



# An overview of the global macro and steel market

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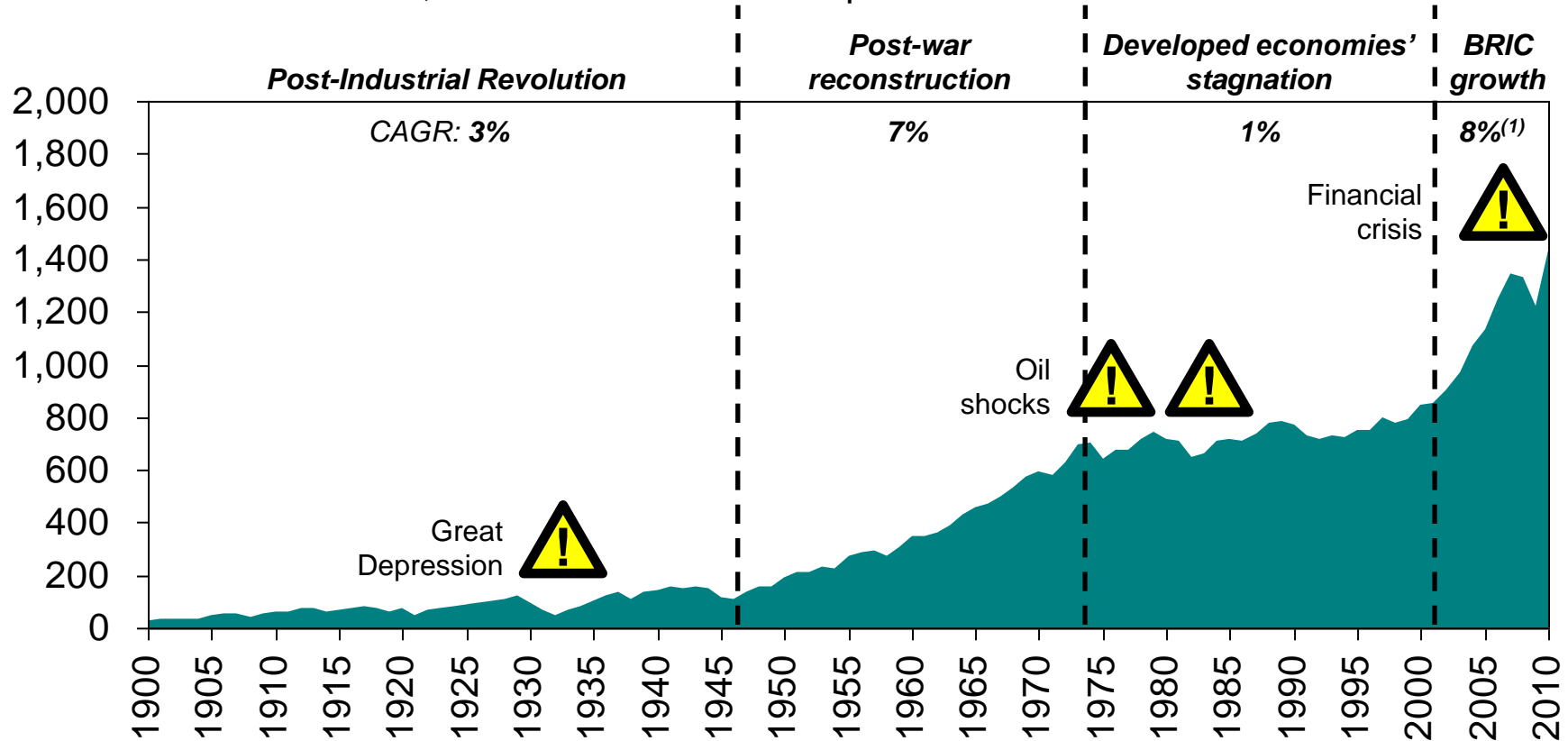
## **Overview: China and USA pulling together in short term, but US will struggle to maintain momentum further out; plus added oil risk now**

- Introduction
- China: threat of tightening measures impacting short term outlook overdone; return to long term structural growth expected, albeit at slower growth rate than before.
- Extra stimulus measures in USA boosts US prospects in short-term; deficit plans risk pleasing too few and offending too many
- Implications for steel demand, production, raw materials and prices
- Upheavals in Middle East are a reminder that geopolitical risk never far away; inflation an increasing threat.



# Global steel demand growth has fallen into distinct eras, the most recent of which is the expansion of developing nations

Global demand for steel, m tonnes crude steel equivalent

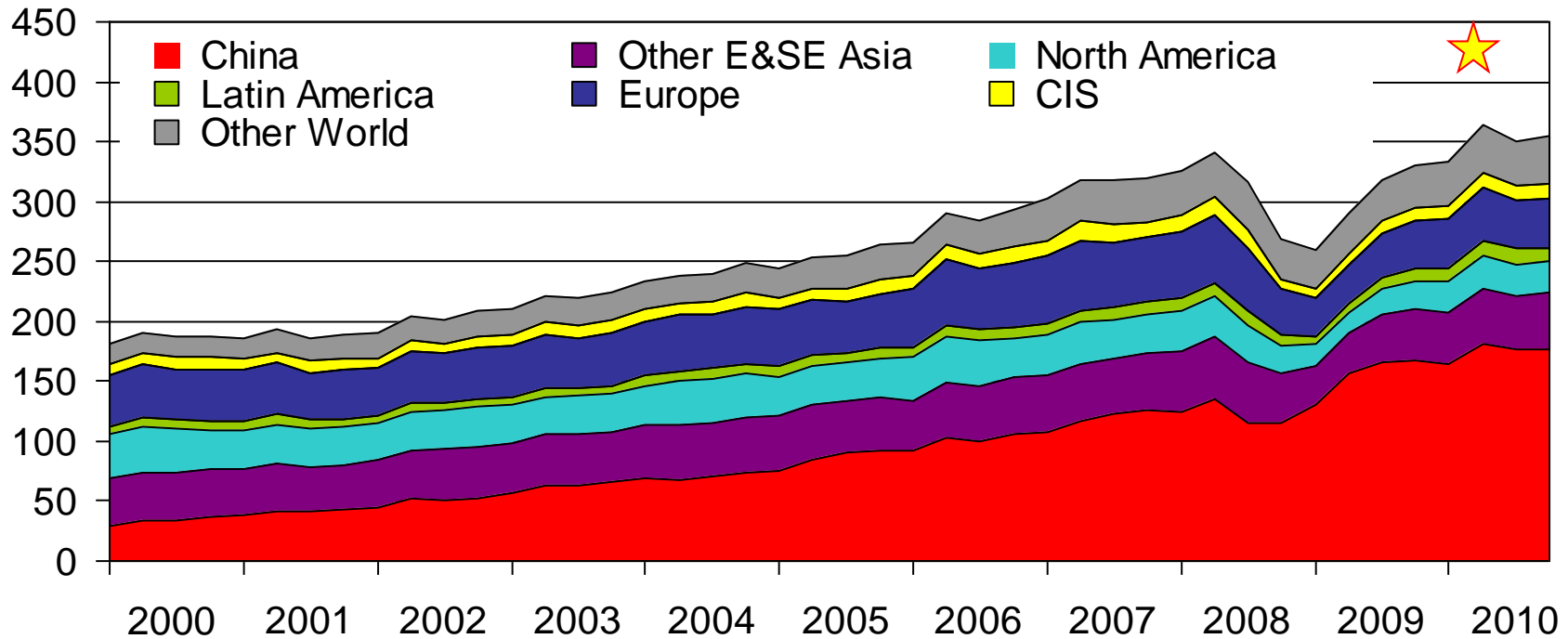


Data: World Steel Association, CRU Analysis. Note: (1) – 2001-2007



# It is emerging market growth which, despite the financial crisis, has driven global steel consumption (and production) to record levels

Global apparent finished steel consumption, m tonnes per quarter



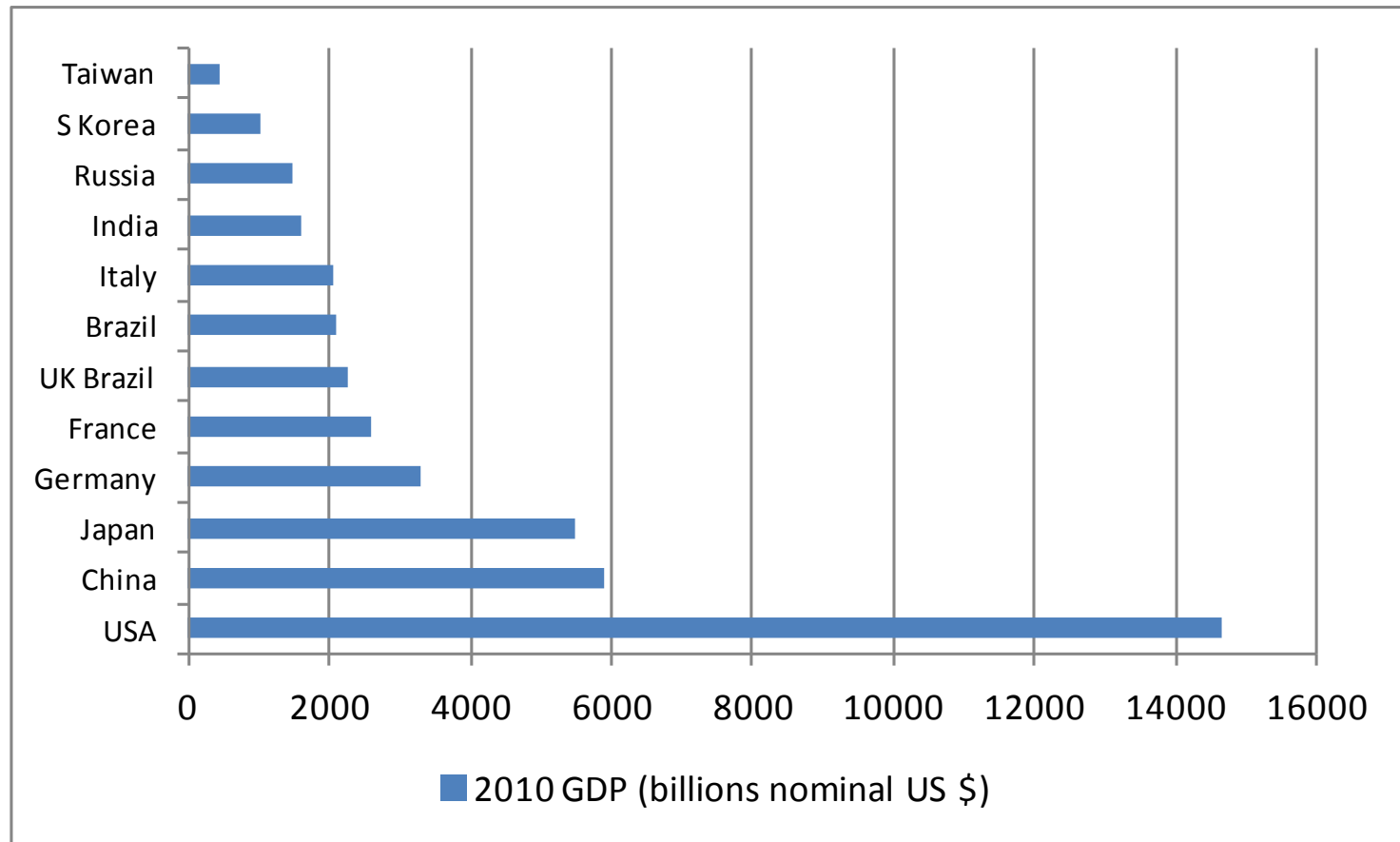


## Forecast macro economic summary: incremental improvements in near-term prospects

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
USA	3.1	2.7	1.9	0.0	-2.6	2.9	3.2	3.0	3.0	2.8	2.9
Japan	1.9	2.0	2.3	-1.2	-6.3	3.8	1.8	1.8	2.0	2.1	2.1
Germany	0.9	3.6	2.8	0.7	-4.7	3.5	2.5	1.9	2.2	2.2	2.2
UK	2.2	2.8	2.7	-0.1	-4.9	1.4	2.0	2.8	3.1	3.0	2.9
OECD	2.6	3.0	2.6	0.2	-3.6	2.8	2.6	2.8	2.8	2.7	2.7
China	11.3	12.7	14.2	9.6	9.2	10.3	9.7	9.1	8.6	8.5	8.3
India	9.2	9.8	9.5	7.3	6.8	8.8	8.1	9.1	9.0	8.7	8.3
Brazil	3.2	3.9	6.1	5.2	-0.7	7.6	4.6	5.2	4.8	4.1	4.2
World	3.5	4.0	3.9	1.5	-2.2	3.9	3.6	3.9	3.9	3.8	3.7



