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Growth risks for the EU emanating from global imbalances

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Objective

- The objective of this paper is to examine possible macroeconomic implications of adjustment of global imbalances
  - for the world biggest players:
    - EU, China, US, oil exporting countries
  - and with a particular focus on EU's individual members

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Outline

- Bird’s eye view on imbalances
- Methodology
- Macroeconomic scenarios
  - Global imbalances
  - Euro Area imbalances
- Conclusions

Global imbalances

- Global imbalances are considered to be one of the major factors contributing to the recent crisis - they are defined as external positions of major world players that reflect distortions or entail risks for the global economy

- Changes in current accounts result from:
  - Structural factors
    - that are relatively sustainable in the medium run and correspond to the medium term equilibrium of an economy given e.g. by the scale of its financial development or the age structure of its population
  - Non-structural factors
    - that relate to saving and investment patterns in the private and the public sector or policy-induced factors that highlight short run risks

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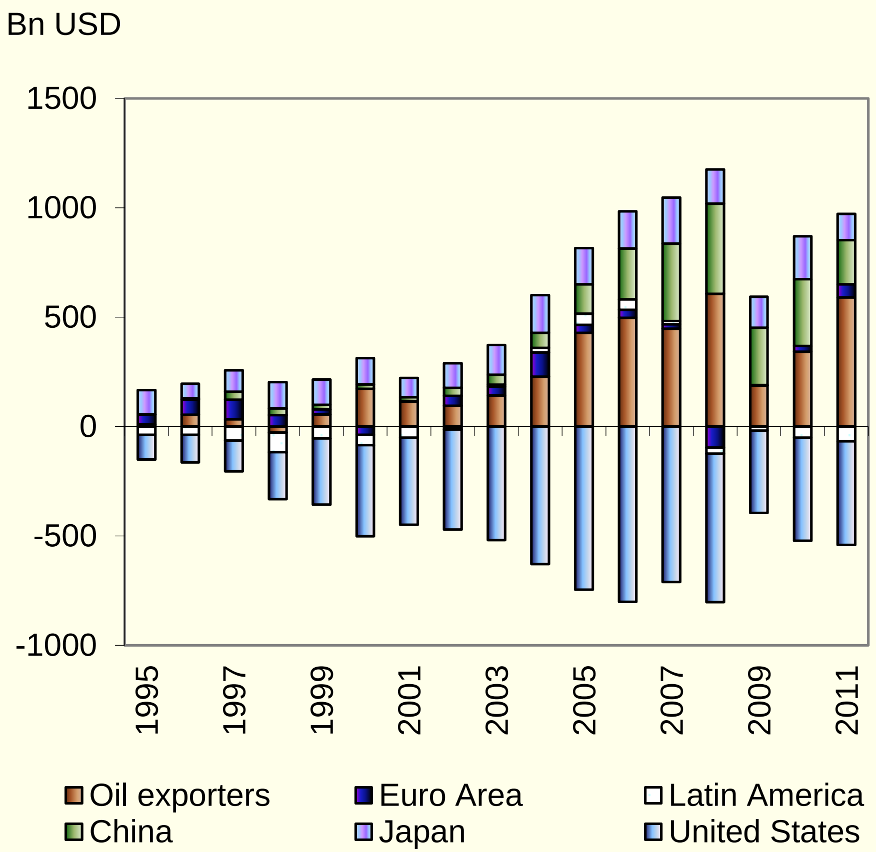
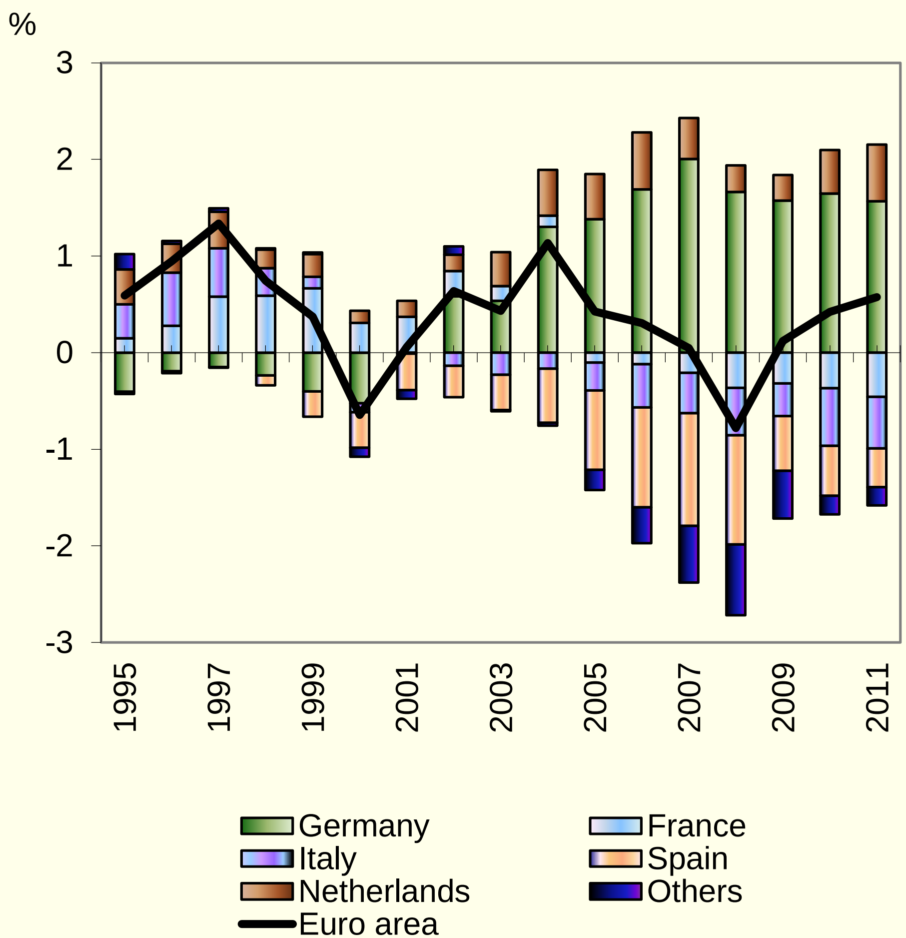
Bird's eye view on global imbalances

