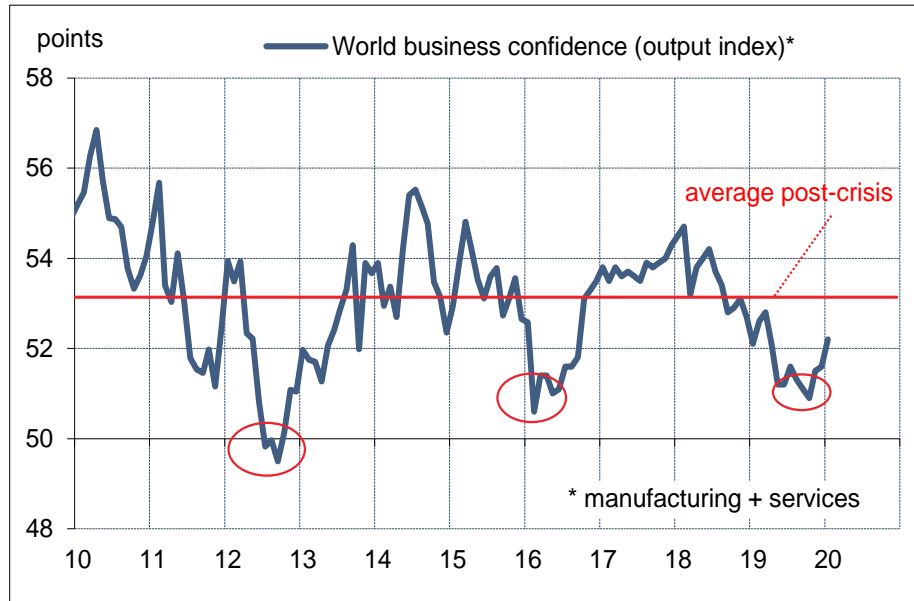
② The slowdown in industrial production is in sync with that in world trade

## Situation before the shock (2)

### Business confidence & order books



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① Following a two-year correction, business confidence began recovering from its cyclical trough after summer 2019

- In the manufacturing sector, the world PMI edged back slightly above 50 starting in November (50.4 in January 2020, trough of 49.3 in July 2019, peak of 54.4 in December 2017)
- Stabilisation/small recovery in all regions (US, Asia and Europe)
- In other sectors, business confidence has consistently remained in an expansion zone

② The sharp recovery in new orders signals (or signalled) a rebound in industrial activity

## Situation before the shock (3)

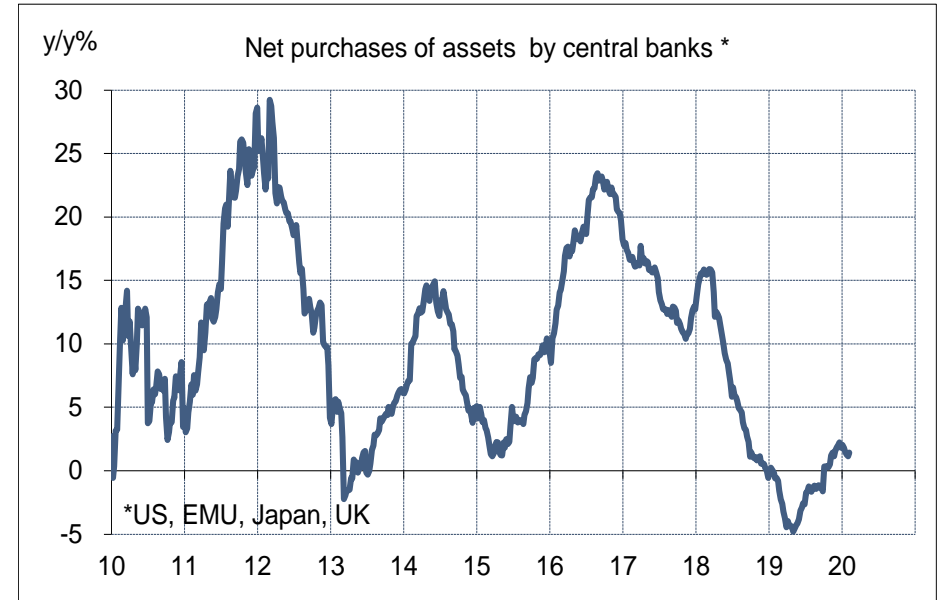
### Loosening of monetary conditions



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#### ① Monetary policies were loosened in almost all countries in 2019

- A swift response to mounting recession risk, in particular during the summer (trade war, inversion of the US yield curve and severe industrial recession in Germany)
- Until the appearance of the coronavirus, the leading central banks were in status quo mode. This remains the central position of the Fed and the ECB, but with more vigilance towards downside risks
- Continued monetary loosening in Asia at the start of 2020

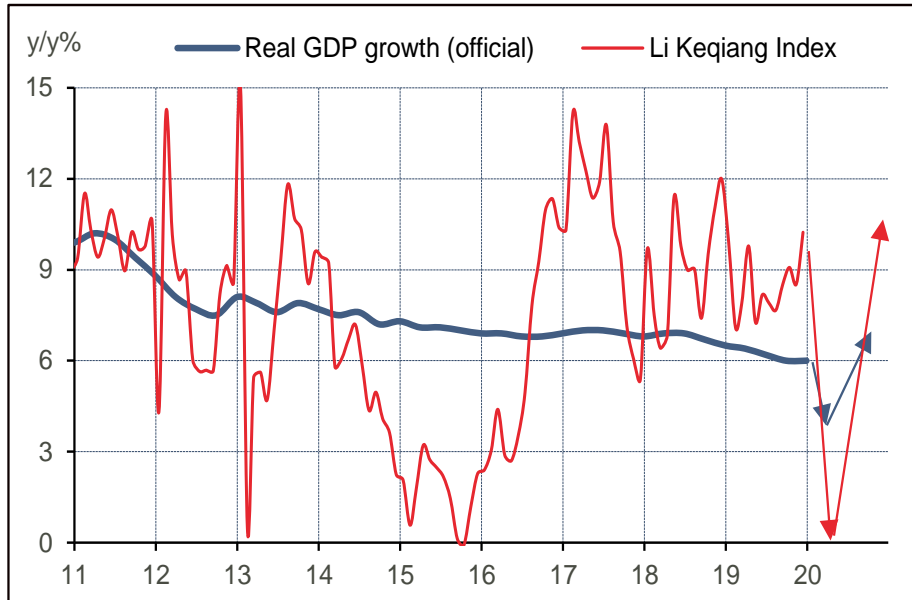
#### ② For different reasons, the Fed and ECB have begun expanding their balance sheets again since autumn 2019

# The shock

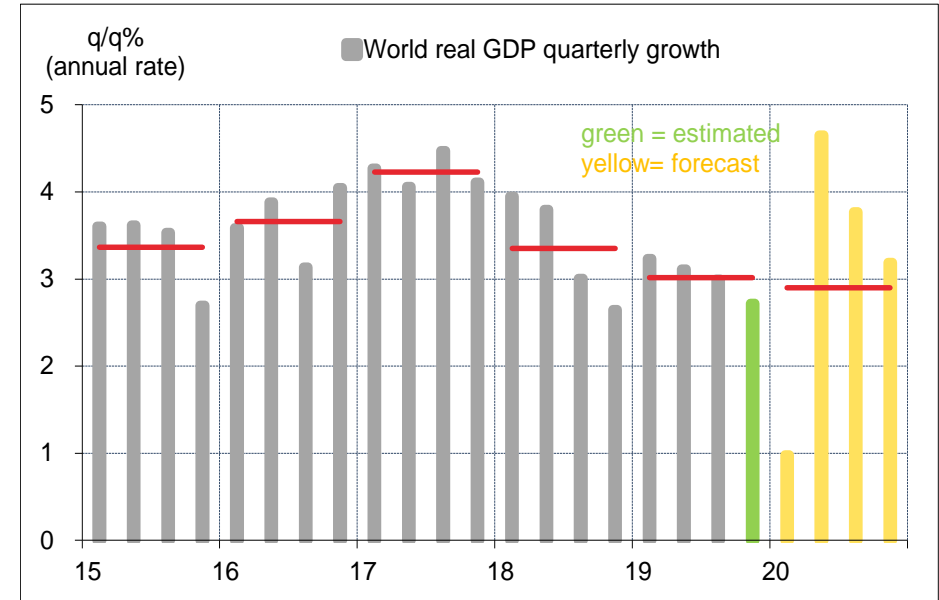
## Impact on China & contribution to world growth



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① Activity did not pick up as expected after the New Year. The shock on Chinese activity will be brutal in February-March

- The quarantine directly affects 4% of the population (Hubei), but indirectly far more. To date, more than ten working days in Q2 have been partially or totally lost
- There are anecdotal reports of major disruption of large swathes of the economy (manufacturing, trade, travel, refining and property transactions)
- Chinese growth pre-virus = 1.5% q/q. A minimum correction of two points in Q1 seems likely

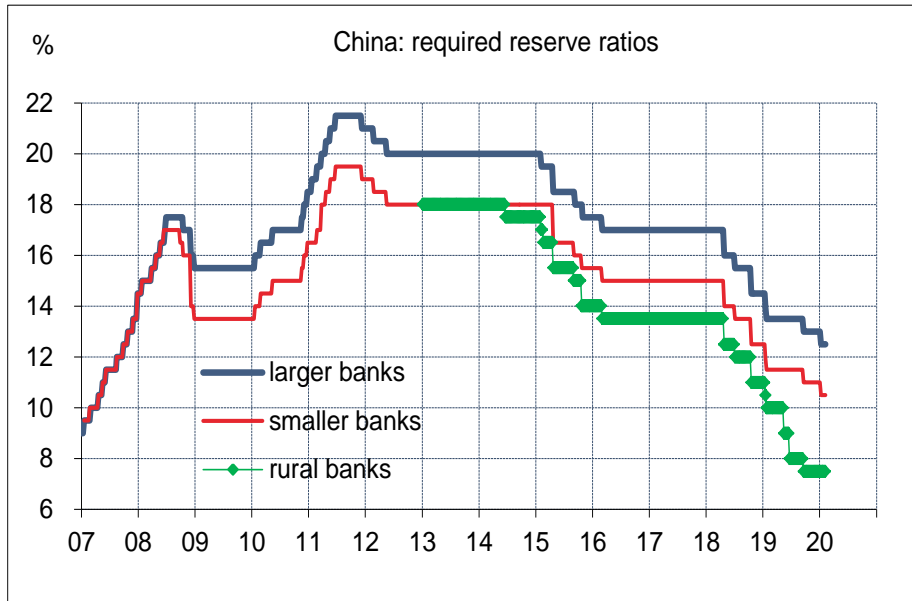
② The shock in China and Asia could send world growth tumbling from 3% to 1% in Q1 (q/q annualised)

# The counter-shock

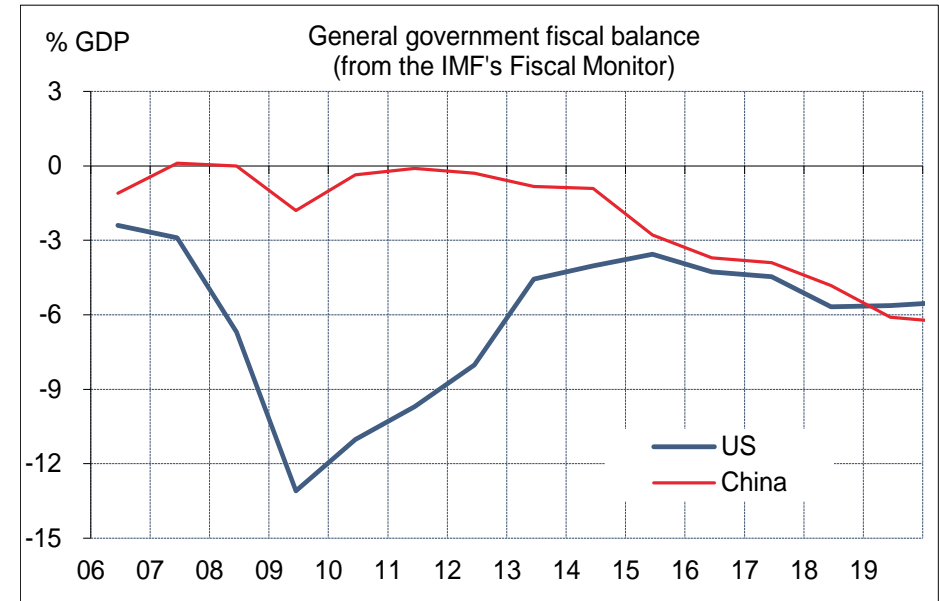
## Start by injecting liquidity



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### ① The most logical and simplest response is a loosening of monetary policy

- The temporary production shutdown is set to take a toll on companies' cash flow and, by extension, the banking system.
- As long as the Chinese economy is at a standstill, demand stimulus measures do not make much sense, unless the objective is to create a positive shock on business confidence.

### ② Outside China, the shock justifies the accommodative bias of central banks and may warrant fiscal stimulus measures.

# United States/Europe

(economy/central bank/politics)

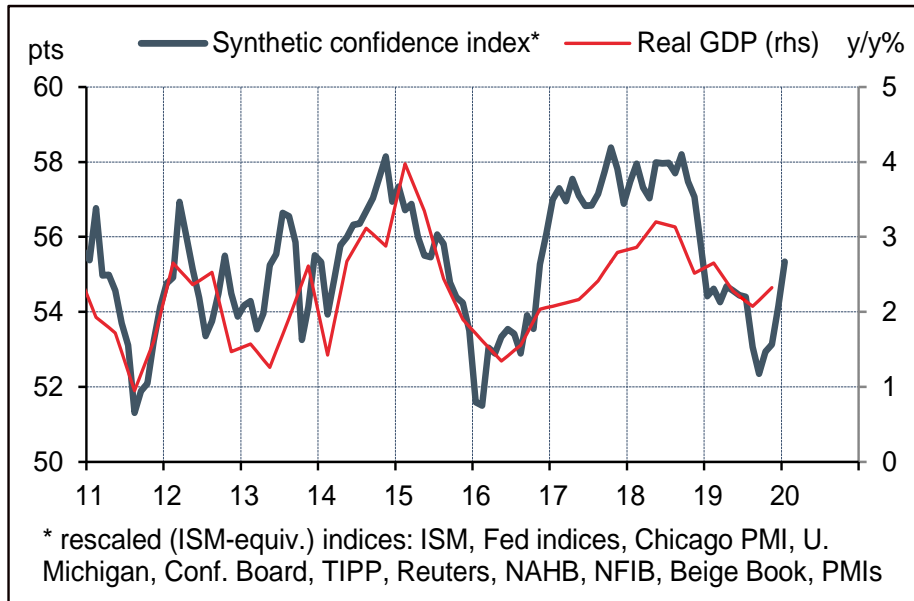


# US economy

## Lingering downside risks



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Sales of US multinational enterprises by location						
	in 2017 (bn\$)		Annualized growth (%, 2012 to 2017)		% of total sales	
	Industry & w wholesale trade	Other services	Industry & w wholesale trade	Other services	Industry & w wholesale trade	Other services
US	6594	6666	1.6	6.5	60.8	77.2
Europe	1983	993	-0.3	5.7	18.3	11.5
Canada	409	179	-2.9	-1.2	3.8	2.1
<b>Asia-Pacific</b>	<b>1285</b>	<b>459</b>	<b>2.2</b>	<b>2.4</b>	<b>11.8</b>	<b>5.3</b>
- o/w China	316	60	11.1	5.0	2.9	0.7
LatAm	469	297	-1.6	4.7	4.3	3.4
Africa-Middle East	104	44	-8.5	2.0	1.0	0.5
<b>Total</b>	<b>10843</b>	<b>8639</b>	<b>0.9</b>	<b>5.9</b>	<b>100</b>	<b>100</b>

### ① Confidence indices have all rebounded recently, lifting almost all recessionary concerns

- Three positive factors: a) preventative monetary loosening during summer 2019; b) the easing of US-China trade strains with the signing of the phase 1 agreement in January; and c) the health of consumers
- Two negative factors: a) the Boeing shock (which could shave around -0.5pts off annualised real GDP growth in Q1); and b) the coronavirus shock and its effects on the global value chain (technology sector)

