

Korean Steel Market in 2017

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Korea Iron and Steel Association



General Economy

GDP

- ◆ ('16) Korean economy recovered at a steady pace with the growth rate of 2.7% thanks to increased domestic demand supported by construction sector.
- ◆ ('17) Expected to increase by 2.5% due to an increased exports and equipment investment.

Private Consumption

- ◆ ('16) Last year's private consumption showed the modest growth rate of 2.4%.
- ◆ ('17) A decline in wage and employment growth will slowdown the increasing trend of private consumption.

Equipment Investment

- ◆ ('16) Decreased by 2.6% owing to external uncertainties for enterprises and domestic industrial restructuring.
- ◆ ('17) Expected to grow by 2.5% due to increased demand for investment in IT sector.

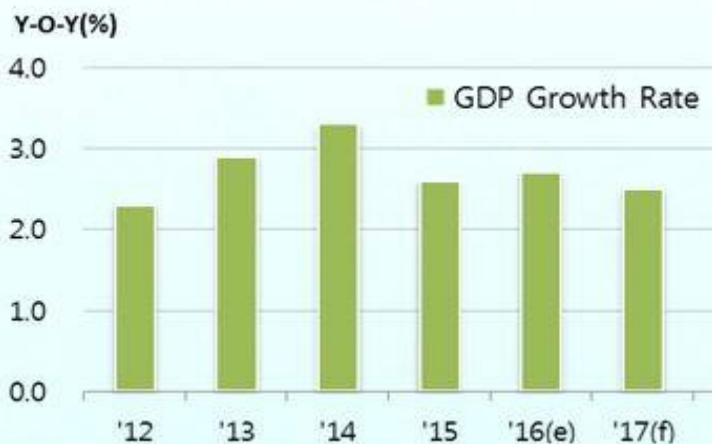
Construction Investment

- ◆ ('16) Increased by 10.9% with active residential construction.
- ◆ ('17) Forecasted to slowdown due to decrease in the construction commencement area and number of houses in the market.

Exports & Import

- ◆ ('16) Export grew by 0.9% with a recovery in exports of IT products during the 2H while import continue to increase.
- ◆ ('17) Export is expected to grow steadily due to gradual recovery in the world demand while import increased by 2.3%.

Economic Indicators in Korea



| | 2015 | 2016(e) | | | 2017(e) | | |
|-------------------------|------|---------|------|-------|---------|-----|-------|
| | | 1H | 2H | Total | 1H | 2H | Total |
| GDP | 2.6 | 3.0 | 2.5 | 2.7 | 2.4 | 2.6 | 2.5 |
| Private Consumption | 2.2 | 2.7 | 2.1 | 2.4 | 1.9 | 1.9 | 1.9 |
| Equipment Investment | 5.3 | -3.6 | -1.5 | -2.6 | 3.0 | 2.0 | 2.5 |
| Construction Investment | 3.9 | 10.3 | 11.5 | 10.9 | 5.9 | 3.0 | 4.3 |
| Exports | 0.5 | 0.1 | 1.7 | 0.9 | 2.9 | 2.0 | 2.4 |
| Imports | 2.0 | 0.7 | 2.5 | 1.6 | 4.3 | 0.5 | 2.3 |



Steel-using Industries

Construction

- ('15) Due to revitalization in the private construction, construction commencement area grew by 36.3%.
- ('16) Decreased by 5.7% due to base effect of sharp increase in the previous year.

Automobile

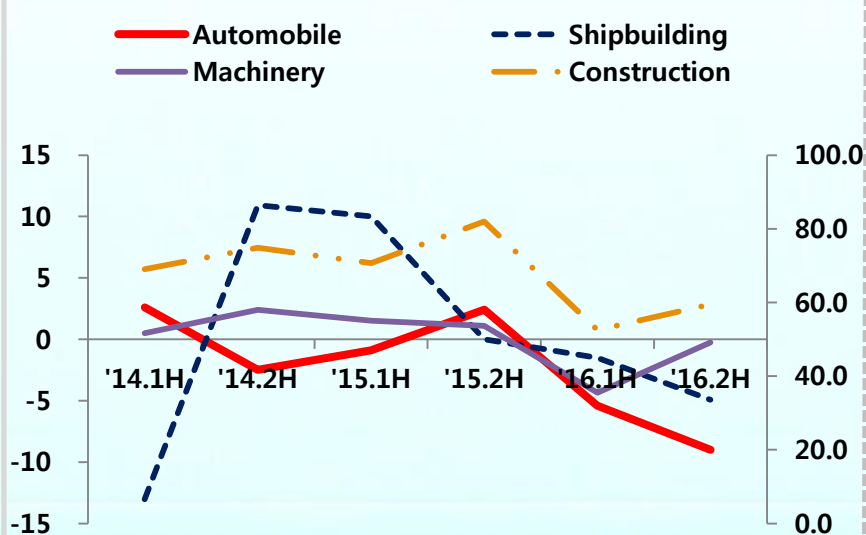
- ('15) Posted a slight increase with releases of new models and individual consumption tax cuts.
- ('16) Dropped by 7.2% due to strike and economic recession in emerging countries, leading export to fall.

