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Aufsichtsrätetagung

Quo vadis Weltwirtschaft?

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Überblick

- Globale Perspektive
- Euroraum
- Deutschland
- Harte Landung in China?
- Risiken der Niedrigzinspolitik
- European Governance

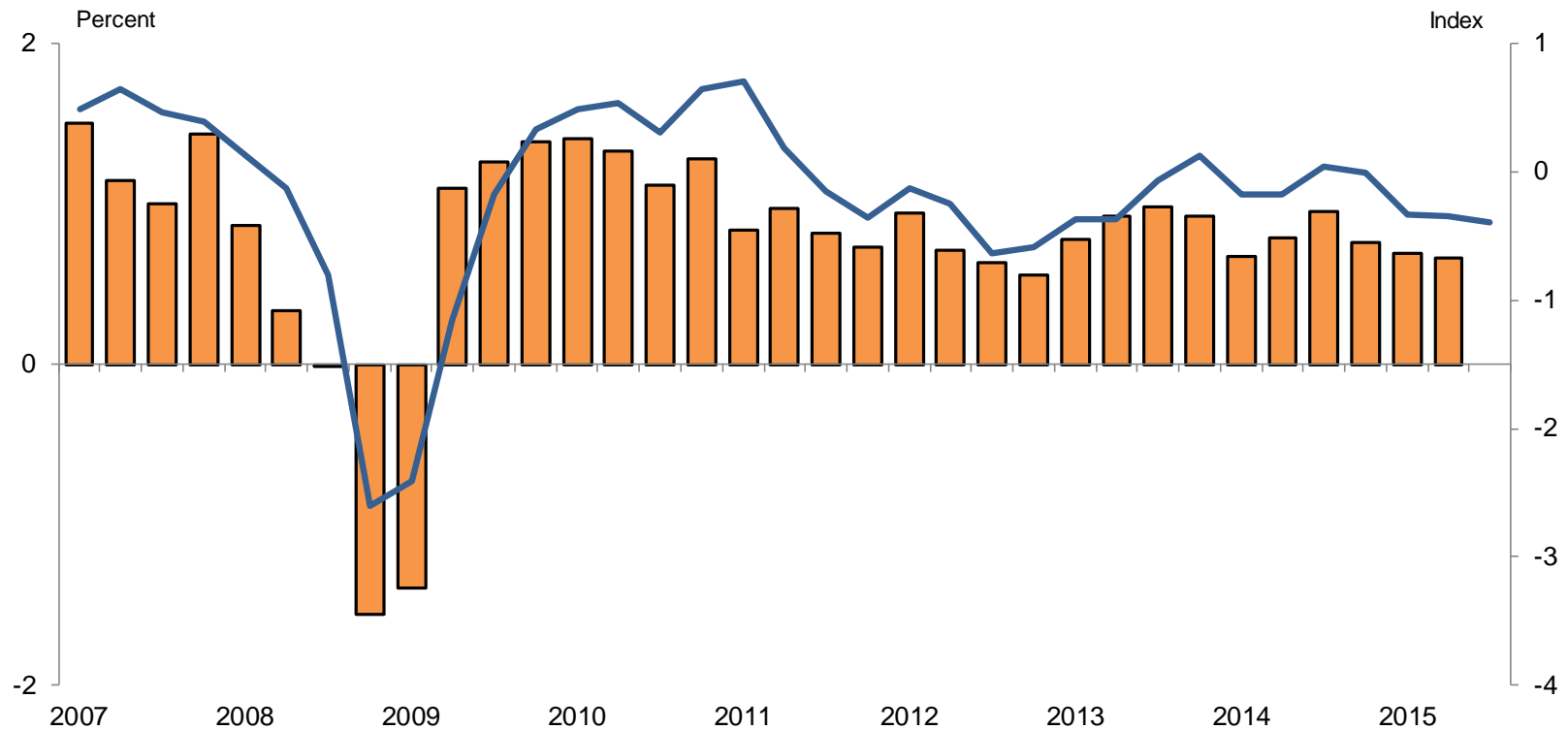
Überblick

- **Globale Perspektive**
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Global activity has been decelerating

World Economic Activity

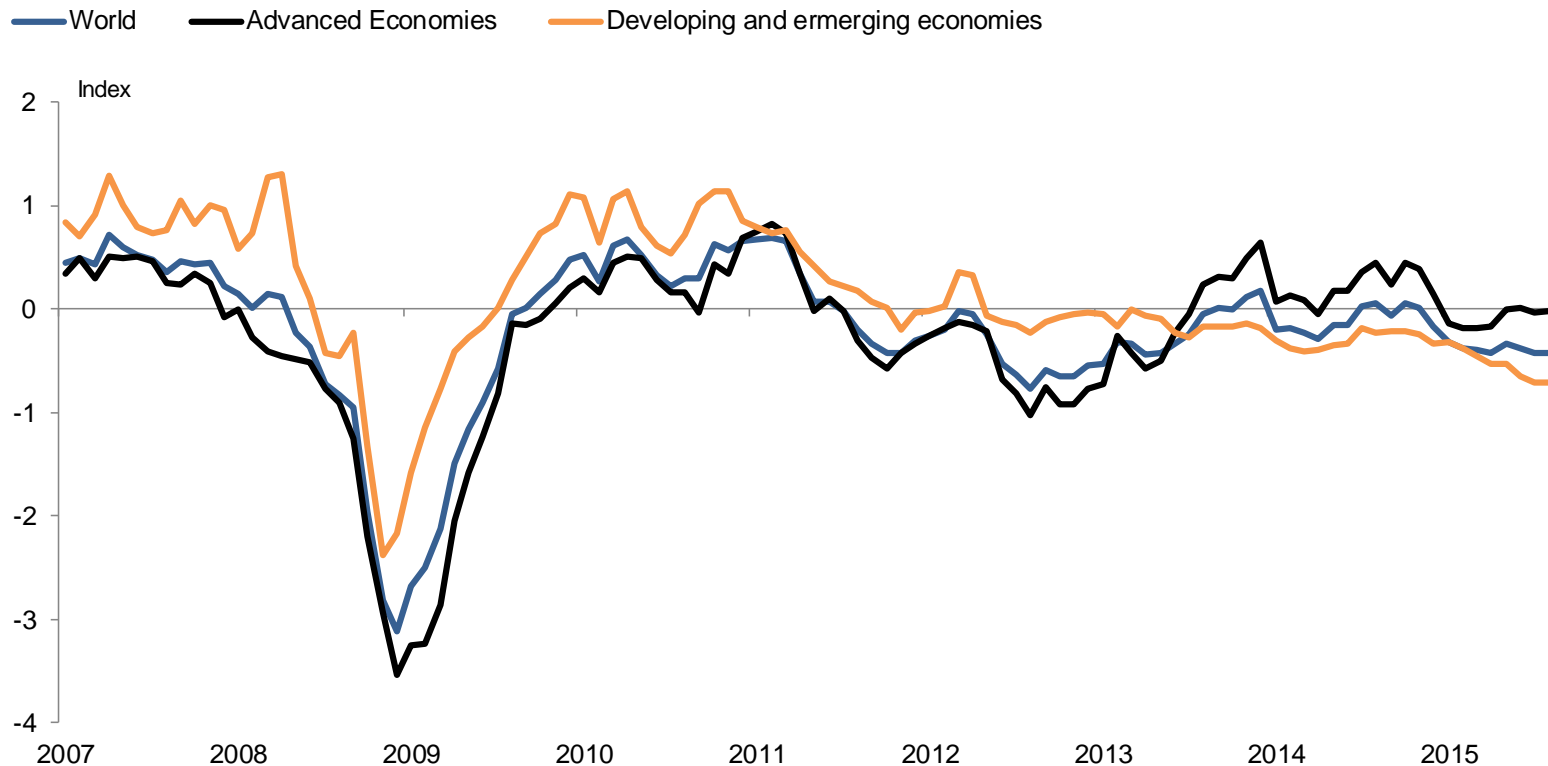
World output IfW-Indicator (rhs)



Quarterly data, seasonally adjusted. Indicator is based on business expectations in 42 economies.
GDP: price adjusted, change over previous quarter.

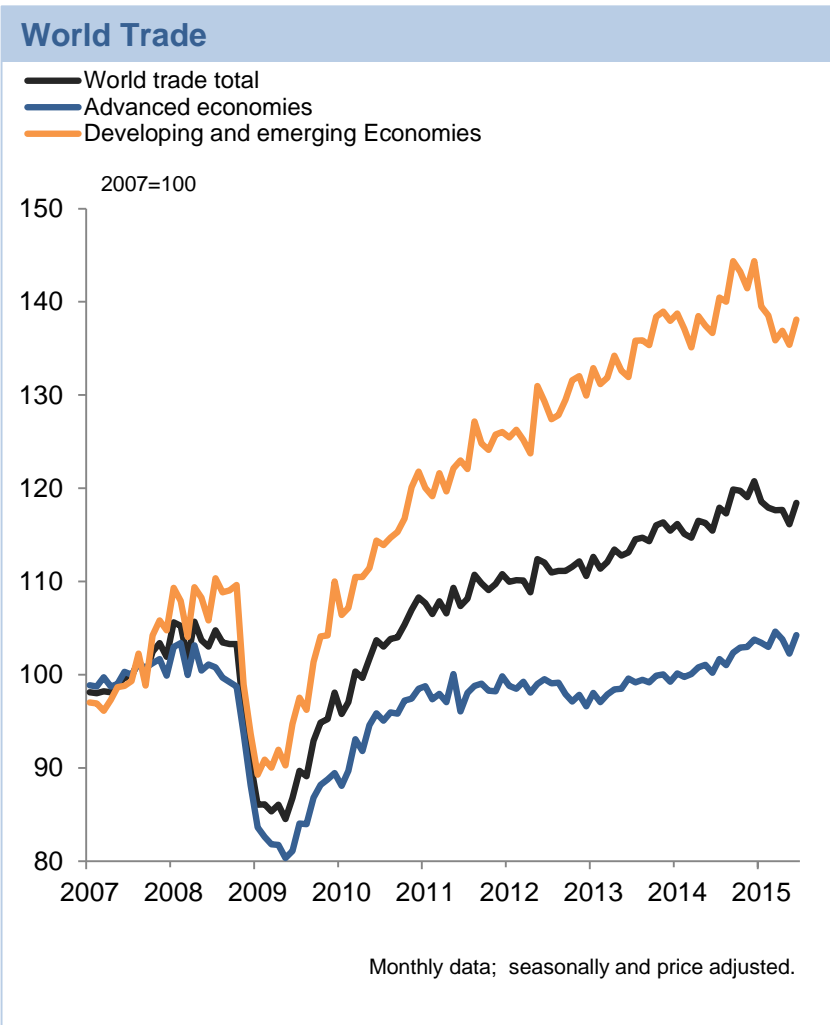
Pronounced weakness in emerging economies

Business expectations by groups of countries



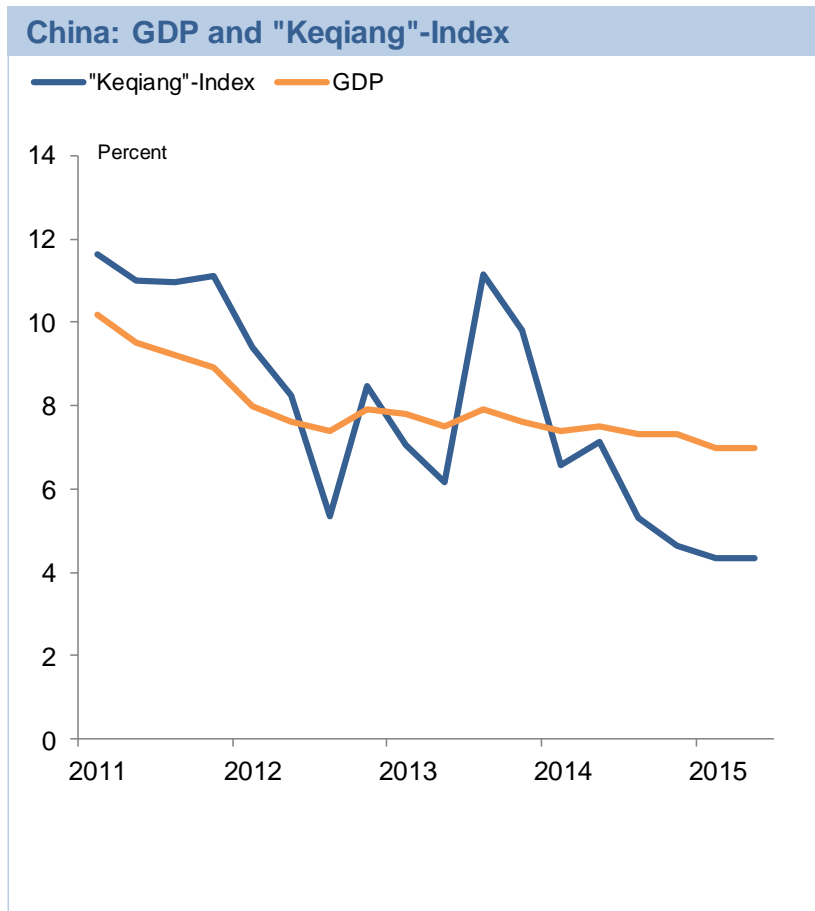
Monthly data, seasonally adjusted. Indicators are based on business expectations in 42 countries (34 advanced economies and 8 emerging economies).

World trade in decline during 2015-H1 due to EE weakness



- World trade growth slowed further actually declining during 2015-H1
- Annual growth poised to slow to around 1 percent in 2015 following already weak growth of around 3 percent in 2013 and 2014
- Elasticity fell further to below 1
- Weakness of trade growth stems mainly from emerging economies

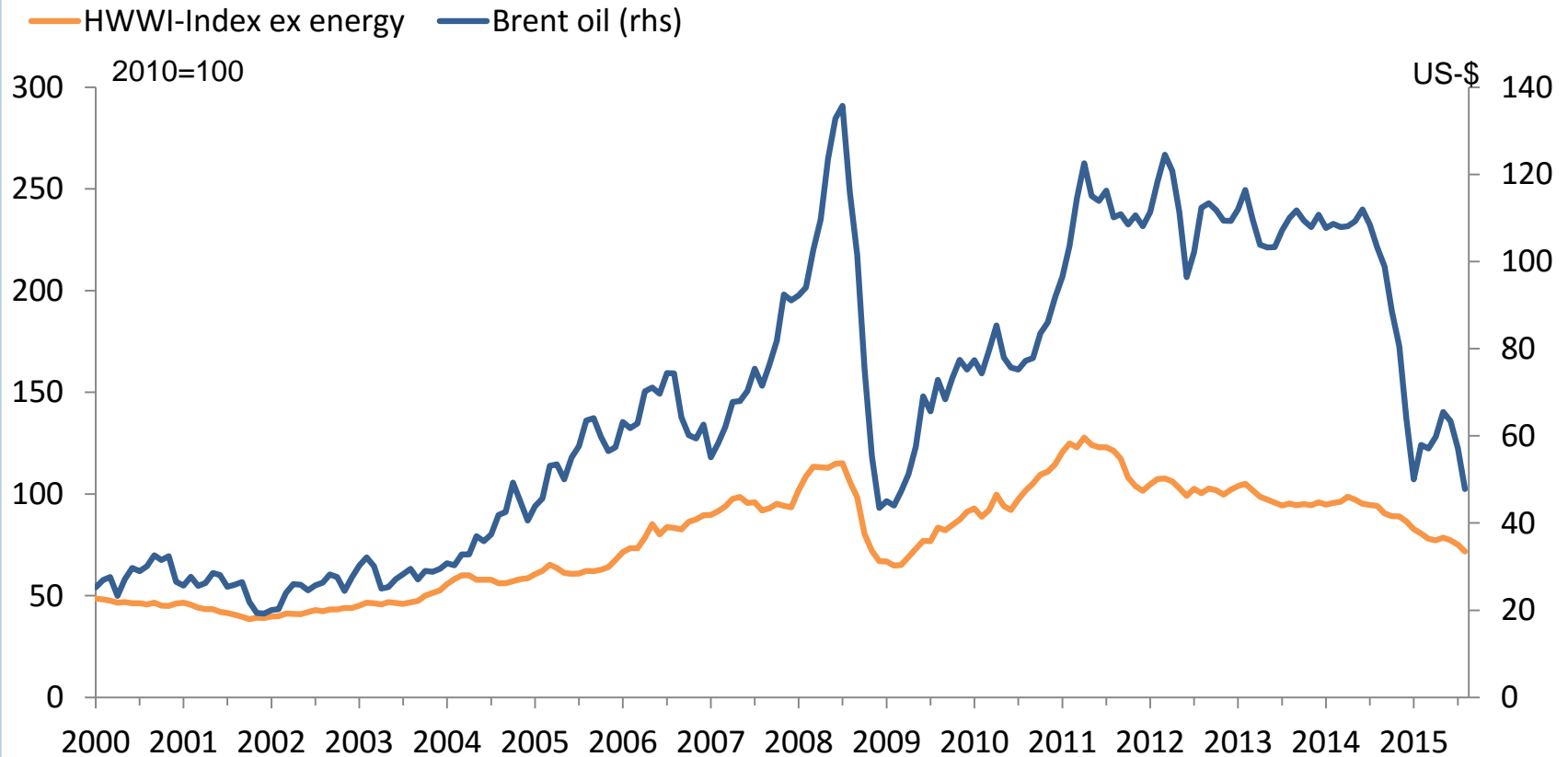
Slowdown in China may be even worse than official GDP data suggest



- GDP growth close to 7% target
- Alternative activity indicators suggest otherwise
- Pronounced weakness in trade
- Car sales growth slowed to a crawl
- Stock market correction
- Fears of a fullblown crisis

Another leg in the decline of oil prices

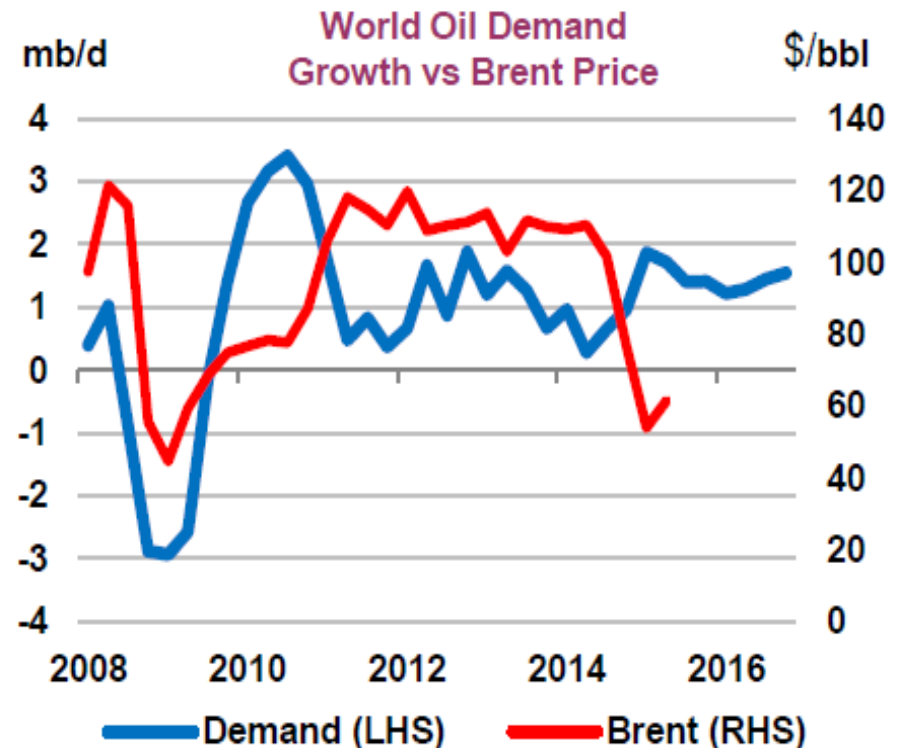
Commodity prices



Monthly data; commodities prices without energy: HWWA-index based on US-Dollar; oil price: Spot price Brent.

Oil market: Textbook-like demand pattern

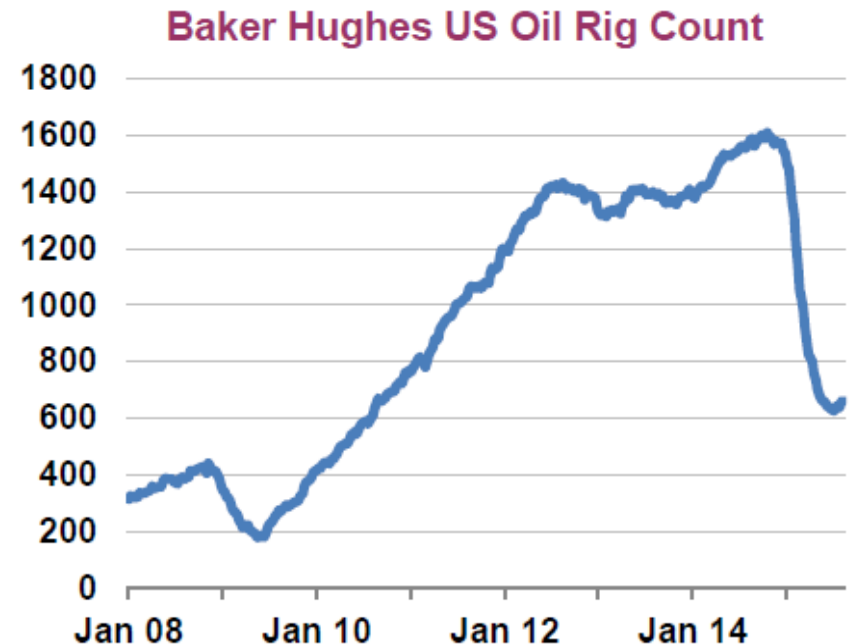
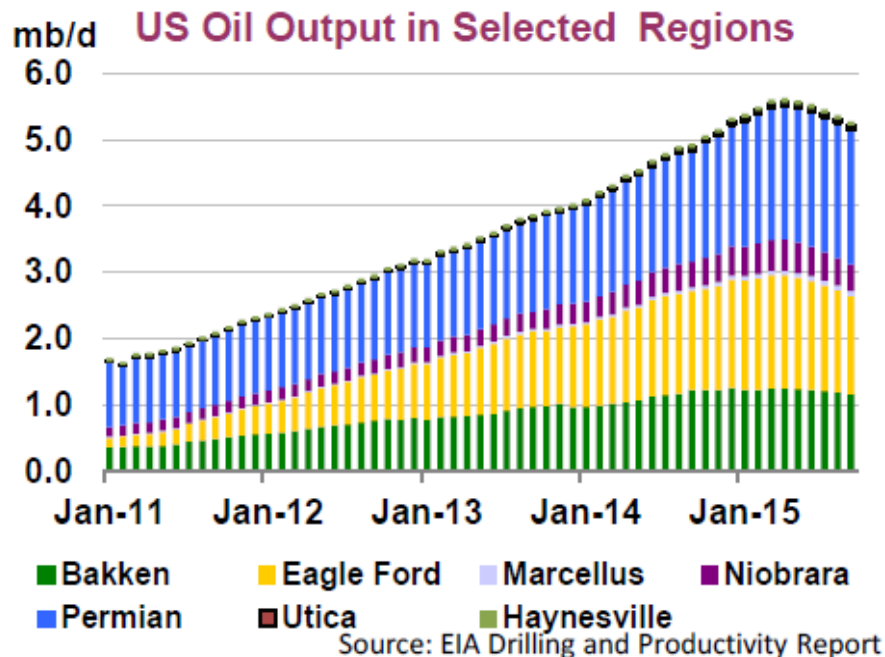
- Lower prices triggered additional demand
- Rate of demand growth was diminishing in face of high oil prices in 2011-2014
- Demand growth picked up with the decline in prices despite continued modest growth



Source: IEA, Monthly Oil Market Report.
August 2015.

Output response also as expected: US shale oil boom is over

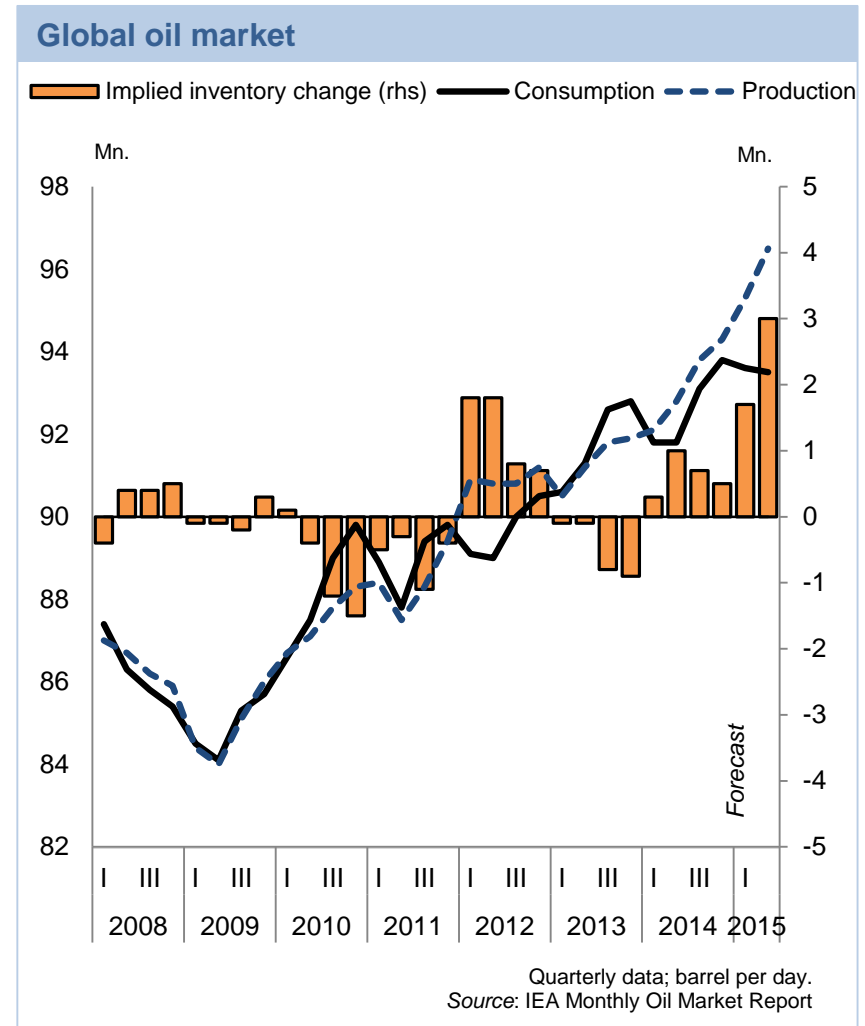
- Collapse of drilling activity (-60%)
- Lagged reaction of production



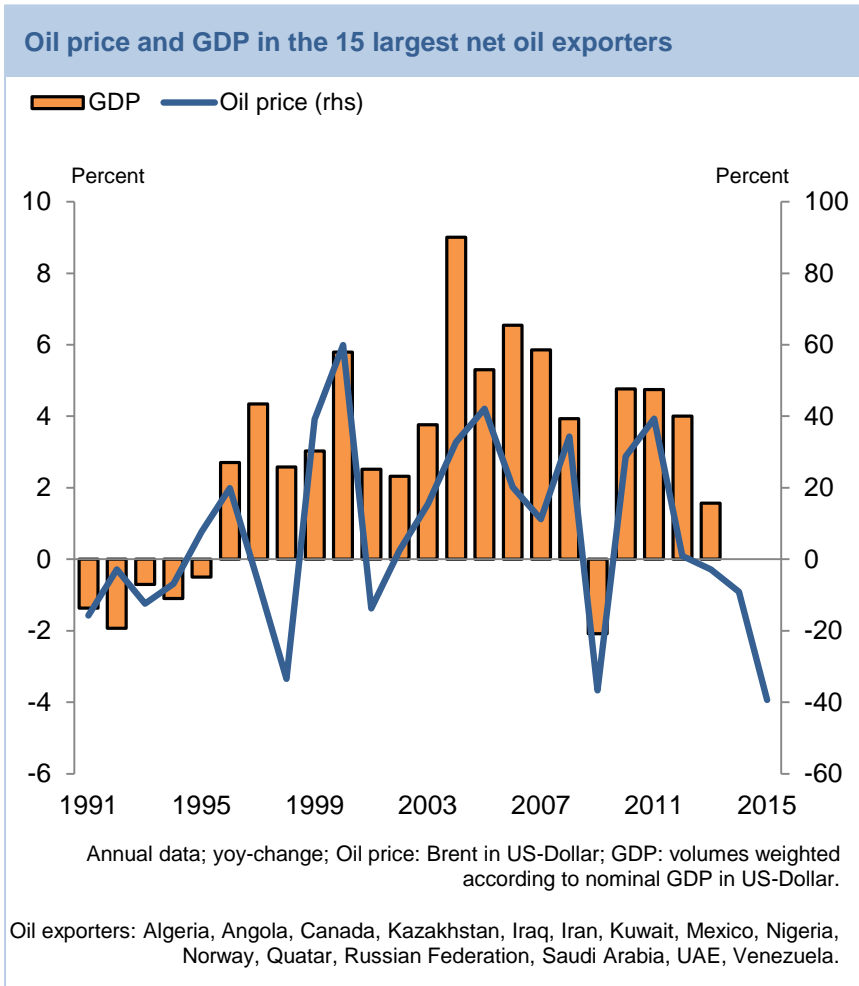
Source: IEA, Monthly Oil Market Report. August 2015.

But: Total oil production kept on increasing

- OPEC continued to ramp up production in 2015-H1
- Production quota were disregarded
- Record output in Saudi Arabia and strong increase in Iraq
- Others kept producing at full capacity
- Iran can be expected back to the market with another 1 mill. b/d over the next year



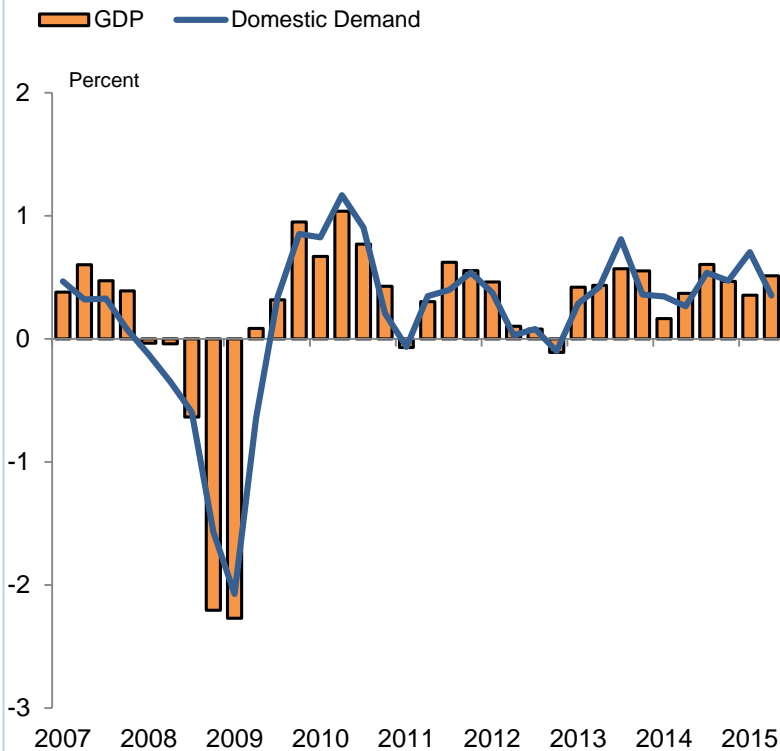
Lower oil prices may stimulate GDP of oil importers but exporters suffer



- Uncertain stimulus to oil importers
- size of effect depends on
 - » Source of the shock
 - » Oil intensity of production,
 - » Duration of the shock
 - » External repercussions
 - » ...
- Oil exporters imports could decline substantially
- Modest impact on global output

Steady growth in the advanced economies

GDP and Domestic Demand in the G-7

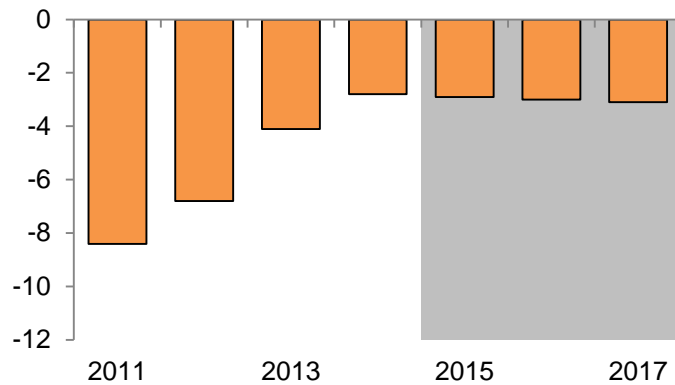


Price adjusted; seasonally adjusted; yoy change. G7 consists of USA, Japan, Canada, Germany, France, Italy and UK.

