



# China economic and steel outlook: changes and new normal

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Oliver Ramsbottom

Junjie Ma

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# We expect the economy and steel industry to become more balanced with continuous structural changes for upgrading

Steel industry

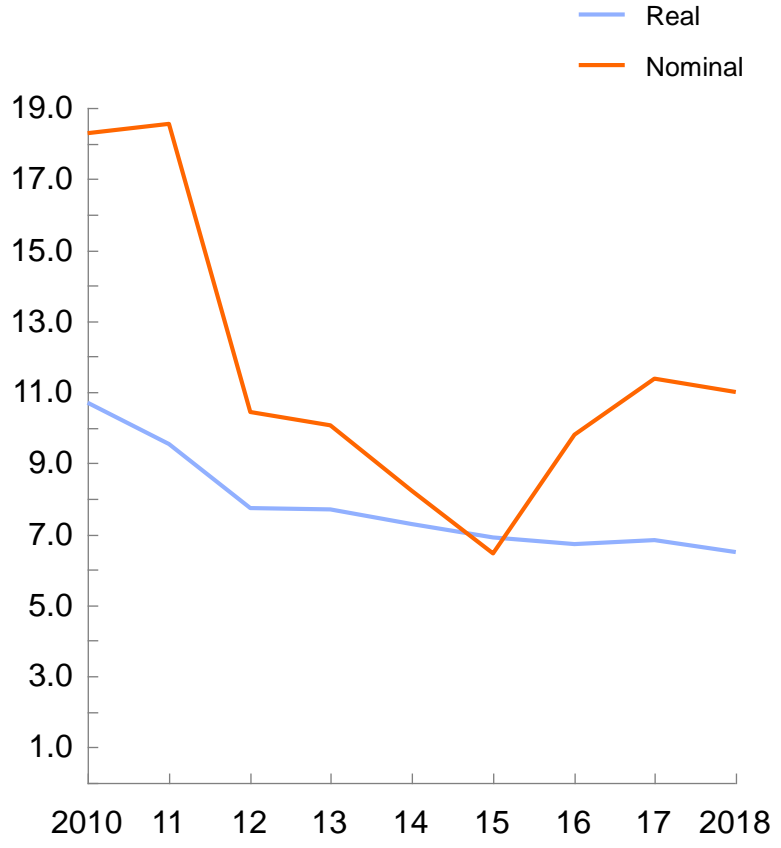


- A** Stable economy and quality-driven development, on track with government goal
- B** Supply reform is gathering pace, yet market tightness being offset by demand slowdown
- C** Industry consolidation likely to improve for more cross region M&A
- D** Steel scrap growing importance with increasing penetration of EAF
- E** Export unlikely to grow while outbound investment would pick-up

# A China's GDP growth in 2018 will remain stable at 6.8%, service and consumption continue to contribute majority of the growth