Bird's eye view on global imbalances



- Global imbalances have been widening since the mid 1990s, they halved after the crisis and now they are widening again
- The main contributors to global imbalances are
  - the US - on the deficit side,
  - and China, Japan and the oil exporting nations - on the surplus side
- The Euro Area as a whole remains balanced

Bird’s eye view on European imbalances



- Although the Euro Area as a whole remains balanced, there are significant divergences between individual member states

- Germany, Austria and the Netherlands – have been running surpluses,
- while Greece, Portugal, Spain and Italy – have been running persistent deficits

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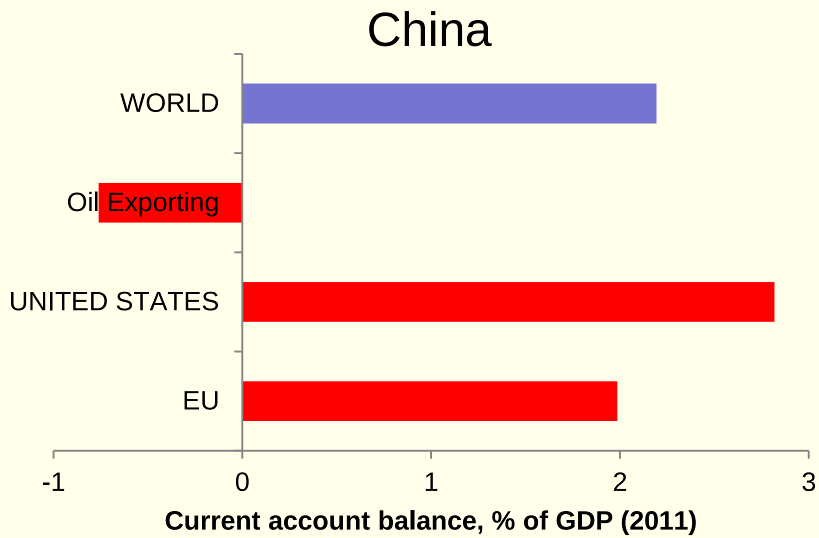
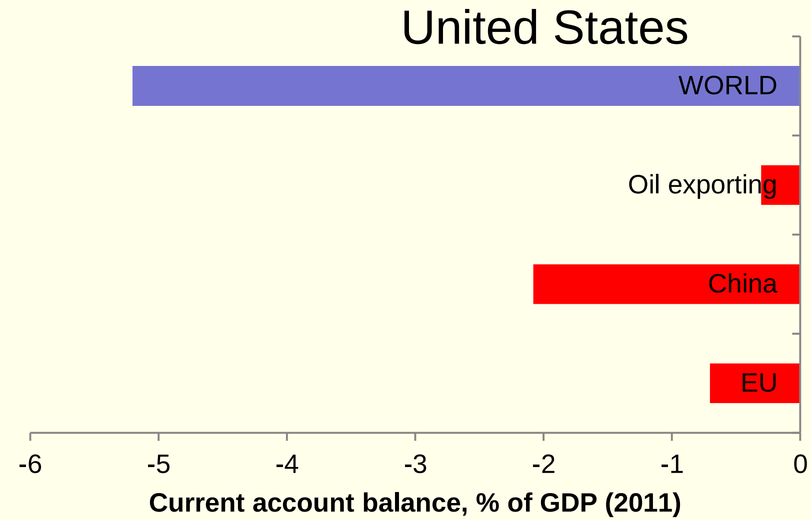
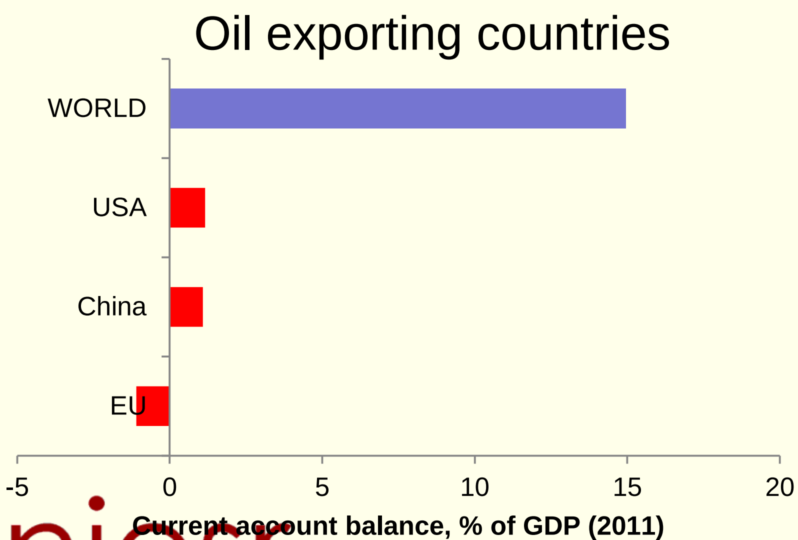
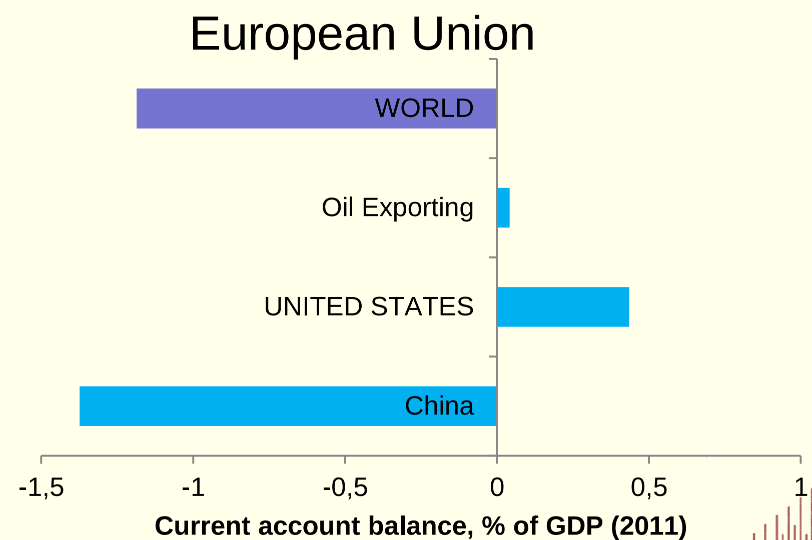
Bird's eye view on global trade