## China overtook Japan in 2010...

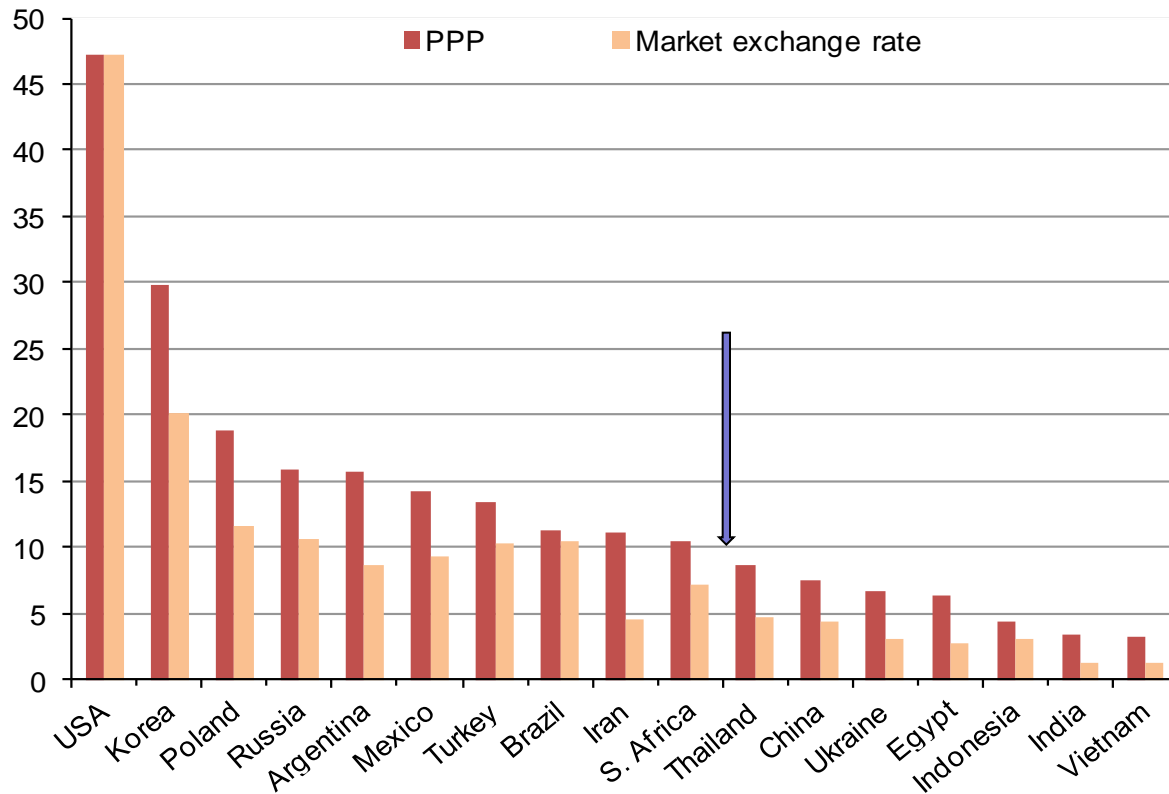




# ...but has huge potential for further catch up, even compared with other emergers

## GDP per capita, 2010

'000s US\$ rates

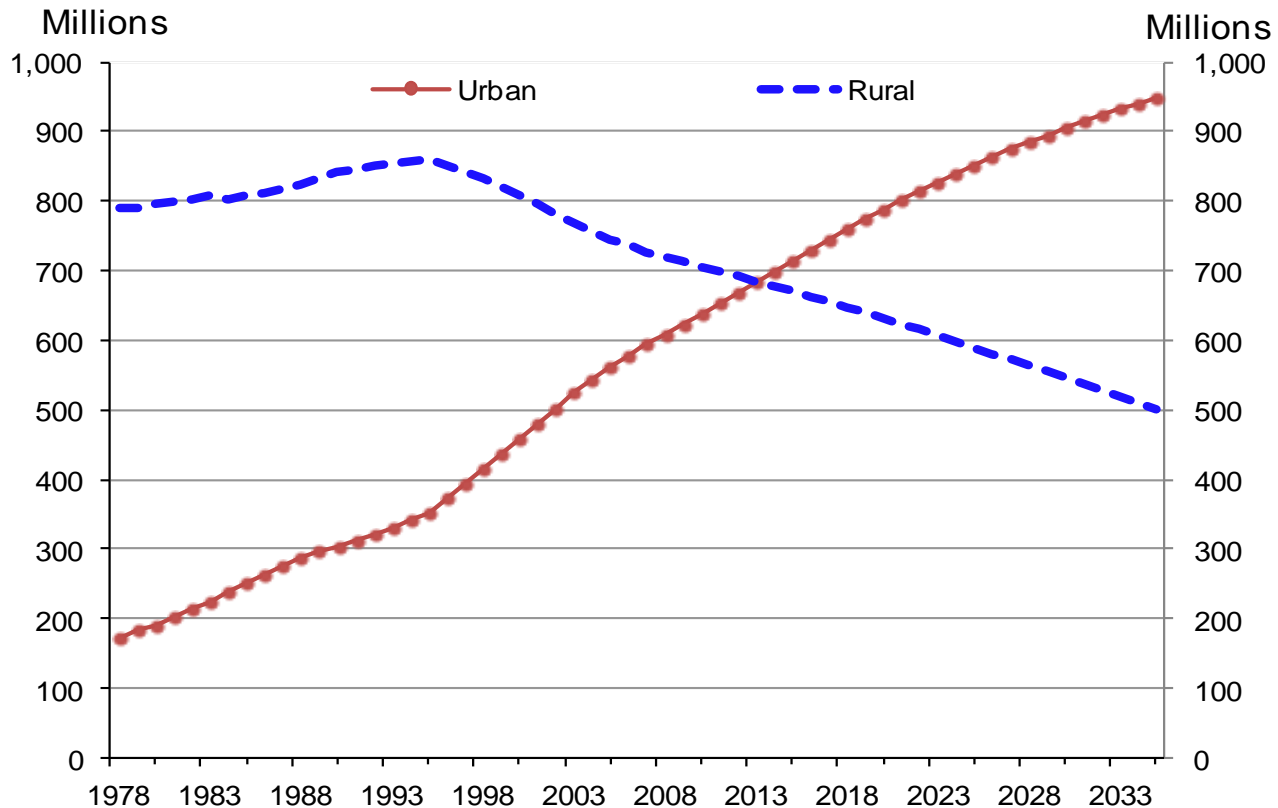


Data: IMF, CRU



# China's further development will be driven by demographics...

## China's population to be more urban than rural by 2015



Data: UN, CRU

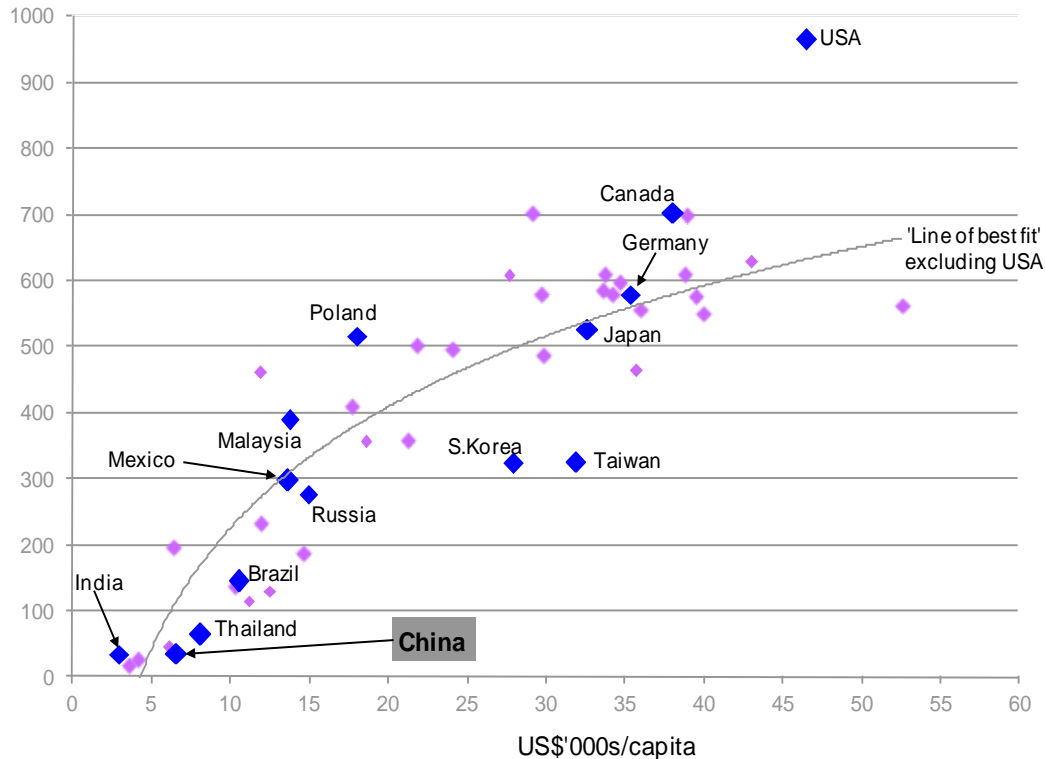


# ...and consumption. But there are obstacles...

## Chinese GDP/capita is at a stage where car ownership leaps

Personal vehicles per '000 driving population versus GDP/capita at PPP, 2009

Personal vehicles/'000 driving population



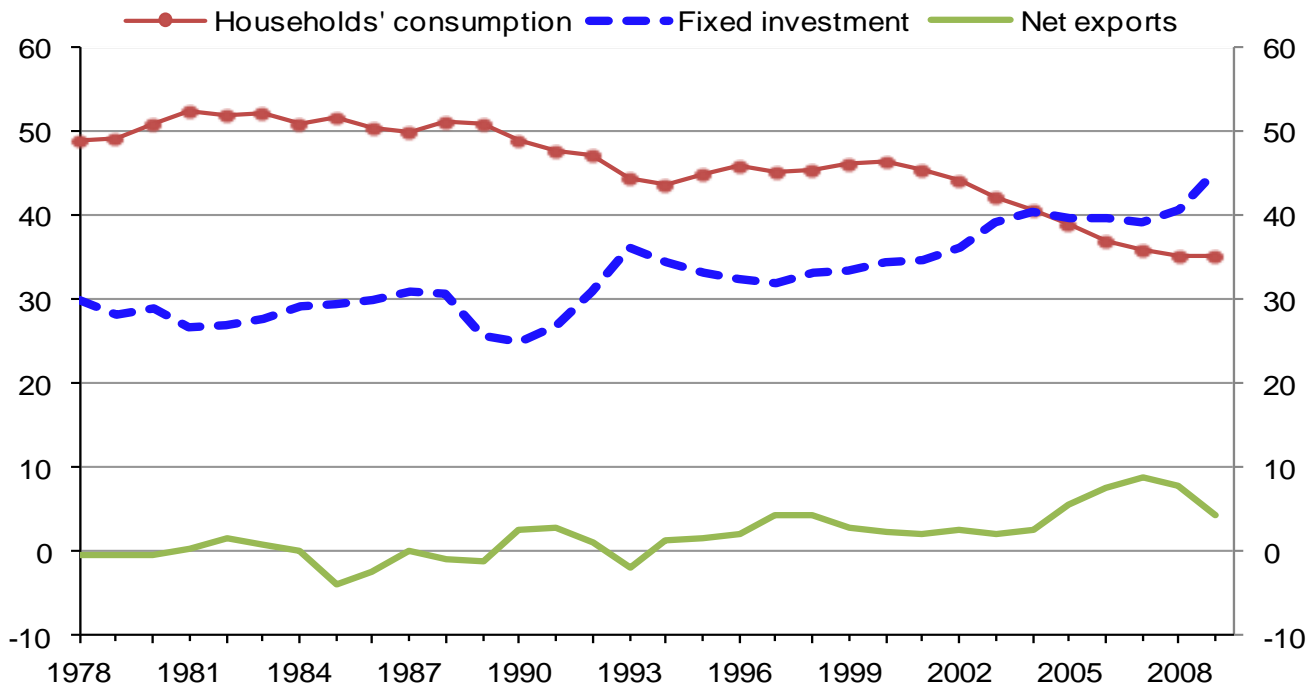
Data: JD Power, IMF, CRU



# ...economy still unbalanced, with share of GDP attributable to consumption in decline since 2001...

## China's economy is over reliant on investment at the expense of household's consumption

Shares of GDP, %

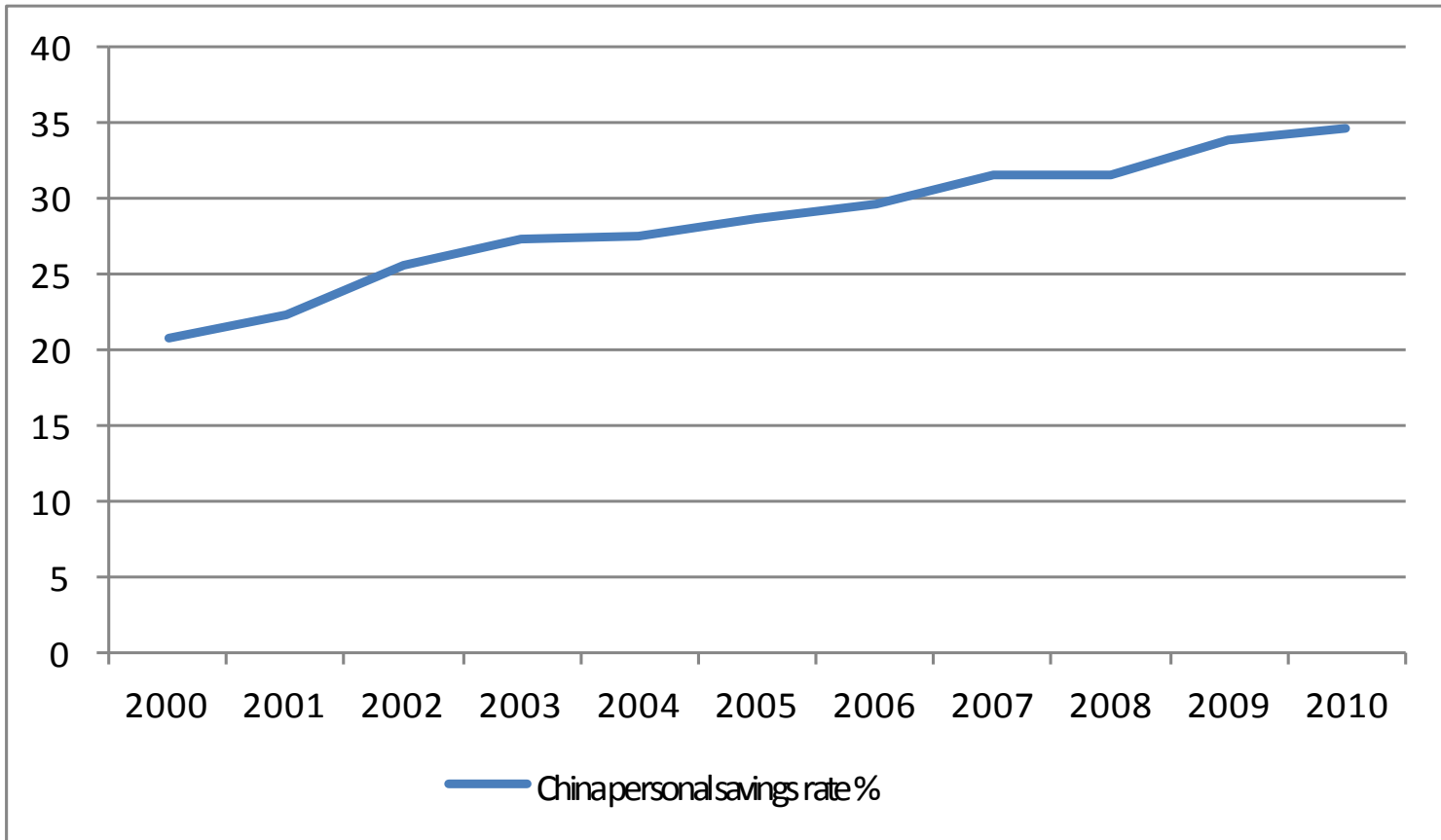


Notes: Shares calculated in nominal terms. Government consumption and inventory change not shown.

Data: ChinaDataOnline, CRU



## ...and increasing savings rates...





## ...both of which addressed in 12<sup>th</sup> 5 year plan

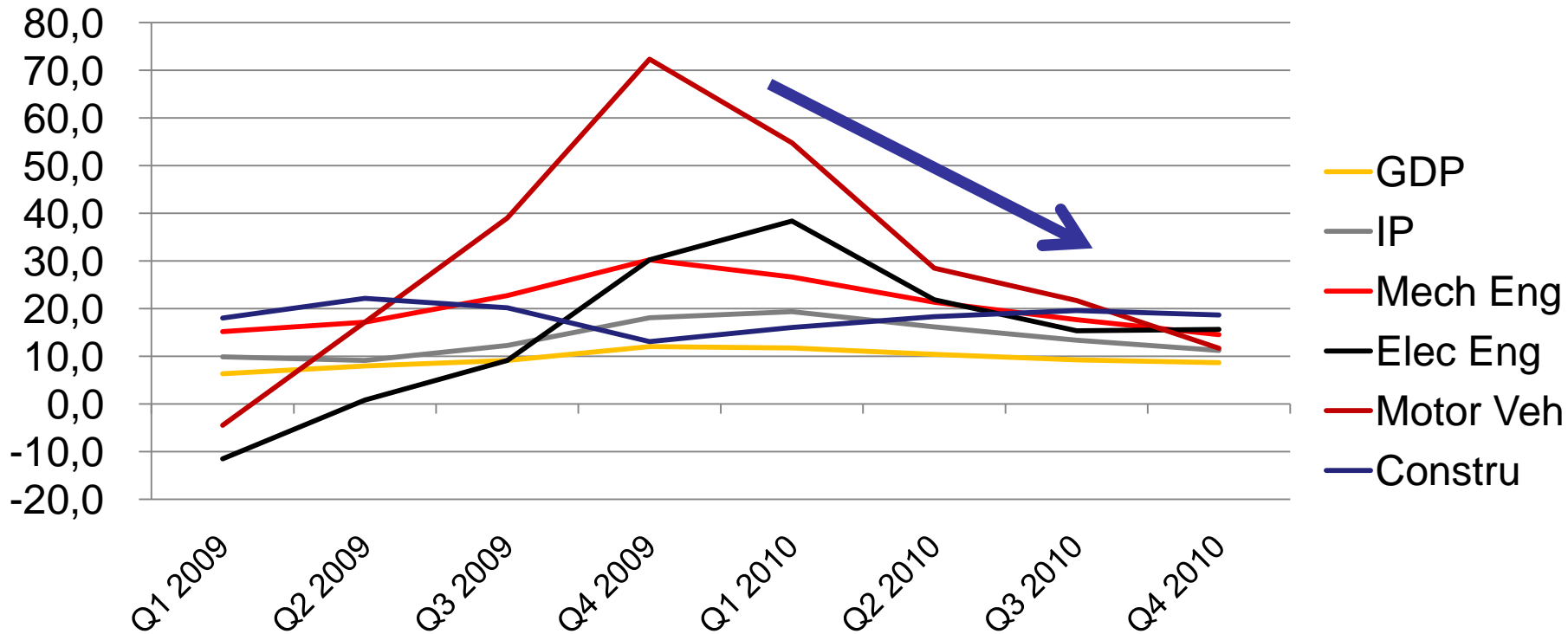
- **Rebalance growth towards domestic economy:**
