Getting ready for China's investment slowdown

Why slower growth rates could translate into bigger impact

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A new China story: growth matters less than volume now

- China is moving from a high-growth era to a **slower-growth but sustained high volume era.**

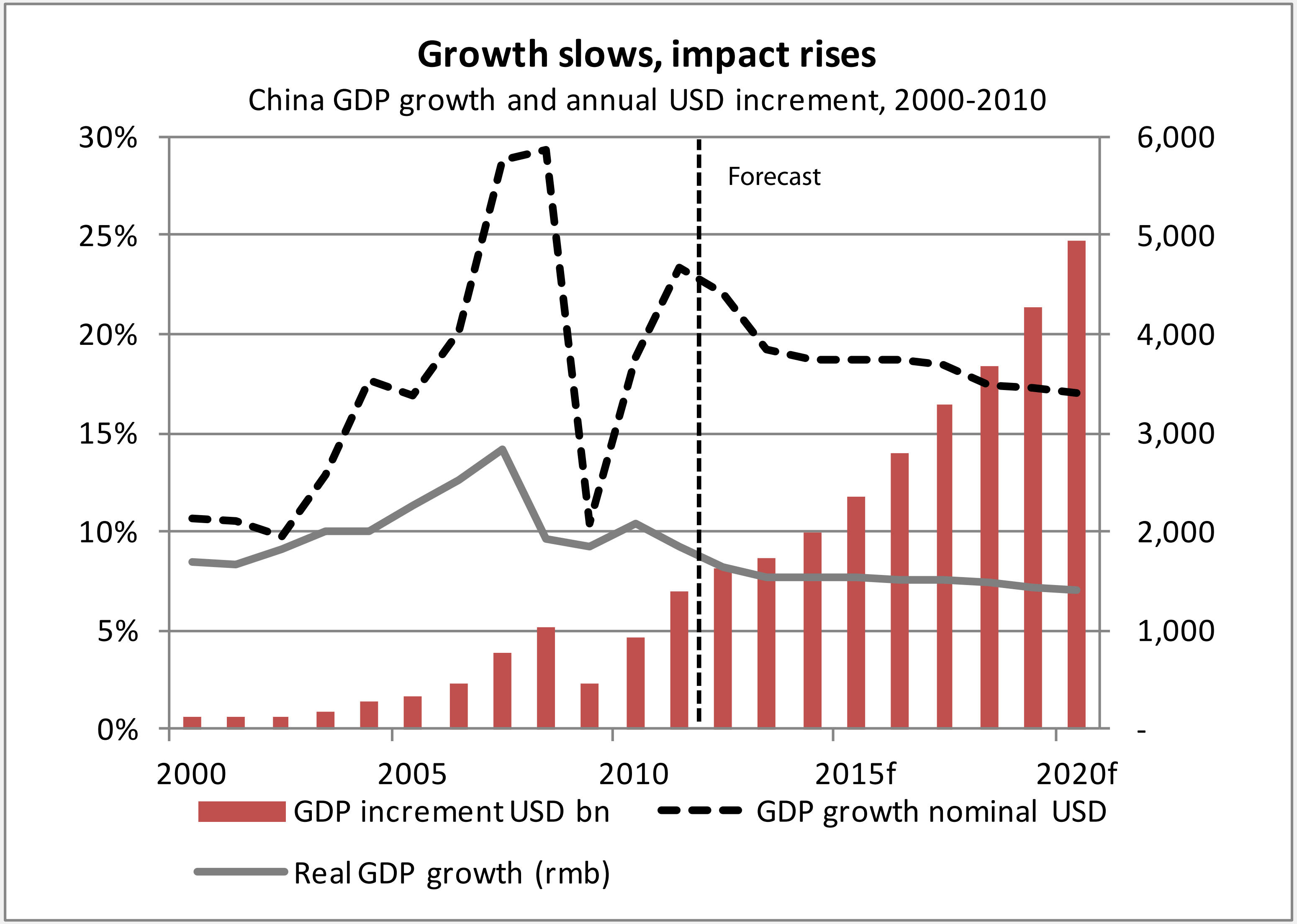
- For GDP growth, this means a shift from average growth of 10.7% p.a. in 2003-10 to average growth of 7.5% in 2012-2020.