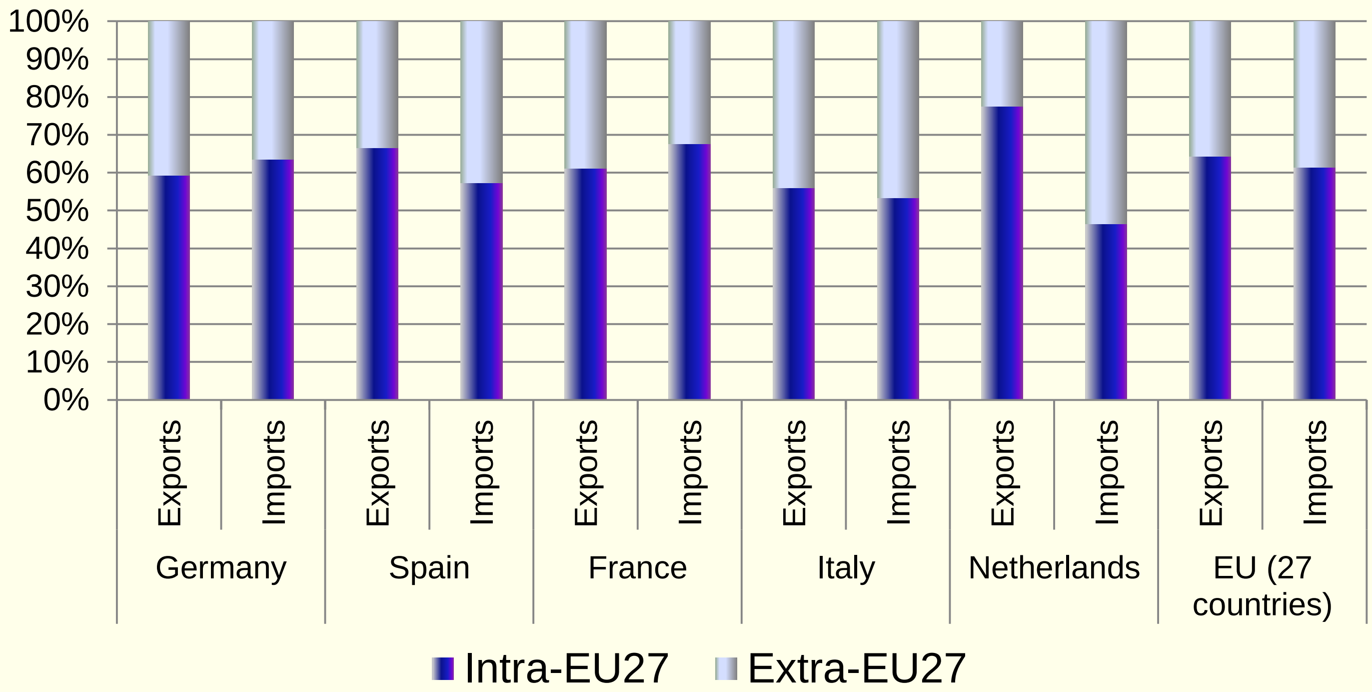








Bird’s eye view on European trade



- About 60 per cent of European trade is intra-EU trade
- The intra/extra EU composition of trade varies across countries somewhat

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Methodology

Methodology

- To assess the effects of adjustment of global imbalances
  - We conduct a series of macroeconomic **simulations**,
  - using NIESR's global macroeconomic model **NIGEM**,
  - and we look at the **macroeconomic impacts** on the US, China, the oil exporting countries, and the EU and its individual members in particular

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The NIGEM model

- Global quarterly model
- 40 countries modelled, closed system
- The same theoretical structure adopted for all country models (supply driven in the long run, demand driven in the short run)
- Economies linked through trade, competitiveness and financial markets

NiGEM			
EU27-EMU	**EU27-nonEMU**	**Other countries**	**Regions**
Austria Belgium Estonia Finland France Germany Greece Ireland Italy Netherlands Portugal Slovakia Slovenia Spain	Bulgaria Czech Republic Denmark Hungary Latvia Lithuania Poland Romania Sweden UK	Australia Canada China Hong Kong India Japan Mexico New Zealand Norway Russia South Africa South Korea Switzerland Taiwan US	Africa Asia - Far East Commonwealth and Independent States Developing Europe Latin America Middle East (oil exporting countries)

By incorporating the individual country models into the global context we ensure that unwinding of global imbalances has, vial links between countries, its impact on all economies.

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Macroeconomic scenarios

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Global scenarios

- Chinese scenario
  - Imbalances reduced gradually through adjustments in the saving rate and the exchange rate policy in China
- US scenario
  - Imbalances reduced gradually through adjustments in the US fiscal policy and an ensuing decline in demand for imports
- Oil exporting countries scenario
  - We look at the impact of changes in oil prices and higher spending of oil exporting countries aimed at diversifying the sources of their growth
- Coordinated Transpacific Policy Action
  - Imbalances reduced gradually; the US reduces its budget deficit and China allows for a faster appreciation of the renminbi

European scenarios

- Internal devaluation in Southern Europe
  - We look at effects of increased price competitiveness in Spain, Italy, Portugal and Greece effected through a cut in wages
- Technology competitiveness shock
  - The level of technological progress in Southern Europe increases which is accompanied by a change in the structure of trade. Higher technological progress allows the Southern European countries to export more
- Deleveraging of the private sector
  - The level of private sector in Southern Europe debt goes down
- Deleveraging of the public sectors
  - The level of public sector debt in outhern Europe goes down

Macroeconomic impacts

- We look at short- and medium term implications for
  - major economies –EU, China, US, oil exporting countries, and
  - individual members of the EU
- We look at key macroeconomic variables:
  - current accounts, GDP growth and inflation, exchange rates, export market shares, unit labour costs, etc.