  - Increase share of GDP accruing to households, especially workers' incomes, e.g. via increases in wage rates and increases in income from savings
  - Improve social security provision and healthcare and reduce inequalities in same, e.g. by redistributing income from state enterprises
- **Reduce income inequalities between coastal and inland provinces; between urban and rural areas**
- **Accelerate urbanisation; modernise rural infrastructure and housing**
- **Strengthen institutions underpinning market-type economy**
- **Speed transition to low carbon, resource-light economy:**
  - Clean, non-fossil energy sources, including wind and solar to provide 15% of total energy requirements by 2020
  - 15-20% reduction in energy intensity of use by 2020, and maximum 40-45% reduction in carbon emission intensities, both versus 2005
  - Promote resource conservation and reuse

Bottom line: China's economy in transition to more consumer-orientated, sustainable growth



# Chinese economic indicators slowed down in H2 2010, but are they still robust enough to support respectable growth?

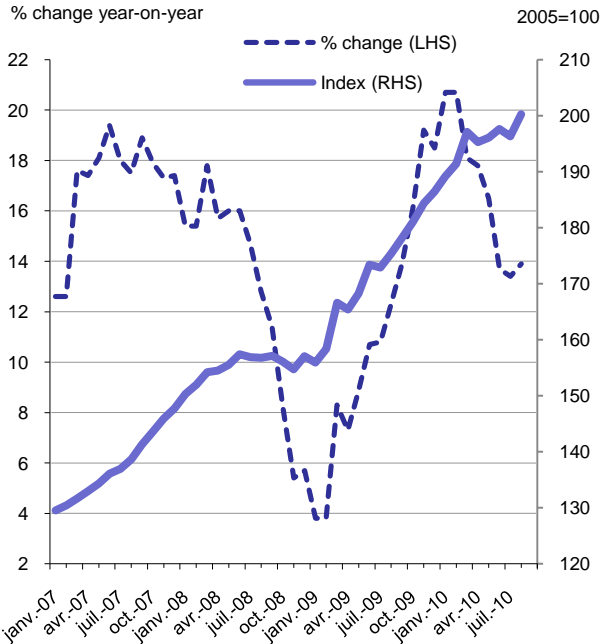
Year-on-year % change





# Chinese macro trends appear to be bottoming out, as growth shifts westwards

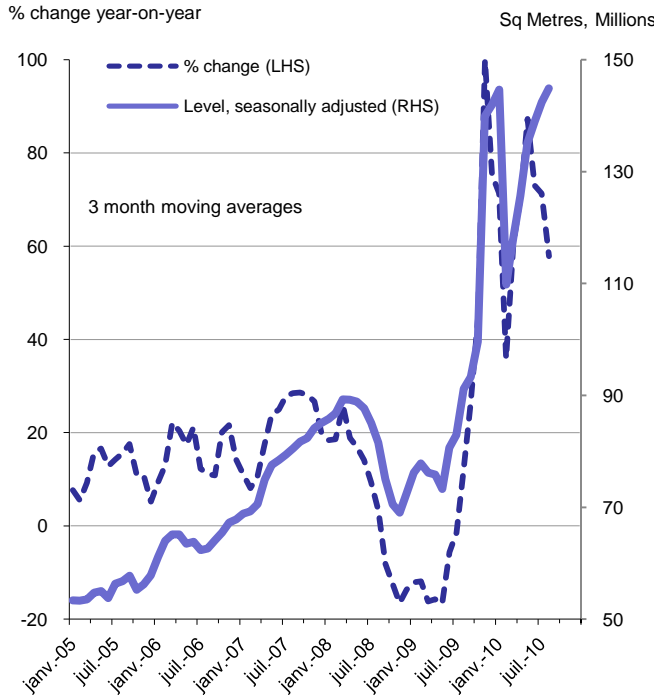
**Industrial production**



Note: Index is calculated by Haver and is seasonally adjusted.