- G7 output growth in 2015-H1 has proven robust on the whole
- 2015-Q2
 - » Resurgence of US growth
 - » Declining output in Japan
 - » Moderate but robust growth in the euro area
 - » Continued strong expansion in EU ex EA

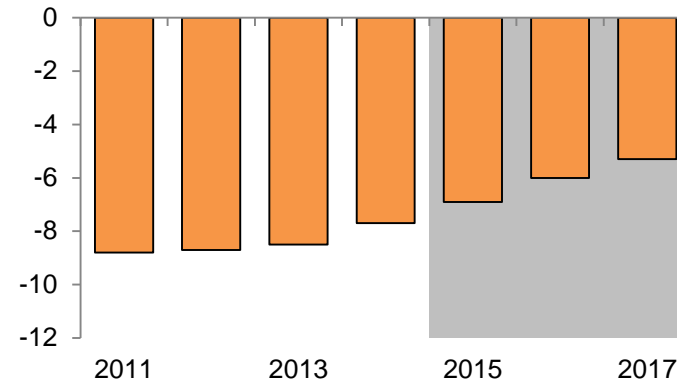
Fading fiscal policy restriction in advanced economies

United States



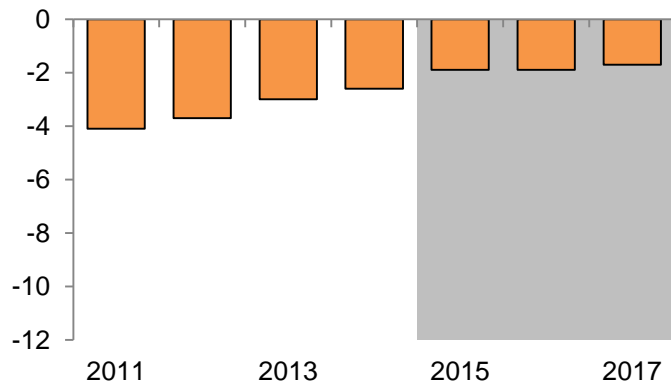
Annual data, as a percentage of GDP.

Japan



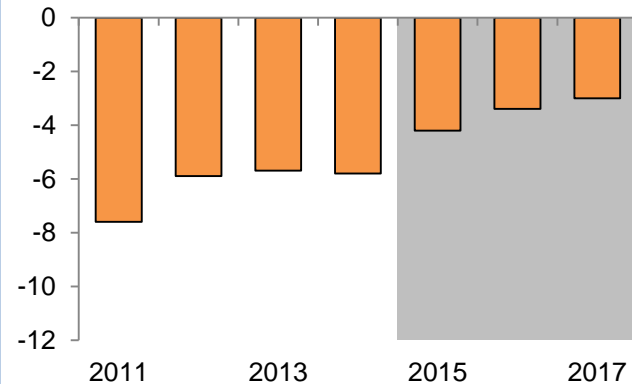
Annual data, as a percentage of GDP

Euro area



Annual data, as a percentage of GDP.

United Kingdom

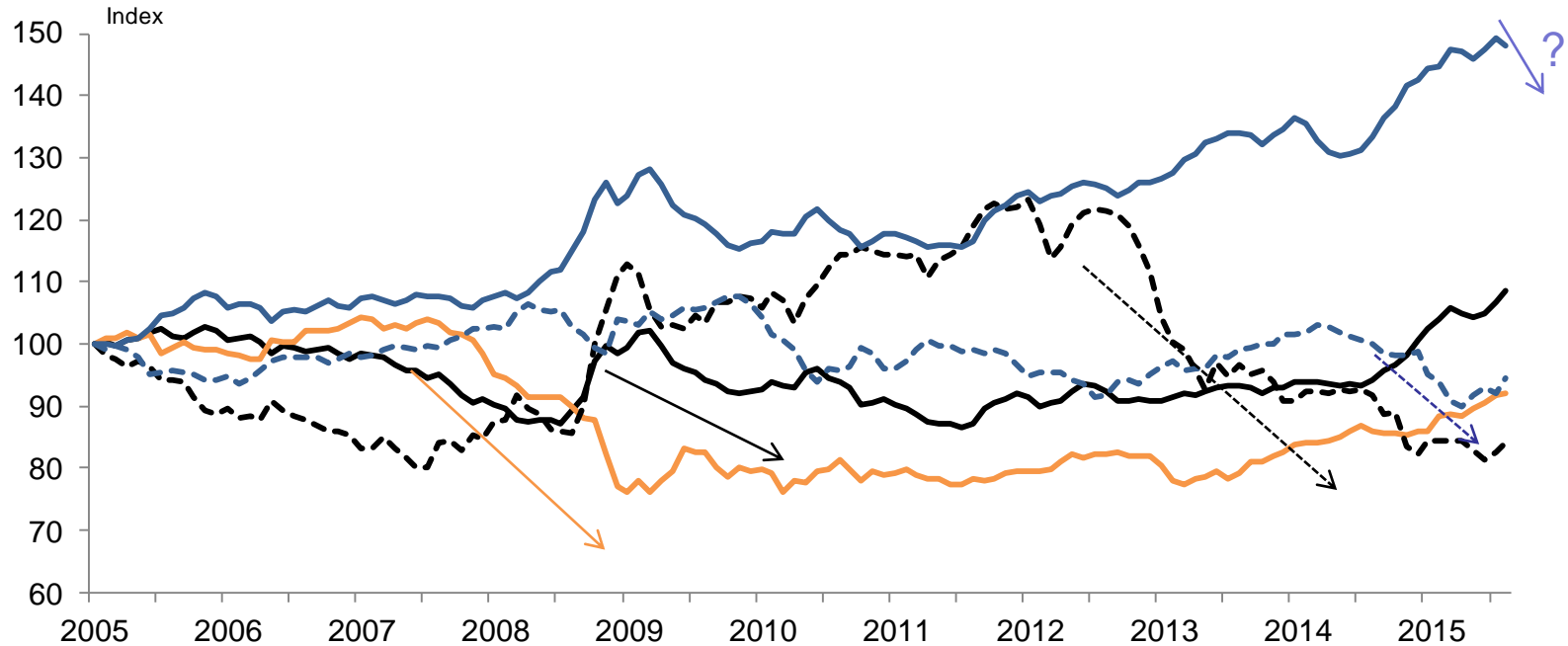


Annual data, as a percentage of GDP.

„Currency war“ as a result of a succession of expansive monetary policy decisions

Nominal effective exchange rates

— United States — United Kingdom - - - Japan - - - Euro Area — China



Monthly data.

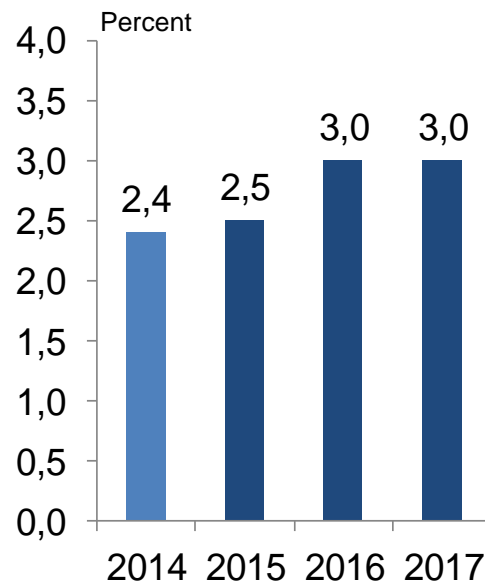
30 percent devaluation of Renminbi (NiGEM simulation)

Deviation of GDP from baseline in percent

	Year 1	Year 2
World	-0,3	-0,9
Advanced Economies		
Germany	-0,4	-1,2
Euro area	-0,4	-1,2
Japan	-0,9	-2,3
South Korea	-0,9	-2,7
UK	-0,6	-1,7
USA	-0,4	-0,9
Emerging Economies		
Brazil	-0,5	-1,4
China	0,7	1,2
India	-0,6	-2,0
Indonesia	-0,7	-2,5
Mexico	-0,3	-0,9
Russia	-0,6	-1,9

United States: Modest acceleration

Real GDP Growth

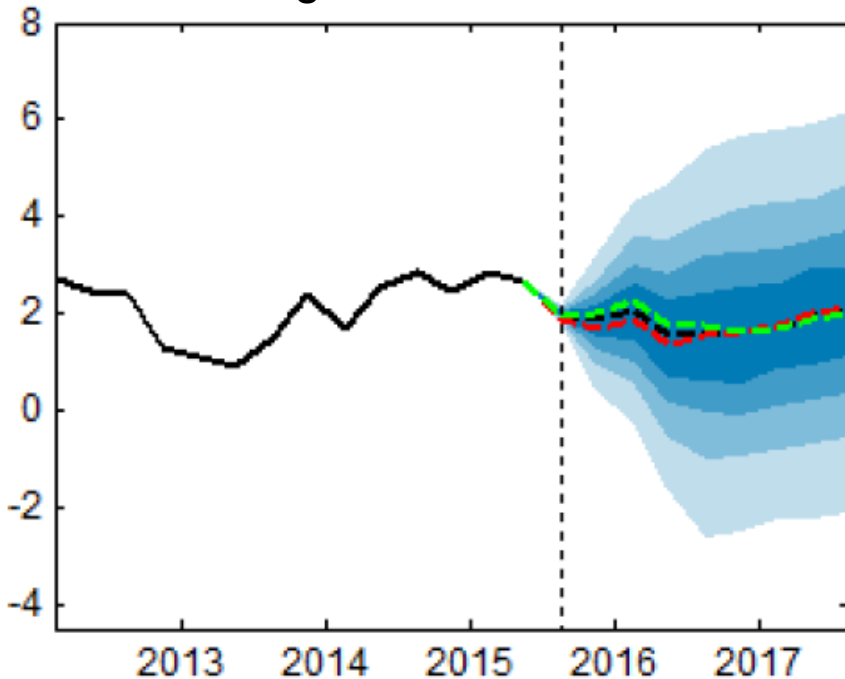


- Soft patch at the start of the year proved temporary
 - » Employment growth has slowed down somewhat but is expected to accelerate again
 - » Robust real wage growth although nominal wages have been slowing recently
 - » Recovery in the housing market to continue
 - » Corporate investment to pick up
- Monetary policy is still expected to raise interest rates in winter
 - » MP remains expansive
 - » No severe impact on domestic demand expected
 - » Surprise move would have modest and temporary impact

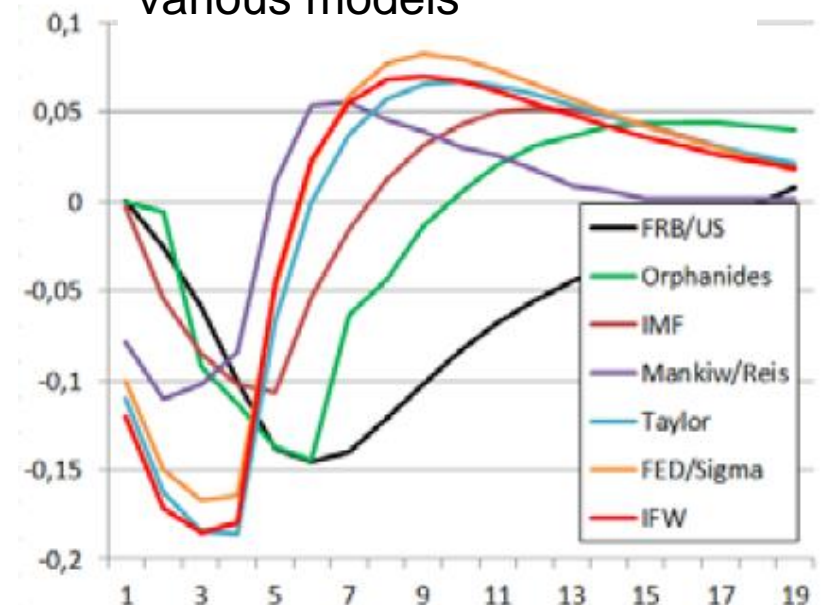
GDP and MP: Response to surprise interest rate move according to model simulations (Macroeconometric Model Base MMB)

- 25 bp increase lowers GDP by 0.2 % in the short term, not significantly in the longer term in a DSGE framework
- Similar results in a number of other (different) models

GDP growth forecast

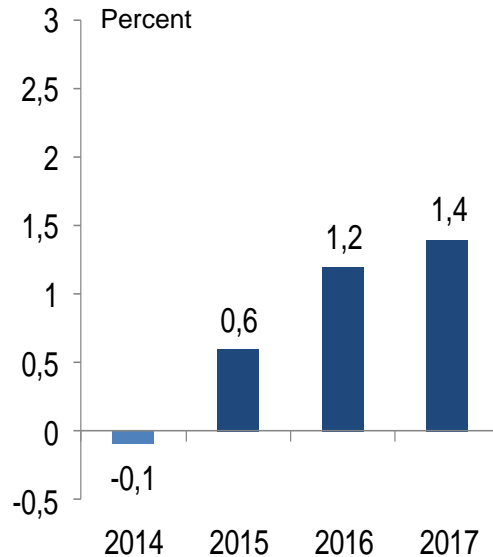


Impulse response (GDP)
various models



Japan: Moderate recovery

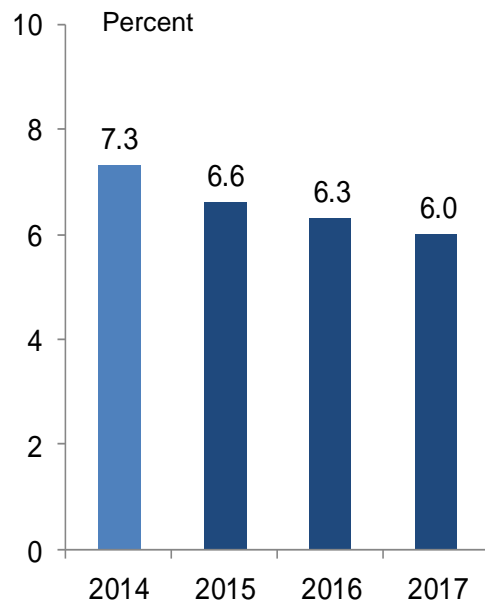
Real GDP Growth



- GDP declined in Q2 due to weakness in exports and a temporary drop in private consumption
- Monetary expansion has continued unabated, level of the yen has remained low
- Exports should gradually strengthen going forward
- Limited progress in structural reforms—moderate decrease of corporate taxes
- Slow progress with fiscal consolidation
- Second VAT increase scheduled for 2017
- Moderate GDP growth expected

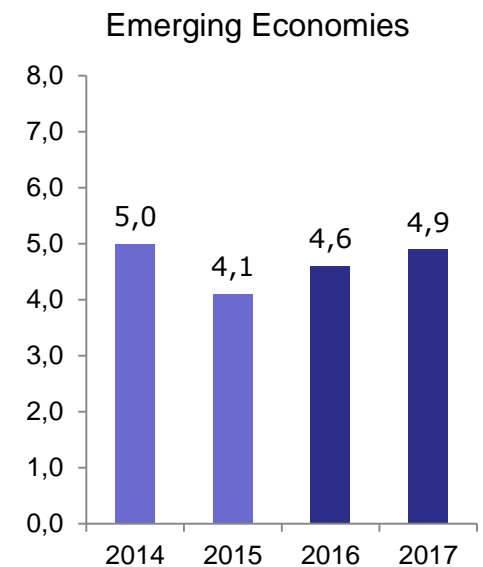
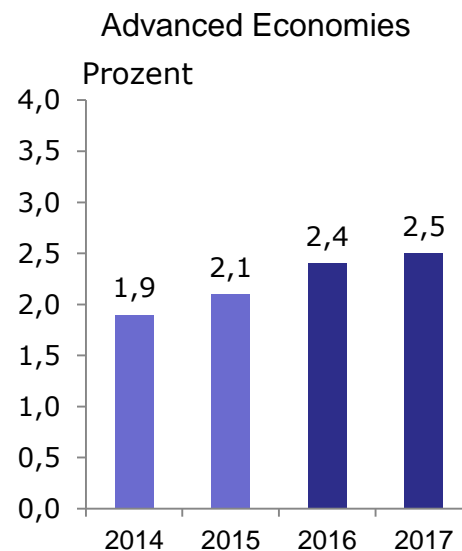
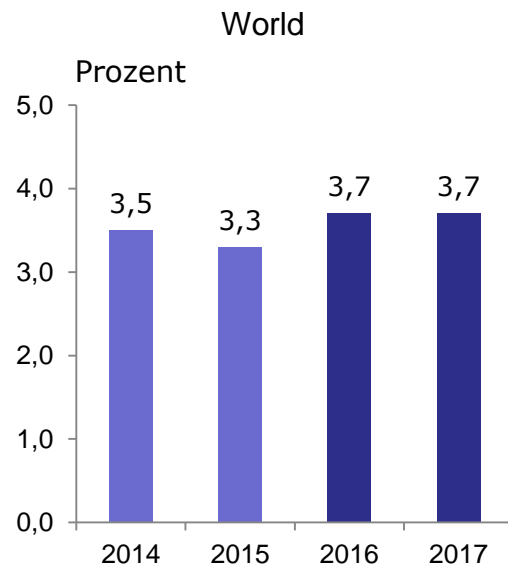
China: Slowdown continues

Real GDP Growth



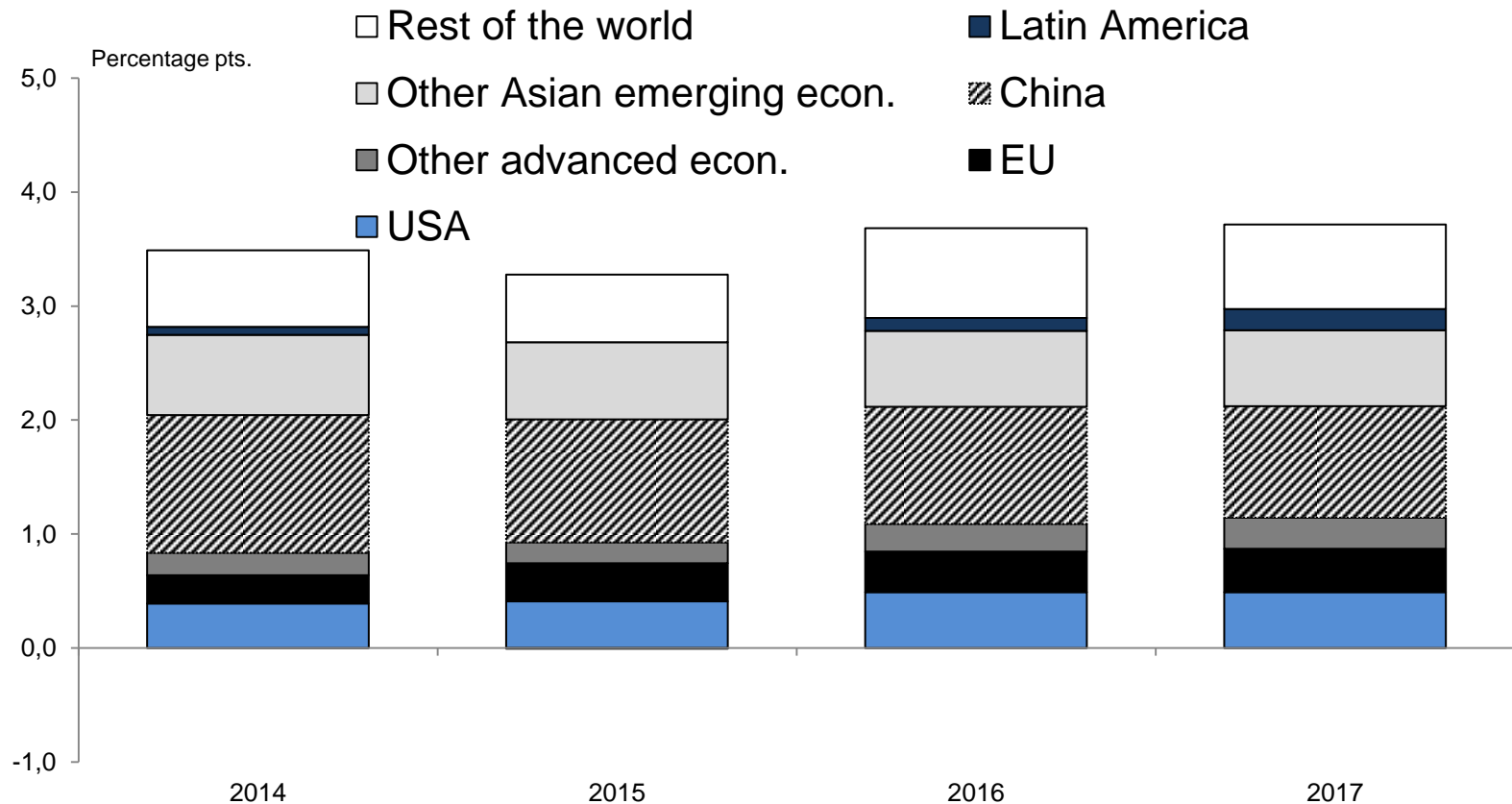
- Continued transition to a lower growth trajectory
- Cyclical downturn expected to be controlled with the help of monetary and fiscal stimulus
- Growth in credit has been reigned but debt remains high
- Property market shows signs of stabilization but remains a risk
- No sustained acceleration of growth expected

The global picture



Contribution to global growth

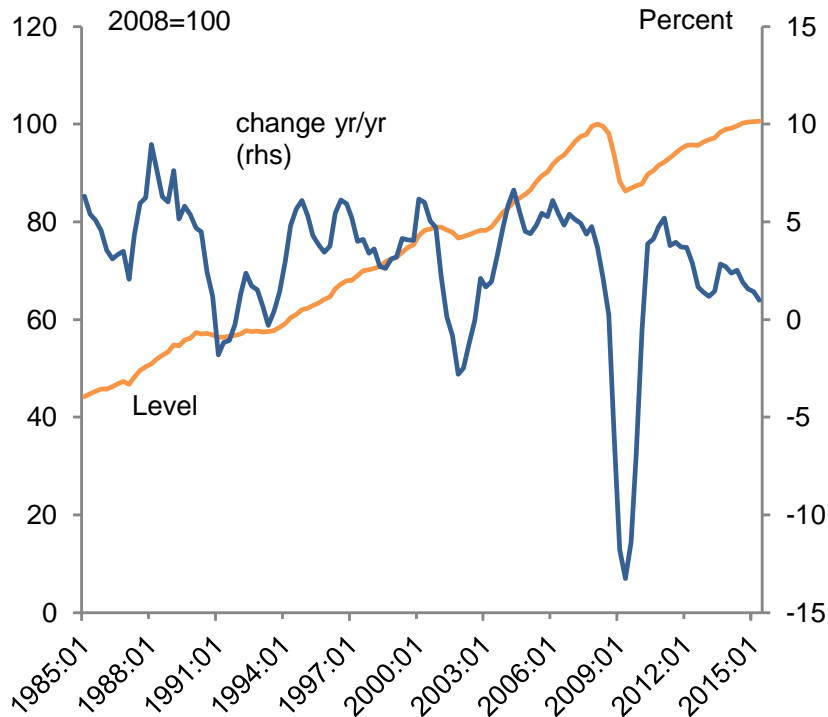
Contribution to global growth by region in percentage points



Annual data, volumes. Rate of increase of GDP weighted according to share in global output at Purchasing Power Parities.

Global investment has been disappointing after 2009 and decelerating lately

World GFCF (ex China)



Quarterly data; price and seasonally adjusted; yoy-change.
Indicator is based on Gross Fixed Capital formation in 45

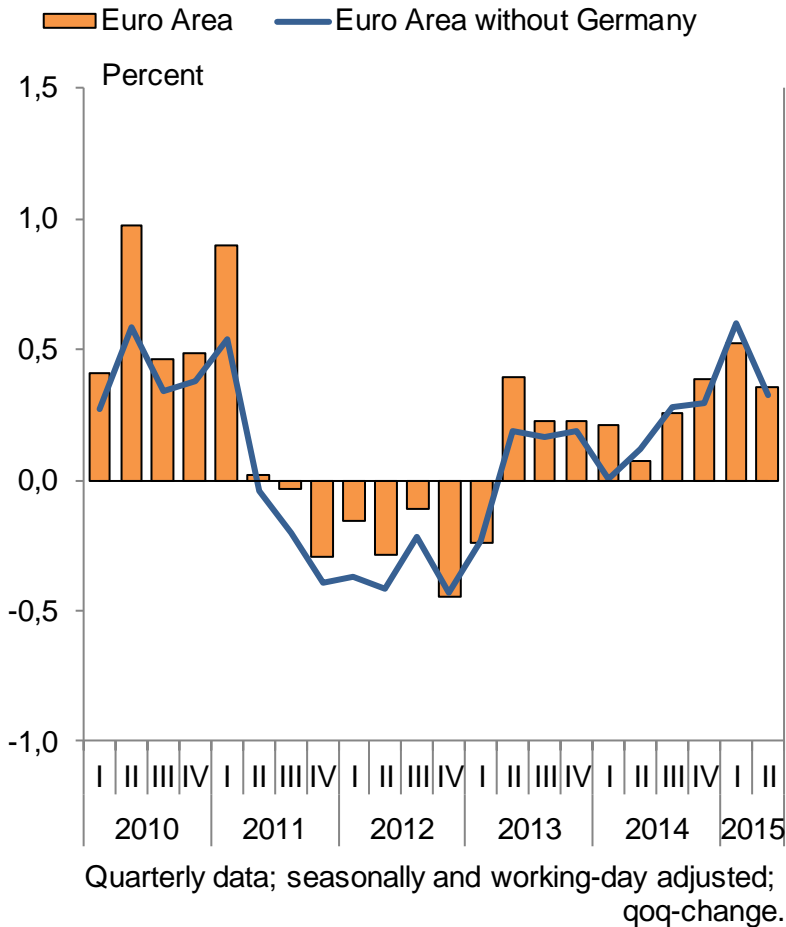
- Level shift after the crisis in line with historical experience
- Recent slowdown mainly driven by emerging economies
- Commodity sector adjustment
- Structural correction of commodity prices heralds continued weak investment in commodity sector
- Change in Chinese growth model suggests that moderation in Chinese investment may be persistent

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Gross domestic product

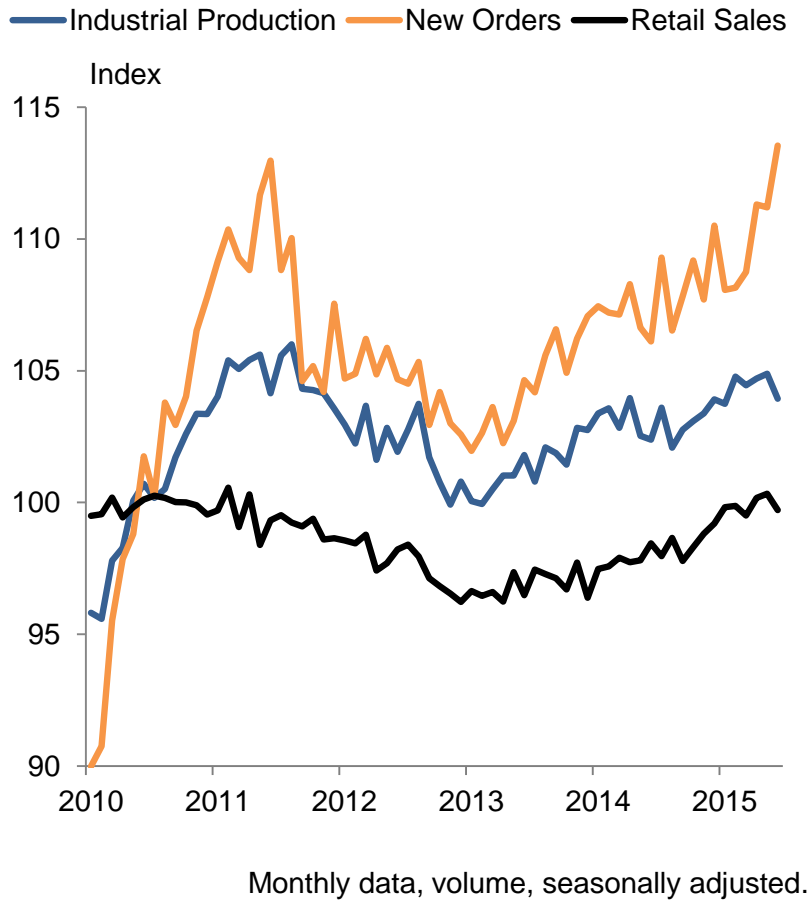
Gross Domestic Product in the Euro Area and the Euro Area without Germany



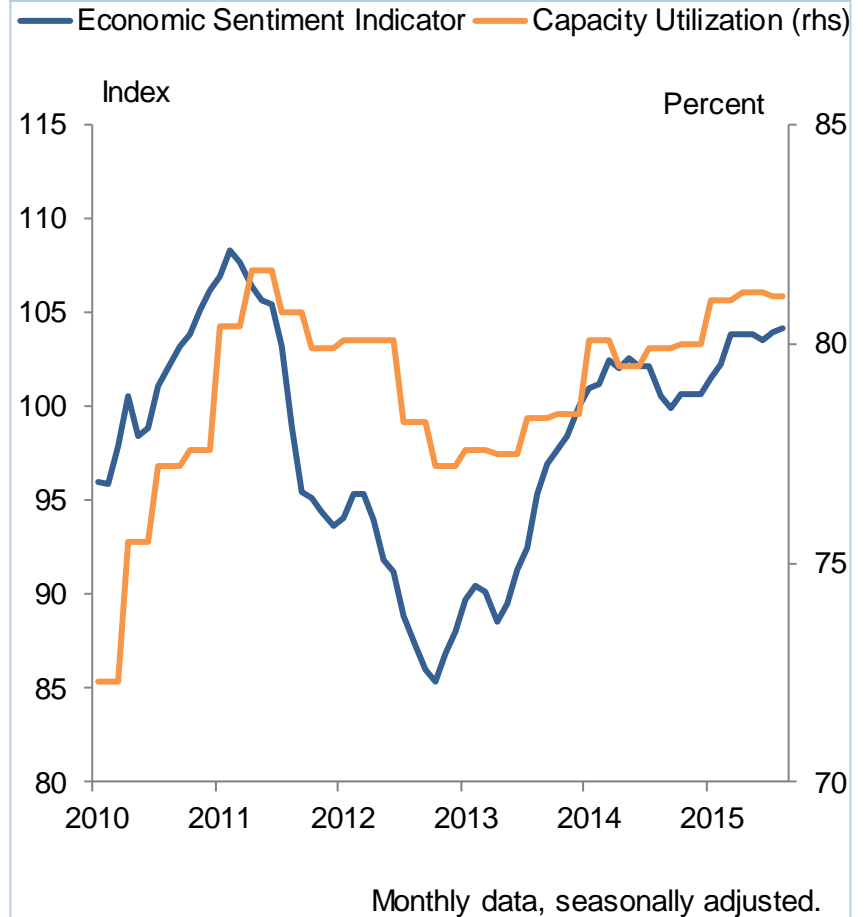
- qoq change
 - » 2015-Q1: +0.5 percent
 - » 2015-Q2: +0.4 percent (net export contr.: 0.3 pp)
- Moderate recovery since 2013
 - » qoq: 0.1 percent - 0.5 percent
 - » 2014: + 0.9 percent