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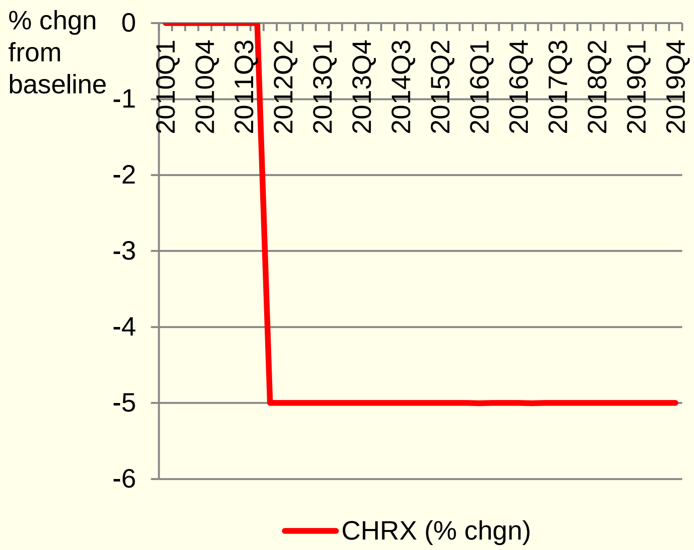
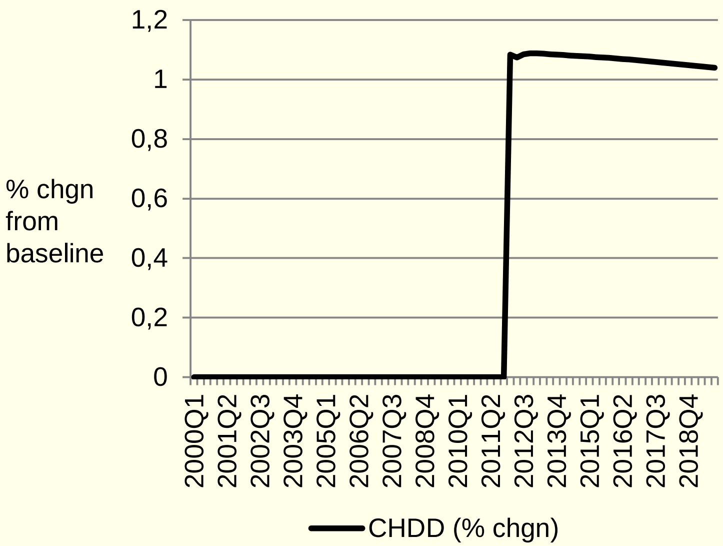
Results

Chinese scenario – assumptions

- The Chinese renminbi appreciates by 5 per cent



- China's saving rate declines
  - domestic demand increases by 1 per cent in the long run;



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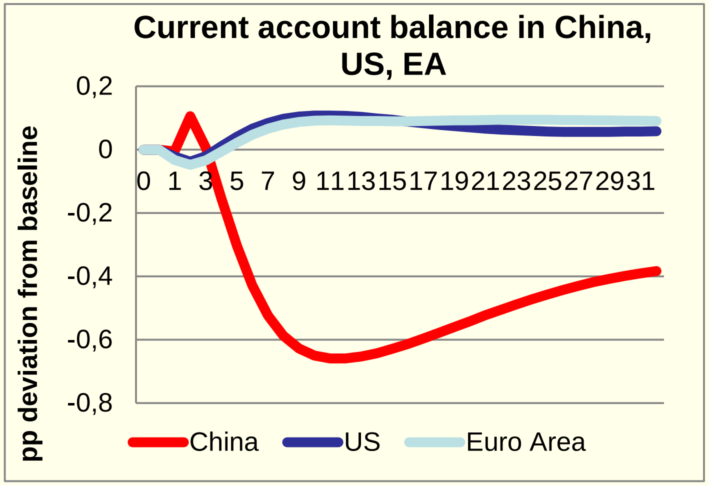
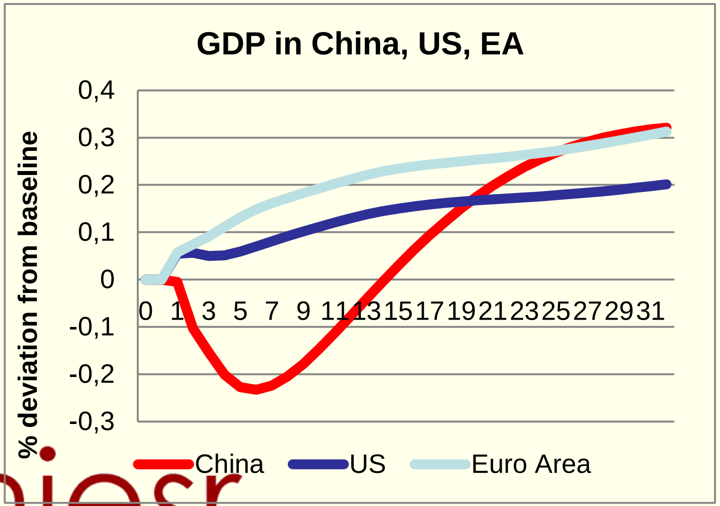
Chinese scenario - results

- Current accounts and GDP





- Stronger renminbi and stronger domestic demand in China result in lower current account in China
- Current accounts in the US and the Euro Area improve slightly (the Euro Area is marginally more responsive)
- Stronger renminbi results in a temporary decline in GDP
- Over the long run GDP in China increases which results from higher potential output emanating from lower saving rate
- GDP in the Euro Area and the US increases