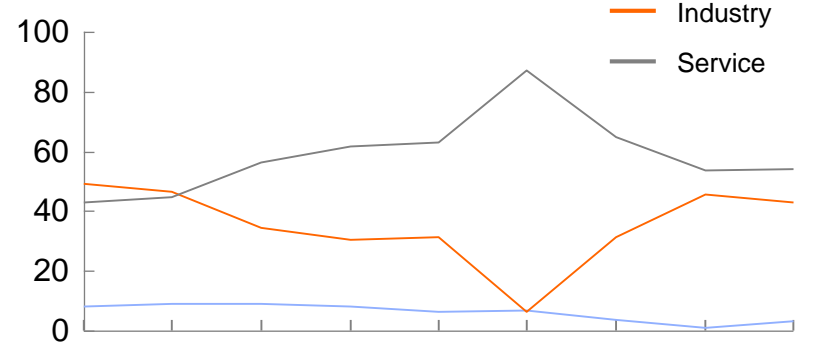
## GDP growth rate

Year on year, quarterly, %



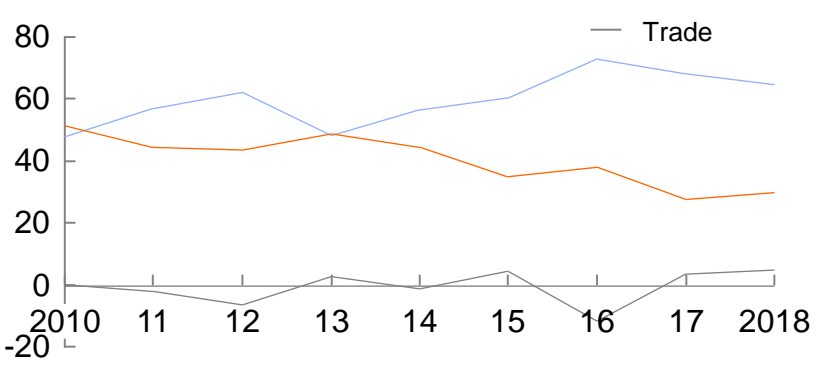
## Share of GDP growth

Quarterly, %



## Share of GDP growth

Quarterly, %

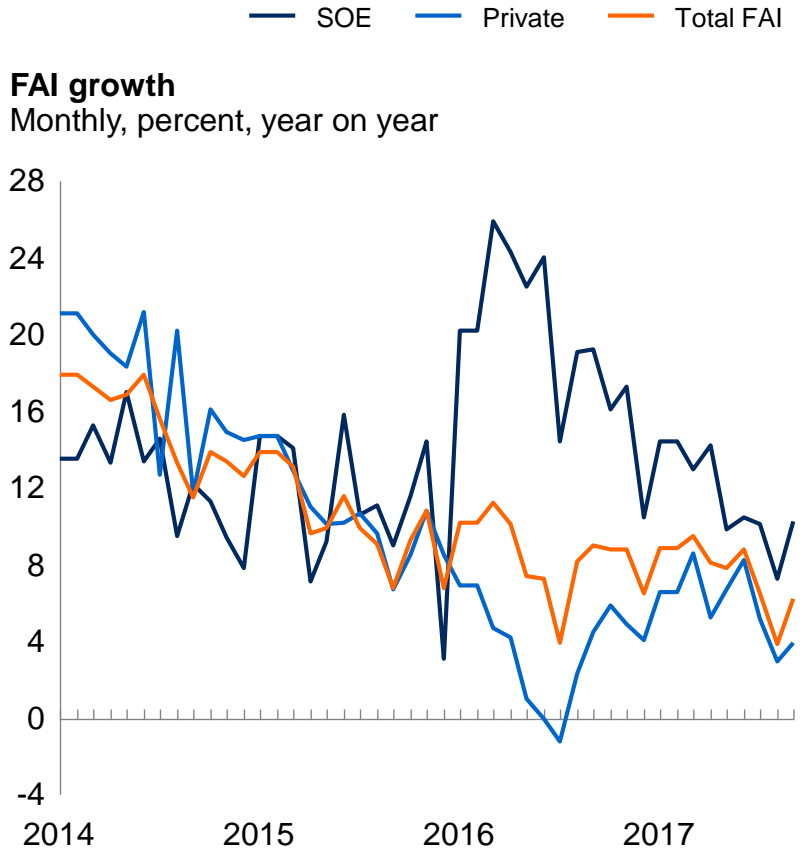


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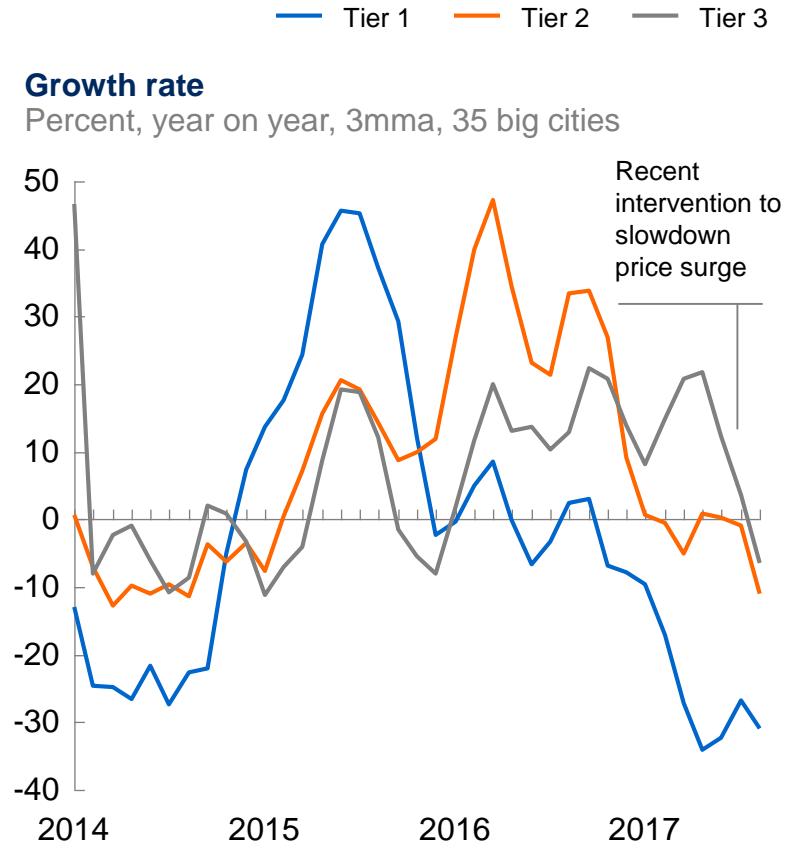
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# A Fixed asset investment has been slowing down, while government leverages home buying restrictions to regulate property market

### Fixed asset investment growth



### Sales volume growth by city tier<sup>1</sup>



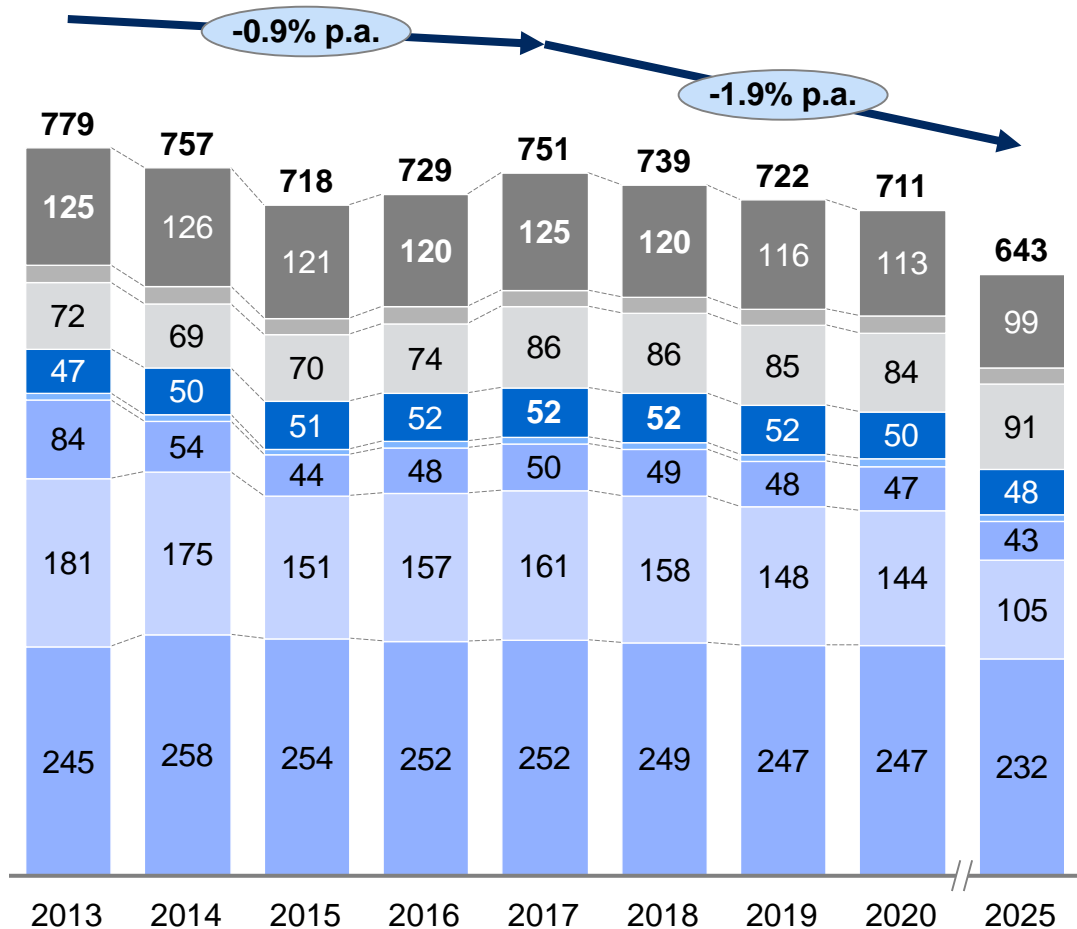
<sup>1</sup> Tier 1 cities: Beijing, Shanghai, Shenzhen, Guangzhou; Tier 2 cities: Chengdu, Chongqing, Haerbin, Hangzhou, Nanjing, Ningbo, Shenyang, Tianjin, Wuhan, Xian, Changsha, Dalian, Fuzhou, Hefei, Huhehaote, Jinan, Kunming, Nanchang, Ningbo, Qingdao, Shijiazhuang, Taiyuan, Urumqi, Xiamen, Zhengzhou; Tier 3 cities: Guiyang, Haikou, Lanzhou, Xining, Beihai, Nanning