Early activity indicators and business climate

Industrial Production, New Orders and Retail Sales

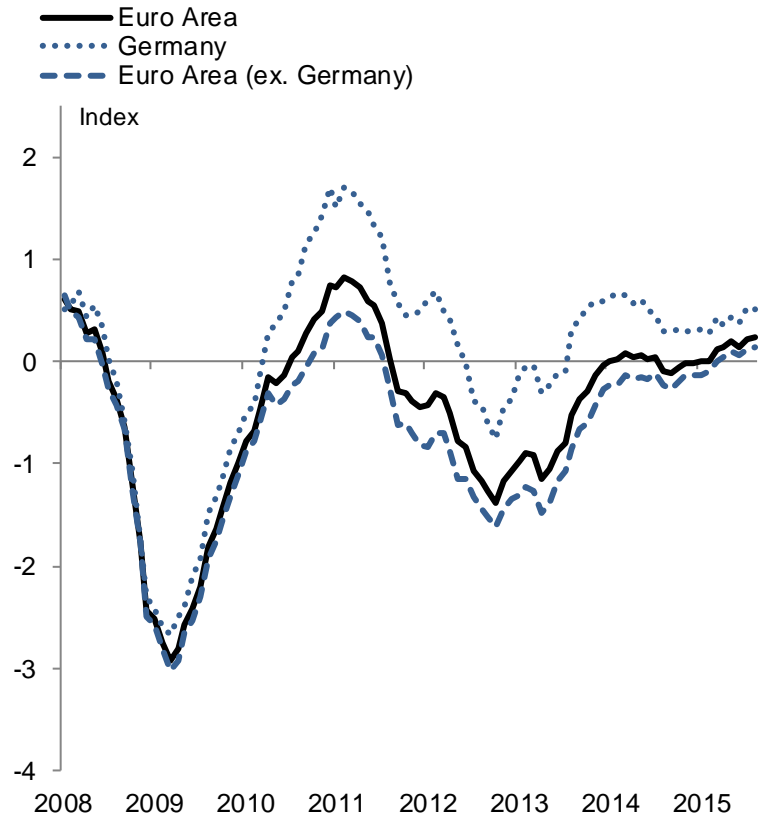


Economic Sentiment and Capacity Utilization



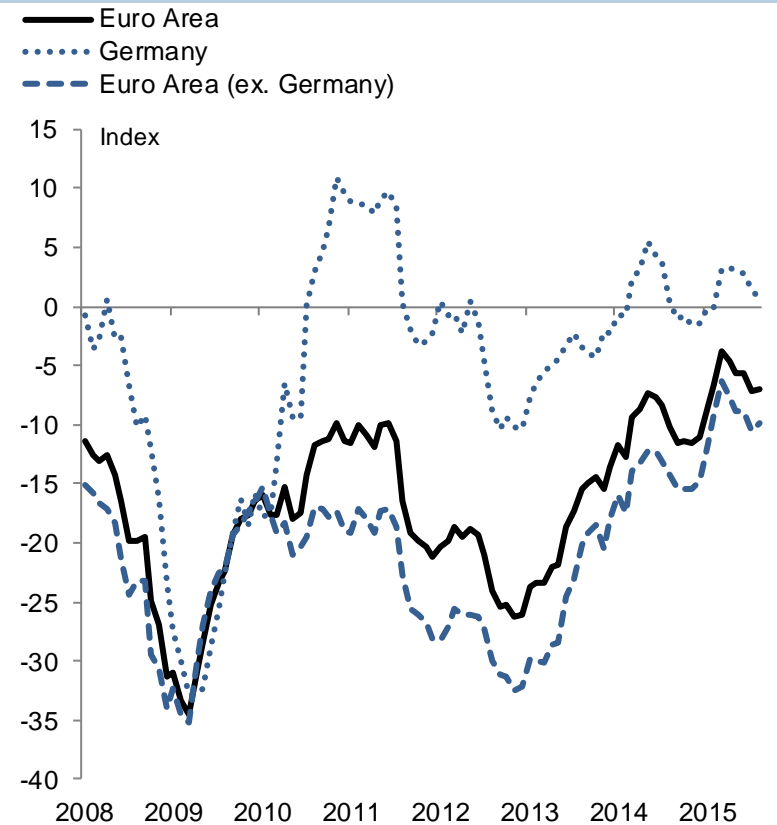
Economic Sentiment

Business



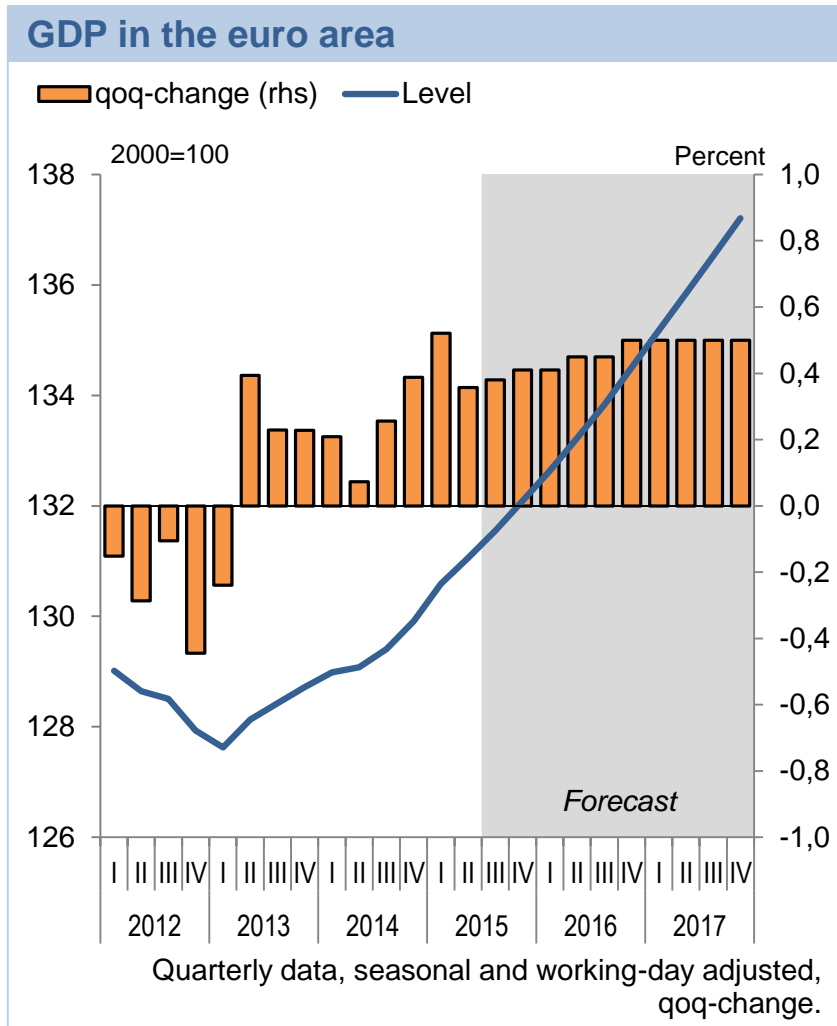
Monthly data, seasonally adjusted.

Consumer



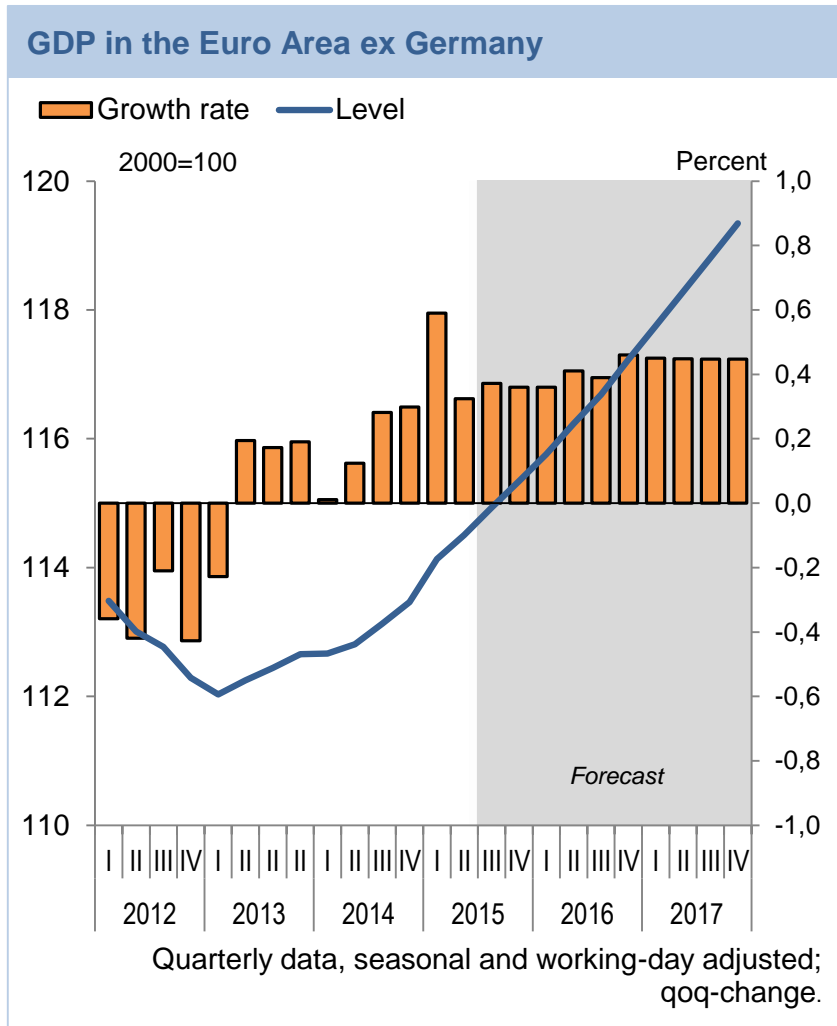
Monthly data, seasonally adjusted.

Outlook for the Euro Area (GDP)



- 2014: 0.9 percent
- 2015: 1.5 percent
- 2016: 1.7 percent
- 2017: 2.0 percent

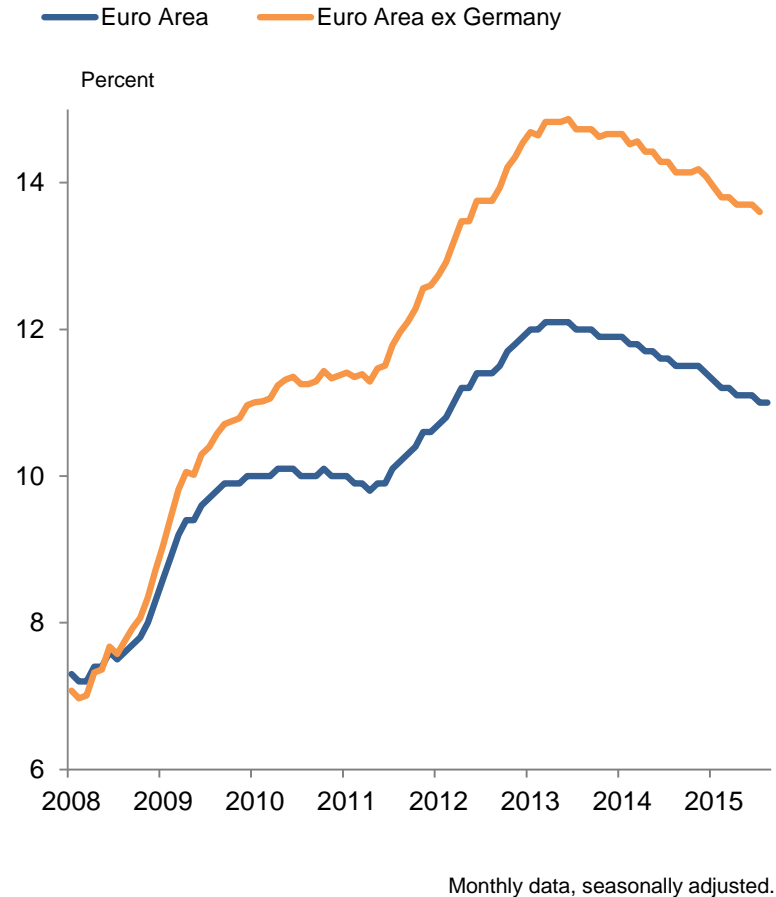
Outlook for the Euro Area ex Germany (GDP)



- 2014: 0.6 percent
- 2015: 1.4 percent
- 2016: 1.5 percent
- 2017: 1,8 percent

Labor market: Unemployment

Unemployment rate



- 2014: 11.6 percent
- 2015: 11.0 percent
- 2016: 10.5 percent
- 2017: 9.9 percent

Labor market:

Employment and migration in distressed countries (2012-2014)

■ Greece

- » Active population: -100 T
- » Net Migration: -117 T
- » **Employment: -62 T**
- » Unemployment: -37 T

■ Portugal

- » Active population: -87 T
- » Net Migration: -72 T
- » **Employment: +81 T**
- » Unemployment: -81 T

■ Ireland

- » Active population: -0 T
- » Net Migration: -61 T
- » **Employment: +81 T**
- » Unemployment: -81 T

■ Spain

- » Active population: -314 T
- » Net Migration: -362 T
- » **Employment: +249 T**
- » Unemployment: -564 T

Wages

percentage change over previous year

	2014	2015 ^b	2016 ^b	2017 ^b
Germany	2.6	3.0	2.2	3.1
France	1.4	1.3	1.2	1.2
Italy	0.7	1.4	0.7	1.0
Spain	-0.3	0.4	0.6	0.8
Netherlands	2.0	1.9	2.0	2.2
Belgium	1.0	0.6	1.5	2.0
Austria	1.7	1.9	2.1	2.3
Finland	1.4	1.0	0.8	1.0
Greece	-1.6	-0.8	0.0	0.5
Portugal	-1.4	1.6	1.5	2.0
Ireland	1.8	1.1	1.5	2.0
Slovakia	3.4	3.0	4.0	4.5
Luxembourg	1.9	1.0	2.0	2.5
Slovenia	1.1	0.8	1.0	1.1
Lithuania	4.8	4.4	5.0	5.2
Latvia	8.2	5.4	5.5	6.0
Estonia	7.7	6.2	7.0	7.5
Cyprus	-4.7	-2.7	-1.0	0.0
Malta	0.1	0.8	1.5	2.0
Euro area	1.5	1.8	1.5	1.9
Euro area excl. Germany	1.0	1.2	1.2	1.4

^aCompensation per employee. — ^bForecast.

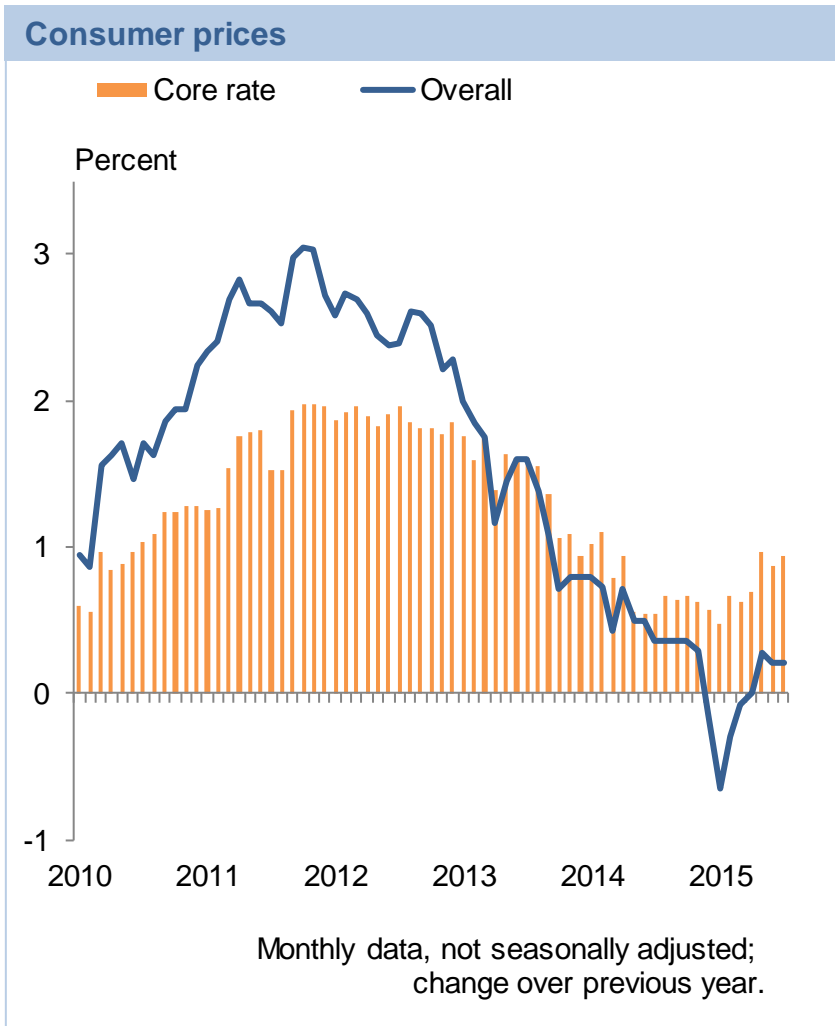
Wages, productivity, unit labor costs

percentage change over previous year

	2014	2015 ^a	2016 ^a	2017 ^a
Compensation per employee				
Euro area	1.5	1.8	1.5	1.9
Euro area excl. Germany	1.0	1.2	1.2	1.4
Productivity				
Euro area	0.3	0.8	1.1	1.1
Euro area excl. Germany	0.1	0.9	1.1	1.0
Unit labor costs				
Euro area	1.2	0.9	0.4	0.8
Euro area excl. Germany	0.9	0.3	0.1	0.4

^aForecast.

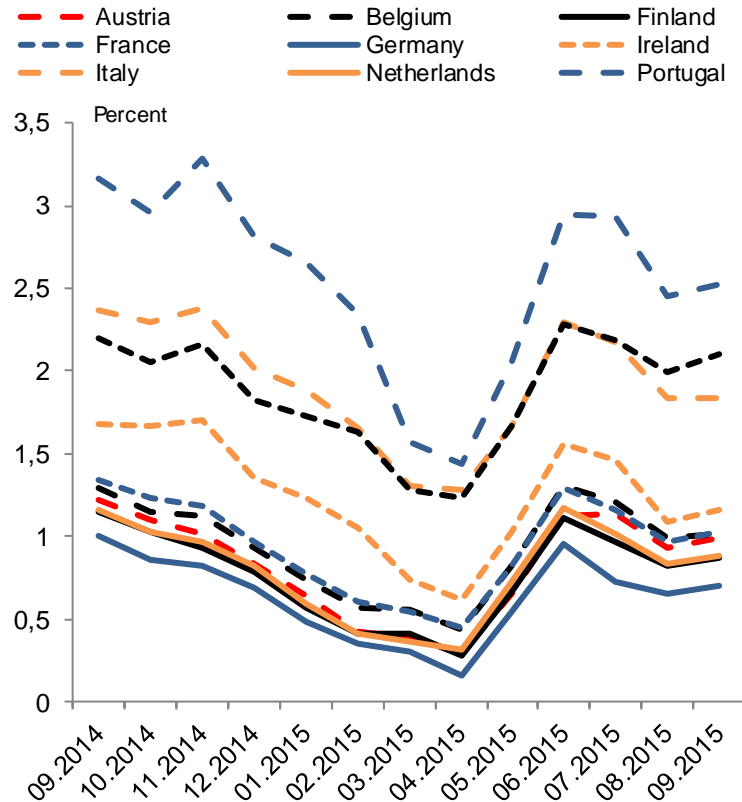
Inflation



- Data edge
 - » CPI inflation about to dip again due to sharp drop of oil prices
- Expected increase of inflation by the end of 2015
 - » 2014: 0.4 percent
 - » 2015: 0.0 percent
 - » 2016: 0.9 percent
 - » 2017: 1.8 percent
- Core inflation rate at ~1 %

Inflation: Expectations

Bond interest rates



10year government bonds; monthly data; right hand scale: Greece.

- Yields of government bonds on record-low levels at the start of QE program
- Rising yields since April (increase in inflation expectations)

Outlook: Upswing increasingly driven by domestic demand

- **Supporting factors** for economic activity
 - » Low oil prices, low interest rates, low external value of the euro
- **Labor market** conditions improve further, thus stimulating consumption
- **Private investment** benefits from decrease in overall uncertainty
- **Budget:** Fiscal consolidation eases. Only slight improvement of budgets due to favorable financial conditions and recovery
 - » 2014: -2,5 percent
 - » 2015: -1,9 percent
 - » 2016: -1,9 percent
 - » 2017: -1,7 percent
- **External trade** will accelerate
 - » Exports (low euro) and imports (domestic forces) both increase
 - » Contribution of net exports to growth will be rather small

Budget Balances in the Euro Area

	2014	2015 ^b	2016 ^b	2017 ^b
Germany	0.3	1.0	0.5	0.7
France	-4.0	-3.8	-3.8	-3.5
Italy	-3.0	-2.5	-2.0	-2.2
Spain	-5.8	-4.5	-3.7	-3.3
Netherlands	-2.3	-1.5	-1.3	-1.1
Belgium	-3.2	-2.5	-2.3	-2.1
Austria	-2.4	-1.9	-1.9	-1.7
Finland	-3.2	-3.6	-3.4	-3.1
Greece	-3.5	-2.2	-3.0	-2.9
Portugal	-4.1	-2.4	-2.4	-2.5
Ireland	-4.5	-3.1	-3.0	-2.8
Slovakia	-2.9	-2.7	-2.6	-2.5
Luxembourg	0.6	0.5	0.1	0.1
Slovenia	-4.9	-2.7	-2.4	-2.4
Lithuania	-0.7	-1.9	-0.8	-0.5
Latvia	-1.4	-1.2	-1.5	-1.5
Estonia	0.6	-0.4	-0.2	0.1
Cyprus	-8.8	-0.3	0.3	0.5
Malta	-2.1	-2.0	-1.7	-1.5
Euro area	-2.5	-1.9	-1.9	-1.7
Euro area excl. Germany	-3.7	-3.0	-2.8	-2.7

^aPercent of GDP. — ^bForecast.

Outlook for the Euro Area

Euro Area 2014–2017

	2014	2015	2016	2017
Gross domestic product	0,9	1,5	1,7	2,0
Domestic demand	0,8	1,4	1,5	2,1
Private consumption	0,9	1,7	1,6	1,9
Public consumption	0,8	1,3	1,4	1,8
Fixed capital formation	1,3	1,8	2,1	3,3
Change in stocks	-0,1	-0,2	-0,2	-0,1
Net exports	0,1	0,2	0,2	0,0
Exports	3,9	4,9	5,0	5,5
Imports	4,1	5,0	4,9	6,2
Consumer prices	0,4	0,0	0,9	1,8
Unemployment rate	11,6	11,0	10,5	9,9
Current Account	2,0	2,4	2,7	2,7
Budget Balance	-2,5	-1,9	-1,9	-1,7

Gross Domestic product: volume; change over previous year. — Change in stocks, net export: contribution to GDP growth. — Consumer Prices: Harmonized Index of Consumer Prices (HICP). — Unemployment rate: ILO. — Budget Balance: in relation to GDP.

Source: Eurostat, *National Accounts*; own calculation; gray: forecast of IfW.

Outlook for the Euro area

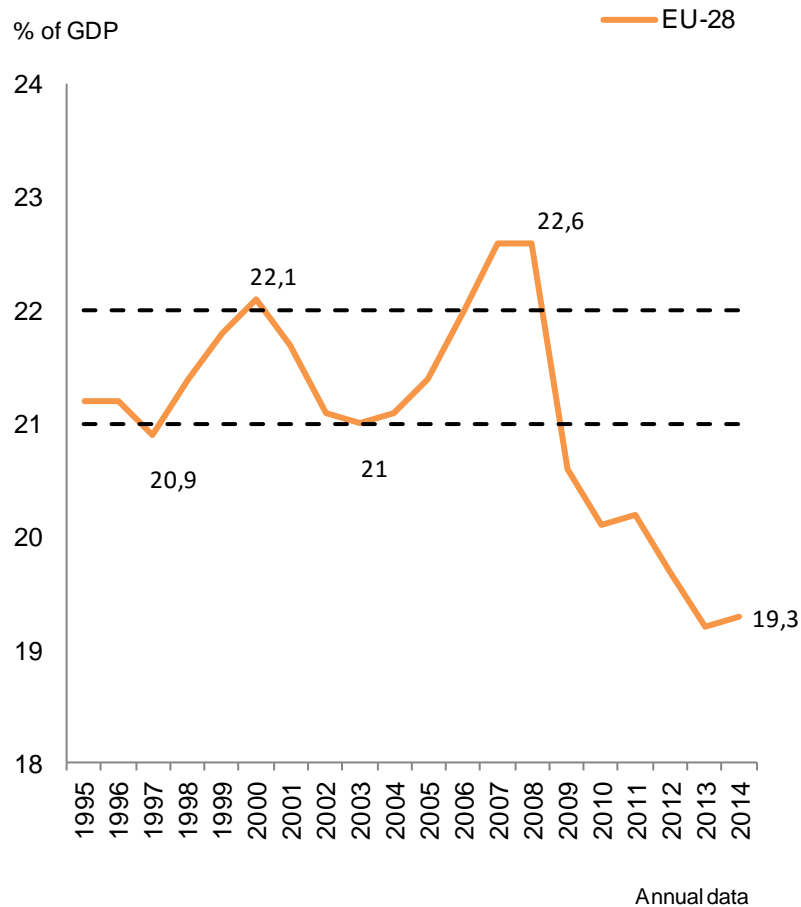
Real GDP, Consumer Prices and Unemployment Rates in the Euro Area 2015–2017

	Weight	GDP			Consumer Prices			Unemployment rate		
		2015	2016	2017	2015	2016	2017	2015	2016	2017
Germany	28,3	1,5	2,1	2,3	0,2	1,0	2,1	4,7	4,5	3,9
France	21,3	1,1	1,2	1,6	0,1	0,9	1,8	10,4	10,3	9,8
Italy	16,2	0,8	1,5	1,6	0,0	0,7	1,5	12,2	11,8	11,2
Spain	10,6	3,3	3,2	2,5	-0,5	0,7	1,7	22,3	21,1	20,0
Nettherlands	6,5	2,0	1,5	1,6	0,0	0,9	1,8	7,0	6,5	6,2
Belgium	4,0	1,3	1,6	1,6	0,2	1,1	2,0	8,5	8,2	7,8
Austria	3,2	1,0	1,8	1,8	0,9	1,9	2,9	5,5	5,2	4,9
Finland	2,0	0,3	1,2	1,5	0,0	0,7	1,7	9,5	9,4	9,1
Greece	1,8	-0,2	0,7	2,7	-2,1	-1,3	-0,1	25,8	24,6	24,0
Portugal	1,7	1,6	1,6	1,5	0,4	1,2	2,0	12,6	11,5	10,9
Ireland	1,8	5,1	3,6	3,0	-0,3	0,9	2,4	9,5	8,3	7,5
Slovakia	0,7	3,1	3,2	3,6	-0,2	1,1	2,5	11,5	10,2	8,8
Luxembourg	0,5	4,5	3,1	2,9	0,0	1,2	2,4	5,7	5,5	5,3
Slovenia	0,4	2,8	2,9	2,7	-0,6	0,5	1,5	9,2	8,8	8,5
Lithuania	0,4	1,6	3,0	3,6	-0,6	0,6	1,7	9,3	7,9	7,1
Latvia	0,2	2,6	3,1	3,8	0,5	1,6	2,9	9,7	9,0	8,5
Estonia	0,2	1,8	2,5	3,1	0,1	1,2	2,4	6,0	5,4	4,9
Cyprus	0,2	1,7	2,4	2,7	-1,1	0,1	1,0	16,0	15,3	14,5
Malta	0,1	3,1	2,6	2,4	0,9	1,7	2,7	5,4	5,0	4,8
Euro area	100,0	1,5	1,8	2,0	0,0	0,9	1,8	11,0	10,5	9,9
Euro area w/o Germany	71,7	1,4	1,5	1,8	-0,1	0,8	1,8	13,2	12,6	12,0

Weights: Based on nominal GDP in 2013. — Percentage change over previous year— 2015 and 2016 forecast. — Source: Eurostat, National Accounts, Price Statistics, Labor Statistics; own calculations.

Investment „gap“ in EU-28

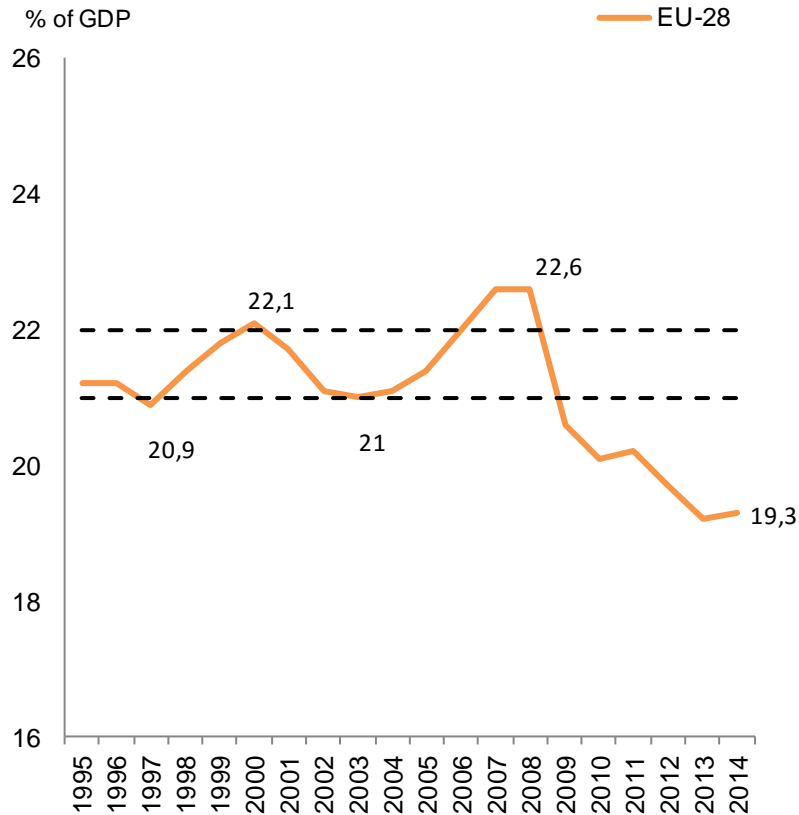
Gross Fixed Capital Formation (% GDP)



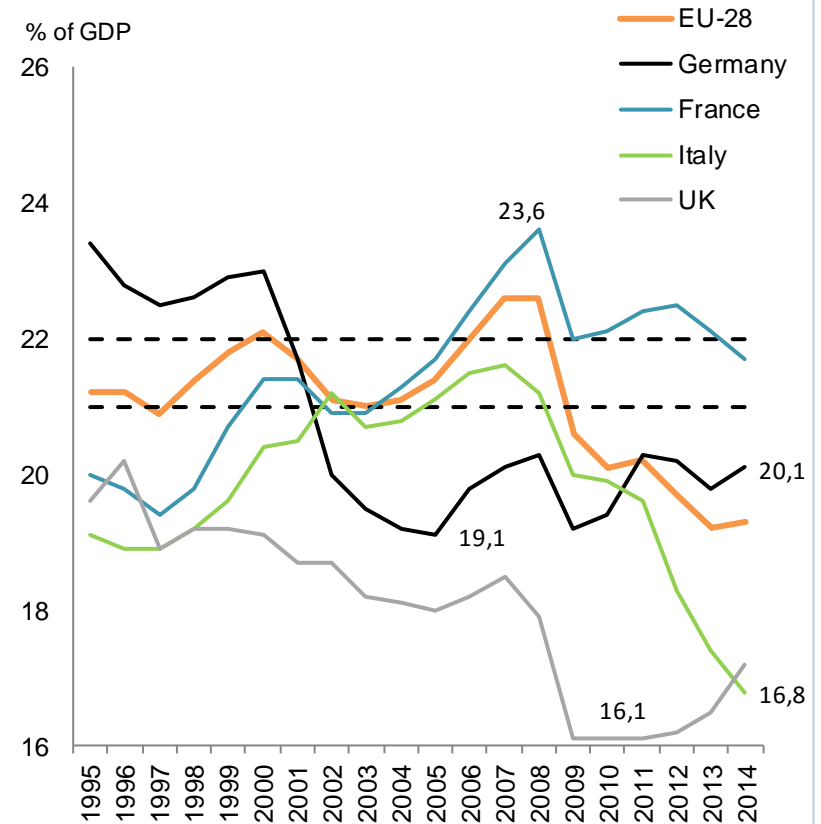
- Decline of gross investment since 2008
- „Investment gap“:
Still no recovery of the share of investment to the long-run range of 21-22 percent

Investment: large economies

Gross Fixed Capital Formation (% GDP)

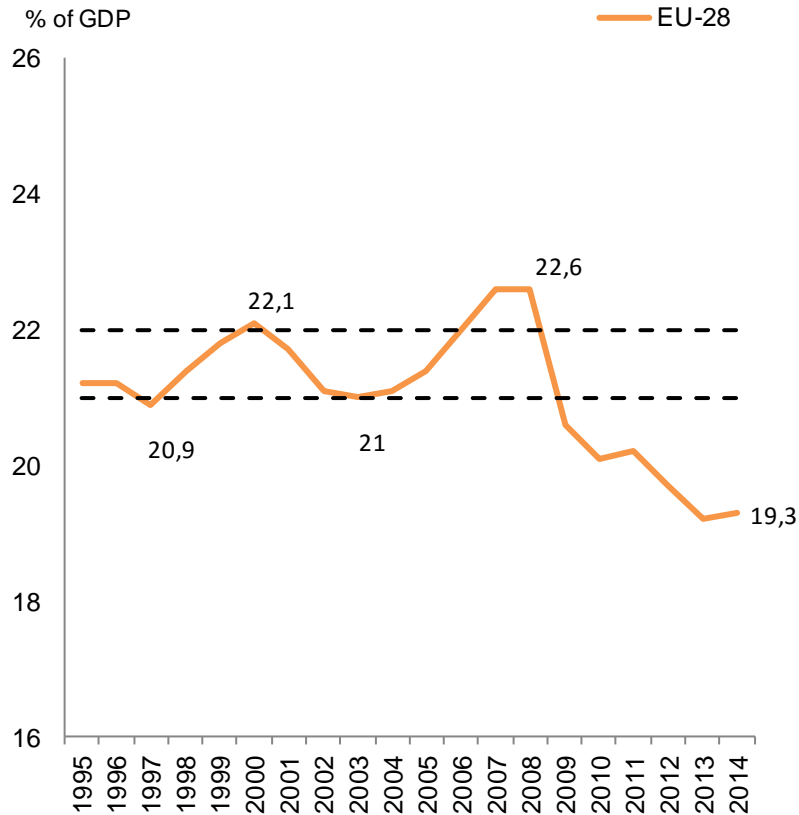


Gross Fixed Capital Formation (% GDP)

