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Commodity price monitor

June -19

Prepared for ACMA

*Strictly private
and confidential*

July 2019



pwc

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Commodity trend dashboard

Commodity trend dashboard Quarter-on-Quarter changes (1/2)-Rolling view

Calendar Year 19-20: Q vs. Q update

Commodity	Region	Q-o-Q Up		Q-o-Q Down	
Iron & Steel					
Iron Ore	International	17%	▲		
	Domestic low grade				
	Domestic high grade				
Pig Iron	International	1%	▲		
	Domestic			-1%	▼
Stainless steel	Domestic			-7%	▼
	Domestic			-7%	▼
Wire rod	International	5%	▲		
	Domestic			-1%	▼
Steel Billets	International			-1%	▼
	Domestic			-1%	▼
Hot-rolled coils	International			0%	
	Domestic			-1%	▼
Cold-rolled coils	International	1%	▲		
	Domestic			-1%	▼
Steel Scrap	Domestic			-5%	▼
EN8	Domestic			-1%	▼
20MnCr5	Domestic			-1%	▼
Ferro-alloys					
Ferro titanium	International	11%	▲		
Ferro chrome	International			-1%	▼
	Domestic			-3%	▼
Ferro molybdenum	International	5%	▲		
Ferro vanadium	International			-37%	▼
Ferro silicon	International			-2%	▼
	Domestic			-9%	▼

ND: Not disclosed by the source

Commodity trend dashboard Quarter-on-Quarter changes (2/2)- Rolling view

Calendar Year 19-20: Q vs. Q update

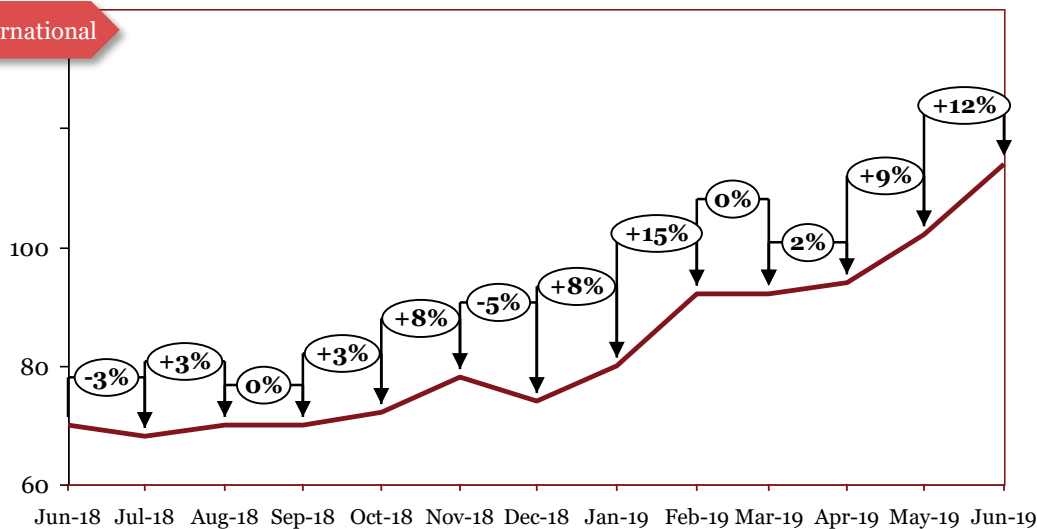
Commodity	Region	Q-o-Q Up		Q-o-Q Down	
Base Metals					
Aluminum	International	5%	▲		
	Domestic			-5%	▼
Copper	International			-2%	▼
	Domestic			-2%	▼
Zinc	International	2%	▲		
	Domestic	1%	▲		
Nickel	International			-1%	▼
	Domestic			-4%	▼
Tin	International			-6%	▼
	Domestic			-7%	▼
Magnesium	International			-3%	▼
Precious Metals					
Platinum	International	3%	▲		
Palladium	International			-3%	▼
Rhodium	International	10%	▲		
Polymers					
Low density polyethylene (LDPE)	International			-6%	▼
	Domestic			-1%	▼
Polypropylene (PP)	International	2%	▲		
	Domestic	5%	▲		
Rubber	Domestic	10%	▲		
Currency Exchange					
Dollar	International			-1%	▼
Pound	International			-2%	▼
Euro	International			-3%	▼
Yen	International			-1%	▼

