

**Chinese Tin Industry is driving forward sustained  
on the road of transformation and upgrading**

**Yue Min  
Yunnan Tin Company Limited**

# 目录

## Content

### **01 China Tin Market Review 2018**

Tin Price Review 2018

Supply/Demand Balance

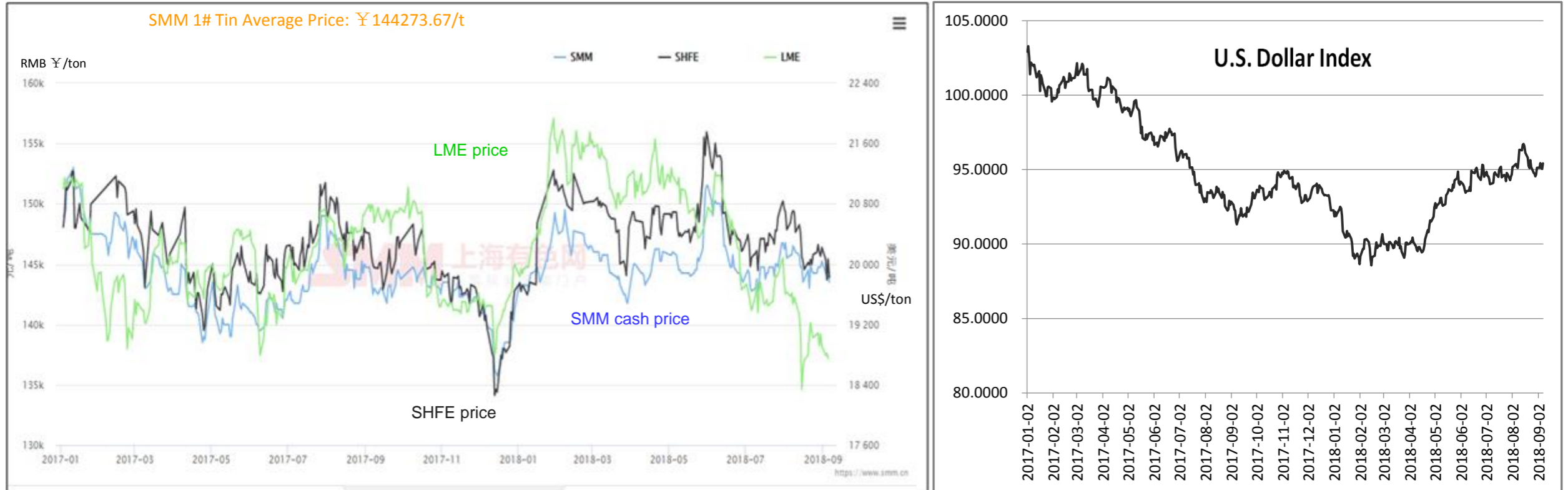
Market Forecast

### **02 China Tin Market Outlook**

Challenges facing Chinese Tin Industry

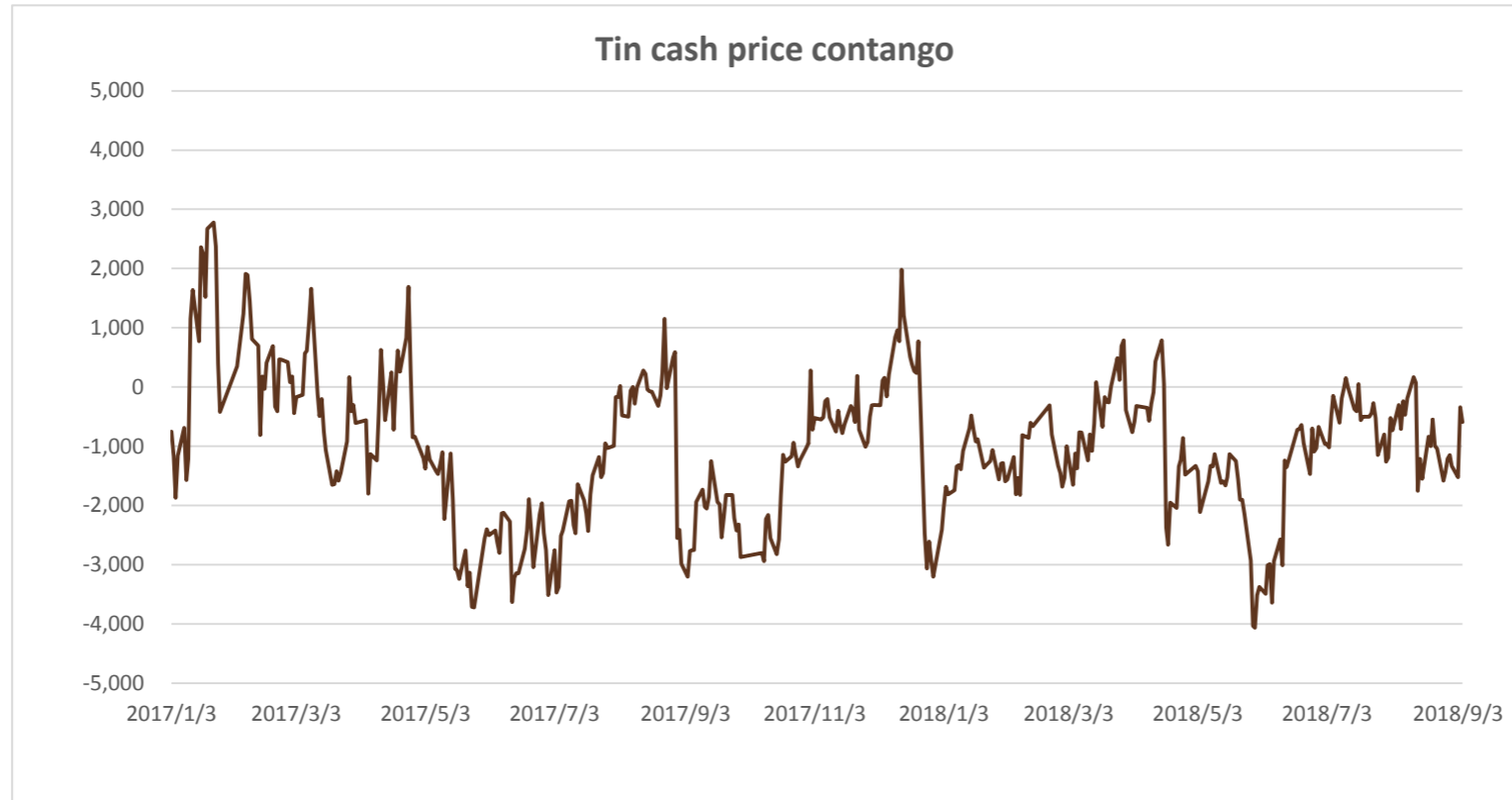
Outlook of Chinese Tin Industry

## Fluctuated in range, slightly move up the center of gravity



- ◆ 12/2017-04/2018: Tin price rose and fluctuated in a mid-high range, supported by dropped U.S. Dollar Index (from 94 to 88) and restrained smelting capacity which was caused by stricter environmental protection scrutiny.
- ◆ 04/2018 - now: Tin price remains volatile although under pressure from changing fundamentals expectation, rising U.S. Dollar Index (from 90 to 96) and heating-up trade war.