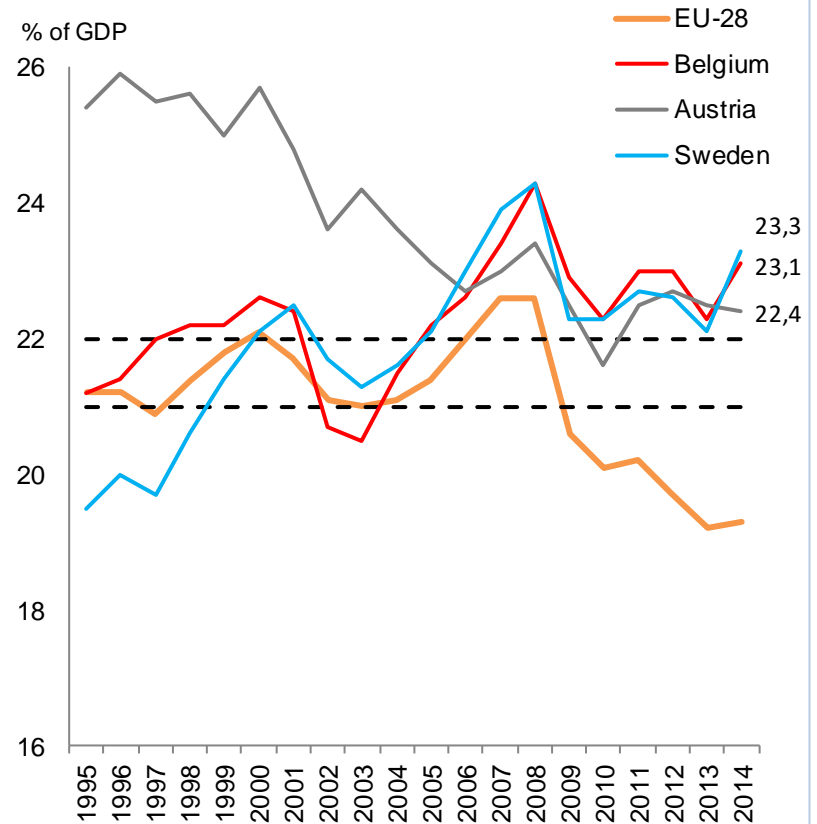


Investment: Countries without investment „gap“

Gross Fixed Capital Formation (% GDP)

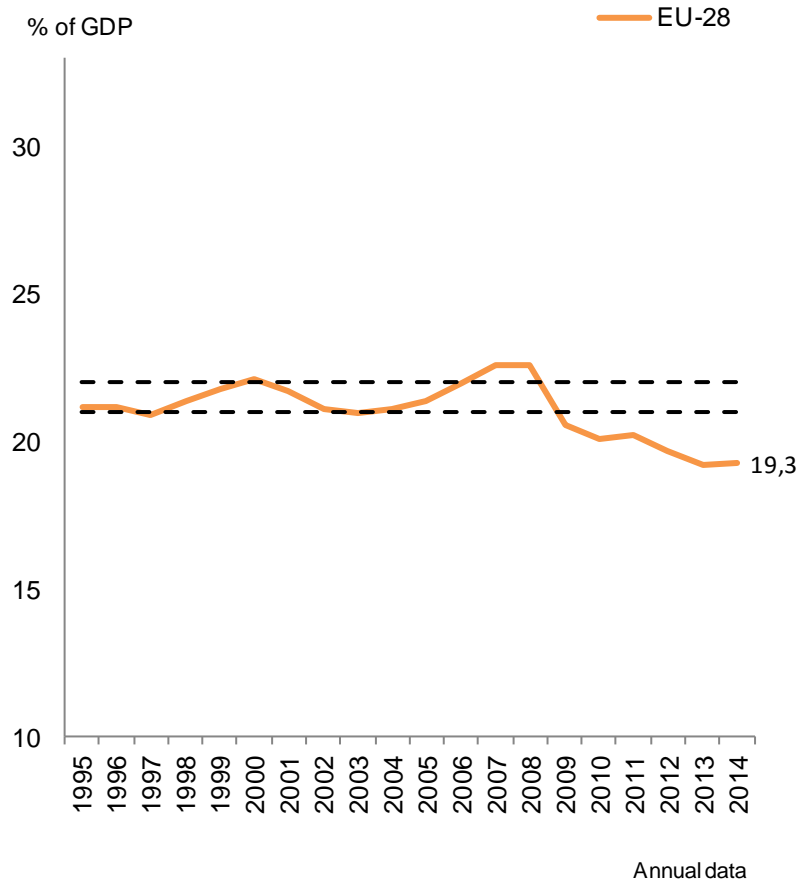


Gross Fixed Capital Formation (% GDP)

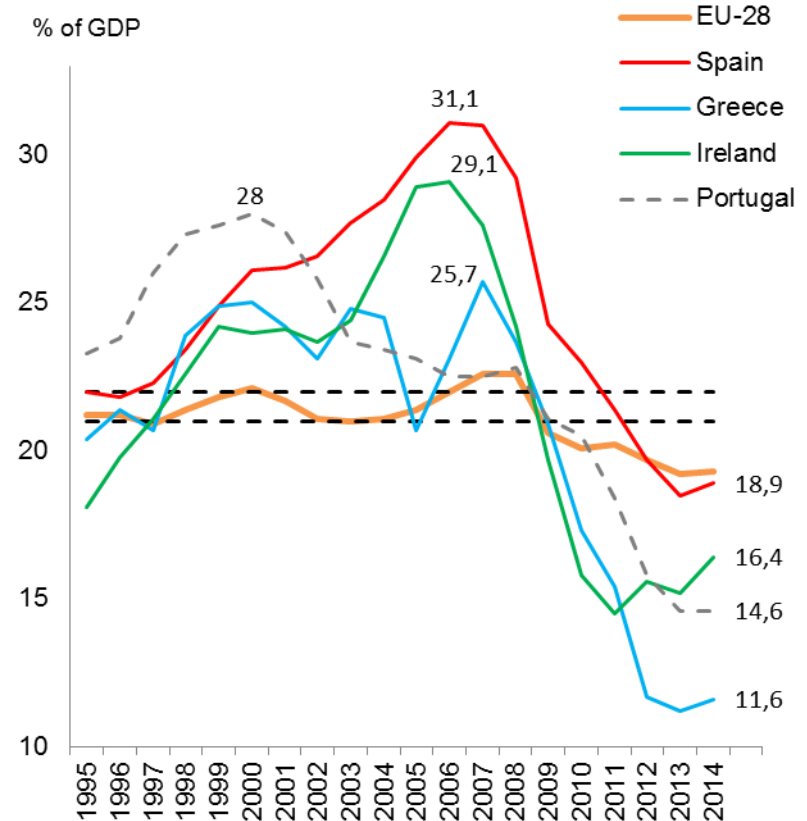


Investment: GIPS and the credit bubble

Gross Fixed Capital Formation (% GDP)

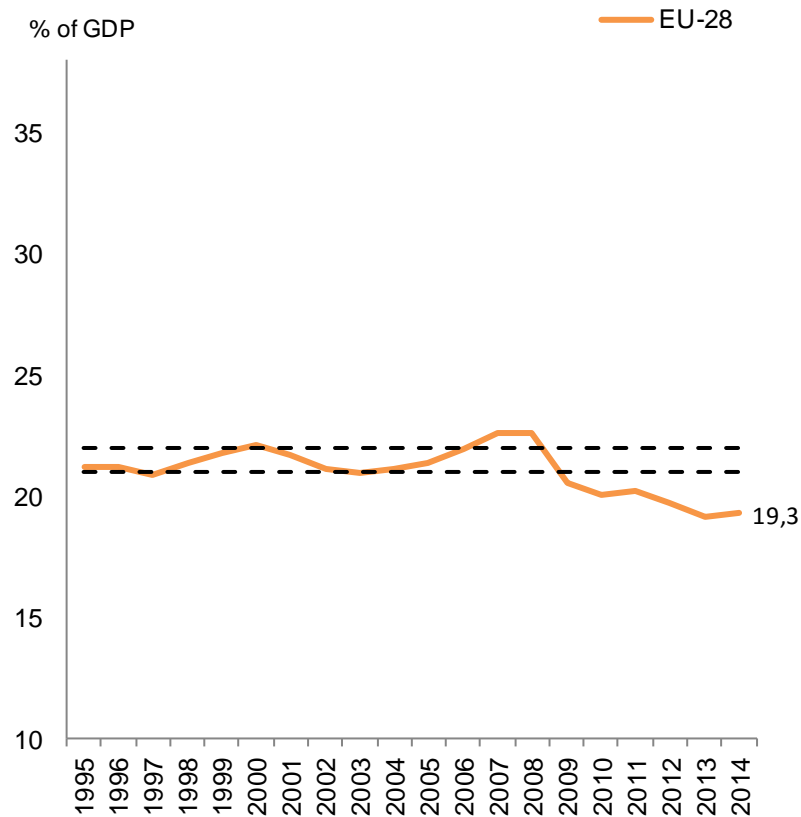


Gross Fixed Capital Formation (% GDP)

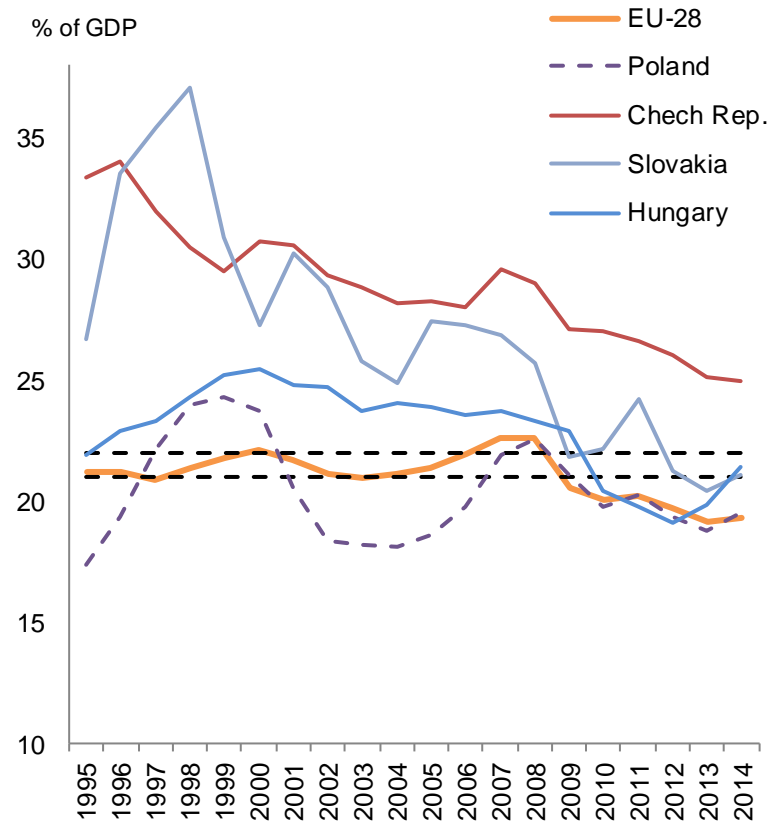


Investment: Eastern Europe

Gross Fixed Capital Formation (% GDP)

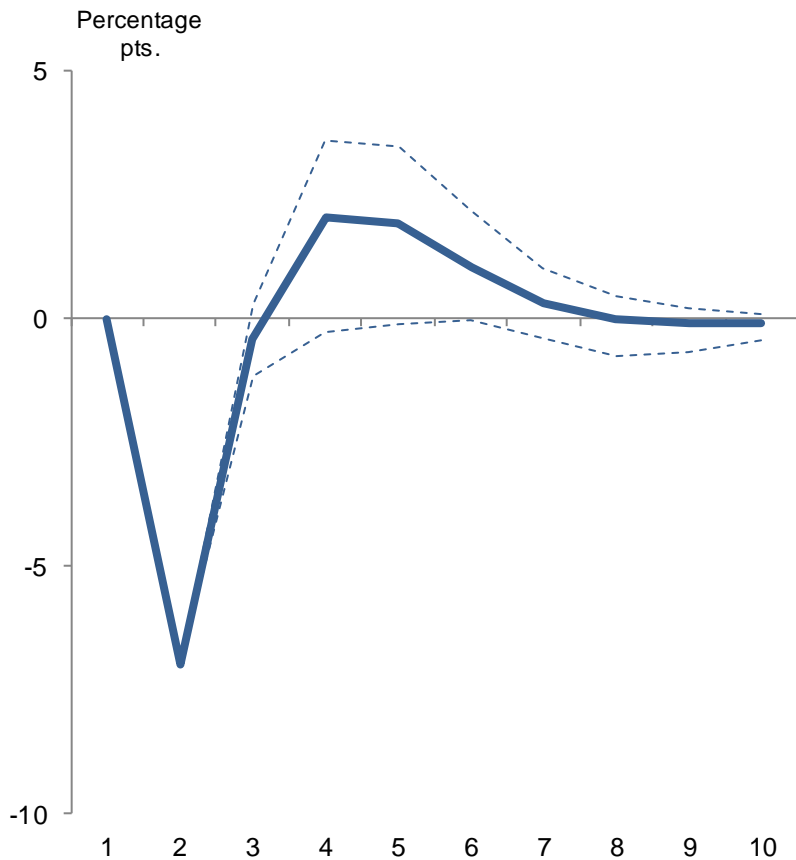


Gross Fixed Capital Formation (% GDP)

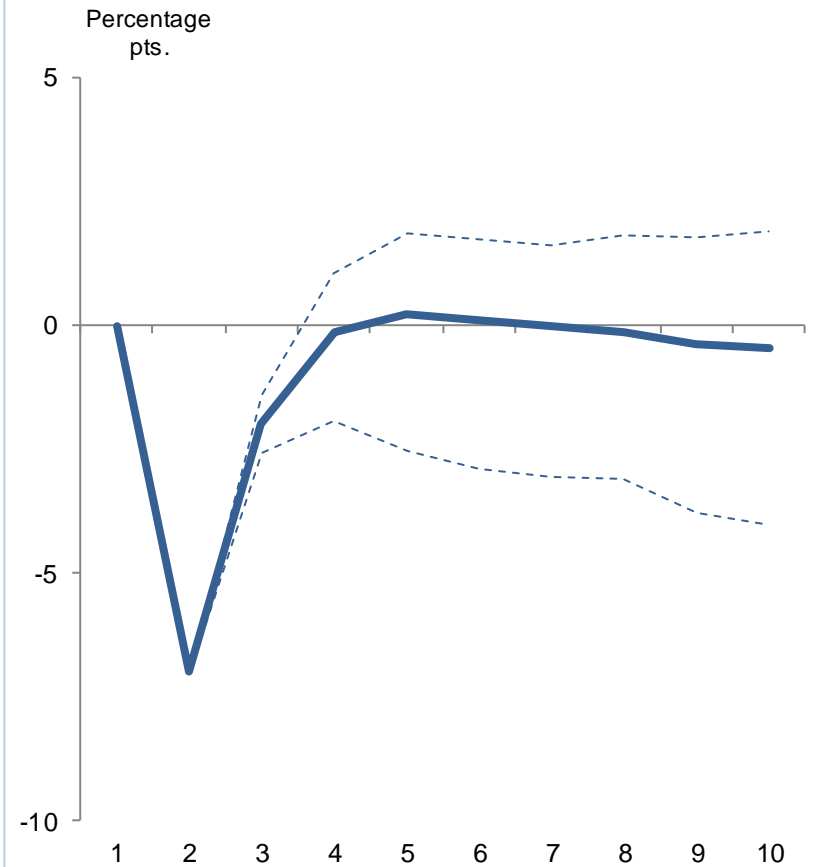


Box: Post-recession investment (yoy change)

A. Normal recessions (growth rate)

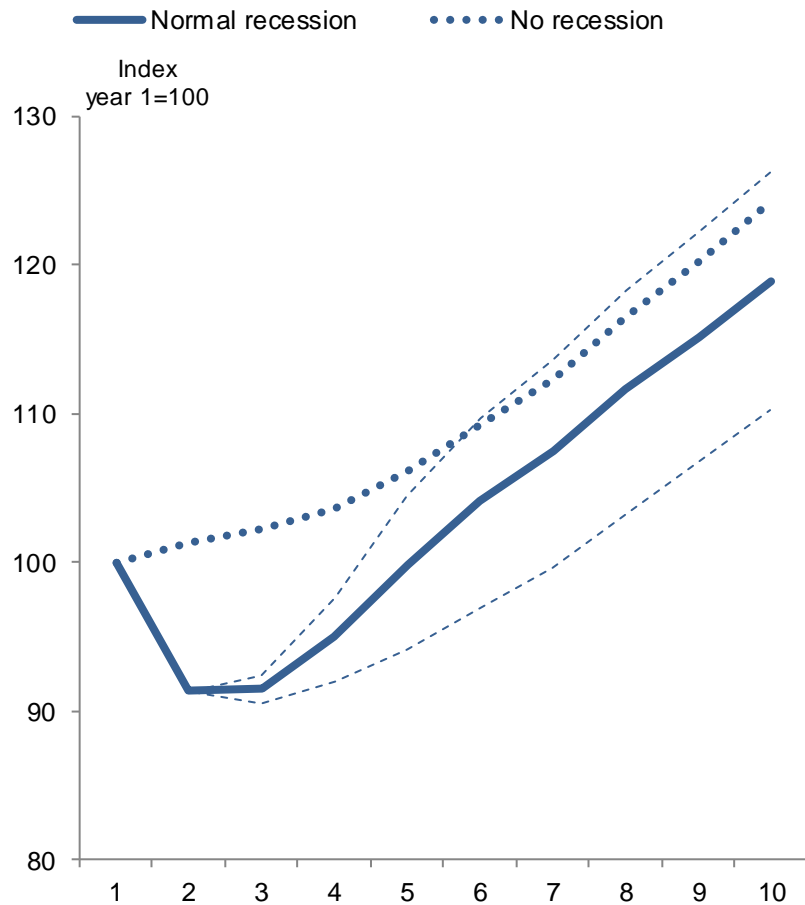


B. Financial crisis (growth rate)

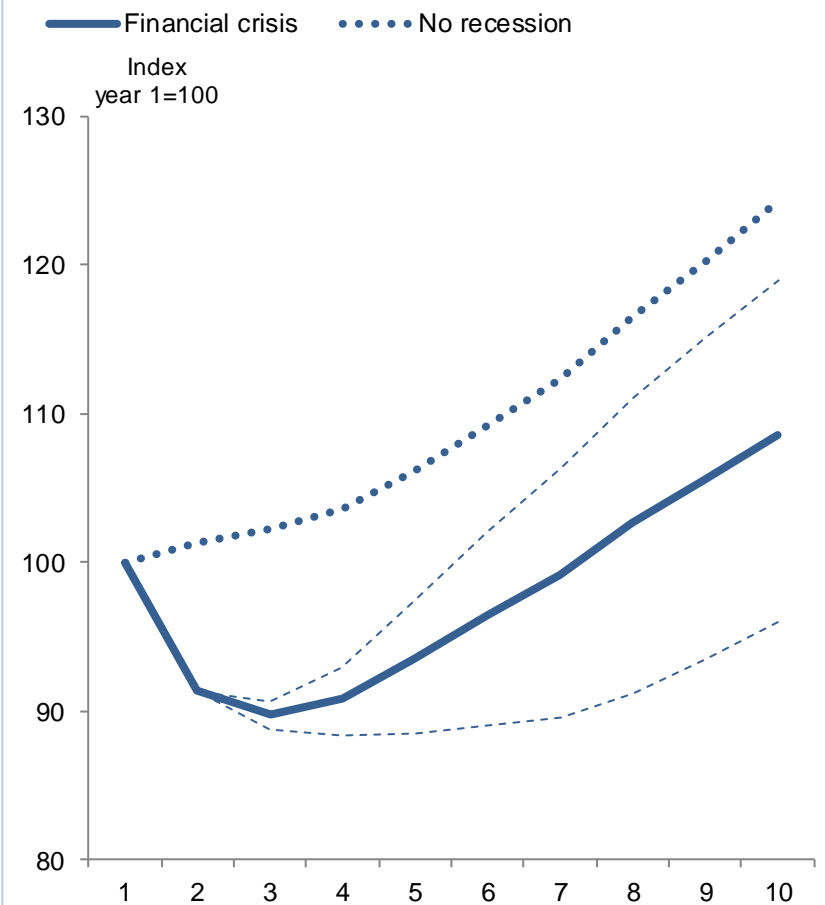


Box: Post-recession investment (level)

C. Normal recessions (level)



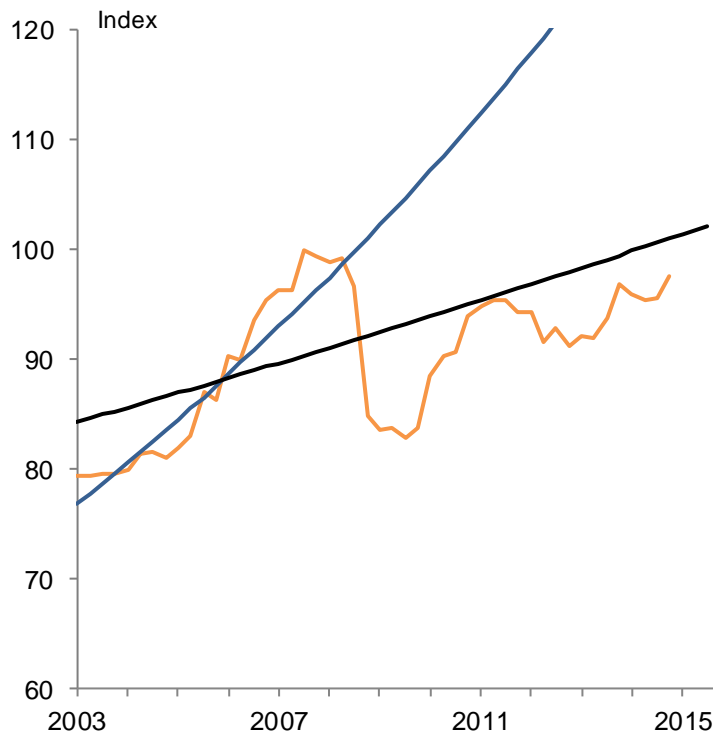
D. Financial crisis (level)



Box: Post-crisis investment (Germany and Italy)

Germany

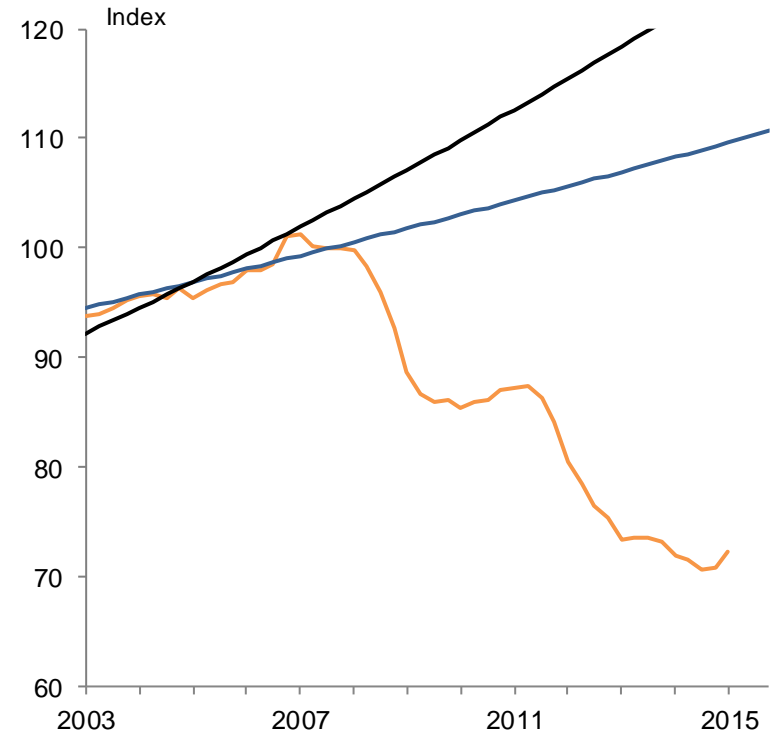
— GDP — Growth path (5 years) — Growth path (10 years)



Quartalsdaten; Unternehmensinvestitionen viertes Quartal 2007=100;
Wachstumstrend wurde anhand eines log-linearen Trends in den 5 bzw.
10 Jahren vor Beginn der Krise im vierten Quartal 2007 geschätzt.

Italy

— GDP — Growth path (5 years) — Growth path (10 years)

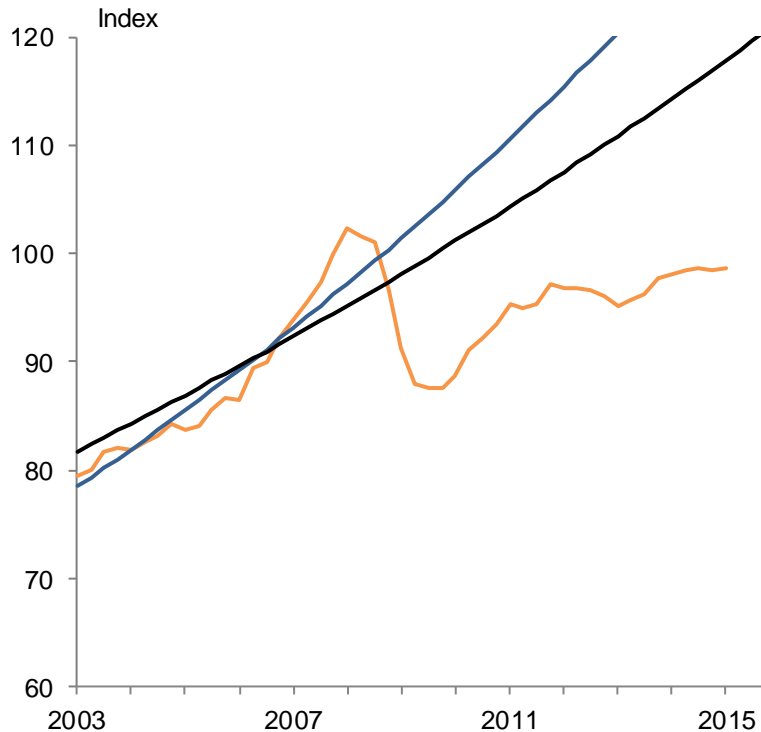


Quartalsdaten; Unternehmensinvestitionen viertes Quartal 2007=100;
Wachstumstrend wurde anhand eines log-linearen Trends in den 5 bzw.
10 Jahren vor Beginn der Krise im vierten Quartal 2007 geschätzt.

Box: Post-crisis investment (France and Spain)

France

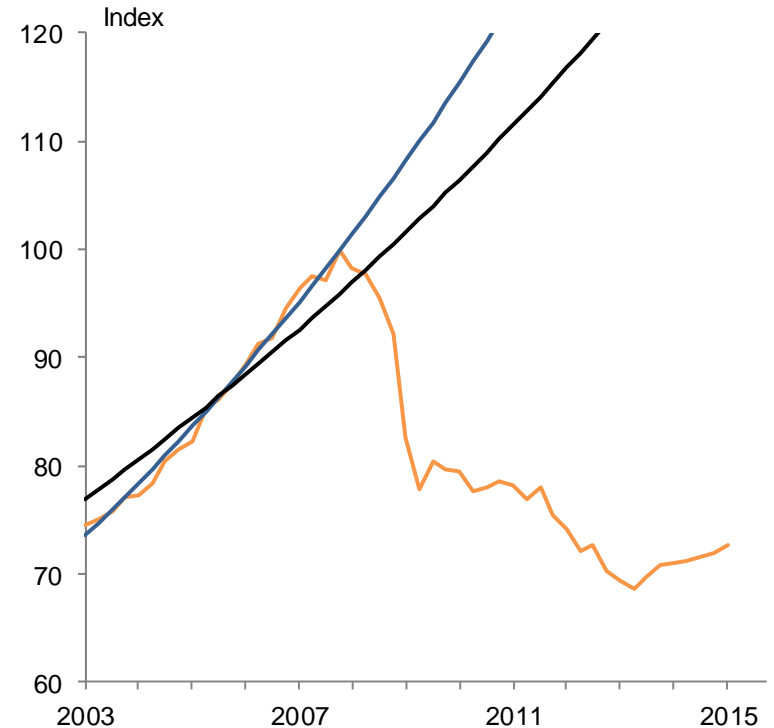
— GDP — Growth path (5 years) — Growth path (10 years)



Quartalsdaten; Unternehmensinvestitionen viertes Quartal 2007=100;
Wachstumstrend wurde anhand eines log-linearen Trends in den 5 bzw.
10 Jahren vor Beginn der Krise im vierten Quartal 2007 geschätzt.

Spain

— GDP — Growth path (5 years) — Growth path (10 years)



Quartalsdaten; Unternehmensinvestitionen viertes Quartal 2007=100;
Wachstumstrend wurde anhand eines log-linearen Trends in den 5 bzw.
10 Jahren vor Beginn der Krise im vierten Quartal 2007 geschätzt.

Überblick

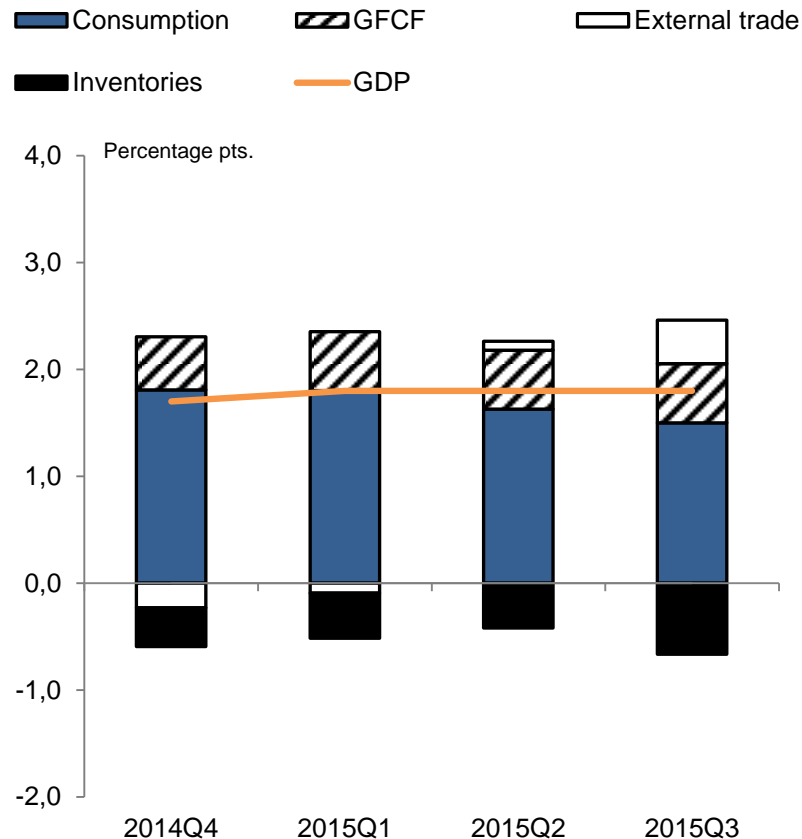
- Globale Perspektive
- Euroraum
- **Deutschland**
- Harte Landung in China?
- Risiken der Niedrigzinspolitik
- European Governance

Overview

- German GDP is expected to increase by 1.8 percent (2015), 2.1 percent (2016), and 2.3 percent (2017).
- The uncertain international environment did not have strong dampening effects so far
- Private consumption is one of the main growth engines
- Investment to become a second growth pillar
- Imports are expected to grow faster than exports
- Economy dives into overutilization – overheating on the horizon

GDP growth forecasts for 2015 stable since 2014 Q4

GDP growth forecasts and expenditure components for 2015



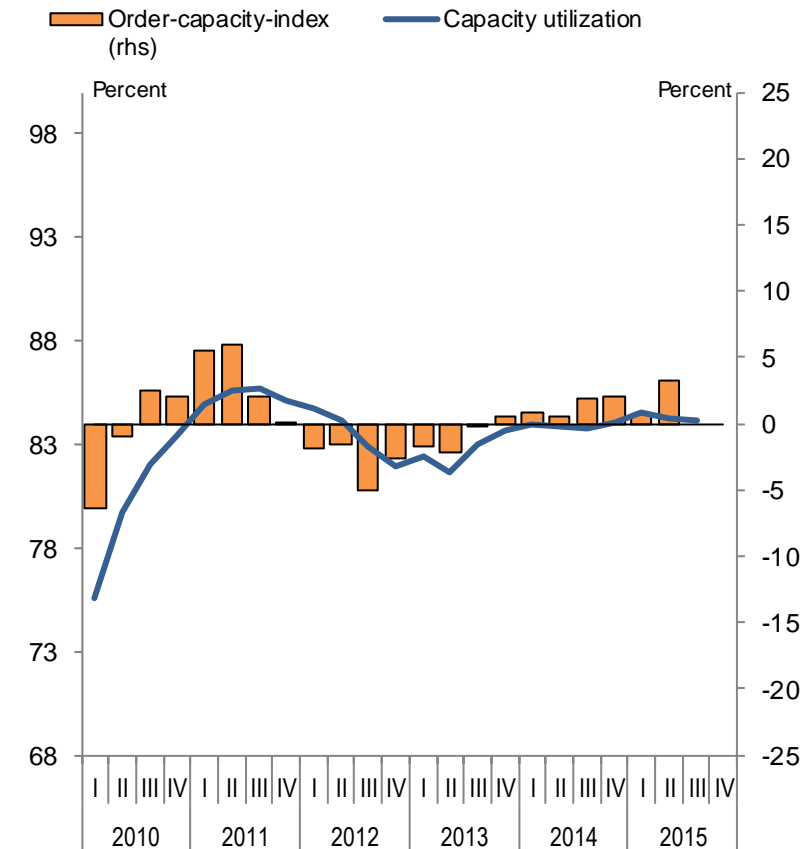
Annual data; price-adjusted, Lundberg components.

x-axis: quarter when the forecast for GDP growth in 2015 was made.