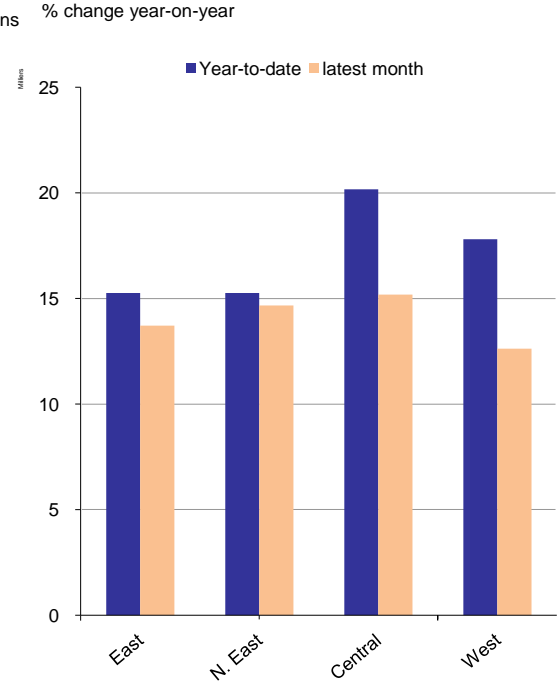
Data: NBS, Haver Analytics, CRU

**Real estate floor space started**



Data: NBS, Haver Analytics, CRU

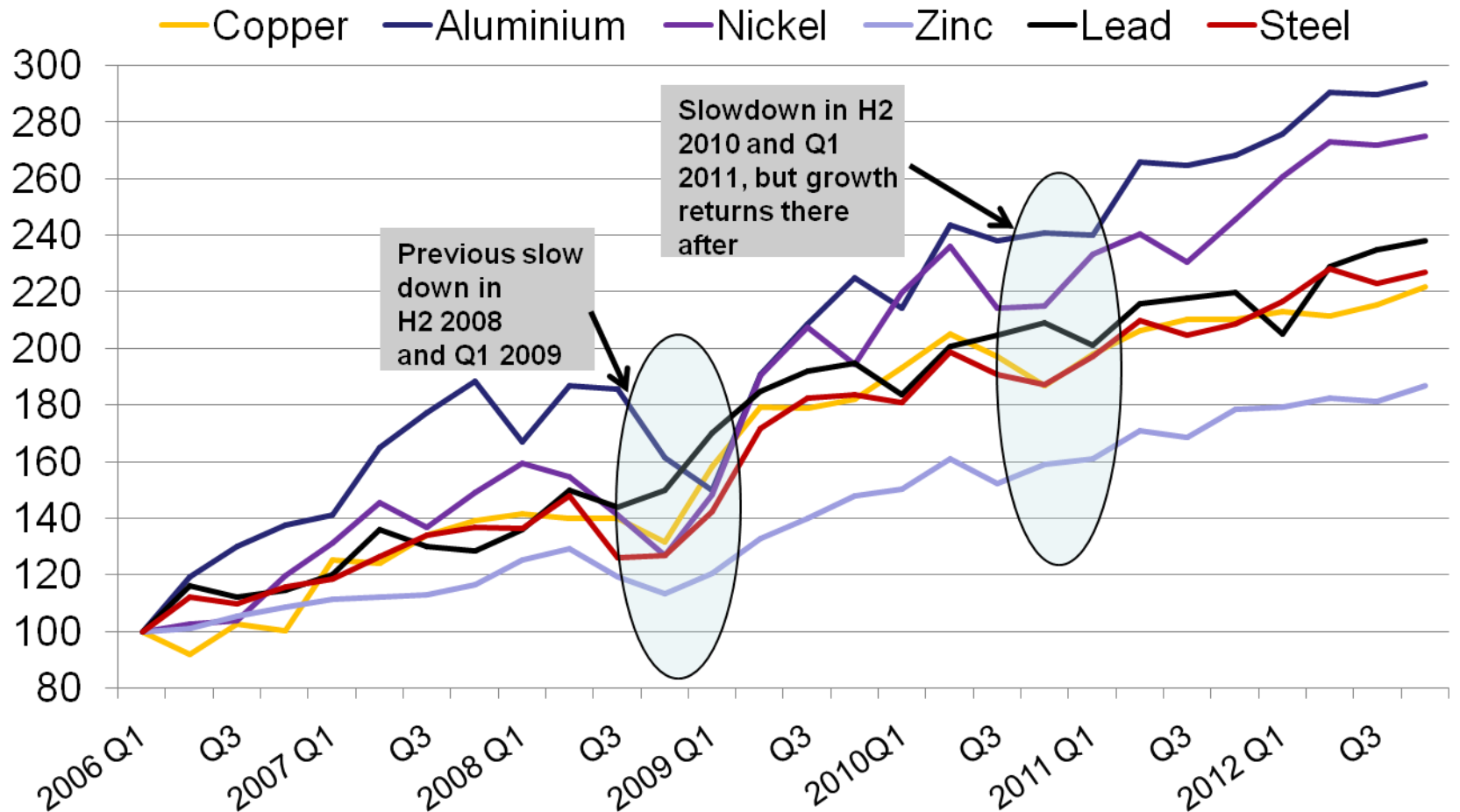
**Industrial production by region**



Data: NBS, ChinaDataOnline, CRU



# Index of Chinese metals demand by Quarter: yes there is a cyclical slowdown, but growth is expected to resume

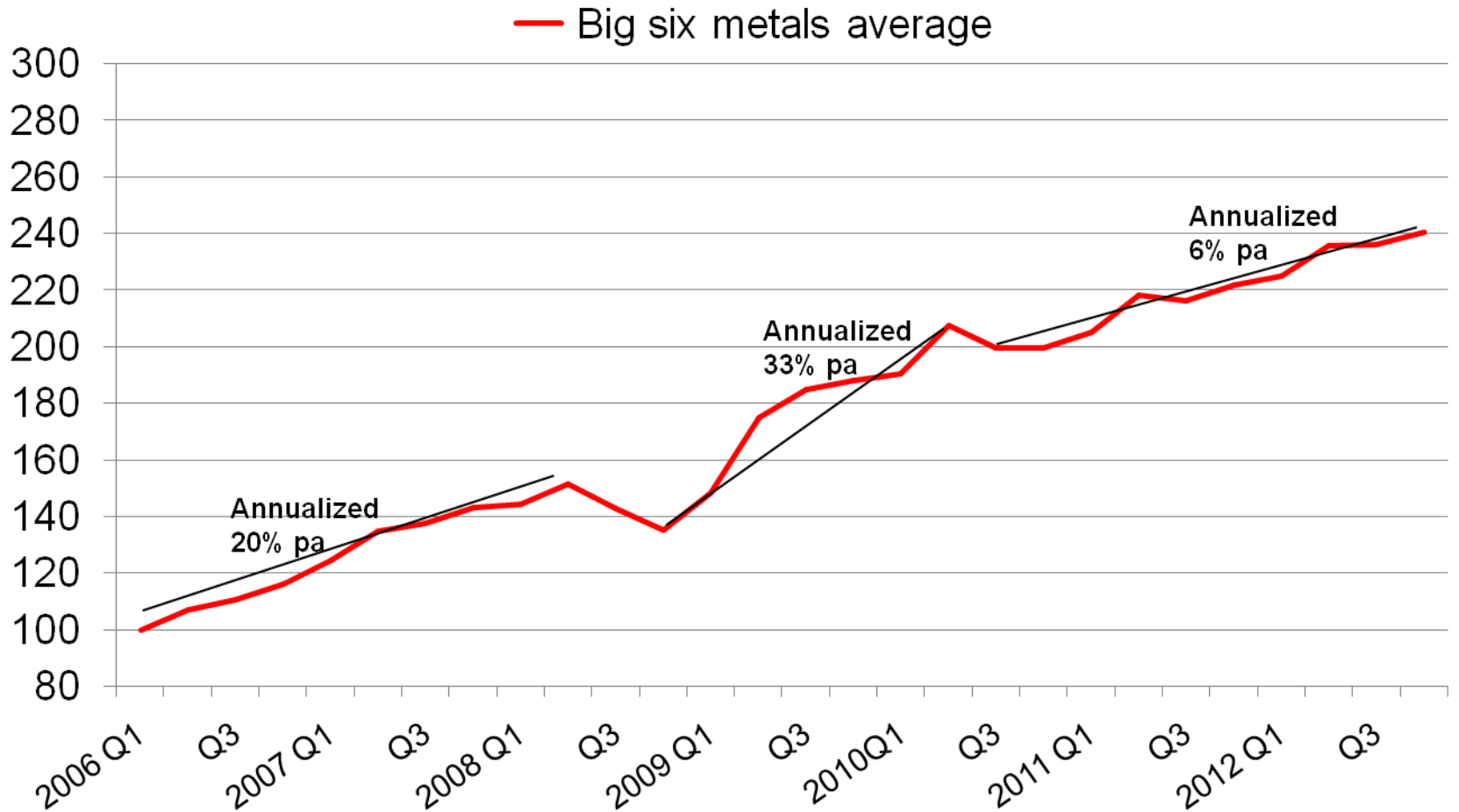


Previous slow down in H2 2008 and Q1 2009

Slowdown in H2 2010 and Q1 2011, but growth returns there after



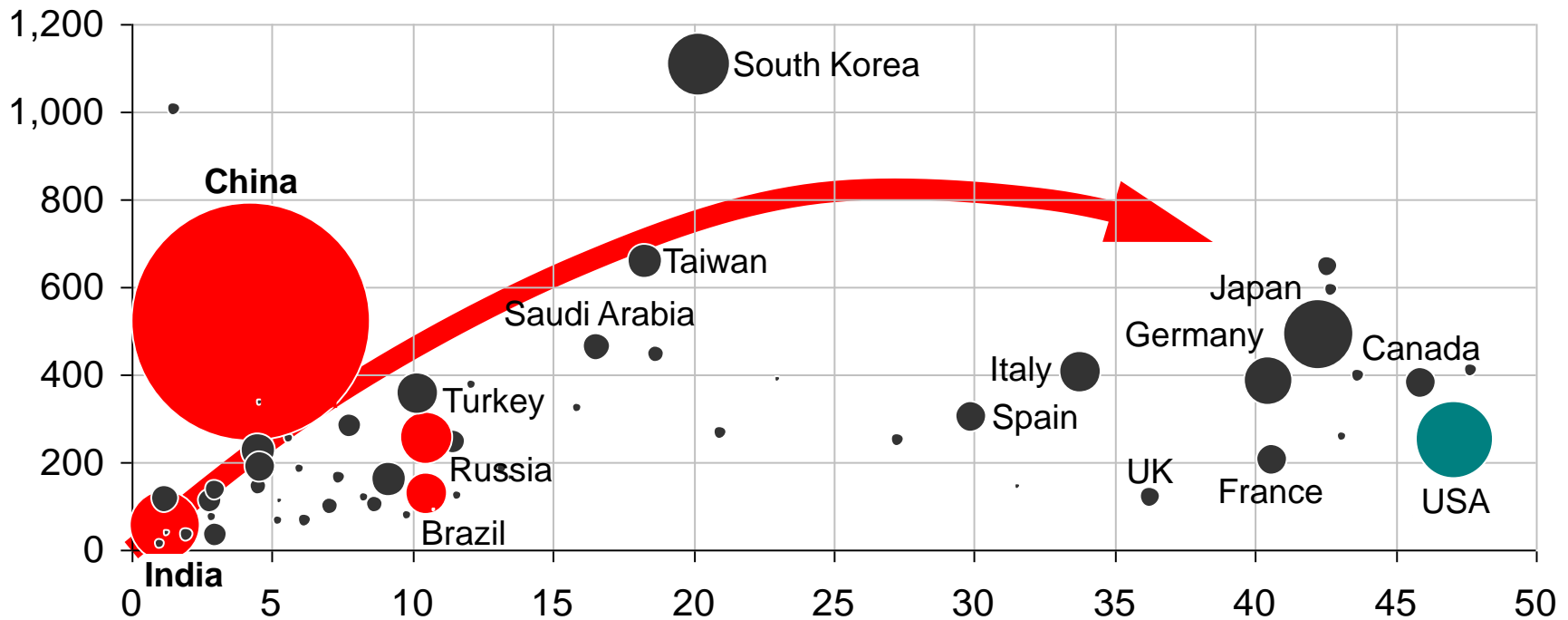
# Index of China metals demand by Quarter: growth resumes at slower pace than earlier in decade





# Longer term, continued and rapid industrialisation can be expected in China, India and other developing nations

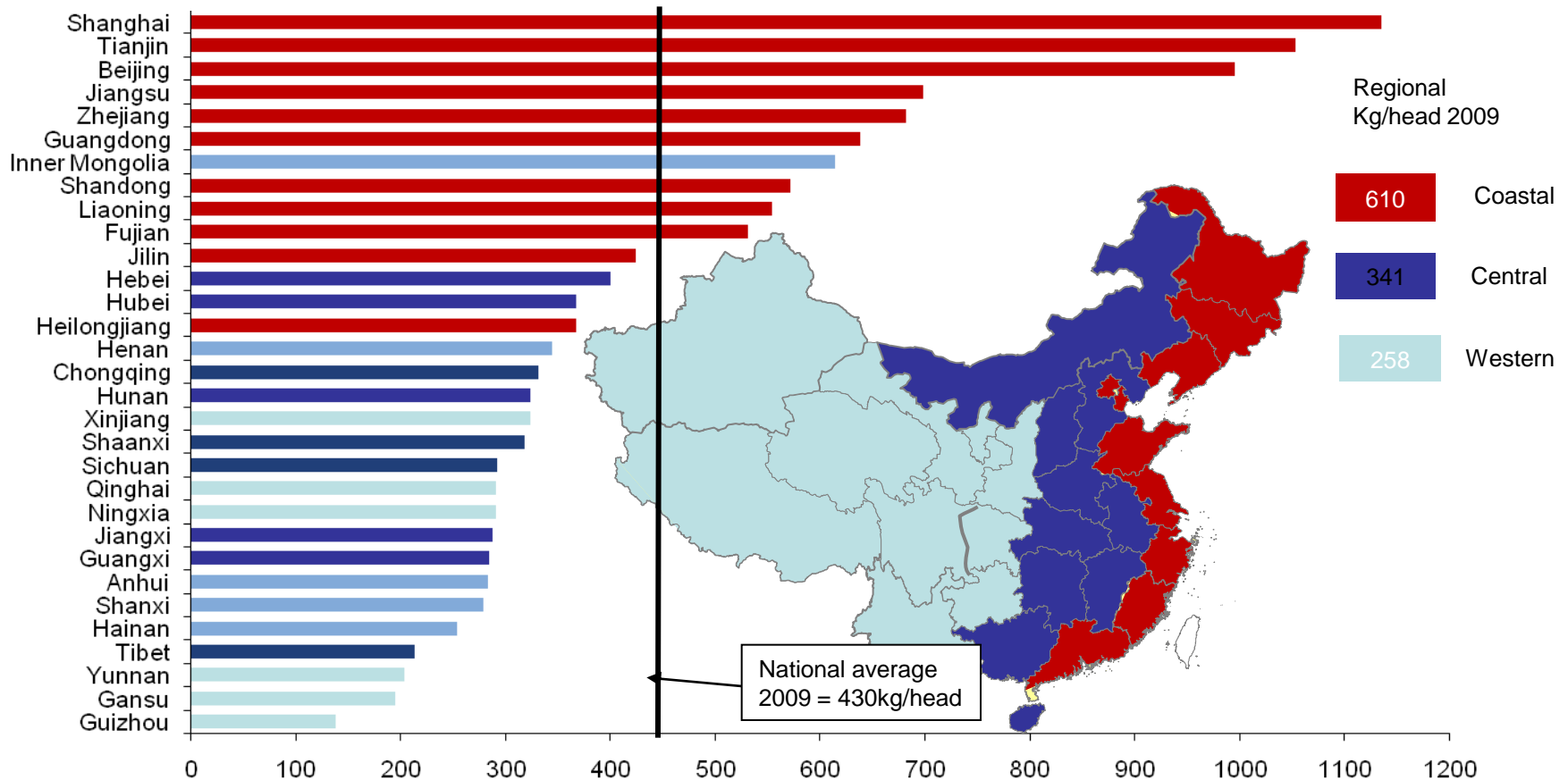
X-axis: 2010 GDP/capita, US\$'000<sup>(1)</sup>, Y-axis: 2010 Apparent finished steel consumption/capita, kg  
 Bubble area proportional to 2010 apparent finished steel consumption





