

Global Steel Industry Overview and a Brief Introduction of Feng Hsin Steel Co., Ltd.

2019/05/17



Company Profile

- (1) Company Founded: January, 1969
- (2) Capital: NTD5.8 Billion
- (3) Number of Employees: About 864
- (4) Location: Houli, Taichung Taiwan
- (5) Facilities:
- 85 MT DC Arc Furnace x 1
 - 100 MT AC Arc Furnace x 1
 - Rolling Line x 3
- (6) 2018 Annual Production:
- | | |
|-------------------------------|--------------|
| Semi-Finished Product: Billet | 1,653,141 MT |
| Finished Product : | |
| Merchant Bar | 439,864 MT |
| Round Bar | 460,775 MT |
| Rebar | 676,421 MT |
| | <hr/> |
| Total | 1,577,060 MT |
- (7) 2018 Net Sales: NTD 30,865,647 Thousand



1. 2003-2019 /3 World Major Crude Steel Producers by Country

Unit: million ton

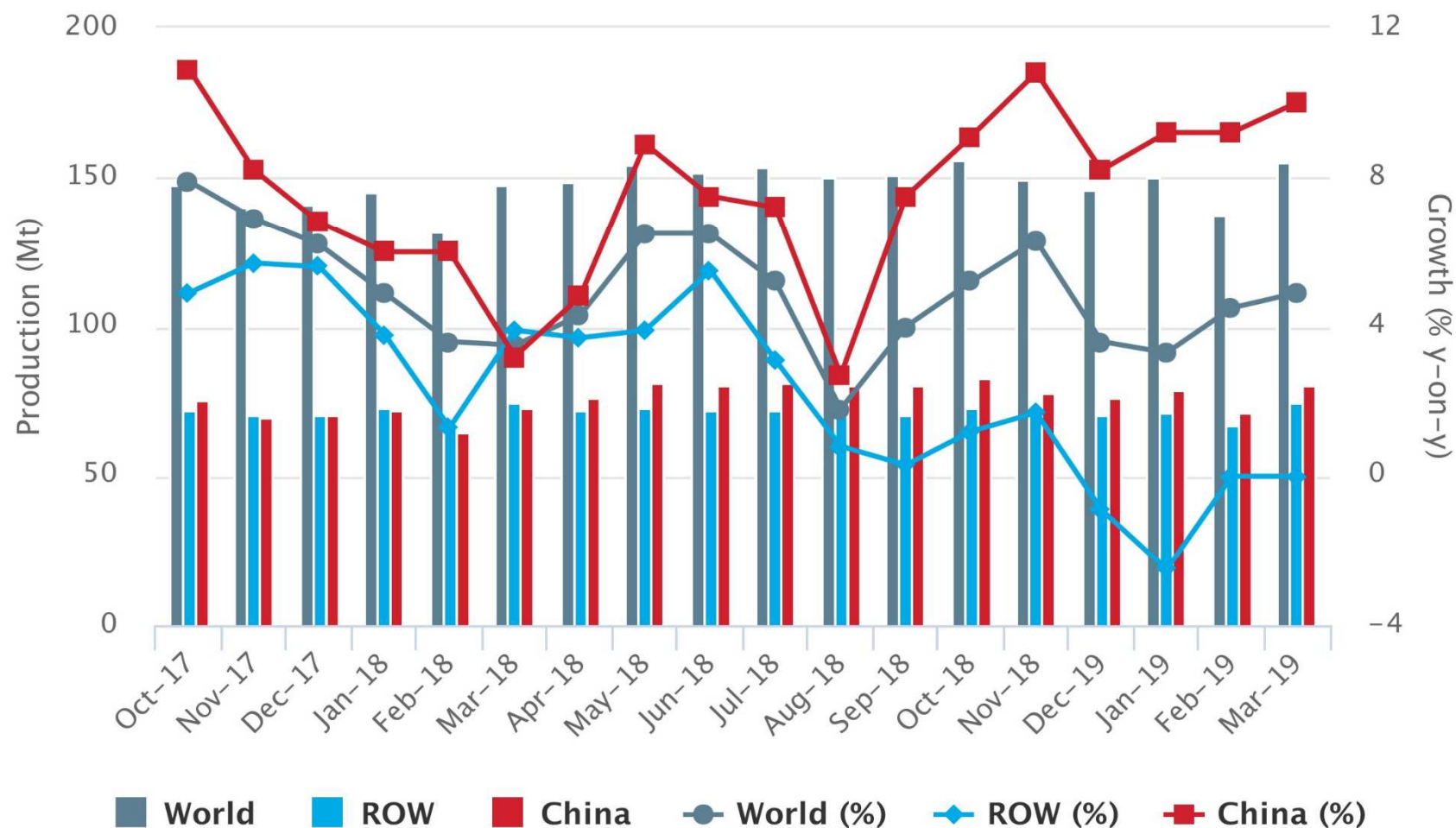
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019/M3
Mainland China	222	273	356	421	490	512	577	639	702	731	822	823	804	808	871	928	231
Japan	111	113	112	116	120	119	88	110	108	107	111	111	105	105	105	104	25
U.S.A	94	100	95	98	98	92	59	80	86	89	87	88	79	79	82	87	22
India	32	33	46	49	53	58	64	69	73	77	81	87	89	96	102	107	27
S.Korea	46	48	48	48	52	54	49	59	69	69	66	72	70	69	71	73	18
Russia	61	68	66	71	72	69	60	67	69	70	69	71	71	71	72	72	17
Germany	45	46	45	47	49	46	33	44	44	43	43	43	43	42	43	42	10
Others	360	383	380	399	414	395	310	365	386	373	371	346	337	334	353	363	94
Global	971	1,064	1,148	1,249	1,348	1,345	1,240	1,433	1,537	1,559	1,650	1,641	1,598	1,604	1,699	1,776	444

World crude steel production in 2018 was 1.776 billion mt, a 4.5% increase from 2017's 1.699 billion mt. According to World Steel Association's forecast, global steel demand will increase 1.3% to 1.735 billion mt in 2019, and increase 1.0% to 1.752 billion mt in 2020 .

Data Source: World Steel Association



Crude steel production



worldsteel.org

Data Source: World Steel Association



2. 2003-2019/3 World Major Crude Steel Producers by Country (%)

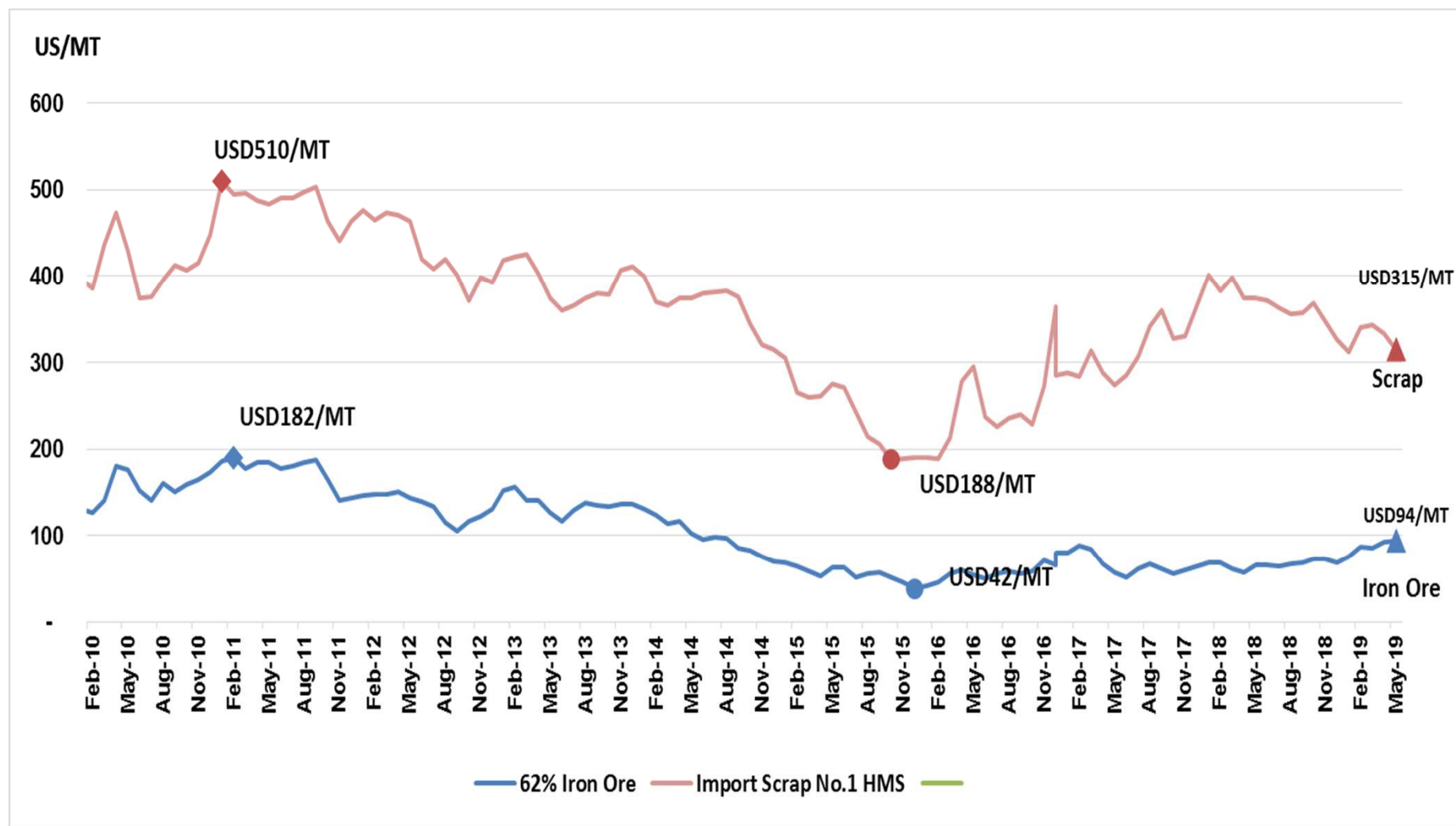
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019/M3
Mainland China	23%	26%	31%	34%	36%	38%	47%	45%	46%	47%	50%	50%	50%	50%	51%	52%	52%
Japan	11%	11%	10%	9%	9%	9%	7%	8%	7%	7%	7%	7%	7%	7%	6%	6%	6%
U.S.A	10%	9%	8%	8%	7%	7%	5%	6%	6%	6%	5%	5%	5%	5%	5%	5%	5%
India	3%	3%	4%	4%	4%	4%	5%	5%	5%	5%	5%	5%	6%	6%	6%	6%	6%
S.Korea	5%	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Russia	6%	6%	6%	6%	5%	5%	5%	5%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Germany	5%	4%	4%	4%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	2%	2%
Others	37%	36%	33%	32%	31%	29%	25%	25%	25%	24%	22%	21%	21%	21%	21%	20%	21%
Global	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

World major crude steel producers: 1. China accounts for 50% of the world's crude steel production, up from 20% in 2002. 2. India's crude steel production has grown from 3% to 6% , which is a country to be considered with great potential.

