



China Steel Industry to Keep Stable Growth in Next Five Years

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Shanghai SteelHome Website

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Key Points

1. Stable and relatively fast growing economy has proved to be the primary impetus behind China steel industry over the past decade. China steel industry is mainly based on domestic demand and its development has become the main driving force of global steel industry.
2. The rapid growth in China steel industry has contributed to global raw materials market boom. China and global steel industry is seriously damaged by top three iron ore giants because they changed pricing system and pushed up iron ore prices.
3. As Chinese government is accelerating the transformation of economic growth, actively promoting economic restructuring and striving to boost household consumption, crude steel consumption intensity per unit of GDP will decrease year by year. However, unbalanced development in different regions in China will sustain crude steel consumption at high level.

Key Points

4. China steel industry is now working on energy saving & emission cut and product mix adjustment, so capacity additions will grow slowly.

5. China's crude steel production and consumption will peak in 2012. We expect that China crude steel consumption will show downward trend after 2015 and might decrease to 600 million tonnes or even less by 2020. China steel imports and exports will maintain at a reasonable level and production will depend on global demand.

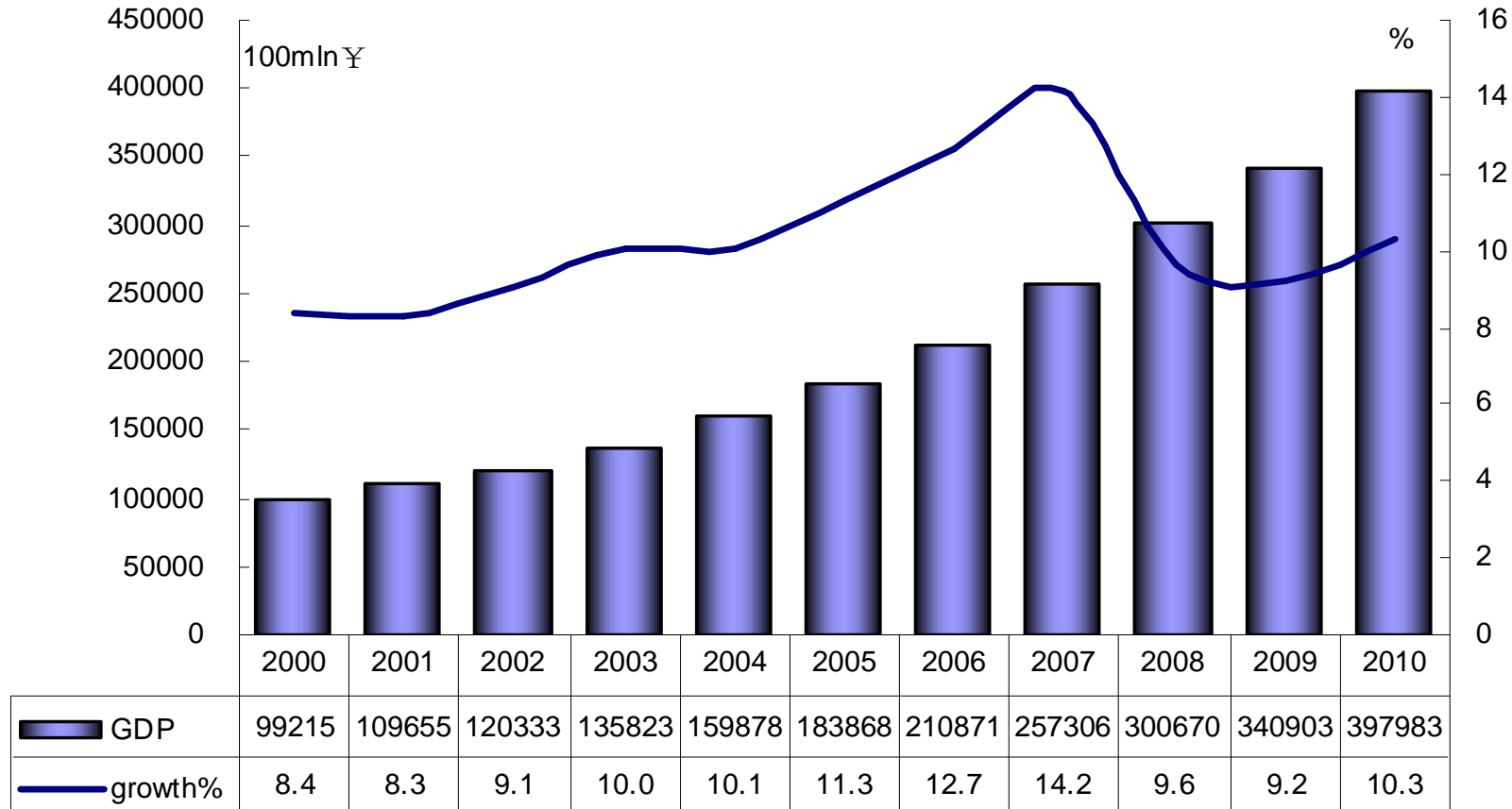
6. China's dependency on iron ore imports will gradually decrease since a) domestic iron ore capacity will further increase in the next five years as steel mills intensify domestic mining b) Chinese steel mills actively promote overseas mining projects to enhance resources supply capacity. c) China's reservoir of obsolete scrap will increase on rising cumulative steel consumption.

7. The pace of M&As in China steel industry is accelerating and concentration rate is increasing.

8. China 2011 steel market will see slowing production rise, basic balance of supply and demand, reasonable level of inventory, and higher price level than 2010.

Stable and Fast Growing Economy Proved to be Impetus behind Steel Industry

China GDP and Growth in 2000-2010

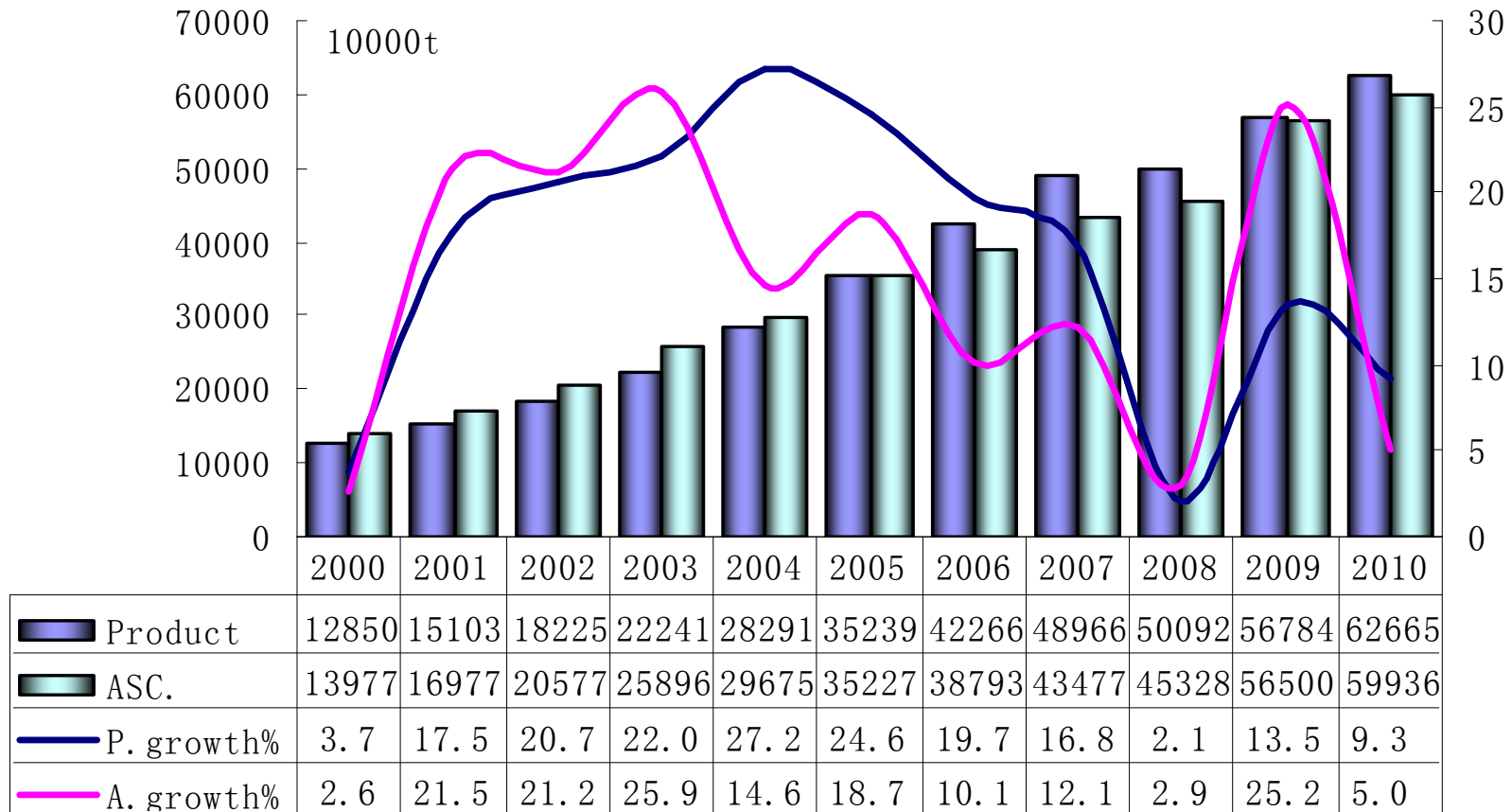


Data: NBS, SteelHome

In 2010, China GDP totaled CNY 39.8 trillion, four folds over 2000.

Stable and Fast Growing Economy Proved to be Impetus behind Steel Industry

China Crude Steel Production & Apparent Consumption in 2000-2010

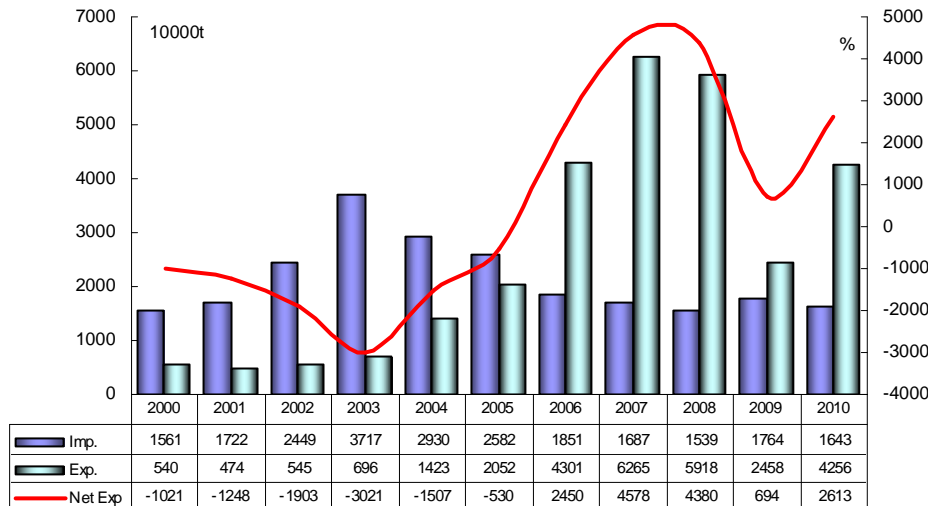


Data: NBS, China Customs, SteelHome

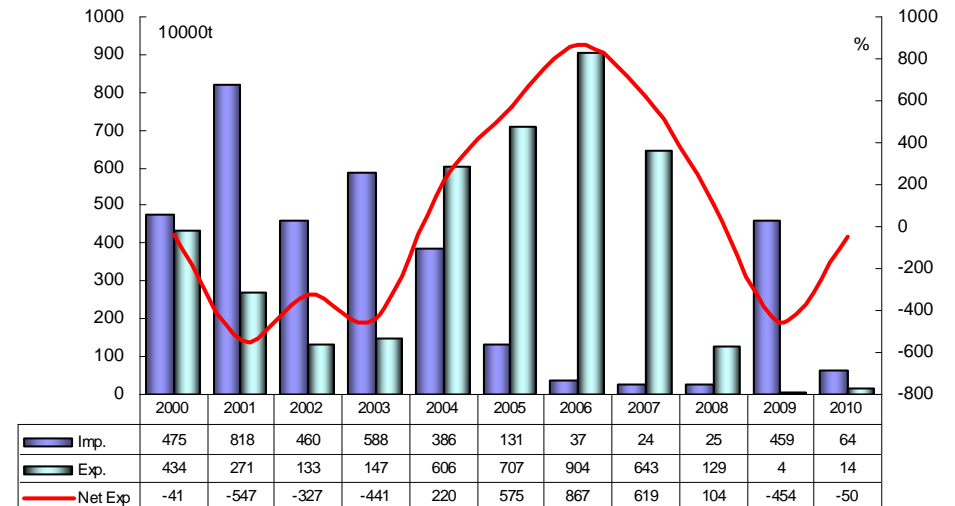
In 2010, China crude steel production hit 627 million tonnes, increasing 4.9 folds from 2000; apparent steel consumption was 600 million tonnes, 4.3 folds from 2000.