# Chinese demand can be divided into 3 different areas of development, each with its own per capita steel consumption

Per capita crude steel equivalent consumption kg/head

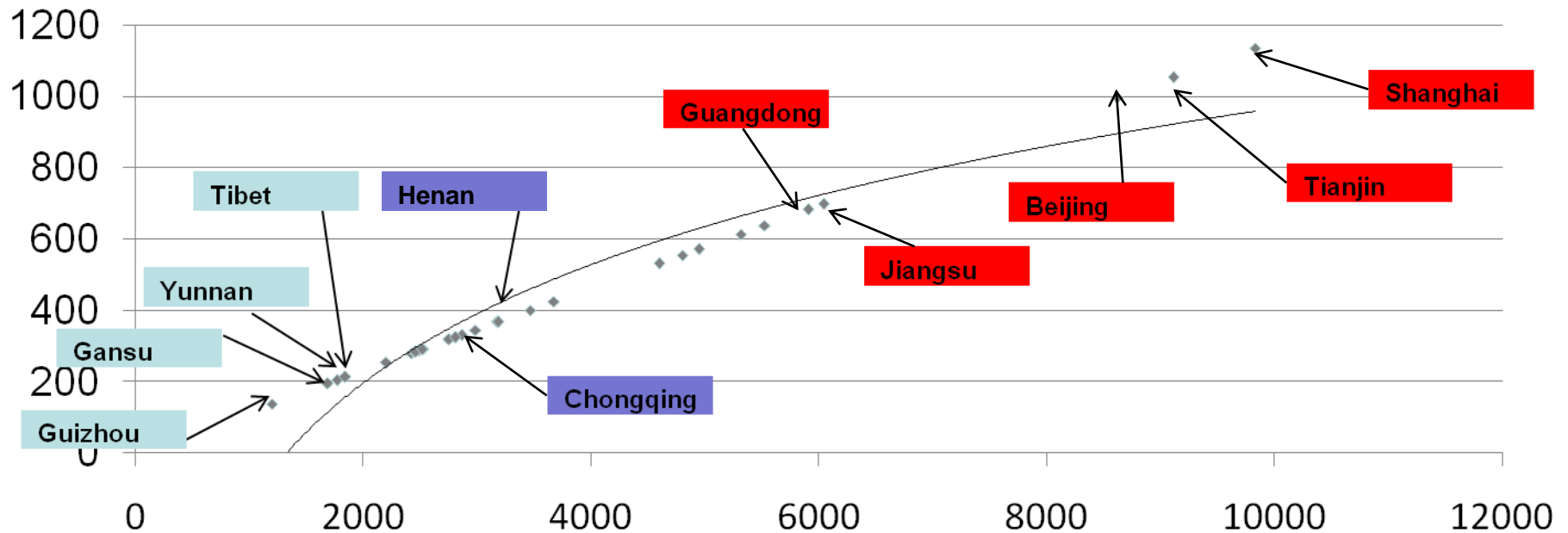




# China has its own pattern of development, with lower income provinces possibly following higher income provinces, subject to saturation beyond a certain level?

Estimates of steel per capita steel consumption by province

◆ Per capita steel consumption — Log. (Per capita steel consumption)

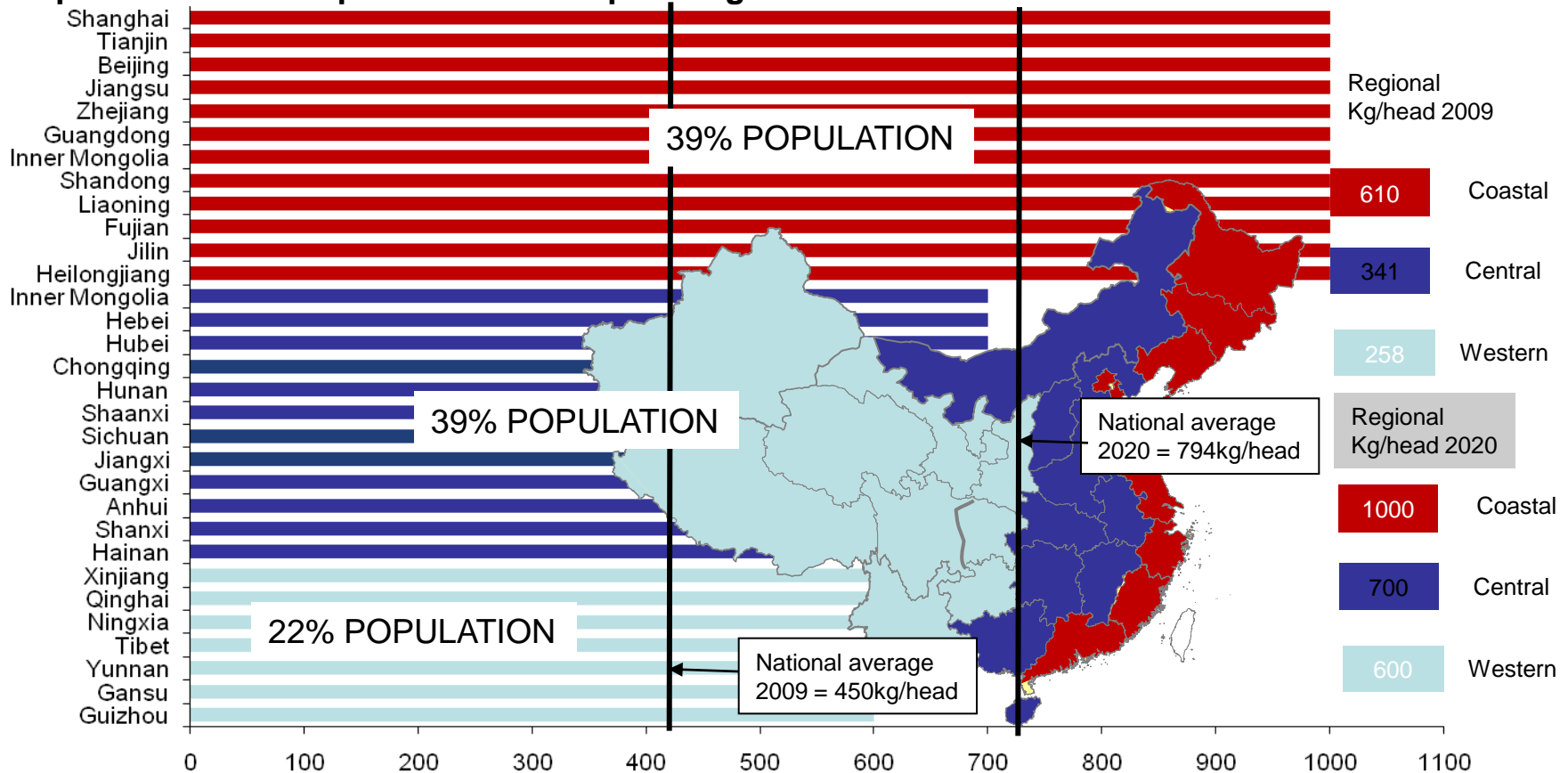


Income per head by province 2009



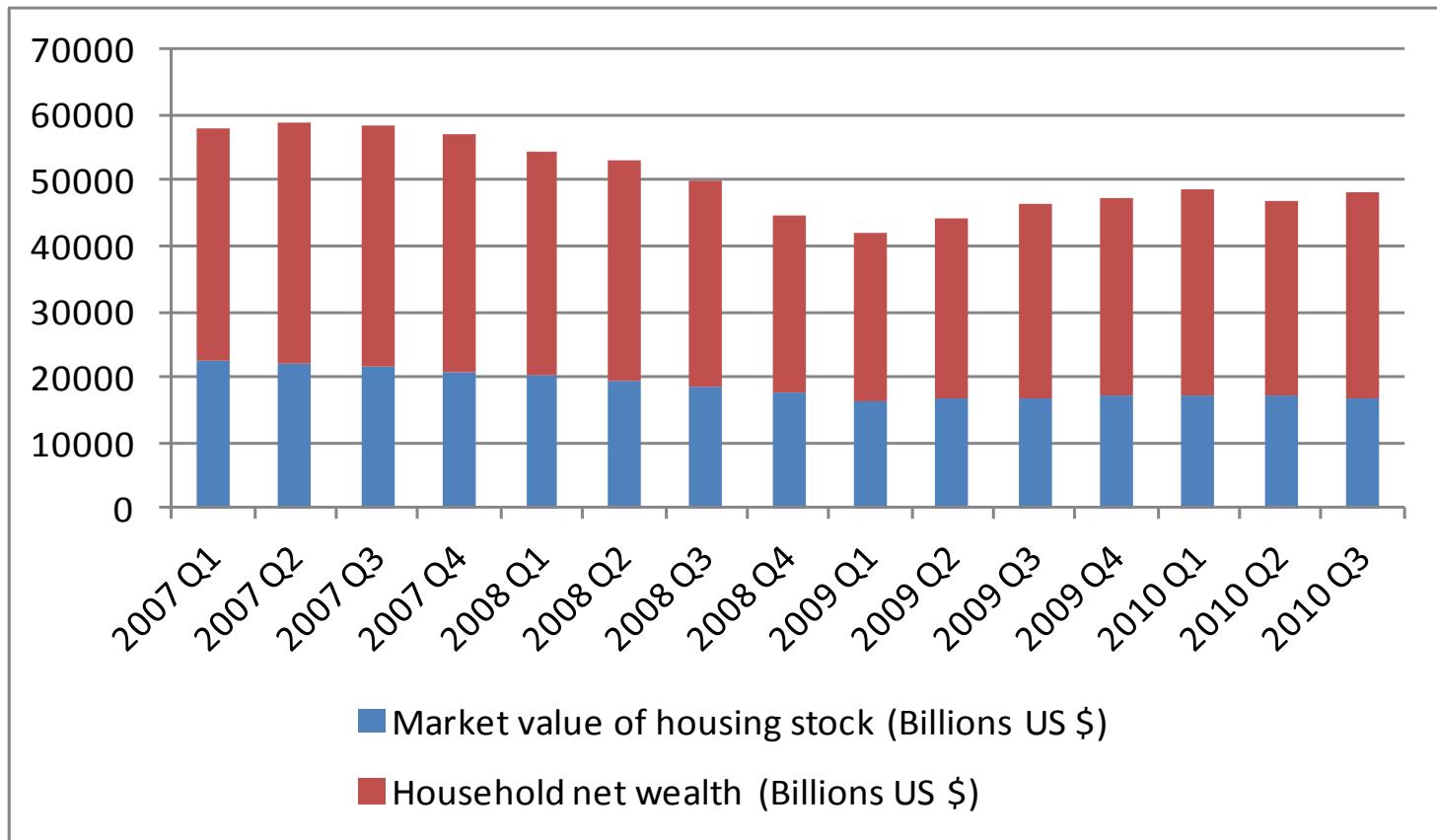
# Assuming Chinese demand follows own pattern of demand, subject to slowdown at 1000 kg/head, steel demand in 2020 = more than 1 billion tonnes