Data Source: World Steel Association



3. 2010 – 2019/5 International Scrap & Iron Ore Price Trend

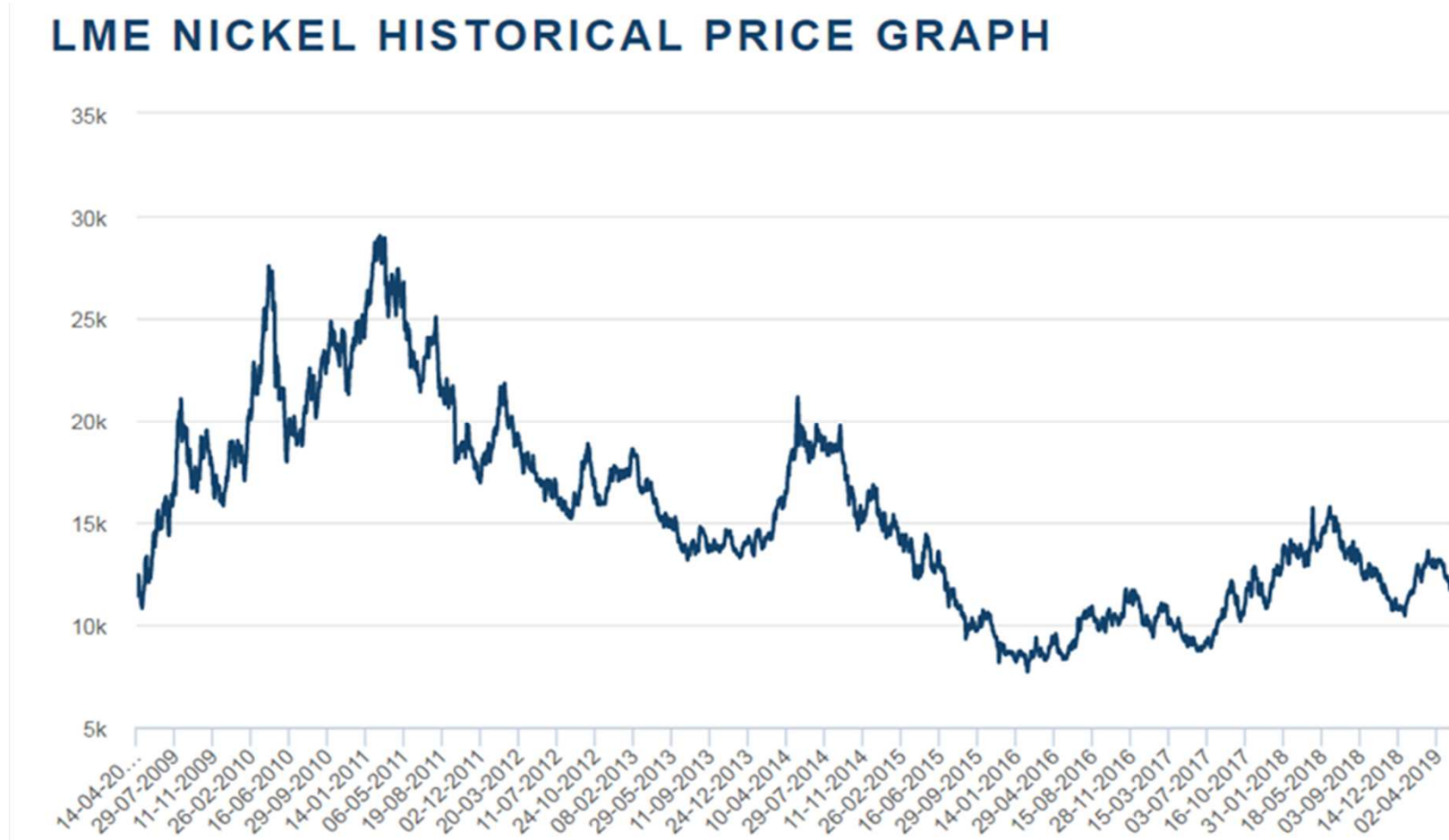


Data Source: Xiben New Line 、Feng Hsin



4. 2009~2019 Non-Ferrous Metal Price Trend

- Nickel



Data Source: London Metal Exchange.



4. 2009~2019 Non-Ferrous Metal Price Trend

- Zn

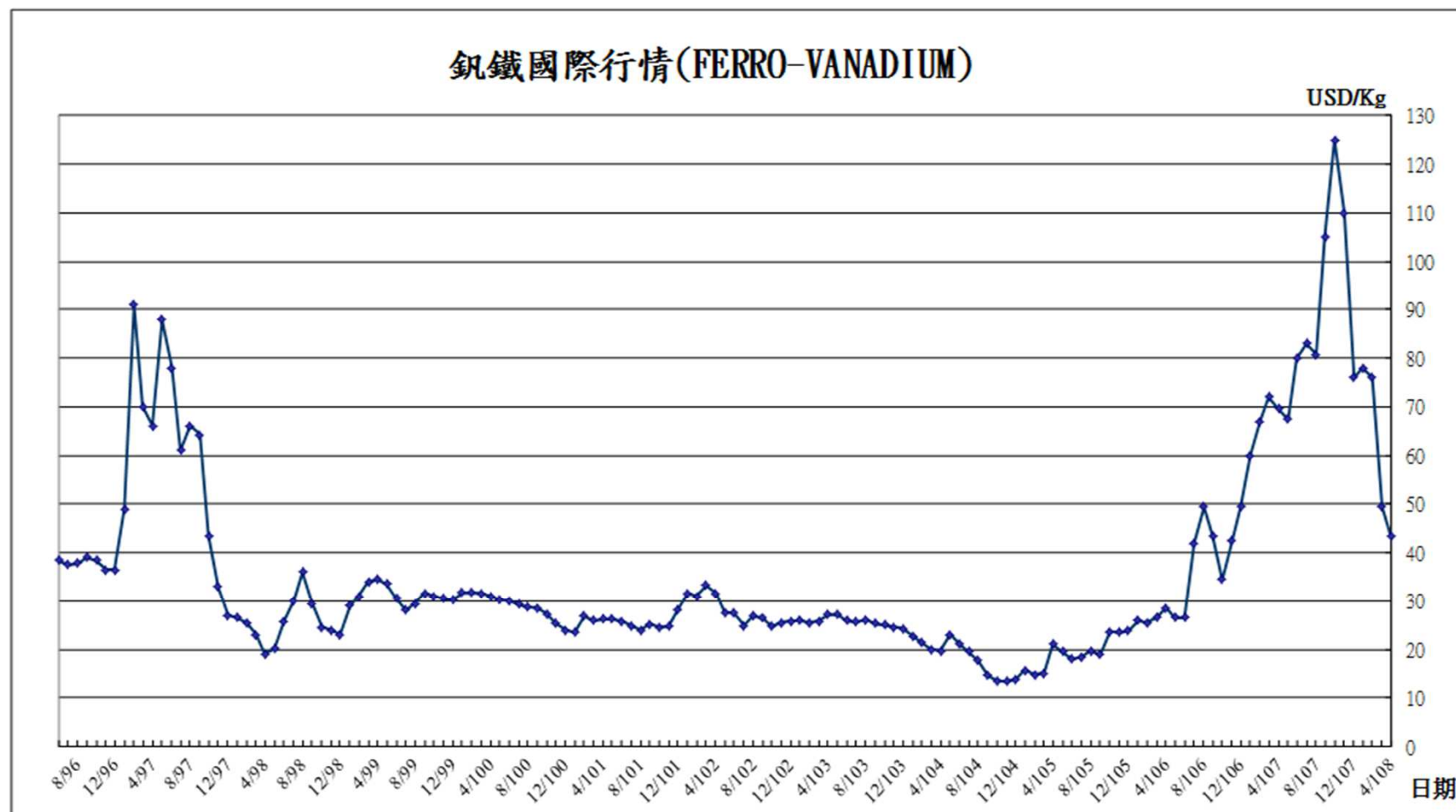
LME ZINC HISTORICAL PRICES GRAPH



資料來源：London Metal Exchange.