China Steel Industry Based on Domestic Demand

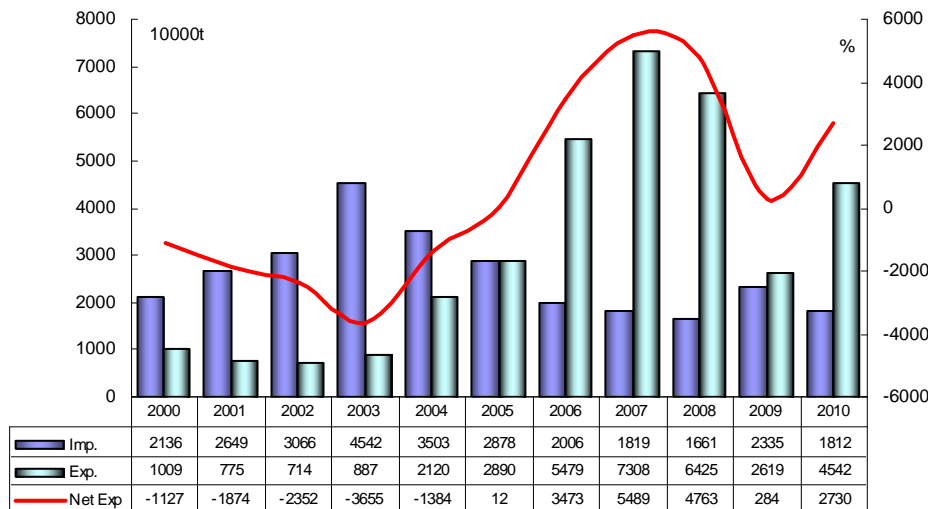
China: Steel Products Import/Export in 2000-2010



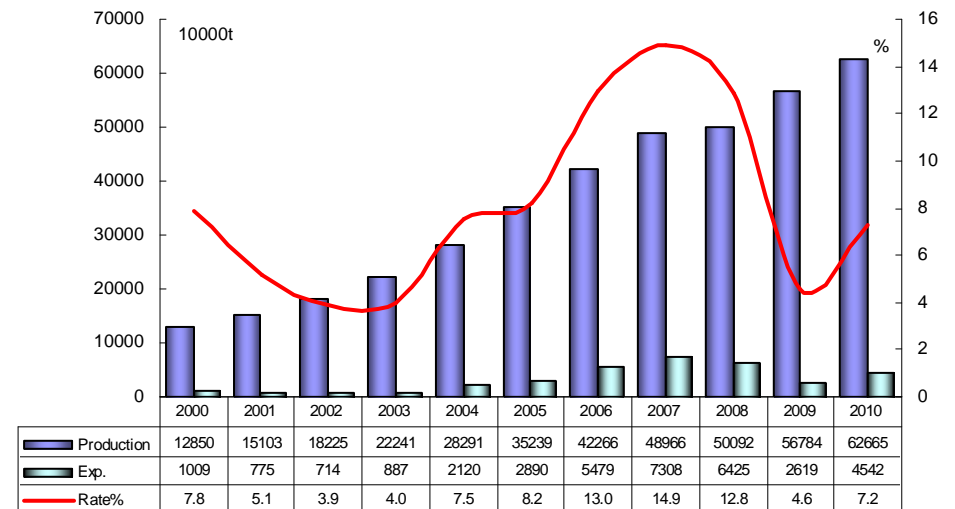
China: Semis Import/Export in 2000-2010



China: Crude Steel Import/Export in 2000-2010



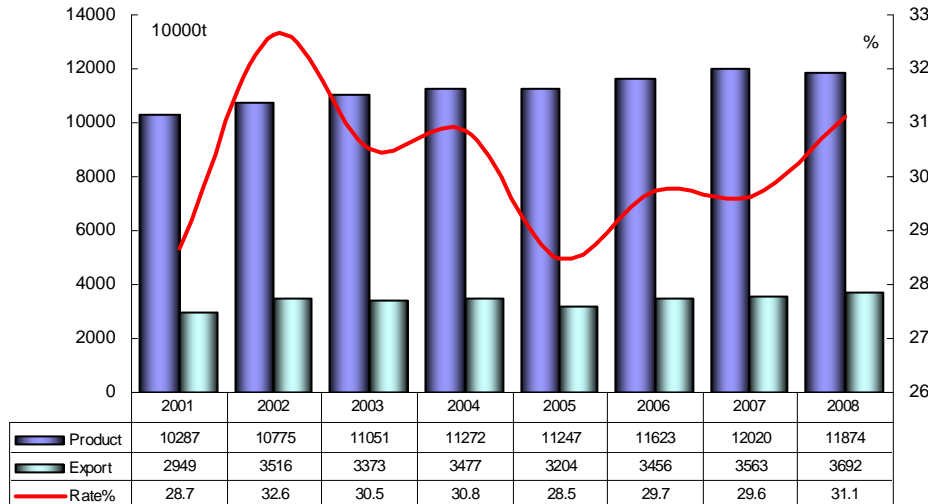
China: Crude Steel Exports as a Share of Production in 2000-2010



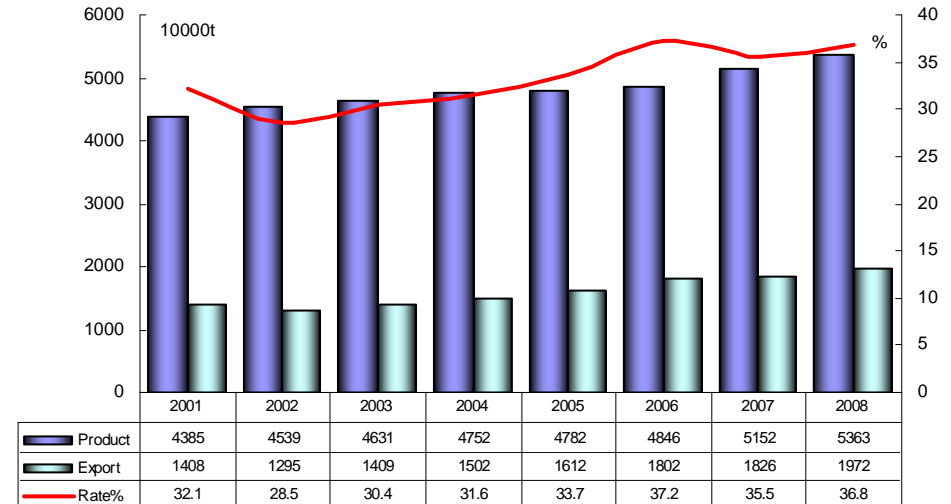
China crude steel exports take 7-15pct as a share of production since 2005. Source from NBS, Customs, SteelHome

China Steel Industry Based on Domestic Demand

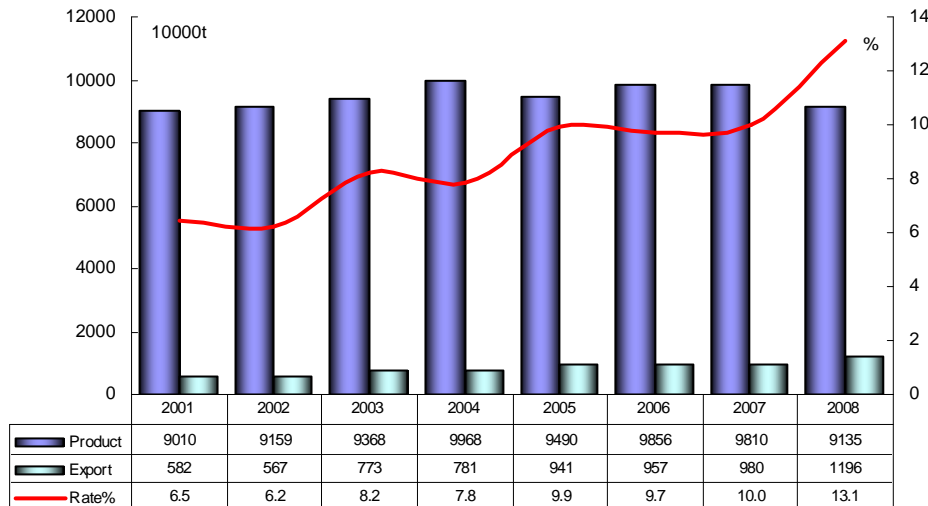
Japan: Ratio of Steel Export to Output in 2000-2008



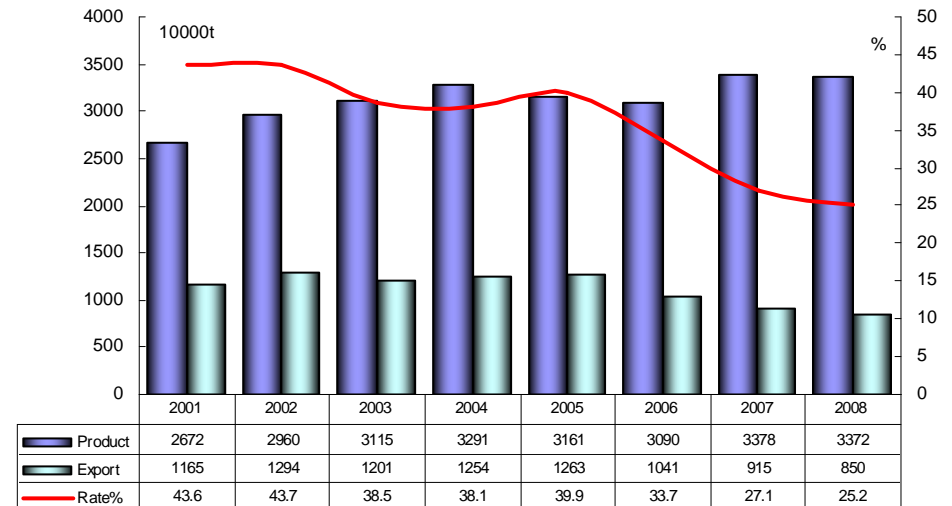
South Korea: Ratio of Steel Export to Output in 2000-2008



USA: Ratio of Steel Export to Output in 2000-2008



Brazil: Ratio of Steel Export to Output in 2000-2008

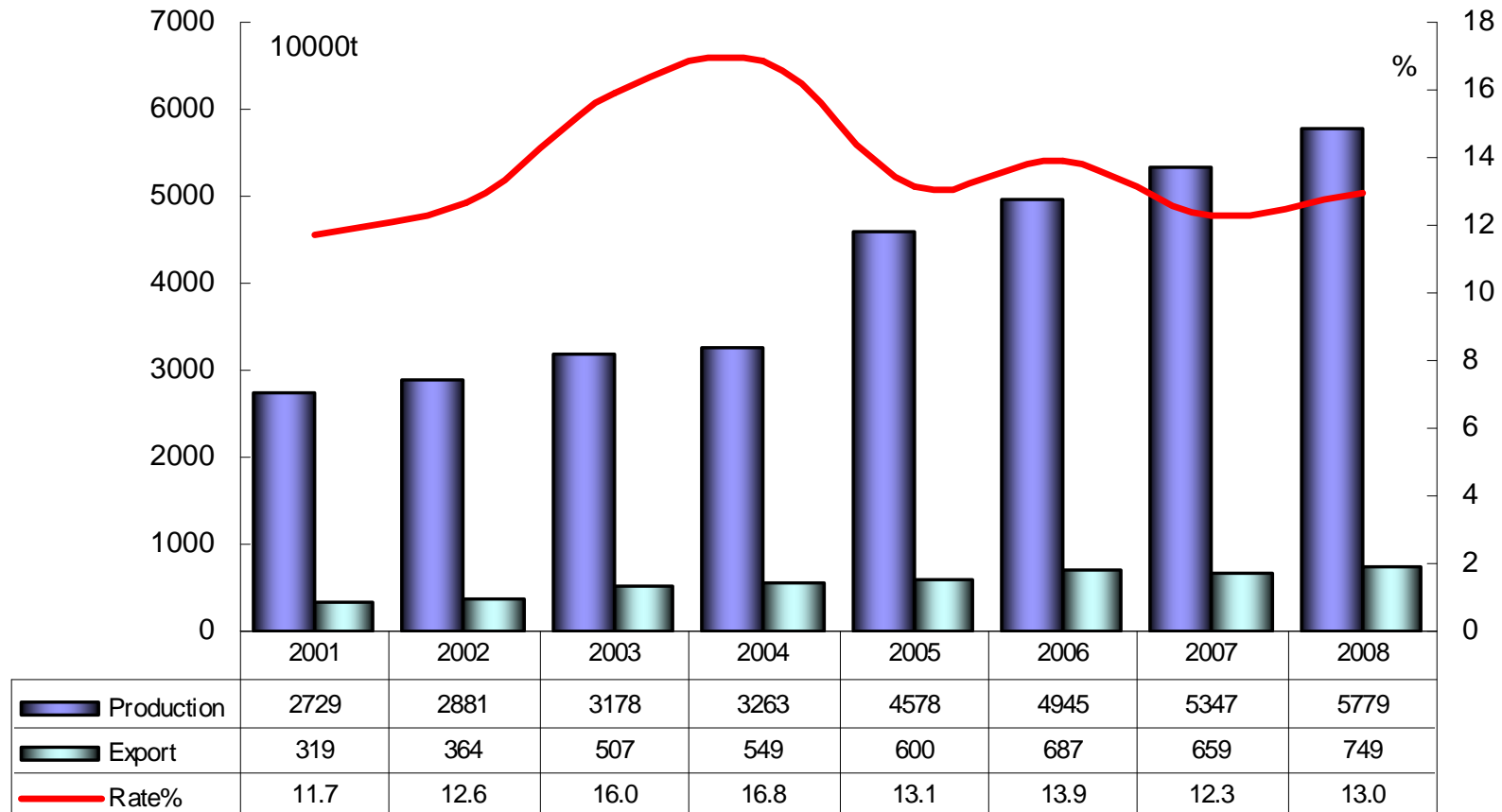


For major steel-making countries, ratio of steel export to production stands over 20 pct (like Japan, South Korea and Brazil) and even for USA, the ratio is around 10 pct.

Source: WSA

China Steel Industry Based on Domestic Demand

India: Ratio of Steel Export to Production in 2000-2008

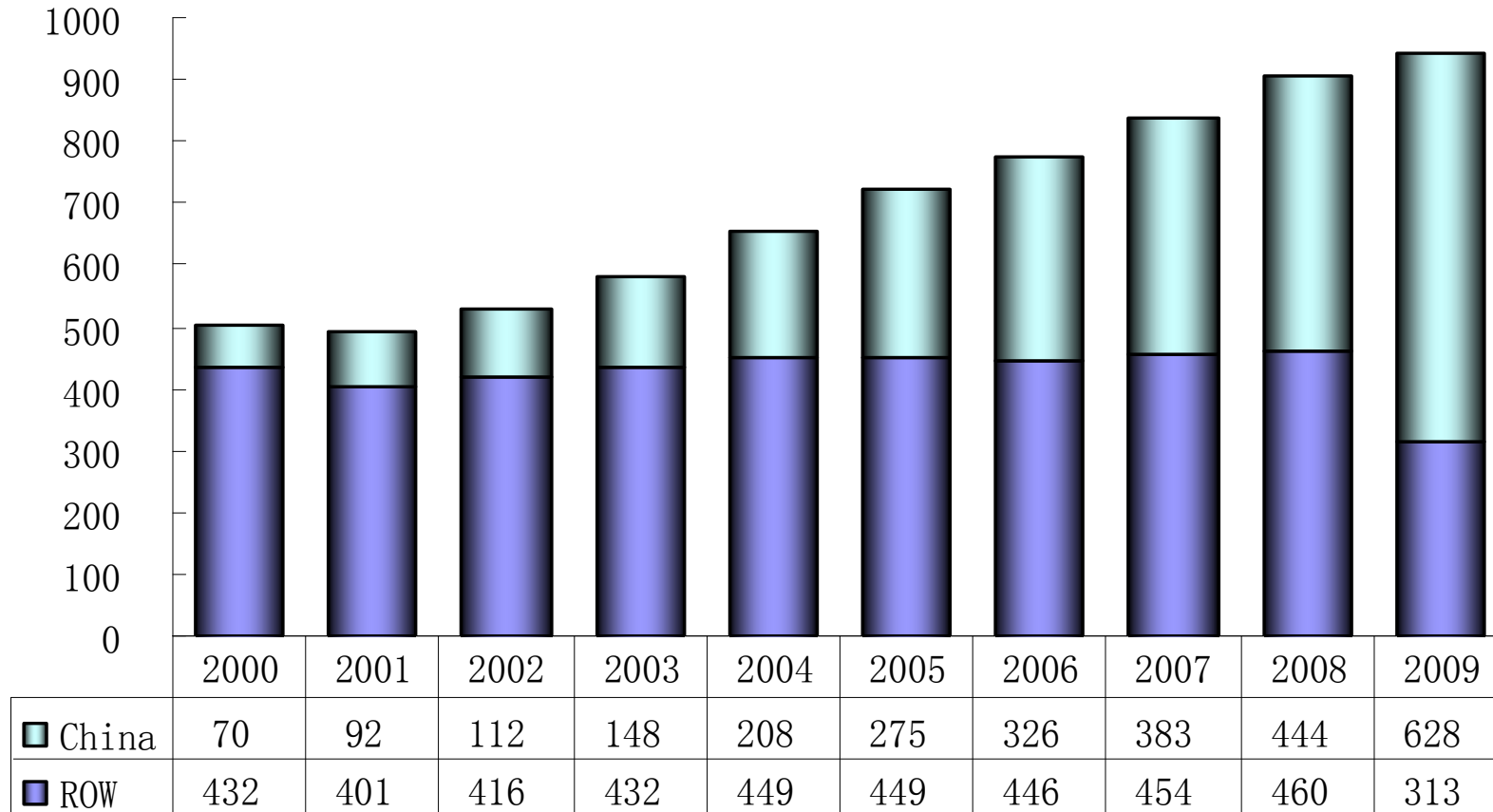


Source from WSA

China's ratio of steel export to production was lower than India, but 2007 was an exception.