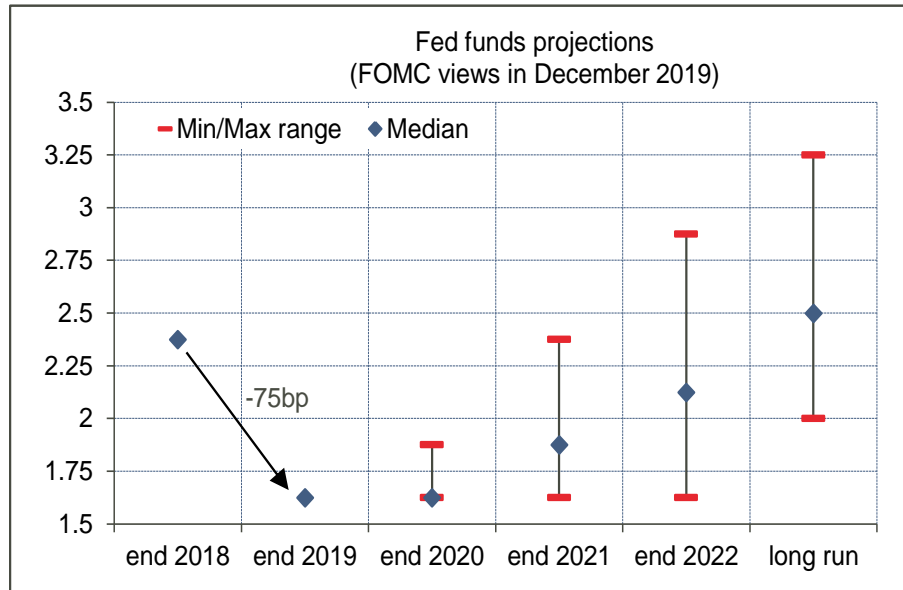
### ② The economy's exposure to the Chinese market is moderate, but the manufacturing sector's dependence is not negligible

# US economic policy

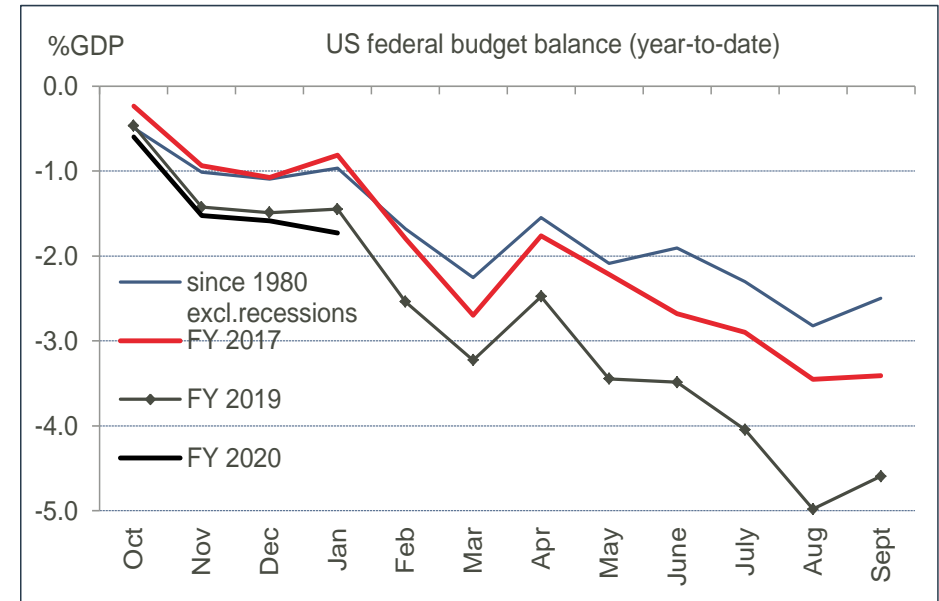
## Fed in hibernation / Deficit in expansion



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① At the start of 2020, the *status quo* is the option unanimously favoured by the FOMC

- *Status quo* = optimum policy for a Goldilocks economy (neither too warm nor too cold)
- Asymmetrical risks = downward bias. The Fed is averse to recession risk but has some tolerance of inflation risk
- Balance-sheet expansion (increase in reserves + purchases of T-Bills) has stabilised the interbank market.

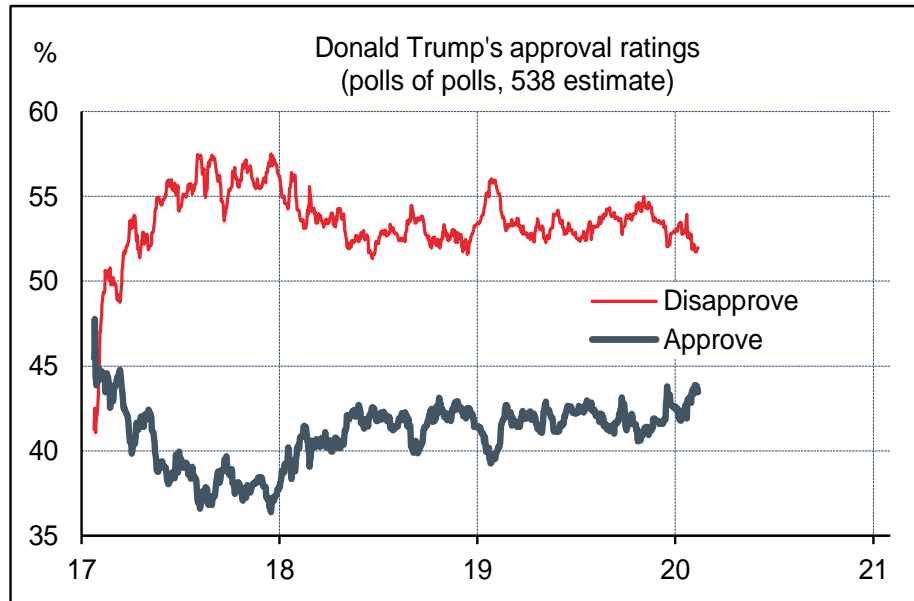
② The fiscal policy stance is atypical in view of the position in the cycle (high deficits vs ultra low unemployment)

# US elections

## Trump vs Sanders?



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Democratic Party Primary			General election	
	state	delegates		
February 3	Iowa	41	July 13-16	Democratic Convention
February 11	New Hampshire	24	August 24-27	Republican Convention
February 22	Nevada	36		
February 29	South Carolina	54	September 29	1st TV debate
March 3	Super Tuesday (o/w Calif. & Texas)	1357	October 15	2nd TV debate
March 10	6 states (o/w Michigan)	352	October 22	3rd TV debate
March 17	5 states (o/w Florida)	583		
Mar.24 to April.7	7 states	347	<b>November 3</b>	<b>Election Day</b>
April 28	6 states (o/w New York)	663		
May 2 to June 6	13 states	522	<b>Jan. 20, 2021</b>	<b>Presidential Inauguration</b>

Democratic primary: number of allotted delegates (cumulated)							
#	% total	Sanders	Warren	Buttigieg	Biden	Bloomberg*	Klobuchar
65	1.6%	32%	12%	35%	9%	0%	11%

\* Bloomberg will enter the race only on Super Tuesday

① Trump starts as the favourite (incumbent + economy) but his low approvals put him within the margin of error in polls

- The Republican base is united behind Trump. The Democratic base is divided between a radical option (Sanders or Warren) and a centrist option (Buttigieg, Biden, Bloomberg or Klobuchar)
- Trump won in 2016 partly because of the weak turn-out of Democratic voters in a few swing states. The Democrats won the 2018 mid-terms thanks to the higher turn-out of their voters.
- A sitting president is generally re-elected unless the economy is weak (Carter 1980, Bush Sr 1992).

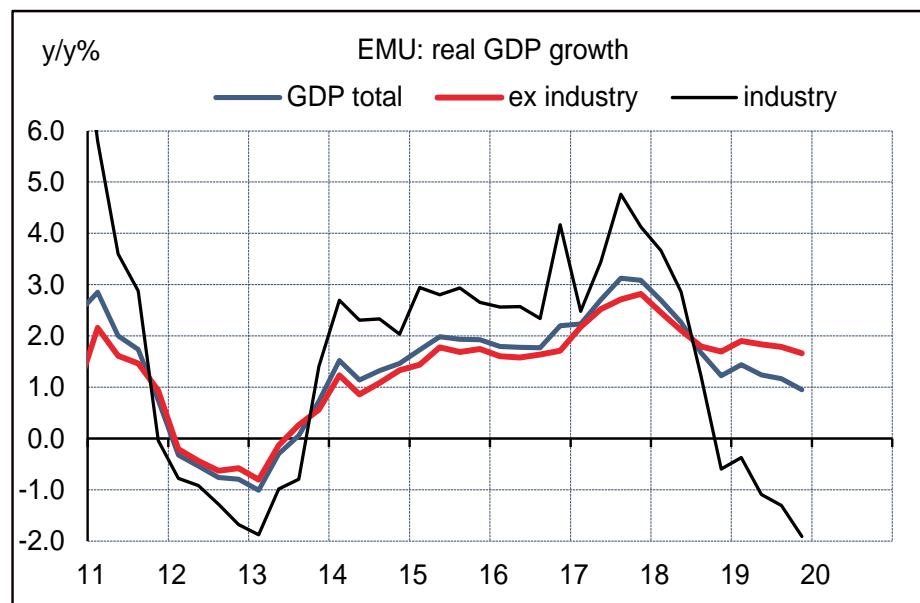
② At the start of the primaries, Sanders has already pulled ahead of Warren, but no leading centrist candidate has emerged

# European economy

## Recovery scenario pushed back



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### ① Bucking the positive signals conveyed by surveys, growth weakened again in Q4 2019

- Eurozone GDP in Q4 = 0.06% q/q (Germany: 0.0%, France: -0.1% Italy: -0.3%) and 0.9% y/y (new trough)
- Some specific or temporary factors (long weekend holidays in December and inventory adjustments) raise hopes of a technical recovery, but the Chinese shock could further dent confidence, delaying the recovery

### ② The manufacturing recession continues to weaken the outlook for Germany (and, by extension, Europe)

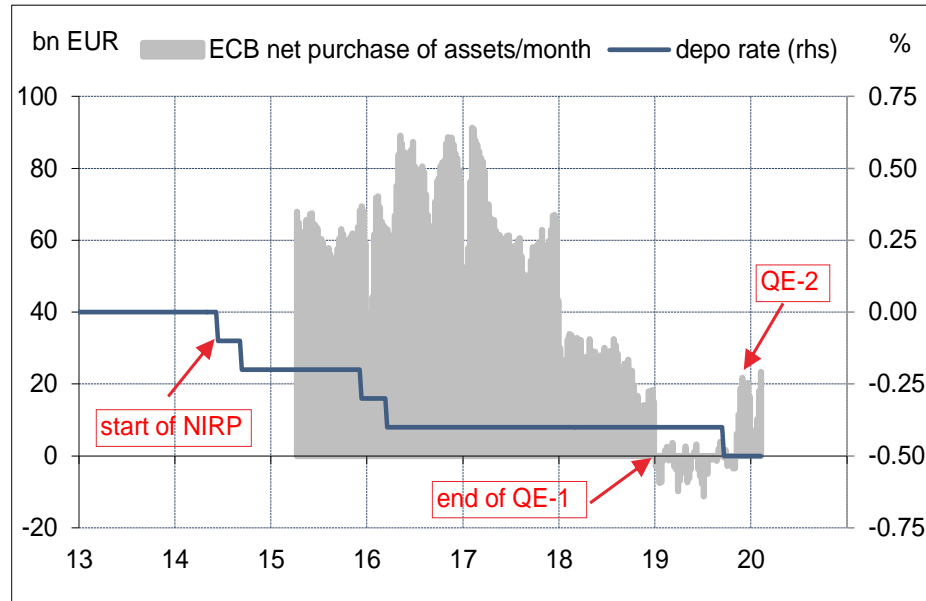
- In two years, German real GDP has grown by just 0.9%. Industrial production: -9%. Automotive production: -20%. The automotive sector is still not out of the woods. The coronavirus shock is a new test.

# ECB policy

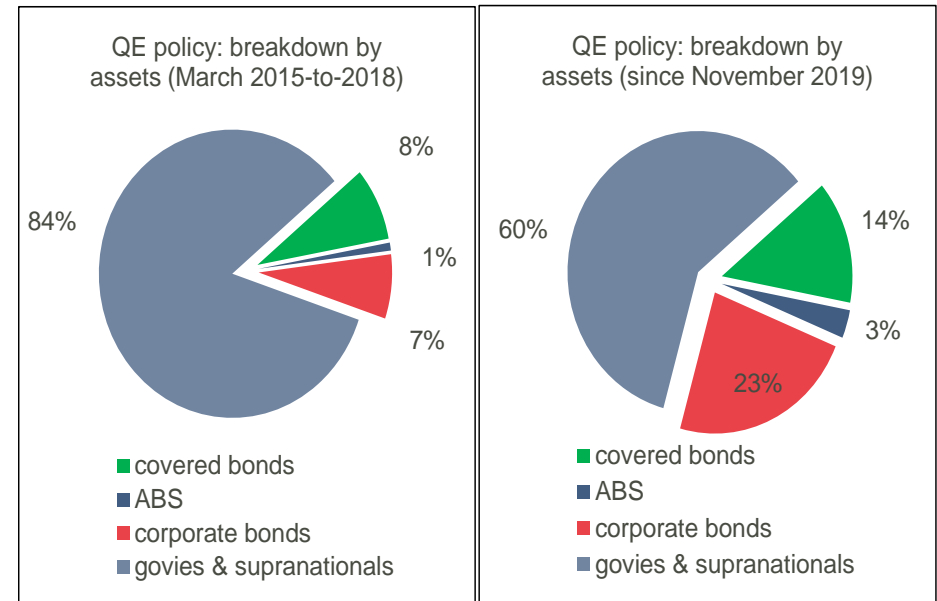
## No normalisation in the foreseeable future



①



②



### ① The ECB under Lagarde: the same monetary policy as under Draghi but without the German criticisms

- Lagarde / monetary policy: continuity with Draghi (loosening package of September 2019)
- Lagarde / communication: foster a consensus / repair the ECB-Bundesbank divide
- Lagarde / strategic review: play for time and open up new frontiers (greening)

### ② QE2 vs QE1: a smaller amount, with a bigger share of private sector instruments

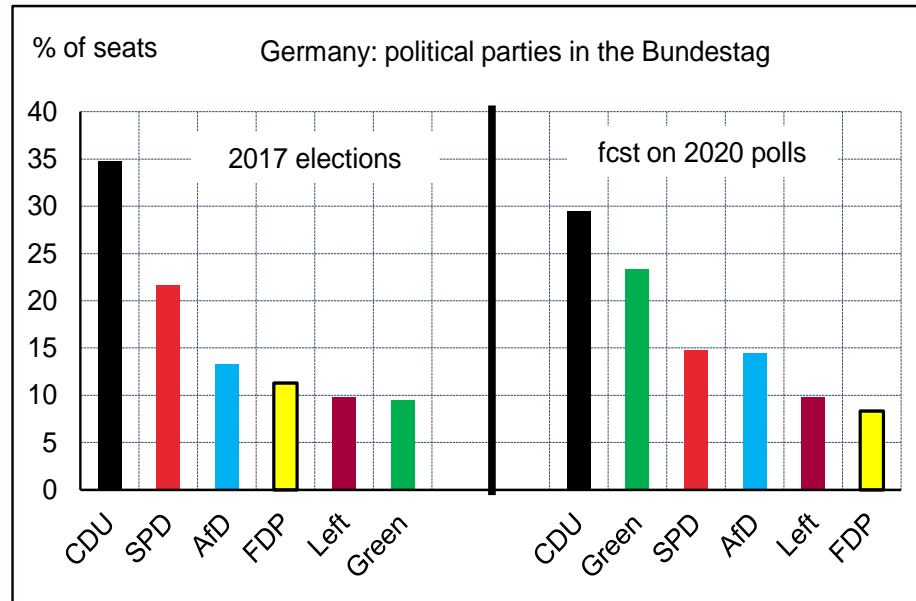
14/02/2020

# European political risks

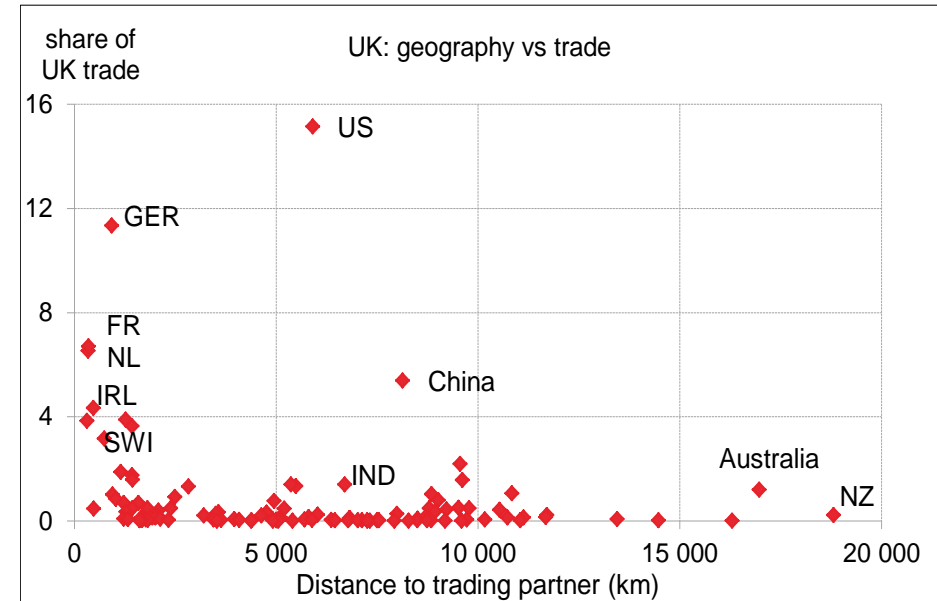
## Germany & Brexit (phase 2)



①



②



① The future battle for the leadership of the CDU heightens the risk of early elections. This is not necessarily negative.