Iron & Steel

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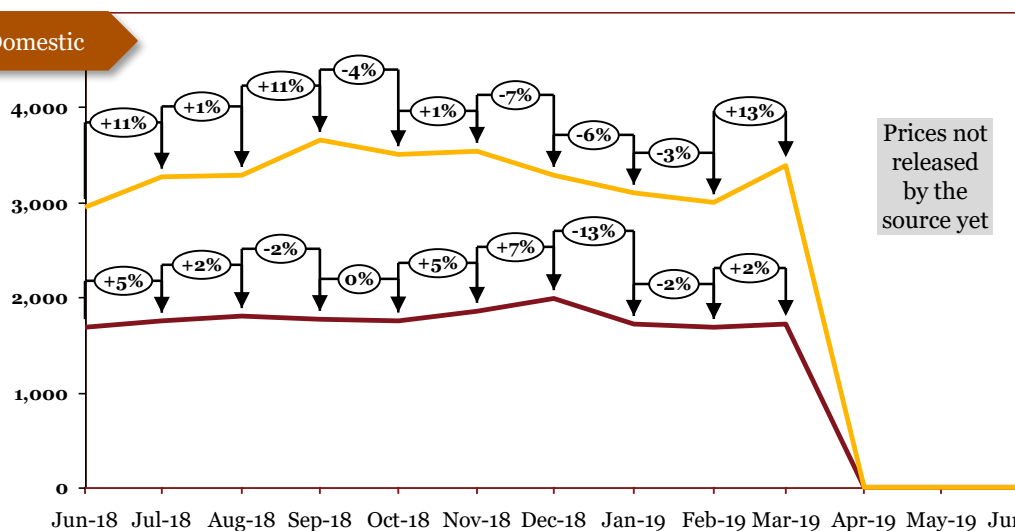
Iron Ore

International



Source: Crisil

Domestic



Source: Crisil

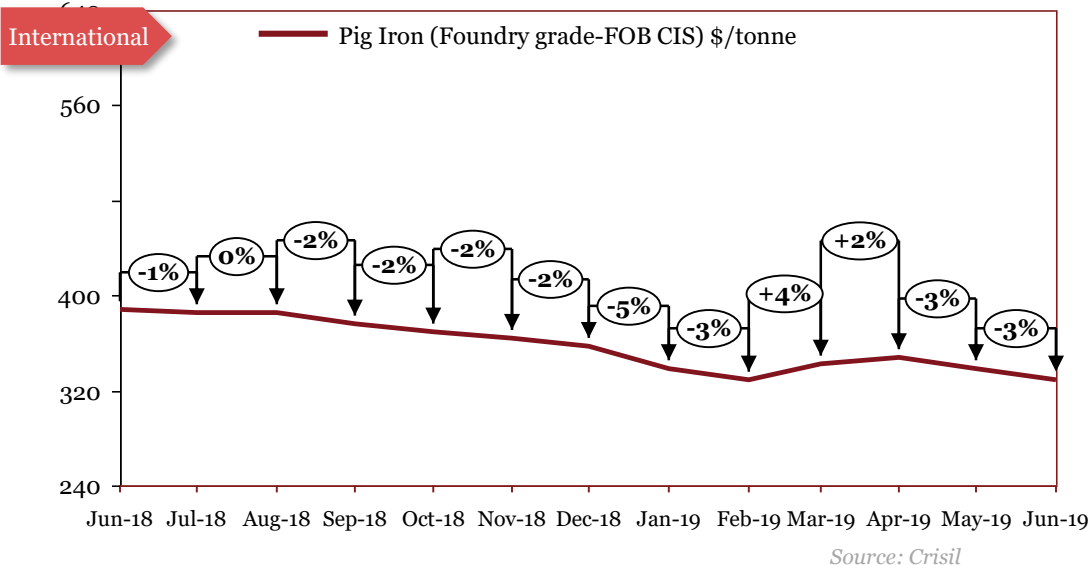
Monthly Average Prices			
Period	*Int'l	*Dom	
	\$/tonne	Rs/tonne	
		65% & below	65% & above
Jun-18	70	1,676	2,946
Jul-18	68	1,757	3,264
Aug-18	70	1,799	3,289
Sep-18	70	1,760	3,648
Oct-18	72	1,759	3,501
Nov-18	78	1,849	3,529
Dec-18	74	1,983	3,291
Jan-19	80	1,723	3,090
Feb-19	92	1,687	2,994
Mar-19	92	1,724.00	3,378.00
Apr-19	94	-	-
May-19	102	-	-
Jun-19	114	-	-