## Larger range of cash price contango encourages investors' enthusiasm



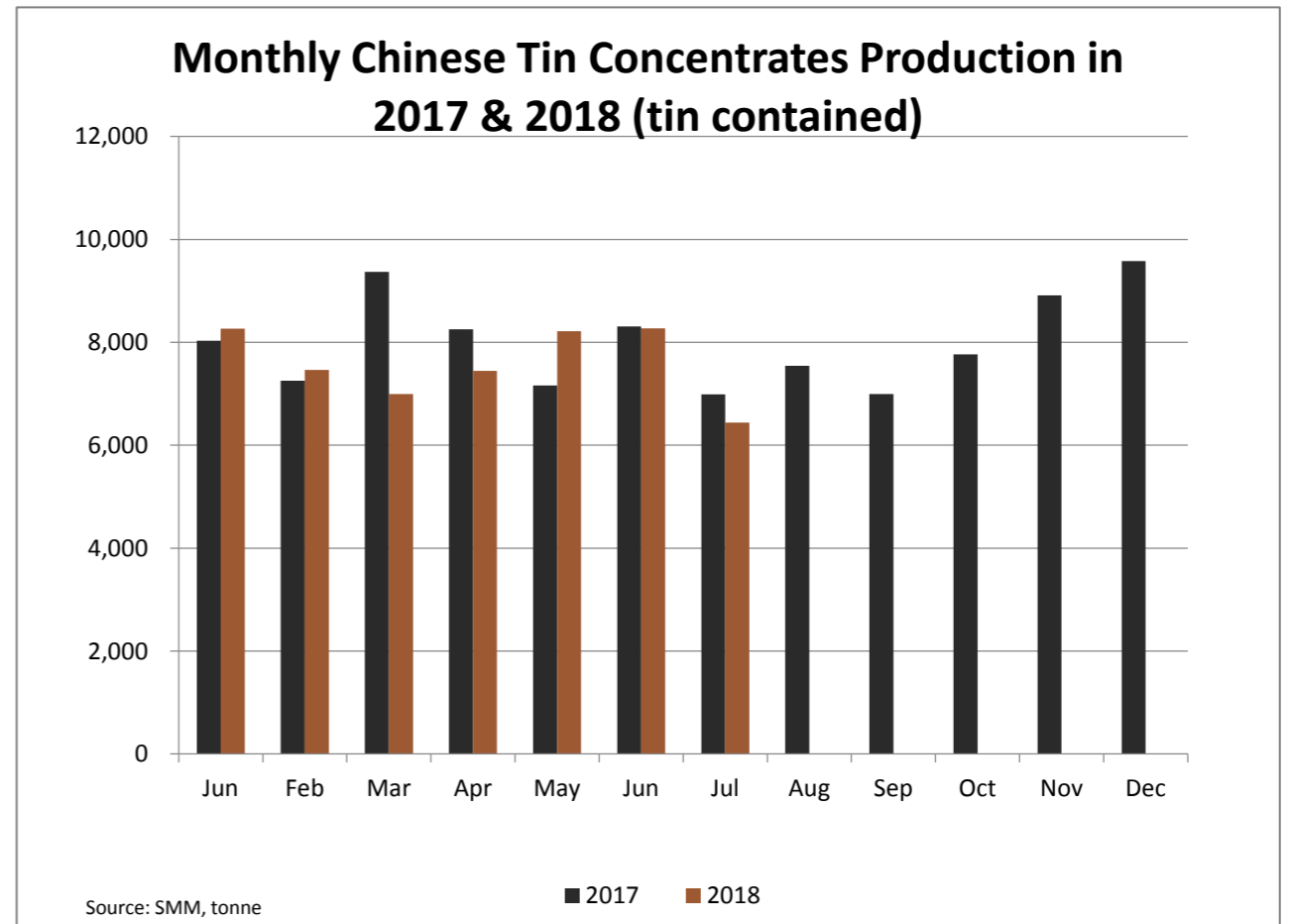
	Lowest Price	Highest price	Average Price (Jan-Aug 2018)
LME tin price (\$/t)	18,300	22,000	20,596
SHFE tin price (RMB/t)	144,300	157,550	146,421
SMM tin price (RMB/t)	142,000	151,500	145,308