- However, the growth rate is not what matters most now for the rest of the world and for international investors: rather it is the annual increment in nominal GDP, expressed in USD. **By this measure, China will add US$26.5 trn to global GDP over the next nine years, nearly 5 times the amount it added in 2003-11.** In gross terms, China has been the world's biggest contributor to global domestic demand since 2008; this role will only grow over time.

- The composition of growth will gradually shift, with the investment contribution to GDP growth falling from an average of 5.7% in 2003-11 to 3.5% in 2012-2020. But again, the high base effect means the **incremental volume** of investment activity will continue to grow substantially.

- Over the next decade, we are likely to see some (but not all) of the key investment drivers peak. But rather than falling, these sectors are likely to sustain a very high plateau for a long time. We illustrate this with the housing sector.

The magic of the base effect



Focus on real GDP growth rates can obscure volume impacts. For the latter, it's better to look at the nominal increase in USD GDP.

In 2003-11, China added US$5.9 trn to global GDP.

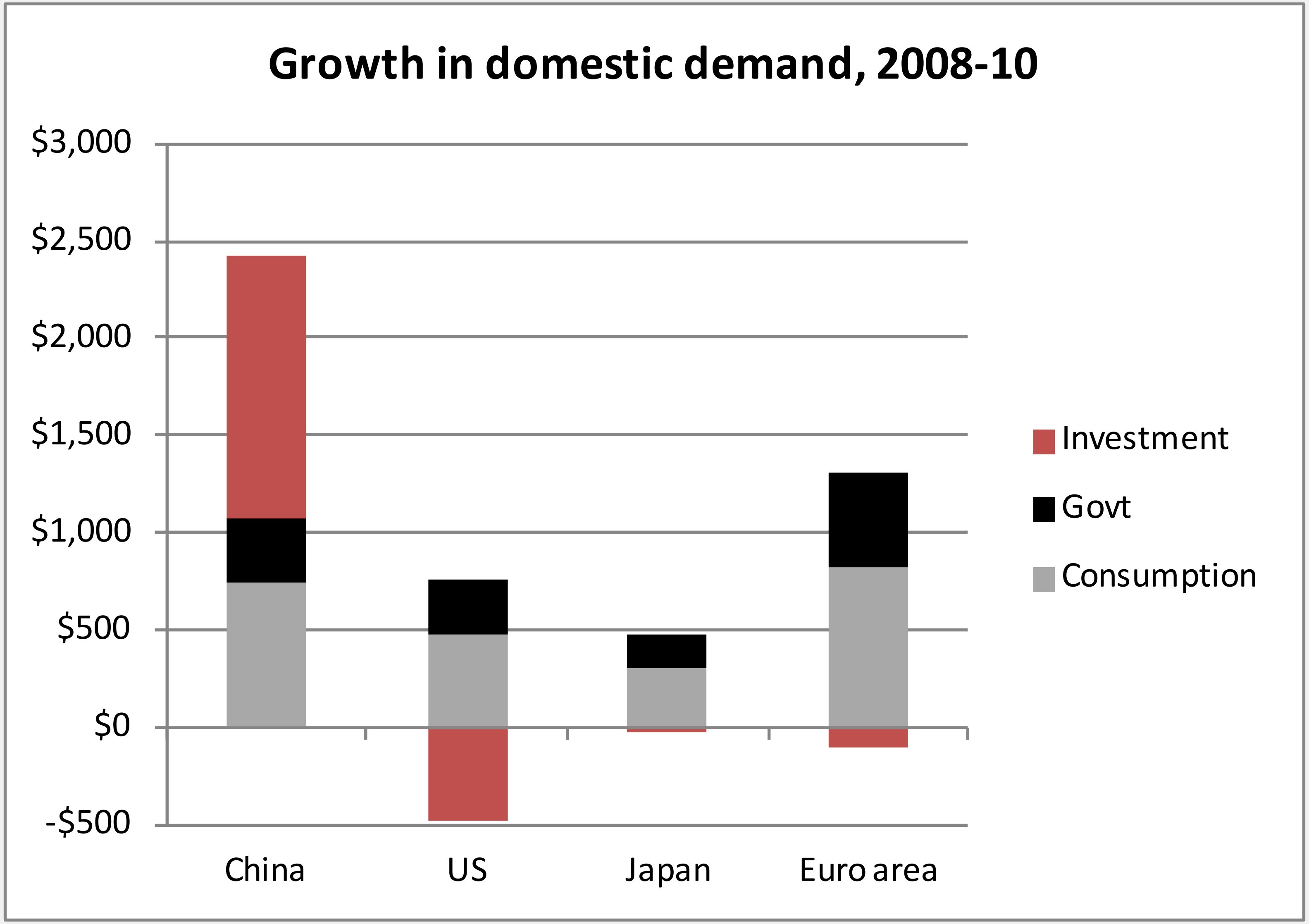
For 2012-20, we estimate **China will add US$26.5 trn to the global economy** – nearly 5x the growth increment of 03-11, even though the real growth rate will slow by 1/3.