# A The 19<sup>th</sup> National Congress of CPC showcases the transition in economy development from different vectors

Trends	Initiatives	Impact on steel industry
QUALITY AND EFFICIENCY	<ul style="list-style-type: none"> <li>Longterm GDP target is not specified, China has entered “<b>medium-high growth stage</b>” and cares more about <b>development pattern, economic structure</b> and <b>growth driver</b></li> <li><b>Principal contradiction is highlighted:</b> mismatch between “unbalanced/ inadequate development and growing needs for a better life”</li> </ul>	<ul style="list-style-type: none"> <li>Demand slow-down</li> <li>Share of consuming driven demand to increase</li> </ul>
EMPHASIS ON REFORM PRIORITIES	<ul style="list-style-type: none"> <li><b>Supply side reform:</b> Cutting overcapacity, destocking, deleveraging, reducing costs and shoring up competitiveness (三去一降一补)</li> <li><b>SOE reform:</b> To improve SOE governance and management and encourage mixed ownership</li> <li><b>Opening up:</b> Pilot Free Trade Port to develop trade flow</li> <li><b>Market economy:</b> Increasing the role of capital market and deepening of fiscal reform can be expected</li> <li><b>Financial Market:</b> Continue the financial deleveraging</li> <li><b>Property Market:</b> the bottom line as "housing is for living not for speculation"</li> <li><b>Rural land leases:</b> to be extended by another 30 years after current ones</li> </ul>	<ul style="list-style-type: none"> <li>Capacity reduction</li> <li>Consolidation to progress</li> <li>Increasing competitiveness of domestic players</li> </ul>
SUSTAINABILITY	<ul style="list-style-type: none"> <li><b>Environment protection:</b> Tightening policy will sustain; national natural resource management &amp; ecological supervision agency will be established</li> <li><b>Social equality:</b> Policy measures include broader and more even coverage of pension and healthcare insurance, better public services and rejuvenation of rural areas</li> </ul>	<ul style="list-style-type: none"> <li>Facility upgrade, lean operation, cost pressure on small mills</li> <li>Scrap and EAF penetration</li> </ul>
CHINA DREAM AND OBOR	<ul style="list-style-type: none"> <li><b>China dream:</b> The rejuvenation of the Chinese nation: wiping out poverty and turning China into a fully developed nation</li> <li><b>One Belt One Road:</b> included in CPC's constitution</li> </ul>	<ul style="list-style-type: none"> <li>Global footprints</li> </ul>

# B China steel demand is expected to decline to 711mt in 2020 and 643mt in 2025, driven decreasing demand in construction and machinery

China<sup>1</sup> apparent finished steel demand by sector 2013-2025



CAGR, Percent		
13-17	20-25	
0	-2.9	Machinery
-0.9	-0.3	Consumable durables
4.7	0.7	Transportation
2.5	-1.0	Metal goods
2.0	-1.1	Oil & gas
-12.2	-1.9	Others <sup>2</sup>
-2.9	-5.0	Urban residential construction
0.7	-1.0	Comm./ind./inf. construction <sup>3</sup>

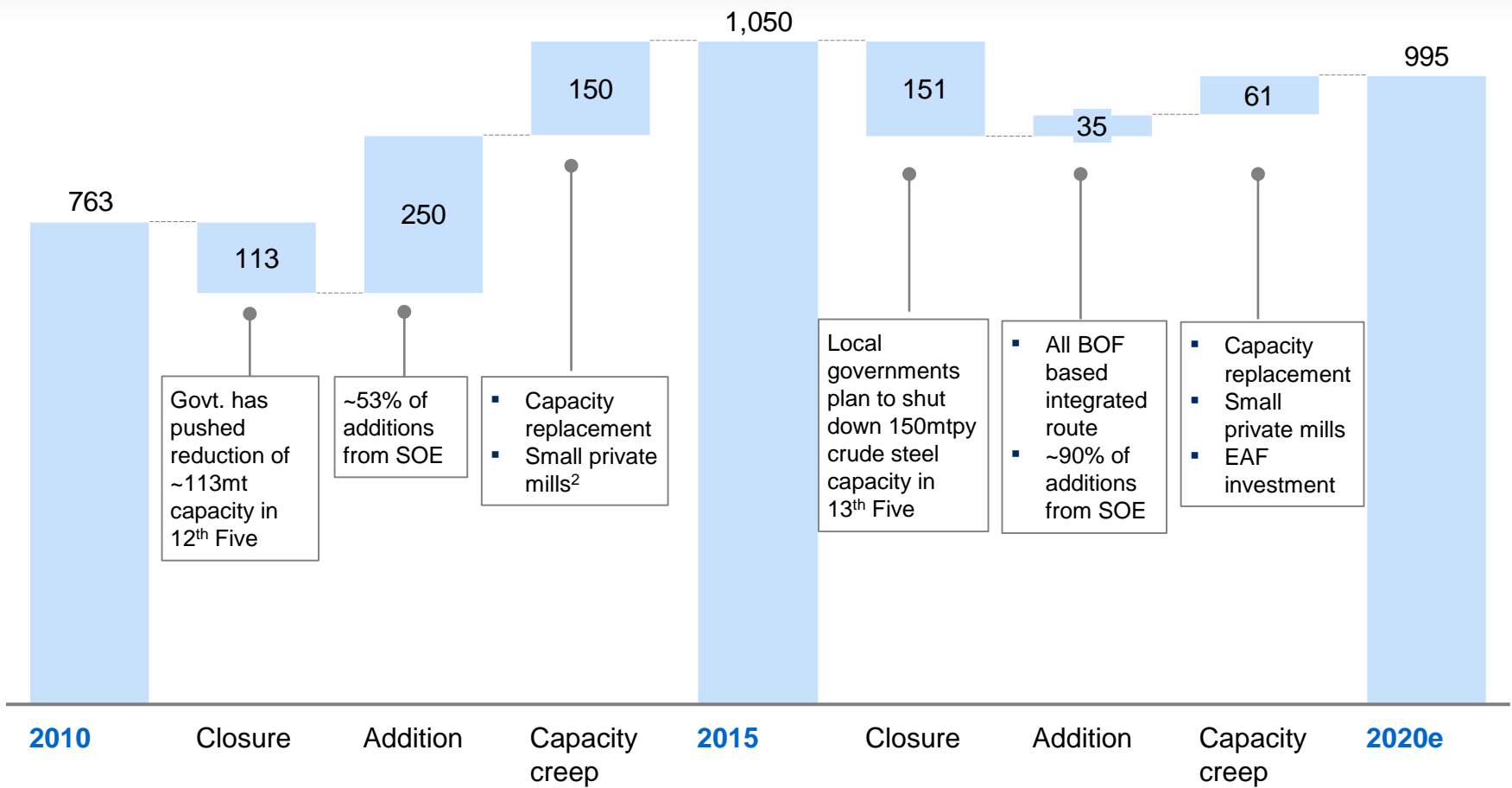
1 Mainland China      2 Unclassified construction, stock change, and others  
 3 Commercial, industrial, infrastructure, and rural residential construction