## China mine output remains stable, but concentrates production growth is below expectation

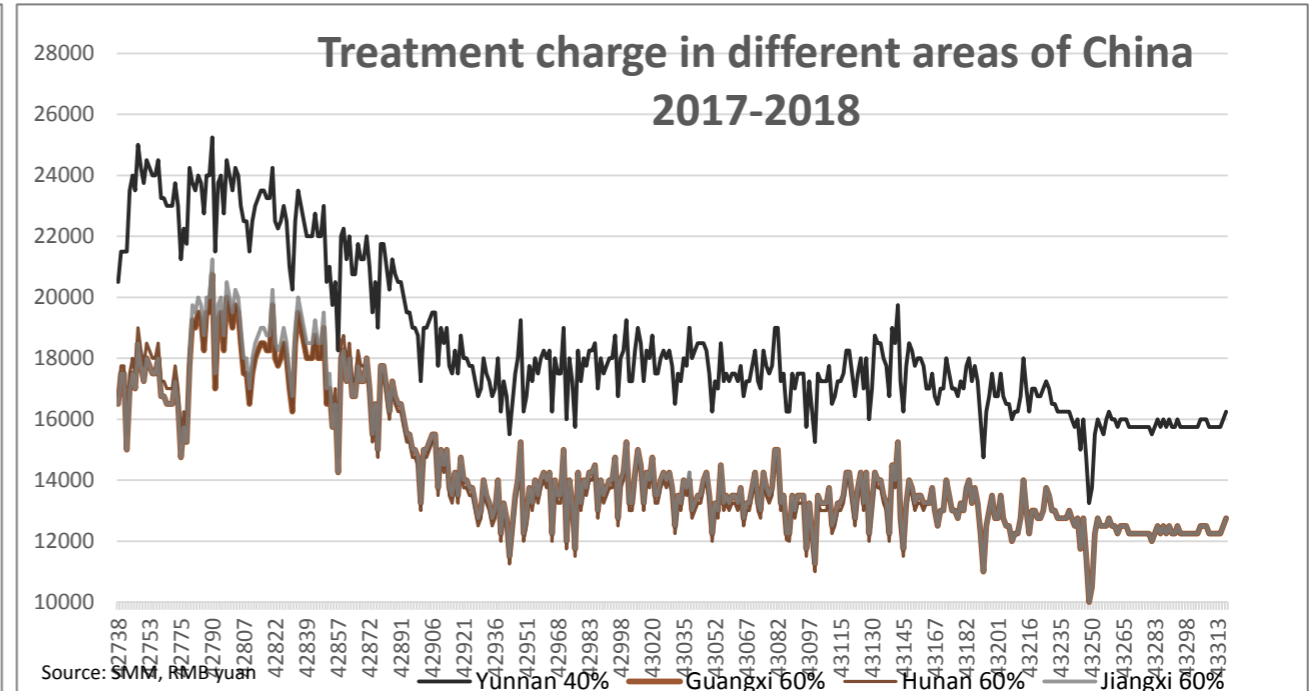
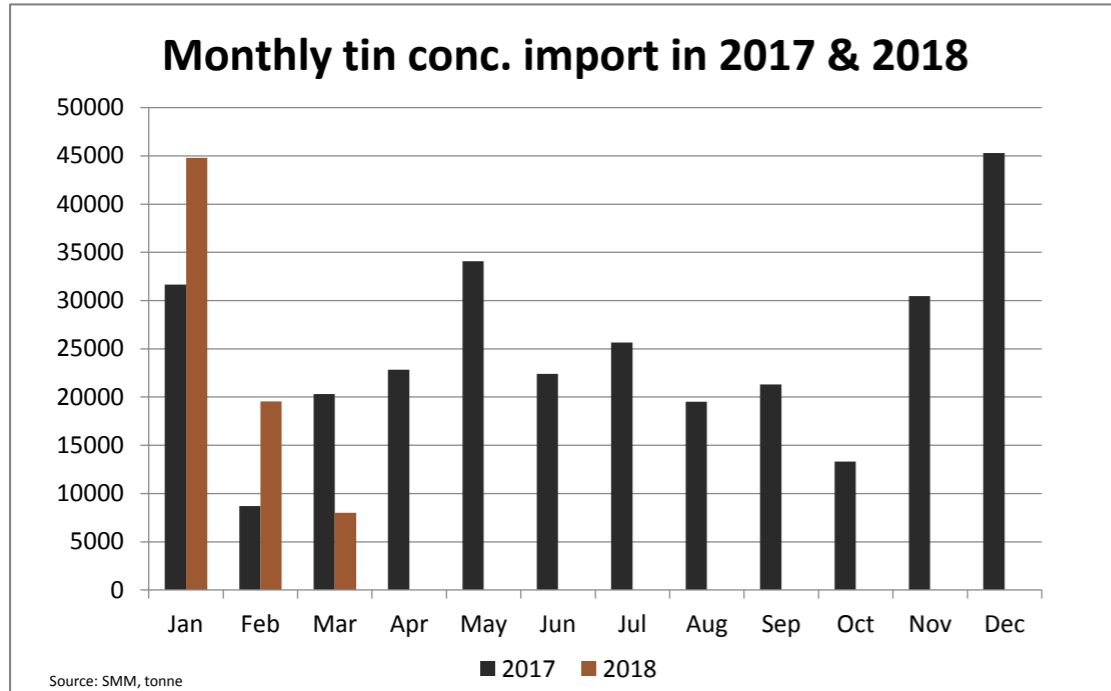
ITA data shows, Chinese tin concentrates production: 53kt (tin contained) (Jan.-July 2018), 55kt of same period in 2017.

2018 forecast: 95kt, flat from 2017's data.

- Stricter EP requirements delayed the resumption of southern mines;
- Resources protection and stricter safety & EP policies slow down the pace of new projects launch ;
- ❑ Yunnan, Guangxi & Hunan provinces: due to unsatisfactory result of EP & safety scrutiny, mining activity failed to resume as planned;
- ❑ Inner Mongolia: Yinman Mining and Huanggang Mining put into production as schedule; the new mine Weila Situo is preparing for production startup, but it is unlikely to start mining this year.



## Declining tin concentrates import and decreasing treatment charge



- China Customs Data shows, year 2017, China imported 300kt tin concentrates with 65kt tin contained. Total import in 2018 is forecasted at 40-50kt tin contained, which is a significant decline compared with previous years. China tin market still highly relies on imported tin concentrates.
- According to SMM, treatment charge in main smelting areas (Yunnan, Guangxi, Jiangxi, Hunan provinces) has been constantly decreased, primarily influenced by the shortage of tin raw material.