China Steel Industry Contribute to Global Raw Material Market Boom

World Iron Ore Exports in 2000-2009

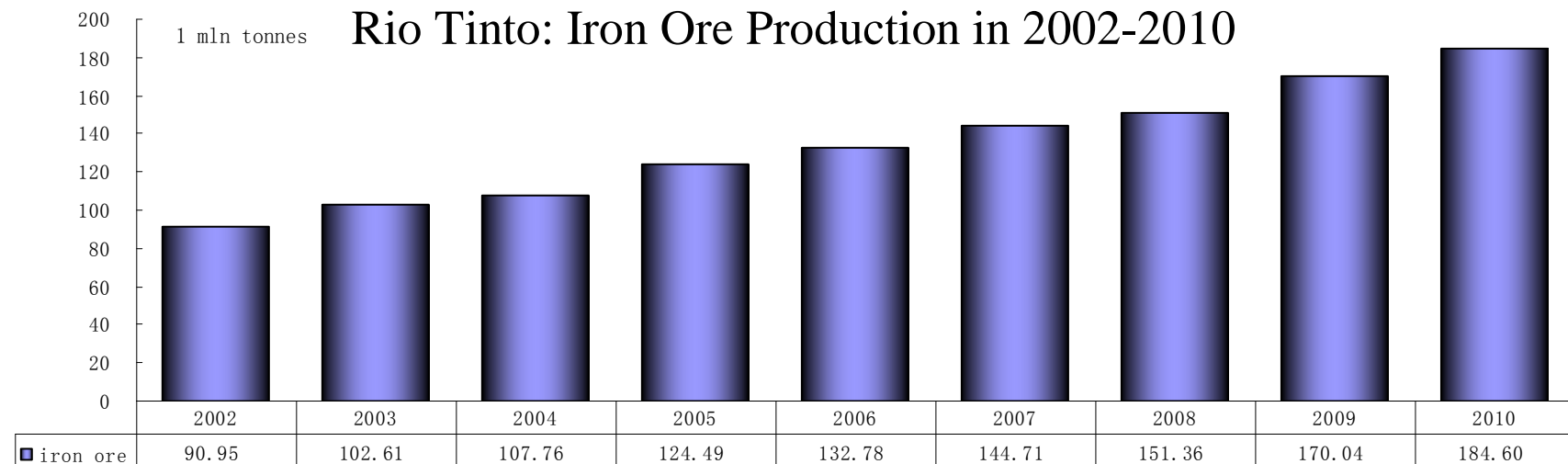
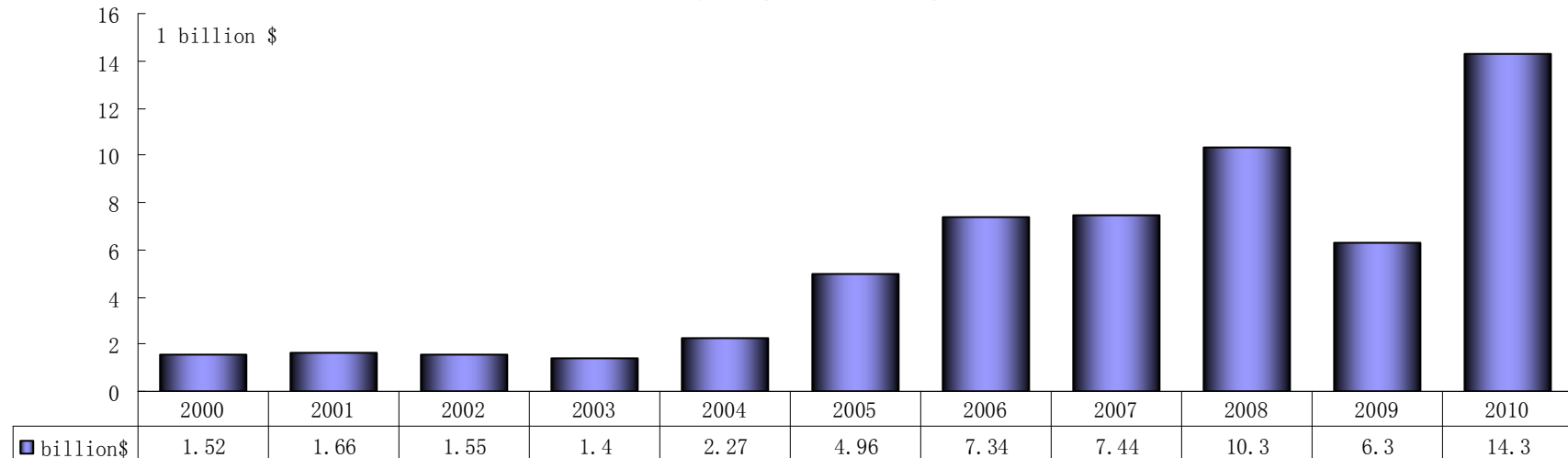


Source from WSA

Additions in global iron ore trade are basically consumed by China. Global iron ore trade volume hit 941 million tonnes in 2009, up 439 million tonnes over 2000. China imported 628 million tonnes of iron ore in 2009, up 558 million tonnes over 2000.

China Steel Industry Contribute to Global Raw Material Market Boom

Rio Tinto: Underlying Earnings in 2000-2010

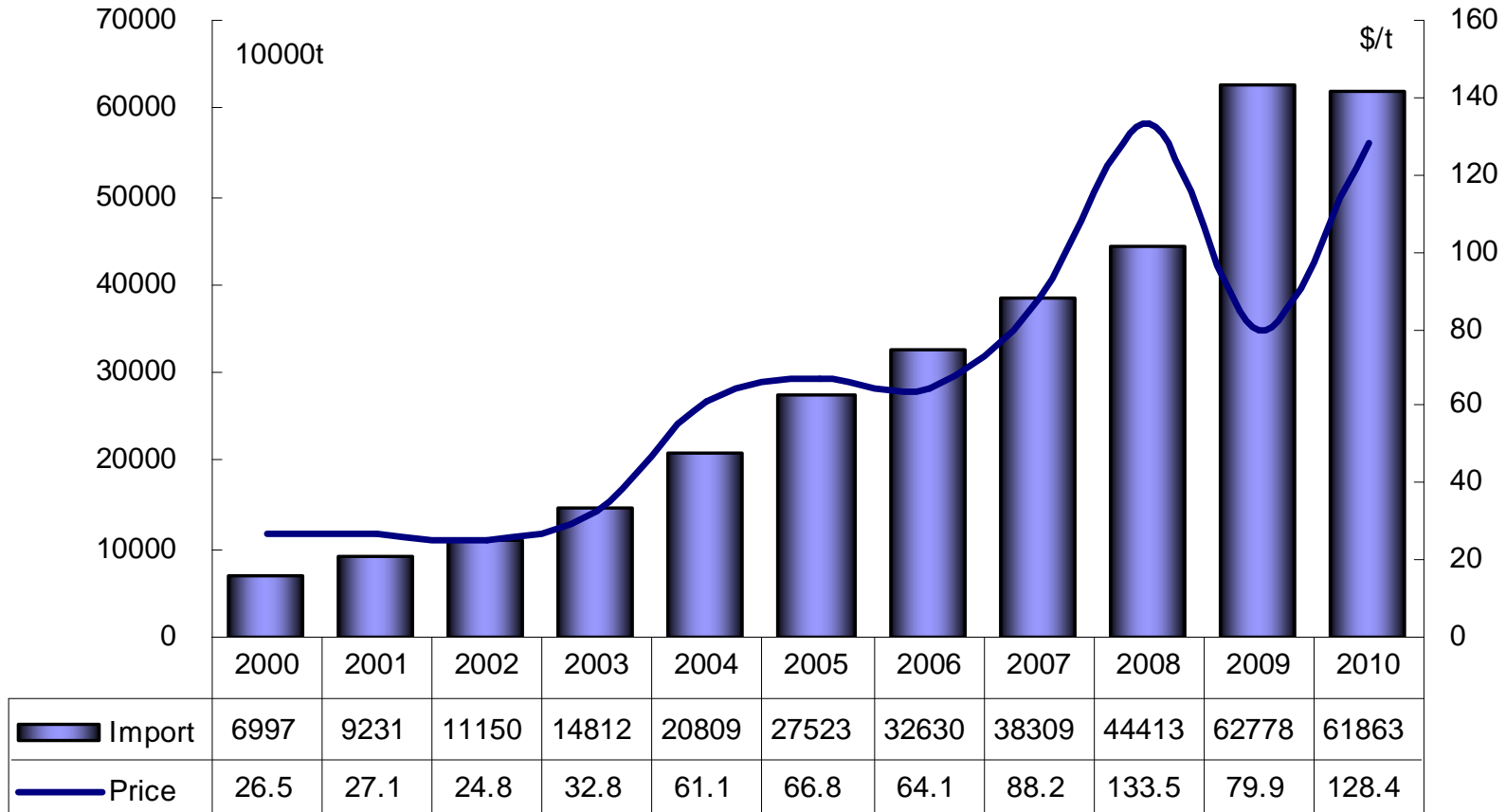


Source: Riotinto

Long term contract collapsed in 2010. World's leading iron ore giants adopt quarterly or index pricing and their profits surge massively. Taking Rio Tinto as an example, iron ore production gained 27.5 percent from 2007 to 184.6 million tonnes in 2010, and profits surged 92.2pct to US\$ 14.3billion.

Iron Ore Pricing System Change: A Threat to China Steel

China: Average Price of Import Iron Ore during 2000-2010

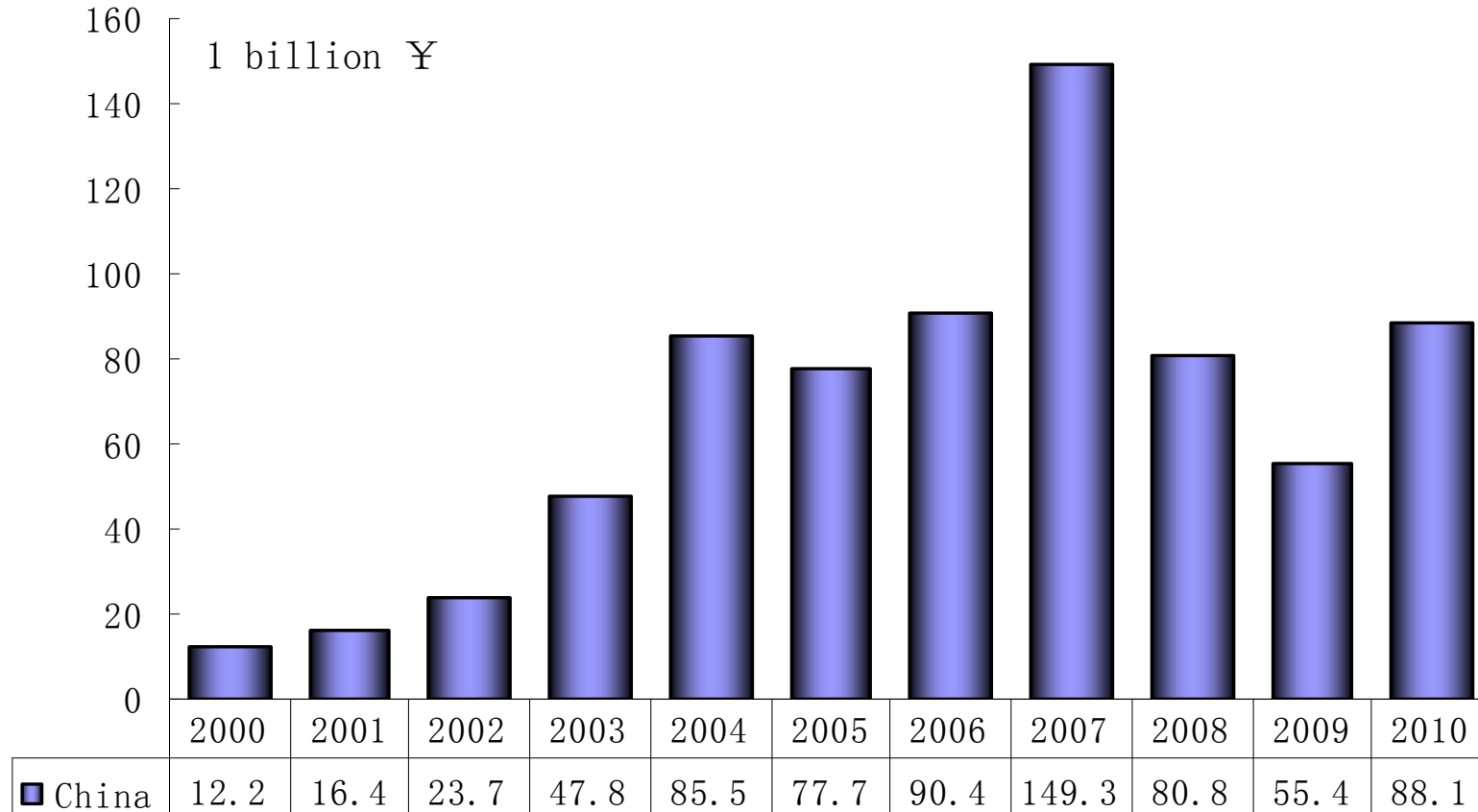


Source from Customs

China's average price of import iron ore of 2010 picked up by 45.5 percent from 2007. SteelHome (China) Steel Price Index indicated that steel price in 2010 merely witnessed a rise of 5.9 percent compared with that of 2007.