- It is hard to imagine a fundamental shift in fiscal policy (less adherence to budget surpluses) without a complete rebalancing of the political sphere (CDU-Greens coalition or coalition of the left)

② EU-UK – close geographically but distant in their objectives in the negotiation of a free trade agreement

- The critical point is whether UK regulations will be aligned with or diverge from those in the EU
- Dissonance between the political rationale (the very goal of Brexit is to break free) and the economic rationale (the two parties are highly interdependent on the trade front)

## 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 \$	2014				2015				2016				2017				2018				2019							
		%	%	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
World *	80322	100.0	100.0	0.74	1.02	1.08	0.91	0.90	0.90	0.88	0.67	0.90	0.97	0.78	1.01	1.07	1.02	1.12	1.03	0.99	0.95	0.75	0.66	0.81	0.78	0.75	0.68				
Developed countries	42505	52.9	35.3	0.22	0.51	0.78	0.52	0.76	0.50	0.36	0.17	0.52	0.35	0.48	0.58	0.67	0.59	0.73	0.72	0.36	0.63	0.37	0.28	0.61	0.37	0.42	0.17				
Asia excl.Japan	19697	24.5	33.9	1.37	1.84	1.61	1.39	1.53	1.68	1.64	1.42	1.61	1.86	1.46	1.34	1.51	1.57	1.73	1.50	1.54	1.52	1.33	1.39	1.19	1.26	1.11	1.34				
US	19519	24.3	15.3	-0.3	1.4	1.2	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				
EMU	11769	14.7	10.7	0.5	0.2	0.5	0.4	0.7	0.4	0.5	0.4	0.6	0.3	0.5	0.8	0.6	0.7	0.8	0.8	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.1				
- Germany	3665	4.6	3.3	1.0	0.0	0.5	0.9	-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	0.1	0.2	0.5	0.1	0.4	0.0	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	0.3	0.4	0.3	-0.1				
- Italy	1951	2.4	1.8	0.1	0.0	0.1	-0.2	0.2	0.4	0.2	0.5	0.3	0.2	0.6	0.4	0.6	0.4	0.4	0.5	0.1	-0.1	-0.2	0.1	0.2	0.1	0.1	-0.3				
Japan	4860	6.1	4.2	1.0	-1.9	0.1	0.5	1.4	0.1	0.0	-0.4	0.5	0.2	0.3	0.2	1.1	0.4	0.7	0.3	-0.5	0.5	-0.6	0.3	0.6	0.5	0.4	-				
UK	2640	3.3	2.3	0.7	0.7	0.6	0.6	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	0.6	-0.1	0.5	0.0				
Switzerland	680	0.8	0.4	0.7	0.6	0.8	0.8	-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	-0.3	-0.1	0.4	0.3	0.4	-				
Canada	1650	2.1	1.4	0.2	0.9	1.0	0.7	-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	-				
Australia	1387	1.7	1.0	0.7	0.5	0.5	0.4	0.9	0.1	1.1	0.5	0.9	0.7	0.1	1.0	0.4	0.6	1.0	0.5	0.9	0.7	0.3	0.2	0.5	0.6	0.4	-				
China	12062	15.0	18.1	1.8	1.8	1.8	1.7	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	1.4	1.6	1.4	1.5				
Hong Kong	342	0.4	0.4	0.9	-0.2	1.5	0.4	0.6	0.6	0.5	0.1	-0.1	1.3	1.0	1.2	0.8	0.8	0.8	1.1	1.9	-0.3	0.1	-0.5	1.3	-0.5	-3.0	-0.4				
India **	2652	3.3	7.5	0.8	2.8	1.8	1.0	1.6	2.6	2.0	1.5	2.8	2.6	1.5	0.9	1.8	1.6	2.2	2.0	1.9	1.6	1.4	1.6	1.2	0.8	0.9	-				
Korea	1624	2.0	1.7	0.9	0.7	0.4	0.6	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	1.2				
Indonesia **	1015	1.3	2.5	1.2	1.2	1.3	1.2	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	0.9	0.6	1.2	1.1	0.5	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				
Thailand	455	0.6	1.0	-0.4	0.6	1.0	1.2	0.4	0.4	1.5	0.8	0.7	0.7	0.9	0.9	1.0	1.3	1.3	0.4	1.9	1.0	0.0	0.8	1.0	0.4	0.1	-				
Malaysia **	319	0.4	0.7	1.1	1.8	1.2	1.4	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	2.4	1.5	0.9	1.7	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	0.7	1.1	0.8	1.5	-0.5	1.2	1.2	0.1	0.6	0.8	0.7	1.7	0.3	0.4	2.0	0.9	1.2	0.2	0.2	-0.2	0.9	-0.7	0.6	0.0				
Brazil	2053	2.6	2.5	0.5	-1.3	0.2	0.4	-1.1	-2.2	-1.4	-0.8	-0.9	-0.2	-0.7	-0.5	1.6	0.4	0.1	0.3	0.7	0.0	0.5	0.1	0.0	0.5	0.6	-				
Chile	278	0.3	0.4	0.0	0.4	0.0	1.3	0.1	1.1	-0.2	1.1	0.6	-0.4	0.5	0.1	-0.7	0.8	2.2	0.9	1.3	0.6	0.0	1.4	0.0	0.7	0.7	-				
Mexico	1157	1.4	1.9	0.6	1.3	0.4	1.1	0.5	1.0	1.2	0.0	0.6	0.4	1.1	1.1	0.5	0.3	-0.2	1.1	1.3	-0.2	0.4	-0.1	-0.1	-0.1	0.0	0.0				
Russia **	1579	2.0	3.2	-0.8	1.2	-0.4	0.2	-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	-				
Poland	527	0.7	0.9	1.1	1.1	0.8	0.6	1.2	0.7	1.2	1.2	-0.2	1.3	0.2	2.2	1.1	1.0	1.2	1.5	1.3	1.3	1.3	0.4	1.5	0.8	1.3	-				
Turkey	853	1.1	1.7	2.7	-1.5	2.4	1.5	1.9	1.4	1.6	0.6	0.5	1.1	-3.1	5.8	1.5	1.7	1.8	2.4	1.2	-0.1	-1.4	-2.6	1.7	1.0	0.4	-				
South Africa	349	0.4	0.6	-0.6	0.3	0.6	1.1	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	-				

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

\*\* for those countries, seasonally-adjusted figures by ODDO BHF



# Appendix 2

## Contributions to real GDP growth: G7 countries

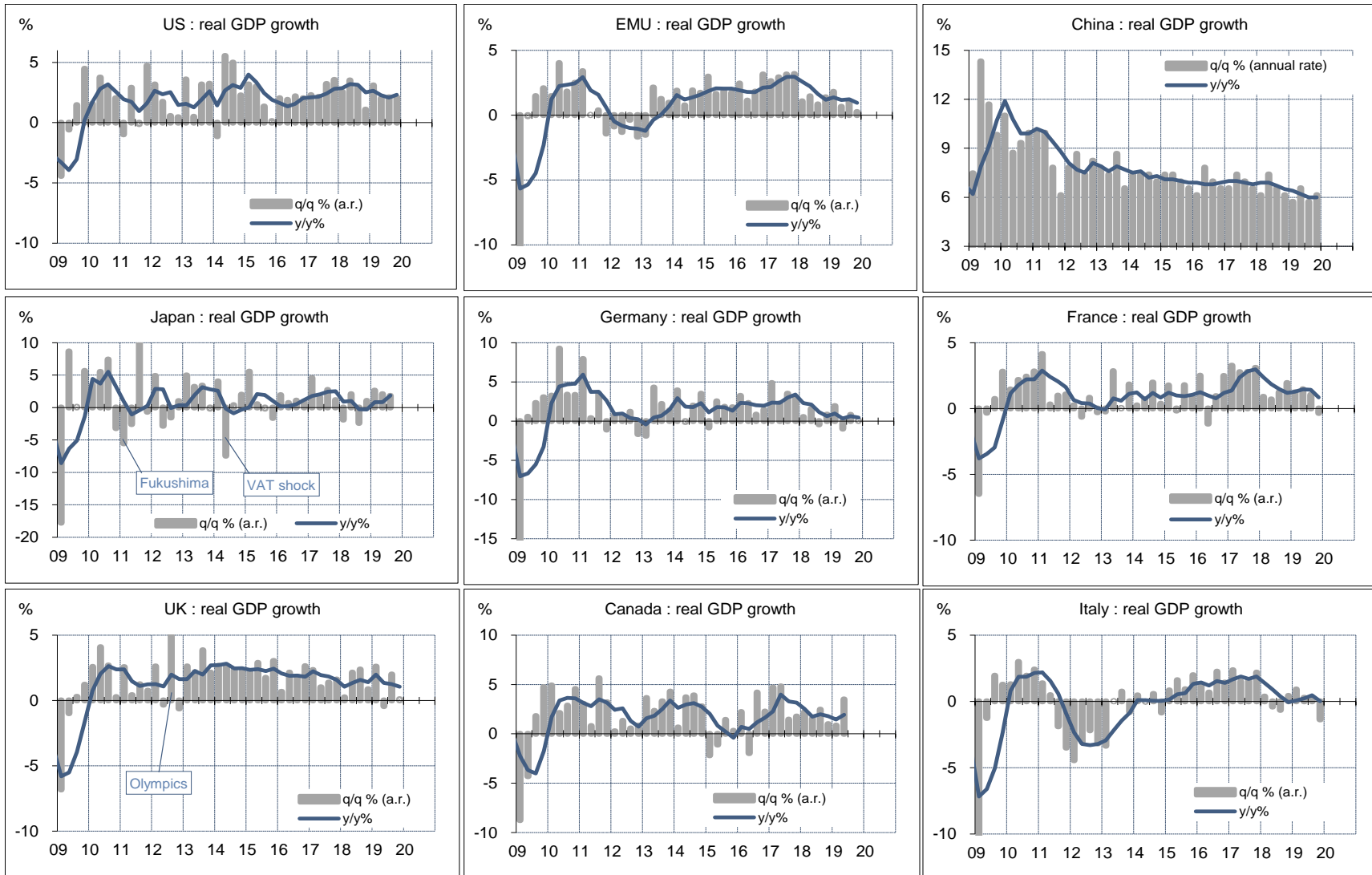


	Real GDP change (Q/Q non annualised, %) and contributions to growth *																										
	Pre-crisis 1999-2007	Crisis Q3 08-Q2 09	Post-crisis 2010 to date	2014				2015				2016				2017				2018				2019			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
US																											
Real GDP qoq %	0.7	-1.0	0.6	-0.3	1.4	1.2	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
- Inventories	0.0	-0.3	0.0	-0.4	0.3	0.0	-0.2	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	-0.3
- Net exports	-0.1	0.3	-0.1	-0.3	-0.1	0.0	-0.3	-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
- Final demand	0.8	-1.0	0.6	0.3	1.2	1.2	1.0	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
Japan																											
Real GDP qoq %	0.3	-1.6	0.3	1.0	-1.9	0.1	0.5	1.4	0.1	0.0	-0.4	0.5	0.2	0.3	0.2	1.1	0.4	0.7	0.3	-0.5	0.5	-0.6	0.3	0.6	0.5	0.4	-
- Inventories	0.0	-0.5	0.0	-0.4	0.9	-0.4	-0.3	0.3	0.5	-0.3	-0.1	0.0	0.4	-0.5	-0.3	0.2	0.0	0.5	0.1	-0.4	-0.1	0.3	0.0	0.1	-0.1	-0.2	-
- Net exports	0.1	-0.4	0.0	-0.1	0.9	0.0	0.3	0.0	-0.1	-0.1	0.0	0.3	0.1	0.3	0.3	0.1	-0.3	0.6	-0.1	0.0	0.0	-0.1	-0.5	0.4	-0.3	-0.2	-
- Final demand	0.2	-0.7	0.3	1.6	-3.7	0.5	0.4	1.0	-0.2	0.3	-0.3	0.2	-0.4	0.4	0.2	0.8	0.7	-0.4	0.3	-0.1	0.6	-0.8	0.7	0.1	0.9	0.8	-
Germany																											
Real GDP qoq %	0.4	-1.7	0.5	1.0	0.0	0.5	0.9	-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	0.5	0.4	-0.8	0.2	0.0	-0.5	0.1	0.1	0.1	-0.1	-0.1	0.7	-0.1	0.2	-0.2	0.1	-0.2	0.2	0.7	-0.1	-0.9	0.2	-0.7	-
- Net exports	0.2	-0.9	0.0	-0.2	-0.3	0.6	0.1	-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	-0.6	0.5	-
- Final demand	0.2	-0.3	0.4	0.7	-0.1	0.7	0.6	0.2	0.5	0.8	0.8	1.1	0.0	0.5	0.3	0.6	0.6	0.6	0.5	0.2	0.4	0.2	0.5	0.9	0.2	0.4	-
France																											
Real GDP qoq %	0.6	-0.9	0.3	0.1	0.2	0.5	0.1	0.4	0.0	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	0.3	0.4	0.3	-0.1
- Inventories	0.0	-0.6	0.0	0.4	0.2	0.1	-0.1	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
- Net exports	-0.1	0.0	0.0	0.0	-0.4	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
- Final demand	0.6	-0.3	0.3	-0.3	0.4	0.4	0.2	0.5	0.0	0.5	0.3	0.9	0.1	0.2	0.8	0.7	0.5	0.7	0.3	0.1	0.1	0.4	0.5	0.4	0.5	0.7	0.3
Italy																											
Real GDP qoq %	0.4	-1.7	0.0	0.1	0.0	0.1	-0.2	0.2	0.4	0.2	0.5	0.3	0.2	0.6	0.4	0.6	0.4	0.4	0.5	0.1	-0.1	-0.2	0.1	0.2	0.1	0.1	-0.3
- Inventories	0.0	-0.4	0.0	0.2	0.5	-0.2	-1.1	0.6	-0.3	0.4	0.0	0.1	0.2	0.0	-0.1	-0.2	0.6	-0.3	0.3	-0.3	0.1	-0.3	0.1	-0.9	-0.1	0.3	-
- Net exports	0.0	-0.3	0.1	0.0	-0.3	0.0	0.6	-0.6	0.0	-0.3	0.2	-0.5	-0.1	0.0	0.0	0.6	-0.5	0.1	-0.1	0.0	-0.4	0.3	-0.2	0.6	0.0	-0.4	-
- Final demand	0.4	-1.0	0.0	-0.1	-0.2	0.3	0.4	0.2	0.7	0.2	0.3	0.6	0.0	0.5	0.5	0.2	0.3	0.5	0.4	0.3	0.2	-0.2	0.3	0.6	0.1	0.2	-
EMU																											
Real GDP qoq %	0.6	-1.4	0.3	0.5	0.2	0.5	0.4	0.7	0.4	0.5	0.4	0.6	0.3	0.5	0.8	0.6	0.7	0.8	0.8	0.3	0.4	0.2	0.3	0.4	0.2	0.3	0.1
- Inventories	0.0	-0.4	0.0	0.4	0.3	-0.2	-0.1	0.2	-0.3	0.3	0.0	0.1	-0.2	0.0	0.2	0.1	0.1	-0.2	0.0	0.1	0.0	0.2	-0.3	-0.3	0.0	-0.1	-
- Net exports	0.0	-0.2	0.1	0.0	-0.1	0.2	0.2	0.2	-1.2	0.8	-0.5	-0.1	0.0	0.0	-0.2	0.6	-1.1	1.5	0.3	-0.1	0.0	-0.4	0.0	0.3	-1.2	0.9	-
- Final demand	0.5	-0.8	0.2	0.1	0.0	0.5	0.4	0.3	1.8	-0.6	0.9	0.7	0.4	0.4	0.7	-0.1	1.7	-0.5	0.4	0.3	0.4	0.3	0.6	0.4	1.3	-0.5	-
UK																											
Real GDP qoq %	0.7	-1.4	0.5	0.7	0.7	0.6	0.6	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	0.6	-0.1	0.5	0.0
- Inventories	0.0	0.0	0.0	-1.1	0.1	-0.1	0.4	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	0.2	0.0	-0.2	-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	0.9	0.4	0.7	0.4	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	0.5	0.3	0.2