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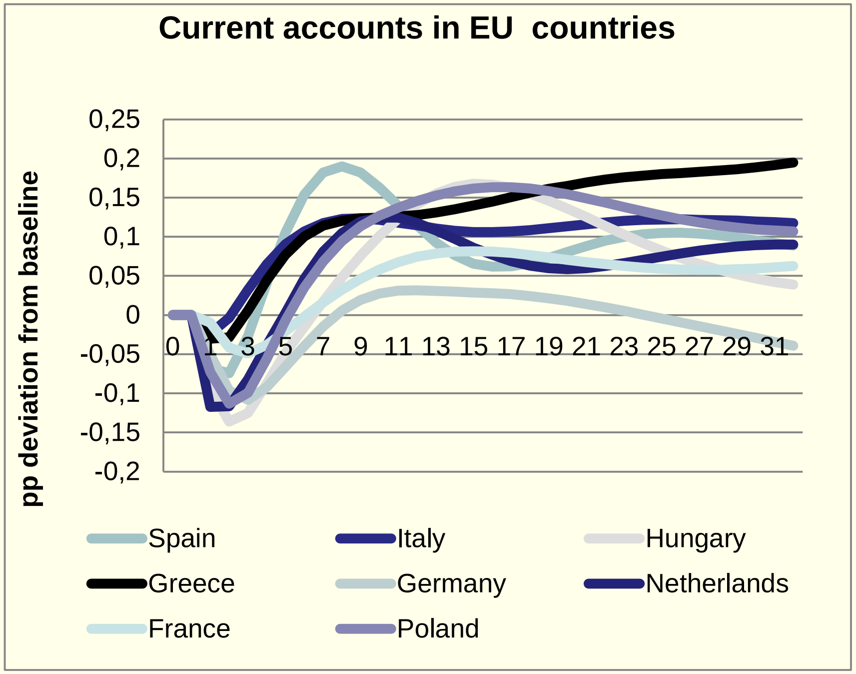
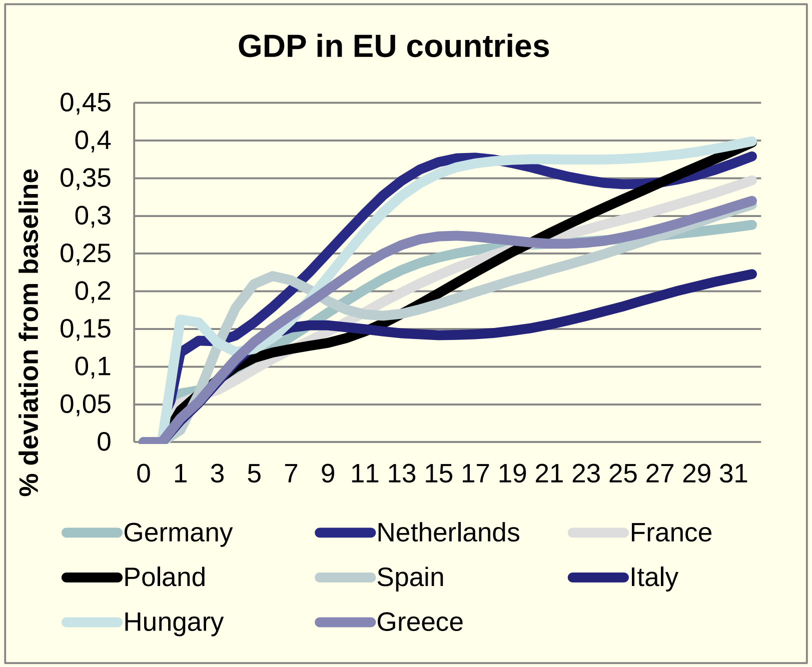
Chinese scenario – results for Europe

- Current accounts



- GDP



- The pattern of macroeconomic responses is similar across countries
- Differences result from the scale of exposure to China, and structural features of individual economies, such as price and demand elasticities of trade, etc.

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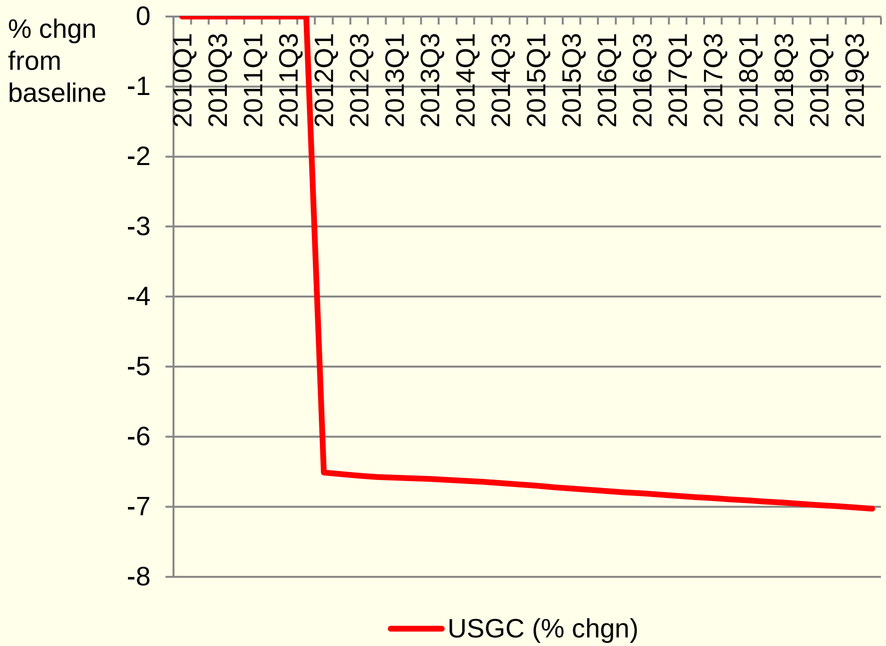
US scenario – assumptions

- A permanent decrease in demand, via a permanent decrease in government consumption (1 per cent of GDP)



Fiscal policy switched off in the US; monetary policy switched off for the first 2 years in the US