The **increment** in China's 2020 GDP will be as big as China's entire 2009 economy.

Assumptions:

	03-11	12-20
Real GDP growth	10.7	7.5
GDP deflator	5.1	6.5
RMB/USD % ch	2.9	3.1

China is the leading contributor to global demand growth



In the three years before the global financial crisis (2005-07), China contributed US$1.1 trn of new domestic demand (at PPP) to the global economy, just 1/5 of the combined US/ Eurozone contribution.

In the next three years, China contributed US$2.4 trn, 65% more than the US/ Eurozone combined.

Most of that came from investment, but in 2010 China contributed more to global consumption growth than either Japan or the Eurozone.

Understanding China's housing sector

• **Urban China has a massive housing shortage.** There are approximately 65m more urban households than there are units of independent urban housing.

• **Market statistics miss a large part of construction activity,** both residential and non-residential. About 30% of housing completions – and over 80% of non-residential completions – are "off-market." In 2009, nearly 50% of urban residents in independent housing reported purchasing or renting their house in non-market transactions – usually from their employer.

• **Urban China must build 10m units of housing a year over the next two decades**, to meet its basic needs, up from 6.9m units a year in 2006-2010

How housing is bought in China

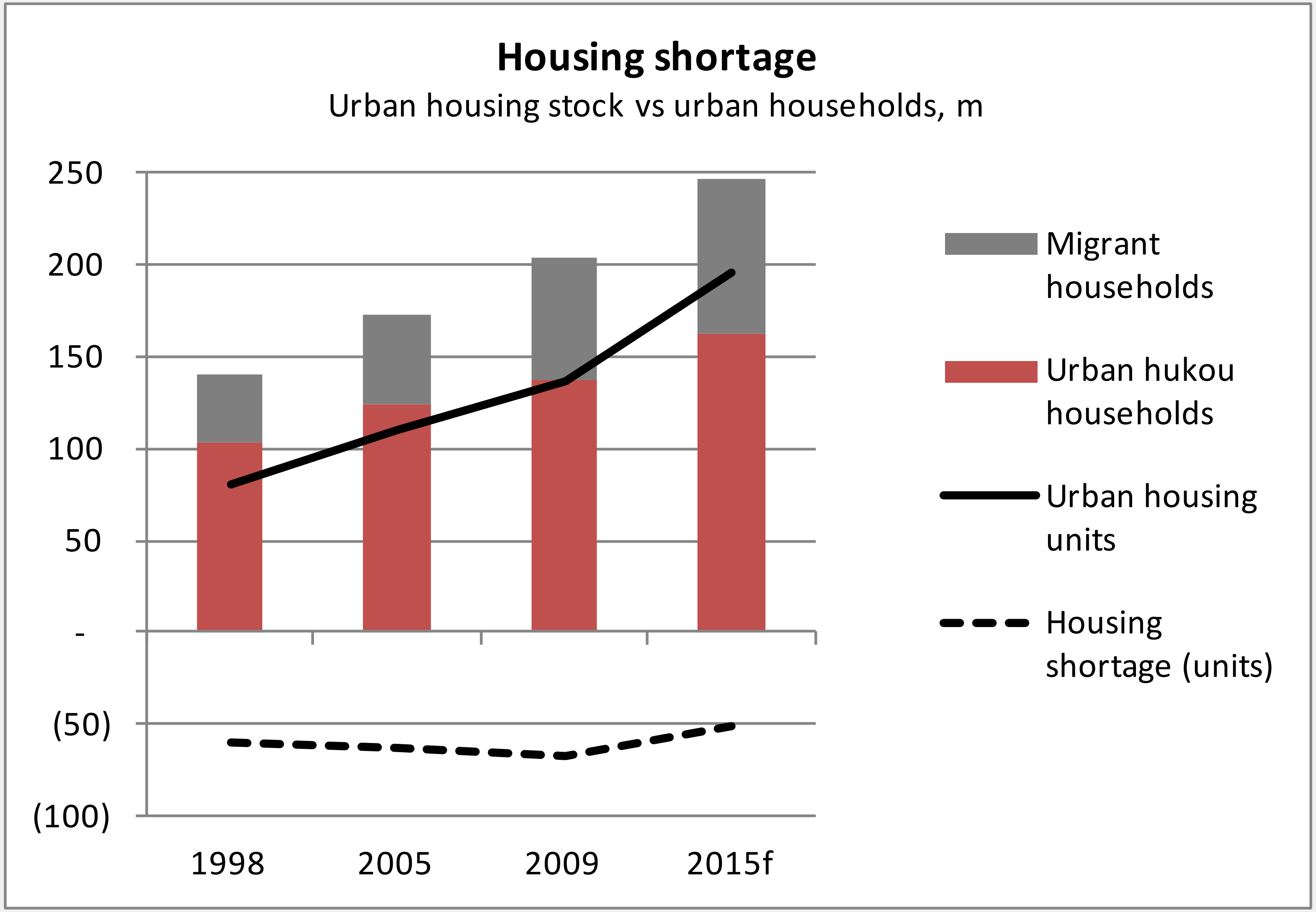
	2005	2009
Purchased from employer	52%	41%
Purchased from market	22%	37%
Private housing	11%	10%
Rented from employer	10%	7%
Rented from market	2%	3%
Other	3%	2%

Source: National Commercial Real Estate Association

Annual housing demand 2011-2030

	2011-2030	Annual requirement
New urban households	100 m	5.0 m
Existing shortage	65 m	3.3 m
Depreciation	35 m	1.7 m
Total	**200 m**	**10.0 m**
Average completions 2000-2010		6.9 m