4. 2008~2019 Non-Ferrous Metal Price Trend



資料來源：LMB (London Metal Bulletin - 倫敦金屬公告牌價)



China's Effect on Global Steel Industry

1. 2013~2019 Mainland China Steel Product Export Statistic

Unit: million ton

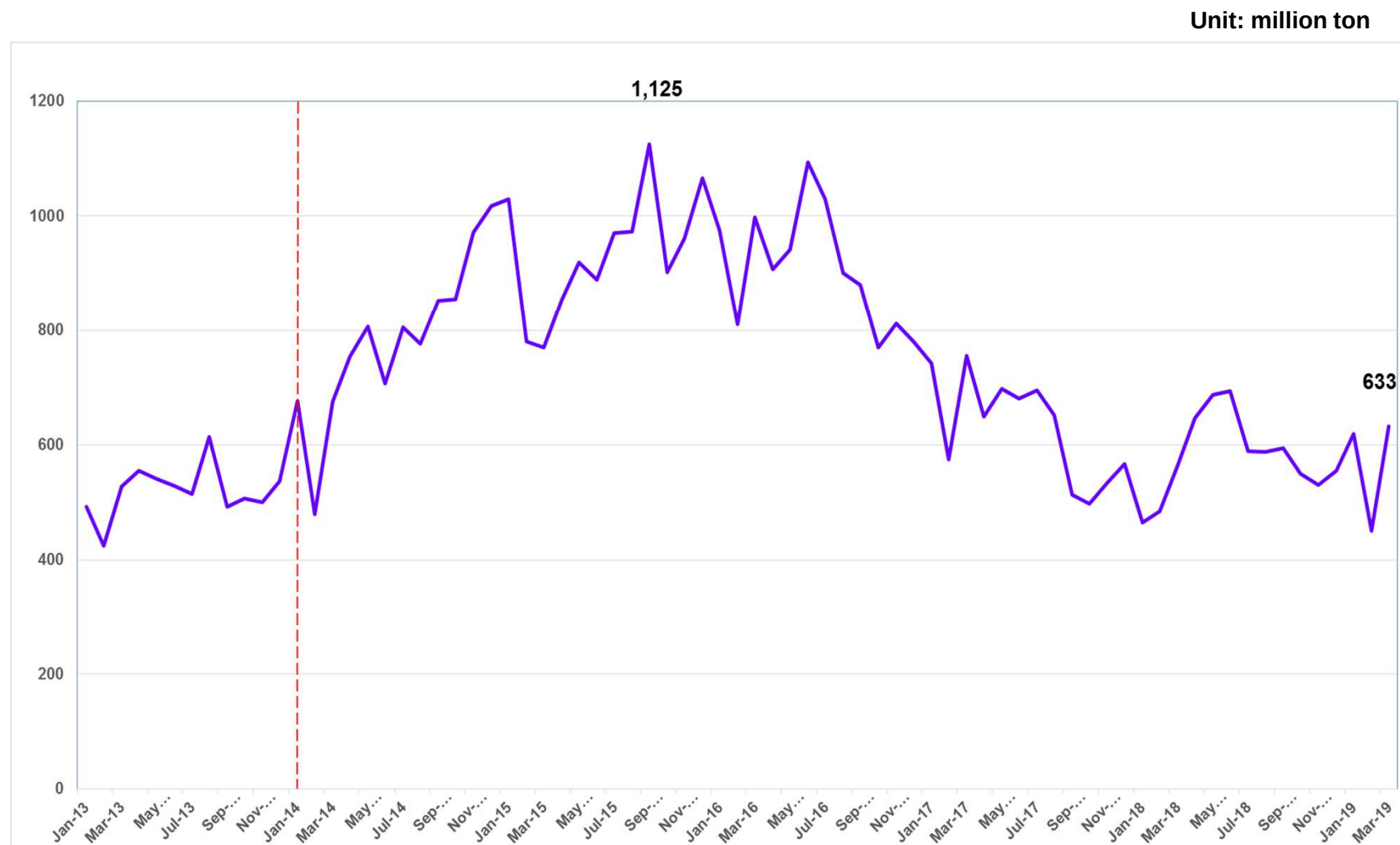
	Jan	Feb.	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Monthly AVG	Compare to 2013
2013	492	424	528	555	541	529	515	614	492	507	500	537	520	BASE
2014	677	480	676	754	807	707	806	776	852	855	972	1,017	782	150%
2015	1,029	780	770	854	920	889	971	973	1,125	902	961	1,066	937	180%
2016	974	811	998	908	942	1,094	1,030	901	880	770	812	780	908	175%
2017	742	575	756	649	698	681	696	652	514	498	535	567	630	121%
2018	465	485	565	647	688	694	589	588	595	550	530	556	579	112%
2019	619	451	633										568	109%

Export quantity from Jan-Mar 2019 totaled 17.03 million tons , averaging 5.68 million ton /month, increased 12.5% comparing to 2018.

Data Source: Xiben New Line



2. 2013~2019 Mainland China Steel Product Export Trend



Data Source: Xiben New Line



3.China's Steel Product Export Statistic

Item Product	2019 Jan-Mar Monthly Average			2018 Monthly Average	2017 Monthly Average
	Quantity (MT)	vs 2018 Monthly Average	vs 2018 Jan-Mar Monthly Average	Quantity (MT)	Quantity (MT)
Finished Product	5,675,505	-1.8%	12.6%	5,777,984	6,269,686

4.China's Steel Product Import Statistic

Item Product	2019 Jan-Mar Monthly Average			2018 Monthly Average	2017 Monthly Average
	Quantity(MT)	vs 2018 Monthly Average	vs 2018 Jan-Mar Monthly Average	Quantity(MT)	Quantity(MT)
Finished Product	965,633	-12.0%	-16.1%	1,097,186	1,108,144



Taiwan Domestic Bar Product Snapshot

1. Taiwan Bar Product Import Statistic

Product \ Item	2019 Jan ~ Mar Monthly Ave.				2018 Monthly Ave.		2017 Monthly Ave.	
	Quantity (MT)	Monthly Ave. Growth(%)	Growth (%)	Price (\$/kg)	Quantity (MT)	Price (\$/kg)	Quantity (MT)	Price (\$/kg)
Scrap	226,144	-20.0%	-5.5%	9.28	282,733	10.27	220,266	7.94
Billet	82,542	-15.7%	11.0%	15.82	97,924	17.04	79,456	14.14
Rebar	2	-98.7%	-99.1%	94.00	149	25.75	138	22.89
Merchant Bar	3,702	-32.1%	-6.2%	33.48	5,455	35.52	4,067	27.92
H-Beam	5,495	-7.0%	3.2%	19.80	5,911	19.06	7,152	16.18
BIC(14mm ↓)	47,391	12.1%	32.7%	20.46	42,271	20.50	38,770	17.30
BIC(14mm ↑)	3,867	-5.2%	1.5%	26.39	4,078	25.76	4,034	21.82
Round Bar	17,675	-46.7%	-30.7%	40.59	33,175	33.06	26,638	28.85



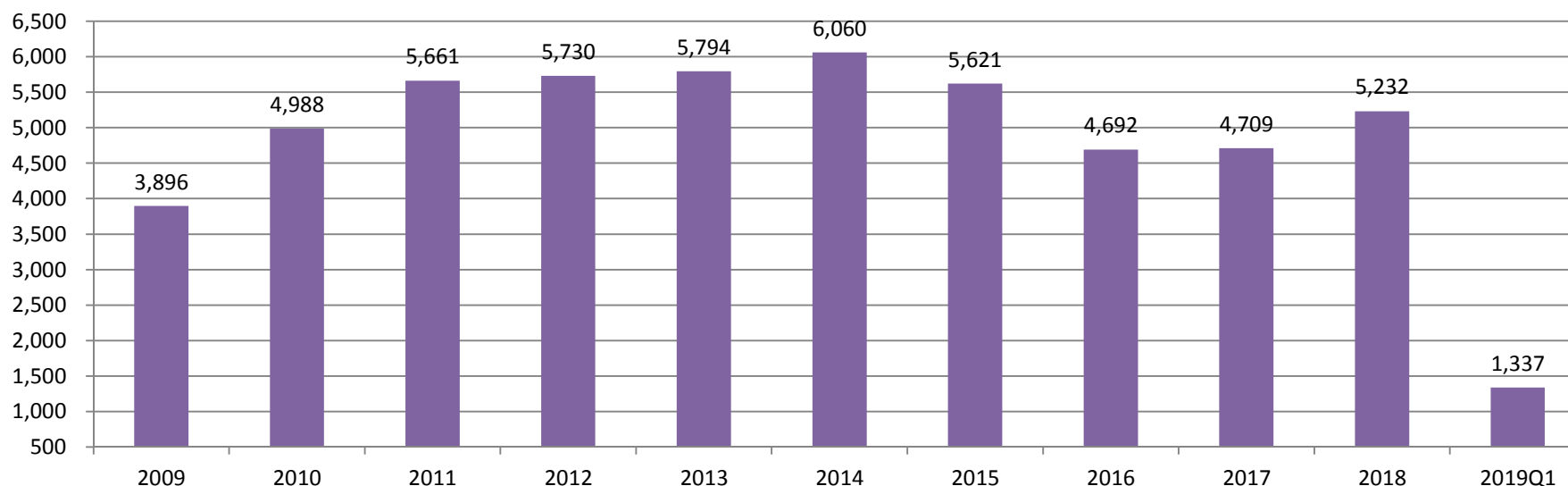
2.Taiwan Bar Product Export Statistic

Product \ Item	2019 Jan~ Mar Monthly Ave.				2018 Monthly Ave.		2017 Monthly Ave.	
	Quantity (MT)	Monthly Ave. Growth(%)	Growth (%)	Price (\$/kg)	Quantity (MT)	Price (\$/kg)	Quantity (MT)	Price (\$/kg)
Billet	-	-100.0%	-100.0%	-	14,095	15.54	19,765	14.22
Rebar	9,139	-43.8%	-71.3%	16.19	16,269	17.69	14,266	15.43
Merchant Bar	16,756	-23.3%	-36.2%	20.04	21,839	19.33	18,522	17.13
H-Beam	11,893	-26.9%	-49.3%	21.01	16,263	19.87	13,108	17.15
BIC(14mm ↓)	12,506	-3.1%	-5.6%	23.43	12,908	24.04	14,341	21.31
BIC(14mm ↑)	4,977	-13.1%	-24.0%	22.96	5,730	22.45	5,344	19.96
Round Bar	11,570	-19.6%	-25.9%	45.74	14,397	41.74	13,897	37.85