Per capita crude steel equivalent consumption kg/head



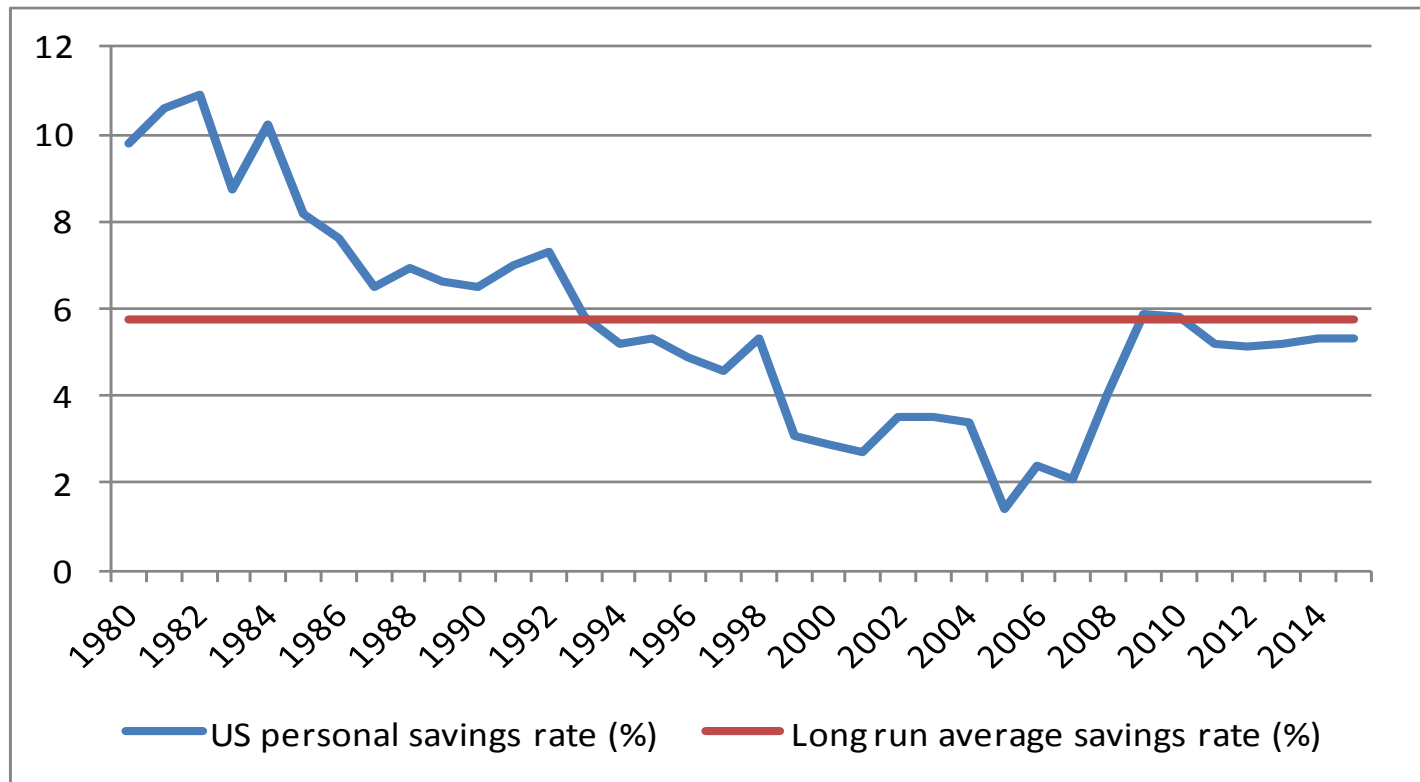


# Meanwhile US households still have significant wealth to rebuild...



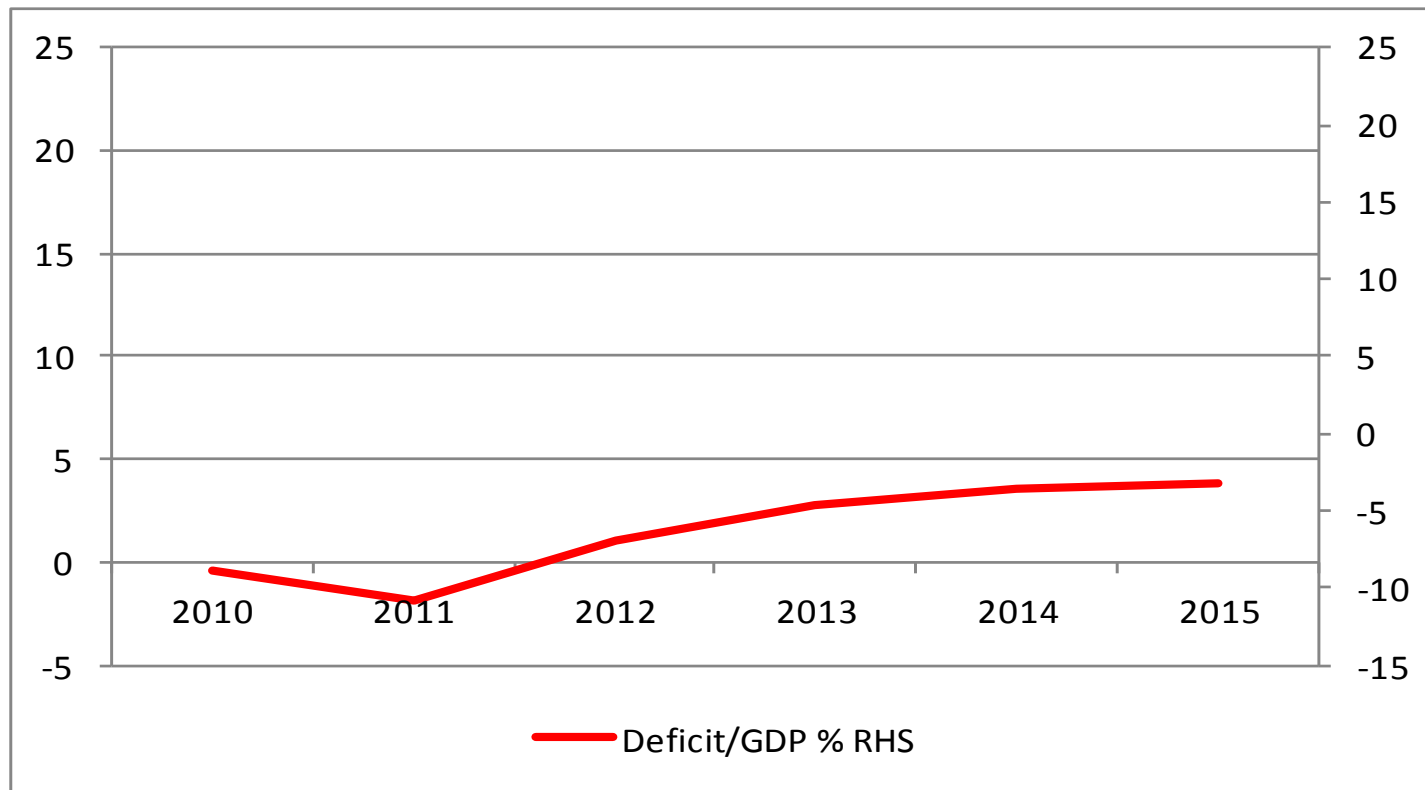


**...which implies that savings rates have to remain elevated...relatively speaking...but that won't be the only drag on consumption**



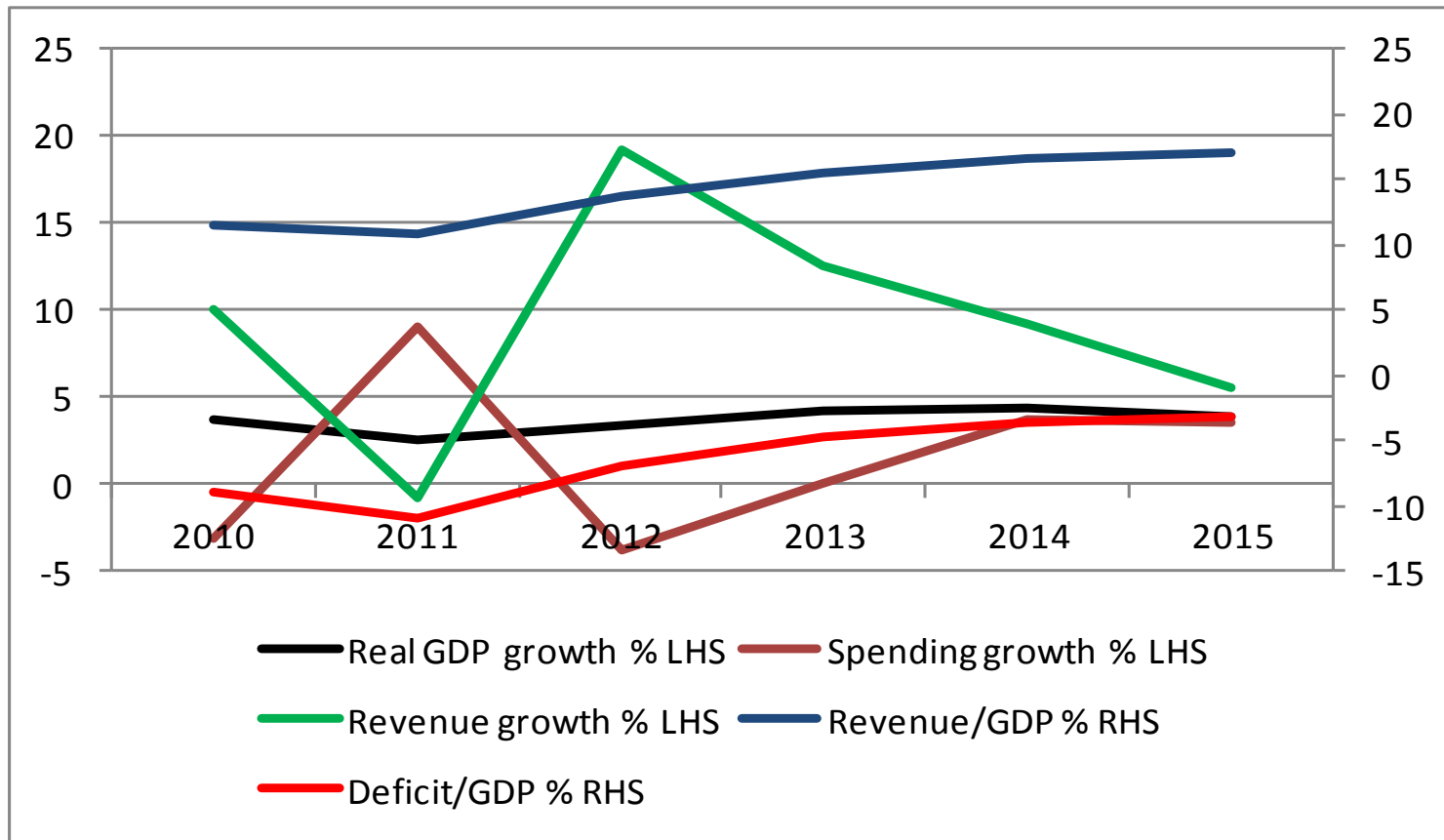


## US budget for 2012 projects deficit closing in on sustainable 3% of GDP by 2015...





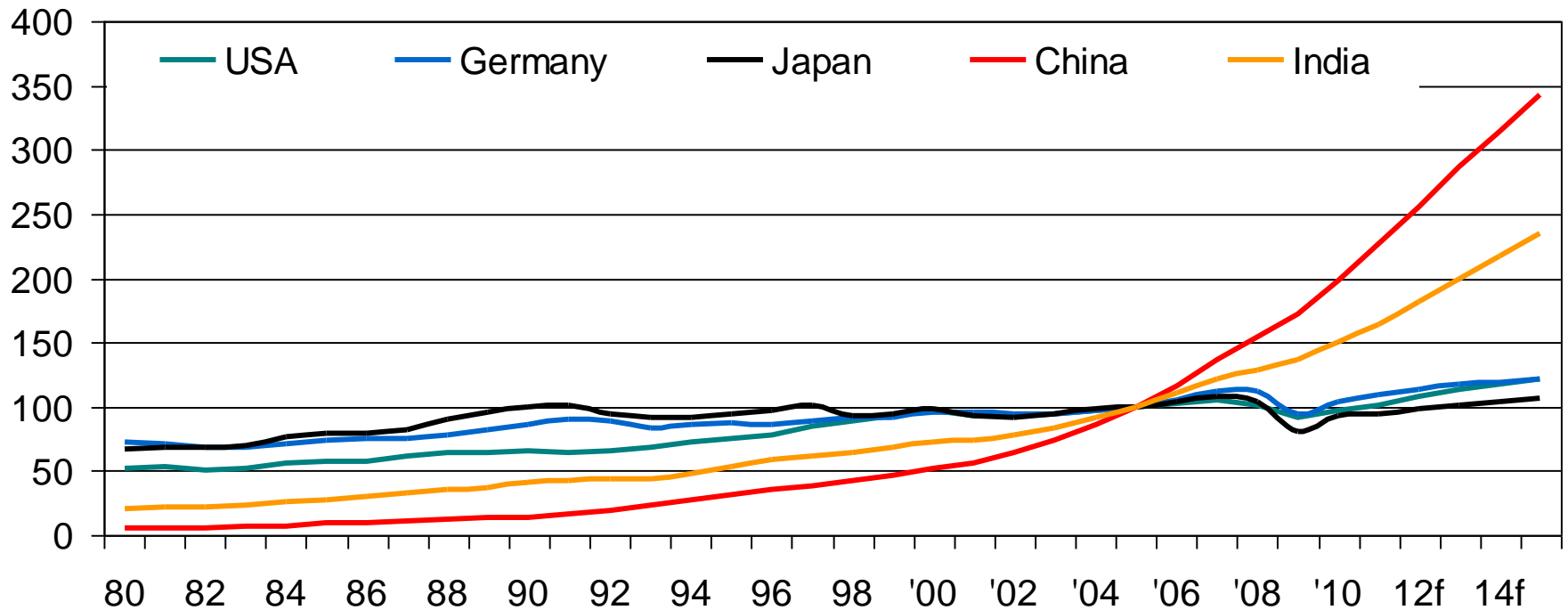
...which implies a significant increase in the Federal tax take...