Iron Ore Pricing System Change: A Threat to China Steel

CISA Members: Profits in 2000-2010

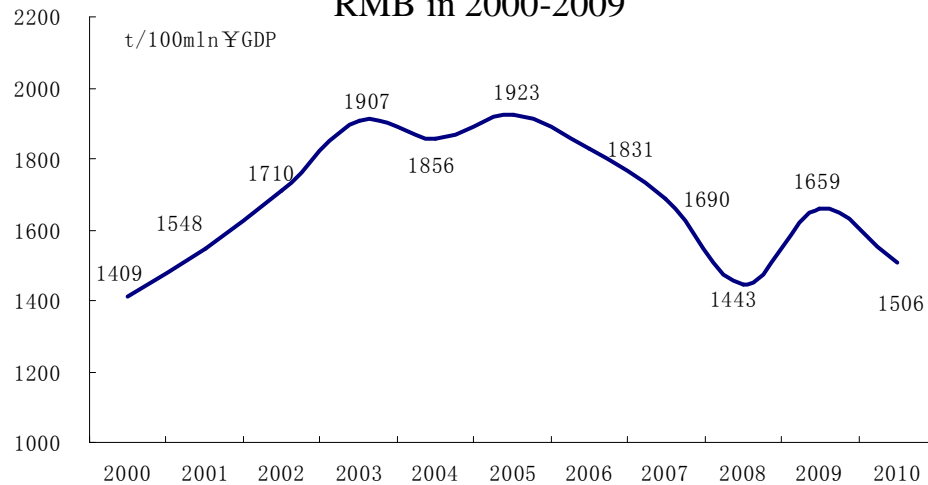


Source: CISA

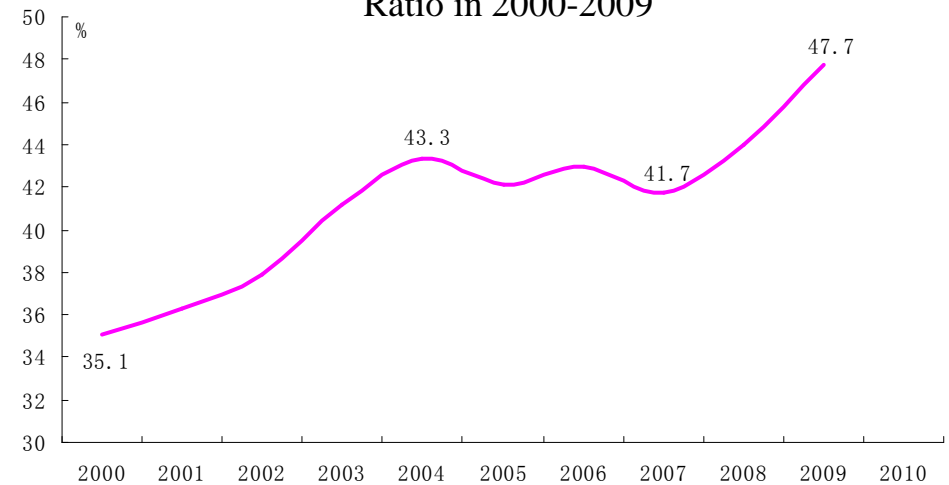
China crude steel production in 2010 was 627 million tonnes, up 28 pct over 2007. Profits of 77 leading steel mills reached CNY 88 billion, down 40.9 pct from 2007.

China to Accelerate Economic Restructuring

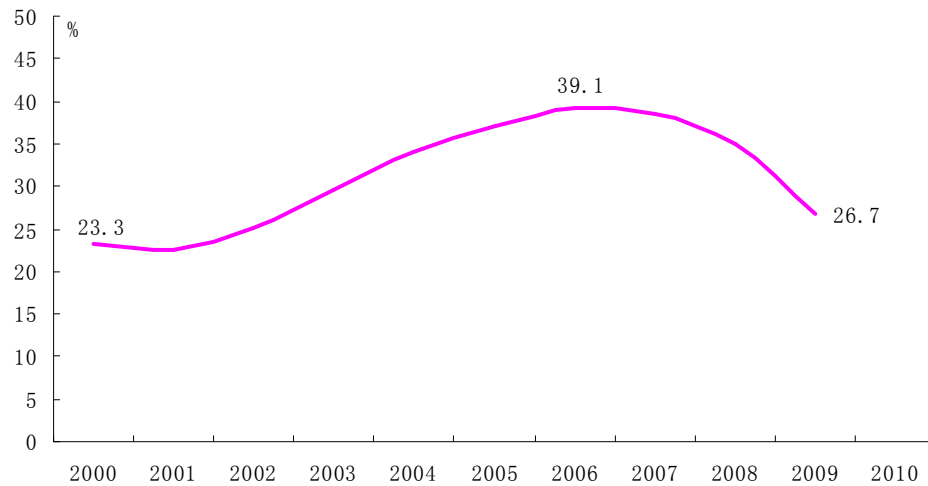
China Crude Steel Consumption per 100mln RMB in 2000-2009



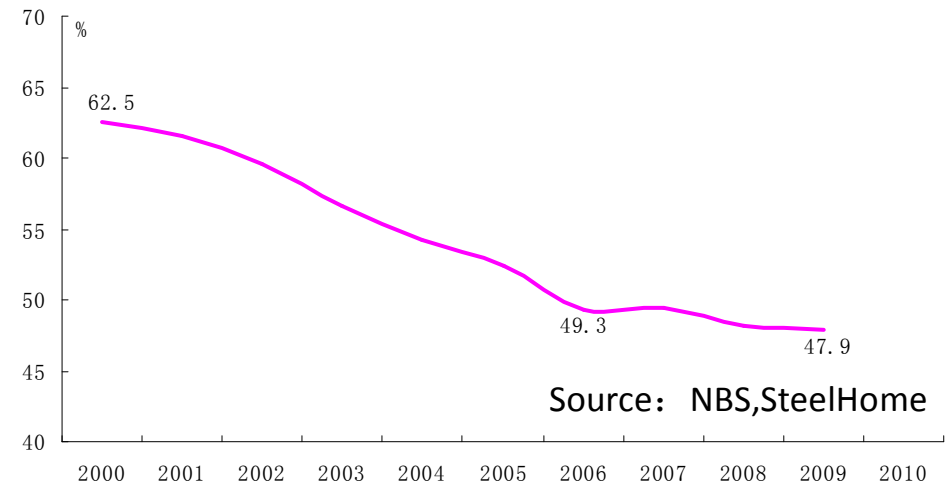
China Gross Fixed Capital Formation/GDP Ratio in 2000-2009



China Export/GDP Ratio in 2000-2009



China Consumption Rate in 2000-2009

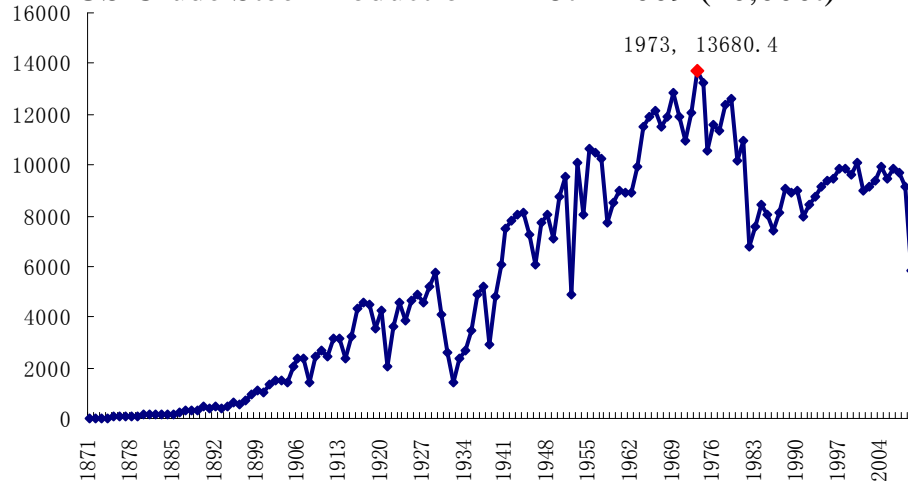


Source: NBS, SteelHome

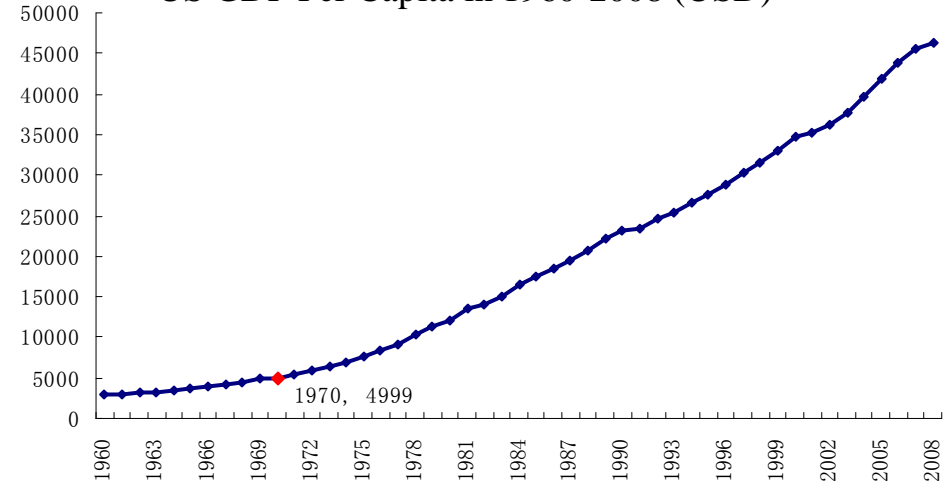
Chinese government will accelerate economic restructuring, and focus on boosting household consumption during the 12th Five Years encompassing 2011-2015. The move will reduce the steel consumption intensity. In other words, China will not sustain the fast growth of crude steel consumption although economy continue to advance.

In Advanced Countries, Crude Steel Production Peak Once GDP Per Capita Hit US\$ 5000

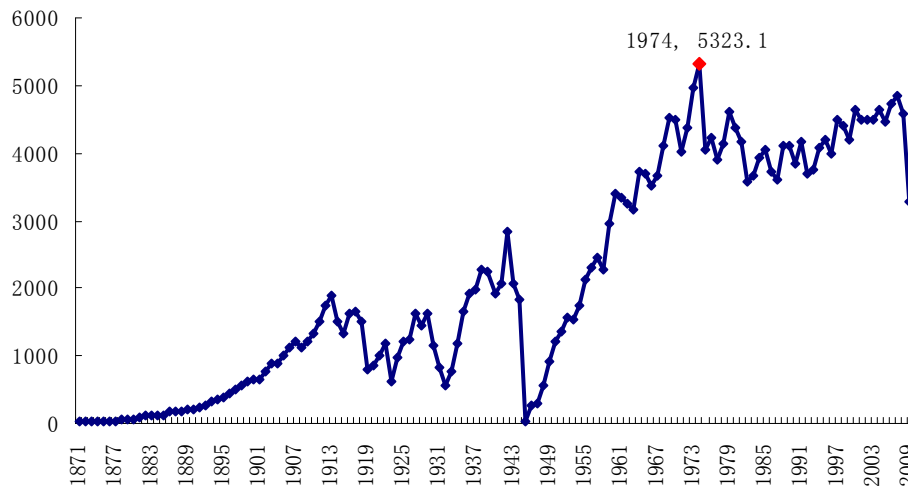
US Crude Steel Production in 1871-2009 (10,000t)



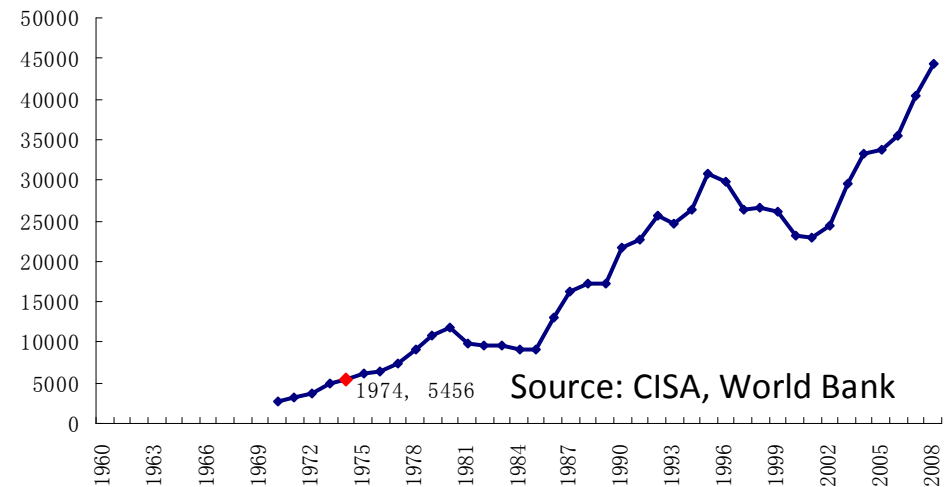
US GDP Per Capita in 1960-2008 (USD)



Germany Crude Steel Production in 1871-2009 (10,000t)



Germany GDP Per Capita in 1960-2008 (USD)

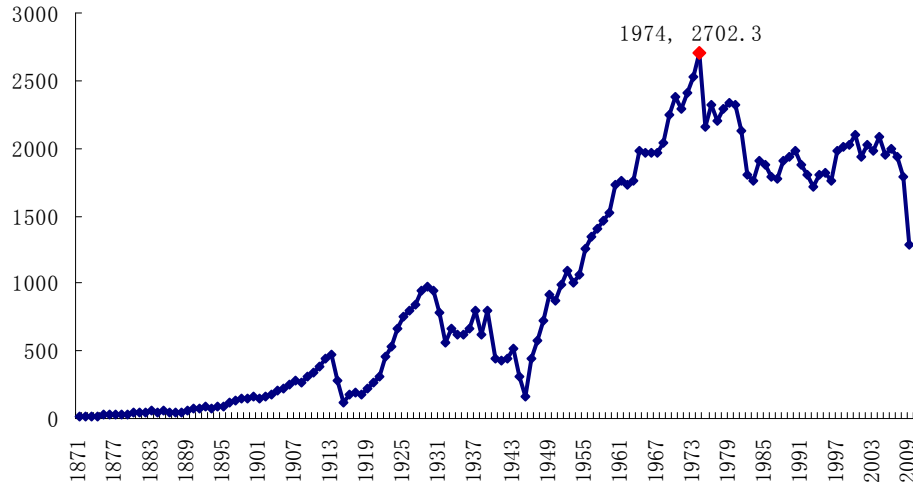


Advanced economies experience tells us that crude steel production hit the peak when GDP per capita comes to around US\$ 5000.