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# B Chinese government continues to push restructuring and ~150mtpy crude steel capacity to be eliminated in 2016-2020

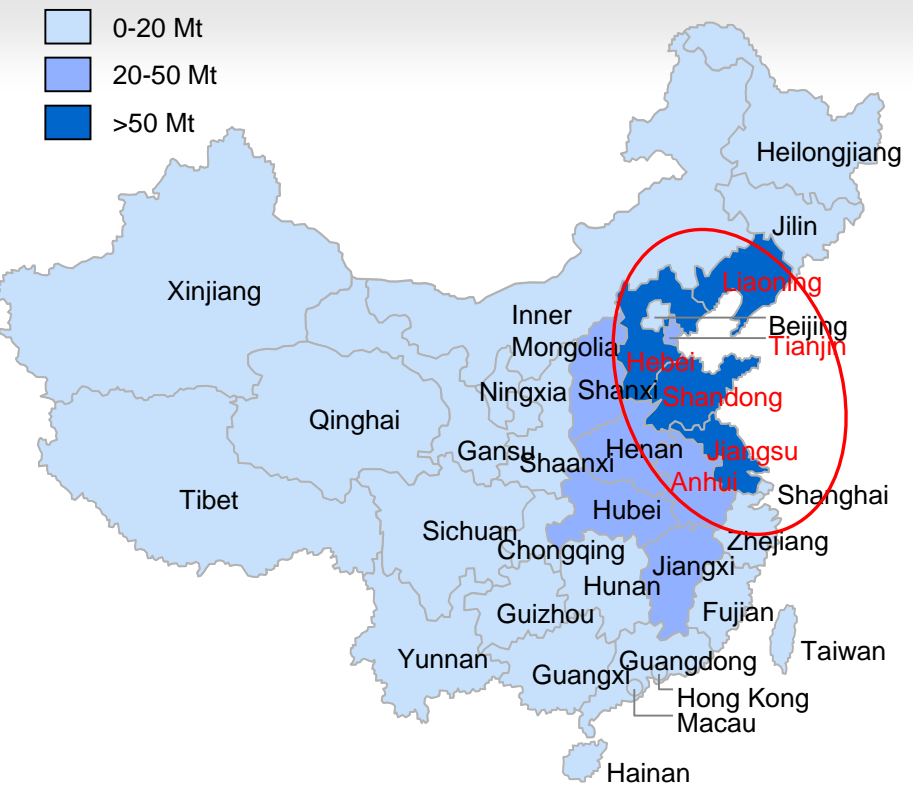
China crude steel capacity<sup>1</sup>, 2010-2020, Million tons



1 Excluding IF capacity  
2 Other small mill: crude steel production < 3.0mt

# B Capacity elimination will be highly concentrated on Eastern and Coastal regions, especially Hebei province

China steel production by province, 2015



- Eliminations will concentrate on **Eastern and Coastal** regions
- **Hebei province** accounts for ~33% of the shutdown
- **Small and private mills** are the key regulation targets, e.g. Qingquan Steel, Zongheng Steel in Hebei
- While elimination from SOE mills is driven by replacement, e.g. Shandong Steel, Baowu Steel

Province	Capacity <sup>1</sup> , 2015, mt	Over supply 2015, mt	Shutdown plan, in 2016-20, mt
Hebei	257	69	49
Jiangsu	124	14	18
Shandong	76	10	15
Liaoning	73	12	6
Shanxi	64	20	NA
Henan	34	5	2
Hubei	33	3	6
Anhui	33	8	6
Xinjiang	32	20	1
Inner Mongolia	32	13	NA
Sichuan	31	10	4
Guangdong	29	11	3
Jiangxi	26	4	4
Tianjin	26	5	9
Shanghai	26	8	4
Hunan	24	5	1
Guangxi	23	2	2
Yunnan	22	8	5
Zhejiang	22	6	2
Jilin	20	6	1
Fujian	20	4	5
Heilongjiang	13	7	3
Gansu	12	4	3
Guizhou	6	1	2
Qinghai	3	2	1
<b>Total</b>	<b>475</b> / 1,050	<b>243</b> /	<b>151</b> /