# Our forecasts for industrial production show fast pace in emerging nations. In contrast, developed nations only show recovery

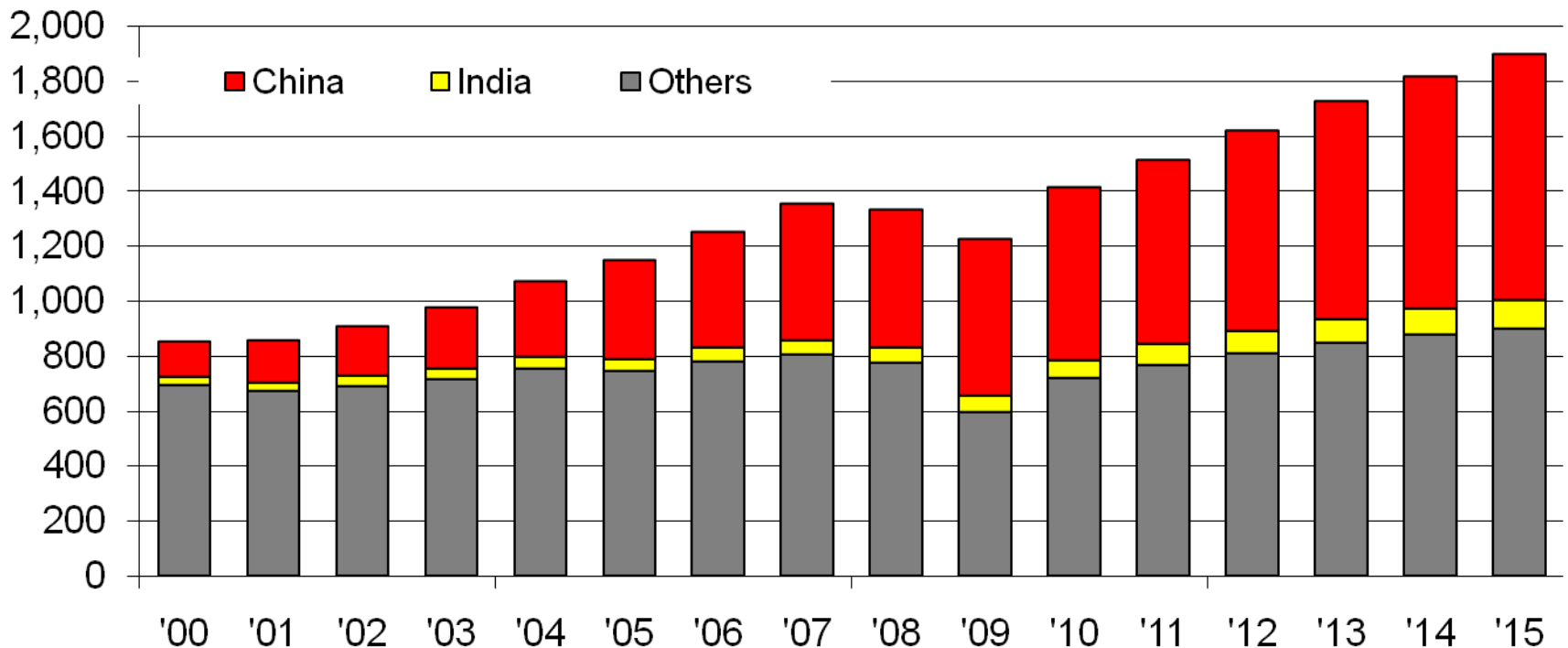
Industrial production in selected countries, index 2005 = 100





# As a result, India and China will buoy global demand with new growth, whilst developed nations slowly recuperate

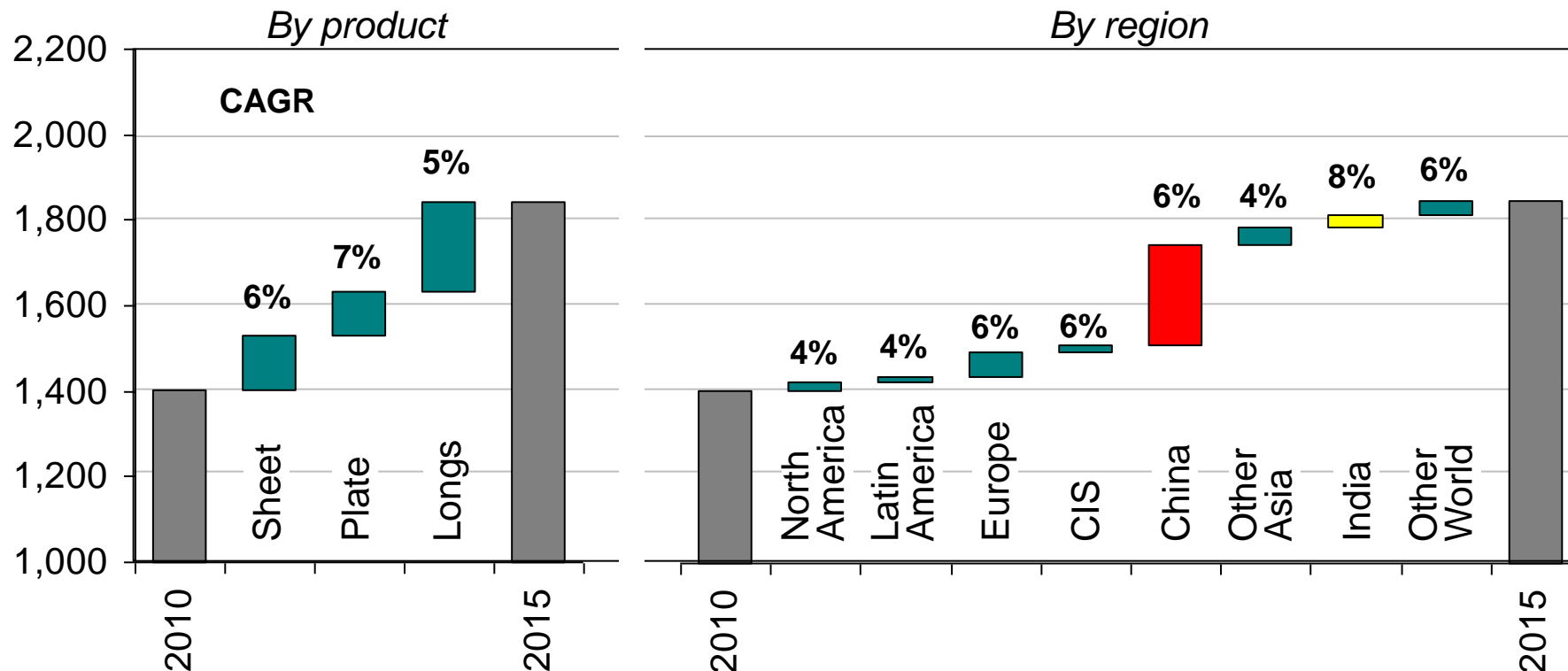
Global apparent finished steel productionon, m tonnes





# Growth rates will be strongest in China, India and the CIS, though China and long products dominate in volume terms

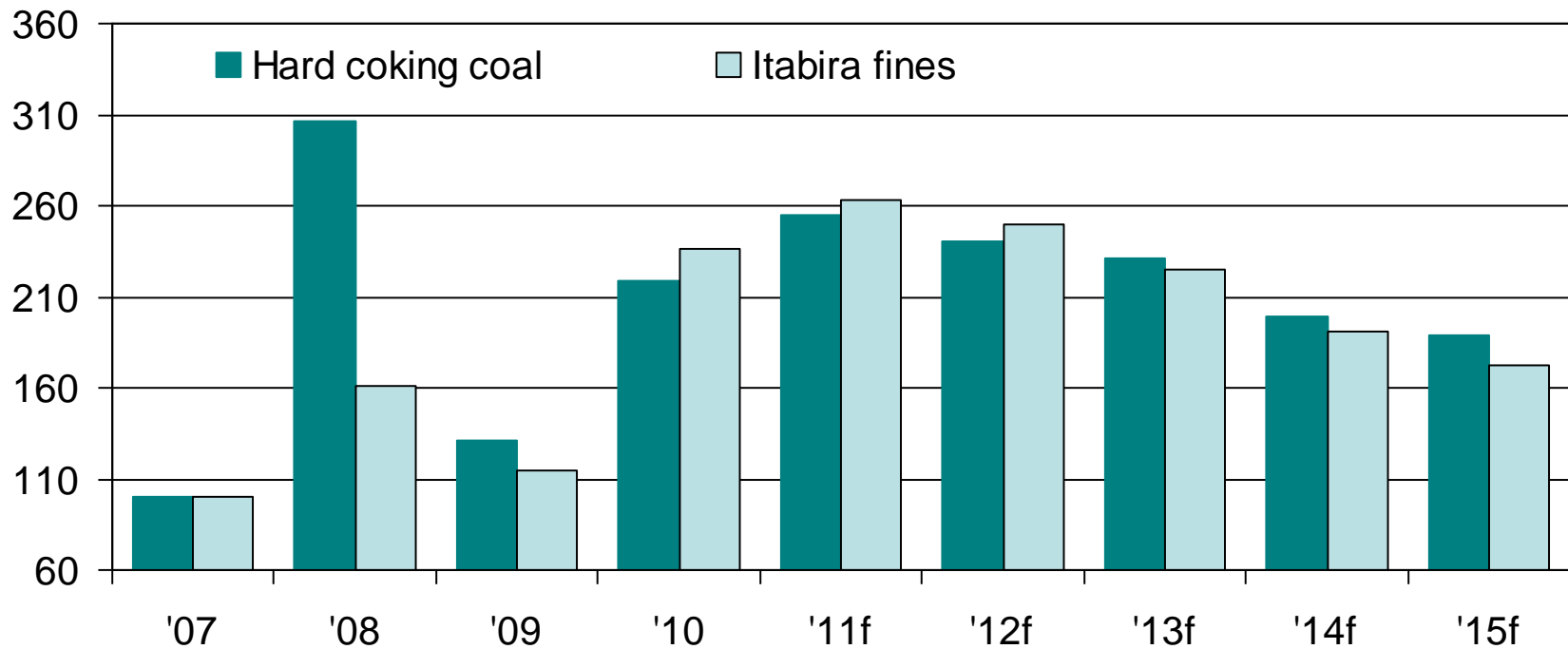
Components of growth in global apparent finished steel consumption, m tonnes





# Meanwhile, global steel production growth will keep raw materials market tight, though less so in each of the coming years, as supplies catch-up

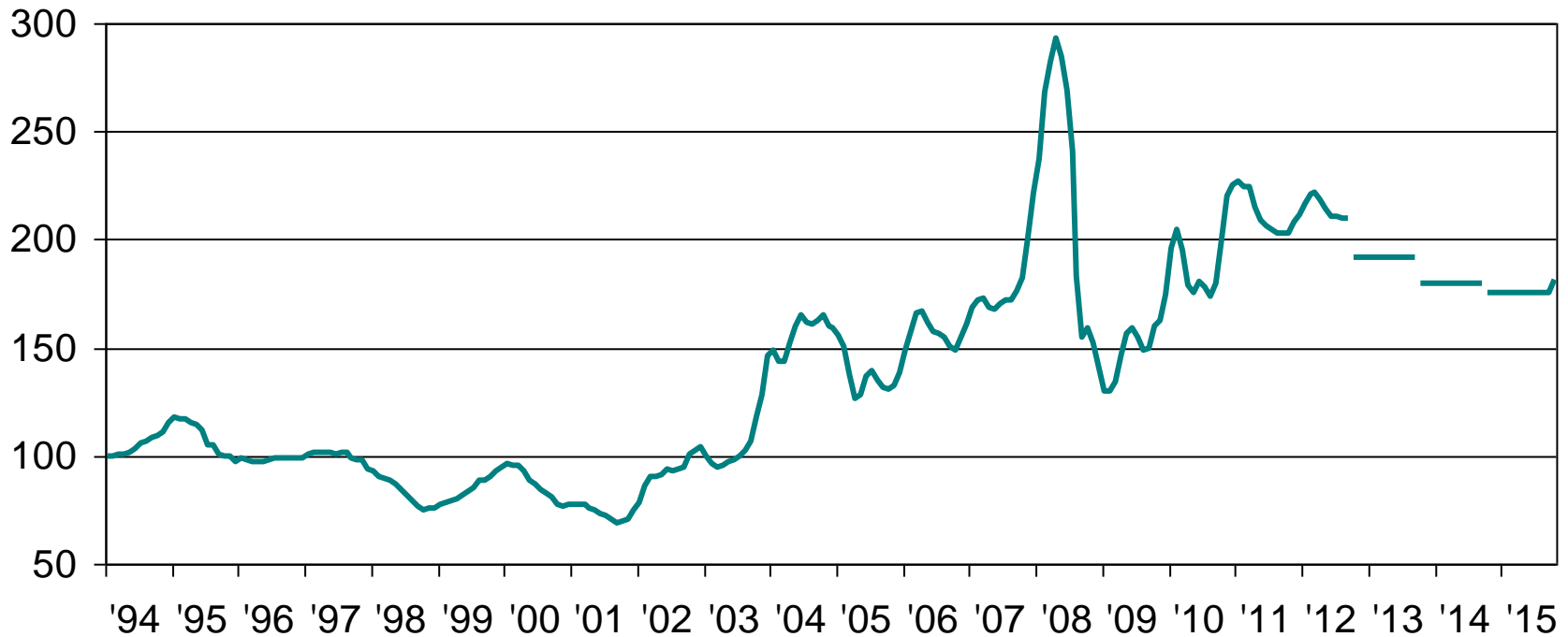
Steelmaking raw materials costs, index 2007 = 100