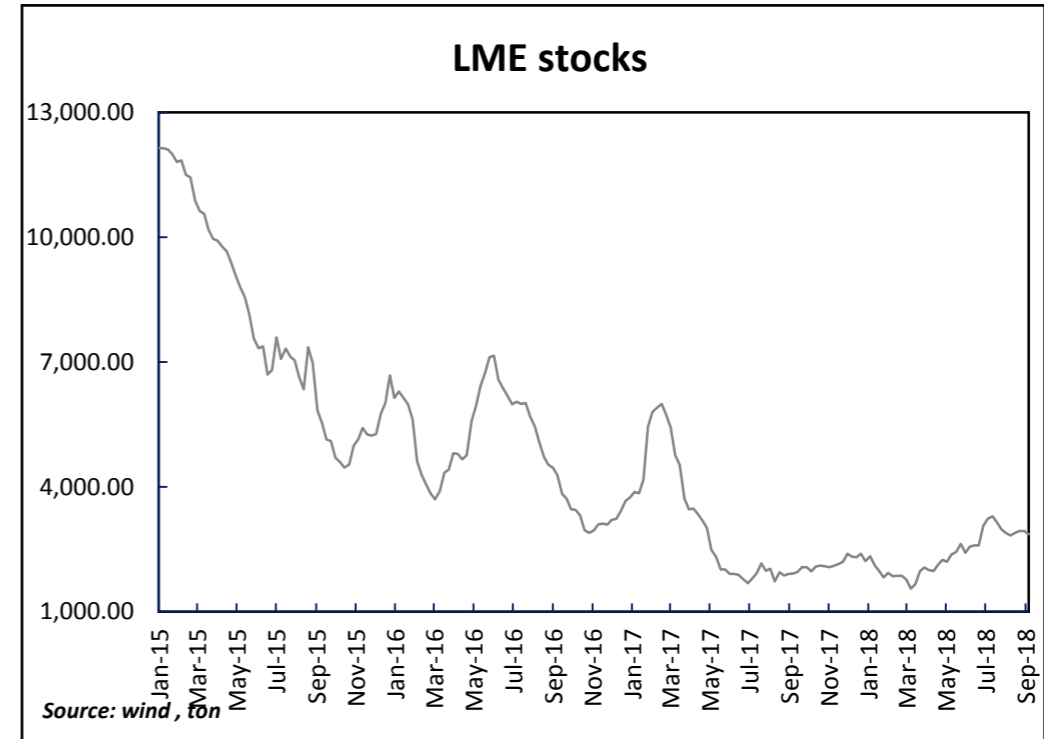
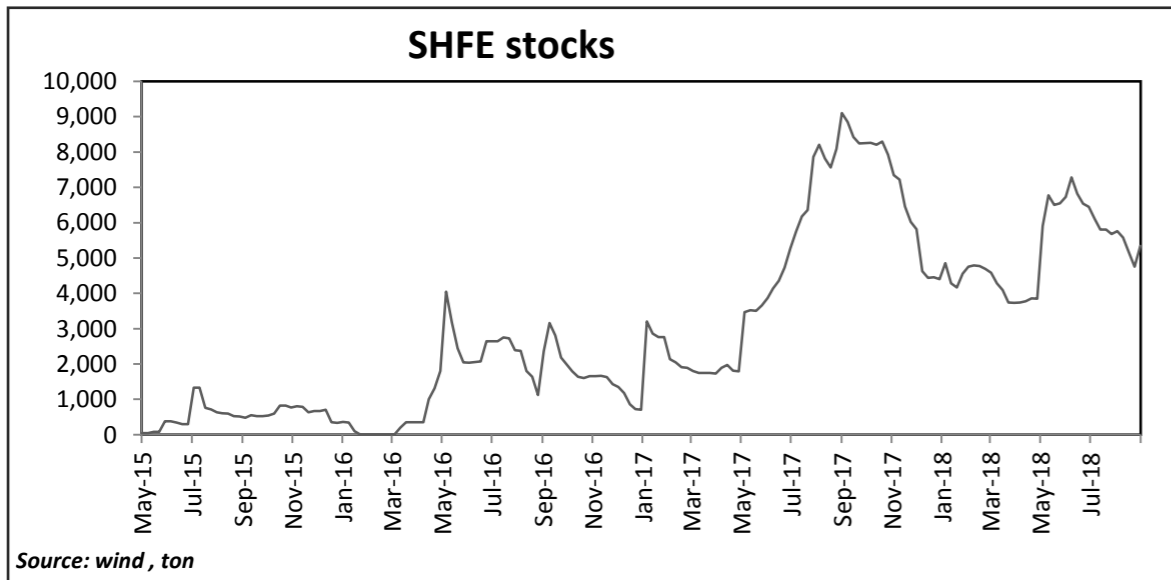
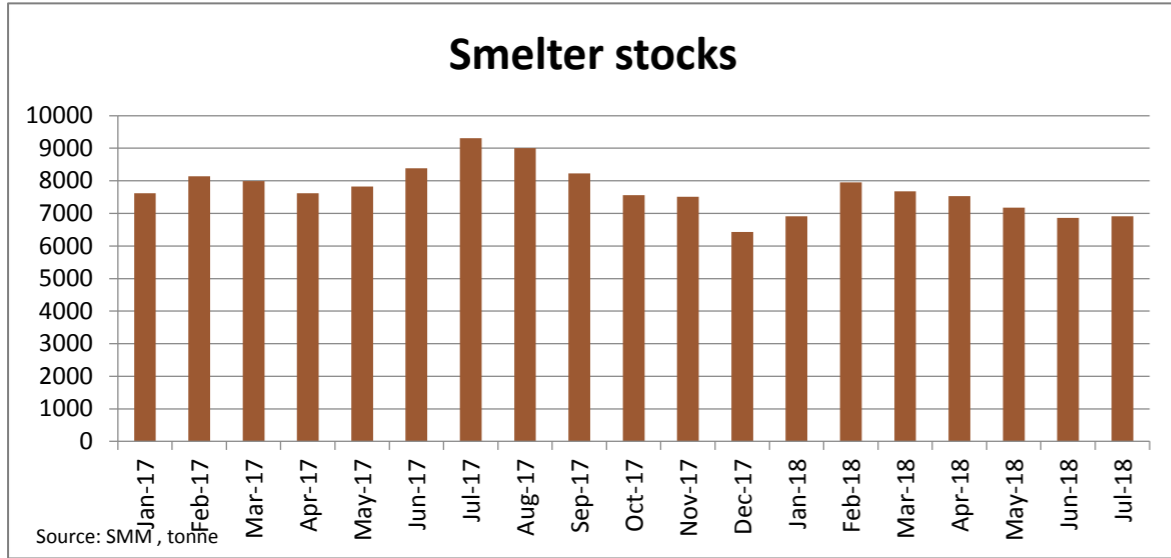
## Import & export of refined tin keeps at a lower level

In the first quarter of 2018:

- refined tin exports: 1960t, with a 19 times YOY growth, benefiting from export duty cancellation in 2017;
- refined tin imports: 620t, with a 62% YOY decrease, due to closed price window between domestic & overseas markets;
- Trade kept at a lower level. Change of export duty policy and progress of processing trade will have an impact on it.