\* do not sum up exactly due to roundings

# Appendix 3

## Real GDP growth: G7 countries + China

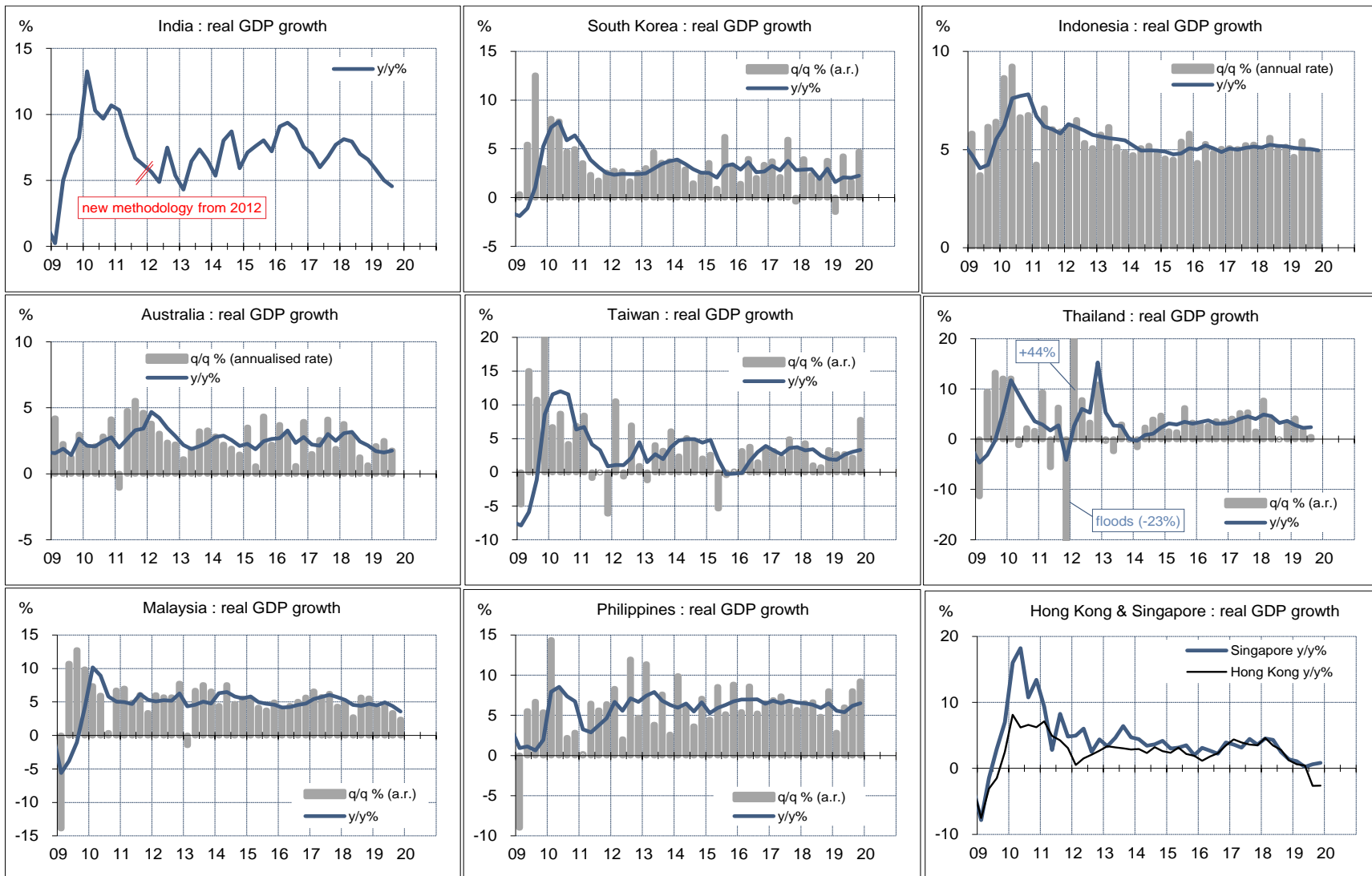


Source: Thomson Reuters, ODDO BHF

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# Appendix 4

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

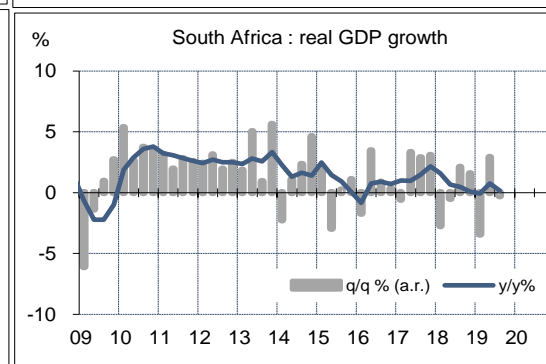
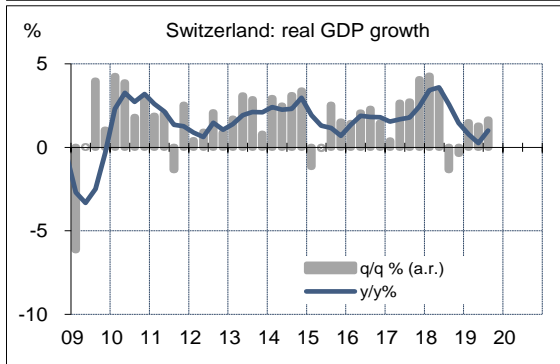
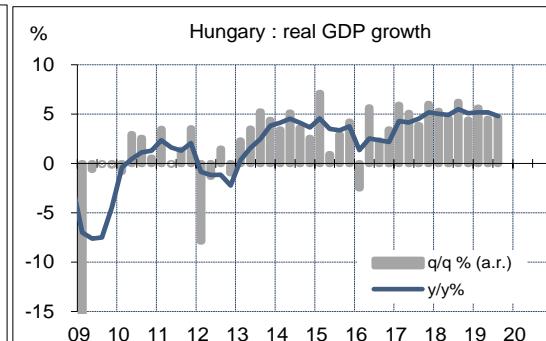
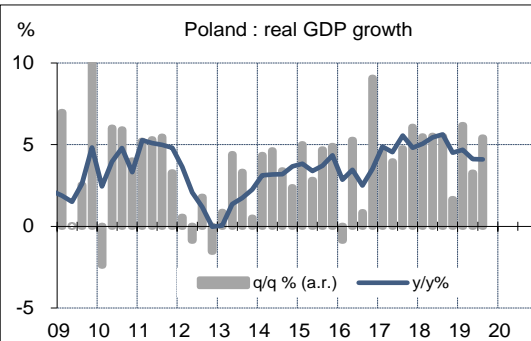


Source: Thomson Reuters, ODDO BHF

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# Appendix 5

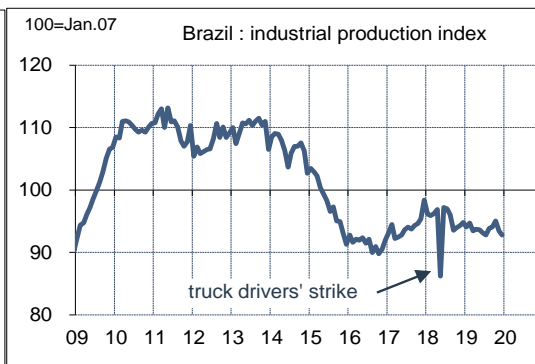
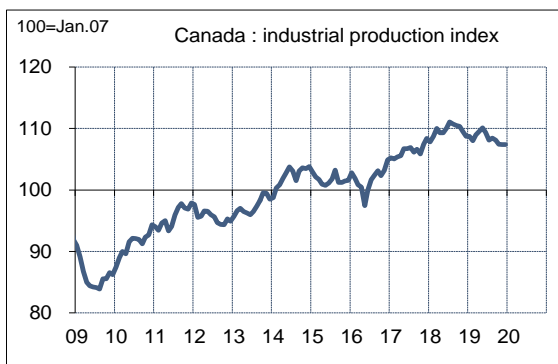
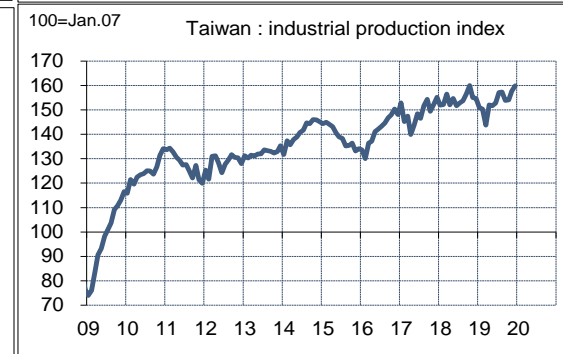
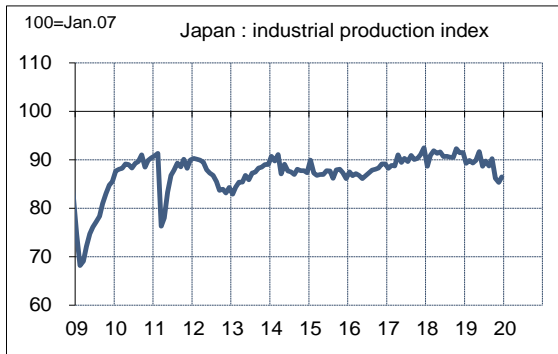
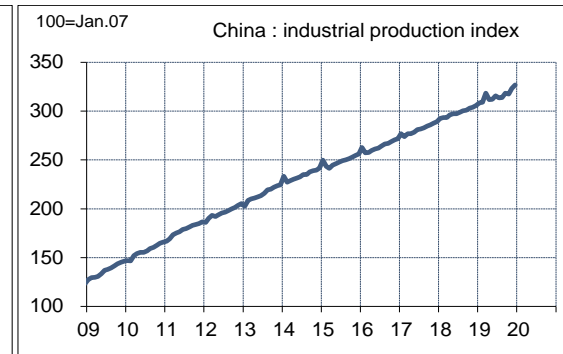
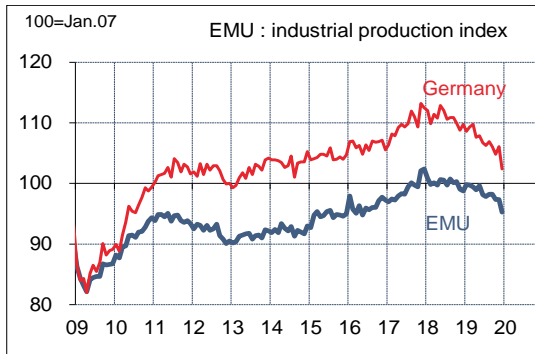
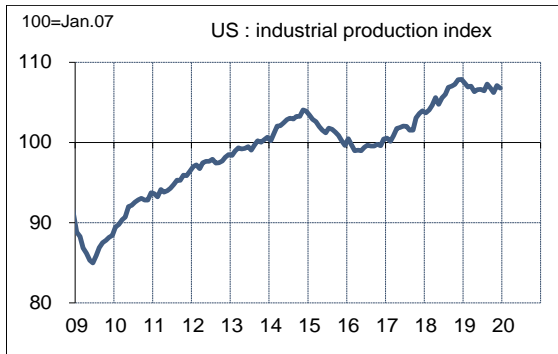
## Real GDP growth: other countries (selection)