3. Rebar Apparent Consumption Over the Past 10 Years

千噸



Unit: Thousand ton												
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019Q1	2019 annualized
Production (A)	4,312	5,126	5,843	5,779	5,870	6,162	5,772	4,960	4,879	5,425	1,364	5,457
Import (B)	2	4	3	3	2	5	1	1	2	2	0	0
Export ©	418	142	185	53	78	107	151	269	171	195	27	110
Apparent Consumption (D=A+B-C)	3,896	4,988	5,661	5,730	5,794	6,060	5,621	4,692	4,709	5,232	1,337	5,347
Growth of Apparent Consumption%	Base	128%	145%	147%	149%	156%	144%	120%	121%	134%	0	137%
Production Capacity (E)	8,260	8,600	9,066	9,066	9,066	9,066	9,066	9,066	9,066	9,066	9,066	9,066
(A)/(E)	52%	60%	64%	64%	65%	68%	64%	55%	54%	60%		60%
Self-Sufficiency % (A)/(D)	111%	103%	103%	101%	101%	102%	103%	106%	104%	104%	102%	102%

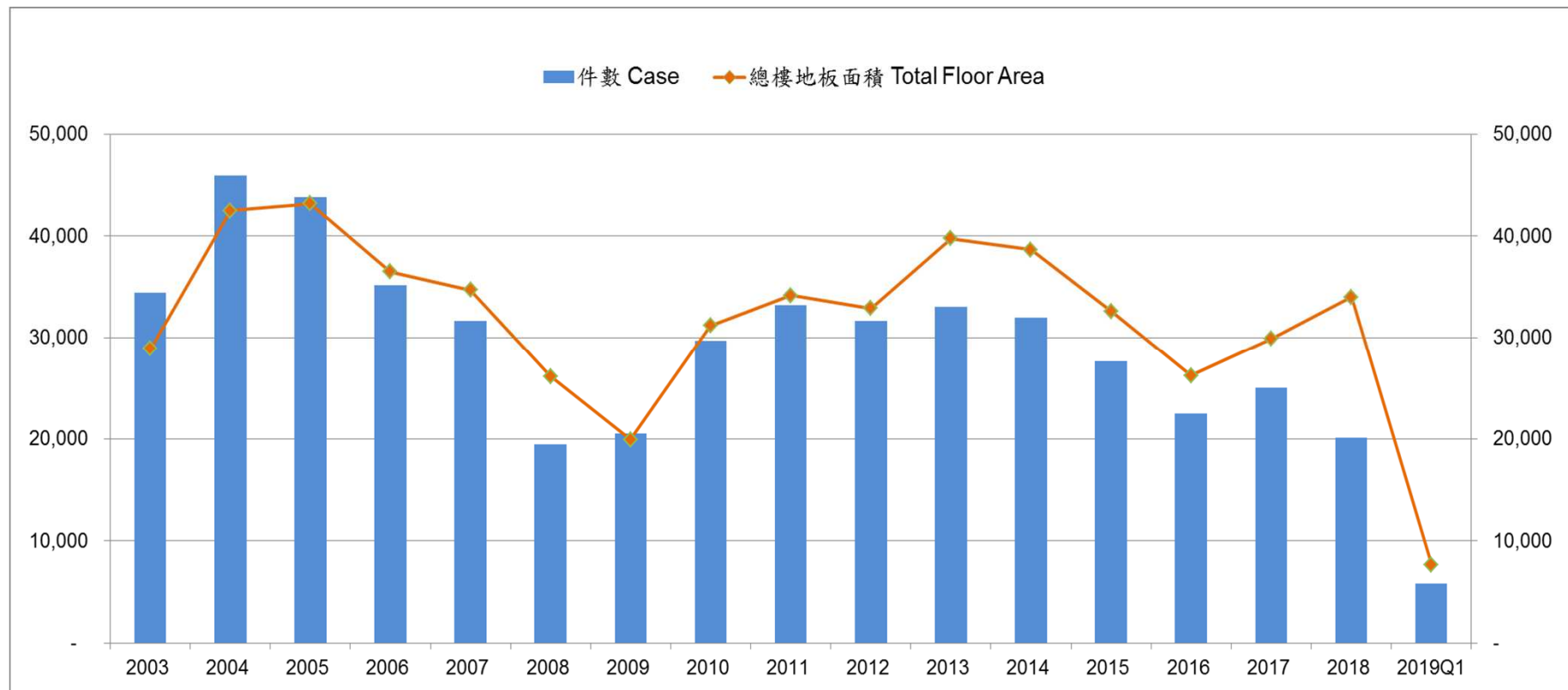
1.Data Source: TSIA Website(Production、Delivery, Inventory, Product type Import/Export date search)

2.Apperant Consumption is calculated by using 2009 figures as base.

3.The amounts of 2019 annualized is calculated by 2019 monthly average.



4. Construction Statistic – Taiwan Building Construction Permit Approval Statistic



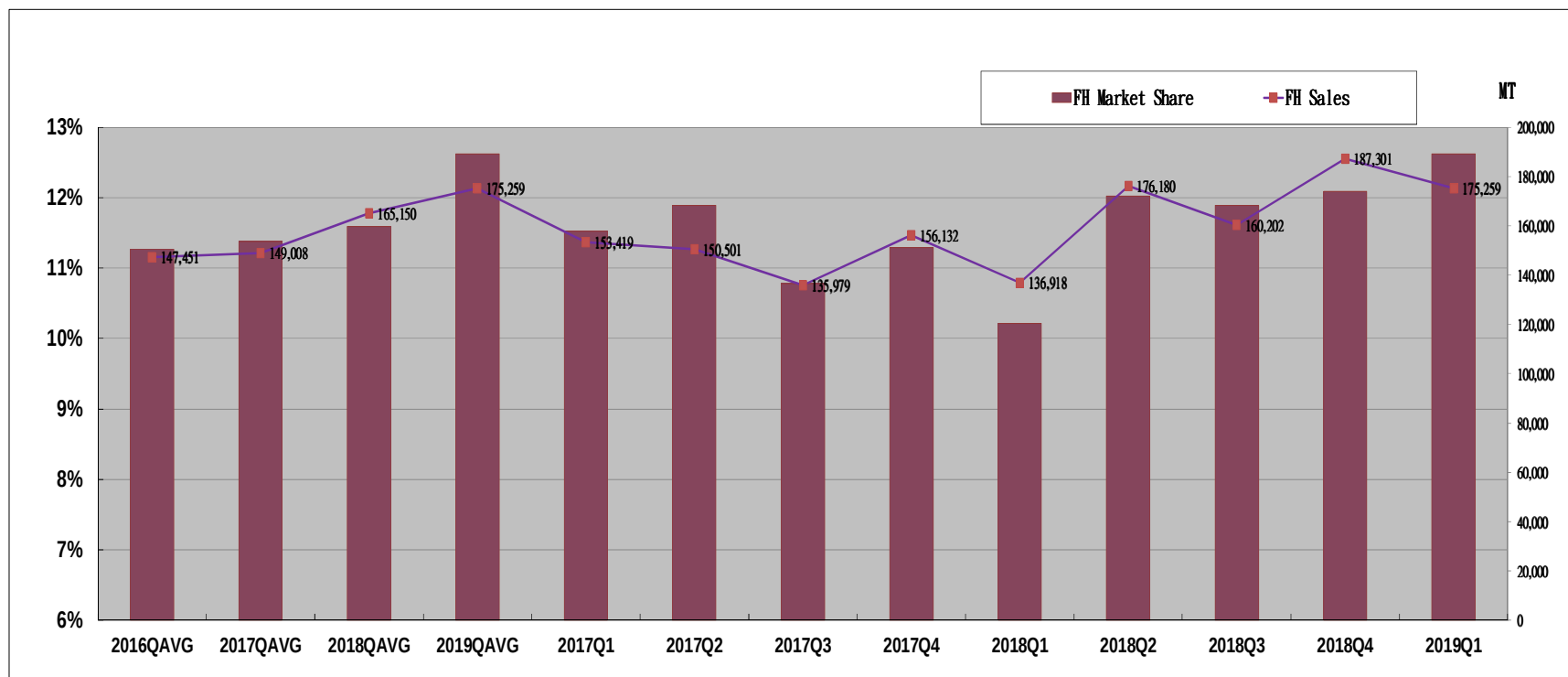
Unit: Case; Thousand Square Meter

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019Q1
Case	34,453	45,934	43,802	35,124	31,667	19,474	20,516	29,696	33,161	31,669	32,991	31,994	27,643	22,511	25,035	20,136	5,844
Total Floor Area	28,882	42,497	43,200	36,474	34,700	26,161	19,915	31,174	34,148	32,883	39,760	38,635	32,596	26,235	29,884	33,984	7,690

Data Source: Construction and Planning Agency, MOI , construction business metrics



5.Feng Hsin Domestic Rebar Market Share Statistic



	2016QAVG	2017QAVG	2018QAVG	2019QAVG	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4	2019Q1
FH Sales	147,451	149,008	165,150	175,259	153,419	150,501	135,979	156,132	136,918	176,180	160,202	187,301	175,259
Nation Sales	1,309,052	1,310,281	1,425,694	1,388,772	1,330,989	1,265,722	1,262,036	1,382,378	1,340,241	1,465,178	1,348,290	1,549,067	1,388,772
FH Market Share	11.3%	11.4%	11.6%	12.6%	11.5%	11.9%	10.8%	11.3%	10.2%	12.0%	11.9%	12.1%	12.6%