Urban China is short about 65m houses

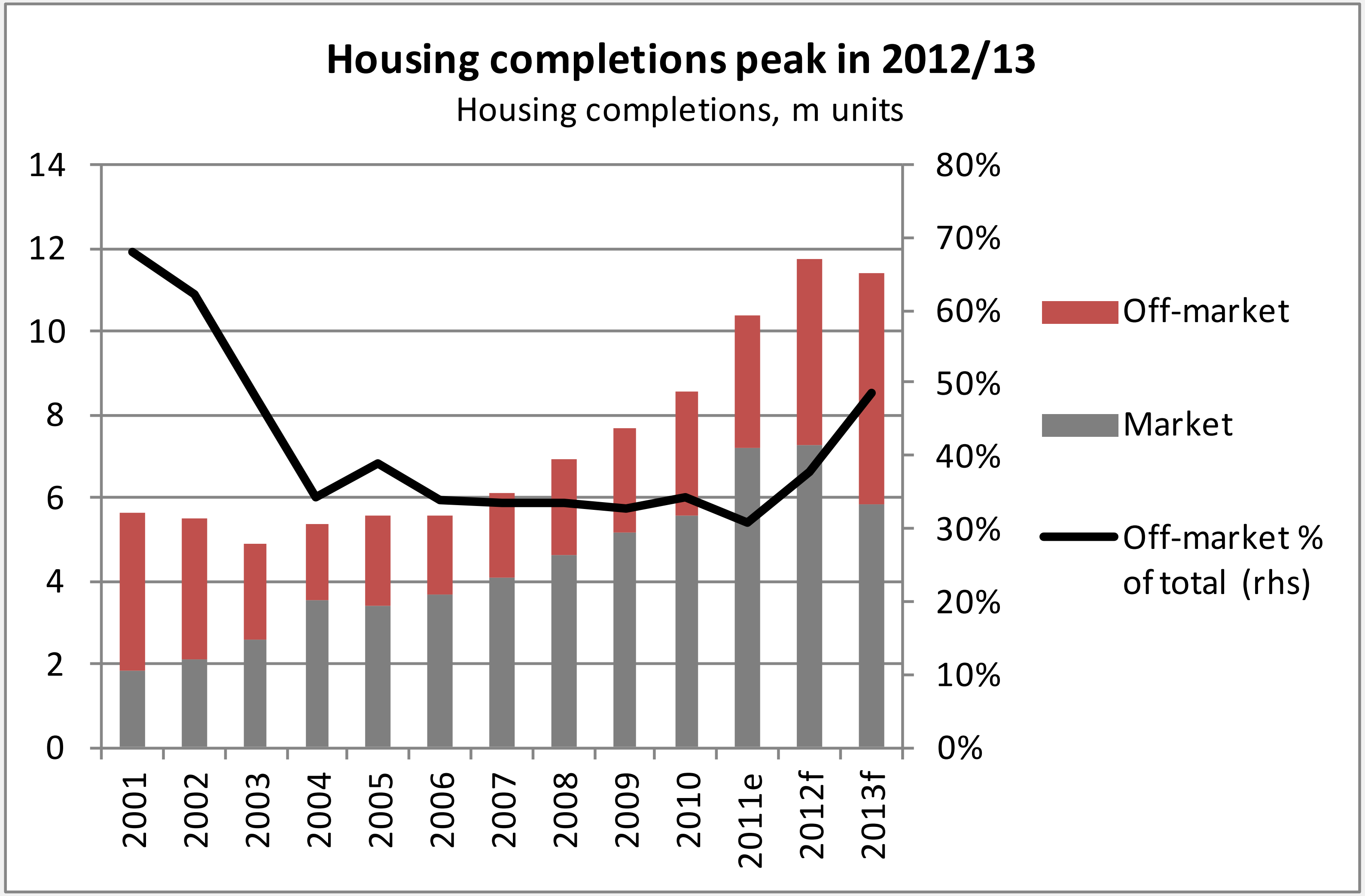


In 2011, urban China had about 150m units of independent housing (units with their own kitchen and bath). This was 65m less than the number of urban households.

Most of the "unhoused" are migrant workers living in dormitories, temporary worksite shelters, shared rentals, etc.

By 2015, there will be more than enough urban housing for urban *hukou* holders. But the shortage of affordable housing for migrant families will still be severe.