Source: Thomson Reuters, ODDO BHF

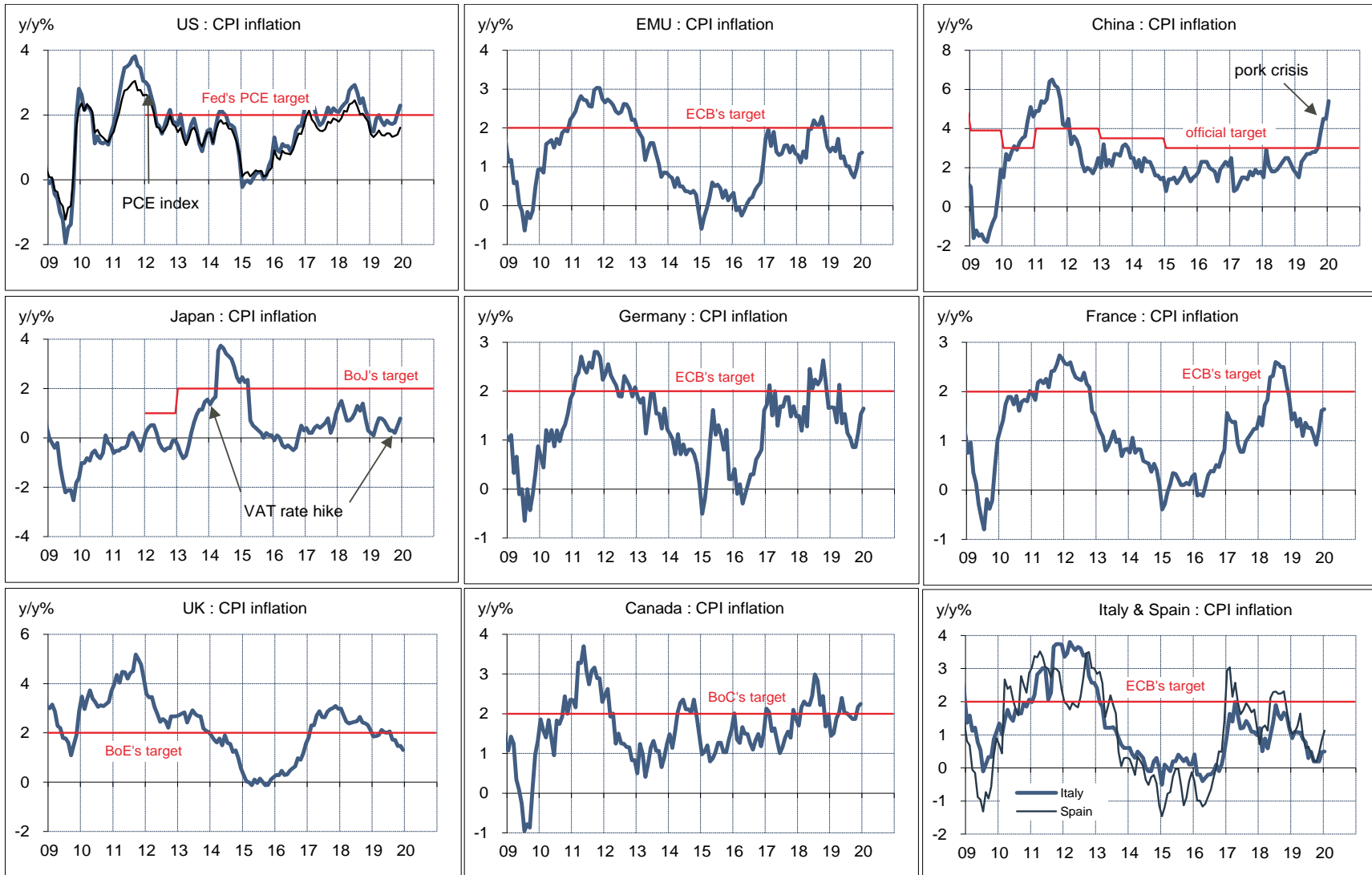
# Appendix 6

## Industrial production (index): selected countries



# Appendix 7

## Consumer price inflation: G7 countries + China

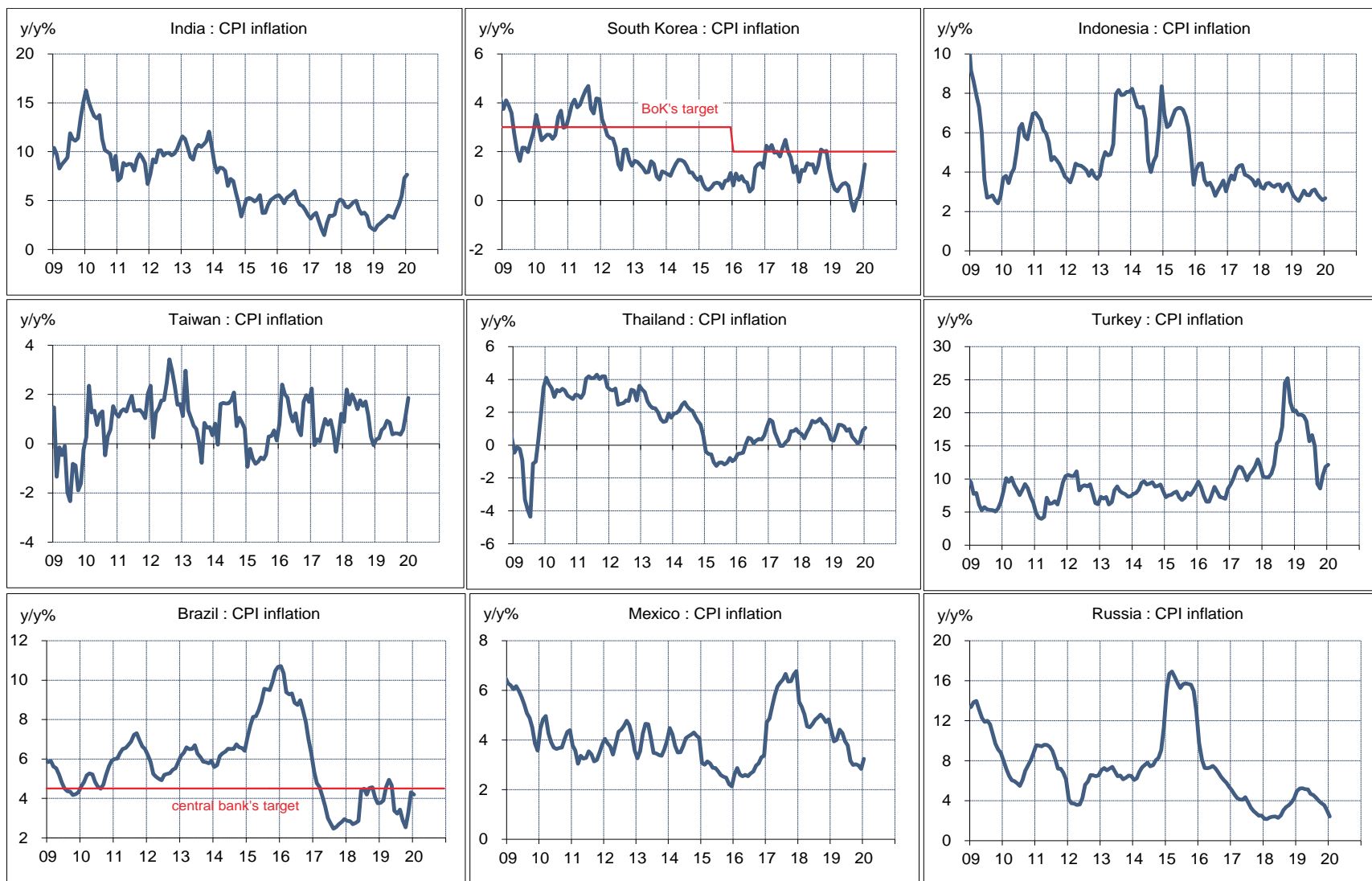


Source: Thomson Reuters, ODDO BHF

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# Appendix 8

## Consumer price inflation: emerging countries (selection)

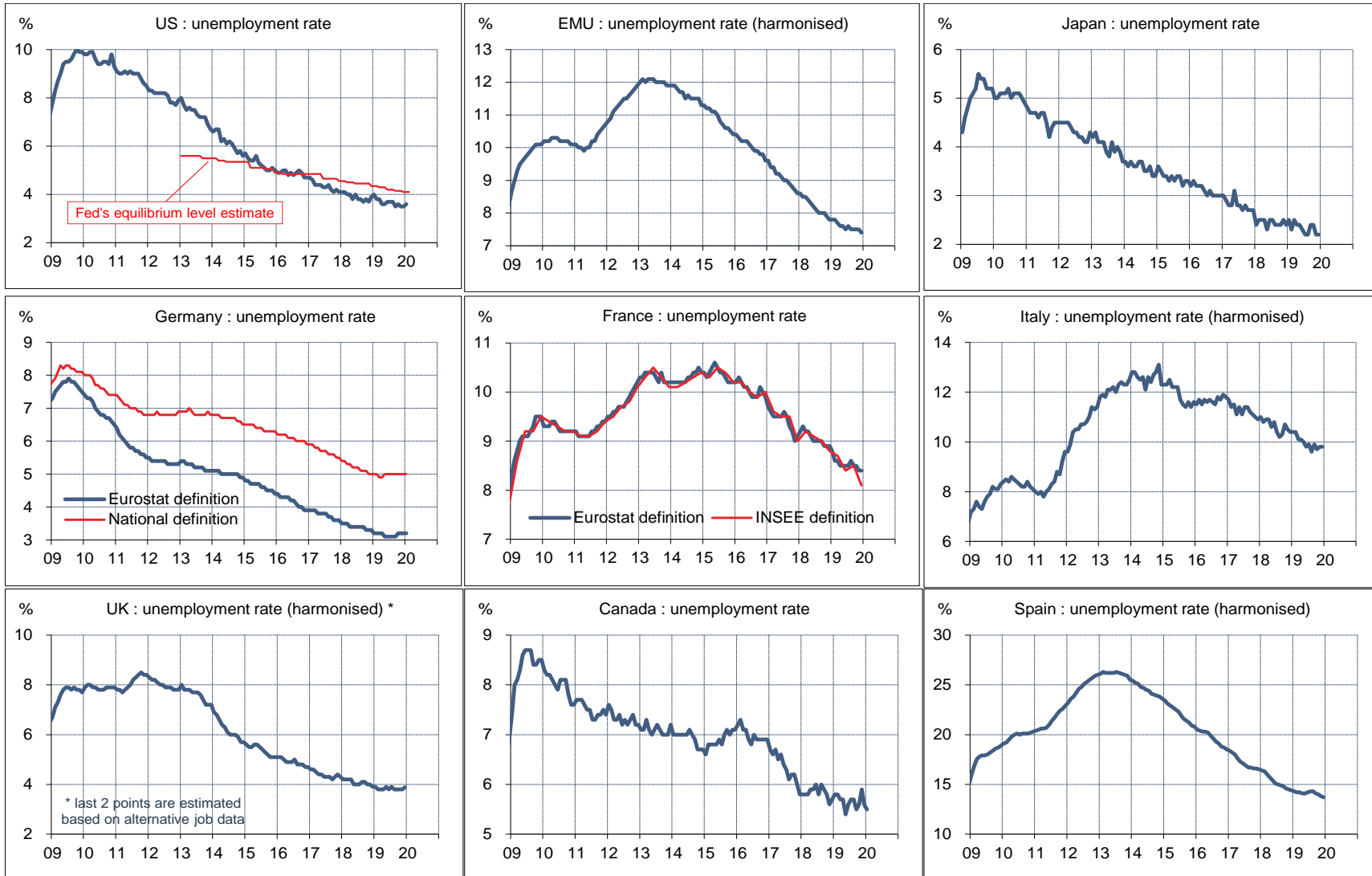


Source: Thomson Reuters, ODDO BHF



# Appendix 9

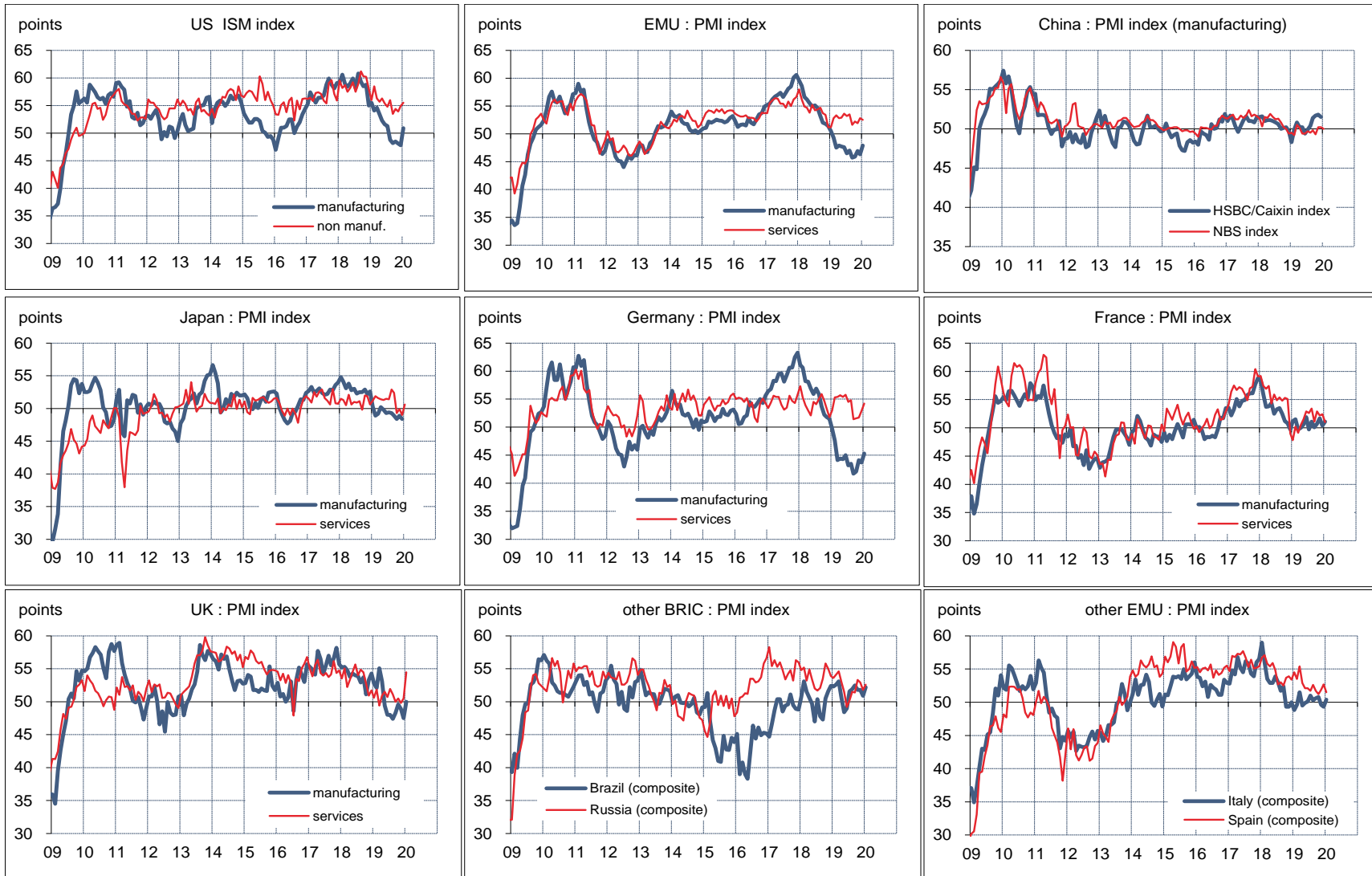
## Unemployment rates: G7 countries





# Appendix 10

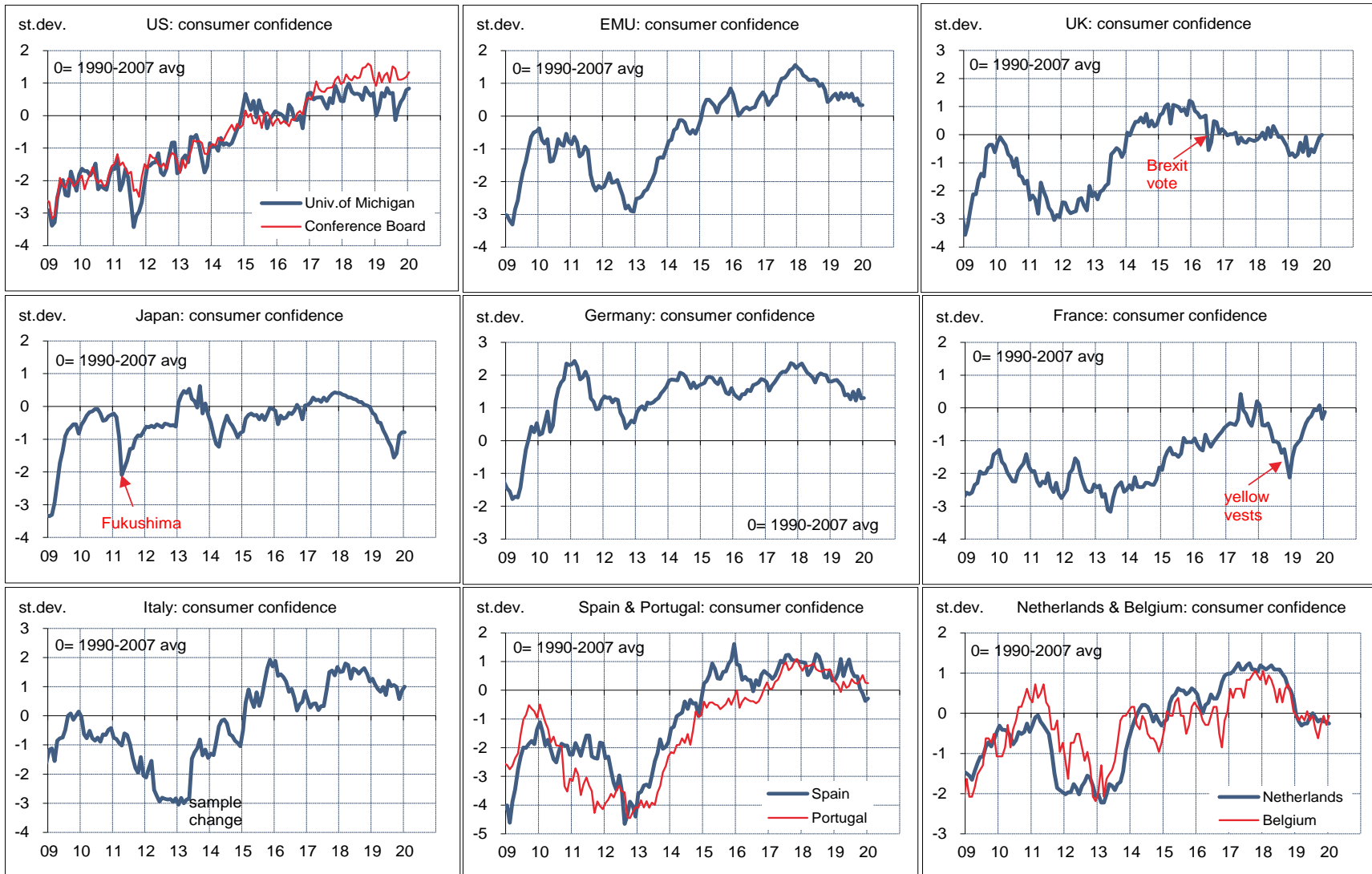
## Purchasing managers' confidence (PMI indices): G7 + BRIC countries



Source: Thomson Reuters, ODDO BHF

# Appendix 11

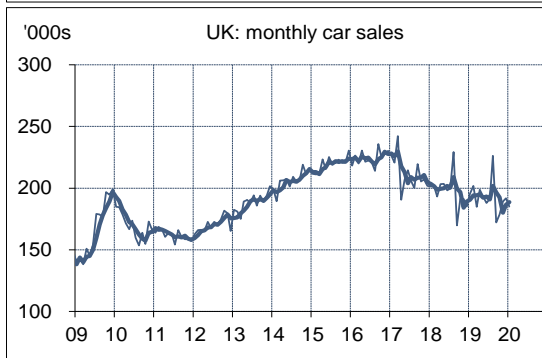
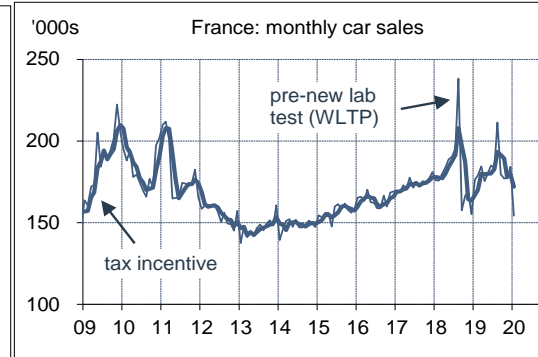
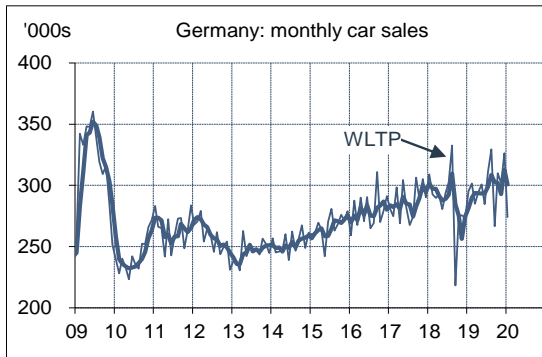
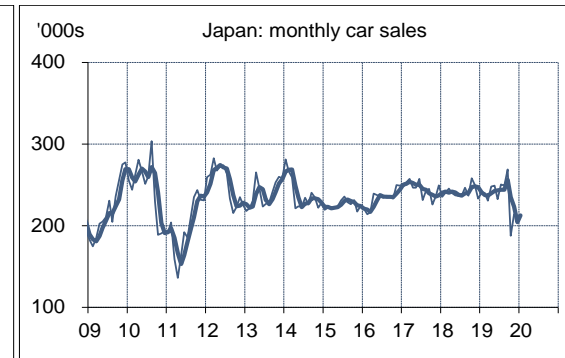
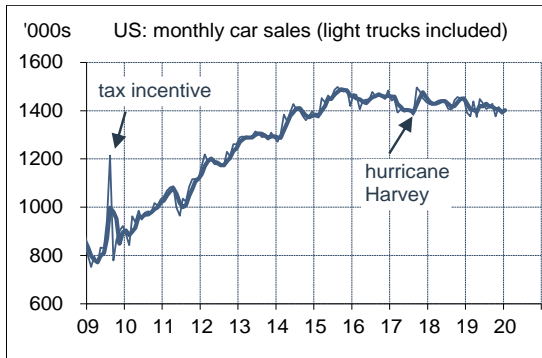
## Consumer confidence: developed countries (selection)