1 BOF+EAF capacity

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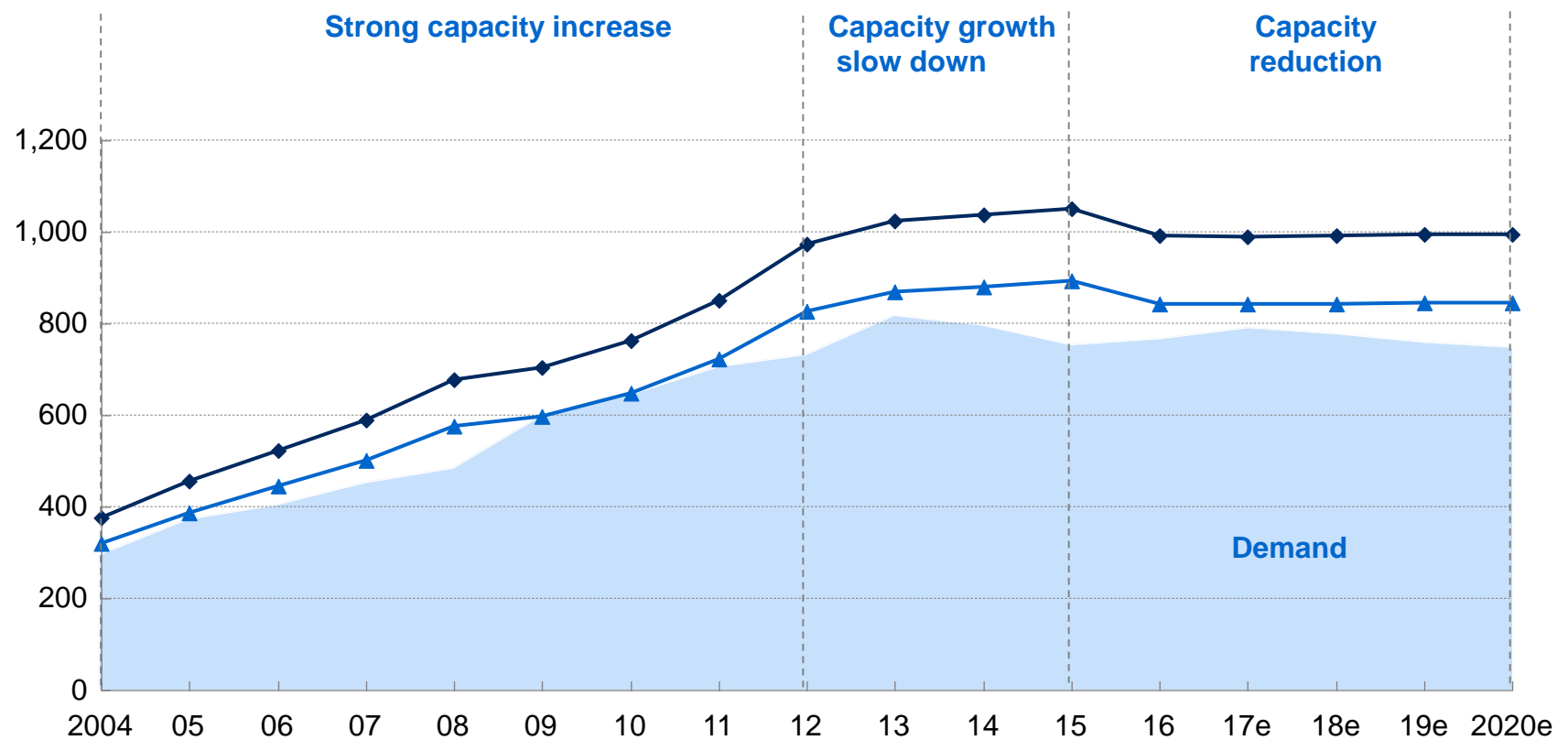
# B Oversupply is still likely to hang over China steel industry due to continuous decline in steel demand

BASE CASE

## China demand/capacity

Million metric ton, crude steel

Nominal capacity    Production @ 85% capacity utilization



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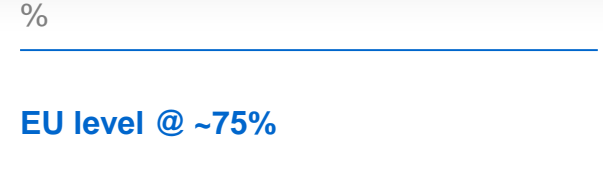
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# Central government expects 60% of top 10 consolidation, strong support from local government on M&A is needed

## Government plan for top 10 concentration

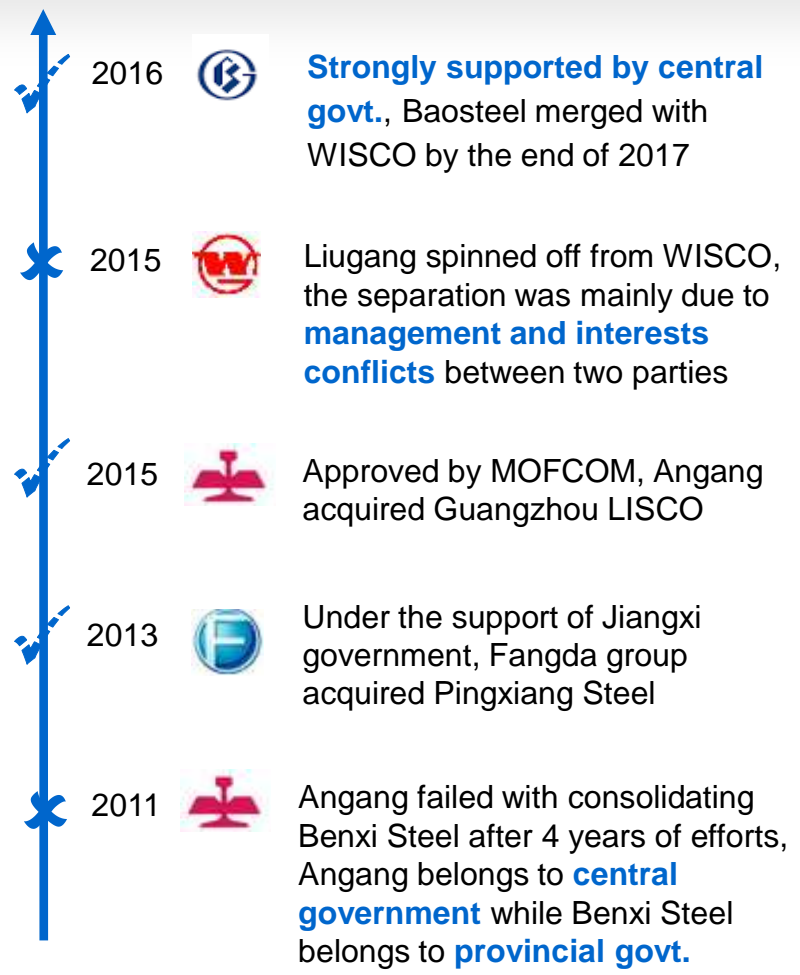
China Top 10 crude steel player share %



EU level @ ~75%



## Recent M&A activities



- Government postponed the concentration target by five years
- Local govt. interference is the key barrier for cross regional M&A

# C The prevalence of regional and cross-regional consolidation can be expected in the medium to long term

**Government consolidation plan<sup>1</sup> for 2025**

- To foster 3-4 steel groups with capacity of ~80mtpy and 6-8 steel group with capacity of 40mtpy