‘Peak housing’ is near – but a long plateau follows

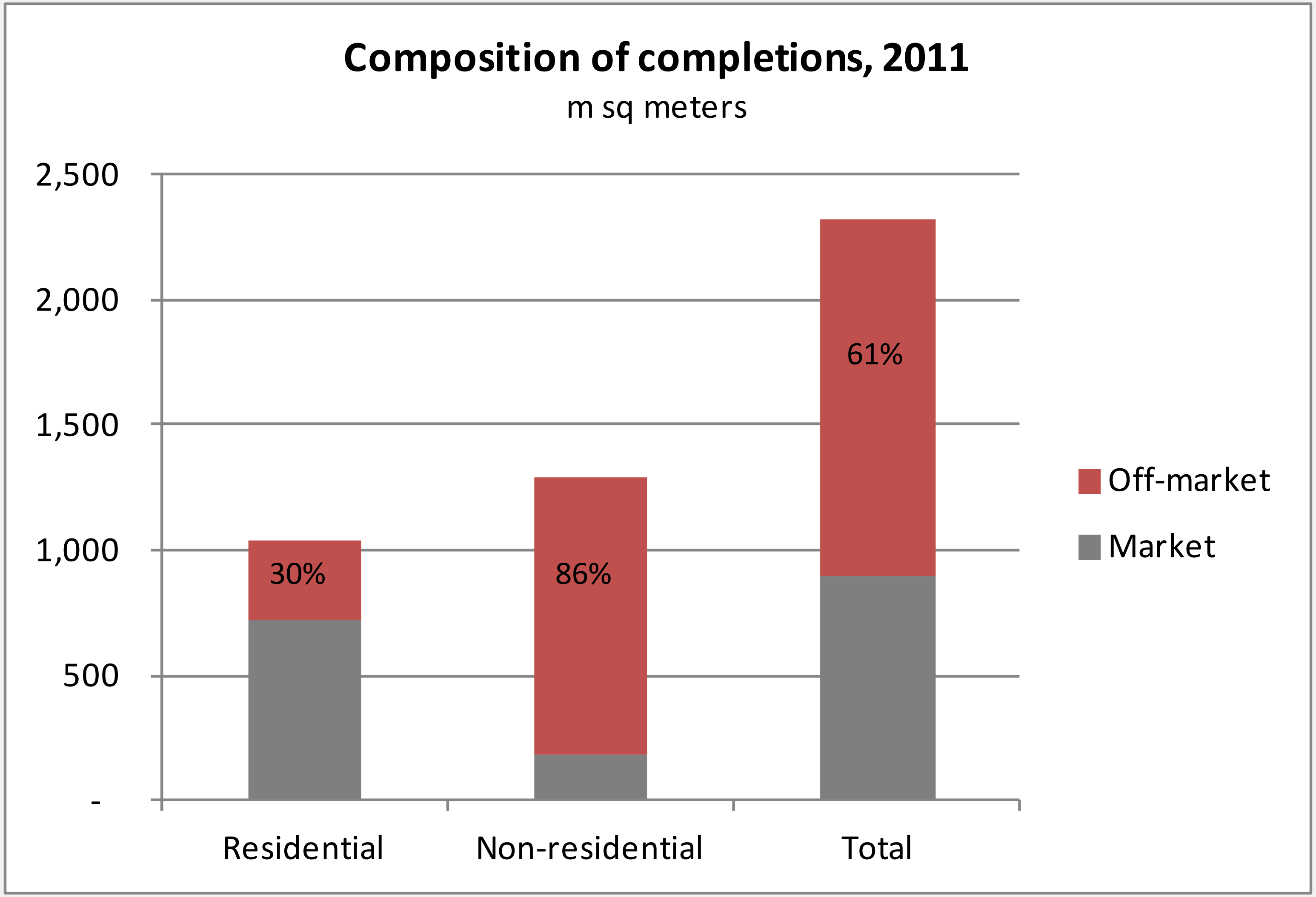


During the housing boom of 2006-10, China completed 6.9m units of urban housing each year. We estimate completions rose to around 10m in 2010.

To close the current housing shortage, replace dilapidated stock, and house 100m new urban households, completions must average 10m units a year for 20 years.

We expect annual completions to average 11-12m p.a. in the 2011-15 plan period, and then fall to 10m units or less in following years.