Shipbuilding

- ('15) Increased by 5%, which was supported by relatively favorable orders received in '13 and '14.
- ('16) Showed a negative growth of 3.9% with decreased shipbuilding orders caused by low oil prices.

Machinery

- ('15) Recorded a modest growth of 1.3% due to increased investment in private equipment.
- ('16) Declined by 2.3% due to a decrease in exports to major overseas markets.



| | Unit | 2014 | | 2015 | | 2016(e) | |
|-----------------------------|------------------------|-------|-------|---------|-------|---------|-------|
| | | | y-o-y | | y-o-y | | y-o-y |
| Construction (commencement) | Million m ² | 111.9 | 7.3 | 152.6.3 | 36.3 | 143.9 | -5.7 |
| Automobile (production) | 10,000 units | 453 | 0.1 | 456 | 0.7 | 423 | -7.2 |
| Shipbuilding (Delivery) | Million CGT | 12.1 | -2.4 | 12.7 | 5.0 | 12.3 | -3.9 |
| Machinery (production) | trillion KRW | 102.4 | 2.8 | 103.7 | 1.3 | 101.3 | -2.3 |



Korean Steel Market

Overview

- ◆ ('15) Consumption and production remained at the similar level, but both export and import decreased.
- ◆ ('16) Production stagnated at the same level as 2015, while consumption increased slightly by 2.2%. However, exports decreased by 1.8% and imports surged by 7.5%, which used up the most share of increased consumption.

(Unit : Mil. MT)

| Year | Consumption | Export | Production | Import |
|------|-------------|-------------|------------|-------------|
| '14 | 55.5 (7.3) | 32.3 (10.5) | 74.1 (7.2) | 22.7 (17.3) |
| '15 | 55.8 (0.6) | 31.6 (△2.2) | 74.2 (0.1) | 22.1 (△3.0) |
| '16 | 57.1 (2.2) | 31.0 (△1.8) | 74.3 (0.2) | 23.7 (7.5) |

* Source: Korea Iron & Steel Association



Korean Steel Market

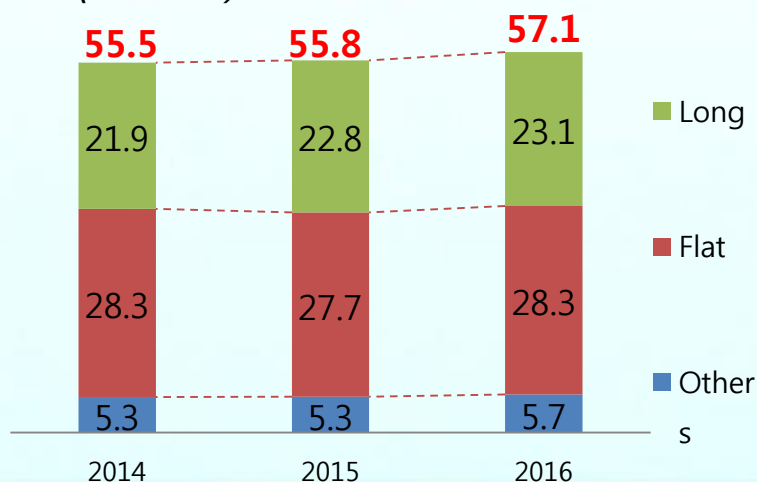
Steel Consumption

- ◆ ('15) Despite a strong recovery in construction, the increase in cheap imports hindered profitability improvement.
- ◆ ('16) Despite contraction in major steel consuming industries (automotive, shipbuilding, machinery), steel consumption recorded slight increase of 2.2% due to the strong upturn in the construction industry.