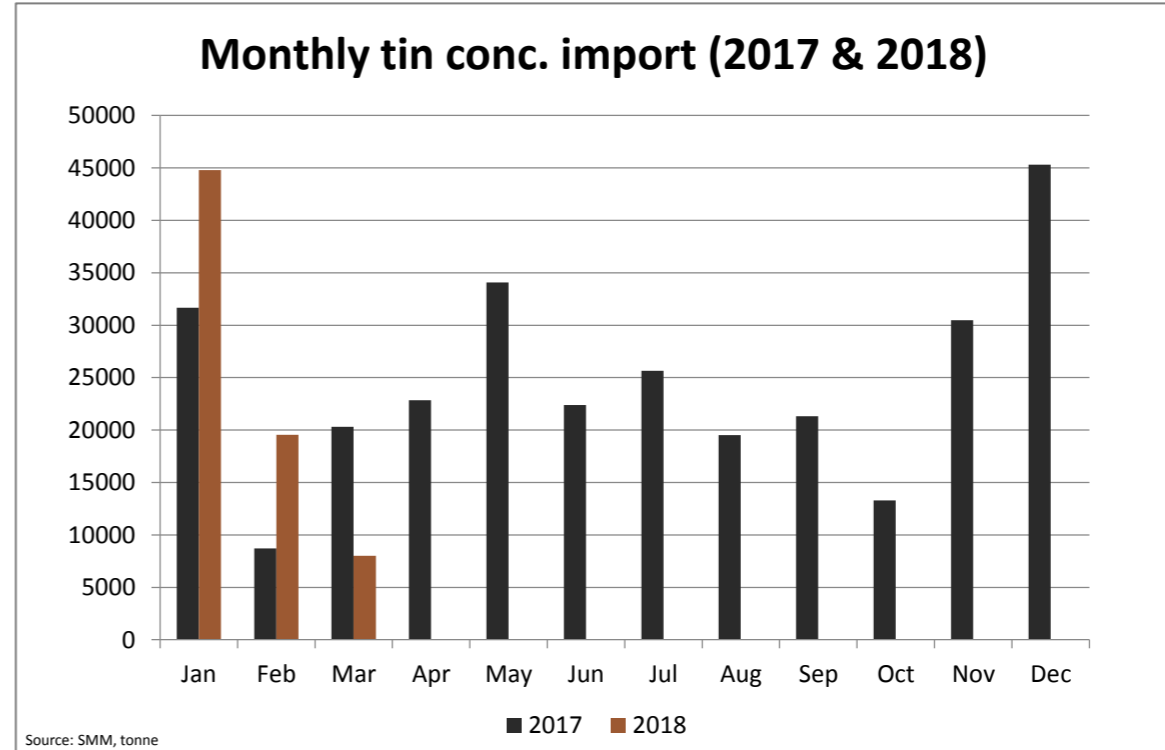
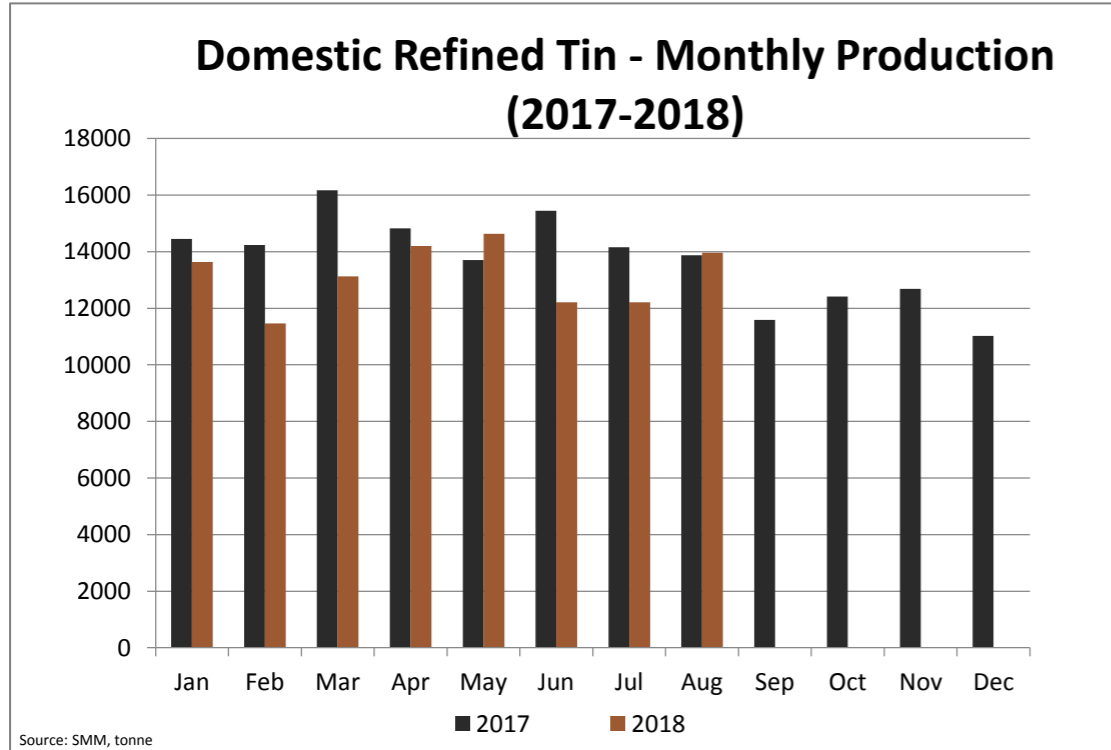
## Domestic stocks gradually decline and LME stocks is in a historically low level



**Domestic smelter stocks decline. Refined tin production has been restrained by both raw material supply shortage and pressure from safety & EP scrutiny.**

**Gradual destocking status will maintain.**

## Both production and consumption decline, supply/demand gap narrows down?



- China refined tin production: 105.5kt, decreased by 11.4kt (YOY). Smelting capacity cannot be fully released due to stricter EP requirements and raw material shortage.
- Weak consumption - gap of supply and demand is expected to narrow down.

## Market forecast: worse supply shortage, better market balance, gradual destocking

### Tin concentrates:

- Domestic mine output tends to be steady. Growth is lower than expectation, influenced by stricter requirements of safety and EP, resources protection, etc.
- Concentrates imports decline with increasing supply uncertainty.

### Refined tin:

- ◆ Increased capacity, but new capacity is unable to put into production – unsatisfactory EP inspection result, raw material supply shortage
- ◆ Production may fall, restrained by EP scrutiny, material shortage, etc.

### Consumption:

- Steady but weak, a few purchasing orders have been cancelled as a result of EP scrutiny and U.S. trade war
- Huge consumption potential from emerging market/sectors