*The actual prices may vary depending on city, player, grade etc.

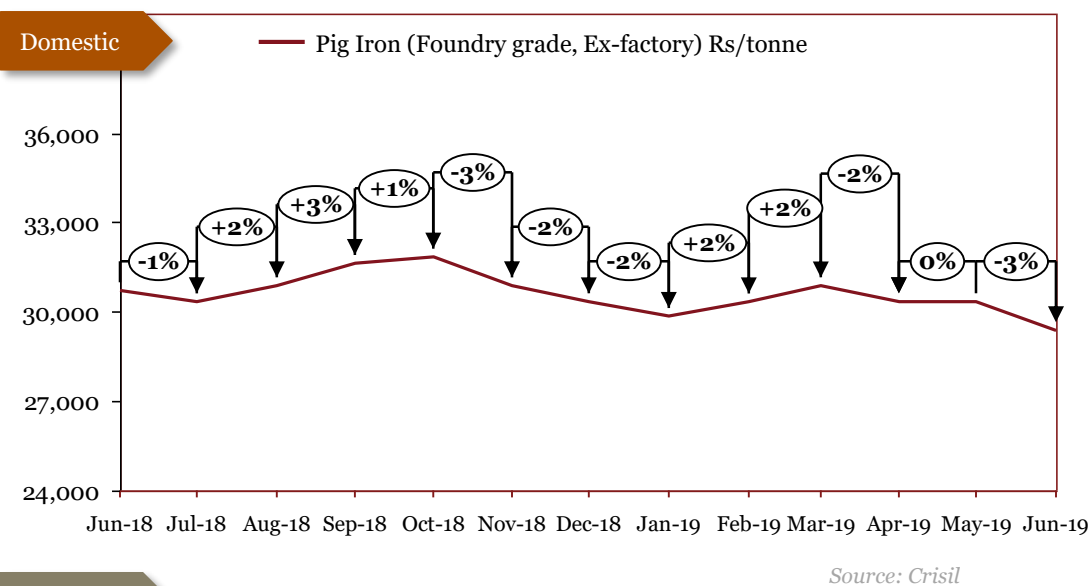
Outlook

In August, international prices rose mainly due to increased demand from China and decreased supply from Brazil. In September, international prices remained stable. In October, international iron ores increased with improvement in steel demand and high import from China. In November, iron ore prices witnessed increase. In December, prices declined owing to sluggish demand. In January, declining trend in international iron ore prices was reversed. In February, supply disruption of Vale's iron ore mine in Brazil, which is expected to hit 70 million tonne of global iron ore production led to concerns over iron ore supply, lifting global prices. In March 2019, prices remained unchanged due to stable market conditions. Domestic prices of iron ore increased on the back of increasing prices of inputs such as coking coal. In April, international iron ore prices continued to rise on account of supply disruptions from key mines in Brazil and Australia and China's fiscal stimulus seen as strengthening steel consumption. In May, supply disruptions from Brazil's Vale mines continued leading to diminished inventories globally pushing up international prices. In June, Australian suppliers cut down their exports forecast due to bad-weather conditions stemming from cyclone Veronica, pushing up global prices.