Source: Thomson Reuters, ODDO BHF

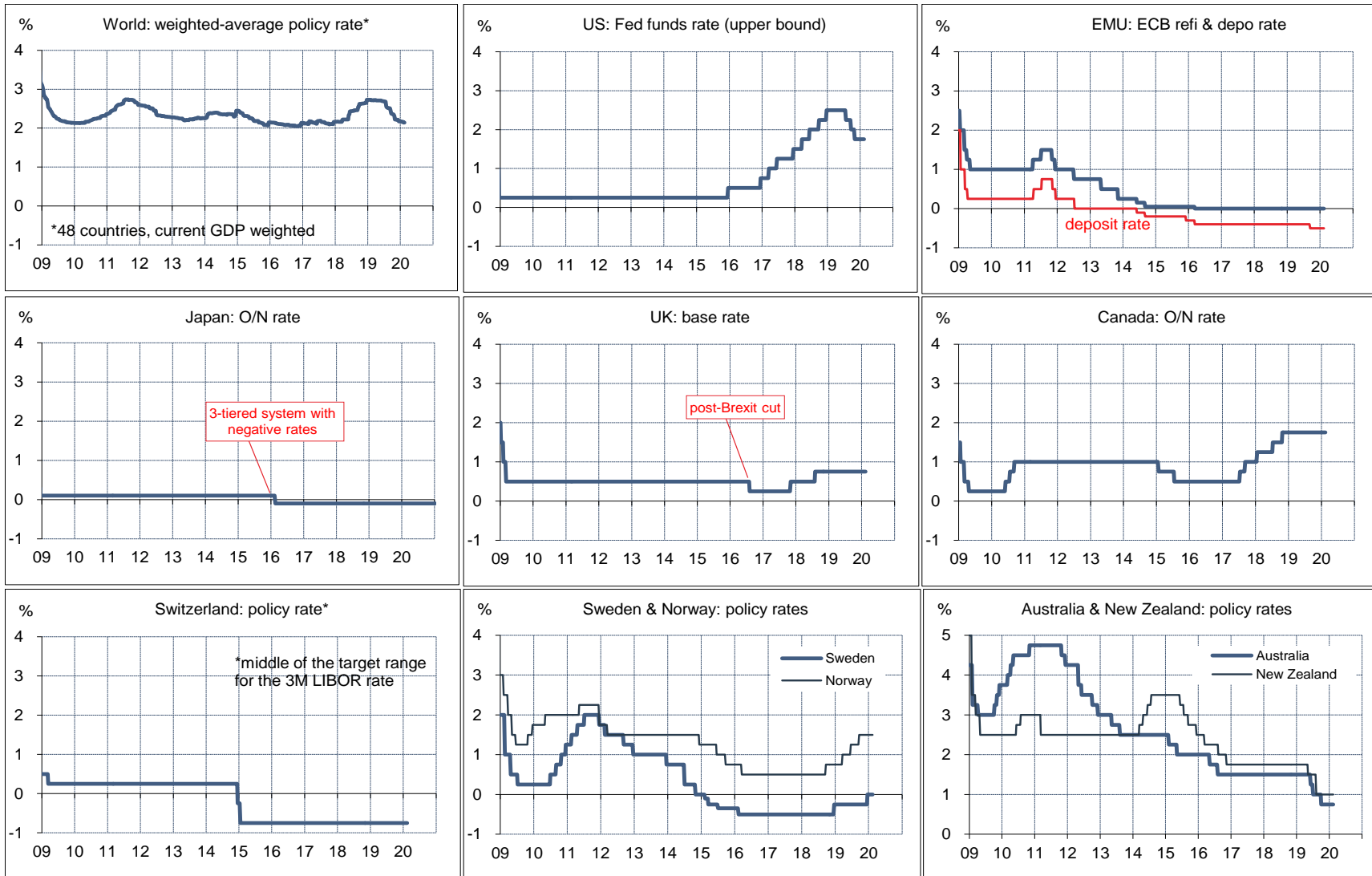
# Appendix 12

## Car sales: G7 countries + China + Brazil



# Appendix 13

## Central bank policy rates: developed countries (selection)

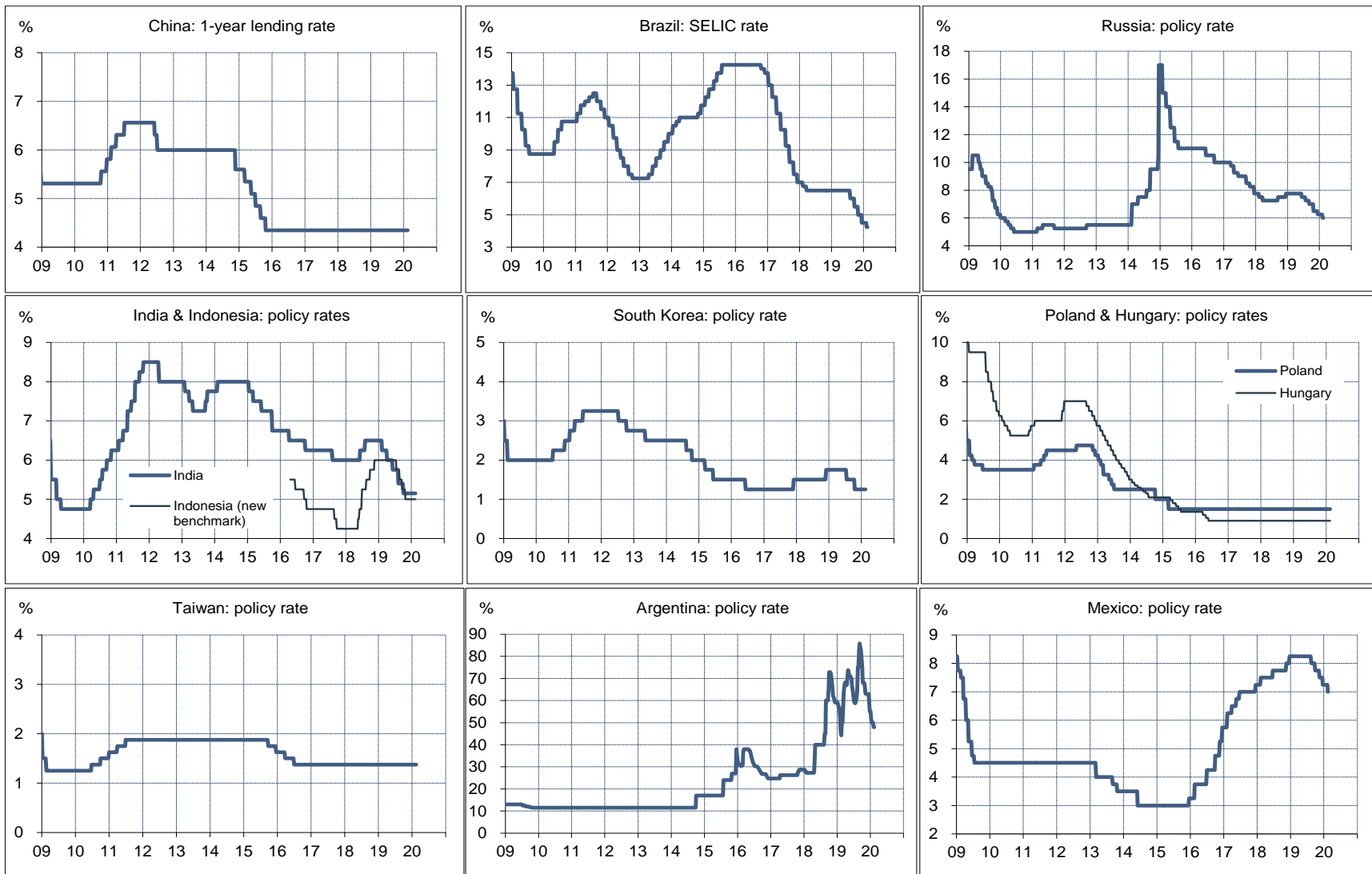


Source: Thomson Reuters, ODDO BHF

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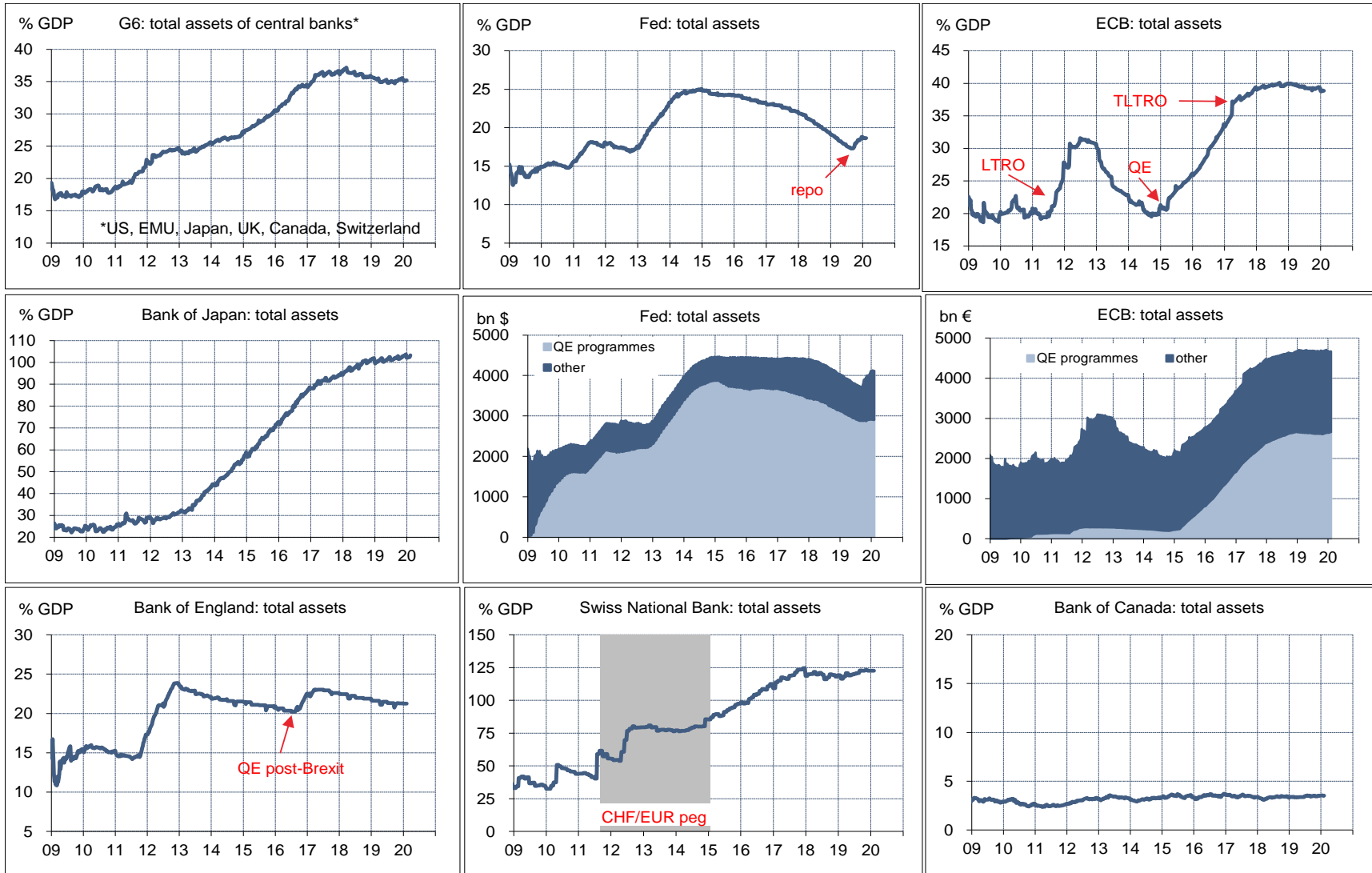
# Appendix 14

## Central bank policy rates: emerging countries (selection)



# Appendix 15

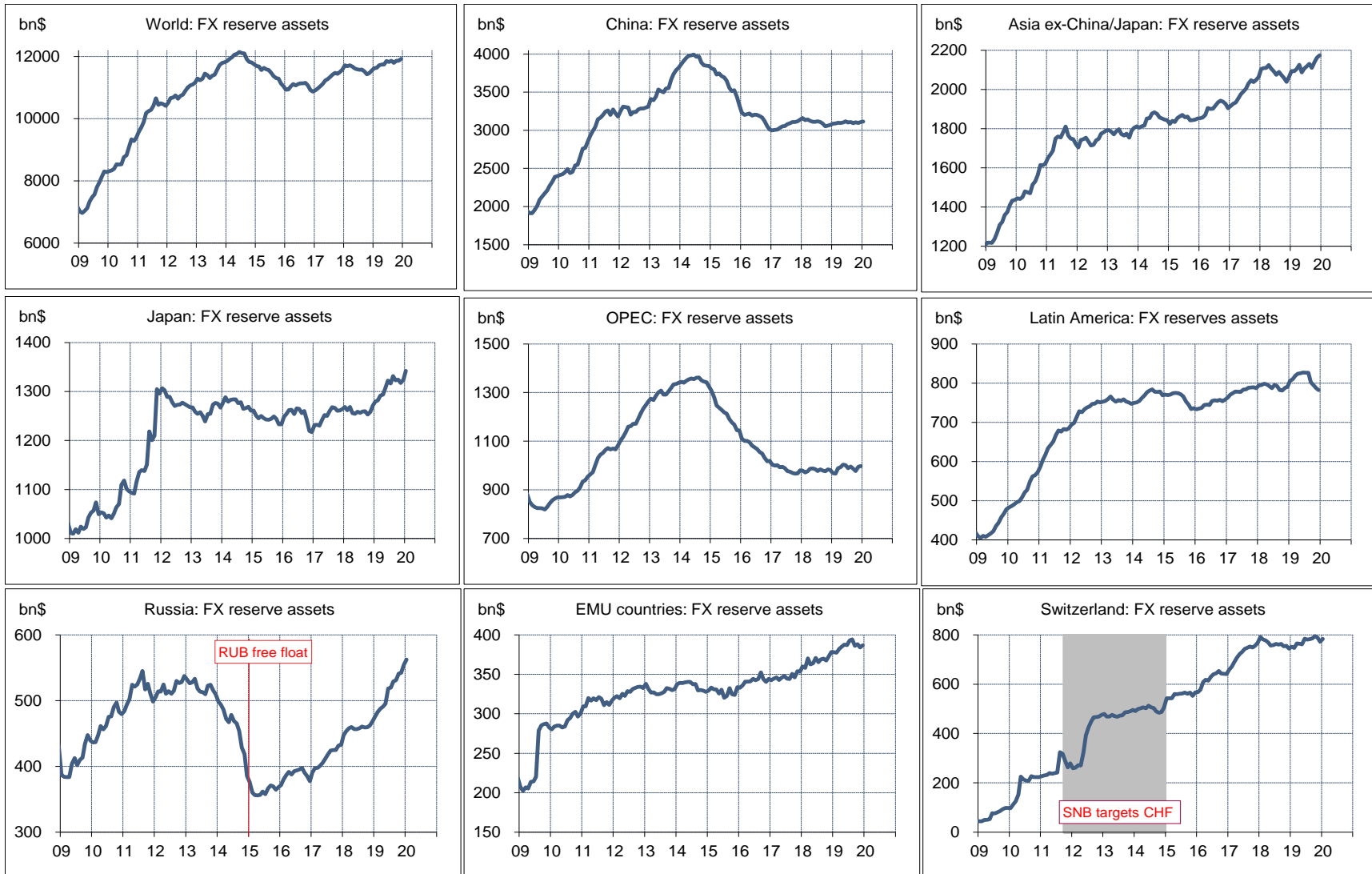
## Central bank balance sheets: developed countries (selection)