# This will continue to offer support to finished steel prices, which will peak in 2012 when markets are tightest

CRU steel price index (*CRUspi*), index April 1994 = 100





## Risks

### ■ Downside risks:

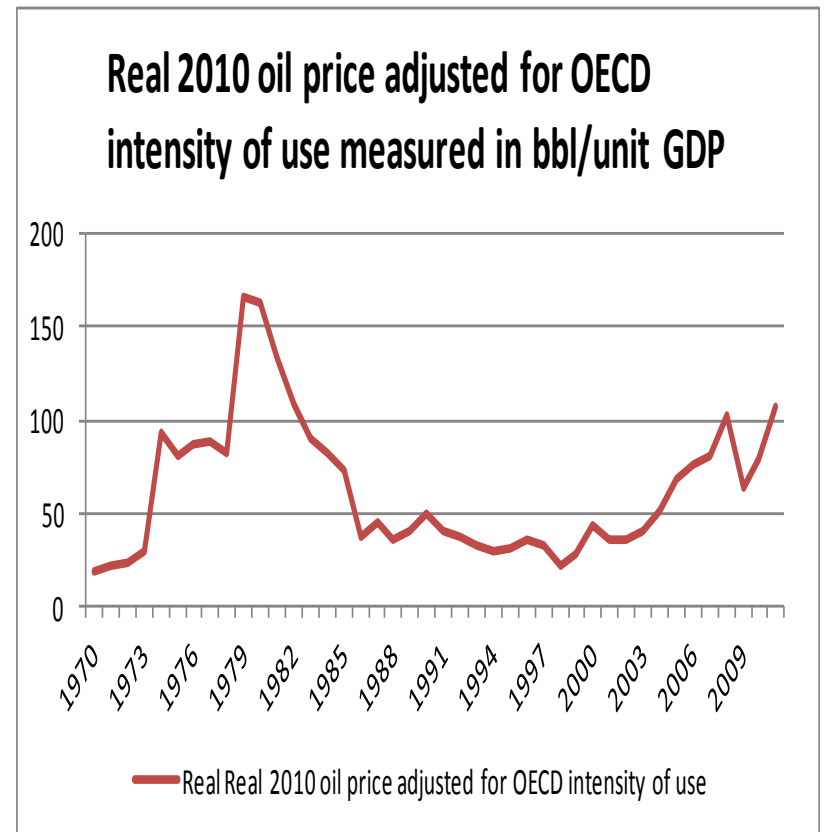
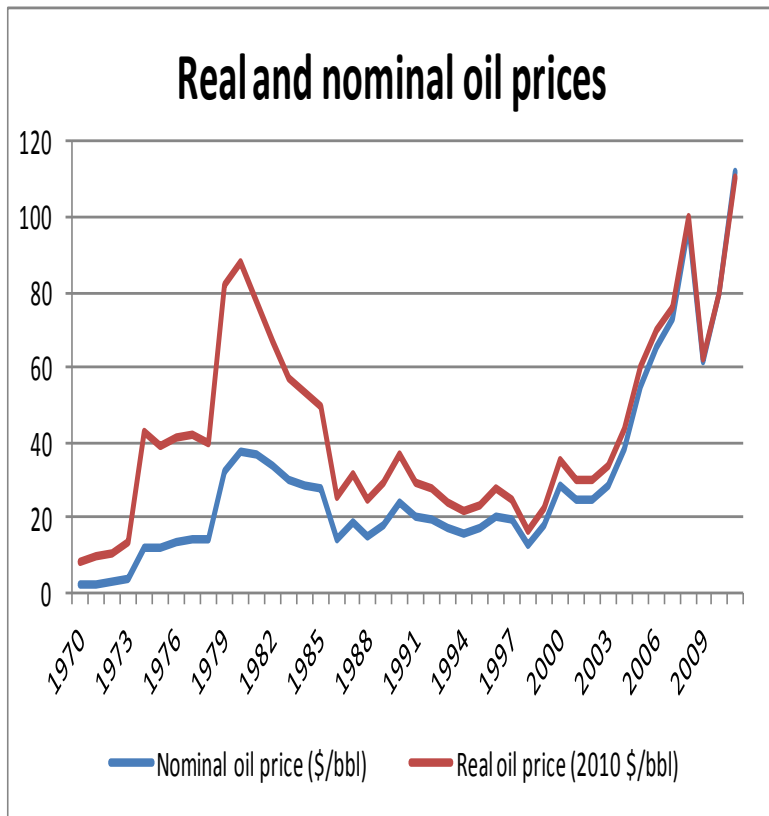
- Widespread inflation shock, especially if upheavals in Middle East result in significant interruption in oil supplies
- Budget gridlock in USA heightens uncertainty, causing bond yields to rise significantly and/or sharp fall in dollar
- Eurozone sovereign debt crisis extends to Spain and Belgium

### ■ Upside risks:

- China brings inflation under control fast and ramps up growth again
- Deficit reduction programmes more effective than expected, lifting confidence



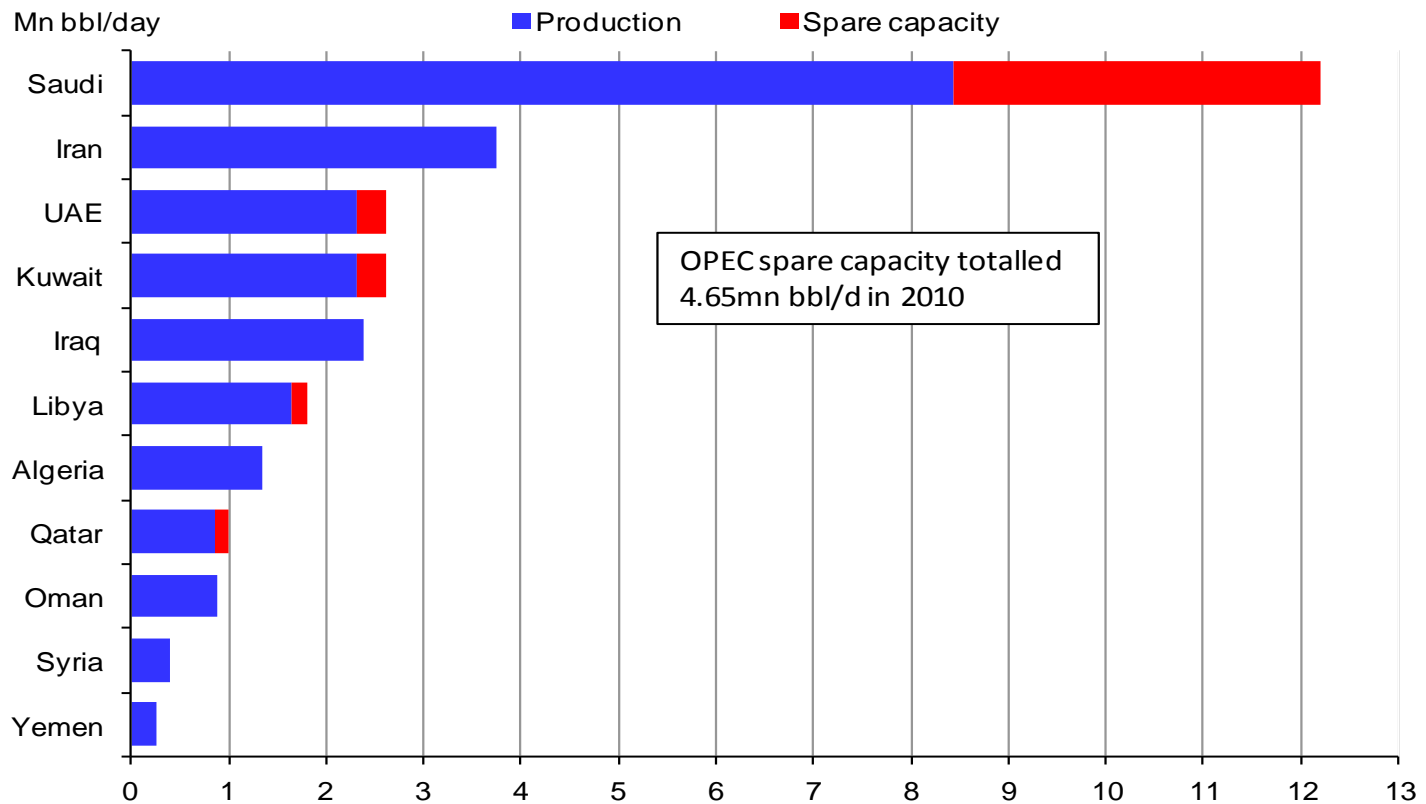
# Oil has hit all time high in nominal terms, highest since 19th century in real terms, and highest in adjusted terms since early 1980s





# Warning signal: capacity buffer compromised if Libyan production lost for significant period

## MENA production and spare capacity, 2010



Data: EIA, CRU



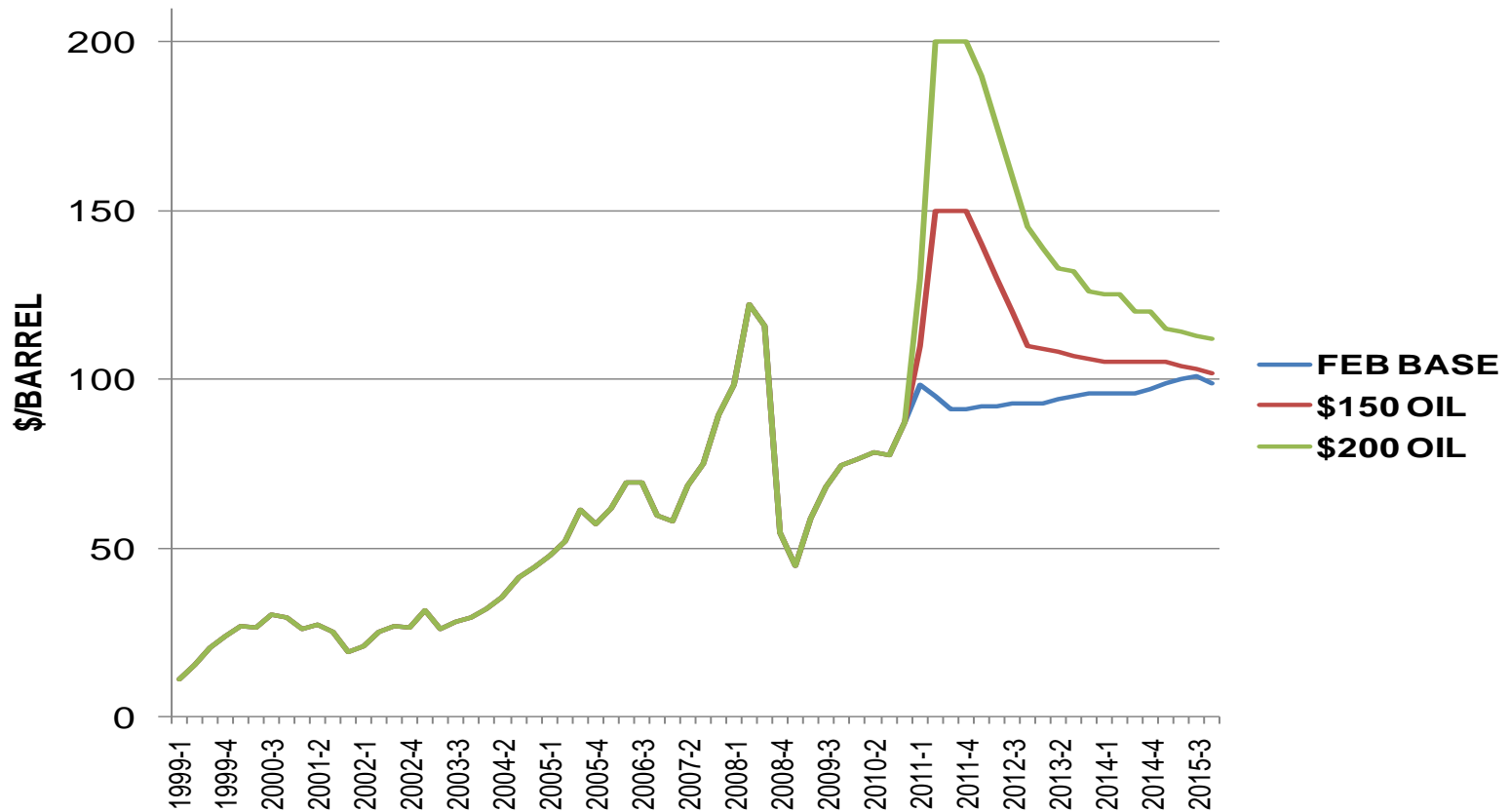
## Assessing implications for the forecast: three scenarios

- Benign reference point: upheavals subside quickly, leaving \$5-10/bbl risk premium, i.e. prices stabilise at \$90-100/bbl
- Medium impact: Libyan production compromised; other MENA oil producers threatened, i.e. prices rise towards \$150/bbl
- High impact: Saudi Arabian output compromised, i.e. prices rise towards \$200/bbl



# Impact of oil price shocks on global growth; sub \$100/bbl oil gone for ever?

OIL PRICE SCENARIOS





## Impact of oil price shocks on global growth

	feb base					\$150 oil					\$200 oil				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
USA	3.2	3.0	3.0	2.8	2.9	-0.4	-1.2	0.1	0.7	0.5	-0.8	-2.0	-0.2	1.0	1.0
Japan	1.8	1.8	2.0	2.1	2.1	-0.3	-0.8	-0.3	0.3	0.7	-0.5	-1.4	-0.8	0.4	1.2
Eurozone	1.6	1.8	2.0	2.1	2.1	-0.7	-0.3	0.7	0.4	0.1	-1.2	-0.6	0.9	0.7	0.4
China	9.7	9.1	8.6	8.5	8.3	-0.8	-1.8	0.6	2.4	0.4	-1.4	-3.1	0.4	4.2	1.4
India	8.1	9.1	9.0	8.7	8.3	-1.1	-1.9	1.5	1.1	0.2	-1.9	-3.5	1.7	2.2	0.7
Brazil	4.6	5.2	4.8	4.1	4.2	-0.8	-1.5	0.7	0.4	0.5	-1.4	-2.7	0.7	0.8	1.1
OECD	2.6	2.8	2.8	2.7	2.7	-0.5	-0.9	0.4	0.5	0.3	-1.0	-1.5	0.4	1.0	0.9
World	3.6	3.9	3.9	3.8	3.7	-0.5	-1.0	0.5	0.8	0.3	-0.9	-1.7	0.5	1.4	0.9



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