Monetary and fiscal policies active in China and the Euro Area

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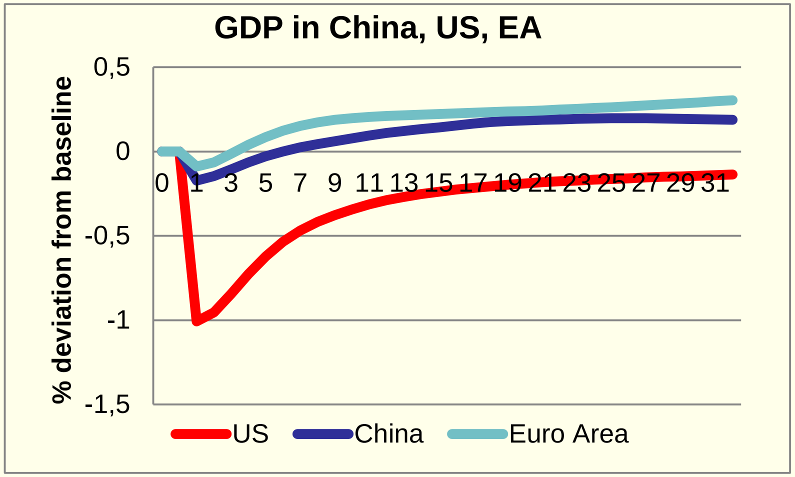
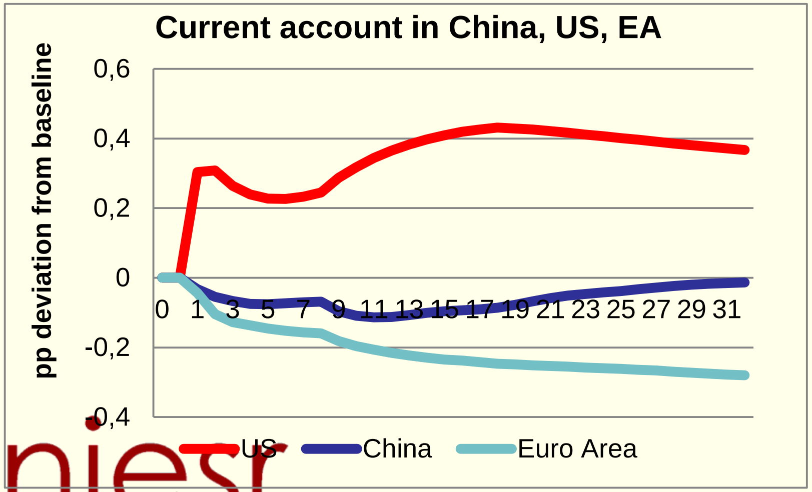
US scenario - results

- GDP and current accounts





- Lower government spending in the US results in lower GDP in the US
- It leads to a temporary decrease in GDP in China and the Euro Area
- Current account in the US improves as imports decline and exports increase slightly
- Current accounts in the Euro Area and China decline. The Euro Area is more responsive.

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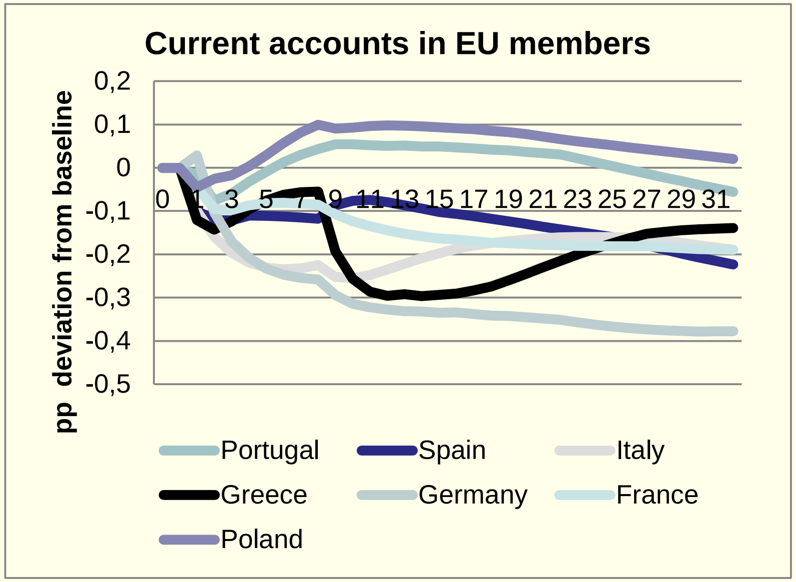
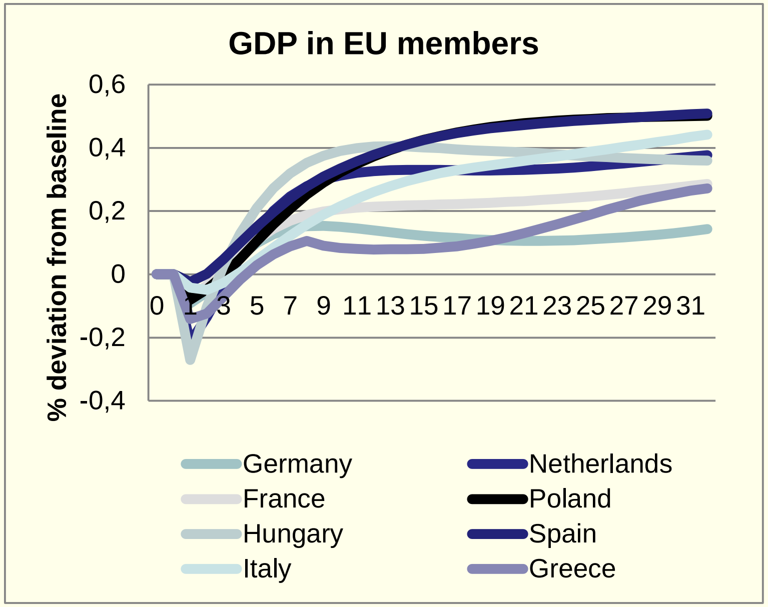
US scenario – results for Europe

- Current accounts



- GDP



- The pattern of macroeconomic responses is similar across countries
- Differences result from the scale of exposure to the US and the structural features of individual economies

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Observations for the global economy

- Adjustment on the Chinese side results in
  - lower current account in China and
  - higher current accounts in the US and the Euro Area
  - The Euro Area is marginally more responsive than the US
  - Adjustment on the Chinese side improves current accounts in all European countries
- Adjustment on the US side results in
  - higher current account in the US, and
  - lower current account in the Euro Area.
  - The response of China is relatively limited (fixed exchange rate)
  - Adjustment on the US side worsens current accounts in all European countries

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European scenarios

- We conduct 4 simulations corresponding to 4 different scenarios
  - Internal devaluation in Spain, Italy, Portugal and Greece
  - Technological competitiveness shock/structural reforms in Southern Europe
  - Private sector deleveraging in Southern Europe
  - Public sector deleveraging in Southern Europe
- And we compare results of individual policies