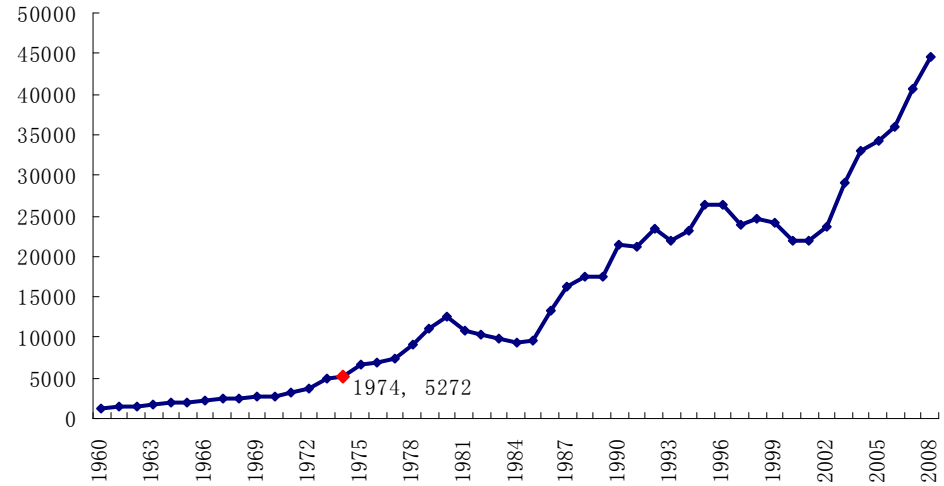
Source: CISA, World Bank

In Advanced Countries, Crude Steel Production Peak Once GDP Per Capita Hit US\$ 5000

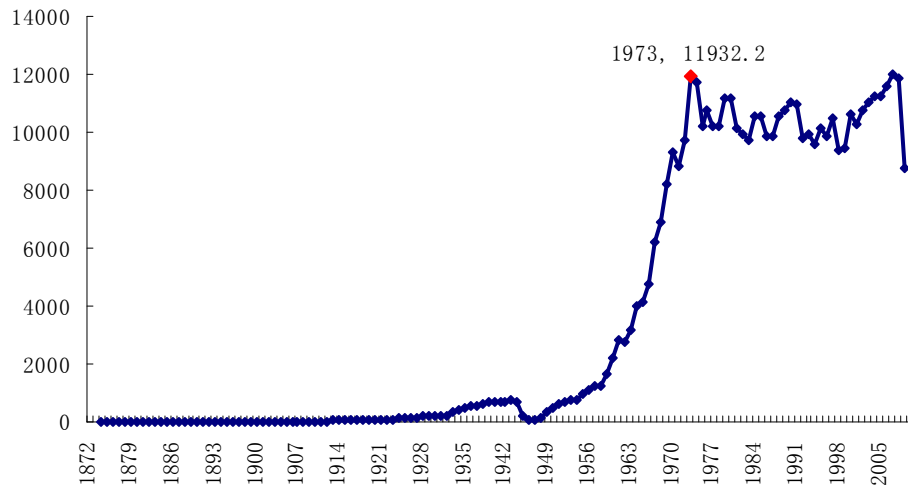
France Crude Steel Production in 1871-2009 (10,000t)



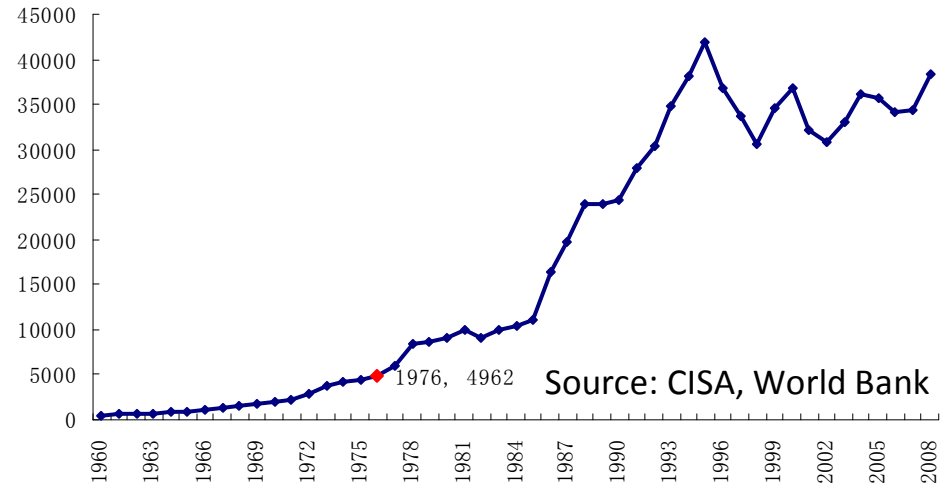
France GDP Per Capita in 1960-2008 (USD)



Japan Crude Steel Production in 1871-2009 (10,000t)



Japan GDP Per Capita in 1960-2008 (USD)

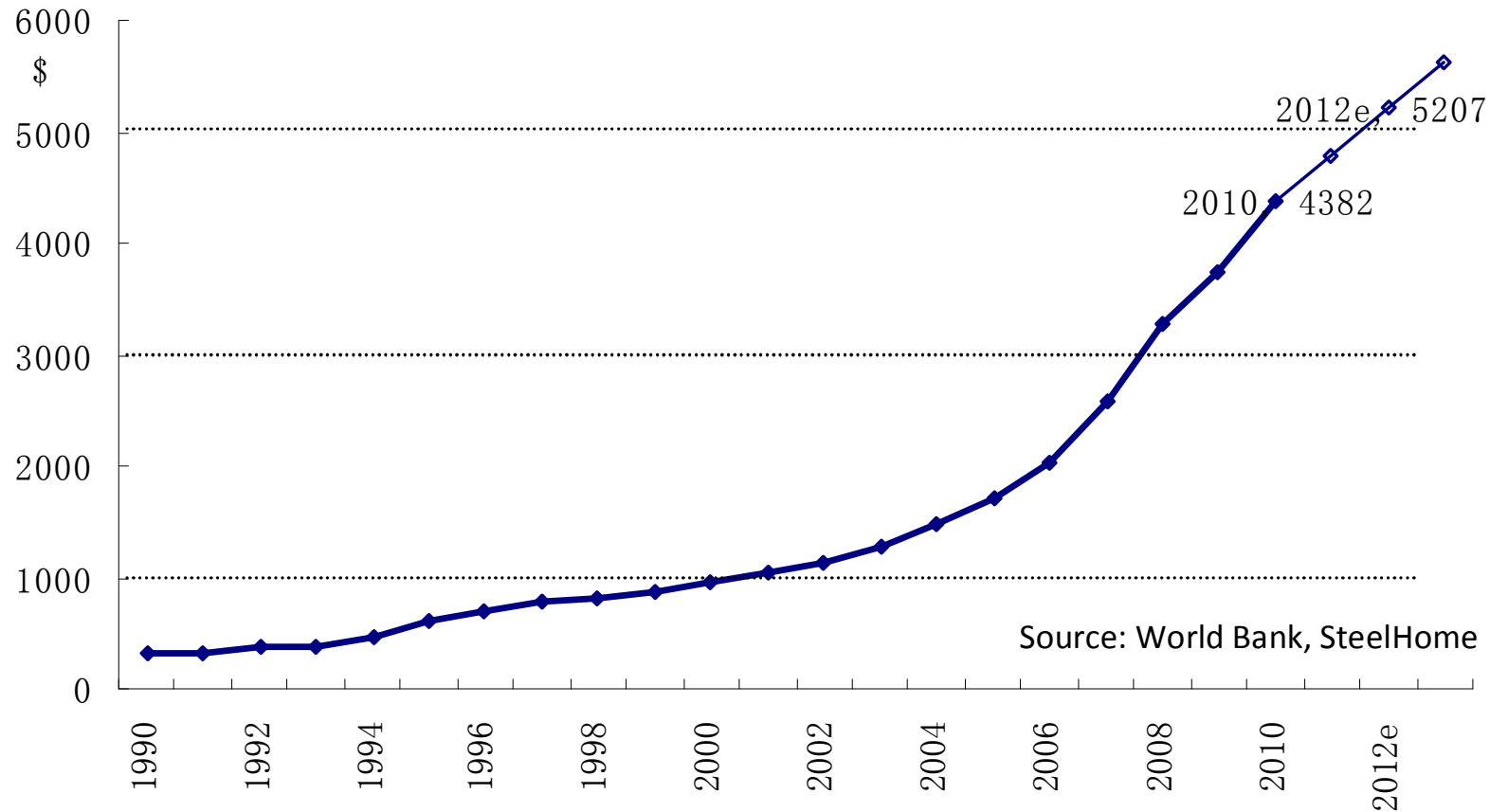


Source: CISA, World Bank

Advanced economies experience tells us that crude steel production hit the peak when GDP per capita comes to around US\$ 5000.

China GDP Per Capita may Break US\$ 5000 in 2012

China GDP Per Capita in 1990-2010



China GDP per capita was US\$ 4,382 in 2010, and it may hit or overtop US\$ 5000 as of 2012 when the nation will walk into the post-industrialization.

Central and West China to Underpin High Steel Consumption

China GDP Per Capita in 2009

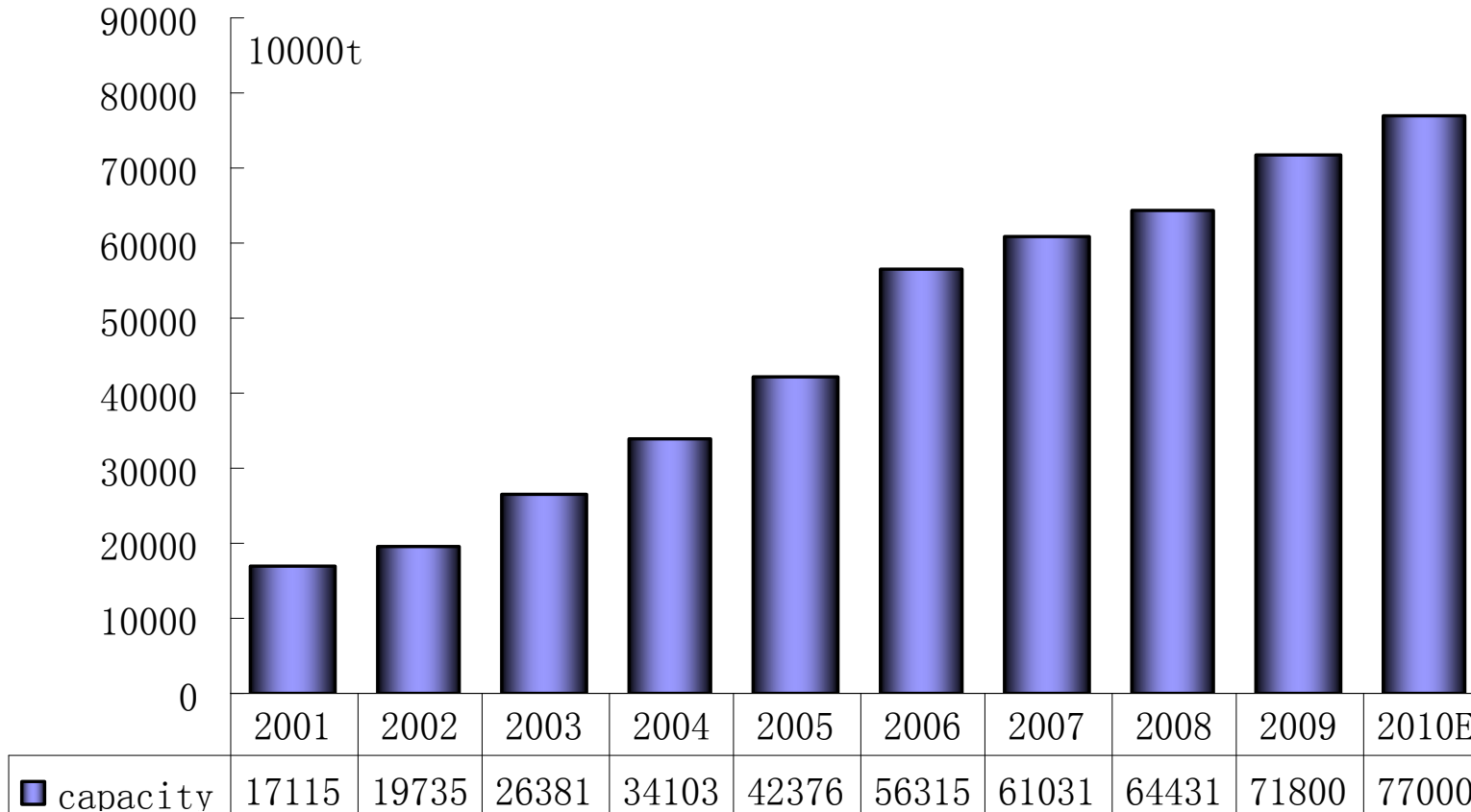
GDP Per Capita > US\$ 5000			GDP Per Capita < US\$ 5000					
Provinces	Population	GDP Per Capita	Provinces	Population	GDP Per Capita	Provinces	Population	GDP Per Capita
Shanghai	1921	11466	Jilin	2740	3889	Qinghai	557	2840
Beijing	1755	10137	Hebei	7034	3587	Hainan	864	2803
Tianjin	1228	8966	Chongqing	2859	3344	Sichuan	8185	2531
Jiangsu	7725	6530	Hubei	5720	3317	Jiangxi	4432	2528
Zhejiang	5180	6497	Heilongjiang	3826	3286	Anhui	6131	2403
Guangdong	9638	5997	Shaanxi	3772	3171	Guangxi	4856	2339
Inner Mongolia	2422	5887	Ningxia	625	3169	Tibet	290	2228
Shandong	9470	5240	Shanxi	3427	3143	Yunnan	4571	1976
Liaoning	4319	5156	Henan	9487	3006	Gansu	2635	1882
Fujian	3627	4939	Hunan	6406	2984	Guizhou	3798	1508
Total	47286		Xinjiang	2159	2901	Total	84375	

Source: NBS, SteelHome

From the table above, we can find ten provinces and cities in East China, with only 36 percent of the nation's population, have witnessed the process of post- industrialization, and crude steel consumption will decline. In comparison, the Central and West regions, with 64pct of nation's population, are in the middle of industrialization, and continue to back up China's steel consumption.

China Crude Steel Capacity Growth Rate to Slow Down Significantly

China Crude Steel Capacity Change during 2001-2010

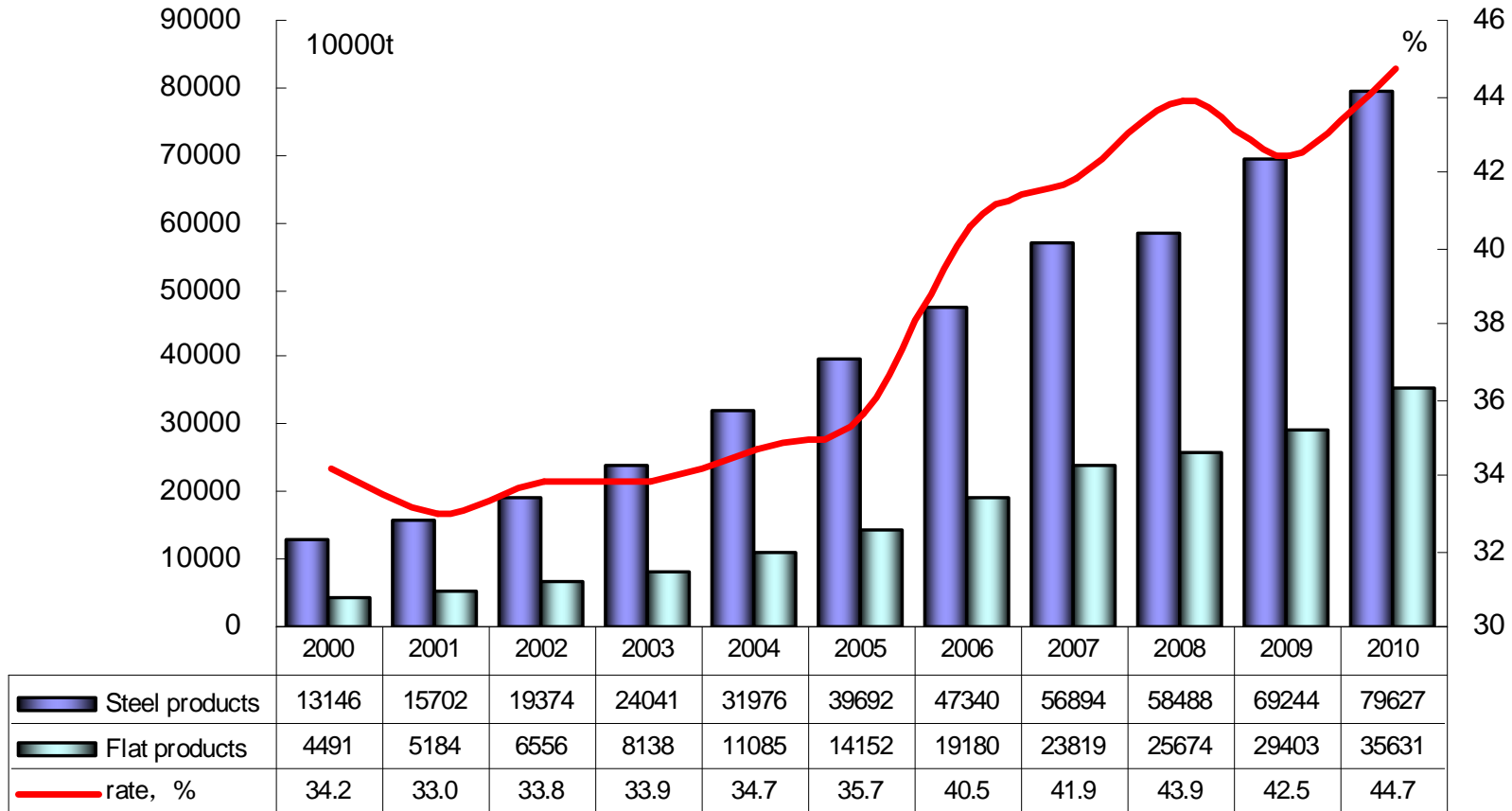


Data Source: CISA

China crude steel capacity reached 770 million tonnes by the end of 2010 but actual capacity was 700 million tonnes as MIIT reported that China had phased out backward steel-making capacity of 68 million tonnes during 2006-2010. In 2011-2015, China will continue to eliminate backward capacity by 68 million tonnes. Meanwhile, local governments will not encourage steel industry expansion any more, under the pressure of the policy of reducing energy consumption and emission. China steel capacity growth pace will slow down further.