Market statistics don't tell the full story



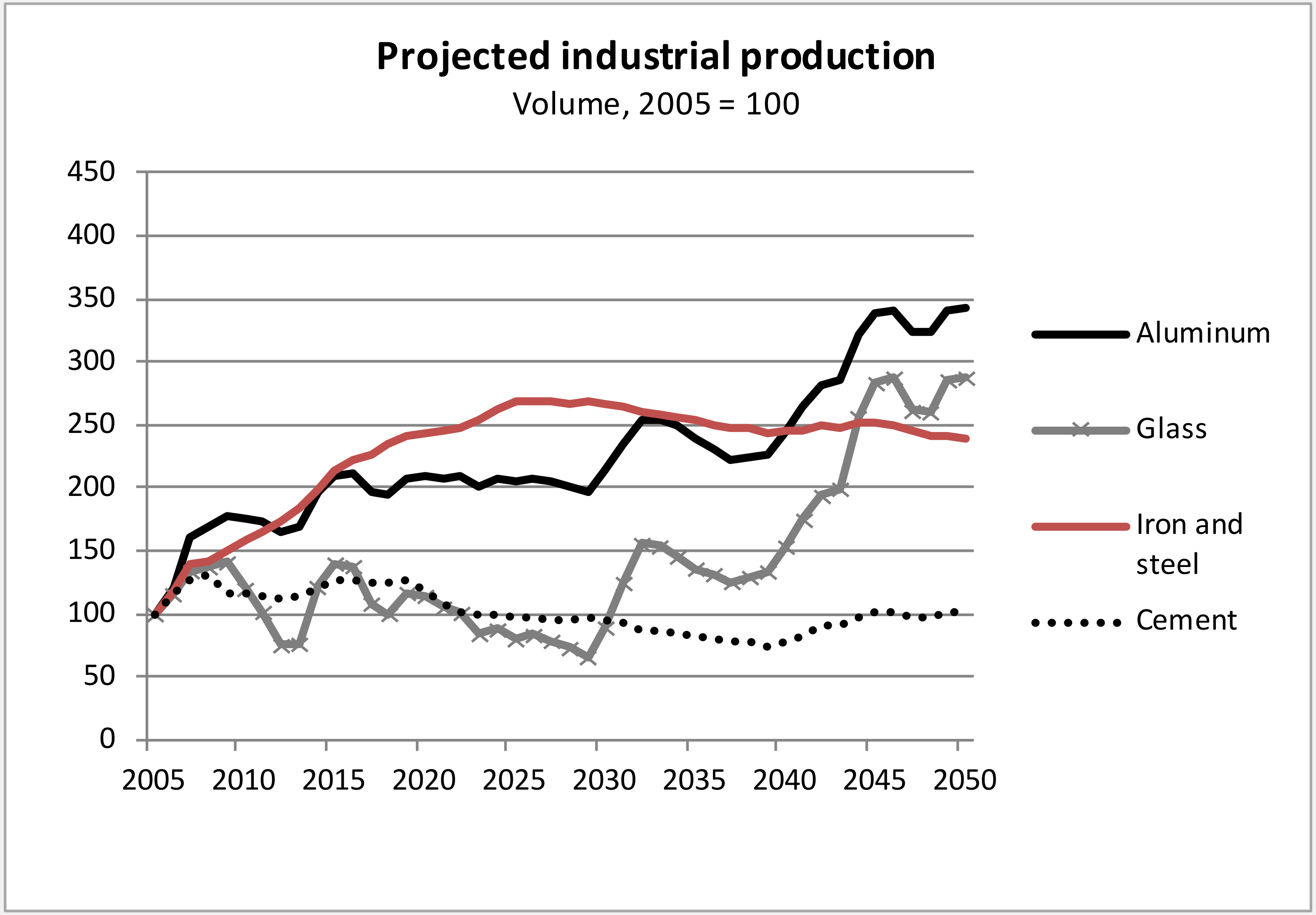
Market data on construction and completions is misleading, because a high percentage of construction activity occurs in off-market segments.

These include government and para-governmental office buildings, and various types of company-supplied or subsidized housing.

In 2011, 1.4m sq meters of off-market construction were completed, compared to 900m square meters of on-market.

The off-market component of residential completions is likely to increase sharply in 2012-15, thanks to social housing.

Implications for industry and commodity demand



Source: LBNL China Energy Project

We expect a number of key investment sectors to follow a pattern similar to housing: peaks reached by 2020, followed by a long plateau at a high level.

In contrast to 2003-2011, growth rates will be very low but annual volumes will be extremely high, for a long time.

Detailed bottom-up modeling by Lawrence Berkeley Labs' China Energy Project suggests cement production could peak by 2015 and steel by the early 2020s. Plateaus could last for decades.

Other commodities like aluminium and glass will plateau for a period, and then enjoy new growth phases based on consumer demand.

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