Pig Iron



Monthly Average Prices		
Period	*Int'l \$/tonne	*Dom Rs/tonne
Jun-18	388	30,700
Jul-18	385	30,350
Aug-18	385	30,850
Sep-18	376	31,650
Oct-18	370	31,850
Nov-18	363	30,850
Dec-18	357	30,350
Jan-19	339	29,850
Feb-19	330	30,350
Mar-19	342	30,850
Apr-19	348	30,350
May-19	339	30,350
Jun-19	330	29,350

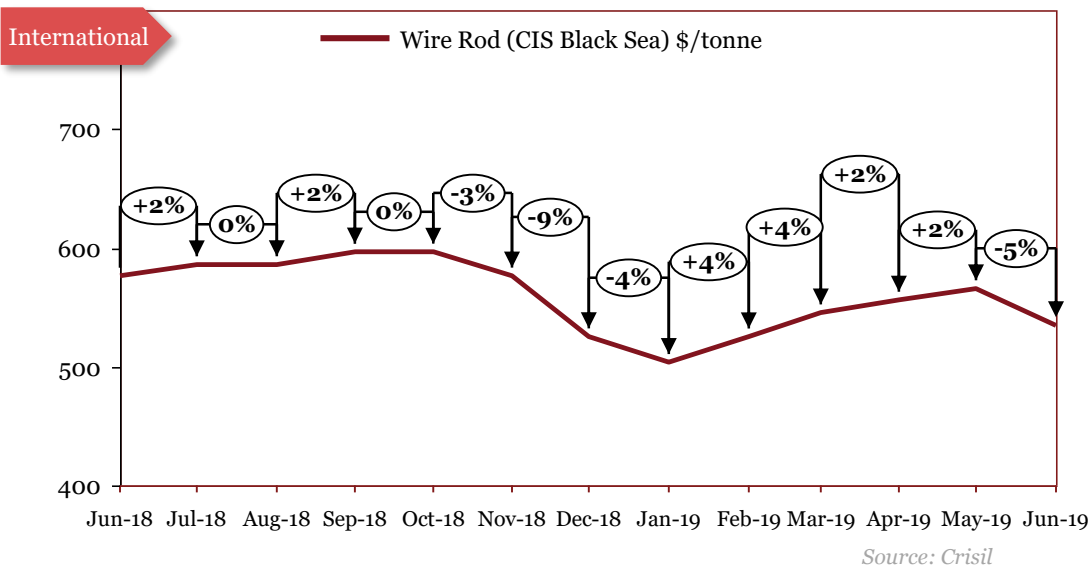


*The actual prices may vary depending on city, player, grade etc.