**3-steps approach will be adopted to realize the 2025 plan, :**

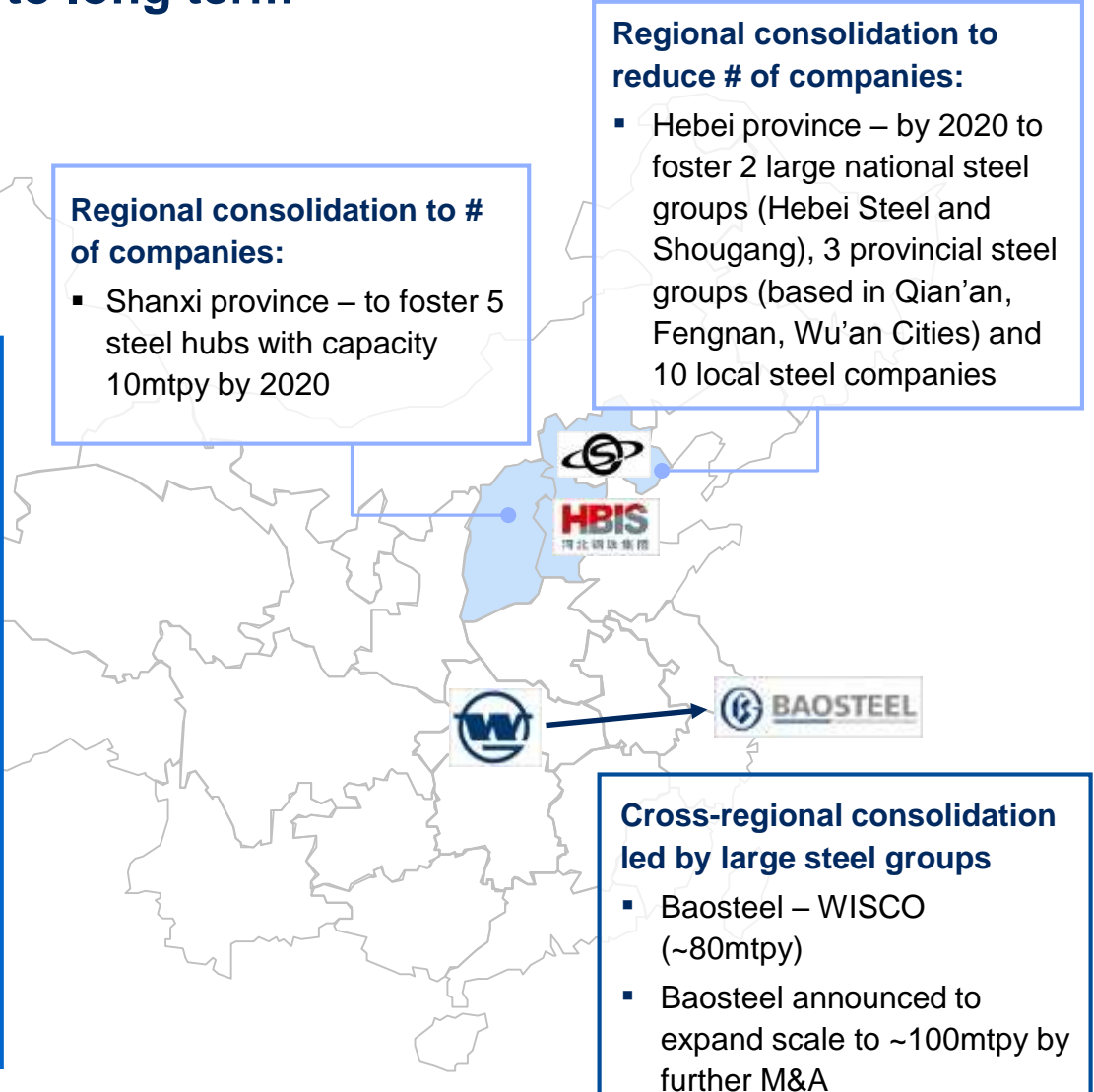
- Step 1 (2016-2018):** Shutdown obsolete steel capacity and develop model example for consolidation (Baosteel – WISCO)
- Step 2 (2018-2020):** Optimize consolidation policy and compliances
- Step 3 (2020-2025):** Facilitate consolidation progress to a grander level

**Regional consolidation to # of companies:**

- Shanxi province – to foster 5 steel hubs with capacity 10mtpy by 2020

**Regional consolidation to reduce # of companies:**

- Hebei province – by 2020 to foster 2 large national steel groups (Hebei Steel and Shougang), 3 provincial steel groups (based in Qian’an, Fengnan, Wu’an Cities) and 10 local steel companies