2019 M4 Feng Hsin Rebar Quarterly Average Sales 63,756 MT



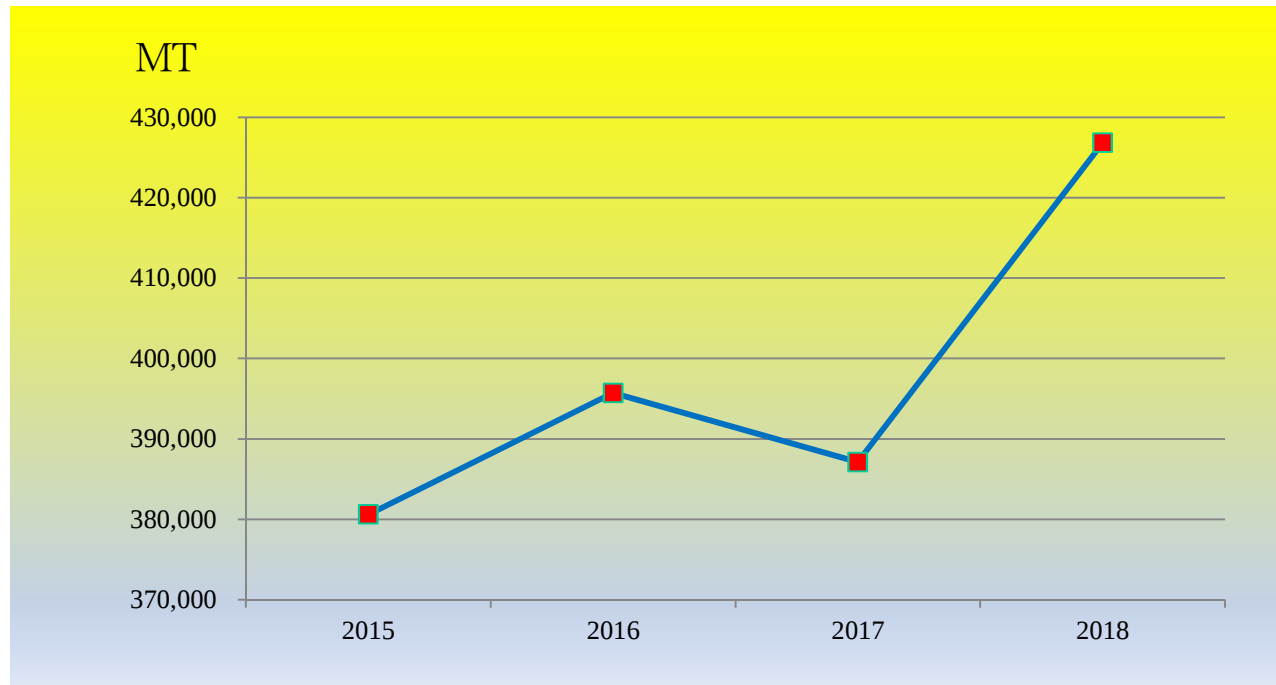
Feng Hsin's Special Bar Sales Performance

1. Feng Hsin's Special Bar Sales Market
2. The main Feng Hsin's downstream industry



Feng Hsin's Special Bar Sales Market

1.2015~2018 Sales

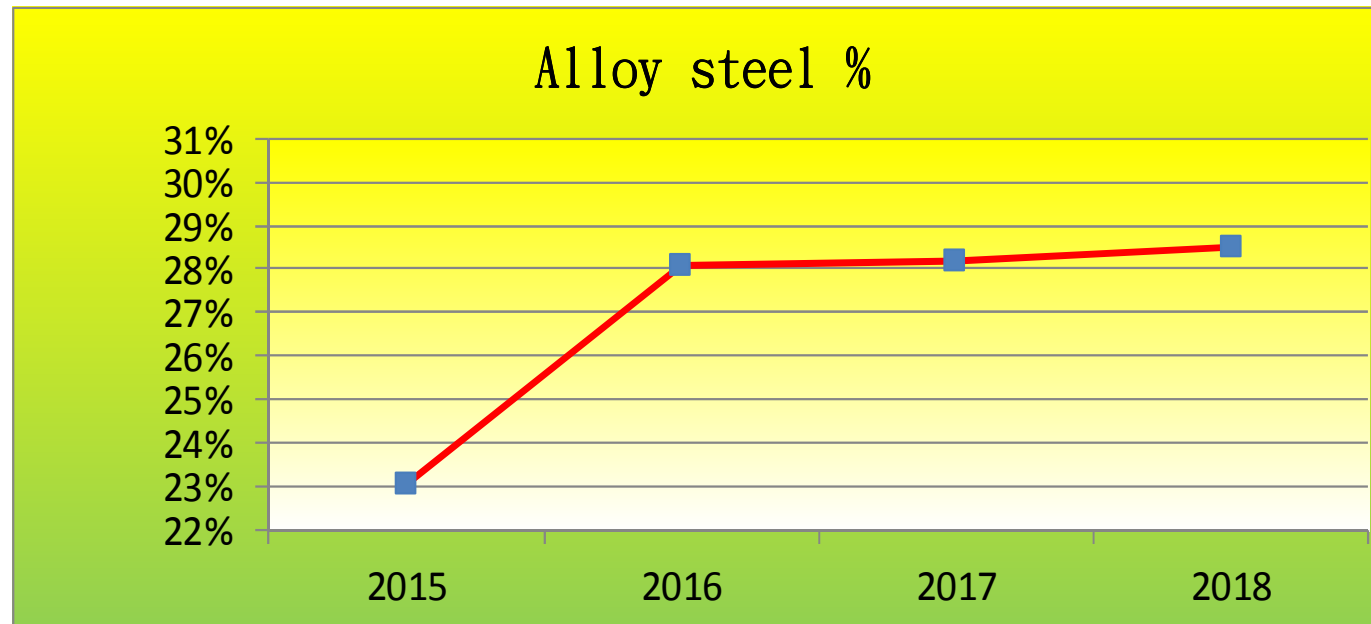


MT

Year	2015	2016	2017	2018
QTY.	380,600	395,700	387,100	426,800



2. Percentage of alloy steel products increases

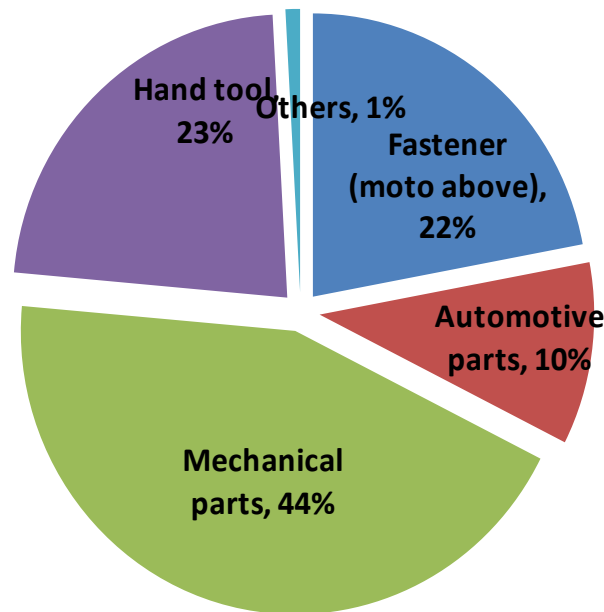


					MT
2018	Low carbon steel	Middle carbon steel	Free cutting carbon steel	Alloy steel	Total
%	30%	38%	4%	28%	100%



The main Feng Hsin's downstream industry

1. Proportion of Feng Hsin's downstream industry



2018	Fastener (moto above)	Automotive parts	Mechanical parts	Hand tool	Others	Total
%	22%	10%	44%	23%	1%	100%



2.Application of Feng Hsin's products

1.Lock nut application

2.Automotive Components

3.Mechanical Components

4.Hand tool



Lock nut application

1. Nylon insert nut, Nylon insert flange nut



2. Hex socket bolt, High strength bolt



Automotive Components

1. Control arm



2. Swinging arm



3. Excavator crawler



Mechanical Components

1. Linear Guideway, Ball Screws



2. Hydraulic Cylinder set



3. Axis



Hand tool



Feng Hsin Financial Analysis

1. Consolidated Balance Sheet

Unit: NTD Thousand

Date	2019.3.31		2018.12.31		2017.12.31	
Item	Amount	%	Amount	%	Amount	%
Current Assets	9,289,030	40.93%	9,679,017	42.45%	7,743,516	37.46%
Non-current Assets	3,448,549	15.19%	3,001,162	13.16%	3,001,162	14.52%
Property, Plant and Equipment	9,905,060	43.64%	9,953,300	43.65%	8,845,656	42.79%
Other Non-current Assets	53,013	0.23%	101,589	0.45%	1,080,025	5.22%
Total Assets	22,695,652	100.00%	22,802,756	100.00%	20,670,359	100.00%
Current Liabilities	2,976,913	13.12%	3,982,719	17.47%	2,879,029	13.93%
Long-term Liabilities		0.00%		0.00%		0.00%
Non-current Liabilities	387,726	1.71%	181,870	0.80%	185,034	0.90%
Total Liabilities	3,364,639	14.83%	4,164,589	18.26%	3,064,063	14.82%
Capital Stock	5,815,994	25.63%	5,815,994	25.51%	5,815,994	28.14%
Additional Paid-in Capital	614,131	2.71%	615,583	2.70%	448,351	2.17%
Legal Reserve	3,863,847	17.02%	3,863,847	16.94%	3,591,351	17.37%
Special Reserve	46,888	0.21%	46,888	0.21%	98,711	0.48%
Retained Earnings, Unappropriated	9,291,848	40.94%	8,612,358	37.77%	7,698,777	37.25%
Retained Earnings	13,202,583	58.17%	12,523,093	54.92%	11,388,839	55.10%
Other Equities	(301,695)	-1.33%	(316,503)	-1.39%	(46,888)	-0.23%
Total Equities	19,331,013	85.17%	18,638,167	81.74%	17,606,296	85.18%
PE	33.24		32.05		30.27	