### Stocks:

- In the course of gradual destocking
- continue to decline

## Main factors to be concerned for future market

### Supply shortage of tin concentrate

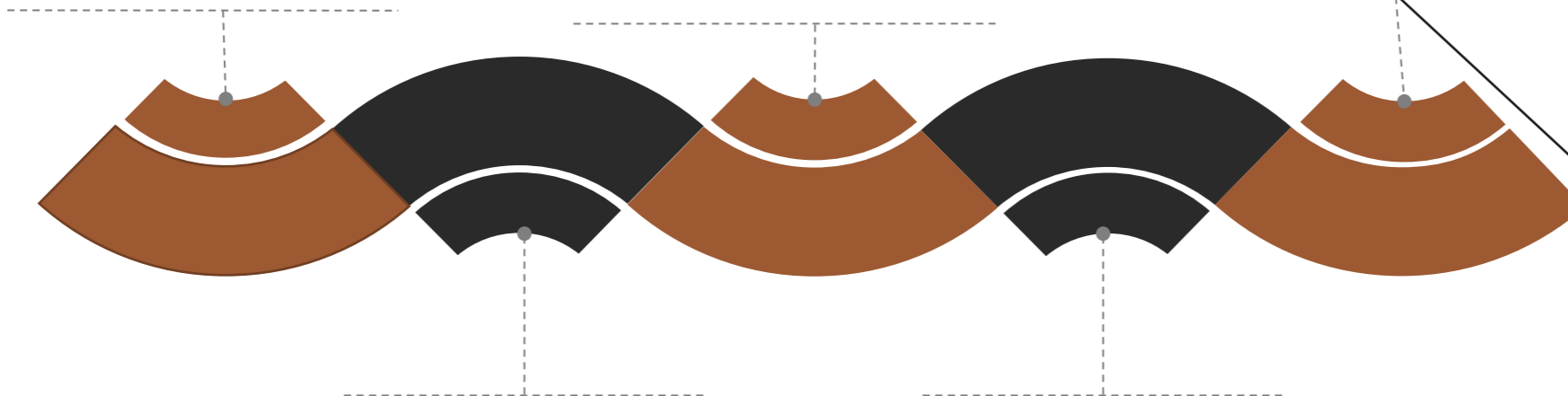
Imported tin concentrates: new source, processing technique upgrading, price influence

### Improved trade deficit

Tariff change for deep-processing products and concentrate processing trade policy will continue to benefit

### Increased overseas demand

China's manufacturing industry relocation brings overseas demand growth; Demand potential from USA, Japan, EU & emerging economies remains.



### Advancement of supply-side reform and EP policies

Smelters facing great pressure: destocking + over capacity + lower treatment charge + higher safety & EP cost + tighter raw material supply

### Tin usage in emerging sectors

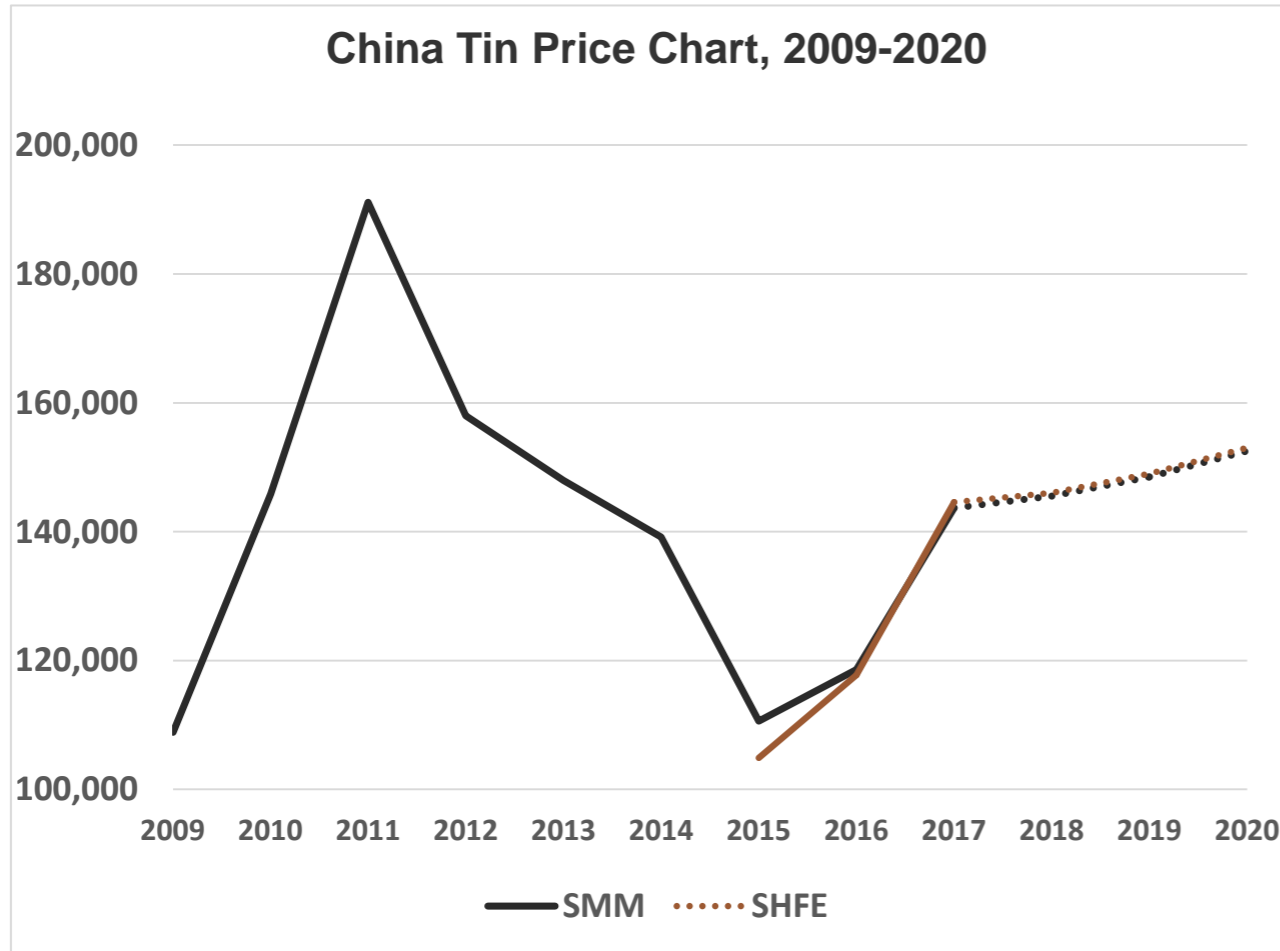
Tin usage in emerging sectors such as miniaturization of integrated circuit, AI industry, electric vehicles, energy storage battery, Eco-Friendly Material, catalytic & sensing material

**2018 global refined tin consumption forecast: 357.2 kt, with a 3.2% YOY growth.**  
Major growth regions are:

- **Asia: 2.2%,**
- **Europe: 10.3%,**
- **North America: 5.1%;**
- **Africa & Australia: 2.3%**

Europe, China, Japan and America have the greatest increase, with strong growth potential from Asian emerging economies.

Stay high and volatile, will remain strong in a mid-and-long term.



**In 2018, tin price is expected to stay high & volatile**

- Tin price is expected to be volatile in the future.
- SHFE tin average price is estimated at 146000 RMB/ton, trading range: 138000-154000 RMB/ton.
- SMM tin average price is estimated at 145000 RMB/ton, trading range: 137500-153500 RMB/ton.
- LME 3-month tin average price is estimated at \$20500/ton, trading range: \$18000-\$22500/ton.
- In the medium-long term, tin price remains strong.

## A tough journey of industrial transformation with many challenges

China plays a pivotal role in the global tin industry, as the world's largest tin producer and consumer.