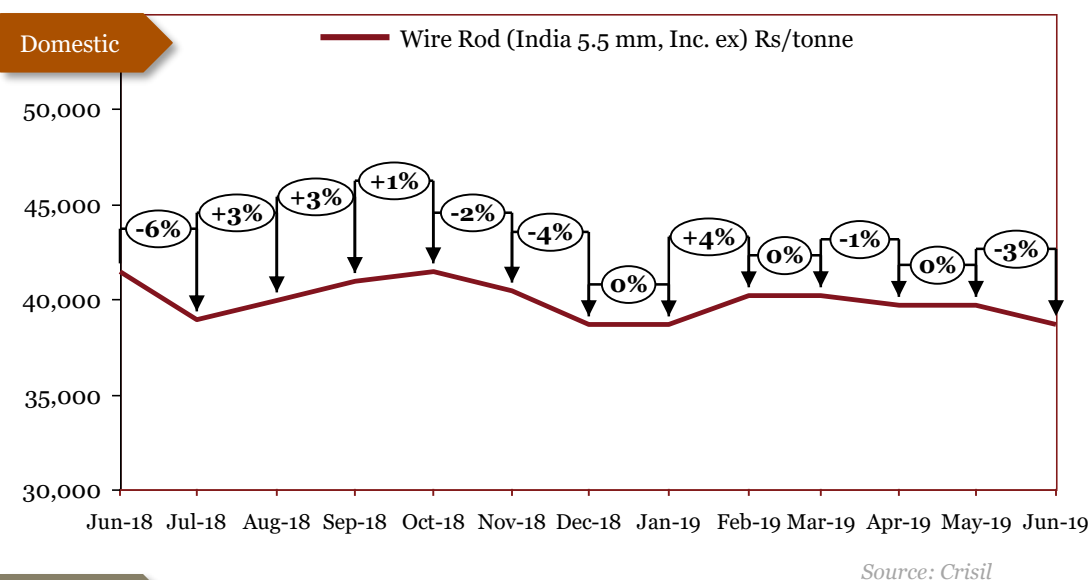
Outlook

In January 2019, pig iron (foundry grade) prices decreased on account of increased supply in the market. Additionally, decline in iron ore prices as well softening of steel prices put further pressure on pig iron prices. In February 2019, domestic pig iron (foundry grade) prices increased on account of increase in iron ore prices. In the month of March 2019, pig iron (foundry grade) prices increased led by uptick in steel prices and modest demand. In April 2019, international prices rose on account of increase in raw material prices. Domestic pig iron prices declined led by fall in steel prices and muted demand. On raw material front, decrease in iron ore prices and coking coal prices during the month further pressurized prices. In May, high prices of raw material such as iron ore and low demand from foundries led to stagnation of domestic prices. On the international front, prices dropped on the back of weak demand. In June, muted demand from foundries making automobiles & industrial molds let to slipping of domestic prices. Internationally, there was low buying activity, especially in the US which accounts for 50% of global supply, since buyers booked high tonnages in May itself.

Wire Rod



Monthly Average Prices		
Period	^*Int'l (\$/tonne)	*Dom (Rs/tonne)
Jun-18	576	41,444
Jul-18	587	38,944
Aug-18	587	39,944
Sep-18	597	40,944
Oct-18	597	41,444
Nov-18	576	40,444
Dec-18	525	38,744
Jan-19	504	38,644
Feb-19	525	40,144
Mar-19	545	40,144
Apr-19	556	39,644
May-19	566	39,644
Jun-19	535	38,644



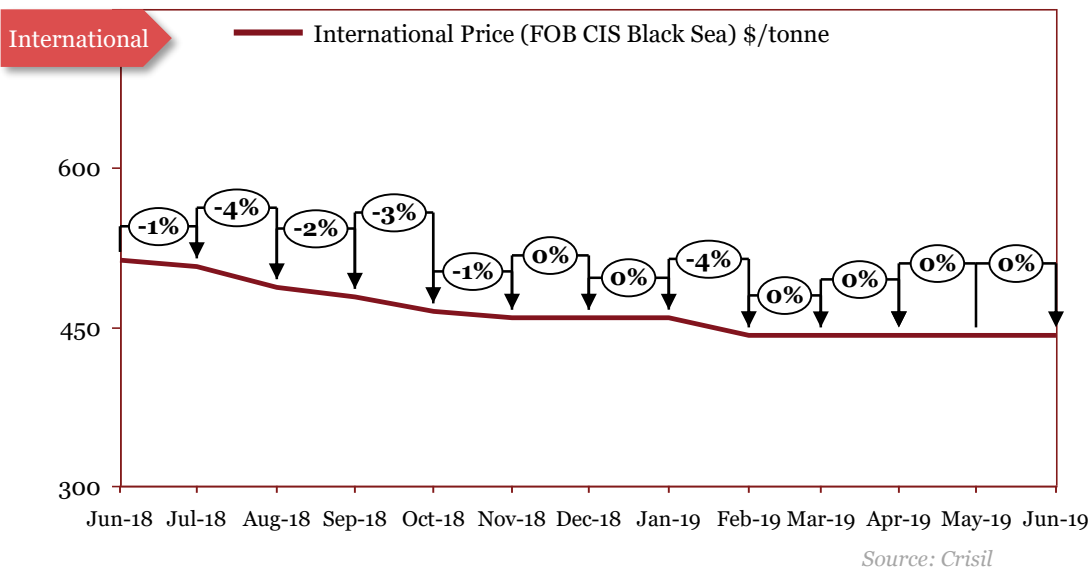
*The actual prices may vary depending on city, player, grade etc.