Data Source: Feng Hsin



2. Consolidated Income Statement

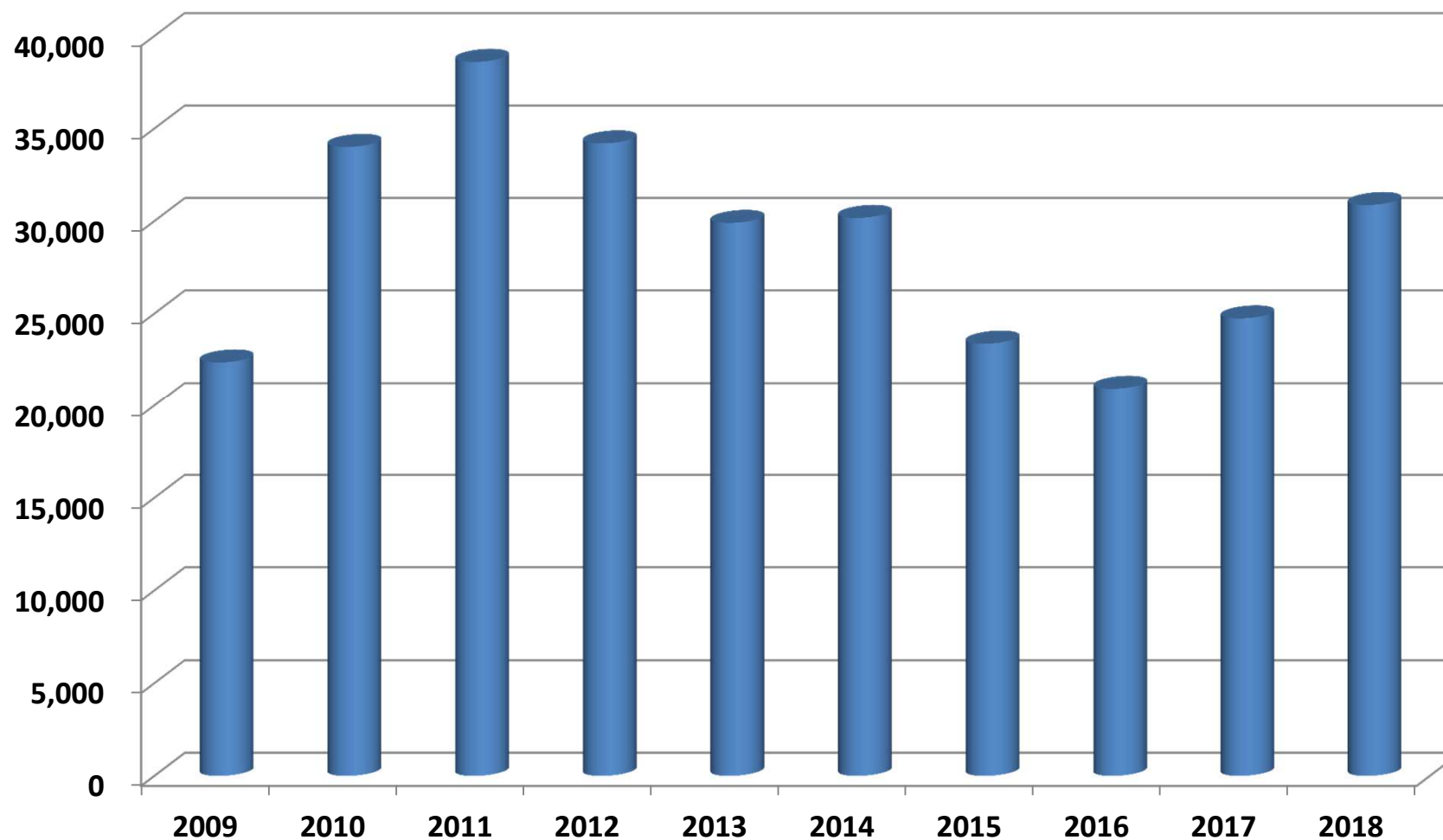
Unit: NTD Thousand

Item\Year	2013	2014	2015	2016	2017	2018
Net Sales	29,899,588	30,171,468	23,380,189	20,932,650	24,741,937	30,865,647
Gross Profit	2,311,087	2,563,544	3,016,191	3,162,911	3,815,324	4,171,060
Operation Income	1,620,357	1,806,193	2,255,473	2,342,327	3,033,481	3,335,672
Non-operating Income& Expense	108,526	174,041	144,070	(145,347)	208,665	301,704
Income Before Income Tax	1,728,883	1,980,234	2,399,543	2,196,980	3,242,146	3,637,376
Net Income	1,446,331	1,668,131	2,003,635	1,815,794	2,724,957	2,942,415
Other Comprehensive Gains and Losses	13,108	(18,367)	(32,636)	(69,503)	41,444	5,141
Gains and Losses for the Period	1,459,440	1,649,764	1,970,999	1,746,291	2,766,401	2,947,556
Earnings per Share (NTD) after tax	2.49	2.87	3.45	3.12	4.69	5.06

Data Source: Feng Hsin



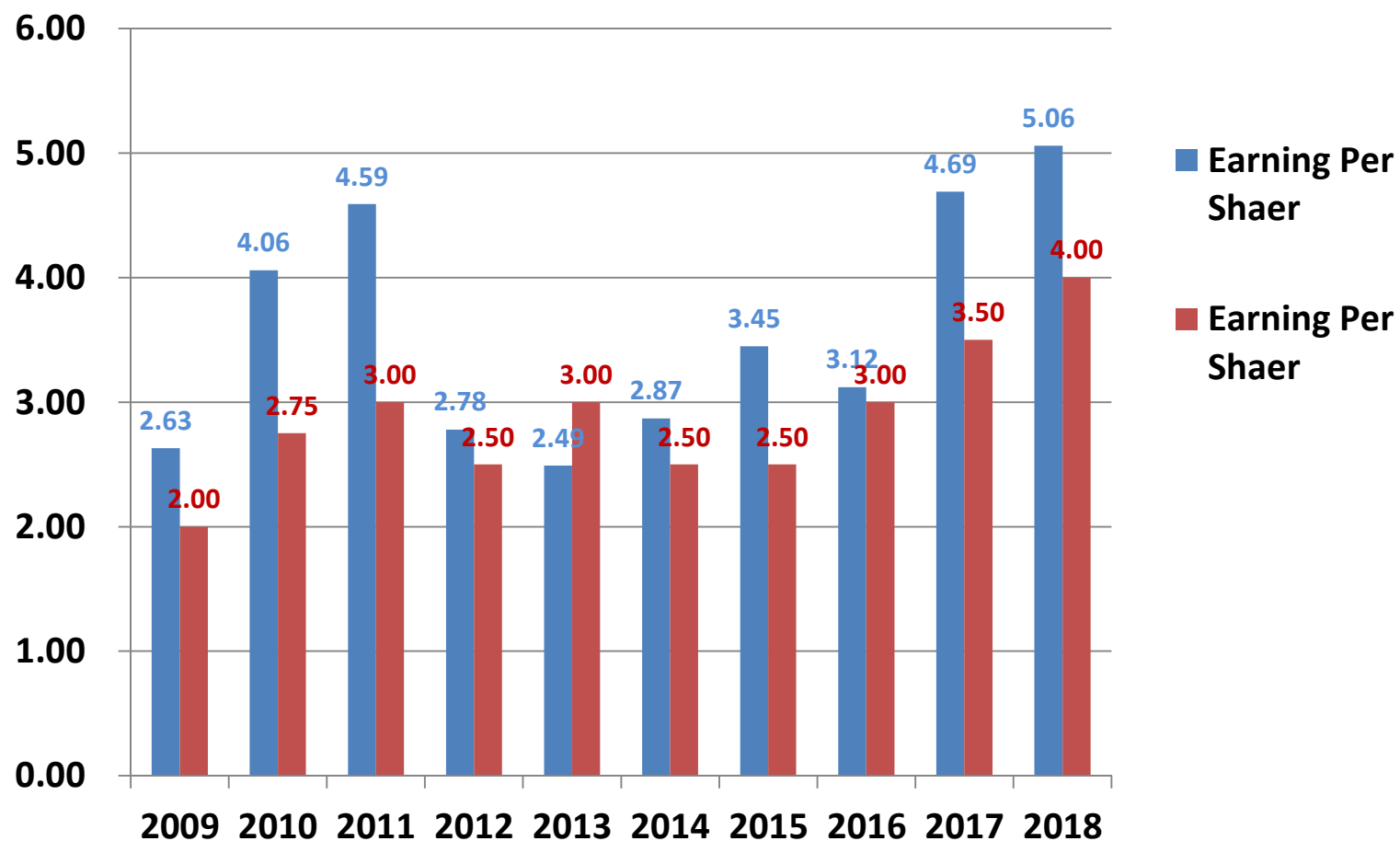
3. Feng Hsin 2009 - 2018 Net Sales



Data Source: Feng Hsin



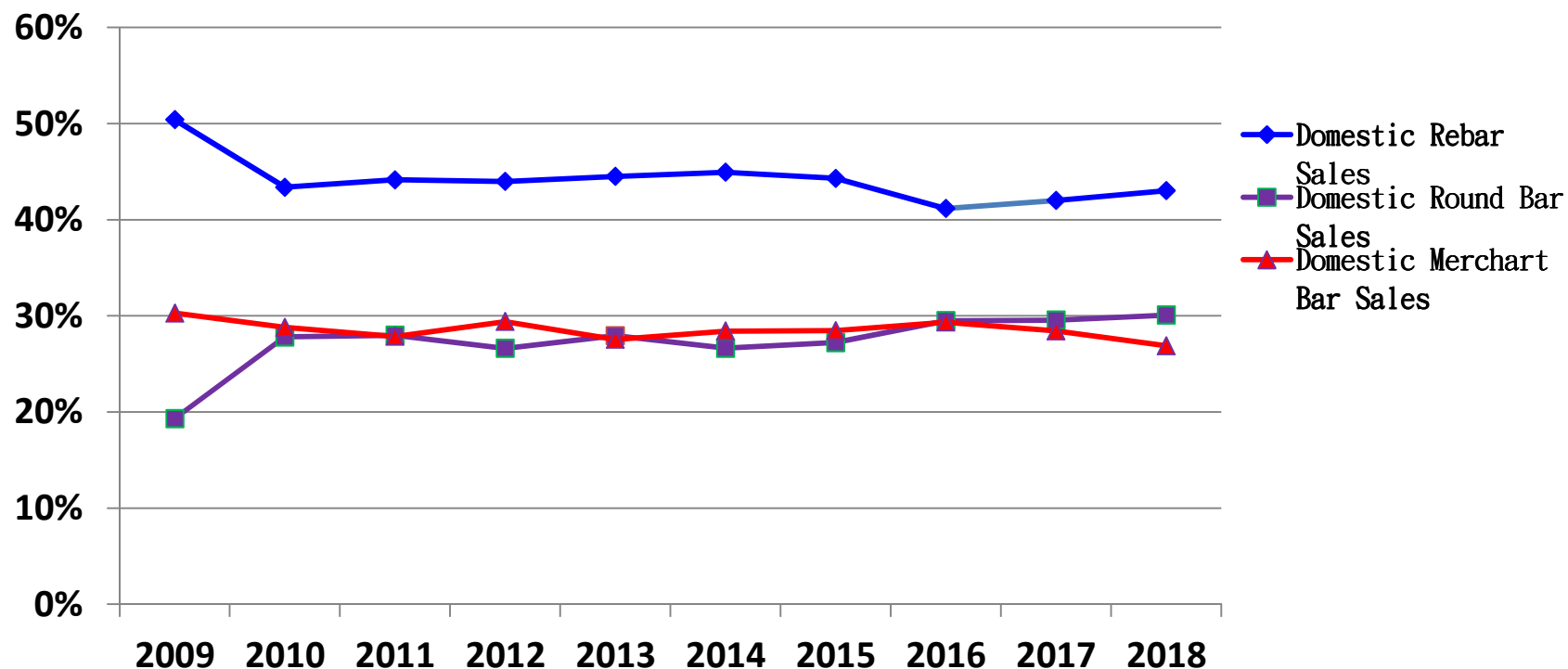
4.Feng Hsin 2009–2018 E.P.S. And Dividend Trend