Steel Production

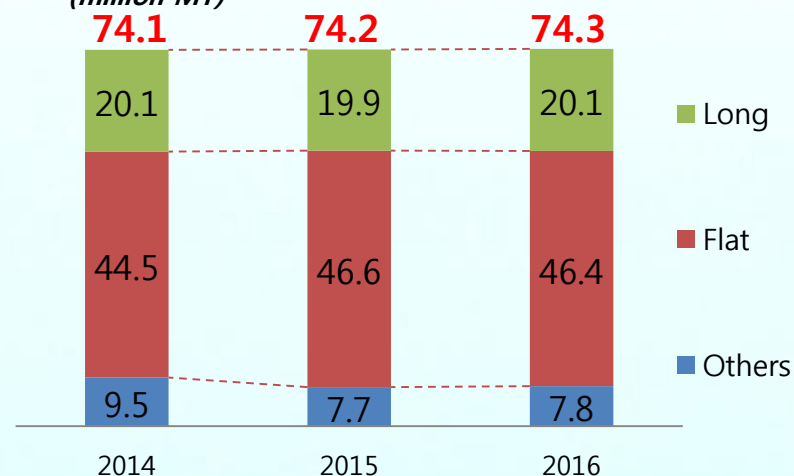
- ◆ ('15) Recorded no growth for the most group of products.
- ◆ ('16) Maintained the previous year's level due to domestic steelmakers' maintenance works.

(million MT)



* Source : Korea Iron & Steel Association

(million MT)



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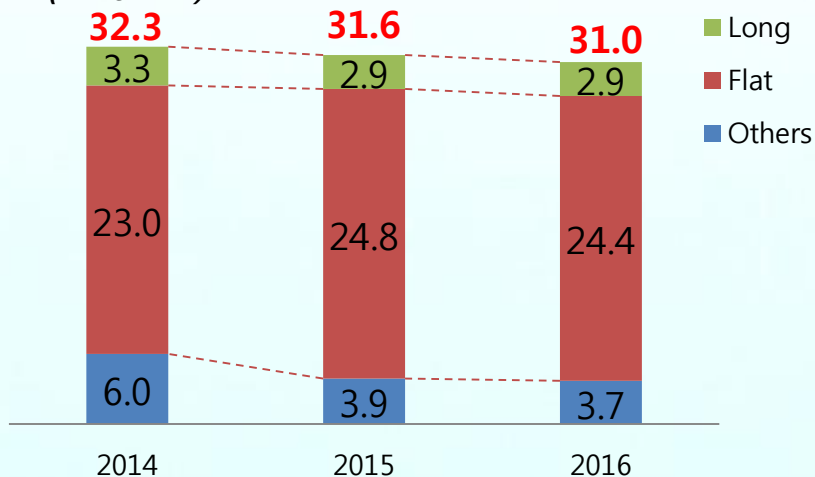


Korean Steel Market

Steel Exports

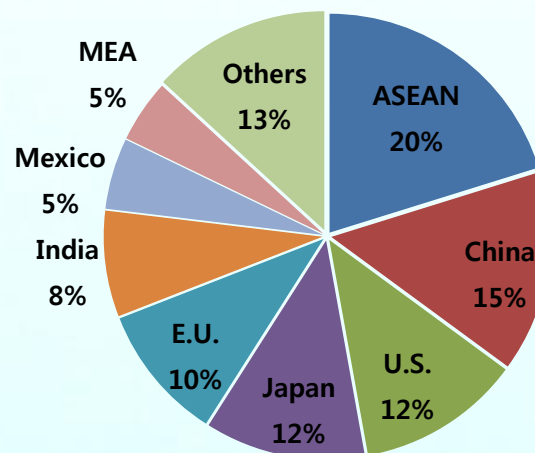
- ◆ ('15) Severe slump in world prices and sluggish overseas' demand contributed to a decrease in exports by 2.2% to 31.6million tons.
 - ▶ Decrease in exports by region: ASEAN (-3.6%), China (-12.4%), US (-30.7%), Japan (-10.3%)
- ◆ ('16) Slowdown of global steel demand caused decrease in exports by 1.8% to 31.0 million tons.
 - ▶ The proliferation of the protectionism and strong competition are exerting downward pressure on steel exports

(million MT)