Source: Thomson Reuters, ODDO BHF

# Appendix 16

## Currency reserves (in US\$): world and principal holders



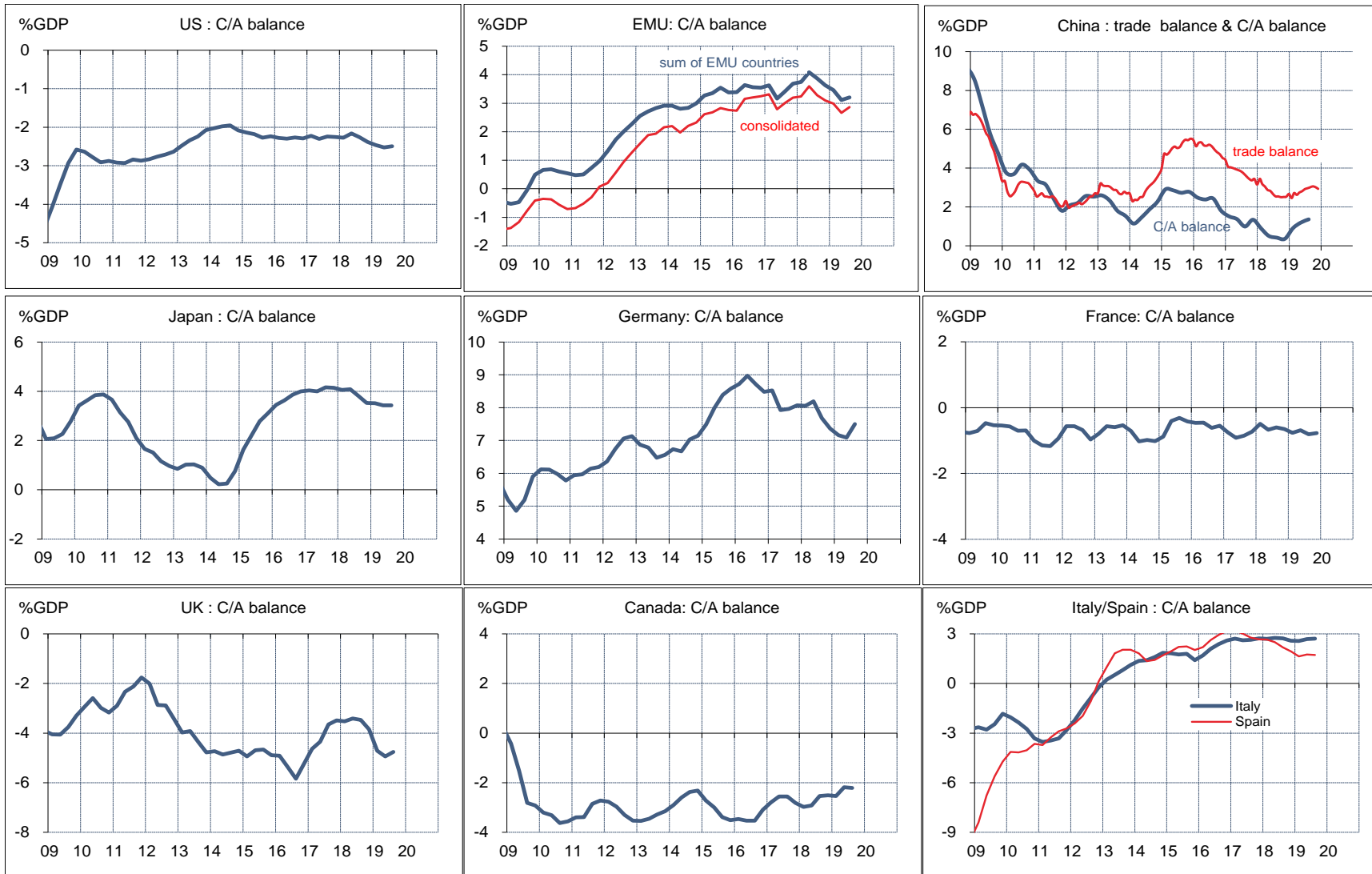
Source: Thomson Reuters, ODDO BHF

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# Appendix 17

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



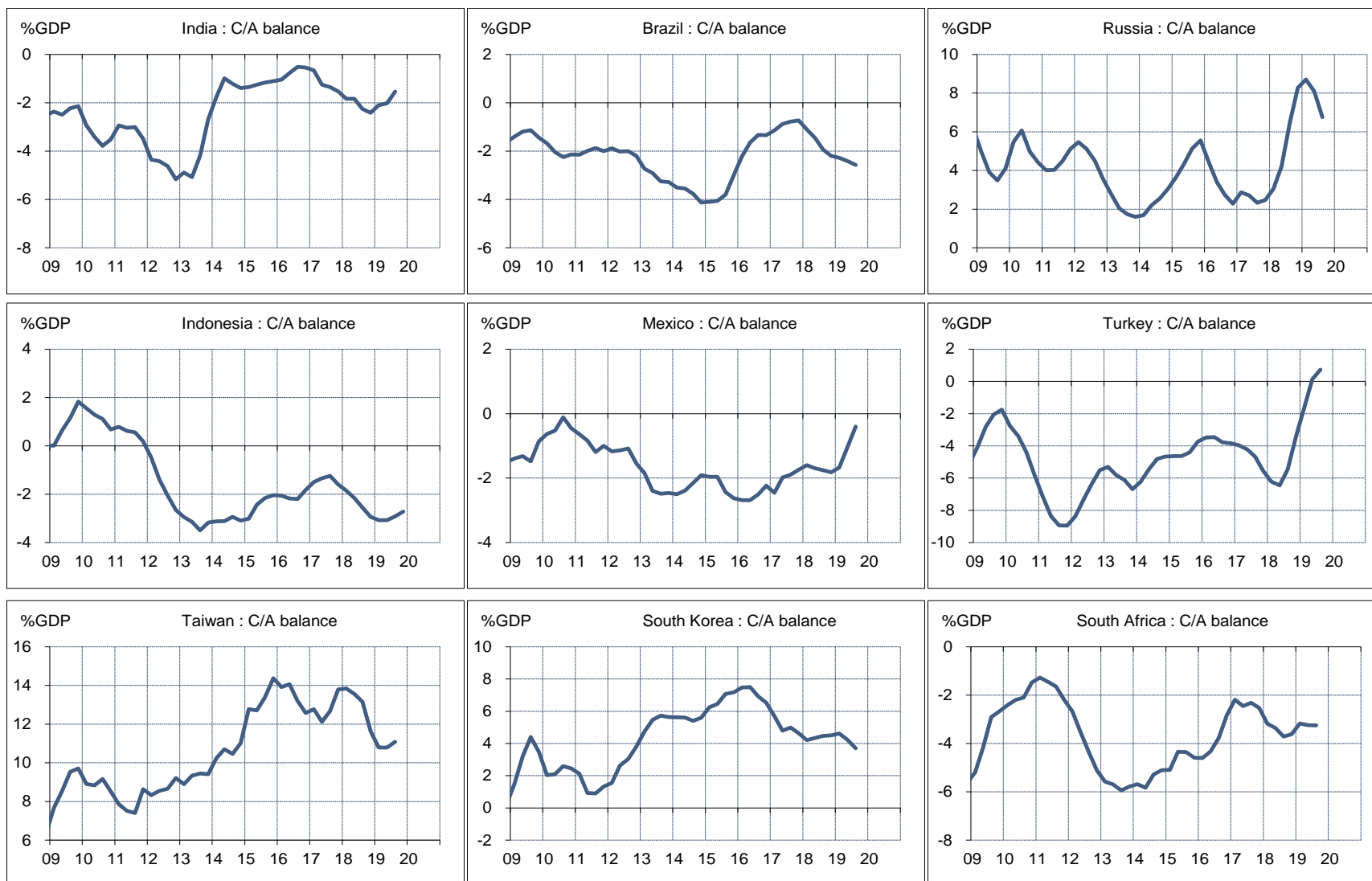
Source: Thomson Reuters, ODDO BHF

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## Appendix 18

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

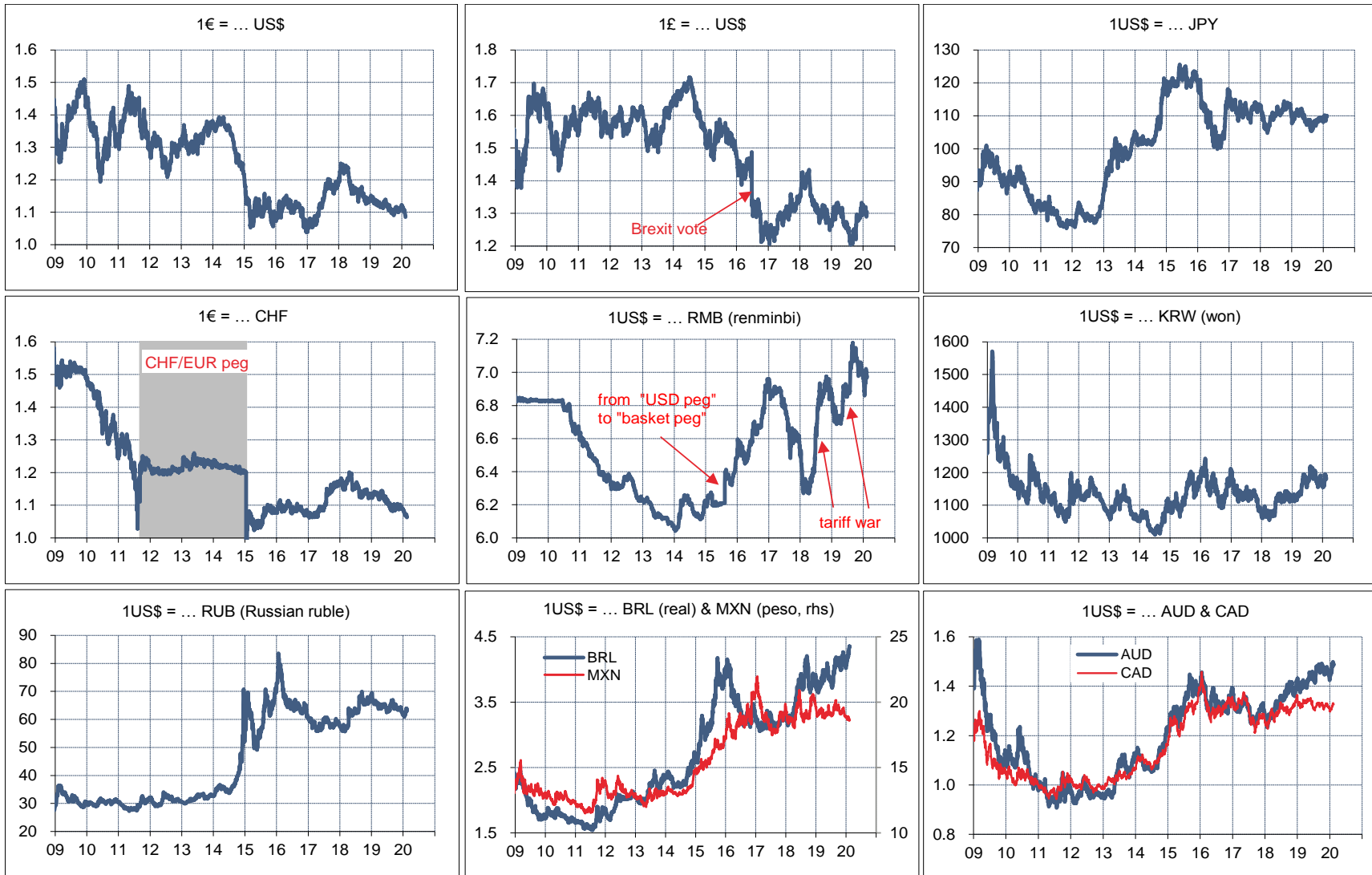


Source: Thomson Reuters, ODDO BHF

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# Appendix 19

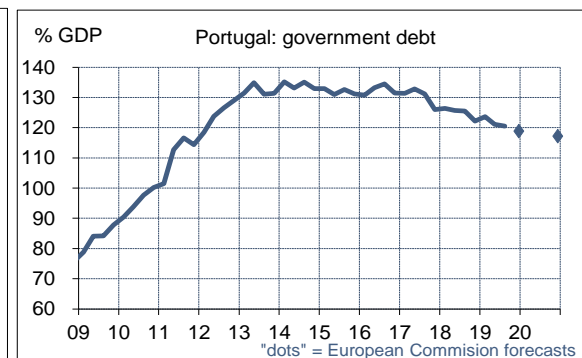
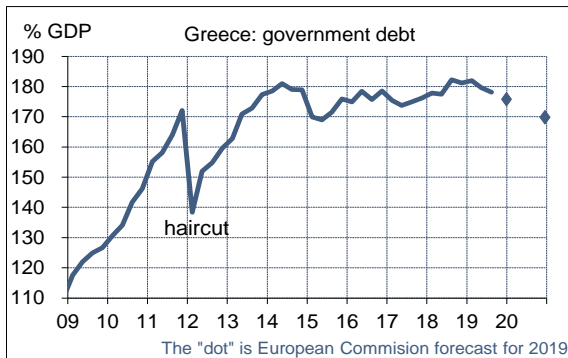
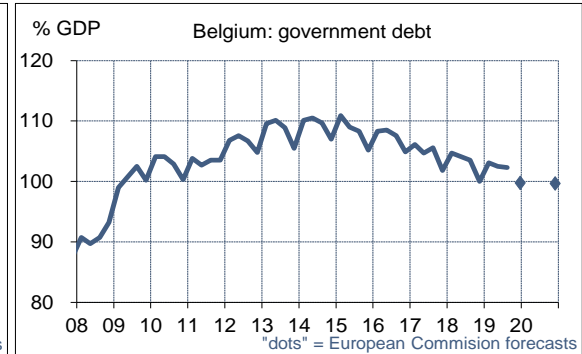
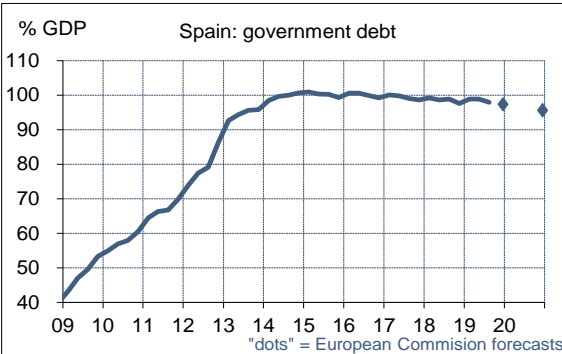
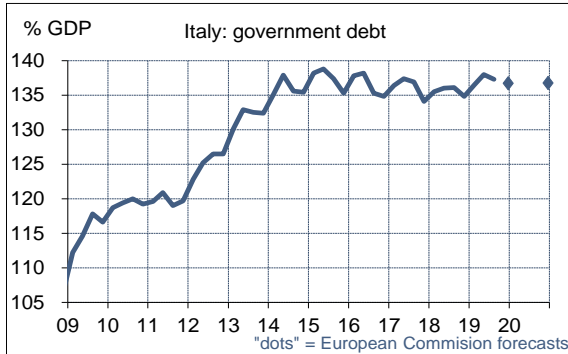
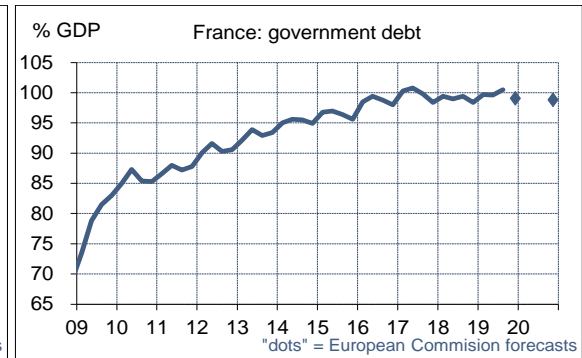
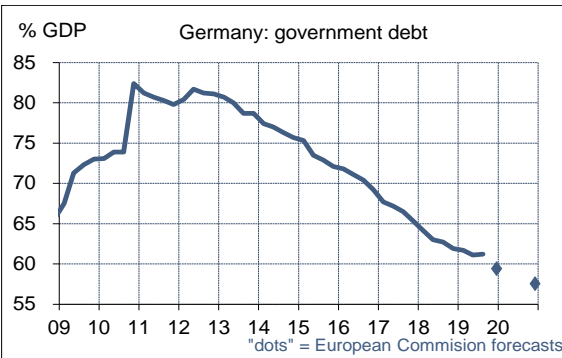
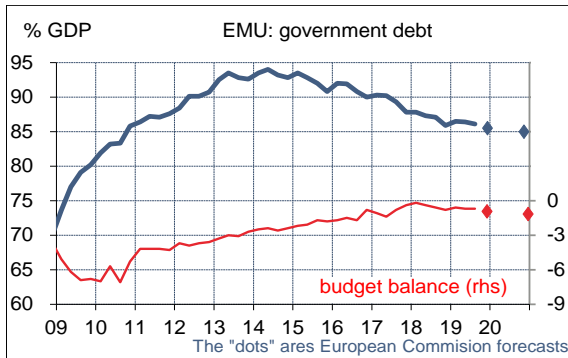
## Exchange rates vs EUR or US\$: major currencies