- GDP growth forecast of 1.8 percent for 2015 has been rather stable
- Contribution to GDP growth of consumption is currently expected to be somewhat lower than in 2014-Q4
- Contribution to GDP growth of net exports is currently expected to be somewhat larger than in 2014-Q4

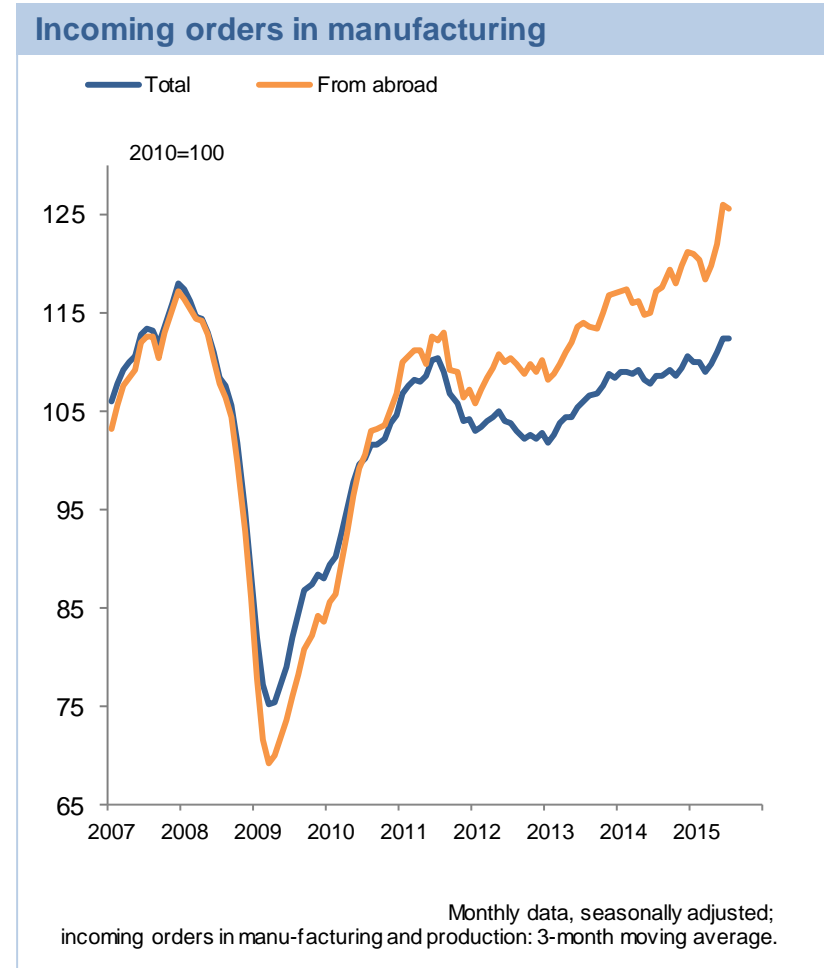
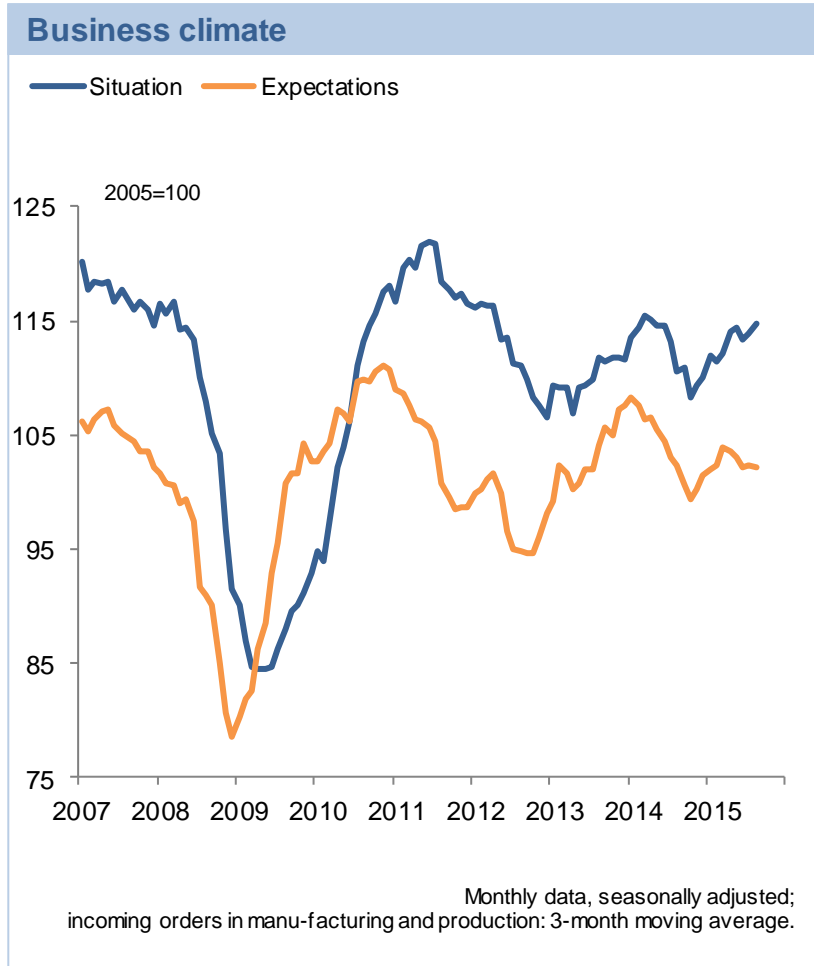
Output gap is by and large closed

Capacity utilization

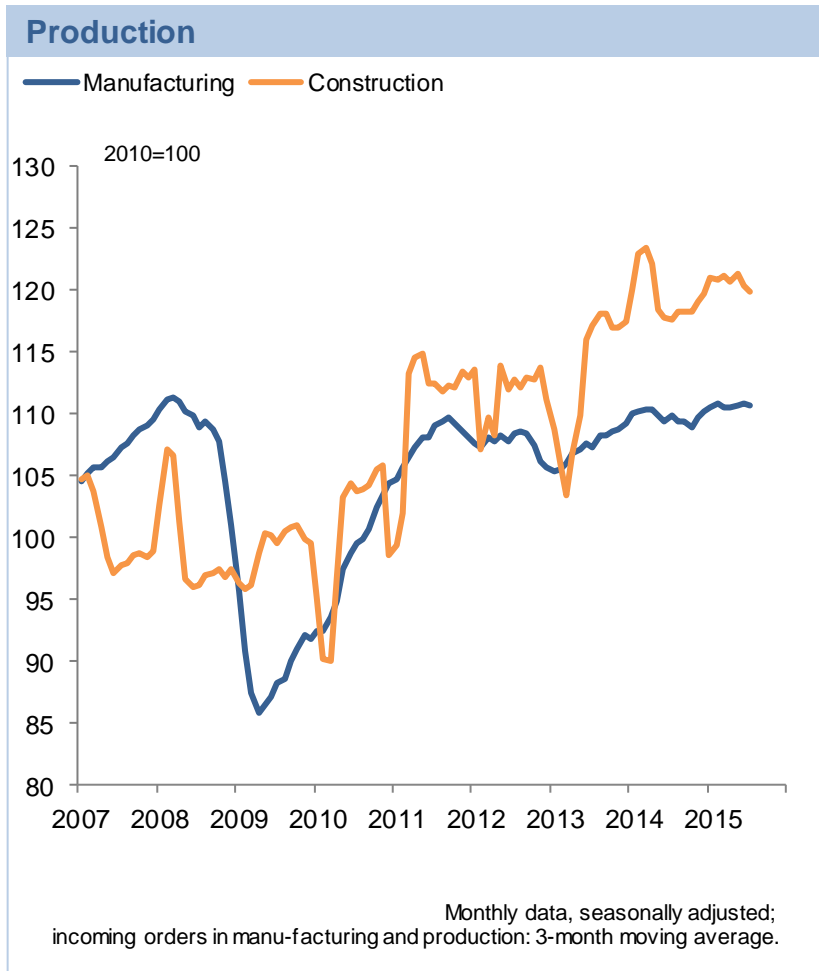


- Capacity utilisation is at normal levels
- Incoming orders are higher than production capacities for manufacturing firms for nearly two years

Business situation and incoming orders are improving



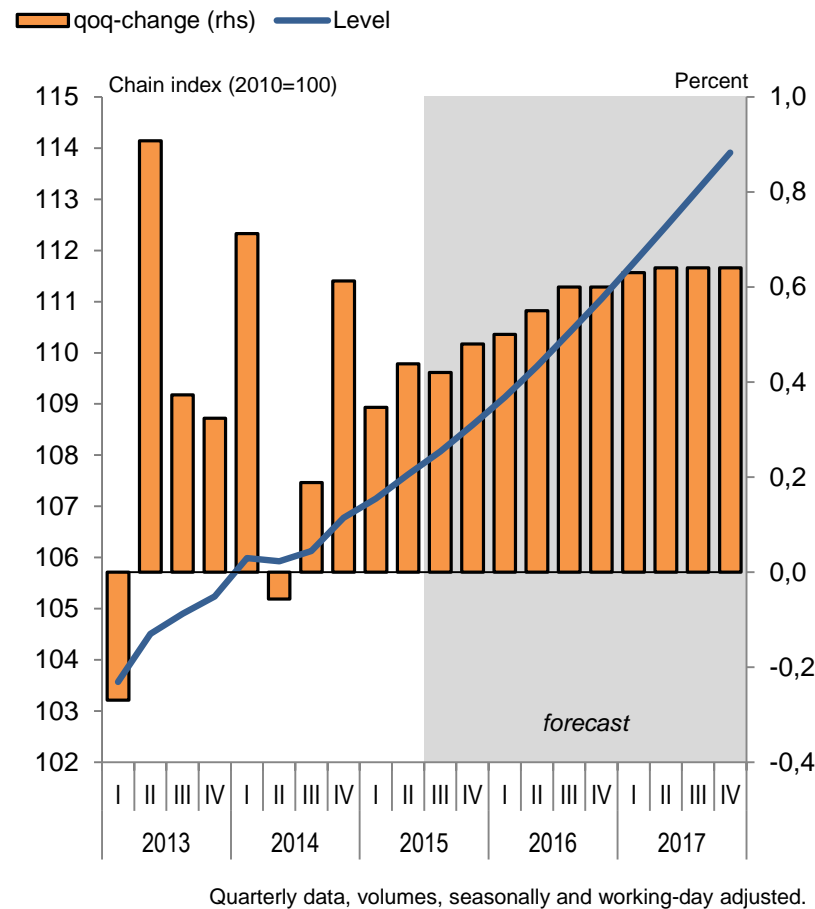
Modest growth in industrial production



- Business situation is still improving while expectations have deteriorated somewhat
- Strong incoming orders
- Modest growth in manufacturing production
- Weather conditions may have contributed to recent decline in construction activity

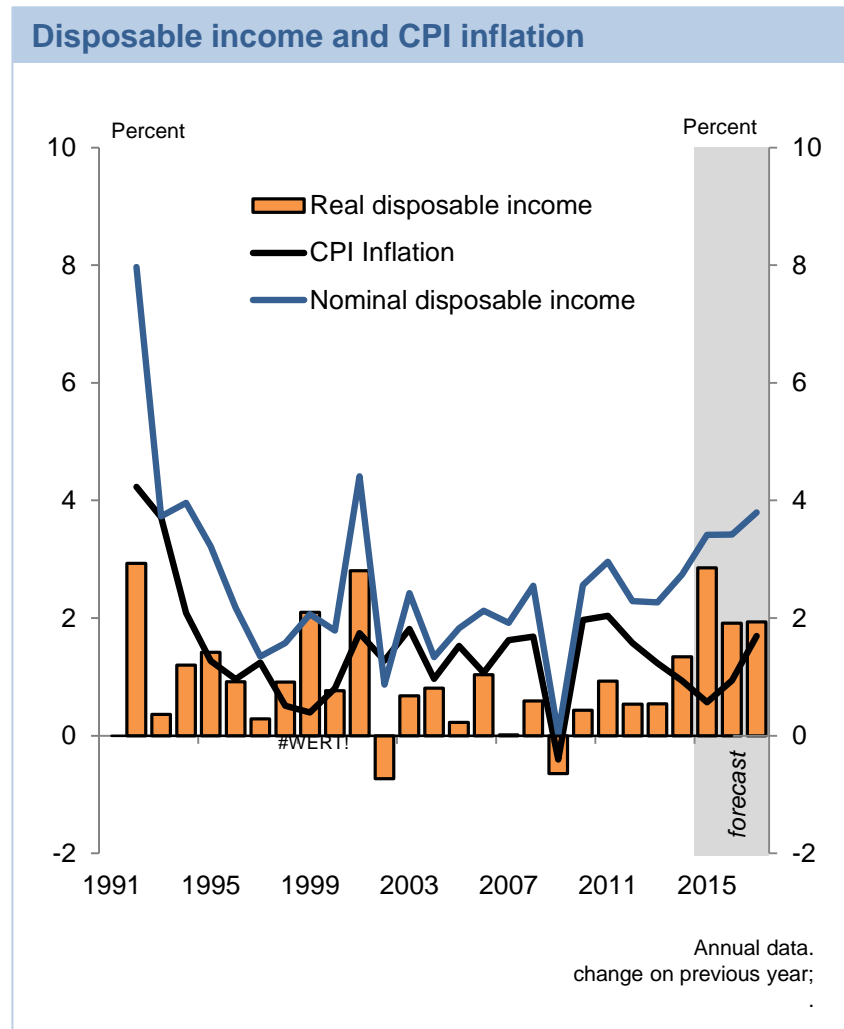
GDP growth is accelerating

Gross domestic product



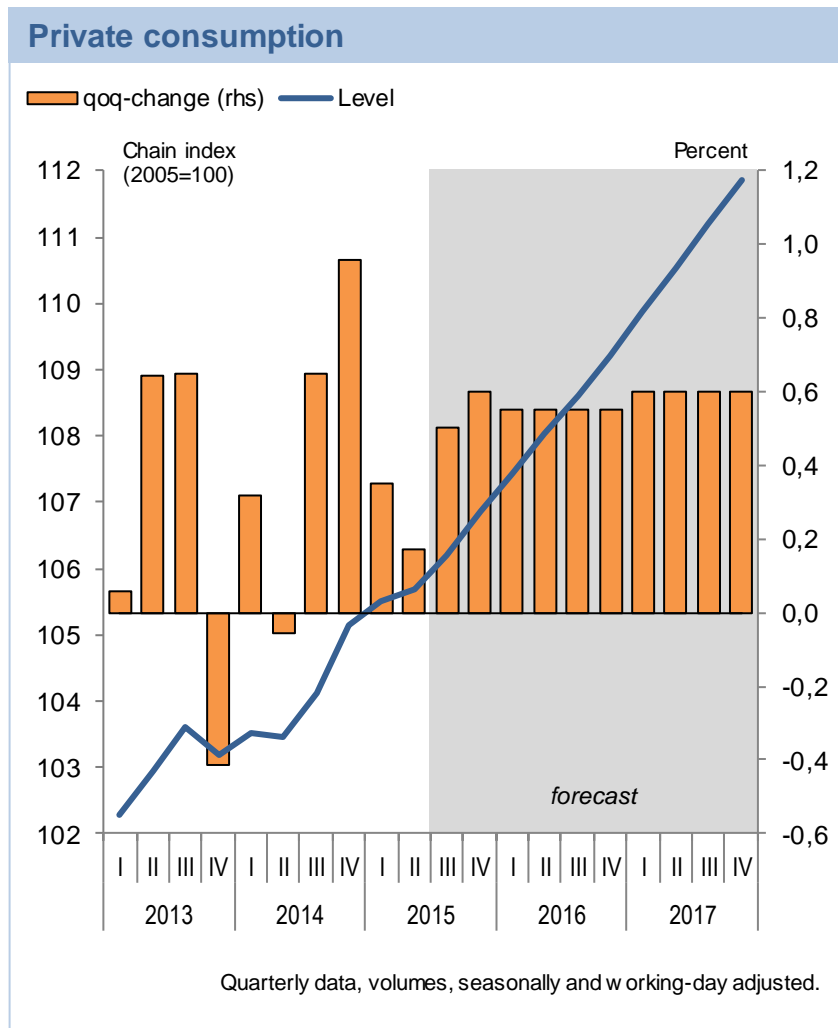
- 2015: +1.8 %
 - 2016: +2.1 %
 - 2017: +2.3 %
-
- GDP is expected to grow by 0.4 percent in 2015-Q3
 - GDP growth is expected to accelerate

Strong increases in real disposable income



- 2015: +2.9 %
- 2016: +1.9 %
- 2017: +1.9 %
- Temporary effects (oil prices, expanded social transfers, minimum wage) boost income growth in 2015

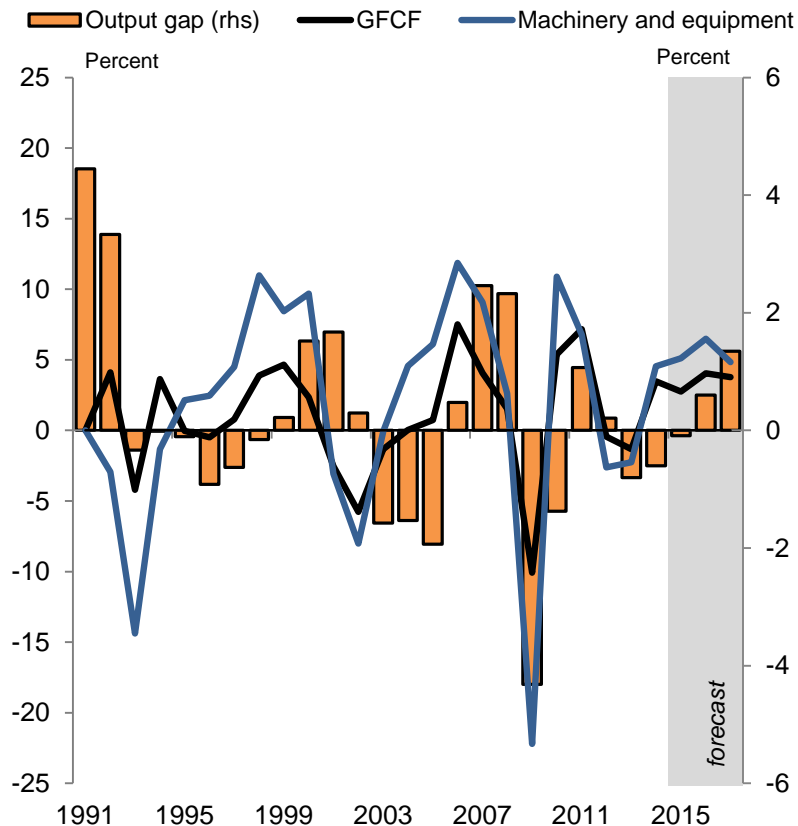
Private consumption is growing with highest rates since 2000



- 2015: +2.0 %
- 2016: +2.3 %
- 2017: + 2.2 %
- Savings rate is expected to decline after 2015
 - » 2015: 10.0 %
 - » 2016: 9.9 %
 - » 2017: 9.6 %

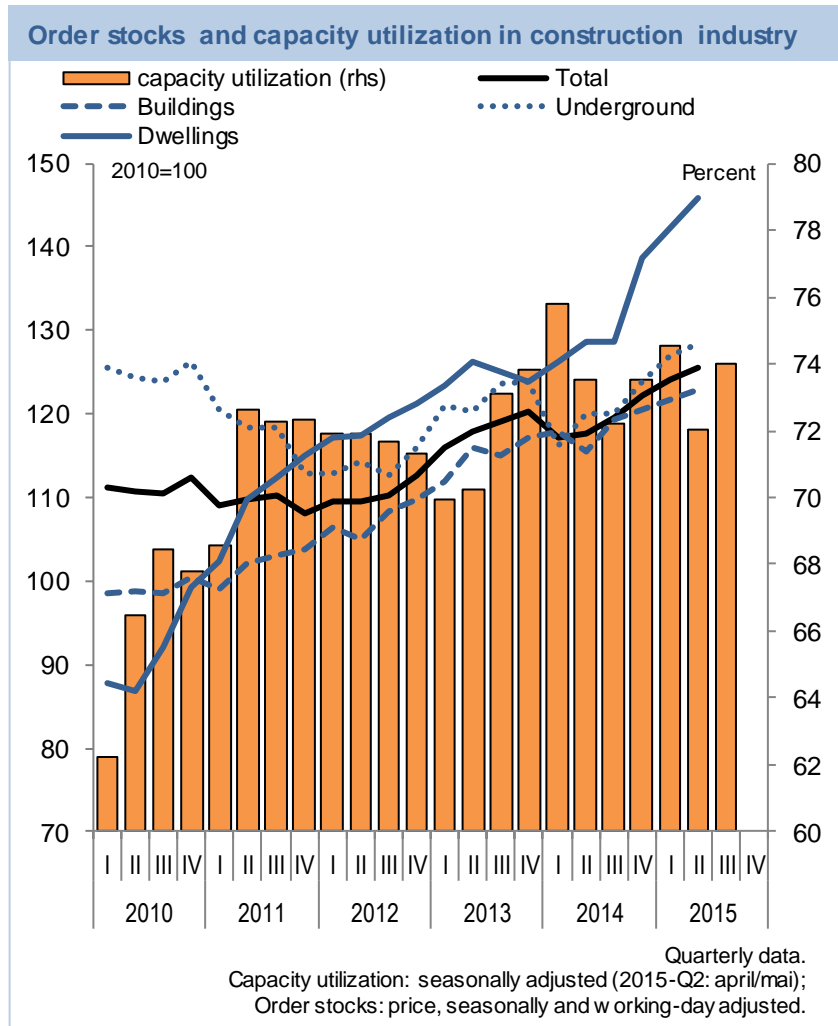
Gross Fixed Capital Formation and output gap

Investment cycles



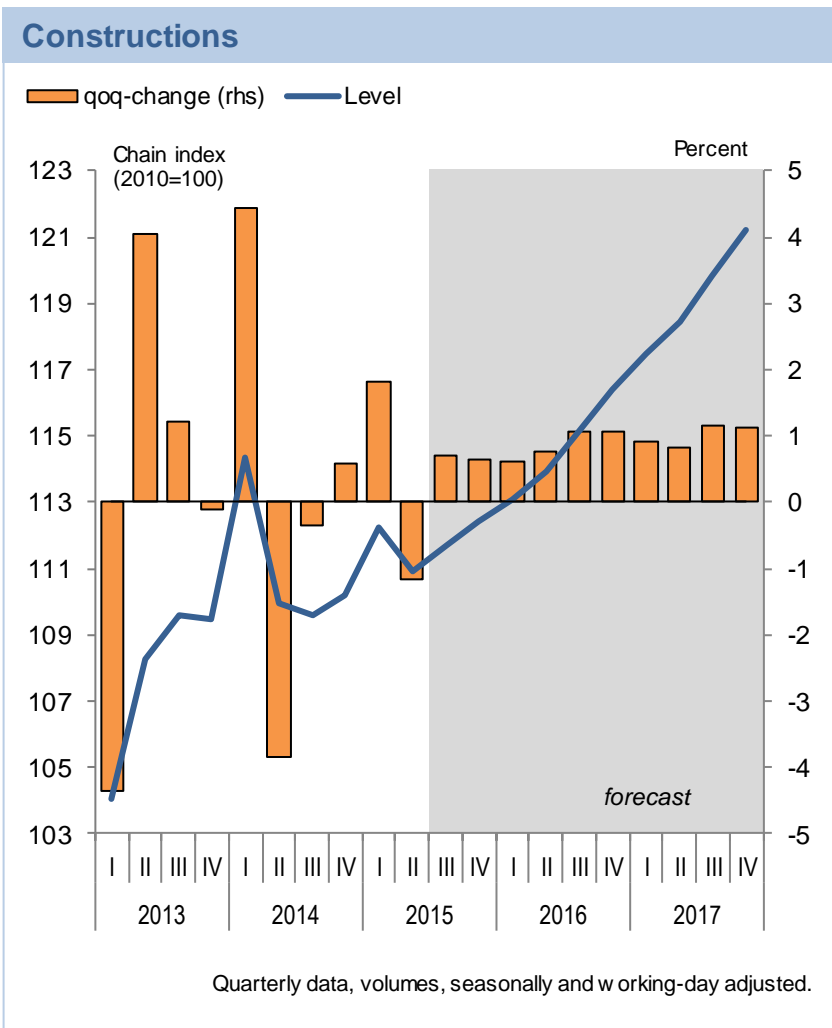
- Growth in GFCF will accelerate with increasing capacity utilisation
- Growth in all GFCF components is expected to accelerate in 2016
- GFCF is expected to become a second growth pillar

Order stocks and capacity utilization in construction industry



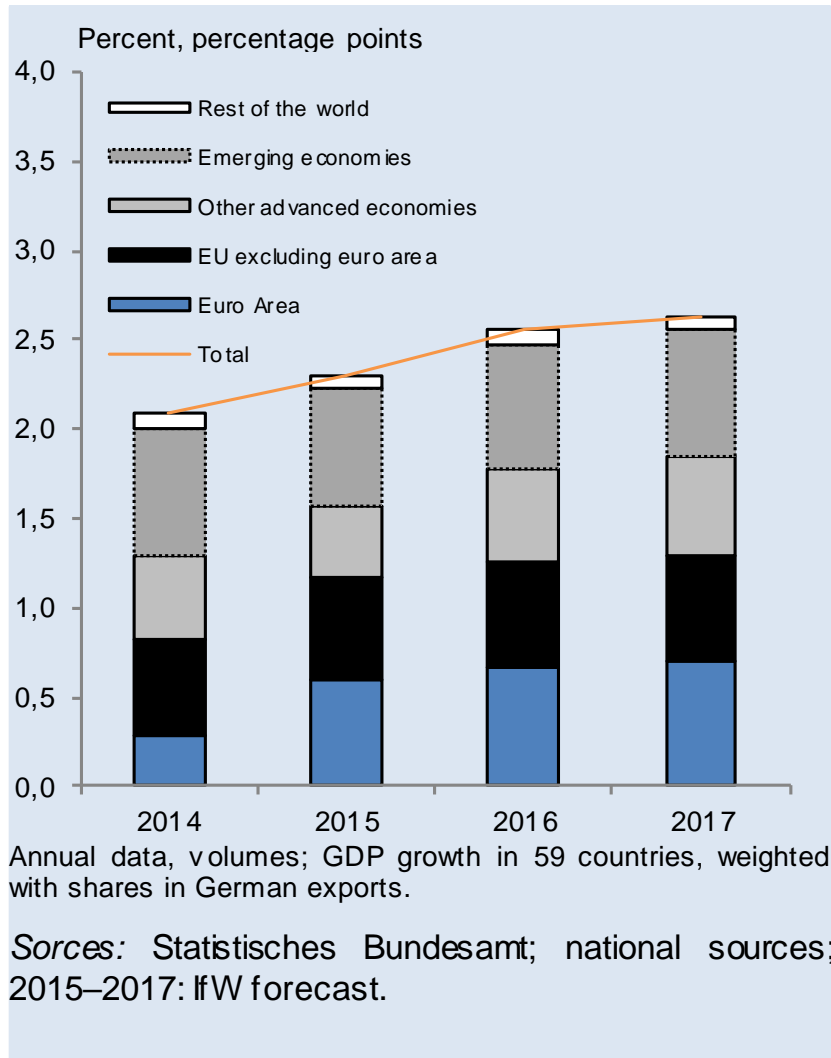
- Order stocks are increasing and are at high levels
- Increase in capacity utilisation indicates that construction will grow again in Q3

Very stimulating enviroment for constructions



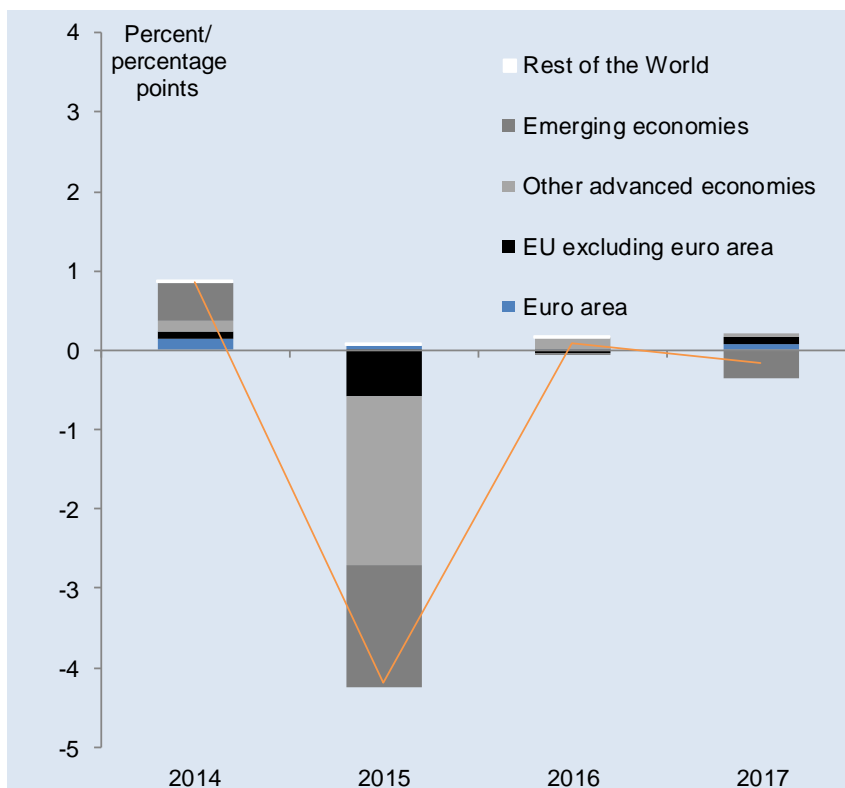
- Very stimulating enviroment for constructions:
 - » Low interest rates
 - » Strong income growth
 - » High government revenues
 - » Increasing capacity utilisation
- Growth in private residential investment and infra-structures is expected to pick up

GDP growth in German export markets



- 2015: +2.3 %
- 2016: +2.6 %
- 2017: +2.6 %
- GDP growth is expected to accelerate somewhat in advanced economies in 2016
- No additional impulses from emerging economies

Price Competitiveness

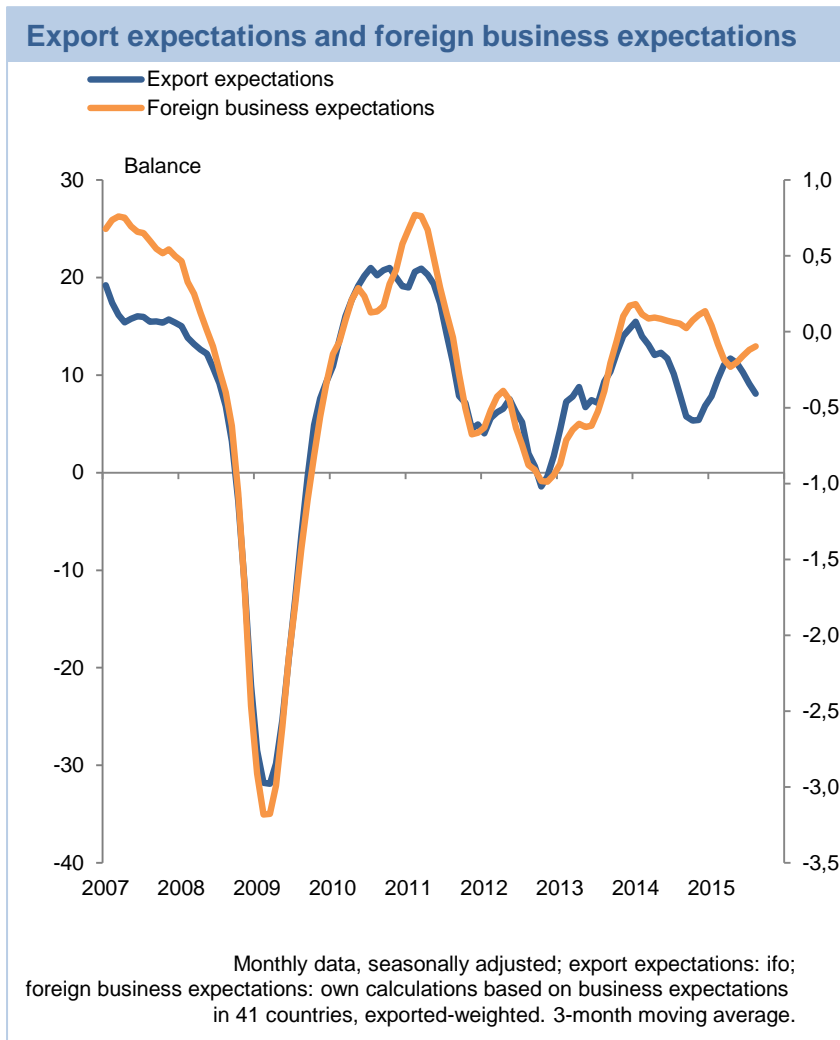


Annual data; Against 56 countries based on consumer prices; Weights according to German's price competitiveness indicator against 56 trading partners based on consumer price indices of the Deutsche Bundesbank.