* Source : Korea Iron & Steel Association

Korea's Steel Exports by Country in 2016



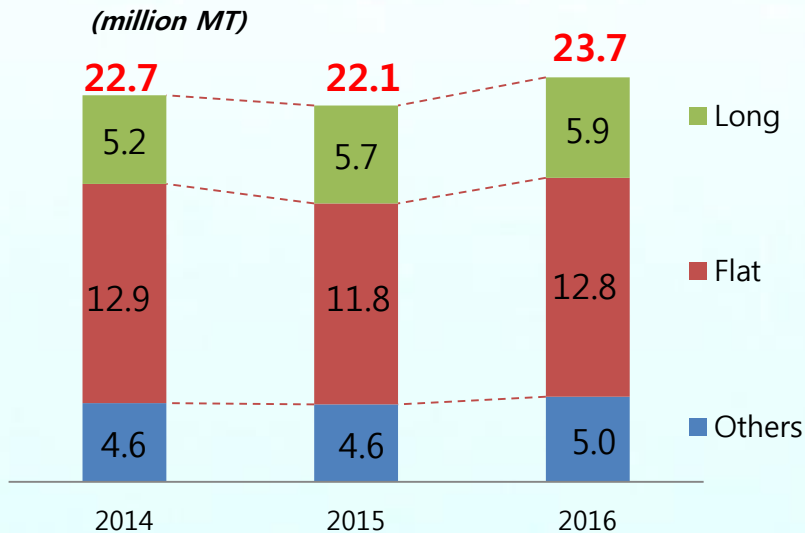
* Source : Korea Iron & Steel Association



Korean Steel Market

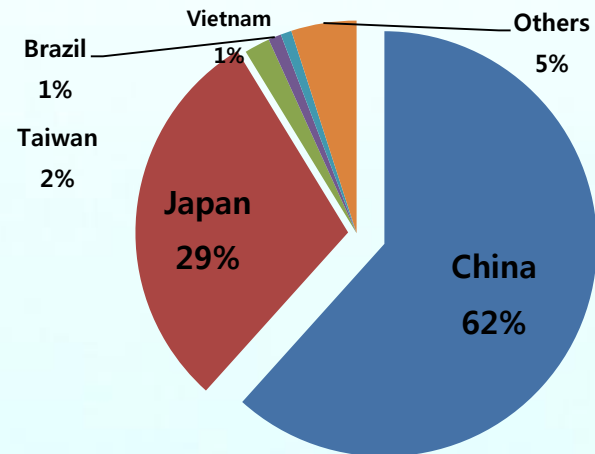
Steel Imports

- ◆ **('15)** Due to the decrease in demand, imports declined by 3.0% to 22.1 million tons in 2015.
* Import shares : China 13.7 million tons (62.2%), Japan 6.6 million tons (29.9%)
- ◆ **('16)** Despite the domestic companies' efforts to replace imports, imports increased by 7.5% to 23.7 million tons in 2016.
* Import shares : China 14.6 million tons (61.7%), Japan 7.0 million tons (29.6%)
* Jumped to the 4th largest volume, fueled by significant increase of steel products import for end-users



* Source : Korea Iron & Steel Association

Korea's Steel Imports by Country in 2016



* Source : Korea Iron & Steel Association



Korean Steel Market

Steel Imports (Cont'd)

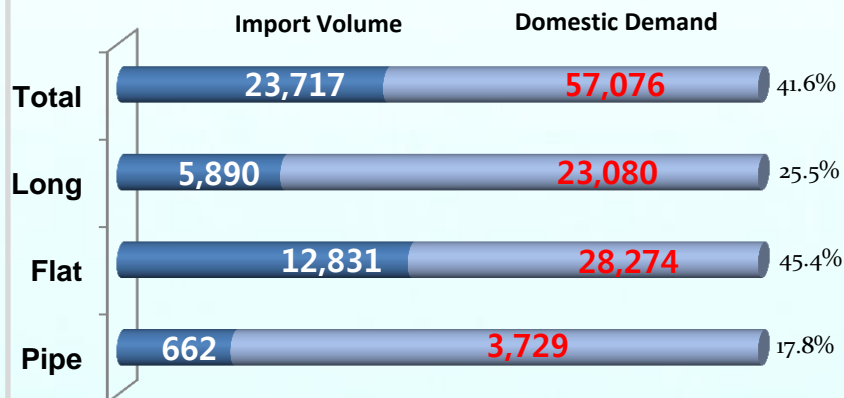
(%)

- ◆ The import penetration rate for the Korean steel market recorded 41.6% in 2016, which increased by 2.1%p y-o-y.
- ◆ Compared to the import penetration rates of the major countries, Korea is on the highest level.

* Major countries' penetration rate('16) : Korea 41.6%, Japan 8.8%, China 1.9%, USA 28%

Import Penetration Rate (2016)

(1,000 MT, %)



* Import Penetration Rate('15) : China(1.9%), Japan(9.4%)

* Source : Korea Iron & Steel Association

Import Penetration Rate Trends



THANK YOU