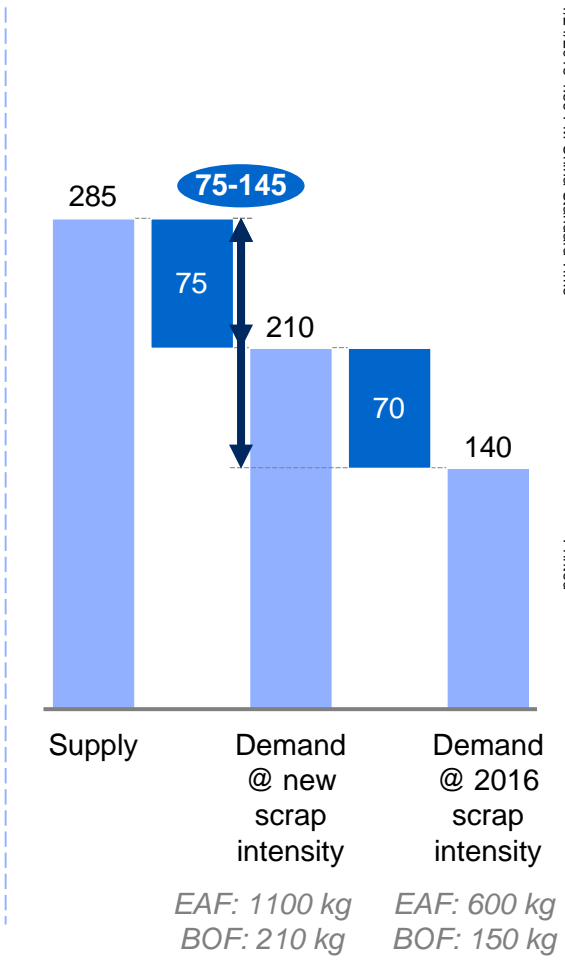
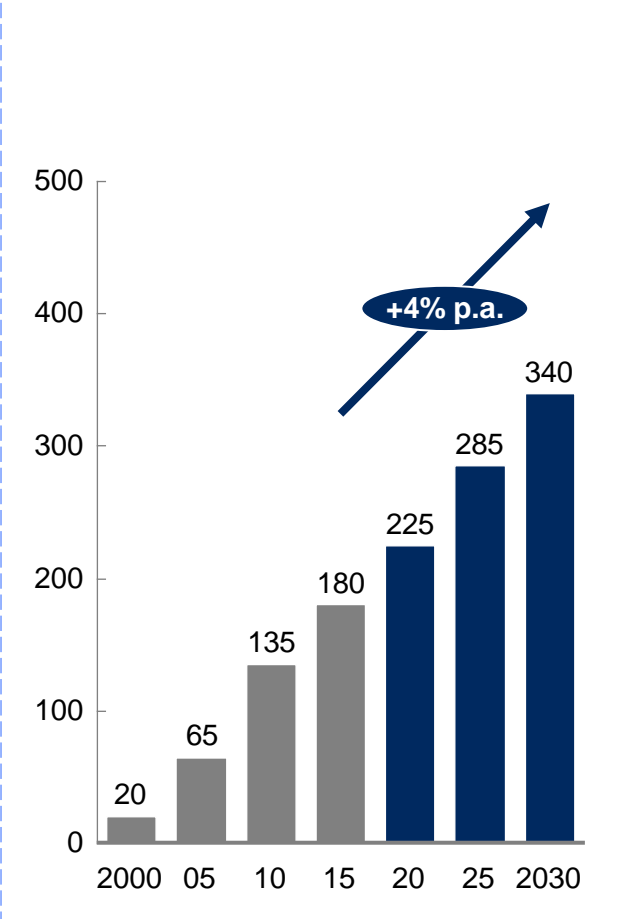
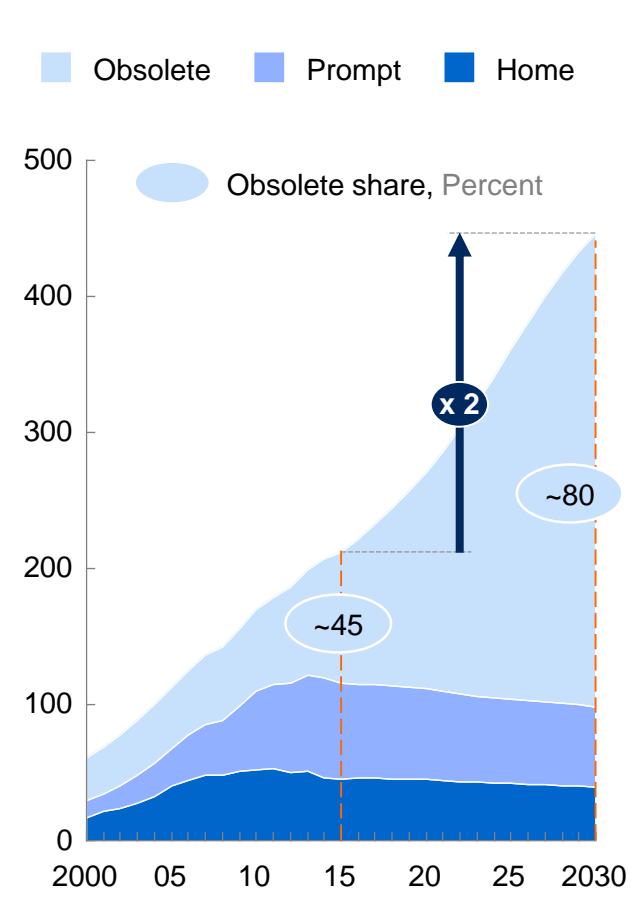
**Cross-regional consolidation led by large steel groups**

- Baosteel – WISCO (~80mtpy)
- Baosteel announced to expand scale to ~100mtpy by further M&A

1 Central government guideline for consolidation and disposal of mothballed capacity

# D China scrap will grow stably over next decade due to obsolete scrap generation, surplus is likely to occur as supply exceeds the demand

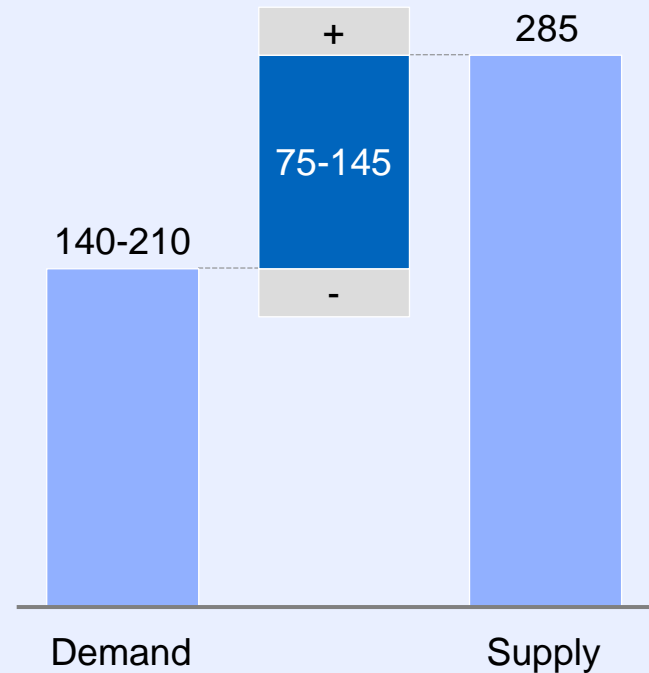
China scrap availability mmt      China scrap supply – 70% recycling<sup>1</sup> mmt      China scrap demand balance 2025



<sup>1</sup> for the future 70% of available obsolete scrap is assumed to be recycled, For home and prompt scrap a 100% recycling efficiency is assumed

# D Different scenarios could be considered by which China's future scrap supply demand mismatch gets balanced

China scrap supply demand balance 2025E  
mmt



1

Will there be **as much obsolete scrap available** and **enough incentives** in China to collect and recycle the scrap? How will scrap **recycling industry** evolve and what prices are needed to make the industry **profitable**?

2

Will **current BOF and EAF players** be able to **use more scrap** up to the standards typically observed in developed regions or above by applying new technologies?

3

To what extent is the country ready to allow the steel industry to make the **switch from BOF to EAF** and hence closing more BF-BOF capacity while investing in new EAF facilities?