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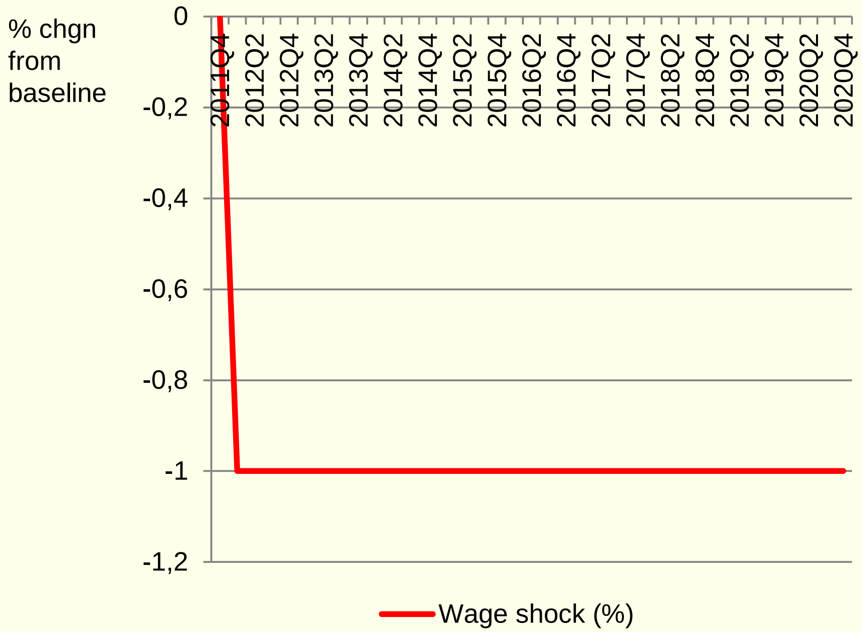
Internal devaluation- assumptions

- Internal devaluation in Greece, Portugal, Spain, Italy – 1 per cent cut in wages



Monetary policy in the Euro Area switched off, fiscal policy – switched off in Spain, Italy, Greece, Portugal

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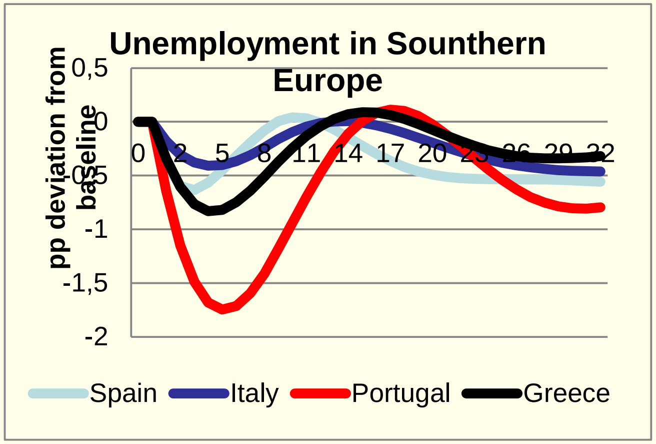
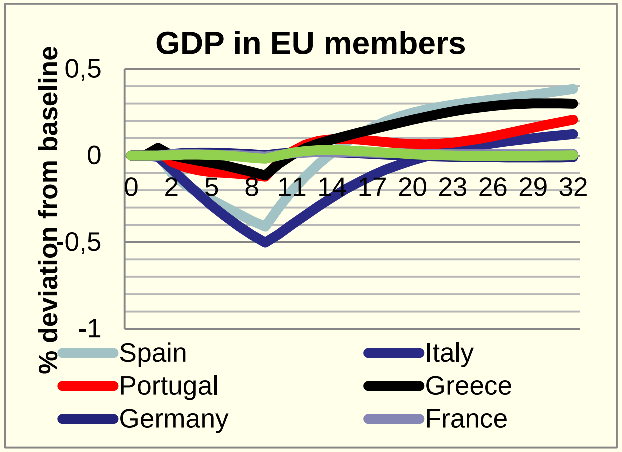
Internal devaluation -results

- Unemployment and GDP





- In response to lower wages the unemployment rate decreases

- In the long run GDP of Southern European countries increases

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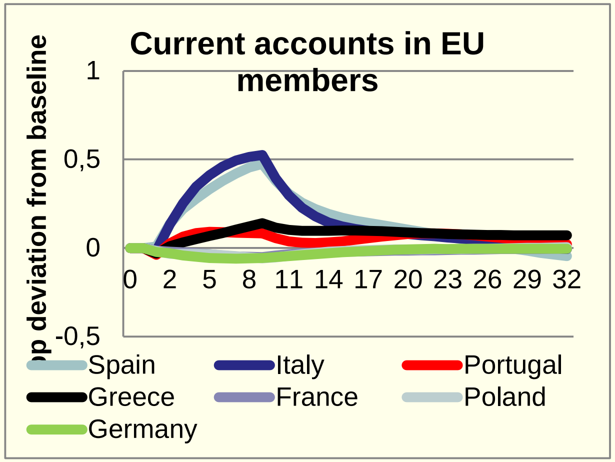
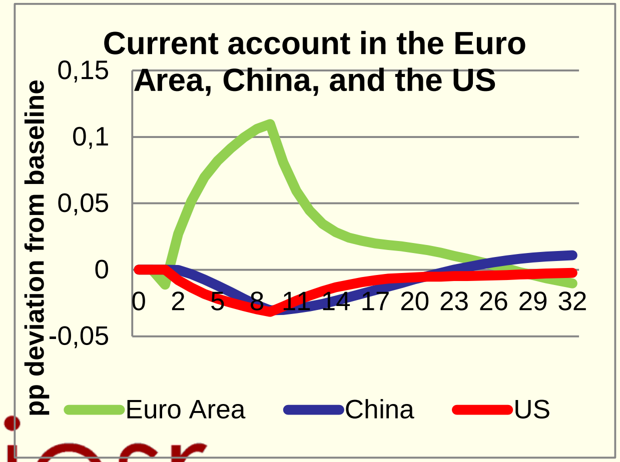
Internal devaluation - results

- Current accounts





- In the long run current accounts of Southern European countries improve
- Spillover effects for other countries in Europe are very limited
- In the long run the current account of the Euro Area improves, current accounts of the US and China worsen slightly, but spillover effects are very small

Comparison of four European scenarios - current account balance change (deviation from baseline, in percentage points)

CBR response (average over 8 yrs)	**Internal devaluation**	**Technology competitiveness shock/structural reforms**	**Private sector deleveraging**	**Public sector deleveraging**
	1 per cent cut in wages, 0.25 pp increase in risk premium	Technological progress shock – 5 per cent (spread over 5 years); change in the structure of trade via reduction in gov cons by 1 per cent	Increase in the saving rate by about 0.5 percentage point	Reduction in the government debt ratio by about 10 per cent of GDP in the long run
Spain	0.16	0.26	0.35	1.46
Italy	0.17	0.49	0.35	1.49
Portugal	0.06	0.36	0.32	1.15
Greece	0.08	0.54	0.39	1.70
Germany	-0.02	-0.07	-0.06	-0.20
France	-0.02	-0.04	-0.04	-0.12
Netherlands	-0.03	-0.05	-0.04	-0.15
Euro Area	0.03	0.32	0.08	0.34
US	-0.01	0.06	-0.02	-0.10
China	-0.01	0.00	-0.01	-0.07

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Calibrated simulation

- What would need to be the size of the initial shock under each of the scenarios to reduce current account deficit in Spain, Italy, Portugal and Greece by 1 percentage point (on average)?