Data Source: Feng Hsin



5. Feng Hsin 2009 - 2018 Product Sales Percentage

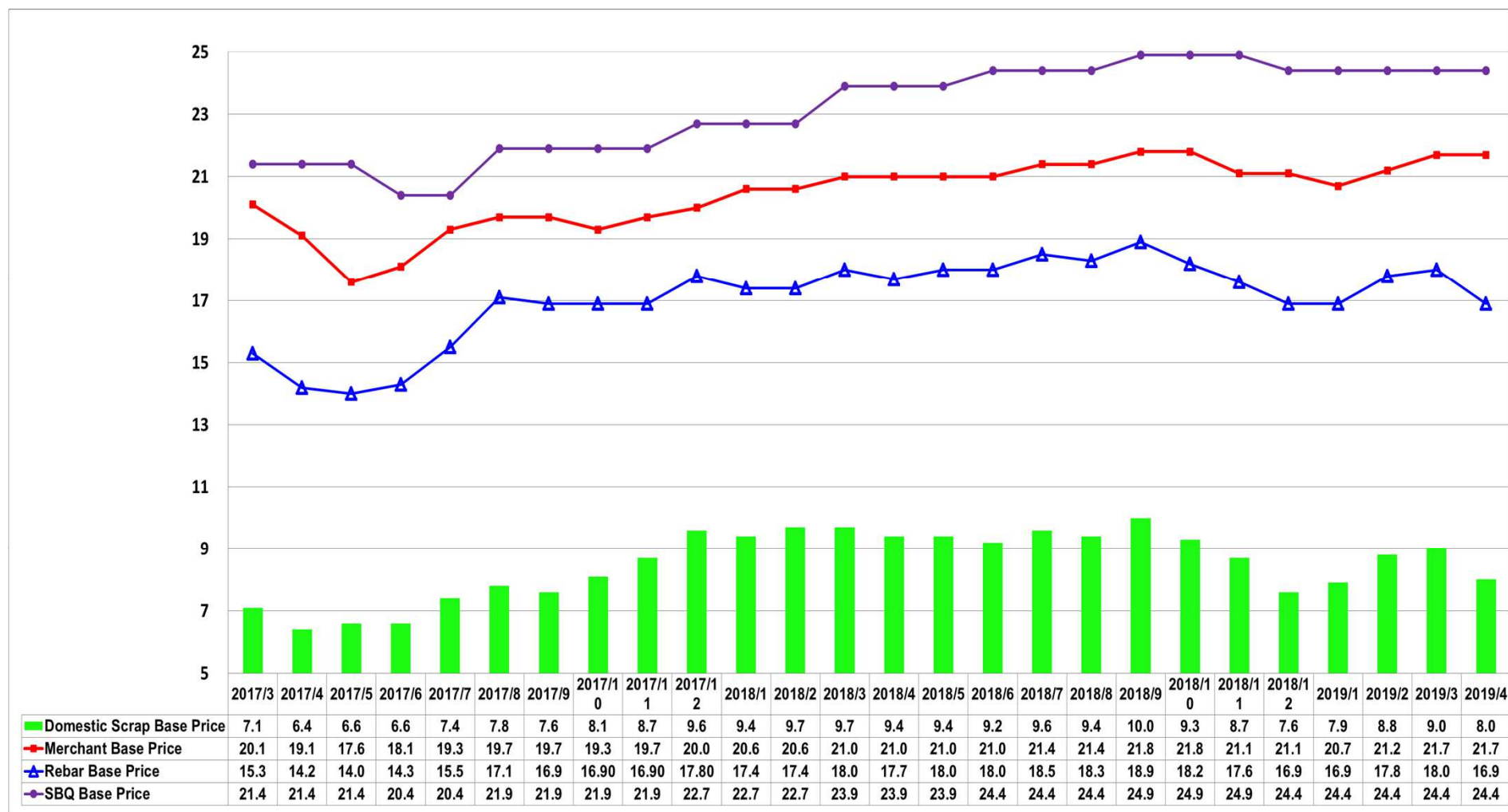


Sales(MT)	2017	2018
Domestic Rebar	596,112	660,624
Domestic Round Bar	419,497	462,046
Domestic Merchant Bar	403,367	412,940
Total	1,418,976	1,535,610

Data Source: Feng Hsin



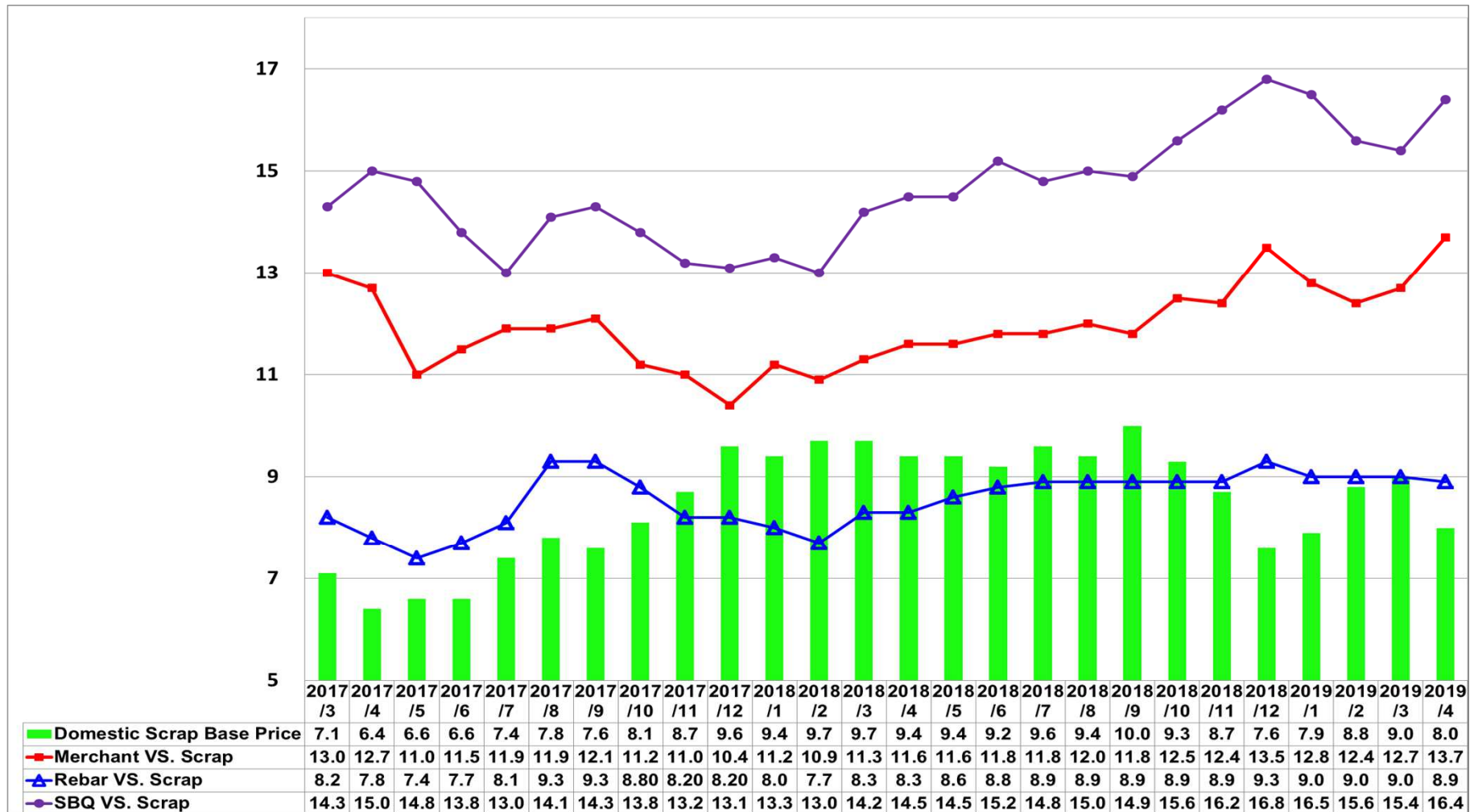
6. Feng Hsin's Scrap and Finished Product States