China Crude Steel Capacity Growth Rate to Slow Down Significantly

Chinese Steel Mills Accelerate Adjustment of Product Mix in 2006-2010

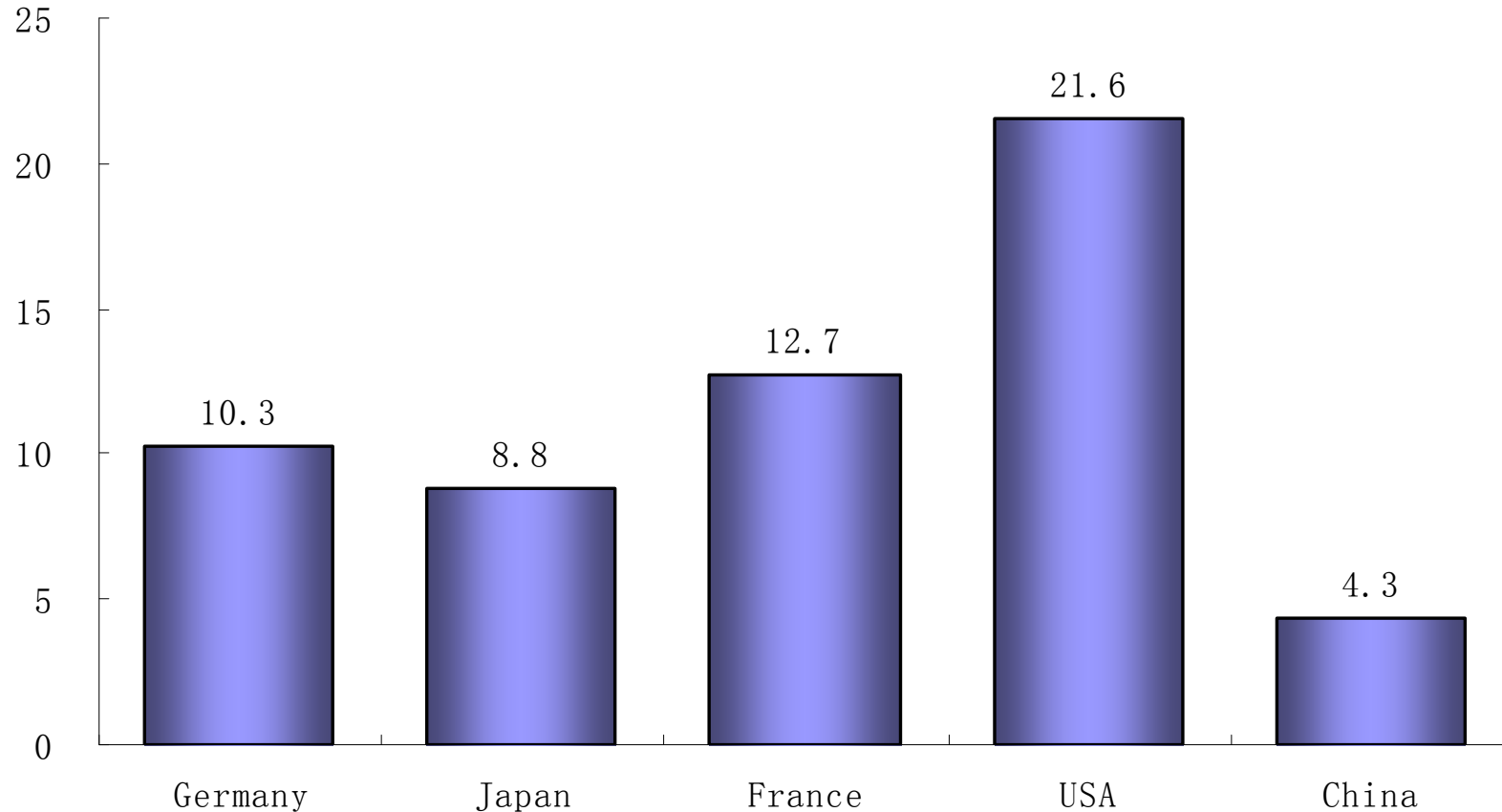


Source from NBS

Since 2005, Chinese steel mills have attached greater importance on product mix adjustment and high value-added flats production. Flat products take increased proportion in steel production.

China: Cumulative Steel Consumption Per Capita Amount to 8.5 Tonnes in 2020

China VS Advanced Countries: Cumulative Steel Consumption Per Capita



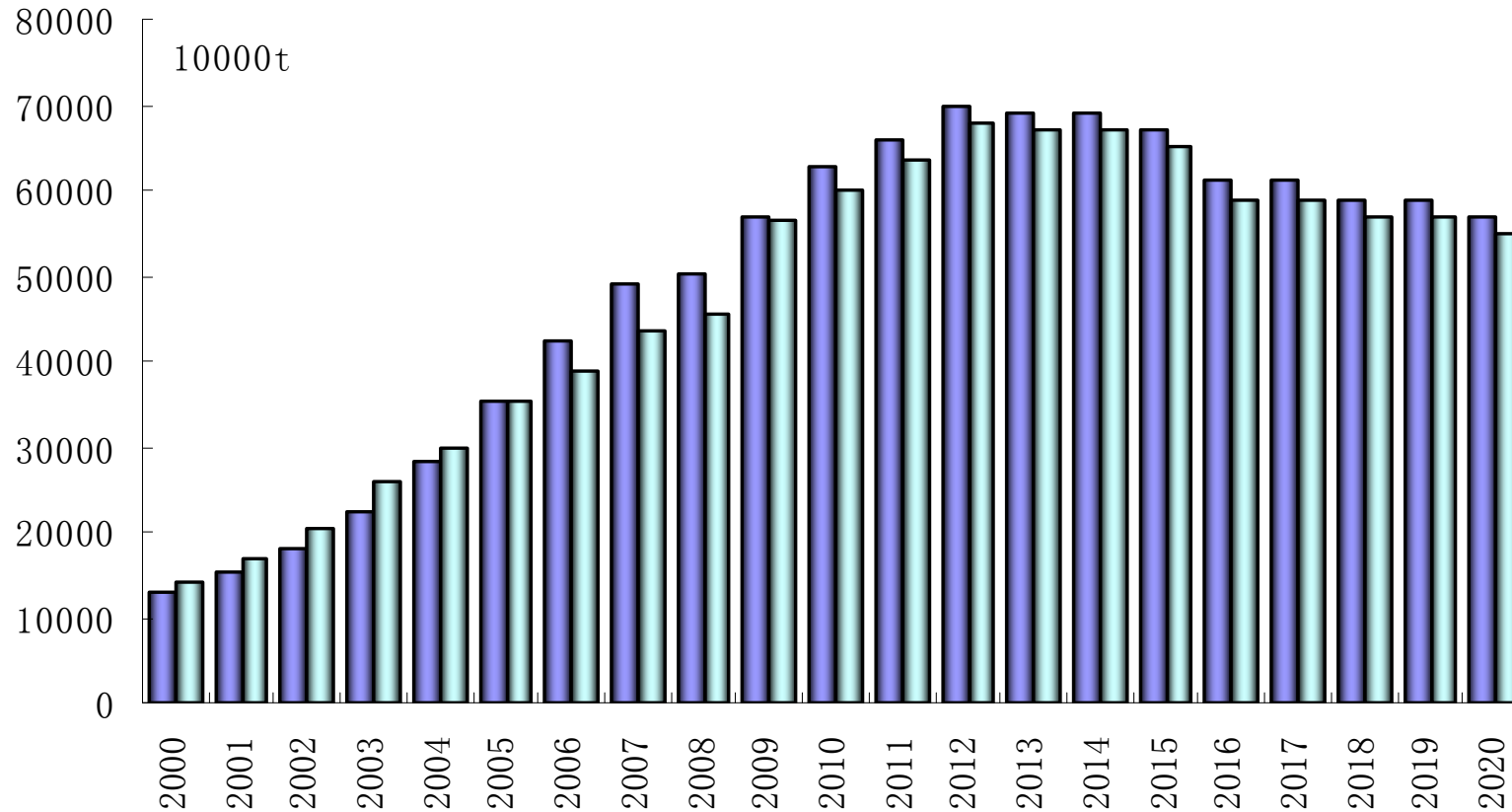
Source: CISA, Steelhome

Up to 2010, China cumulative steel consumption is 4.3 tonnes per capita, 4.5 tonnes less than Japan when walked into post industrialization (8.8 tonnes of Japan)

China still need to consume 6 billion tonnes of steel in order to achieve industrialization (8.5 tonnes consumption per capita), which will be realized by 2020 in light of current consumption rate.

China Crude Steel Production and Consumption May Approach or Reach the Peak in 2012

Forecast on China Crude Steel Production and Consumption in 2011-2020

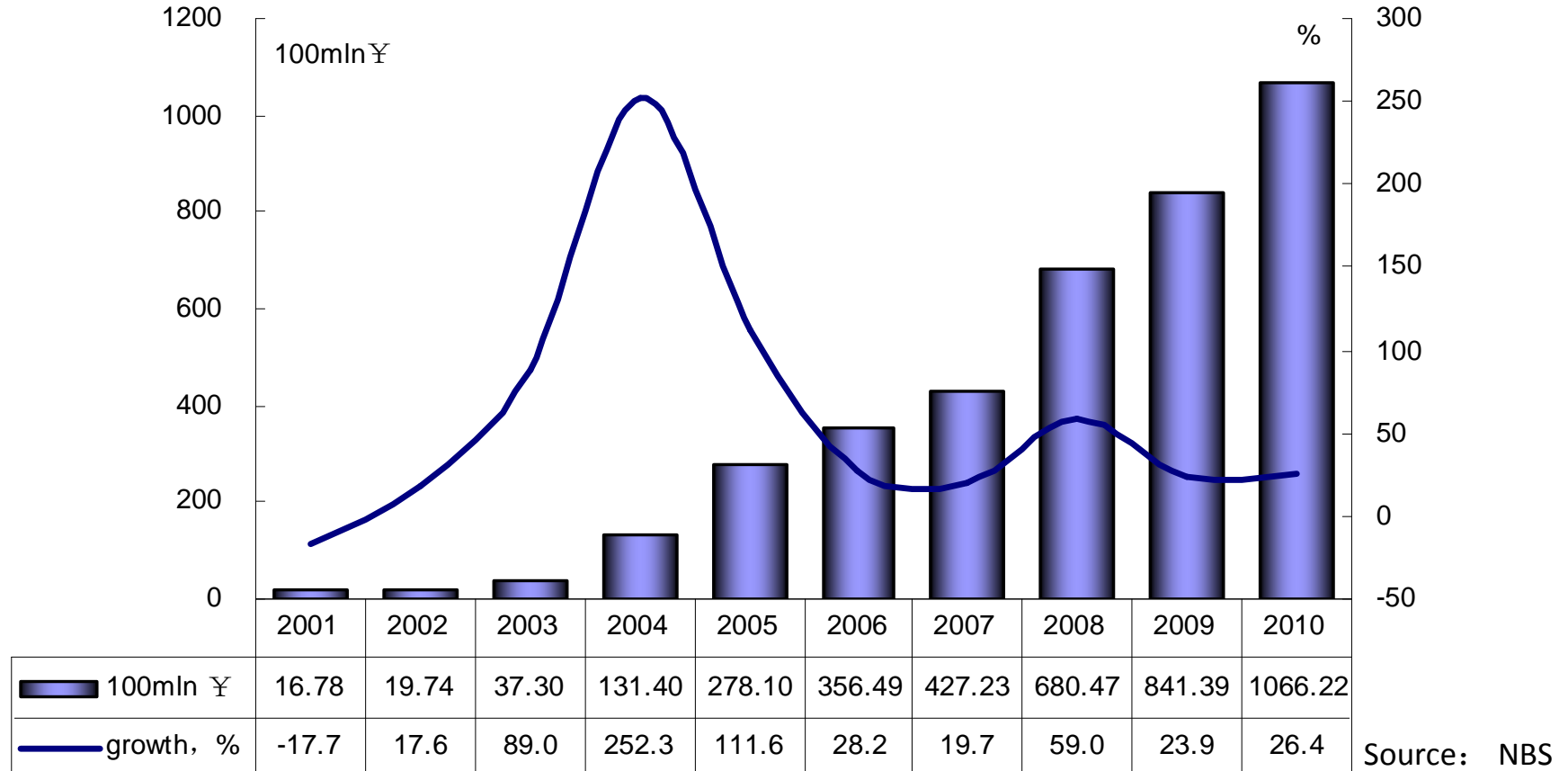


Data Source: Steelhome

China crude steel consumption may reach or close to peak by 2012 when the crude steel production hit 700 million tonnes and consumption arrive at 680 million tonnes. In 2013-2015, China crude steel production and consumption may maintain around the level. Thereafter, China crude steel consumption may show downward trend. By 2020, China crude steel consumption may decrease to 600 million tonnes or below. And China crude steel production will be based on the international demand.