Policy	**Internal devaluation**	**Technology competitiveness shock/structural reforms**	**Private sector deleveraging**	**Public sector deleveraging**
Shock in Spain, Italy, Portugal and Greece	Cut in wages	Technological progress shock; change in the structure of trade via reduction in gov cons	Increase in the saving rate	Reduction in the government debt ratio
Current account balance (deficit reduction)	**1 percentage point**	**1 percentage point**	**1 percentage point**	**1 percentage point**
The size of the required shock	The size of shock should vary across countries with Greece and Portugal requiring bigger adjustments than Italy and Spain.	A 2 per cent per annum increase in technical progress, a 2 per cent change in government consumption	1.3 percentage point shock to the saving rate	At least 7 percentage points reduction in public debt within the next 8 years

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Policy observations for Europe

- We have considered 4 policies through which adjustment of intra-European imbalances may take place:
  - Internal devaluation
  - Technological/structural reforms
  - Private sector deleveraging
  - Public sector deleveraging
- Probably there is no “silver bullet” solution to address the issue of intra-European imbalances => policy mix
- Policies aimed at reducing current account deficits in certain countries result in reduced surpluses in other countries within the EU. Spillover effects for non-EU countries - China and the US - are very small. China is less responsive than the US.

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Conclusions

Conclusions

- Global imbalances may be adjusted either through adjustment policies in China or the US
  - Adjustment on the Chinese side results in lower current account in China and higher current accounts in the US and the Euro Area
  - Adjustment on the US side results in higher current account in the US and lower current accounts in China and the Euro Area. China is less responsive (fixed exchange rate)
- Intra-European imbalances may be adjusted through various policies
  - Adjustment on the side of Southern European countries results in an improved current account for the Euro Area as a whole
  - Current accounts in the US and China worsen slightly. China is less responsive
  - Policy mix

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Thank you

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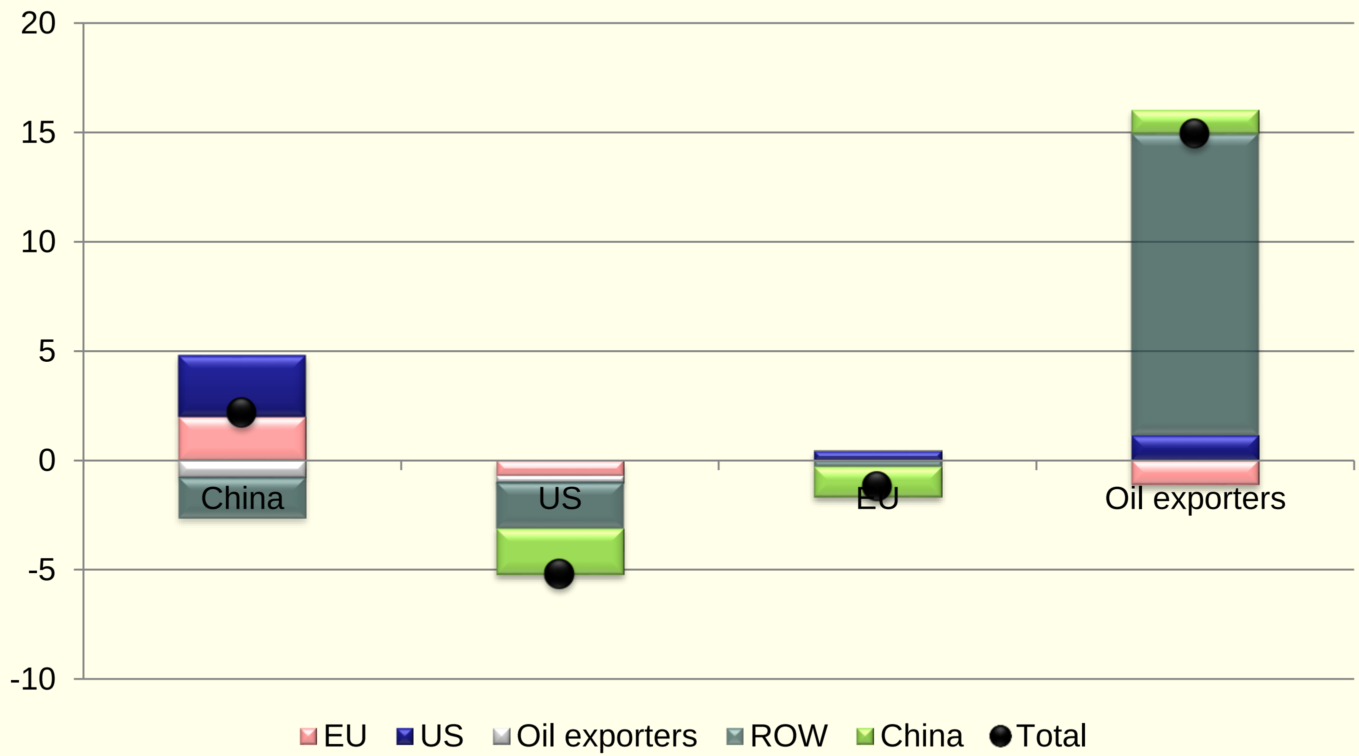
Bird's eye view on global imbalances



- As of 2011 China ran a surplus with the US and the European Union, while it had a deficit with the oil exporting countries.
- The US had a trade deficit with all major economies. The oil exporting countries ran a surplus with the US and China, while they ran a deficit with the European Union. The European Union had a deficit with China and a surplus with the US and the oil exporting countries.

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