Significant progress has been achieved in recent years, such as mining equipment, technology, increased scale production, as well as development strategy.

However, China's tin industry also faces threats and challenges originated from within China and outside.

**Increasing shortage of tin supply**

Resources advantage is vanishing with very few new tin deposit discoveries. The ratio of exploitation and reserve is in a relatively low level. Tin mining is limited in the current geographic areas. Smelting highly depends on imported concentrates.

**Stricter EP req. & rising cost**

Under pressure with many troubles: excess smelting capacity, resources protection and stricter safety & EP policies, increased investment, cost rises, treatment charge decrease, etc.

**Industrial transform & upgrade still has a long way to go**

Further upgrading of safety, EP, automation and normalization of mine; improving utilization of renewable and low-grade resources; transformation & upgrading deep-processing industry but lack of techniques and facilities

**Macroeconomic uncertainty & transferring consumption**

Growing U.S. economy, slowdown sign for Chinese and EU economies, manufacture transferring caused by heating-up of trade war, specific consumption of tin will decrease as a result of optimization of deep-processing products

## Chinese investment still has a solid foundation.

China's Annual New Investment (100 million RMB), 2010-2017

### Metal demand has great potential, sustained by:

- Urbanization rate at ~50%, much lower than developed countries (70%)
- Great investment potential for infrastructure construction in Midwest area
- Large consumption space generated in the course of independent innovation of electronic information industry

#### Real Estate

Year	2010	2011	2012	2013	2014	2015	2016	2017
Amount	14506	18000	16976	18784	12266	2985	8609	7218

#### Infrastructure Construction

Year	2010	2011	2012	2013	2014	2015	2016	2017
Amount	10113	2137	10226	16450	18553	19091	20746	21074

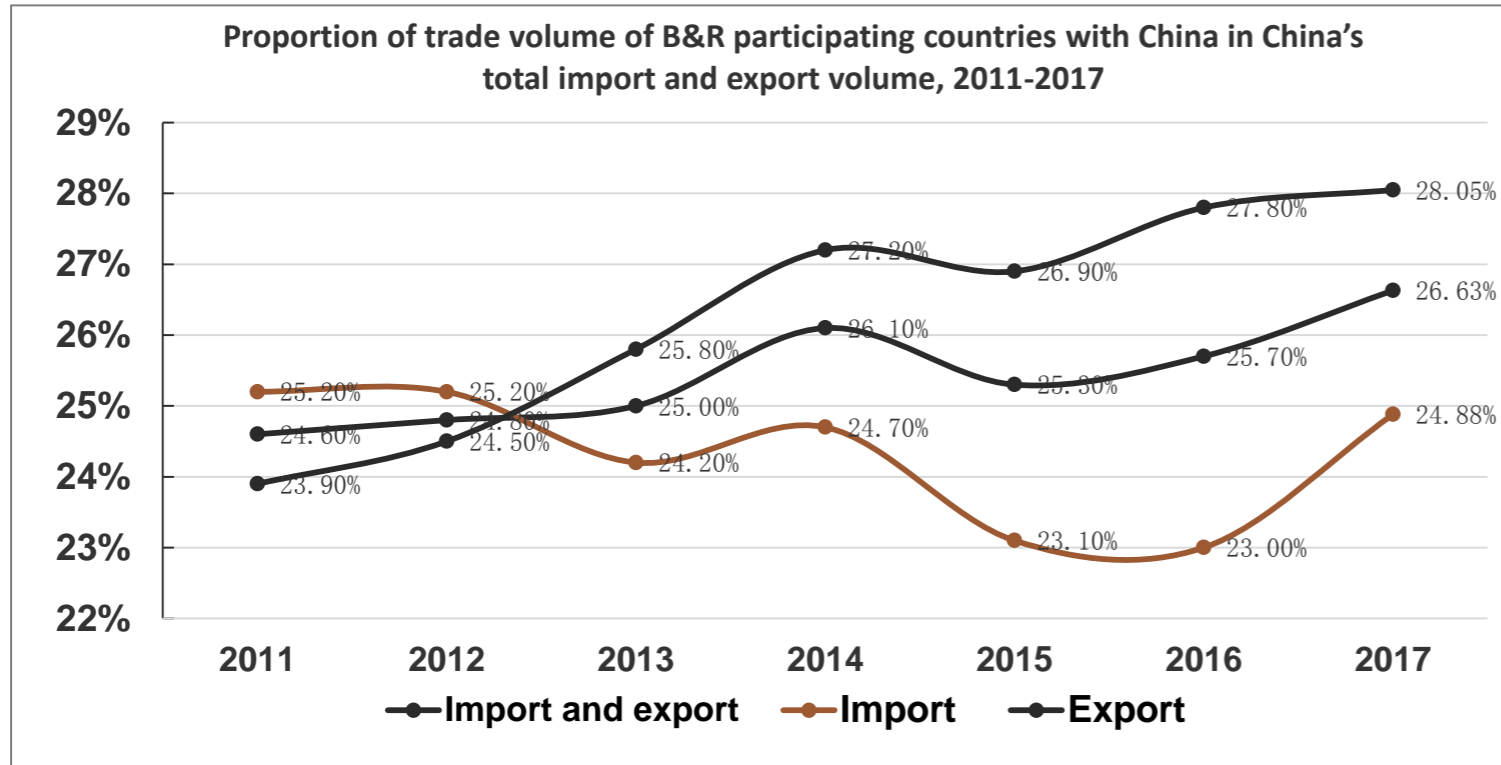
#### Electronic Information Industry

Year	2010	2011	2012	2013	2014	2015	2016	2017
Amount	1265	1370	678	1224	791	1084	2176	4036

In the period from January to July 2018 in China:

- The total investment of fixed assets (excluding peasant household ) was 35.58 trillion RMB, with a 5.5% growth YOY.
- The total infrastructural investment was 8.07 trillion RMB, with a 1.8% growth YOY.
- The total investment in Real Estate Development was 6.59 trillion RMB, with a 10.2% growth YOY.