Source: Deutsche Bundesbank; national sources; 2015–2017: IfW forecast .

- 2015: -4.2%
- 2016: $+0.1\%$
- 2017: -0.2%
- Price competitiveness is improving due to euro depreciation in the current year
- In 2016 and 2017 it is expected to remain largely unchanged

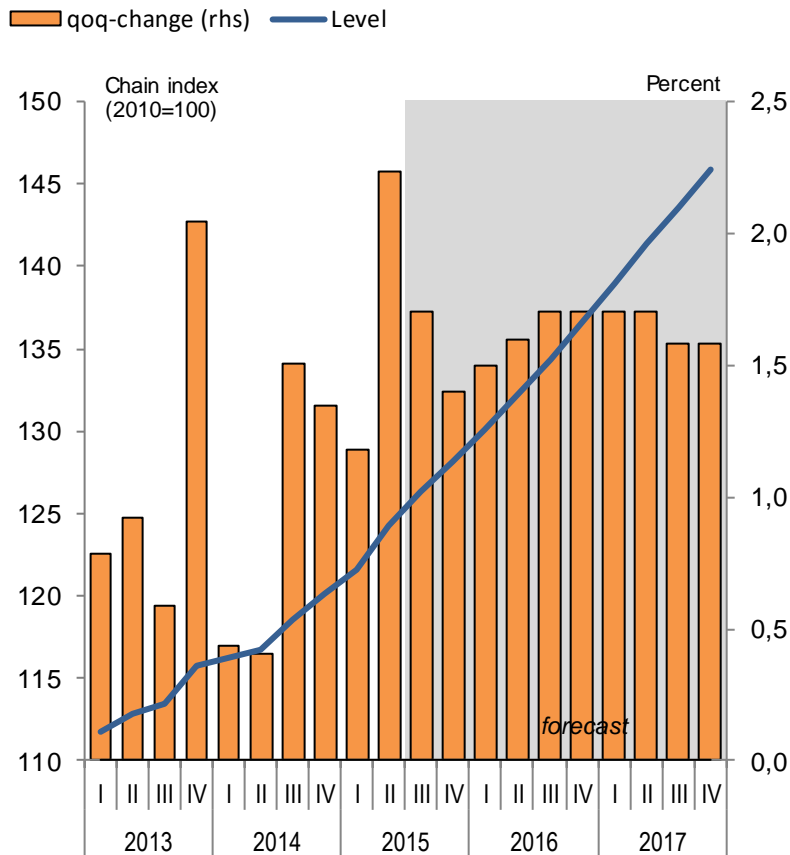
Exports expectations and foreign business expectations



- Export expectations have deteriorated recently
- Foreign business expectations were relatively stable
- We expect strong export growth in Q3 (1.7%; strong export data in July) and somewhat weaker export growth in Q4

Exports are growing with solid rates

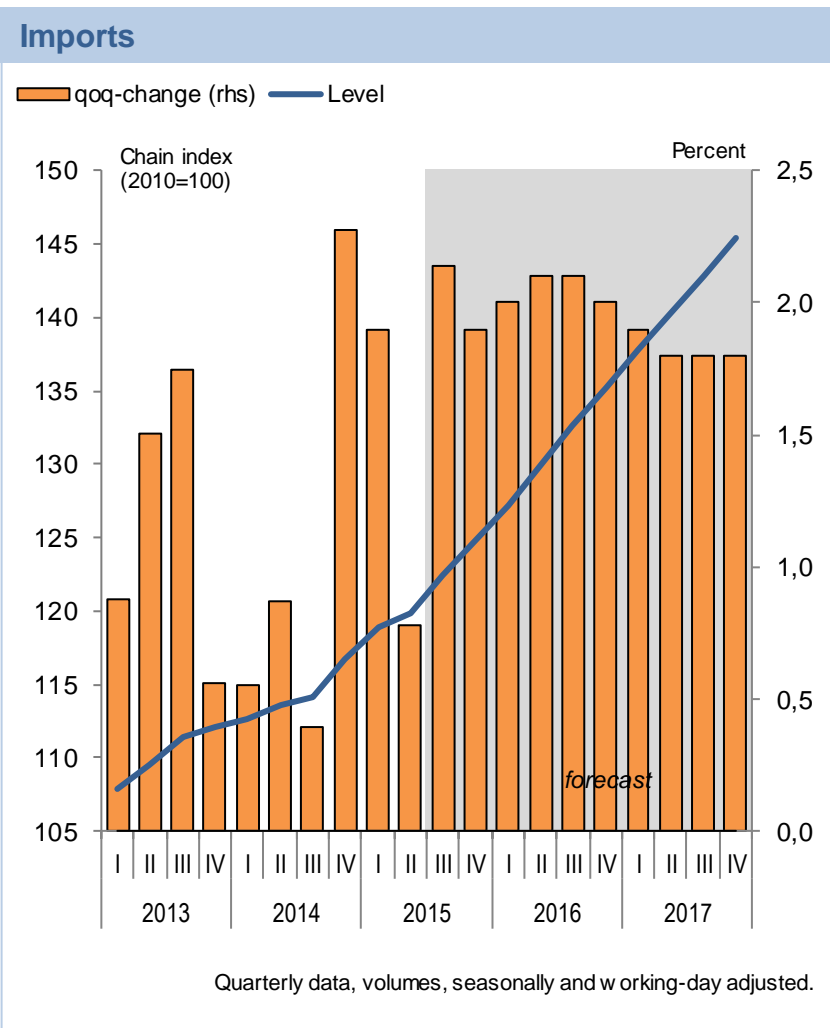
Exports



Quarterly data, volumes, seasonally and working-day adjusted.

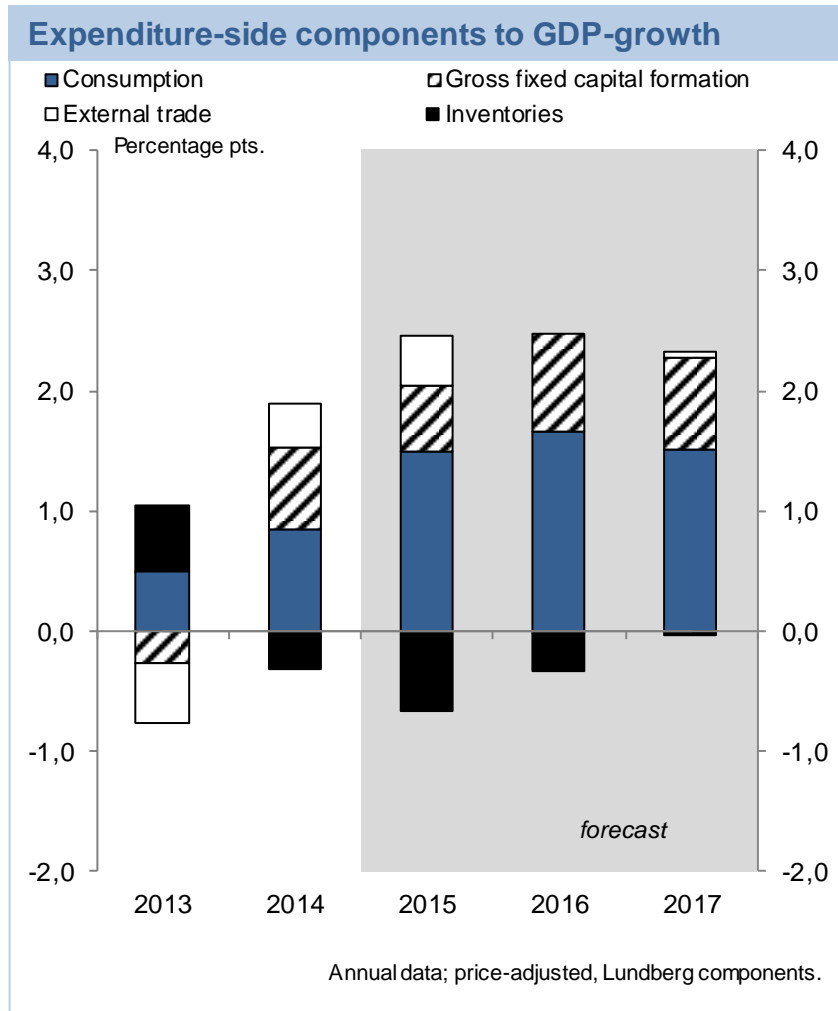
- 2015: +6.6 %
- 2016: +6.8 %
- 2017: +6.4 %
- Higher growth in exports to euro area countries will compensate for lower growth in exports to emerging markets

Imports are growing faster than exports



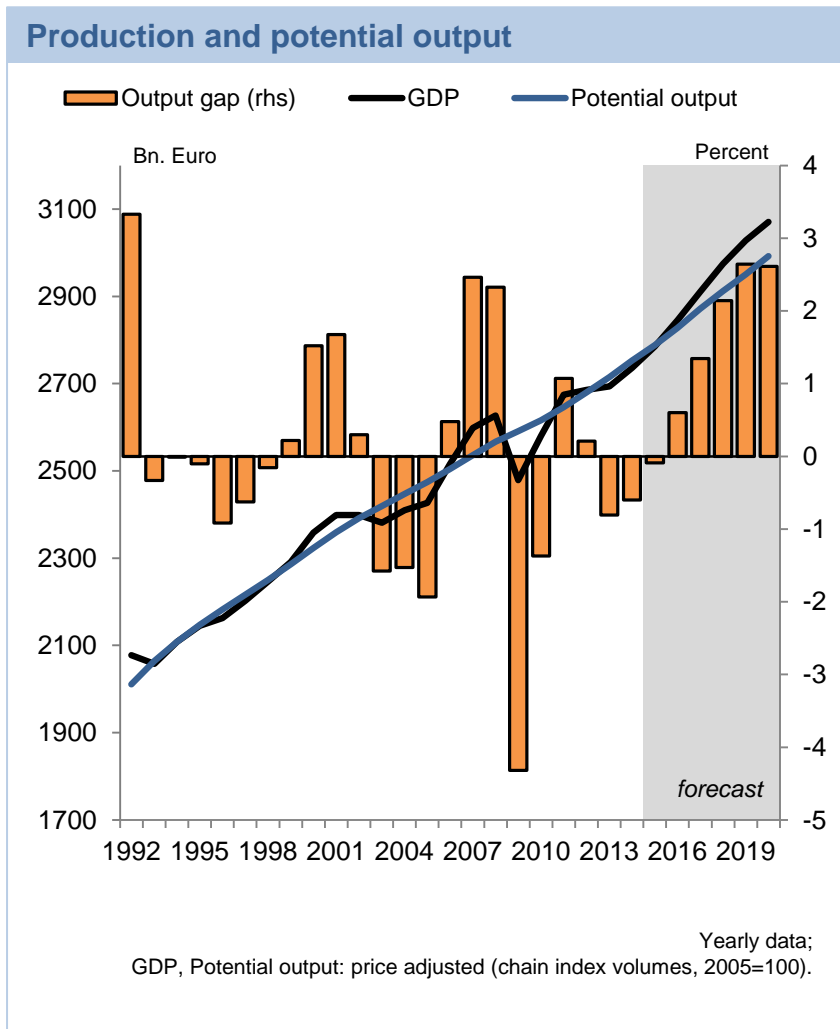
- 2015: +6.7 %
- 2016: +8.1 %
- 2017: +7.6 %
- Strong domestic demand and solid export growth will stimulate imports further
- Improvement in Terms of Trade

Growth contributions



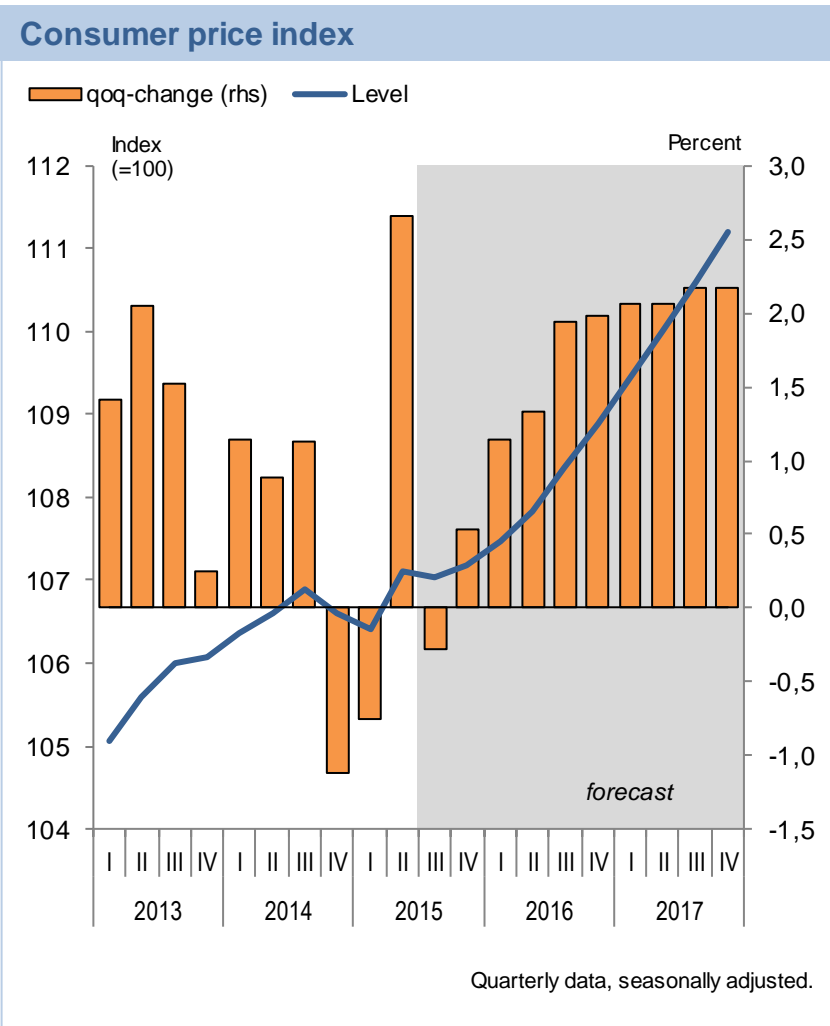
- 2015-2017: GDP growth is driven by private consumption
- 2016: GFCF to become second growth pillar
- Due to strong import growth contributions of net exports are expected to be close to zero

Potential output and production



- Potential growth is expected to grow on average with 1.4 percent per year
- GDP to grow faster than potential for several years, e.g., due to expansionary monetary policy.
- Output gap is approaching its largest value since the reunification
- Risks for economic and financial stability are increasing

Consumer Prices



■ CPI inflation:

2015: 0.3 %

2016: 1.1 %

2017: 2.0 %

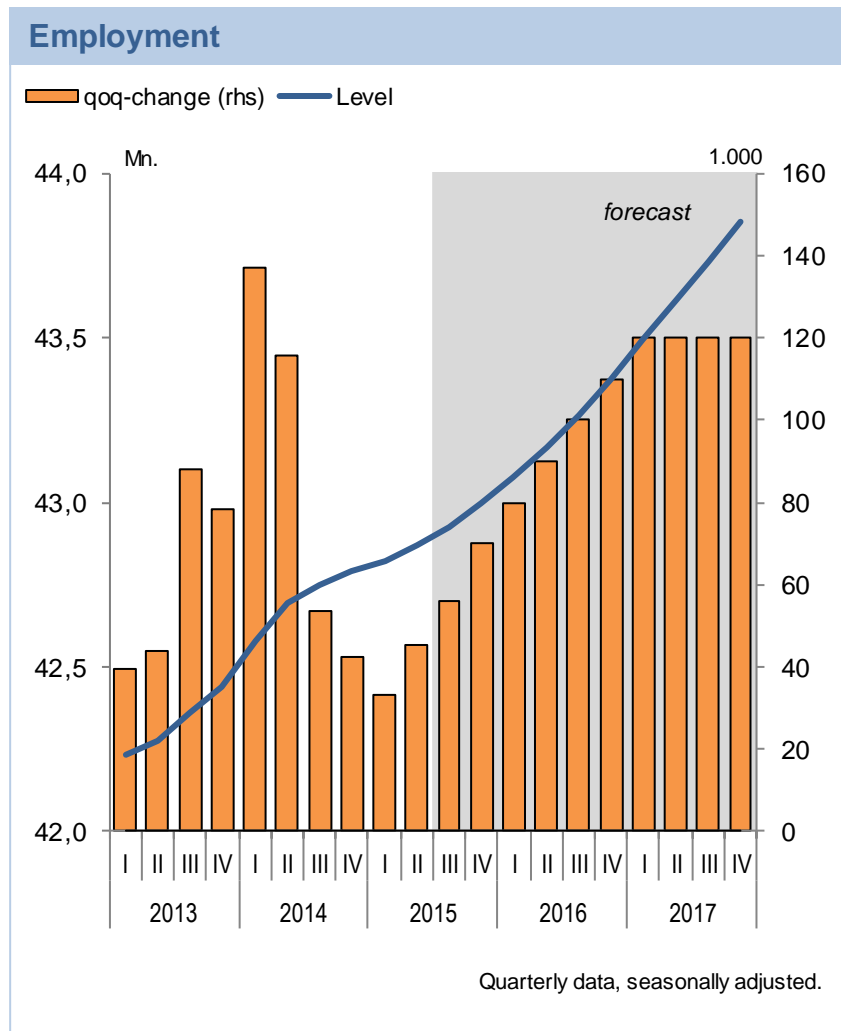
■ GDP deflator

2015: 2.0 %

2016: 1.9 %

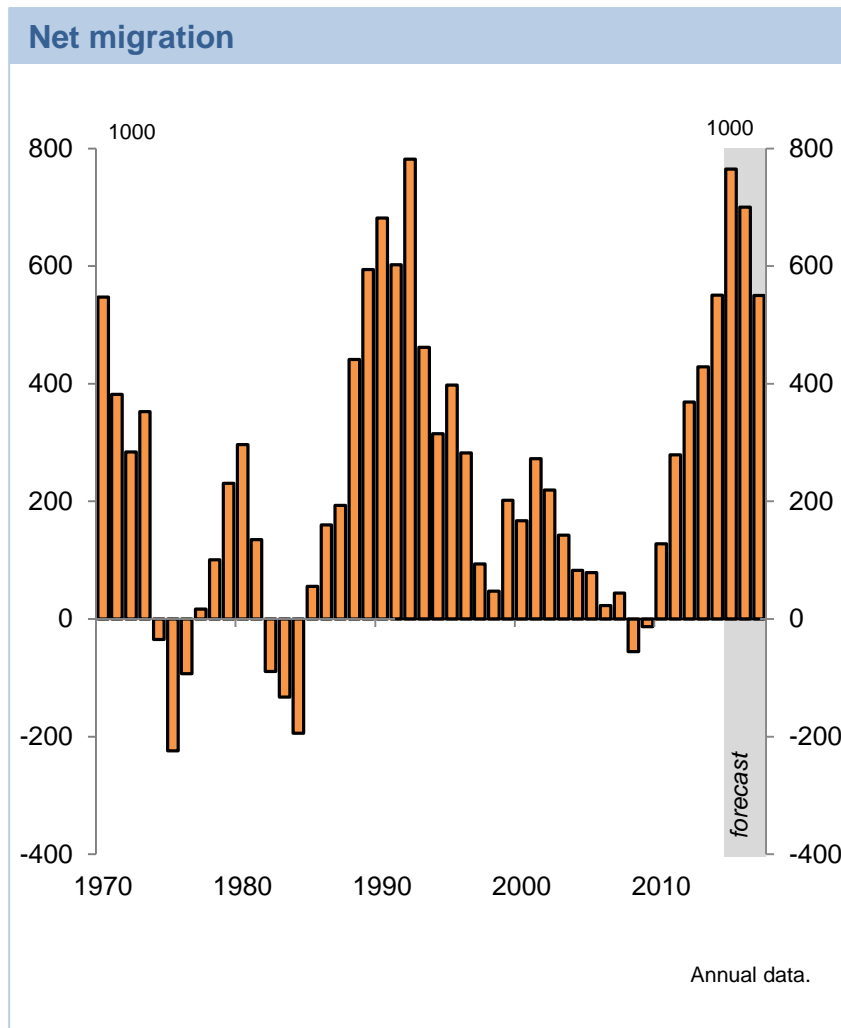
2017: 2.1 %

Labor market remains in good shape



- Temporary weakness in employment growth due to minimum wage.
- Loss of 200,000 mini jobs in the last 12 months (most of them in 2015-Q1)
- Labor force is increasing due to net migration.

Net migration will stay at high levels



- Increasing net migration is a factor in current labor market developments: 66% of increase in employment in the past 12 months.
- Most important is migration from Eastern Europe (freedom of movement)
- Effects due to increased number of asylum applicants is currently relative small, but is expected to become larger in the medium-run

Net Migration

- Government expenditures are expected to increase by 5 bn. in 2015 and by 4 bn. in 2016 due to increased number of asylum seekers
- Rough estimates may indicate visible increases in private consumption and construction
- However, net effects are difficult to estimate (e.g., due to potential crowding out of alternative investment projects at the local level)
- Currently, due to net migration the labor force is increasing instead of decreasing
- From about 500,000 asylum seekers in the current year, by far less than 100,000 enter the labor force
- Additional asylum seekers may have visible (but small) effects on potential output

Key Indicators

Key indicators 2014–2017

	2014	2015	2016	2017
Gross domestic product (GDP), price-adjusted	1,6	1,8	2,1	2,3
Gross domestic product, deflator	1,7	2,0	1,9	2,1
Consumer prices	0,9	0,3	1,1	2,0
Labor productivity (per hour worked)	0,4	0,8	1,5	1,3
Employment (1000 persons)	42.703	42.903	43.220	43.675
Unemployment rate (percent)	6,7	6,4	6,2	5,6
<i>in relation to nominal GDP</i>				
Public sector net lending	0,3	1,0	0,5	0,7
Gross public debt	74,4	70,5	66,9	62,8
Current account balance	7,6	8,8	9,0	9,0

GDP, consumer prices, labor productivity: percentage change on previous year; unemployment rate: as defined by the Federal Employment Agency.

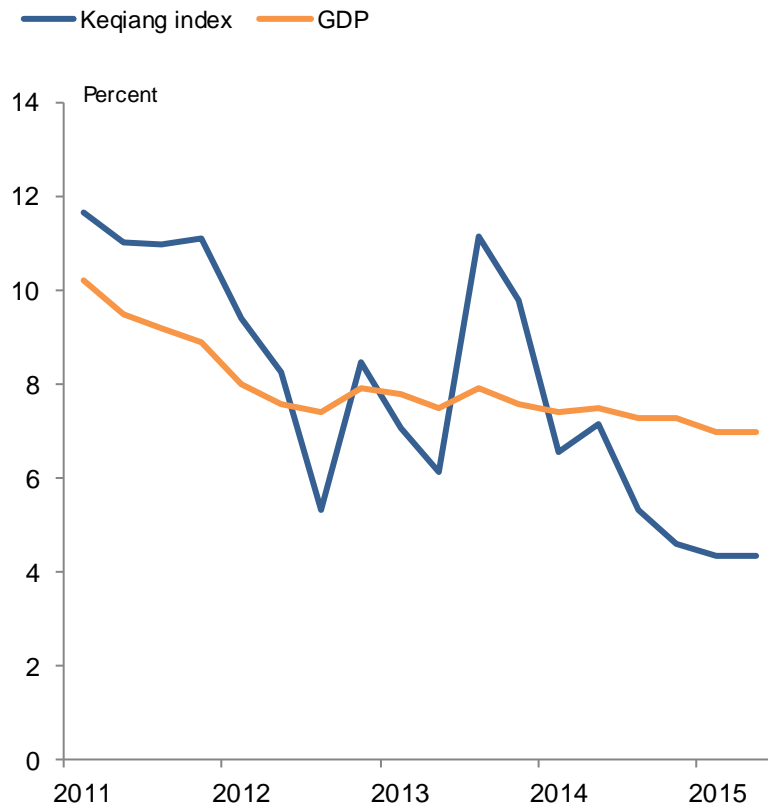
Source: Federal Statistical Office, *Fachserie 18, Series 1.2*; Federal Employment Agency, *Monthly Bulletin*; Federal Employment Agency, *Employment Statistics*; shaded: IfW forecast.

Überblick

- Globale Perspektive
- Euroraum
- Deutschland
- **Harte Landung in China?**
- Risiken der Niedrigzinspolitik
- European Governance

China – Current economic situation (1)

China: GDP and Keqiang index

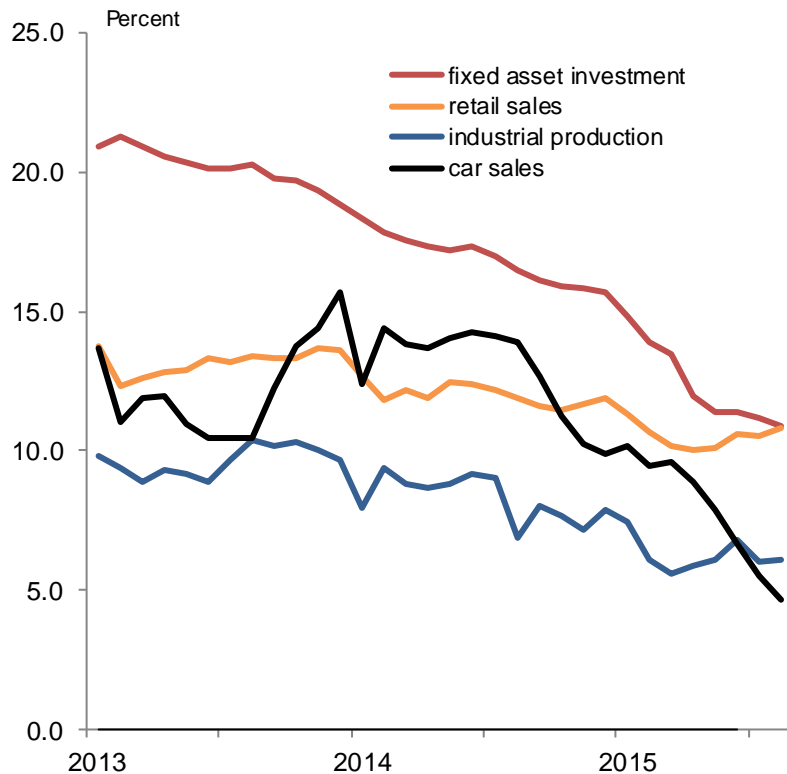


Quarterly data. GDP: y-o-y- growth rate.
Keqiang index: arithmetic mean of outstanding credit,
railway freight cargo and electricity consumption; y-o-y growth rate.

- Gradual economic slowdown from double-digit growth to currently 7 per cent y/y (in 2015-Q2)
- Doubts regarding reliability and accuracy of official data
- Keqiang index points to a pronounced slowdown since 2014-H1
- Weak imports and industrial production, declining car and smartphone sales, ...