Source: Thomson Reuters, ODDO BHF

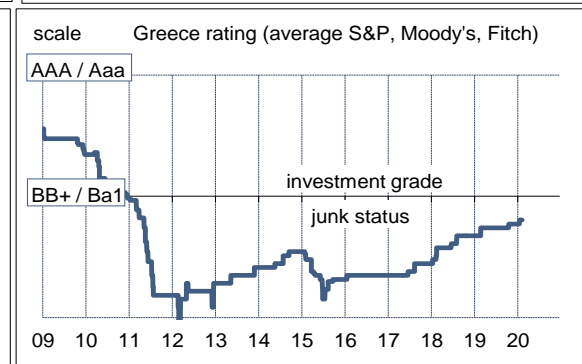
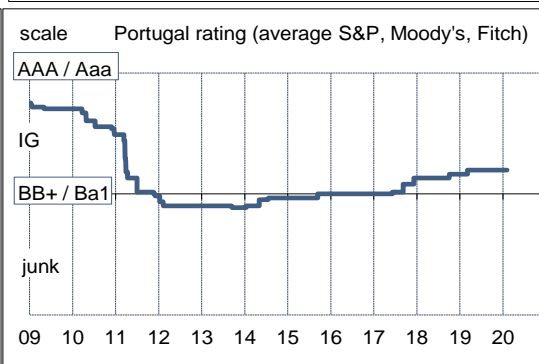
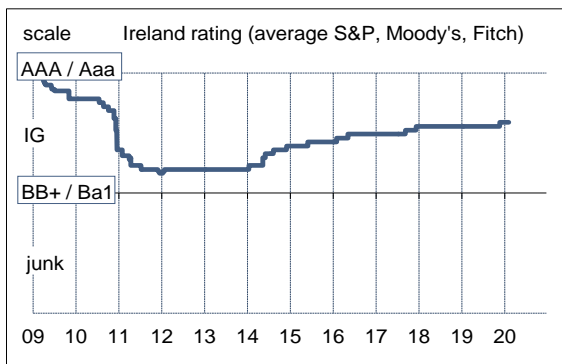
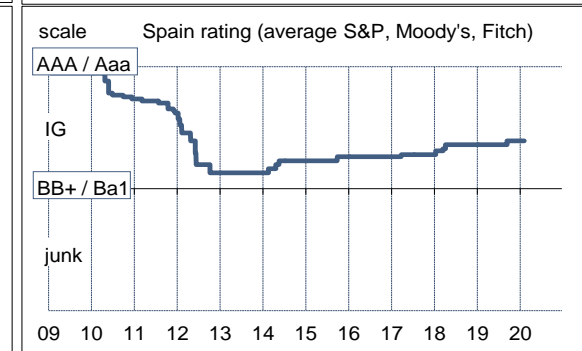
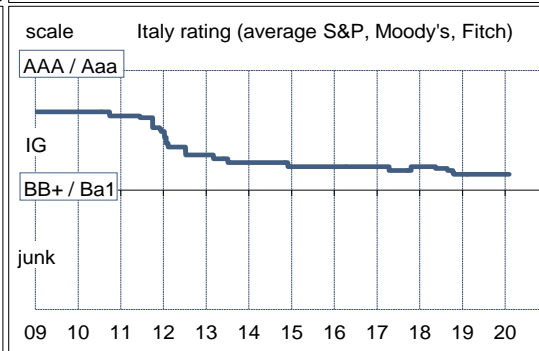
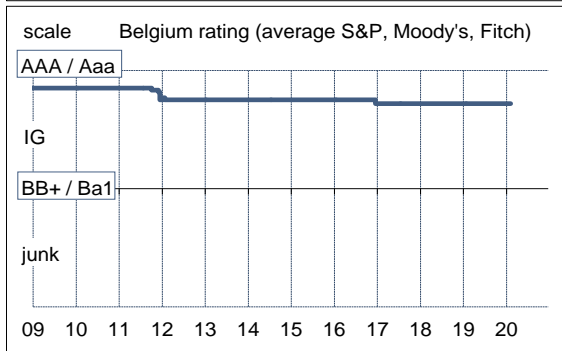
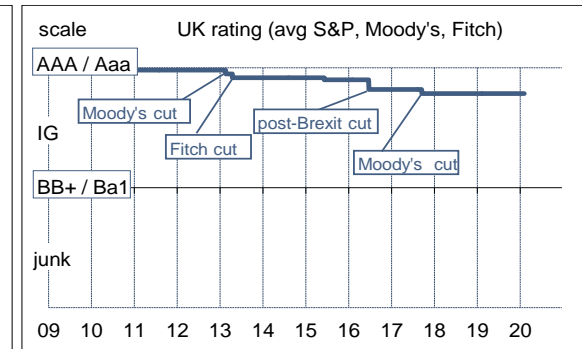
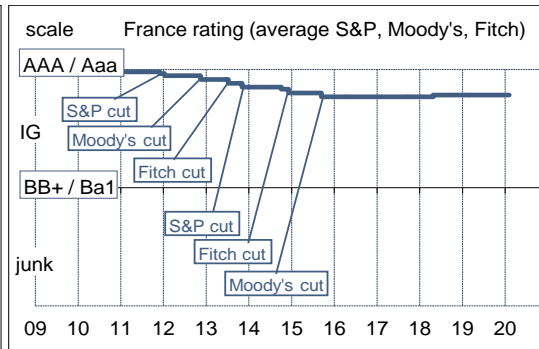
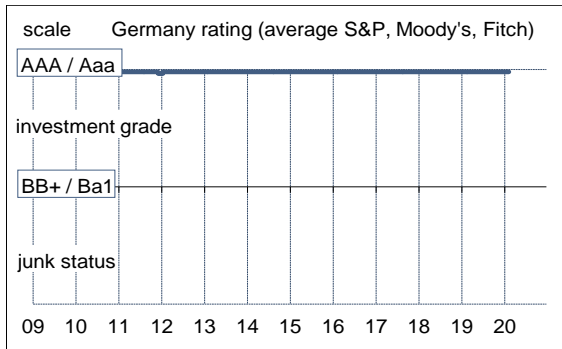
## Appendix 20

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



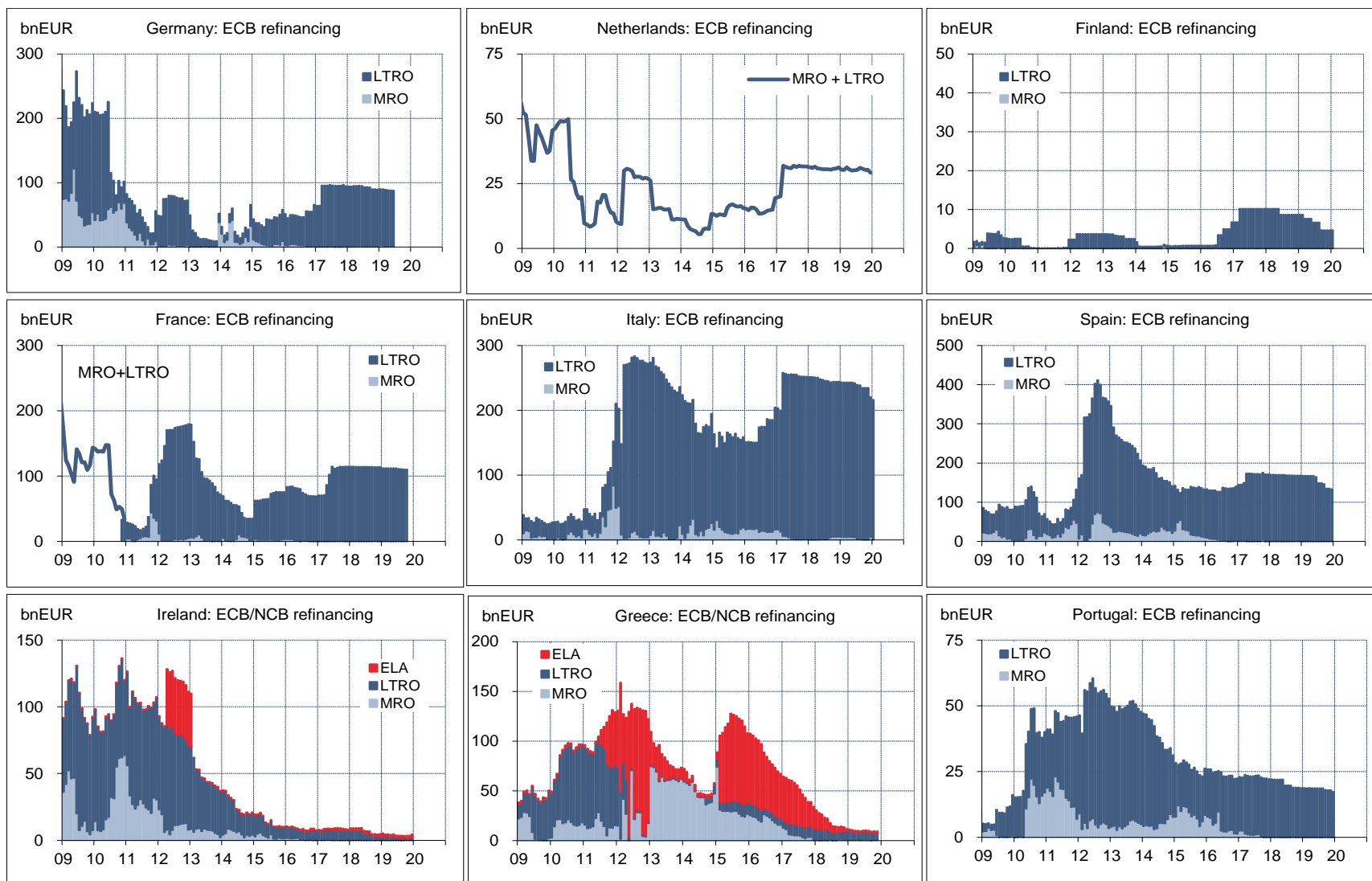
# Appendix 21

## Sovereign ratings: European countries (selection)



# Appendix 22

## Bank financing by the Eurosystem

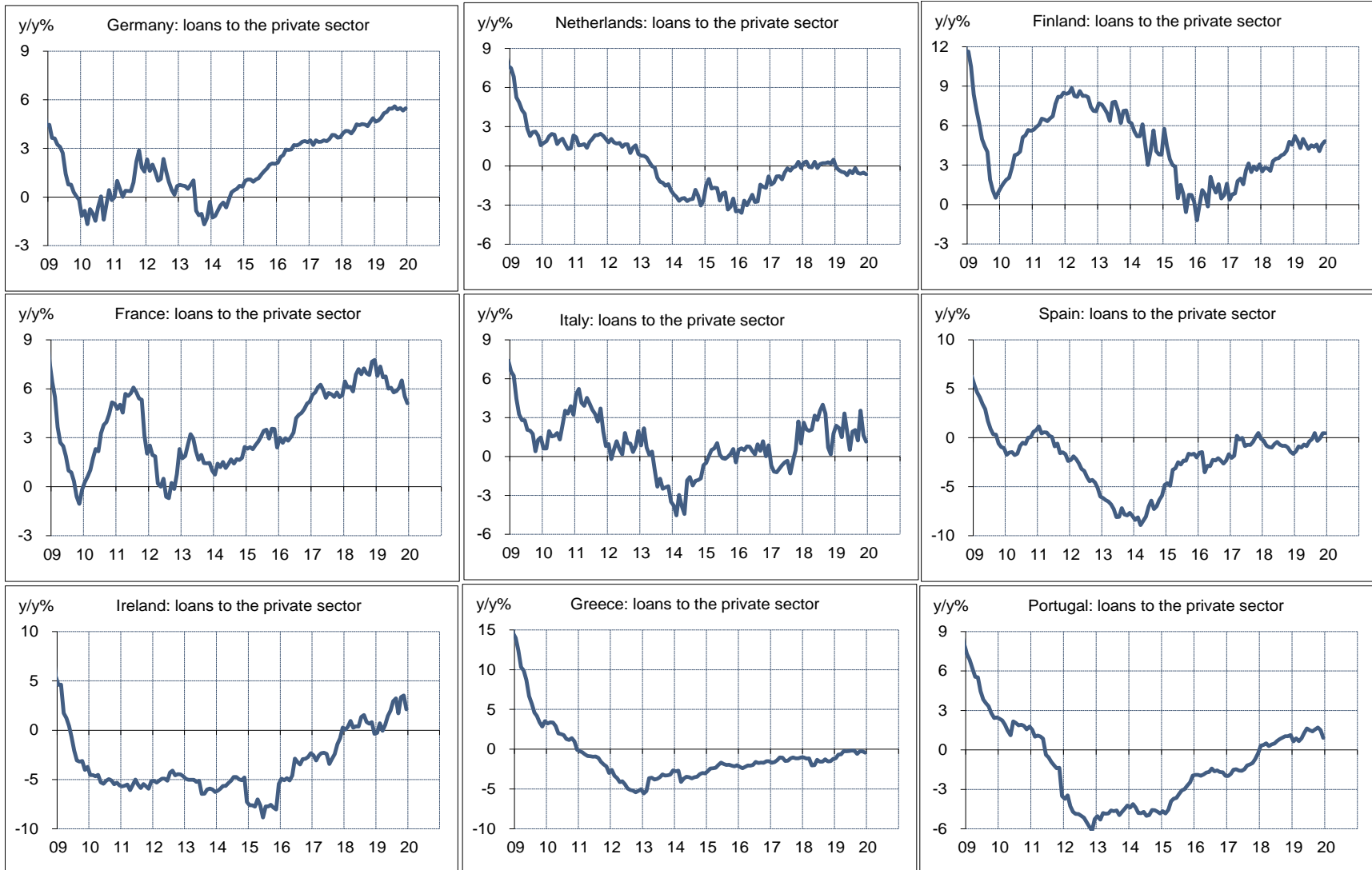


Source: Thomson Reuters, ODDO BHF

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## Appendix 23

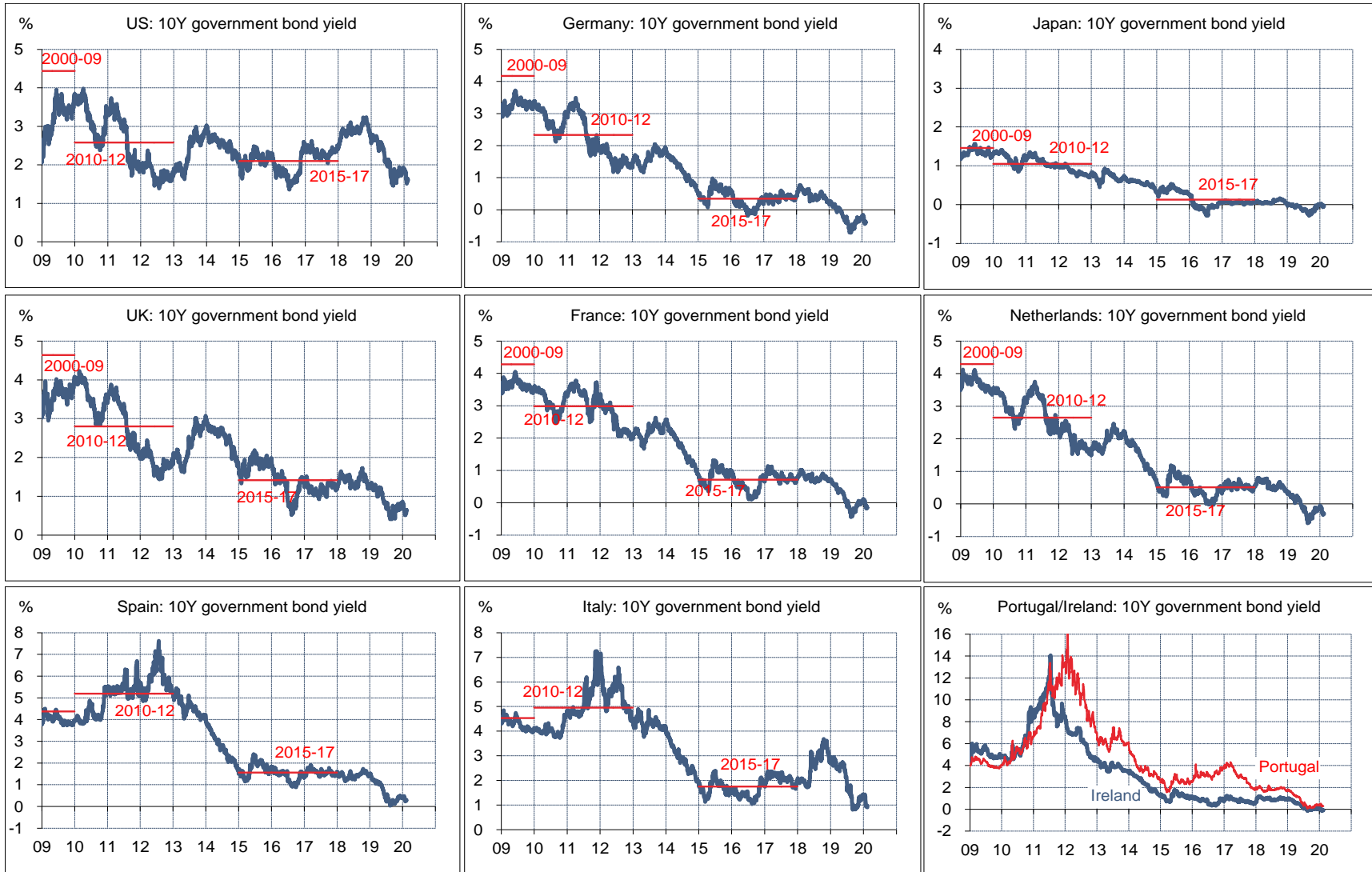
### Bank loans to the private sector: European countries (selection)



Source: Thomson Reuters, ODDO BHF

# Appendix 24

## 10-year government bond yield



Source: Bloomberg, ODDO BHF



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- Europe: recovery scenario slightly delayed (February 4, 2020)
- ECB: strategic review = battle of monetary doctrines (January 20, 2020)
- About the German economic mythology (December 4, 2019)
- About the German non-recession (November 26, 2019)
- Will we have a Christmas Brexit? (November 19, 2019)
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- Europe: no contagion, no recession (October 29, 2019)
- ECB: a critique of the critiques (October 10, 2019)
- European labour market health check (October 3, 2019)
- China: what are the adverse effects of the trade war? (October 1<sup>st</sup>, 2019)
- On trade uncertainty (September 24, 2019)
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- Scary monsters (season 2)... Trump, China & the Fed (January 9, 2019)
- Global economy: frictions or collision? (September 6, 2018)
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