China Iron Ore Investment Maintain Great Momentum to Rise

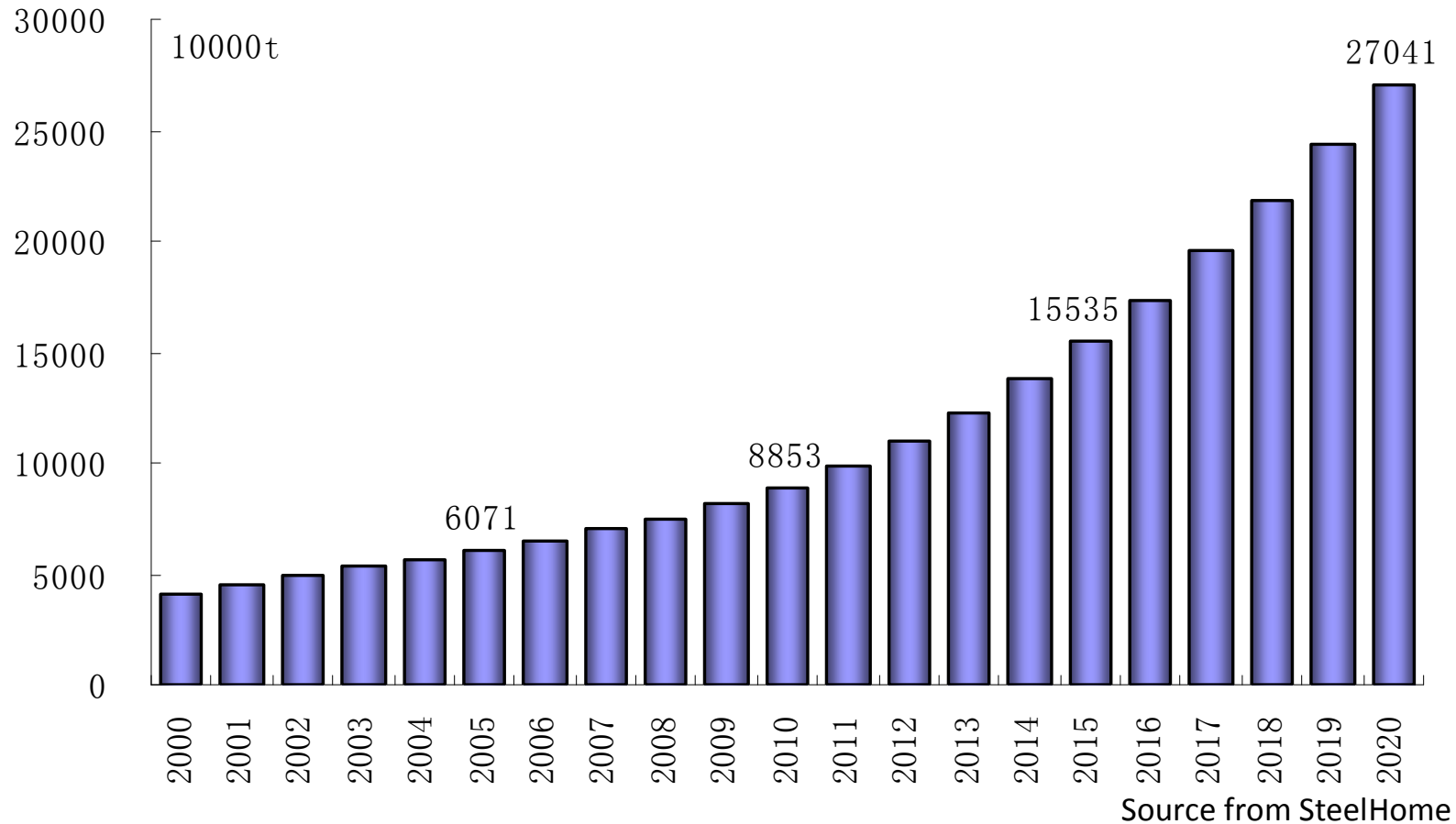
China Fixed Assets Investment on Ferrous Metals Mining and Dressing



According to the statistics from Ministry of Land and Resources of China, a batch of large-scale mineral deposits have been detected, proved over 15 billion tonnes of iron ore reserves. During 2011-2015, China will invest 30 billion RMB in exploring new deposits in an attempt to reduce dependence on offshore minerals. It is expected that China domestic iron ore capacity will reach 1.5-1.6 billion tonnes and production roughly 1.45 billion tonnes around 2015.

China Obsolete Scrap Reservoir will Pick up Significantly

China Obsolete Scrap Reservoir will Pick up Significantly in 2011-2020



It is expected that obsolete scrap reservoir will amount to 155 million tonnes by 2015 and 270 million tonnes by 2020. Given the recycling rate of 70%, China scrap collection will be 100 million tonnes in 2015 and 190 million tonnes in 2020. By then, a tremendous increase will take place in scrap usage in the metallics charge.

China Iron Ore Imports will Decline after 2012

Global Metallics Balance in 2010-2015

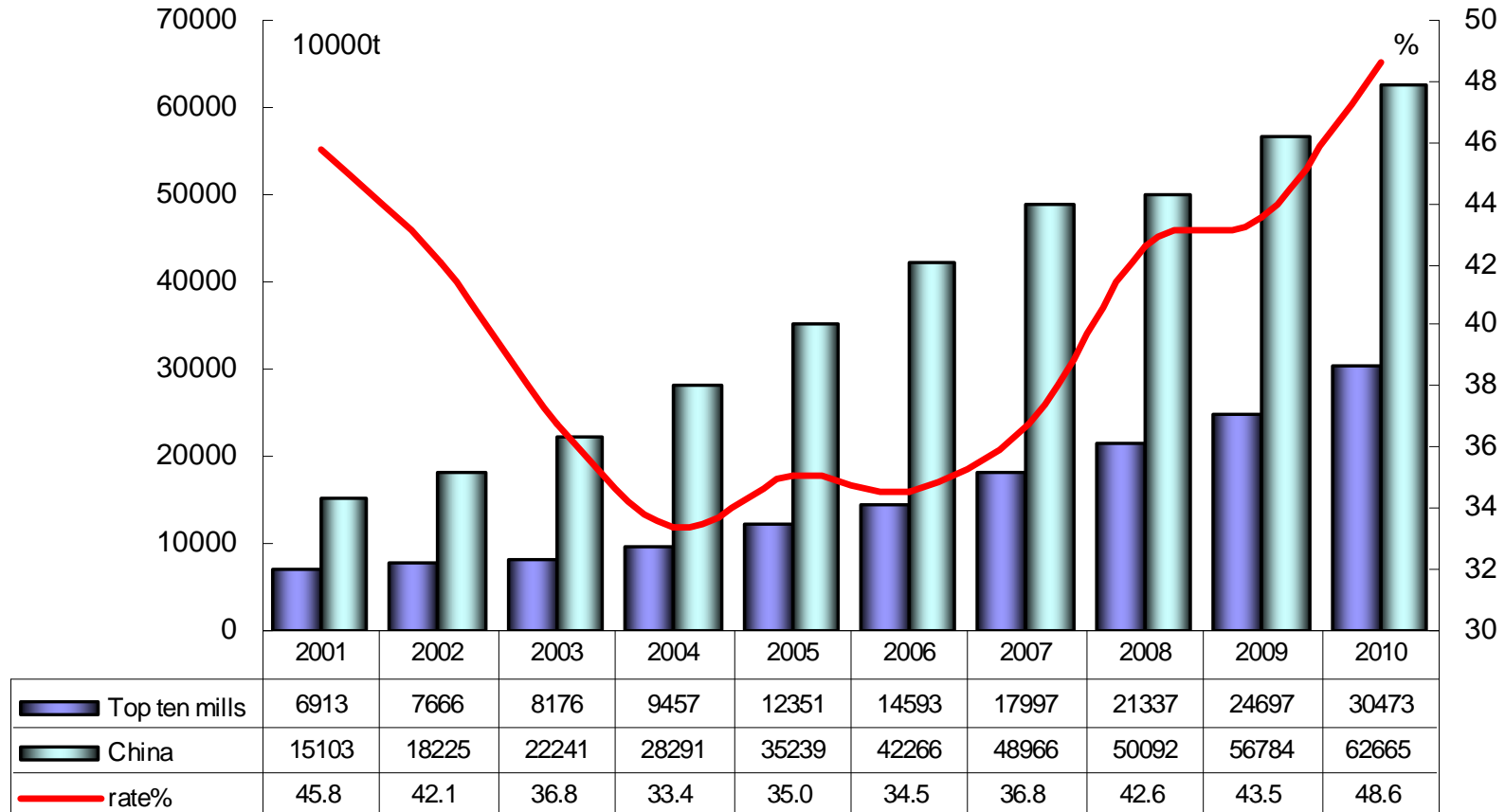
Year	China						International Market				China iron ore imports+ global iron ore demand	Global iron ore production/capacity
	Crude steel production	Pig iron production	Domestic ore production	Iron ore import	Domestic scrap collection	Scrap import	Crude steel production	Pig iron production	Iron ore demand	Scrap collection		
2005	35239	34375	42049	27523	2428	1014	79090	51238	82641	36384	110164	110900
2006	42266	41245	58817	32630	3574	538	82820	52667	84946	39192	117576	121570
2007	48966	47652	70707	38309	4570	339	85650	54134	87313	40899	125622	129910
2008	50092	47067	82401	44413	6521	359	82620	52297	84350	39366	128763	137190
2009	56784	54375	88017	62778	5304	1369	65190	40808	65819	31566	128597	135400
2010	62665	59022	107156	61863	6500	500	78695	49754	82100	37559	143963	140000
2011	66000	62700	120000	63500	7100	500	81400	50800	83800	39000	147300	145000
2012	70000	66300	135000	64400	7800	400	85600	53400	88100	41000	152500	150000
2013	69000	64600	145000	58300	8600	400	87300	56100	92600	40000	150900	155000
2014	69000	63800	145000	56900	9500	400	89000	57900	95500	40000	152400	155000
2015	67000	60700	145000	51800	10600	400	90800	59800	98700	40000	150500	155000

Source: SteelHome

China's dependence rate on iron ore imports will be reduced. In 2015, obsolete scrap collection in China will reach 100 million tonnes, with an increase of 35 million tonnes versus 2010. In 2015, China domestic crude ore production will come up to 1.45 billion tonnes, increasing 380 million tonnes compared to 2010. Meanwhile, our dependence on offshore iron ore will go down to 50% from 63% of 2010.

China Steel Industry Raise Consolidation

China Steel Industry Consolidation in 2001-2010

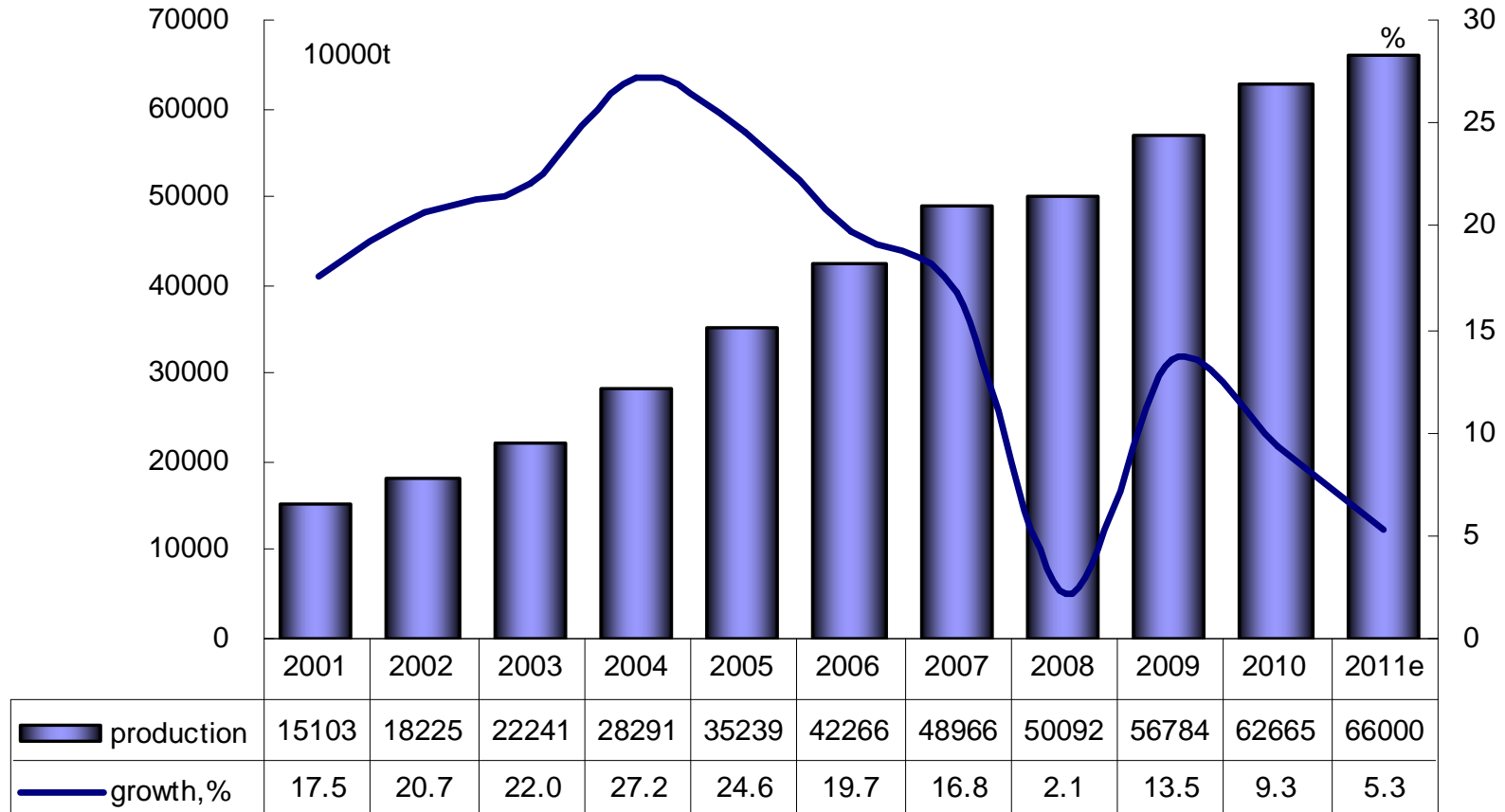


Source: SteelHome

In 2010, Chinese top ten steelmakers took 48.6% in nationwide production, up 15.2pct over 2004. Chinese government will strengthen efforts on reducing energy consumption and emission and eliminating backward capacity. Medium and small players will be acquired by large steel groups under the competition. Steel giants with 80-100 million tonnes capacity will form in China in the near future.