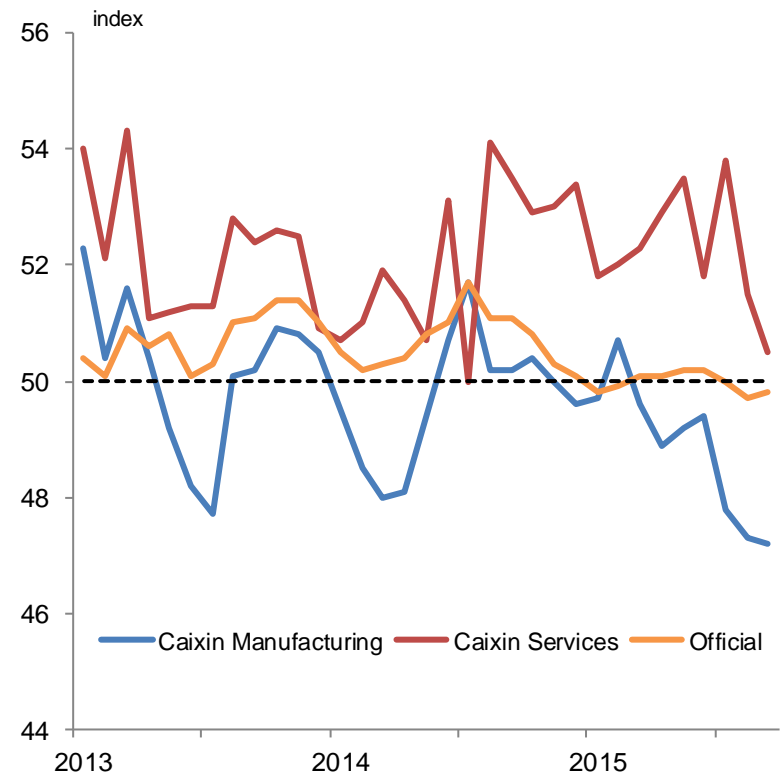
China – Current economic situation (2)

China: monthly indicators



Monthly data. Industrial production and retail sales: y-o-y growth rates.
FAI: year-to-date growth rate. Car sales: 12 MM, y-o-y growth rate.
Source: National Bureau of Statistics

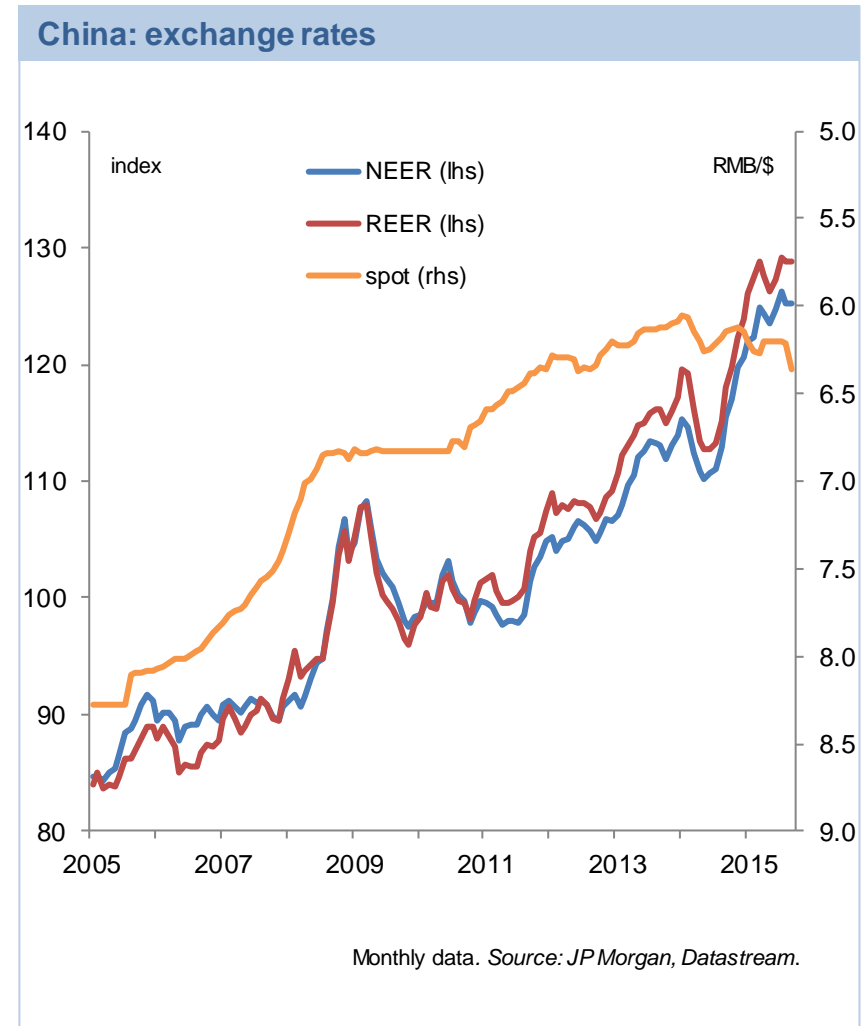
China: Purchasing managers' indices



Monthly data.
Source: Markit, National Bureau of Statistics

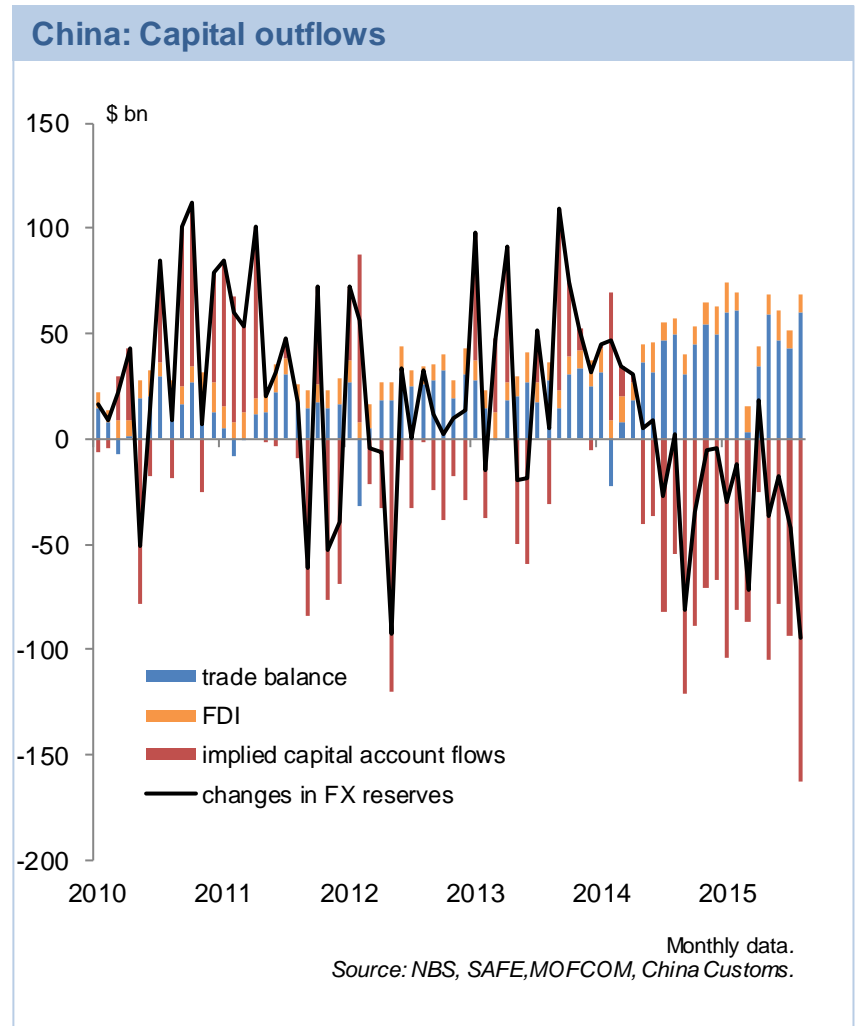
China – Devaluation of the renminbi (1)

- Historic devaluation of RMB in August -> market forces to play a greater role
- Strong effective appreciation since H2 2014 -> both real and nominal
- Poor communication added to doubts about economic prospects
- Massive interventions to stabilize RMB are unsustainable given further depreciatory pressures



China – Devaluation of the renminbi (2)

- PBoC intervened heavily in the markets in August to defend the new „peg“
- Capital outflows are putting further downward pressure on RMB
- Caveat: changes in FX reserves are an imperfect proxy -> changes in valuation of non-dollar assets and portfolio preferences of firms also play a role



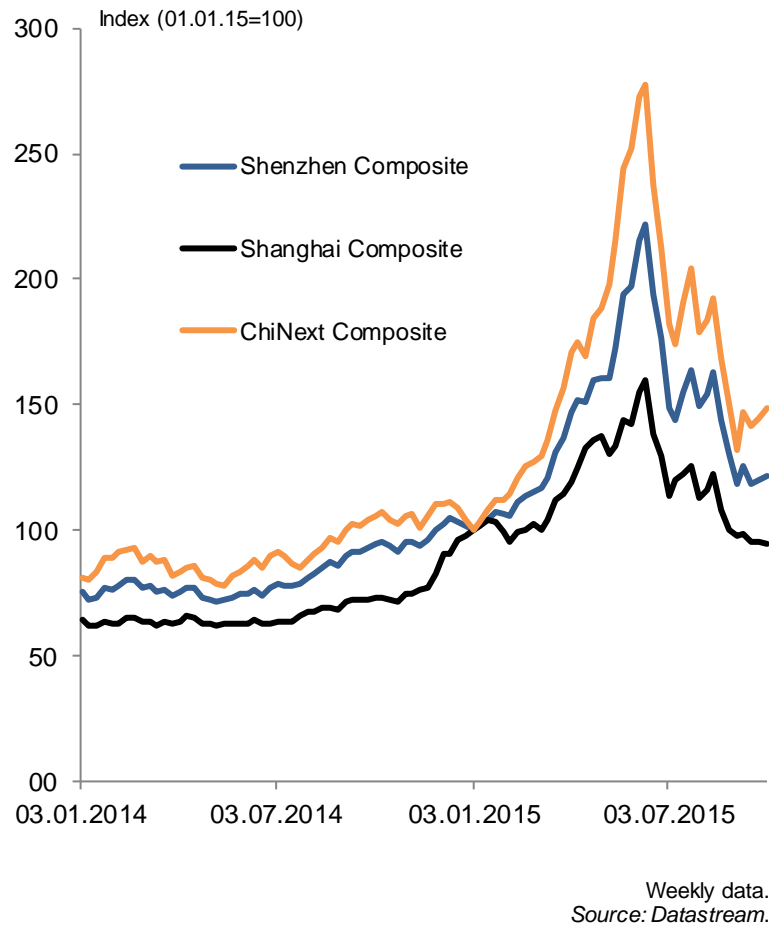
China – Devaluation of the renminbi (3)

- We simulate a 30 per cent devaluation of the RMB in NiGEM
- Significant effects on the world economy with growth momentum shifting back towards China
- Scenario assumes no retaliatory exchange rate or monetary policy responses

	Year 1	Year 2
World	-0,3	-0,9
Advanced Economies		
Germany	-0,4	-1,2
Euro area	-0,4	-1,2
Japan	-0,9	-2,3
South Korea	-0,9	-2,7
UK	-0,6	-1,7
USA	-0,4	-0,9
Emerging Economies		
Brazil	-0,5	-1,4
China	0,7	1,2
India	-0,6	-2,0
Indonesia	-0,7	-2,5
Mexico	-0,3	-0,9
Russia	-0,6	-1,9

China – Price correction in equity markets

China: Stock markets



- Sharp correction in stock prices since June
- Initially, government resisted and intervened heavily
- Direct impact on real economy should be limited
- More important are developments in the housing sector -> roughly 50 per cent of outstanding loans directly or indirectly linked to real estate

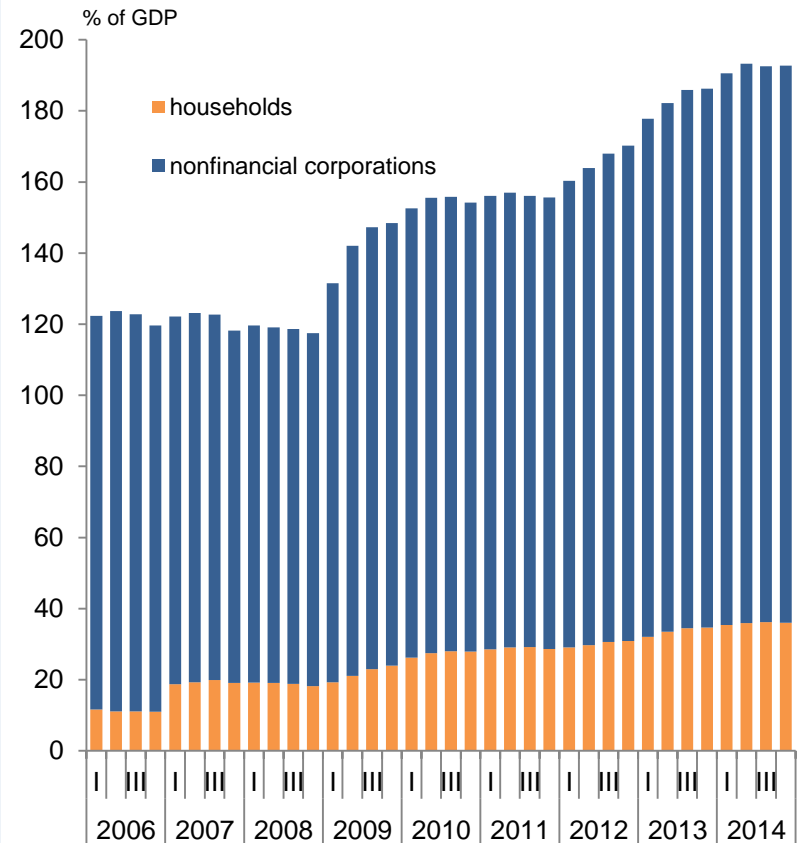
China – Are we in for a hard landing?

China: House prices



Residential property prices in 67 cities. Monthly data.
Source: National Bureau of Statistics.

China: private sector debt



Quarterly data. Source: BIS.

China – Hard landing: modelling approach

- We use two - conceptually distinct – models
 - » **NiGEM** (structural macroeconometric model)
 - » **GVAR** (global vector autoregressions)
- For comparison, we interpret a hard landing as **reduction of Chinese GDP by 3 per cent** in both models
- However, shock is implemented differently: in GVAR, initial impulse and model „takes over“ dynamics. To get the desired effect on GDP in NiGEM we calibrate a reduction in domestic demand in the first year and then slowly let it return to baseline

China – Hard landing: global impact (1)

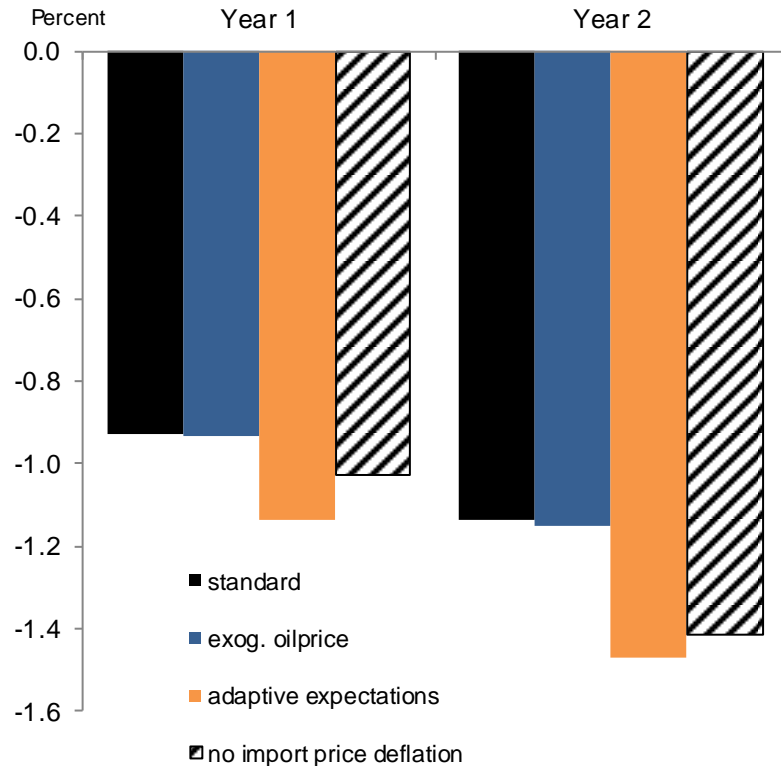
Year after shock	GVAR			NiGEM		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
World						
GDP	-0,7	-0,9	-1,0	-0,9	-1,1	-0,7
World trade	-	-	-	-2,7	-2,0	-0,3
Oil price	-1,3	-2,7	-3,0	-0,4	-1,0	-1,2
World excl. China						
GDP	-0,3	-0,4	-0,5	-0,5	-0,5	-0,3
Advanced Economies (GDP)						
Germany	-0,4	-0,5	-0,5	-0,4	-0,3	0,0
France	-0,1	-0,2	-0,2	-0,3	-0,2	0,0
Japan	-0,5	-0,7	-0,7	-0,9	-1,1	-0,8
South Korea	-0,6	-0,9	-1,0	-1,3	-1,9	-1,7
UK	-0,2	-0,3	-0,3	-0,3	-0,2	-0,1
USA	-0,3	-0,5	-0,5	-0,1	0,3	0,5
Emerging Economies (GDP)						
Brazil	-0,1	-0,2	-0,2	-0,8	-0,8	-0,2
China	-3,0	-3,3	-3,4	-3,0	-3,8	-2,7
India	0,2	0,2	0,2	-0,6	-1,1	-1,1
Indonesia	-0,3	-0,7	-0,8	-1,1	-2,1	-1,9
Mexico	0,0	0,3	0,4	-0,2	-0,1	-0,1
Russia	-	-	-	-0,7	-1,0	-0,5
Regions (GDP)						
Euro area	-0,2	-0,4	-0,4	-	-	-
Rest of Asia	-0,4	-0,7	-0,8	-	-	-
Latin America	-0,1	-0,1	-0,1	-	-	-

China – Hard landing: global impact (2)

- Broadly robust results across both models
- Relative order also robust across country -> Germany more severely affected than UK or France due to stronger trade links with China
- Emerging markets generally affected more adversely in NiGEM than in GVAR
- Biggest difference: United States! US economy actually benefits from hard landing in NiGEM -> income effect from cheaper imports

China – Hard landing: sensitivity analysis

NiGEM: sensitivity analysis



Global GDP. Percentage deviation from baseline.
Source: Kiel Institute calculations with NiGEM.

- Results virtually unchanged if oil prices are held fixed
- Effectiveness of monetary policy at the ZLB might be overestimated in NiGEM: under adaptive expectations hard landing lowers global GDP by an additional 0.2 pp in the first year
- Exogenizing Chinese import prices leads to similarly stronger negative impact

Überblick

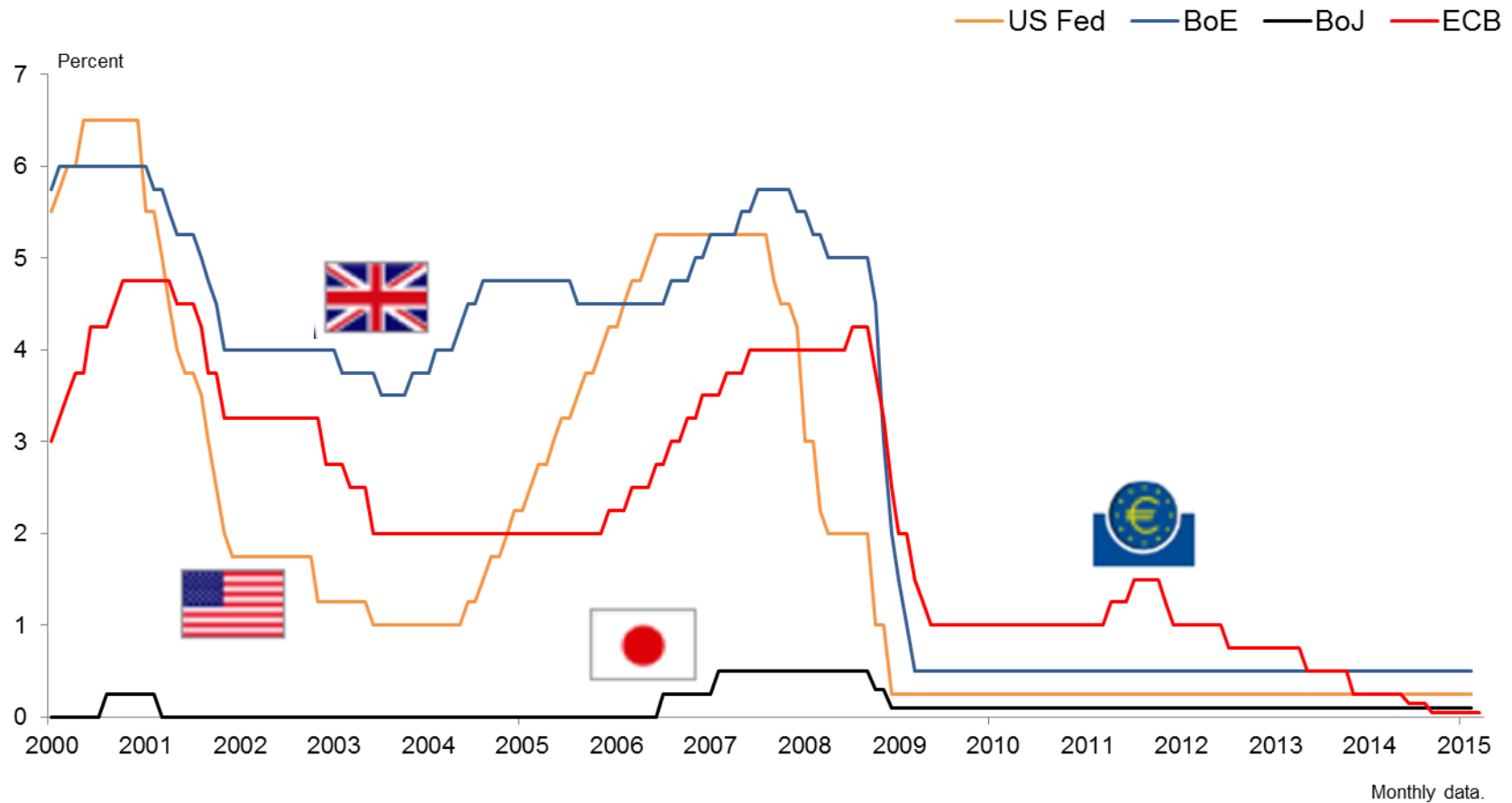
- Globale Perspektive
- Euroraum
- Deutschland
- Harte Landung in China?
- **Risiken der Niedrigzinspolitik**
- European Governance

Monetary policy: General remarks from a global viewpoint

- Global landscape
 - » Mankind's largest monetary experiment of all peace times
 - » Potentially misleading signals from „Inflation targeting“
- Experience from „Quantitative Easing“
 - » Extremely heterogeneous (theoretically and empirically)
 - » Story not over yet: Exit experience is missing
- Financial crisis and capital stock distortions
 - » Macro-analysis prone to misleading results (structural problems)
 - » Underlying mismatches are non-monetary by their very nature
- Role of interest
 - » Aligning time preferences and production structures ...
 - » ... or just another macro policy instrument?

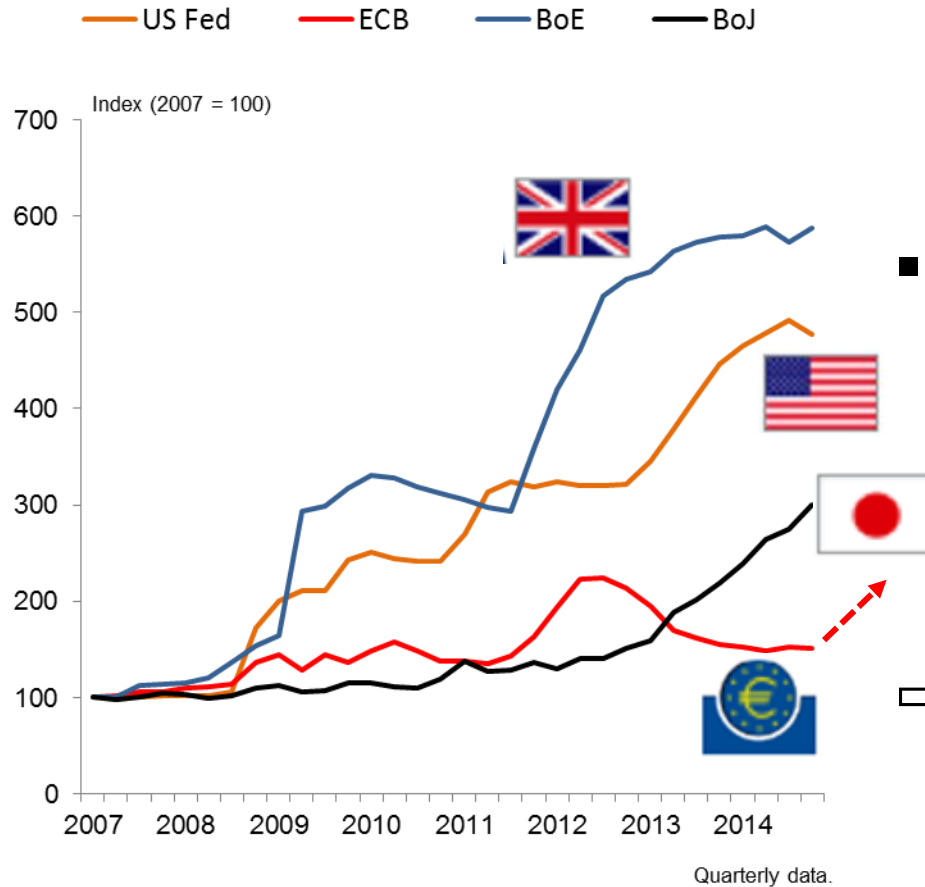
Policy rates of major central banks at ultra-low levels

Monetary policy rates



„Quantitative Easing“

Monetary base



- Type 1:
Liquidity provision in times of financial turmoil

- Type 2:
Stimulating at the zero lower bound

⇒ **Exit-Strategy?**

Role of central banks

- „In many respects, central banks have been the **heroes of the global financial crisis.**“

Christine Lagarde, IWF

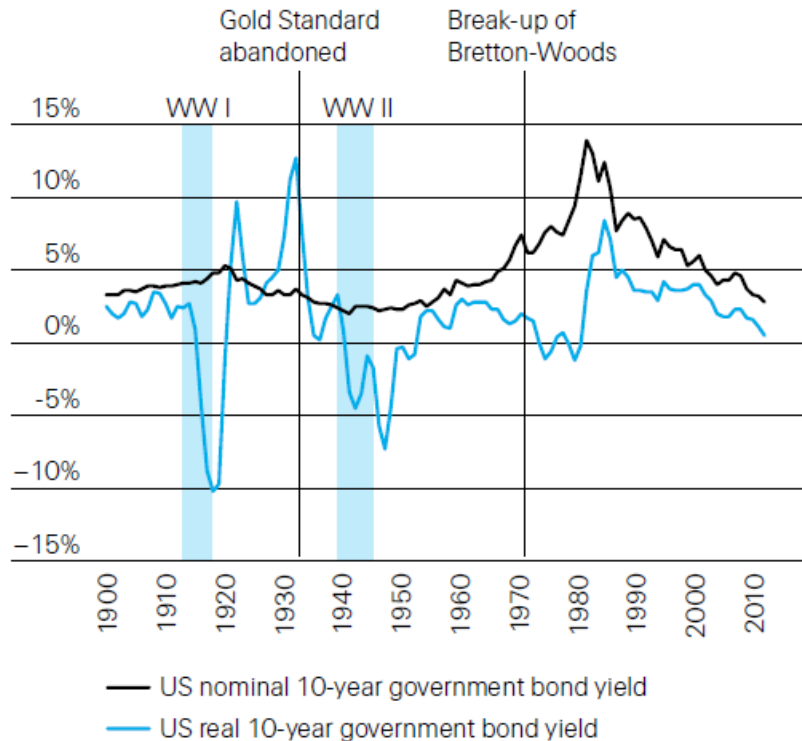
- „Ich halte es für keine gute Entscheidung, dass die EZB sich jetzt zum umfangreichen Kauf von Staatsanleihen entschlossen hat. **Geldpolitik kann nur Zeit dafür kaufen**, die Voraussetzungen für langfristiges Wachstum zu schaffen - aber nicht die dazu nötigen Strukturreformen ersetzen.“

Christoph Schmidt, SVR

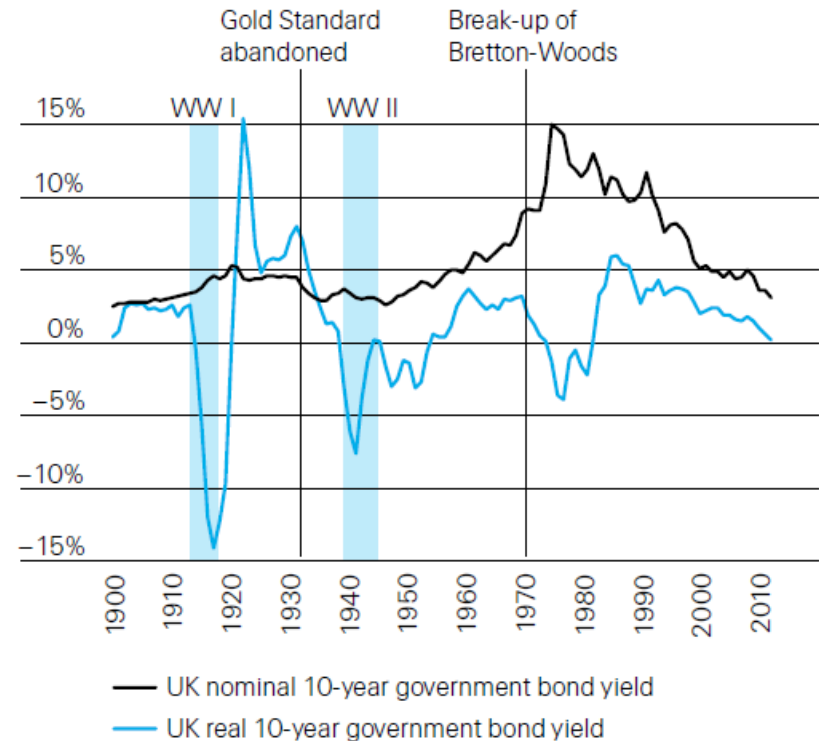
Interest rates: A centenary perspective

Nominal und real yields on 10-year government bonds 1900-2011

US



UK



Sources: Datastream; Homer Sidney and Richard Sylla, A History of Interest Rates (New Jersey: Wiley Finance, 2005); Swiss Re Economic Research & Consulting

QE made by ECB: The Public Sector Purchase Programme

- Extended Asset Purchase Programme (EAPP) *monthly*
 - » Asset-Backed Securities Purchase Programme (ABSPP) 10 bn
 - » Covered Bond Purchase Programme (CBPP3)
 - » Public Sector Purchase Programme (PSPP) 50 bn
- ⇒ 1.1 trillion in assets in total until September 2016
(approx. + 50 % of Eurosystem's consolidated balance sheet)

- PSPP
 - » March 2015 to September 2016 (or later)
 - » Assets of supranational institutions (explicit risk sharing) 6 bn
 - » Central government bonds, securities of national agencies
 - Held by ECB (explicit risk sharing) 4 bn
 - Held by National Central Banks (no explicit risk sharing) 40 bn

Eligibility criteria and quantitative limits

- Eligibility criteria for sovereign bonds
 - » Remaining maturity of 2 to 30 years
 - » Collateral quality for ECB monetary policy operations
 - High credit rating
 - EU financial assistance programme (not under review)
 - » Yielding at least ECB deposit rate (currently -0.2 percent)

- Limits (for Eurosystem as a whole)
 - » Not more than **33 percent** of the debt of any single issuer
 - » Not more than **25 percent** of any given issue (no blocking minority)
 - ⇒ **Irrelevant with respect to monetary financing**

Risk separation

- Credibility
 - » Loss absorption capacity of NCBs
 - » Recapitalization rules for national central banks
 - ⇒ **Central bank equity matters**

- Central bank independence
 - » “In the event of an NCB’s net equity becoming less than its statutory capital or even negative would require that the respective Member State provides the NCB with an appropriate amount of capital at least up to the level of the statutory capital within a reasonable period of time so as to comply with the principle of financial independence.”
(ECB, 2010 Convergence Report)

Quantitative feasibility (1/2)

■ Aggregate euro-area bond market

» Outstanding debt issued by central governments	6,666 bn
» ... of which 25 percent (issue limit)	1,666 bn
» ... SMP programme (prior to PSPP)	194 bn
» ... Bonds held by NCBs (prior to PSPP)	240 bn
» Gross eligible central government debt	approx. 1,250 bn
» Outstanding securities issued by national agencies	350 bn
» Securities issues by supranational institutions	567 bn
» Gross total eligible securities	approx. 2,150 bn

⇒ Not binding until September 2016 (but increasingly so after)

- Maturity spectrum hardly relevant
- Currently market values higher than nominal values, and minimum yield limit not binding

Quantitative feasibility (2/2)

- Country-specific bond markets

Small countries without
“sufficiently” high issued debt

Luxembourg, Lithuania, Latvia,
Estonia

Highly indebted countries without
sufficiently high eligible
outstanding debt

Greece, Ireland, (Portugal)

Large countries (80 percent of
euro-area sovereign bond market)

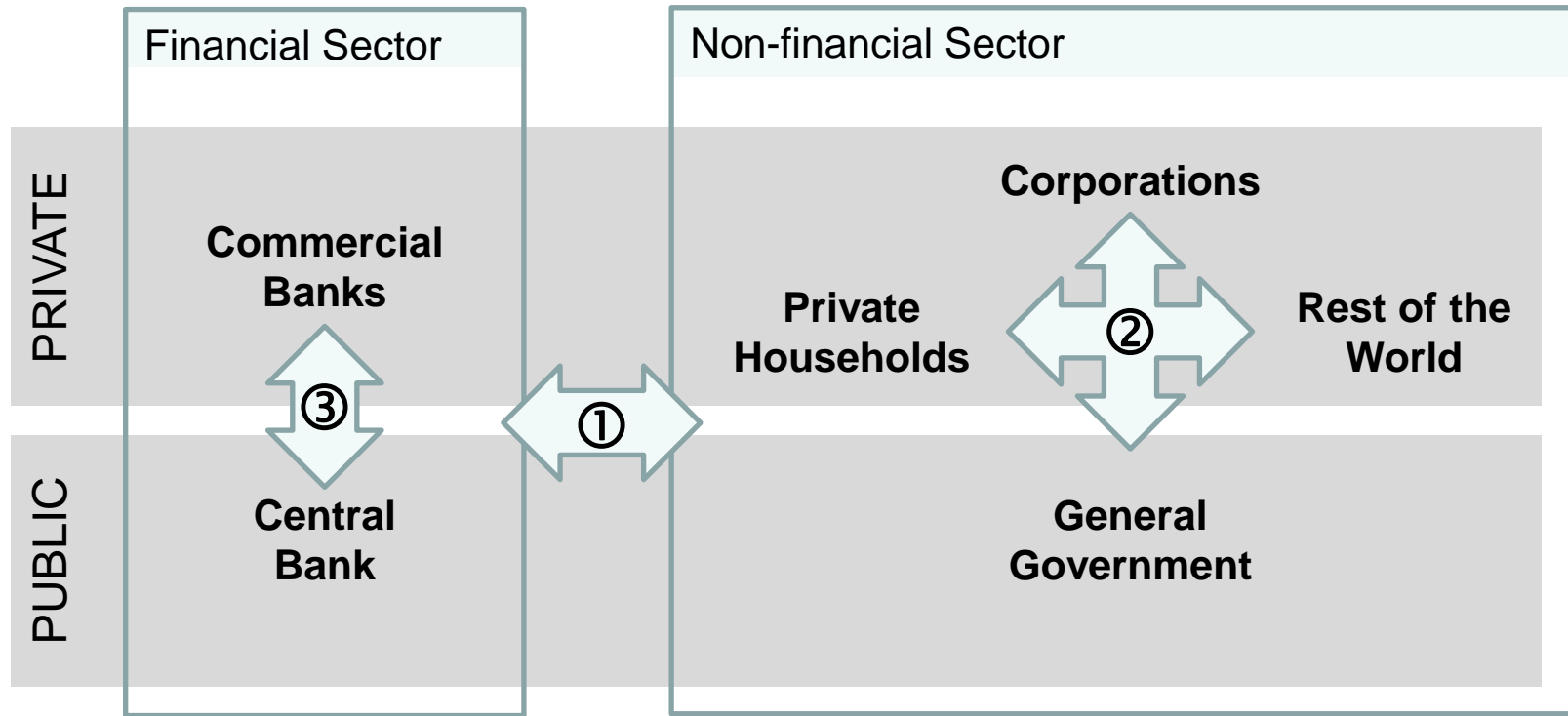
Italy, France, Germany, Spain

- ⇒ **Limiting criteria binding for small countries only**
- ⇒ **By and large, the programme can be carried out as foreseen**
- ⇒ **Enlarging the programme would face relevant limits
(e.g. German bonds, supranational institutions)**