## 'The Belt and Road Initiative' will continue to stimulate consumption growth



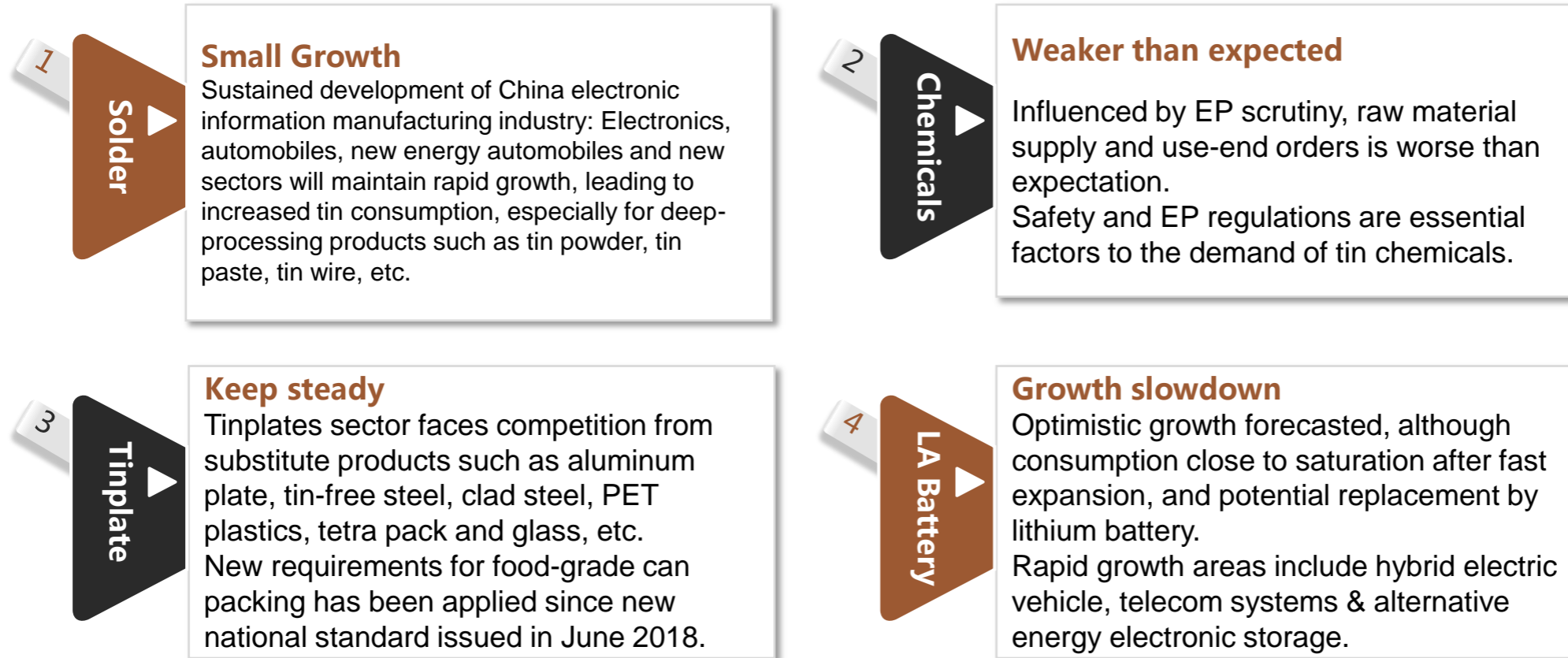
**In mid-and-long term, China's tin consumption still has growth potential.**

Chinese tin industry is in a good development environment, and will continue to benefit from: sustained recovery of the global economy, 'The Belt and Road Initiative', Beijing-Tianjin-Hebei collaborative development, Yangtze River Economic Belt construction, "Made in China 2025", etc.

In 2017, the trade volume with the Belt and Road (B&R) participating countries reached 7.4 trillion RMB, an increase of 17.8% YOY. Exports 4.3 trillion RMB (12.1% increase YOY) and imports 3.1 trillion RMB (26.8% increase YOY). Direct investment was US\$14.4 billion and the amount of newly contracted project was US\$144.3 billion with a growth of 14.5%.

In February 2018, China's export increased by 44.5% YOY, significantly higher than 11% predicated. From January to February 2018, combined YOY increase is 24.4%, due mainly to export increase to B&R participating countries and BRIC countries. Export to SE Asia increased by 27.7%, and exports to Russia, Brazil, India and Indonesia greater than 30%.

## Consumption transfer: deep-processing products consumption will increase annually



- **Overall consumption is weak but annual increase will be seen in EI industry and deep-processing products. Industrial upgrade will reduce specific consumption of tin. Mid-to-low end manufacture transfer and trade war will shift partial consumption to overseas.**

## Chinese Tin Industry Outlook

### Raw Material

- Safety, EP, automation and normalization of mine will be further improved
- Utilization of low-grade resources will increase with mining & processing technology promotion

### Smelting

- ◆ The concentration of smelting unit will be more obvious after closing down obsolete capacity, along with the advancement of supply-side reform
- ◆ Utilization of renewable resources will be enhanced by smelting technology upgrading
- ◆ Closer integration of industry and finance, closer interaction of cash market and futures market will be pushed by challenges face by smelters, such as higher cost, lower treatment charge, and increased operating risks, etc.

### Downstream consumption

- Deep-processing enterprises will reserve and strengthen technical capacity, human resources and facilities.
- Industrial upgrading and transferring will shift partial domestic consumption to overseas.
- Large consumption potential will be generated from emerging sectors.

## Developing Road of Chinese Tin Industry

Green Development	Win-win Cooperation	Internationalization	Integration of Industry & Finance	Innovation-driven
<ul style="list-style-type: none"> <li>• Supply-side Reform</li> <li>• 19<sup>th</sup> CPC NC – Green data</li> <li>• Green Development</li> <li>• Cleaner production</li> <li>• industrial structure optimization</li> <li>• Technology progress</li> <li>• Improving resources utilization efficiency</li> <li>• On a ‘green’ path</li> </ul>	<ul style="list-style-type: none"> <li>• Industry chain cooperation</li> <li>• Co-op with service enterprises</li> <li>• Expand to cover vertical processing sectors</li> <li>• Establish industrial strategic alliance</li> <li>• Leverage enterprise resources</li> <li>• Enhance competitiveness</li> <li>• On a ‘strategic cooperation’ path</li> </ul>	<ul style="list-style-type: none"> <li>• Go-global Strategy</li> <li>• The Belt and Road</li> <li>• Talents</li> <li>• Technology</li> <li>• Management</li> <li>• Improve the world position of Chinese tin industry</li> <li>• On an ‘internationalization’ path</li> </ul>	<ul style="list-style-type: none"> <li>• Improving the financing capacity of enterprises</li> <li>• Financial products and services innovation for tin industry</li> <li>• Mitigating price risk by using options &amp; futures</li> <li>• On the path of ‘integration of industrial-finance’</li> </ul>	<ul style="list-style-type: none"> <li>• Talents For Strong Enterprise</li> <li>• Talents for Strong Country</li> <li>• Talents cultivation</li> <li>• industry-university-research cooperation</li> <li>• On an ‘Innovation-driven’ path</li> </ul>



***Thank you!***

**Questions & Comments**