Data Source: Feng Hsin



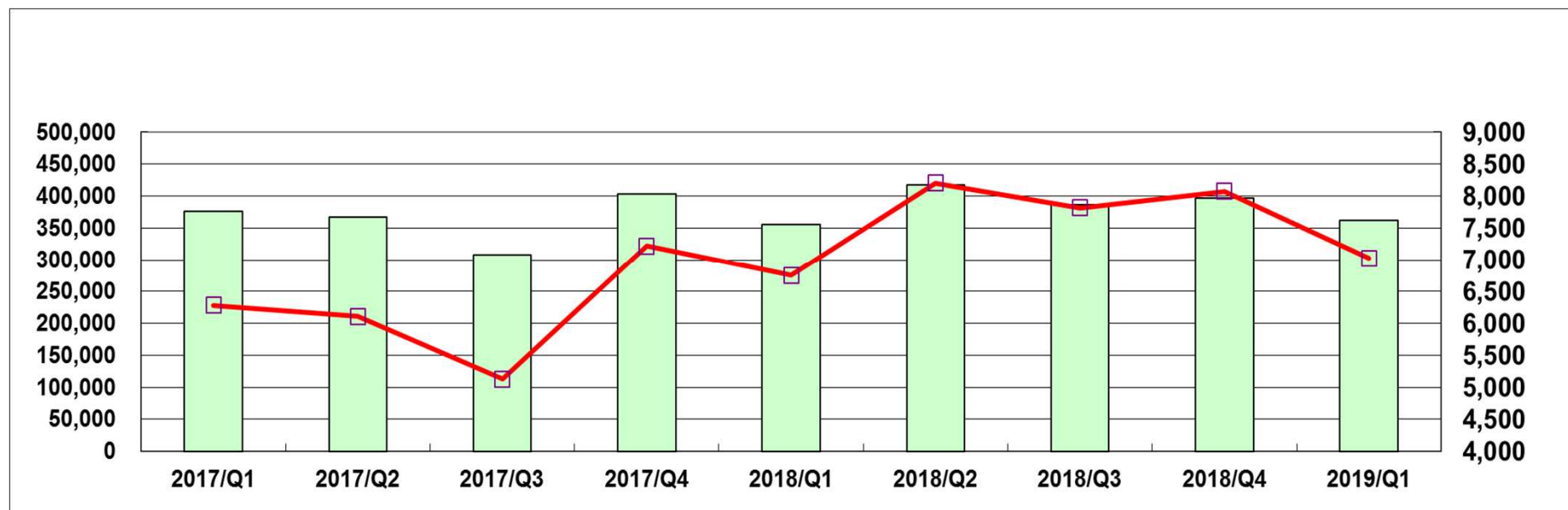
7. Taiwan's Scrap and Finished Product Price Difference States



Data Source: Feng Hsin



8.Sales Quantity and Sales (Ton/Million)



Unit:NTD Thousand/ton

	2017/Q1	2017/Q2	2017/Q3	2017/Q4	2018/Q1	2018/Q2	2018/Q3	2018/Q4	2019/Q1
■ Sales Quantity	376,661	367,226	307,281	402,901	355,014	417,955	386,393	396,224	361,664
—■ sales Amount	6,280	6,108	5,128	7,218	6,753	8,205	7,817	8,074	7,024

Data Source: Feng Hsin



9.2019 JAN~APR Operating Income & Pretax Profit Comparison

Unit: NTD Thousand

Item\Year	2019/1~4	2018/1~4	Growth%
Net Sales	9,461,727	9,364,130	1.04%
Cost of Sales	8,421,221	8,108,489	3.86%
Gross Profit	1,040,506	1,255,641	-17.13%
Operating Expense	249,073	272,189	-8.49%
Operation Income	791,433	983,452	-19.52%
Non-operating Income& Expense	216,805	46,134	369.95%
Income Before Income Tax	1,008,238	1,029,586	-2.07%

Data Source: Feng Hsin



Company Production, Marketing and Future Development Strategies

1. Production

- A. New product development to expand product offering, production flexibility to maximize customer needs.
- B. Feng Hsin's quality policy: All Feng Hsin's personnel work together, quality first concern and customer priority.
- C. New rebar mill formally operated at 2018. Directly rolling will improve quality, save energy, reduce cost and enhance competitiveness.

2. Sales

- A. Actively participating in public construction and construction tender, through cooperating with processing manufacturer to get orders and enhance rebar market share target.
- B. Continue to Expand semi-finished products and finished goods export market to maximize profit.
- C. Keeping long term relationship and contracts with scrap suppliers to have stable supply and quality.
- D. Maintaining well-established relationship with distributors and customers to provide better customer service to support steady sales and market share.
- E. Improve performance after continuous renovation of steelmaking and rolling equipment, Feng Hsin enhance efficacy and quality and let Round bar products cut into higher-level and broader fields.



Company Production, Marketing and Future Development Strategies

3.Future Development and Strategy

In pursuit of sustainable development, Feng Hsin set short term and long term strategies to provide compliance for all employees.

1. Short term strategies

- Develop new type and product.
- Reduce cost, enhance quality and expand market share.
- Energy saving and carbon reduction, reduce pollution, enhance waste water recycle and forward to zero water discharge.
- Be neighborly and green environment to enhance Feng Hsin's image.

2. Long term strategies

Diversified management to extend Feng Hsin's core advantage and forward to global.



4.Finished and future investments

1.Increase competitiveness.

Unit: 100 Million NTD

No.	Investment/Upgrade	Estimate/Actual Amount	Investment/Upgrade Reasons	Estimate/Actual Completion Date
1	No. 2 DC Furnace Converter Update	0.80	1.Update of 20 years old equipment to keep Available up . 2.Increase of 9.3% after upgrade.	2015/07
2	No. 2 Melting Shop: 1. LF (Ladle Furnace) relocation 2. VD (Vacuum Degassing) addition	4.80	1. New product development; Can produce entry level spring steel 2. Expand SBQ product end application. Current steel grades via VD can be used in: a. Automobile parts (after market) b. High grade fasteners c. high grade hand tools 3. Improve product quality, increase competitiveness internationally and domestically	LF Relocation- 2015/08 VD addition- 2015/12
3	No.2 meltins shop Cvane replacement .	1.80	1.Old Crane's collum need upgrade and replacement for safety issues . 2.Original capacity of 100t upgrade to 130t increase of satety measures .	2015/08



1.Increase competitiveness

Unit: 100 Million NTD

No.	Investment/Upgrade	Estimate/Actual Amount	Investment/Upgrade Reasons	Estimate/Actual Completion Date
4	Billet Magnetic Particle Inspection (MPI) Equipment	0.64	1. To solve billet's surface impurities that can't be inspected and improve on polish technique 2. After MPI and surface polishing, greatly reduce product defective and claims, increase on product competitiveness.	2016/03
5	Merchant Bar Mill's Rough and Medium Mill AC Motor	1.50	1. Rough and Medium Mill have a total of 12 AC motors, all have been in service for 19 years. All back up motors have had maintenance record, and the mill currently does not have any new back up motors. 2. To reduce both motor maintenance interval and cost.	2016/09
6	SBQ Mill's RSB addition and New Coil Machine	8.21	To replace current equipment with new to increase competitiveness by improving surface and internal quality.	2017/9



1.Increase competitiveness.

Unit: 100 Million NTD

No.	Investment/Upgrade	Estimate/Actual Amount	Investment/Upgrade Reasons	Estimate/Actual Completion Date
1	New Rebar Mill	30.10	1. To expand on small size rebar market share 2. Direct rolling to save on gasoline usage 3. Low-temp rolling to reduce cost of alloy in high tensile rebar	2018/03
2	Merchant bar mill's Universal Block Upgrade	0.62	1.Improve on Channel Bars Quality . 2.Decrease on roller costs and save on time used when changing rolls .	2018/06



2.Improvements on Air Pollution ,Waste Water and Carbon Emissions

Unit: 100 Million NTD

No.	Investment/Upgrade	Estimate/Actual Amount	Investment/Upgrade Reasons	Estimate/Actual Completion Date
1	Heating Furnace LNG upgrade for merchant bar and SBQ mills	1.95	1.Reduce air pollution to follow future laws . 2.Save on energy .	2017/12
2	Terminal waste water treatment	0.31	1.Set up company-wide shared terminal wastewater treatment. 2.Reduce waste water for compliance with laws and regulations	2019/01

Air pollution emissions				Unit: Ton
Year	粒狀物 (Par)	硫氧化物 (SOx)	氮氧化物 (NOx)	揮發性有機物 (VOCs)
limit	150	497	490	328
2016	30	448	381	147
2017	21	342	282	150
2018	30	187	158	159

Since renovation of mills, air pollution emissions are reducing.



Awarded the "Best Outstanding Award for Industrial Greenhouse Gas Reduction in the Year of 2018"

- On November 30, 2018, the Industrial Development Bureau, Ministry of Economic Affairs held the "2018 Industry Greenhouse Gas Reduction Results Presentation and Green Technology and Engineering Practice Seminar". More than 500 participants participated. 13 industrial greenhouse gas reduction manufacturers are awarded for praised their efforts and contributions to gas reduction.
- This year, Feng Hsin is awarded “Best Outstanding Award for Industrial Greenhouse Gas Reduction” ,China Steel Corporation which has won the model of reduction in performance, Taiwan Semiconductor Manufacturing Company Limited and Nan Ya Plastics Corporation and other outstanding manufacturers who won the award for excellent management of reduction management jointly took the stage to receive the awards and jointly cheered for carbon reduction results.



3.Others

Unit: 100 Million NTD

No.	Investment/Upgrade	Estimate/Actual Amount	Investment/Upgrade Reasons	Estimate/Actual Completion Date
1	Tai Sugar Scrap Yard rental	2.35	Benefits of renting Tai Sugar scrap yard: 1. To replace Taichung port scrap yard & Northern scrap yard, with a total saving on renting cost of 16.32 million ntd. 2. Utilize the space in Tai Sugar scrap yard to separate impurities from scrap to save on trash processing material and electricity, yearly combine of saving 8.09 million ntd.	2015/12
2	New Administration Office Building	4.85	To cooperate with building the new rebar mill, the old office building has been demolished	2019/09

Above total investment amount is 5.793 billion dollars.



*Thank You
for
Your Attention*