Financial risks for the Eurosystem

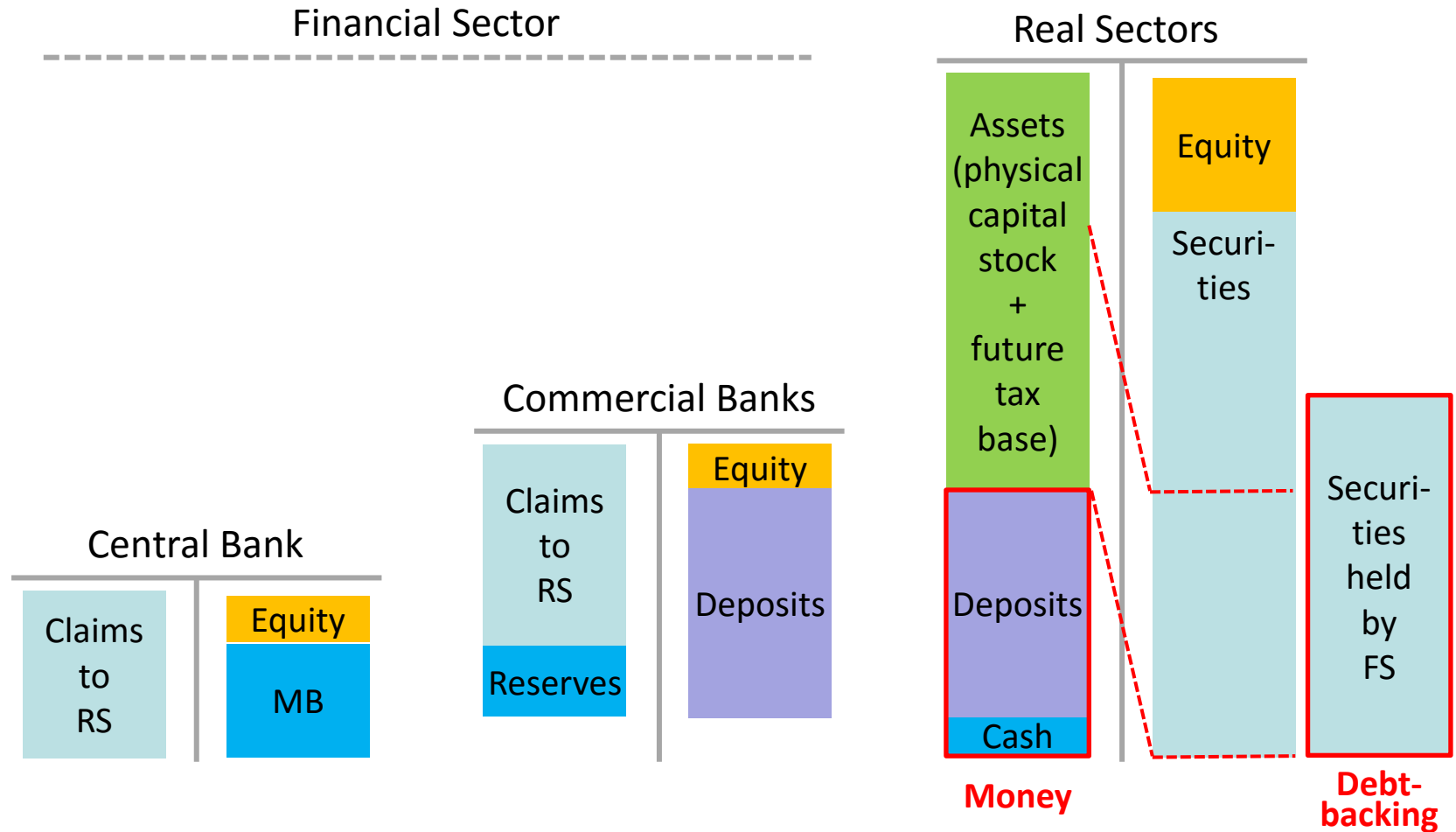
- Central banks
 - » Technical insolvency vs. political insolvency
 - » Strong financial health is a key factor to ensure independence
- Money
 - » Functions as a general means of exchange
 - » Excessive money creation destroys this function
- Default risks and loss absorption capacity of NCBs
 - » Eurosystem strong enough to deal with even a 100 percent default
- Interest rate risks and accounting principles
 - » QE operations necessarily earmarked as “held to maturity”
(otherwise substantial capital provision to cushion against QE)
 - » Significant losses under a fairly broad range of assumptions

Economic sectors, money creation, and financing

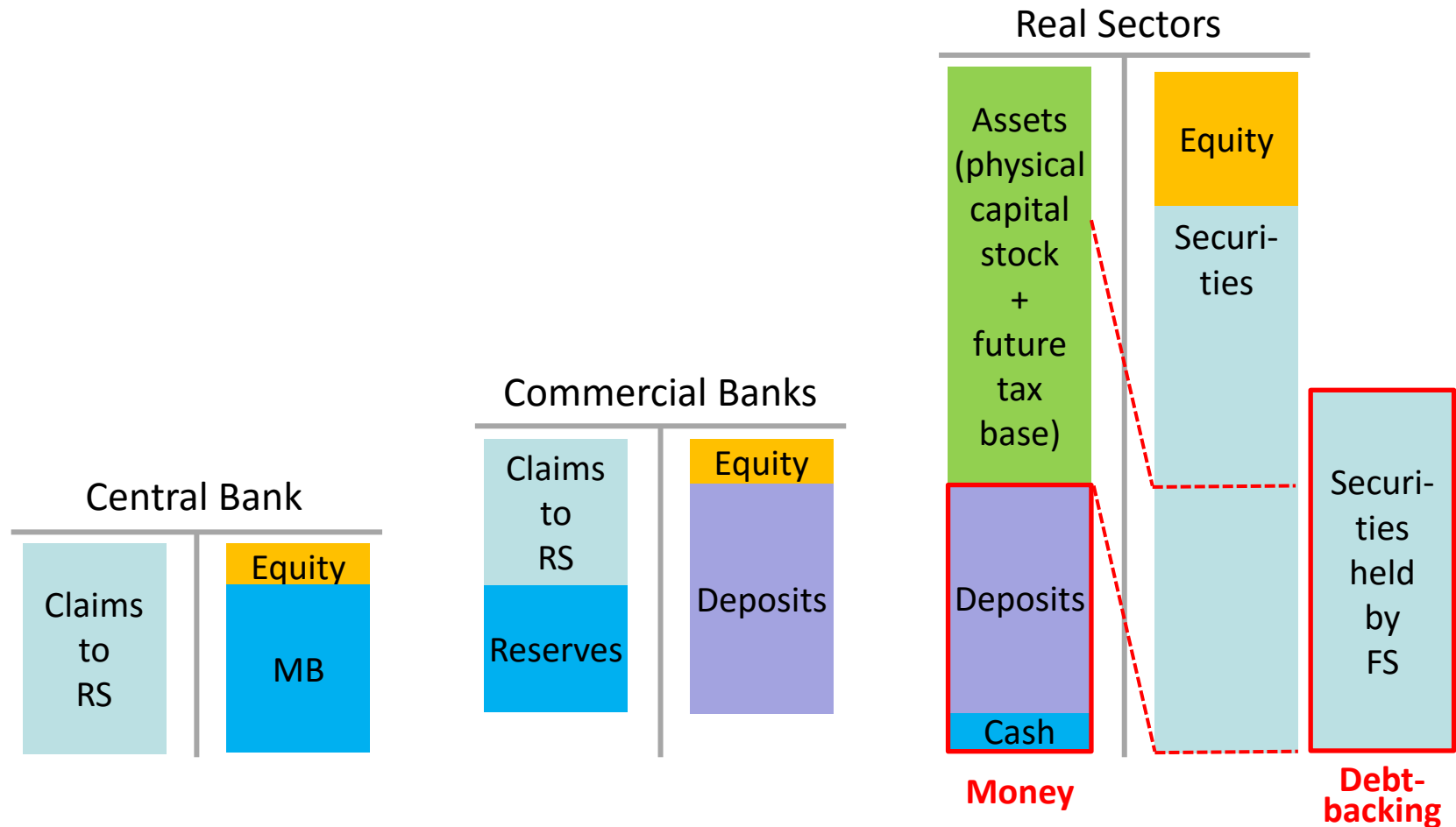


- ① Liquidity provision: money demand vs. money supply (and financial intermediation)
- ② Financing: saving (lending) vs. investment (borrowing)
- ③ "Quantitative Easing": monetary base

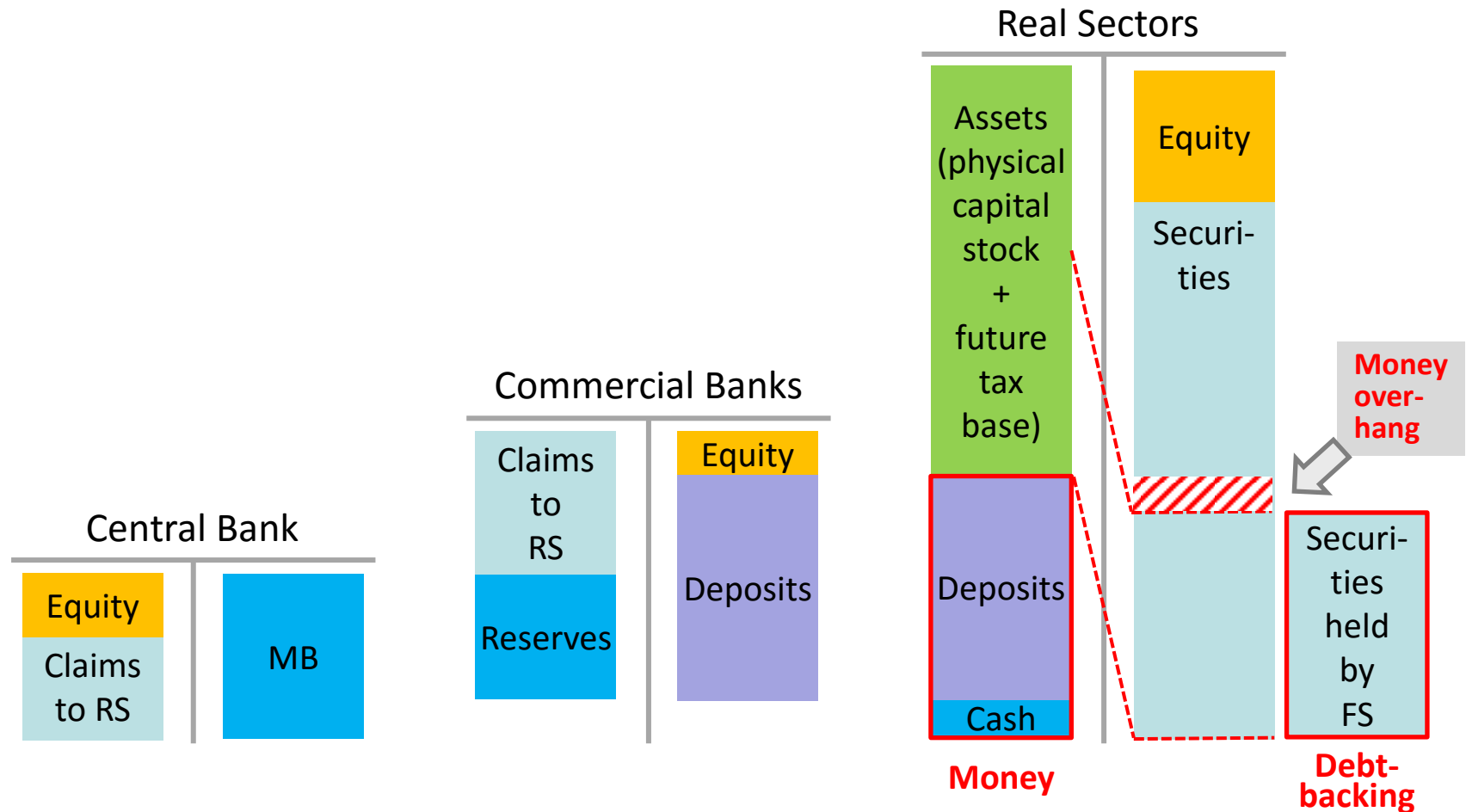
Financial framework of a debt-backed monetary system



“Quantitative Easing” inflates central bank’s balance sheet



Serious default scenario



Overall implications for monetary policy

- Increased risk of policy insolvency
 - » Stronger incentives to choose a too-accommodative monetary policy stance
- Central bank independence
 - » May weaken the independence of the ECB by making the Eurosystem more dependent on the fiscal soundness of member states
- Signalling
 - » Financial risks may be perceived by market participants as a signal that interest rates will remain low for an even longer period than they would otherwise be
- Price stability
 - » In extreme scenarios, the financial health of the Eurosystem could be significantly harmed, reducing its capacity to ensure price stability
- Market distortions
 - » Higher volatilities in bond markets (due to less market depth), associated with the risk of asset price bubbles
- Future room for manoeuvre
 - » Future attempts to expand its asset purchase programmes may force the ECB to loosen current limits and eligibility criteria

Überblick

- Globale Perspektive
- Euroraum
- Deutschland
- Harte Landung in China?
- Risiken der Niedrigzinspolitik
- **European Governance**

Krise als Beschleuniger der europäischen Integration?

- Maastricht-Vertrag (Februar 1992)
- Stabilitäts- und Wachstumspakt (Juli 1997), Reform (März 2005)
- Wachstumsstrategie „Europa 2020“ (Juni 2010)
- EFSF (Juni 2010)
- Europäisches Semester (September 2010)
- Euro-Plus-Pakt (März 2011)
- Six-Pack (Dezember 2011) ⇒ MIP
- Fiskalpakt (März 2012)
- ESM (Oktober 2012)
- Two-Pack (Mai 2013)

Makroökonomisches Ungleichgewichteverfahren (MIP)

- Fokussierung
 - » Krisenprävention (vs. Europa 2020)
 - » Gemeinschaftsinteressen (vs. „gute“ Wirtschaftspolitik)
- Spannungsfelder
 - » Koordinierung vs. Subsidiarität
 - » Strukturprobleme vs. Makroindikatoren
- Konzeptionelle Unschärfe (eklektischer Ansatz)
 - » Makroökonomischer Ungleichgewichtsbegriff
 - » Wettbewerbsfähigkeit von Wirtschaftsräumen
- Ökonomische Systeme als soziokybernetische Regelkreise
 - » Binnenmarkt: Pekuniäre „externe“ Effekte als Normalfall
 - » Instrumenteneinsatz: Primat der Primärwirkung über Nebeneffekte

Krisenerklärung und -interpretation

- MIP: Reaktion auf europäische Schuldenkrise
- Finanzkrisen \Leftrightarrow Kapitalstockverzerrung
 - » Monetäre Konjunktur- und Krisentheorie
 - » Zinsniveau, Fristentransformation und Produktionsstruktur (realwirtschaftliche Verwurzelung einer Finanzkrise)
 - » Krise als Korrektur nicht-nachhaltiger Forderungspositionen (Liquidationskrise zur Bereinigung von „Zombie-Strukturen“)
 - » Neubewertung des marktfähigen Kapitalstocks
- Krisendiagnose in EUV 1176/2011
 - » Unzureichende wirtschaftspolitische Koordination
 - » Mangelnde ökonomische Konvergenz (Leistungsfähigkeit)

Ordnungsökonomisches Spannungsfeld

- Subsidiaritätsprinzip gemäß EU-Vertrag
(Wettbewerb und wirtschaftspolitische Selbstverantwortung)
 - Abwehr von Fehlentwicklungen in einzelnen Mitgliedsländern,
die das Gemeinschaftsinteresse berühren (Koordinierung und
wirtschaftspolitische Überwachung)
- ⇒ Hohe Hürden für die Legitimation von Eingriffen
- » Nachweis systemischer externer Effekte erforderlich
 - » Recht auf „falsche“ nationale Wirtschaftspolitik liegt im
Gemeinschaftsinteresse (Raum für institutionelle Experimente)

Makroökonomische Koordinationsdefekte



Inkongruenzen zwischen einzelwirtschaftlichen Plänen

⇒ Dynamische Koordinationseffizienz
(Abbau von Angebots- und Nachfrageüberhängen)

Pervasive Koordinationsdefekte

⇒ Verfügungsrechte (Ordnungsrahmen)
⇒ Geld (allgemeines Tauschmittel)
⇒ Kapital/Zins (intertemporale Koordination)
⇒ Arbeit/Lohn (quasi-universeller Produktionsfaktor)

Grenzüberschreitende Koordinationsdefekte

⇒ Geld- und Kreditwesen, Schuldentragfähigkeit

≠ Konjunkturglättung (Globalsteuerung)
≠ Pekuniäre Wettbewerbseffekte im Binnenmarkt

Dysfunktionale Koordinationsmechanismen ⇒ Symptomatische Makroentwicklung

Systemische externe Effekte und Stabilitätskultur

- Finanzsystem: Geld- und Kreditwesen
 - » Kreditdeckung des Geldes
(simultane Geld- und Kreditschöpfung aus dem Nichts)
 - » Implizite Gesamthaftung für Kollateral des Eurosystems
 - » Regulierungsarbitrage
 - Hartwährungsverbund erfordert Stabilitätskultur
 - » Variante 1:
Haftungsprinzip, Anreiz zur Vorsicht („No-bail-out“)
 - » Variante 2:
Überwachung, Hilfen unter Auflagen („No-bank-left-behind“)
- ⇒ Funktionsfähigkeit von Institutionen beruht auf Einsicht und gemeinsamem Regelverständnis (Ownership)

„Nationale Wettbewerbsfähigkeit“

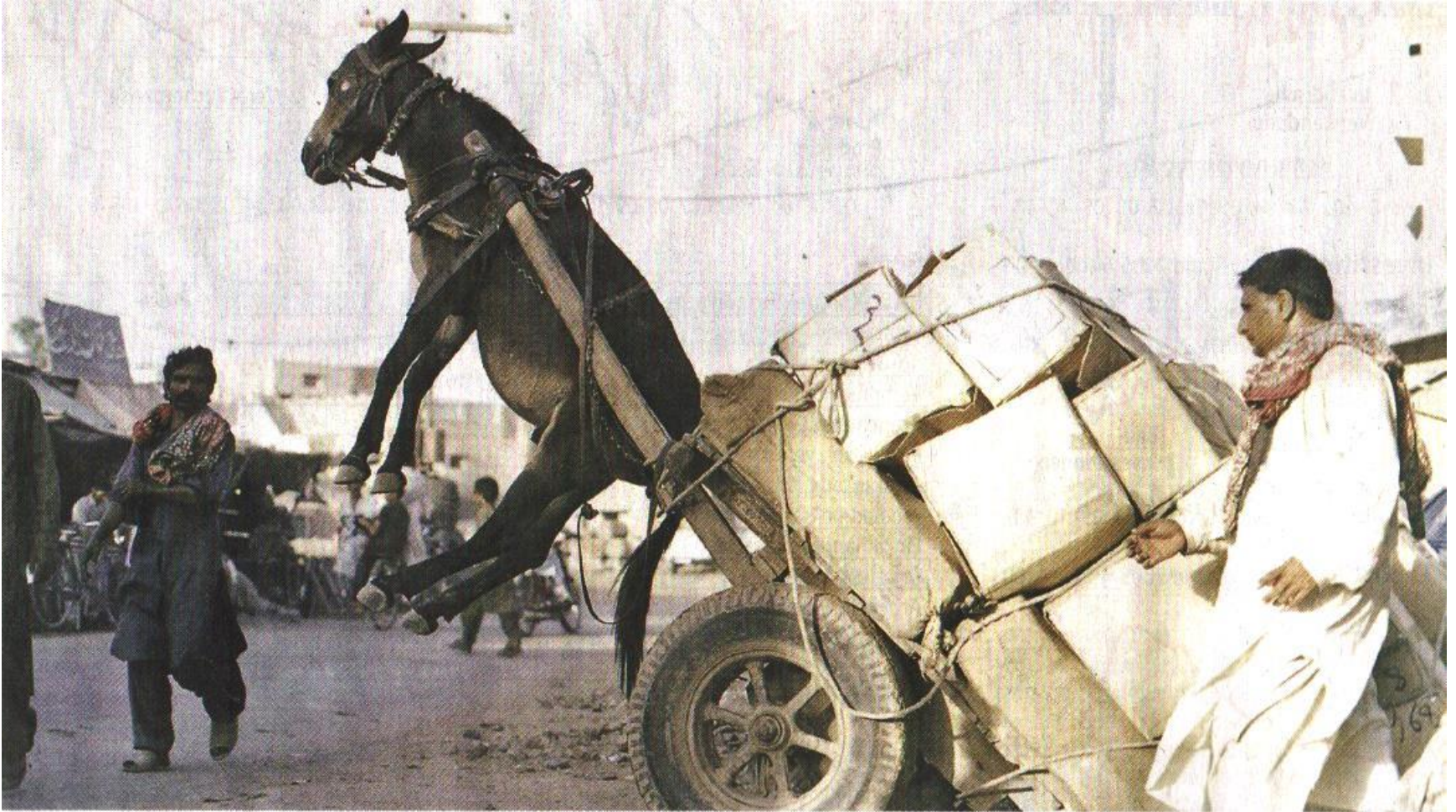
- WF kein makroökonomisch bedeutungsvolles Konzept
 - » Anpassung der Faktorpreise
 - » Internationaler Handel kein Nullsummenspiel
 - » Konsummöglichkeiten sind relevant (Volkswirtschaft \neq Exportsektor)
- Leistungsfähigkeit = Produktivität
 - » Produktivität entscheidet über Einkommen/Terms-of-Trade, nicht über Vorteilhaftigkeit des Außenhandels
 - » Funktionsfähiger Binnenmarkt setzt weder hohe, noch konvergierende Produktivität voraus (sondern hat sie zur Folge)
 - » Produktivitätsschwäche: Kein Problem der Außenbeziehungen
- Politikkoordinierung?
 - » Best-practice und peer-review
 - » Keine Interessenkonflikte, Recht auf „schlechte“ Wirtschaftspolitik

Primat des Subsidiaritätsprinzips

- Subsidiaritätsprinzip
 - » Anreizkonstellation
 - » Informationsstand
 - » Instrumentenzugriff
 - » Demokratische Legitimierung

 - Vertikaler Aufgabenzuschnitt
 - » Theorie des Fiskalföderalismus (Exkludierbarkeit, Rivalität)
 - » Genuine europäische Gemeinschaftsgüter statt „politische Projekte“
- ⇒ Subsidiarität macht Europa stark, nicht schwach

Überlastet



Quelle: FAZ, 26. Oktober 2011, S. 11

Reformüberwachung und Goodhart's Law

- Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes.

(Charles Goodhart)

- When a measure becomes a target, it ceases to be a good measure.

(Marilyn Strathern)

Volkswirtschaftliche Gesamtrechnung vs. Finanzstatistik

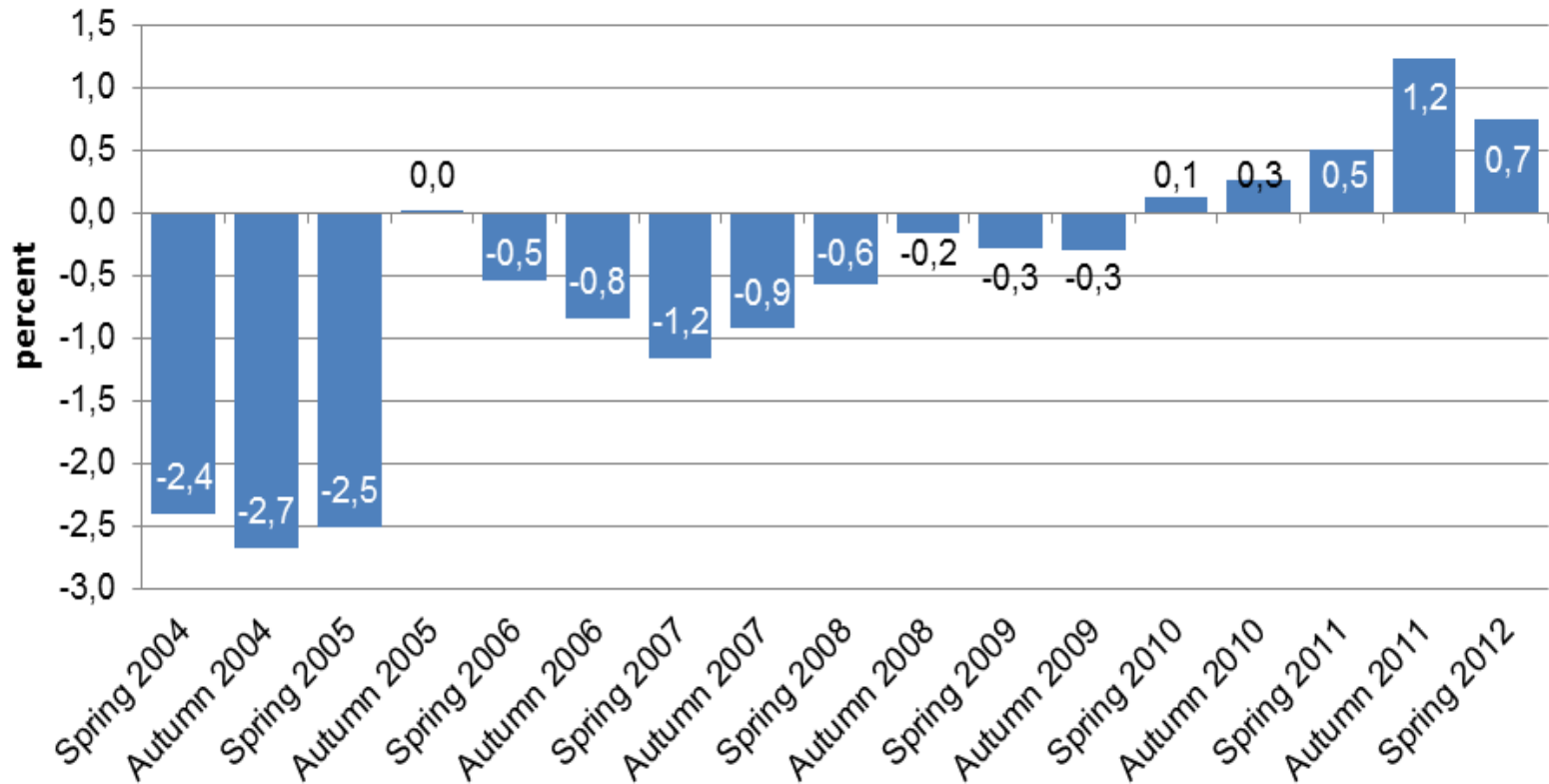
- VGR
 - » Nicht ausgelegt für Instrumente des Haushaltsrechts (Analogie: Handels- vs. Steuerbilanz)
 - » Notlösung mangels international einheitlicher Budgetierungsregeln
- Beispiel: Investitionsbegriff und Zulässigkeit übermäßiger Defizite
- Exkurs:
Problem für die Weiterentwicklung der VGR

Messung struktureller Defizite

- Bestimmung des Produktionspotenzials
 - » Produktionsfunktion
 - » Faktorbestände, technischer Fortschritt
 - ⇒ Glättung über ex-post Beobachtungen
- Schätzprobleme am aktuellen Rand
(Parametersetzung kaum justiziabel)
- Revisionsanfälligkeit der Vergangenheit
- Konzeptionelle Untauglichkeit bei Strukturkrisen

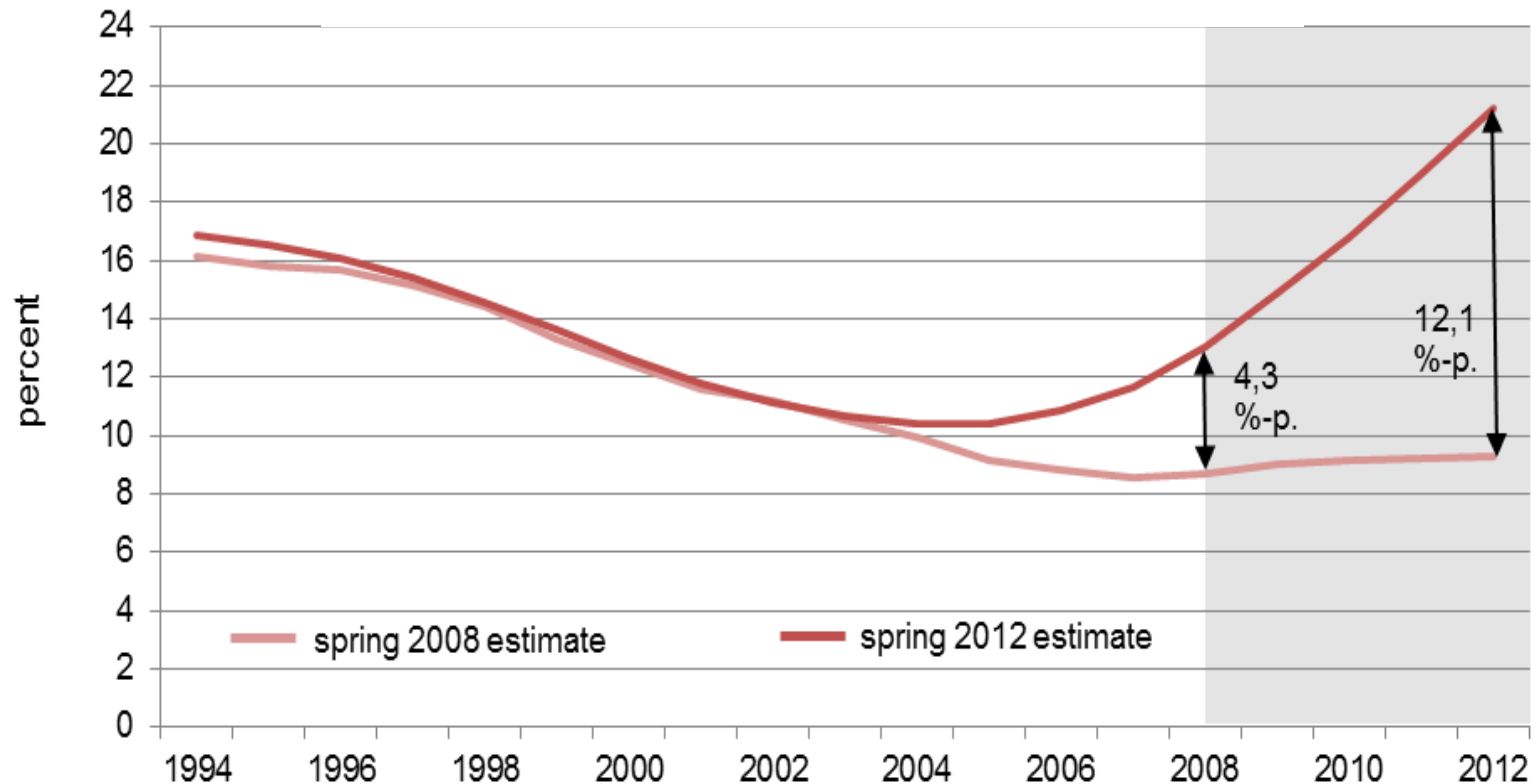
Beispiel Spanien: Produktionslücke im Jahr 2005

Schätzung der EU-Kommission



Beispiel Spanien: NAIRU-Schätzung

Schätzung der EU-Kommission



Haushaltsüberwachung und Nicht-Beistandsklausel

- Wirtschaftspolitische Glaubwürdigkeit
 - » Fiskalische Selbstverantwortung
(SWP schwächt Maastrichter Nicht-Beistandsklausel)
 - » Finanzwirtschaftliche Übertragungskanäle
(implizite „No bank left behind“-Politik)
- Positivbeispiel: US-Staaten
 - » Kein Zugang zum Notenbankkredit
 - » Klare No-Bailout-Politik des Zentralstaates
 - ⇒ Fiskalregeln zur Selbstbindung in 49 Staaten,
kein Staatsbankrott seit 1840
- Negativbeispiel: Bundesländer
 - » 1992 Bundes-Sonderergänzungszuweisungen (HB,SL)
 - » 2011 Drohende Haushaltsnotlagen (HB,SL,B,SH)

Rolle der Geldpolitik/Finanzmarktordnung

- Nullzinspolitik
 - » Erzeugt Schuldentragfähigkeitsillusion
 - » Leitet nächste Runde der Kapitalstockverzerrung ein
- QE: Exit?
 - » Typ 1: Liquiditätsversorgung bei akutem Finanzmarktstress
 - » Typ 2: Konjunkturstimulierung an der Nullzinsgrenze
- Maastricht 2.0
 - » Euroraum als Goldstandard ohne Gold (Supranationalität)
 - » Supranationalität als Vorteil
 - » Sprengsatz: Mangelnder monetärer Konsens
- Insolvenzverfahren für Staaten
- Bankenunion: Ende des Too-big-to-fail?