4

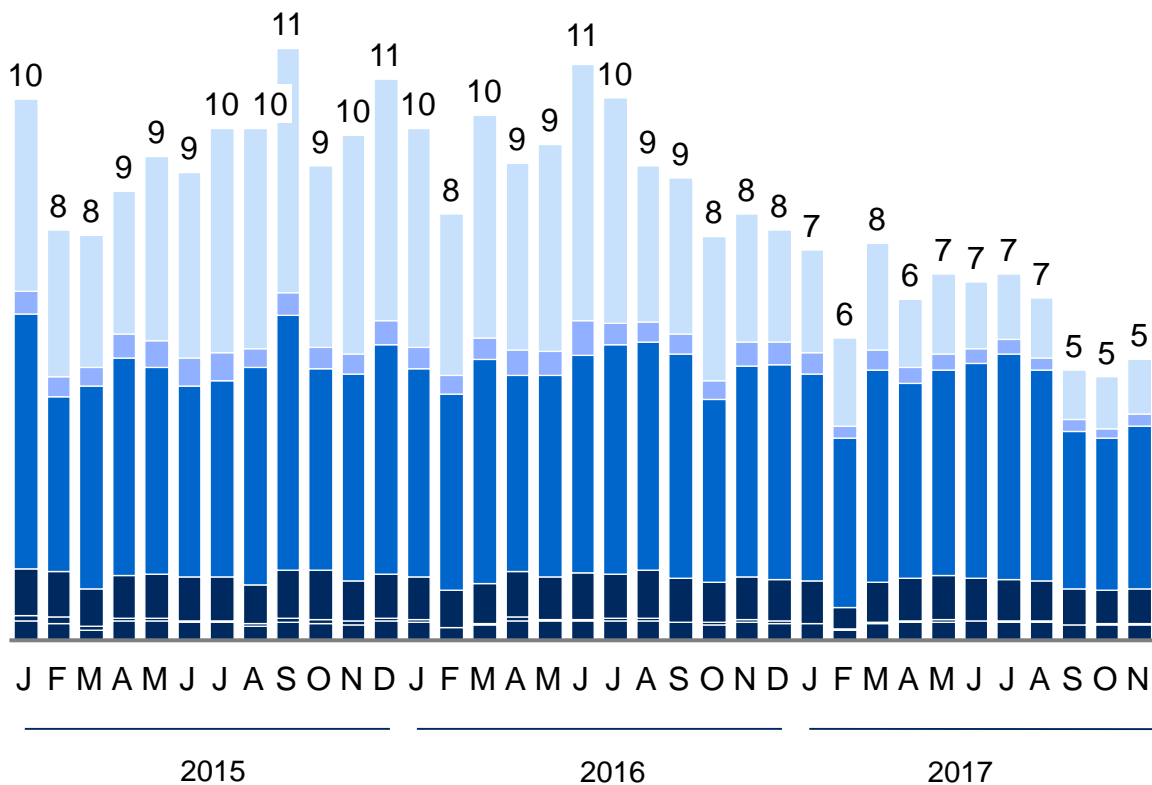
If not all collected scrap can be consumed locally, **what measures** will be put in place to **support or discourage the exports** of scrap from China? Will it **distort global trade of scrap, and iron ore market**?

# E Export of long products reduced significantly due to IF elimination, strong exports growth not expected over the long term

## Chinese steel products export

Million tons

- Rod & Bar
- Sheet & Plate
- Railway Use
- Angle, Shape, Section
- Tube & Pipe
- Other



“China steel exports are facing with increasing **pressure of protections** such as anti-dumping, regarding current huge export volume and **slowdown of global demand**, the export **growth potential will be limited** in the future”

“Government **doesn't encourage** steel exports, the export volume is mainly **decided by global demand**. China steel exports will **remain ~ 80-90mtpy** in the long term”

1 Developed Asia 2 North America










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# E Increasing global investments from Chinese top steel players as they expand market footprints, seek new growth, and acquire technology

“More and more Chinese steel mills explore oversea markets to **achieve new growth and acquire technology**. For some companies such as WISCO and Baosteel, the acquisition is shifting from **resource driven to technology driven**”  
 – *YiCai Financial, Jun 2015*

“Steel companies could invest production hubs of steelmaking and distribution in **ASEAN and Africa** countries to **extend value chain and expand sales**, and take advantage of local raw material resources ideally”  
 – *Hebei Government, Nov 2014*

Chinese steel players	Investment details	Value creation levers
<b>Apr 2013</b>  WISCO	<ul style="list-style-type: none"> <li>Announcement for JV with TBEA for silicon steel distribution center (20 ktpy) in India</li> </ul>	<ul style="list-style-type: none"> <li>New growth market</li> </ul>
<b>Jun 2013</b>  WISCO	<ul style="list-style-type: none"> <li>Acquired laser welding dept. of ThyssenKrupp</li> </ul>	<ul style="list-style-type: none"> <li>Extend value chain</li> <li>Acquire technology</li> </ul>
<b>Sep 2013</b>  Baosteel	<ul style="list-style-type: none"> <li>New Five-Year plan: Develop distribution networks and JV in ASEAN markets for CR and coating products</li> </ul>	<ul style="list-style-type: none"> <li>New growth market</li> </ul>
<b>May 2014</b>  Maanshan Steel	<ul style="list-style-type: none"> <li>Applied to French govt. for acquisition of wheel producer Sasvaldunes</li> </ul>	<ul style="list-style-type: none"> <li>Acquire technology</li> <li>Extend footprints</li> </ul>
<b>May 2014</b>  Kunming Steel	<ul style="list-style-type: none"> <li>Commissioned JV in Vietnam for 1.0 mtpy integrated steel mill</li> </ul>	<ul style="list-style-type: none"> <li>New growth market</li> </ul>
<b>Sep 2014</b>  Hebei Steel	<ul style="list-style-type: none"> <li>Started investment in South Africa for 5.0 mtpy integrated steel mill</li> </ul>	<ul style="list-style-type: none"> <li>New growth market</li> </ul>
<b>Sep 2015</b>  Hebei Steel	<ul style="list-style-type: none"> <li>Acquired European steel trader Duferco (annual trading volume ~20 mt)</li> </ul>	<ul style="list-style-type: none"> <li>Extend footprints</li> <li>Avoid anti-dumping</li> </ul>
<b>Jul 2015</b>  Delong Steel	<ul style="list-style-type: none"> <li>Commission of JV in Thailand for 0.6 mtpy steel sheet distribution center</li> </ul>	<ul style="list-style-type: none"> <li>New growth market</li> </ul>
<b>Apr 2016</b>  Hebei Steel	<ul style="list-style-type: none"> <li>Acquired Zelezara Steel (~1.0 mtpy) in Serbia</li> </ul>	<ul style="list-style-type: none"> <li>Extend footprints</li> </ul>

- Chinese top steel players have been increasing investment for globalization, ~4.0 bn USD in 2013-2016
- They target ASEAN countries and South Africa for new growth engine via JV of integrated steel mill and distribution centers
- While investments in European market mainly to acquire technology as well as extend value chain and market footprints

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**THANK YOU**