2011 China Steel Market Development

China Crude Steel Production Estimated at 660 million tonnes in 2011

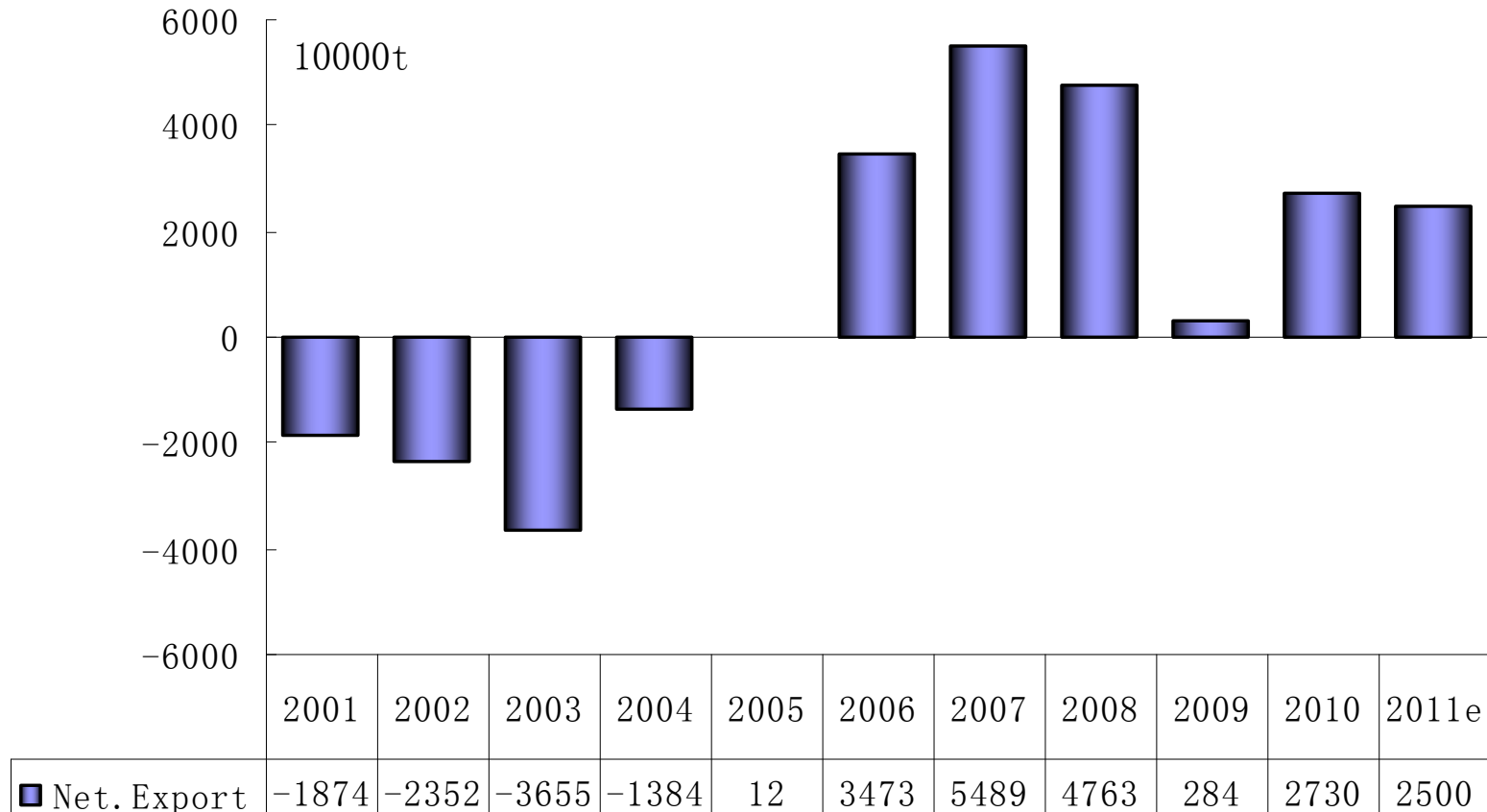


Source: NBS, SteelHome

. China crude steel production may hike 5.3pct year on year to 660 million tonnes in 2011.

2011 China Steel Market Development

Net Exports of China Crude Steel in 2011 Stay Flat

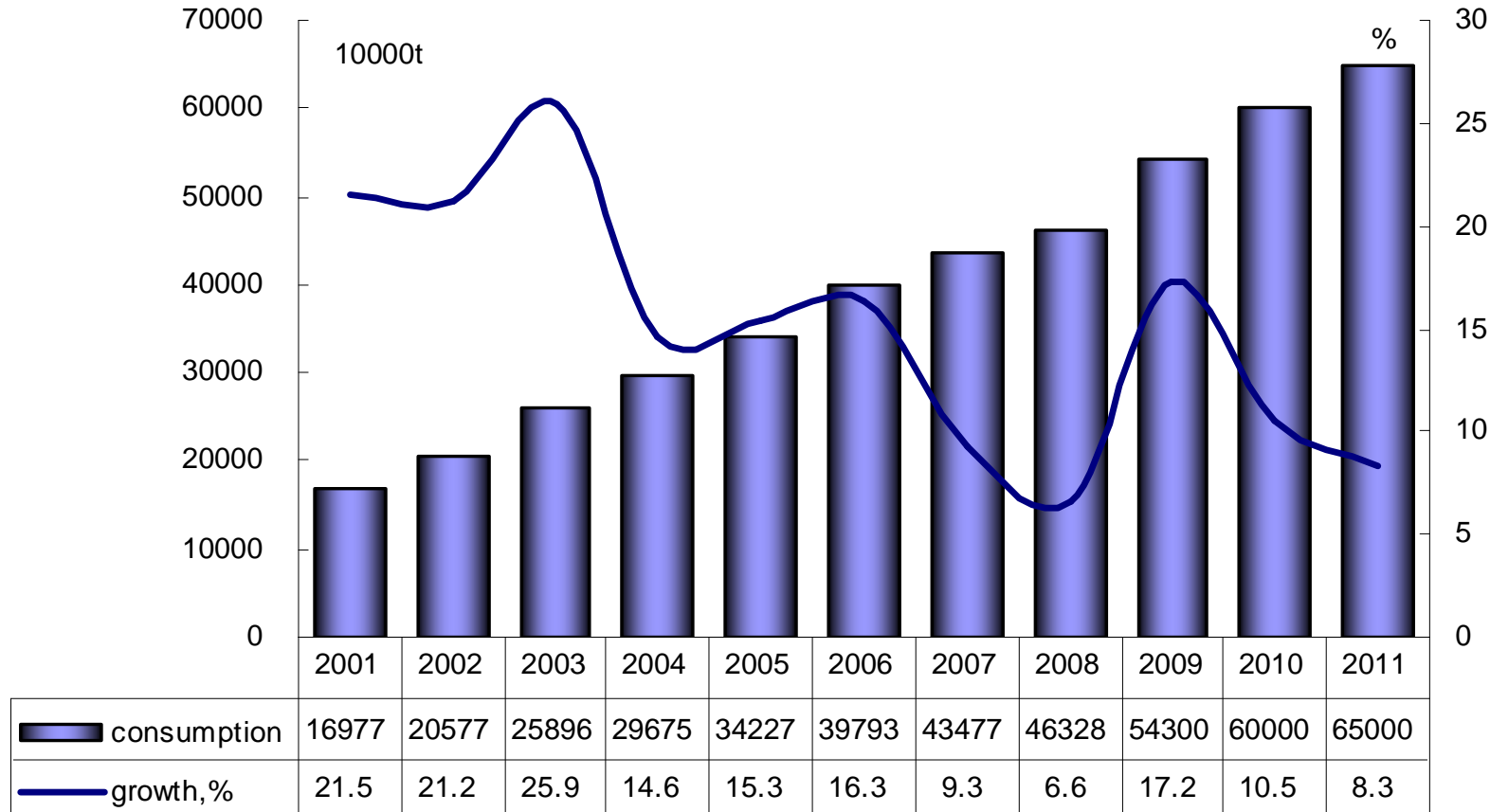


Source: Customs, SteelHome

In 2011, net exports of China crude steel may stay flat at 2010 level, 25-30 million tonnes.

2011 China Steel Market Development

China Crude Steel Demand to 650 million tonnes in 2011

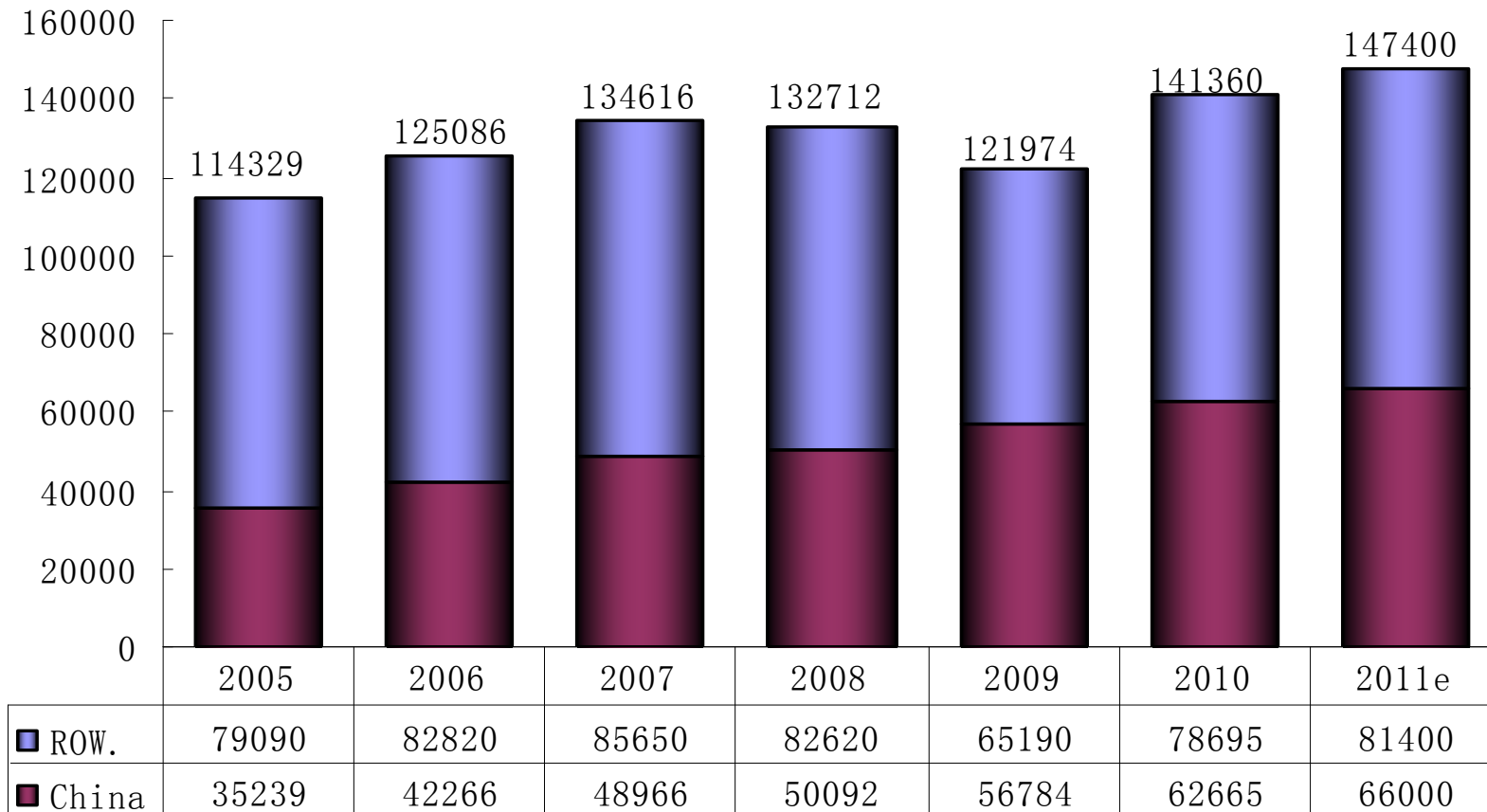


Source: SteelHome

SteelHome forecast that China crude steel demand may be 650 million tonnes, apparent consumption may be 635 million tonnes in 2011. The balance in supply and demand will be realized by consuming inventory.

2011 China Steel Market Development

Global Steel Production may Hit New High in 2011



Source: SteelHome

Global steel production may hit new record to 1.474 billion tonnes in 2011. Therefore, raw material price will maintain high.

1. China steel development make great contribution to world steel industry.

1) China steel development is based on feeding domestic demand. In 2010, China crude steel production was 627 million tonnes, 4.9 folds of 2000; its apparent consumption was 600 million tonnes, 4.3 folds of 2000. The steel development match with economic growth.

2) China steel export will not threat international markets. During 2005-2010, China steel exports accounted for 7-15pct of production on crude steel basis, a ratio that was smaller than other countries. Chinese government boost domestic demand after financial crisis burst out. The exports slump, which play an important role in stabilizing international market.

3) China steel industry make great contribution to the boom of iron ore market, but China is badly hurt. In 2009, global iron ore trade amounted to 941 million tonnes, rising 439 million tonnes over 2000. China imported 628 million tonnes of iron ore in 2009, up 558 million tonnes over 2000. The additions in global iron ore trade are basically consumed by China. In 2010, international iron ore suppliers make full use of its monopoly to gain abnormal profits while China steel industry is in an awkward situation, rising production but declining profits.

2.China crude steel demand is close to the peak.

1)China GDP may attain or close to USD 5000 per capita in 2012, SteelHome predicts. During post-industrialization, Chinese government should adjust economic structure, downgrading investment and boosting consumption. Intensity of steel consumption will accordingly decline.

2)China development varies from region to region. Central and west China, with 64% of Chinese population, is still in the middle of industrialization, which may continue to maintain steel consumption at high level.

3)China cumulative steel consumption was 4.3 tonnes per capita by 2010, 4.5 tonnes lower than Japan, a typical developed country during the process of post industrialization. SteelHome believes that China still need another 6 billion tonnes steel to realize industrialization, therefore, China may fulfill the target in 2020 in the light of current consumption rate.

4)China crude steel consumption may approach or reach the peak in 2012, when crude steel production may be 700 million tonnes, and consumption around 680 million tonnes. During 2013-2015, production and consumption may maintain around the level. Thereafter, crude steel consumption will decline. By 2020, the consumption will gradually decline to 600 million tonnes or even lower. China steel production is determined by demand from international markets.

3. Till 2015, China's dependence rate on iron ore imports will decline from 2010's 63pct to 50%. China iron ore imports will decline after 2012.

1) China domestic crude ore capacity will reach 1.5-1.6 billion tonnes, and production 1.45 billion tonnes. China enhance its capacity to guarantee iron ore resources.

2) China obsolete scrap collection will reach around 100 million tonnes in 2015, rising 35 million tonnes over 2010. The collection will amount to 190 million tonnes in 2020. A substantial increase will take place in scrap usage in metallics charge.

3) China iron ore imports may remain high during 2011-2012 and then fall. In 2015, the dependence rate on imports may decrease to 50 pct from 2010's 63 pct.

4. Chinese top ten steelmakers will hold 48.6pct in production, 15.2 pct higher than 2004. Chinese government will continue to take aggressive measures in reducing energy consumption and backward capacities. Medium and small players may be acquired by large groups under the competition. Steel giants with 80-100 million tonnes capacity will form in China in the near future.

5 Forecasts on 2011 China Steel Market

1 China crude steel production may be 660 million tonnes in 2011, up 5.3pct or 30 million tonnes over 2010.

2 Net exports of China steel may be 20-30 million tonnes in 2011, same level with 2010.

3 Crude steel consumption may be 650 million tonnes in 2011, rising 8.3pct or 50 million tonnes over 2010.

4 Apparent steel consumption is estimated at 635 million tonnes in 2011, and the balance of supply/demand will be realized by consuming domestic inventory.

5 Global crude steel production may hit record high of 1.474 billion tonnes in 2011. Raw material market will be sustained high.

SteelHome (<http://www.steelhome.cn>) is dedicated to offering information and consultancy for steel industry at home and abroad, serving as the bridge among steelmakers, traders and end users to create business opportunities and provide more-than-expected value to steel parties.

SteelHome, ascended as one of the most influential websites in China steel industry, provide information and service to nearly 200 steel mills, such as Ansteel, Baosteel and the like, and over 14,500 steel distributors, metallic suppliers, governmental institutions, industry associations and research centers.

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Thanks for SteelGuru's Invitation!