Outlook

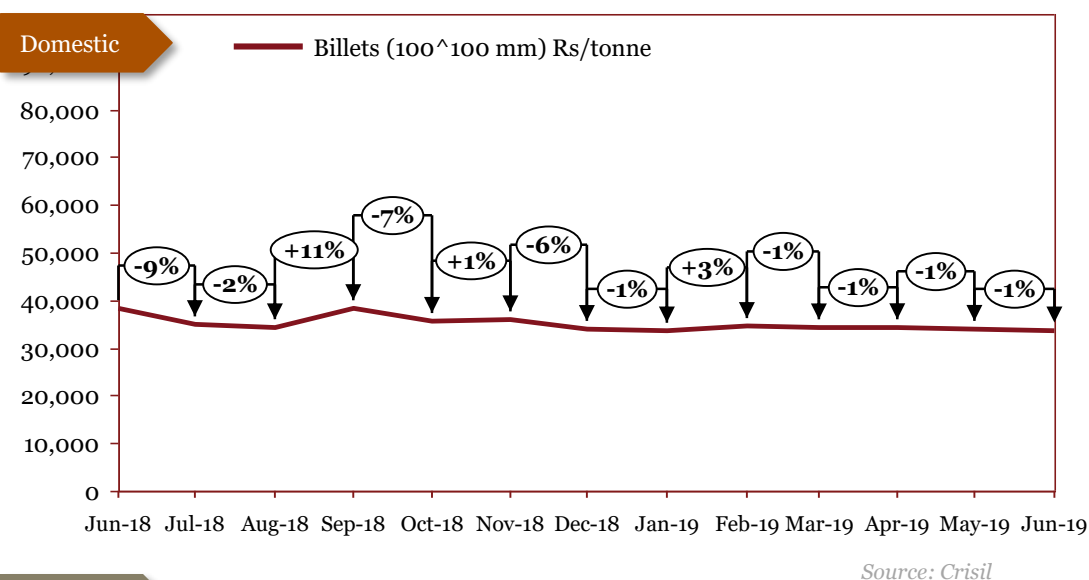
In August, declining trend in domestic prices was reversed due to small and medium sized players increasing prices due to increased demand. In September, domestic prices increased led by healthy domestic demand and rise in raw material costs. In October, prices increased during the month led by healthy domestic demand, currency depreciation, and rise in raw material costs. In November, domestic prices fell owing to sluggish demand sentiment. In December, fall in global prices and domestic supply situation led to decrease in domestic prices. In January 2019, prices recorded a decline primarily owing to subdued demand. In February, prices increased due to elevated raw material prices and higher demand. In March, international prices increased during the month primarily owing to increased demand. In April 2019, international prices rose in line with steel and steel product prices whereas domestic wire rod prices declined primarily owing to muted demand sentiment. In May, domestic prices remained stagnant due to muted demand growth. In June, international and domestic prices declined due to lower demand in the market stemming from the onset of the monsoon season.

^Prices have been retrospectively revised by the source due to change in base year

Steel Billets



Monthly Average Prices		
Period	^*Int'l	*Dom
	(\$/tonne)	(Rs/tonne)
Jun-18	513	38,367
Jul-18	507	35,050
Aug-18	487	34,300
Sep-18	479	38,200
Oct-18	465	35,667
Nov-18	459	35,850
Dec-18	459	33,833
Jan-19	459	33,467
Feb-19	442	34,633
Mar-19	442	34,333
Apr-19	442	34,100
May-19	442	33,867
Jun-19	442	33,400



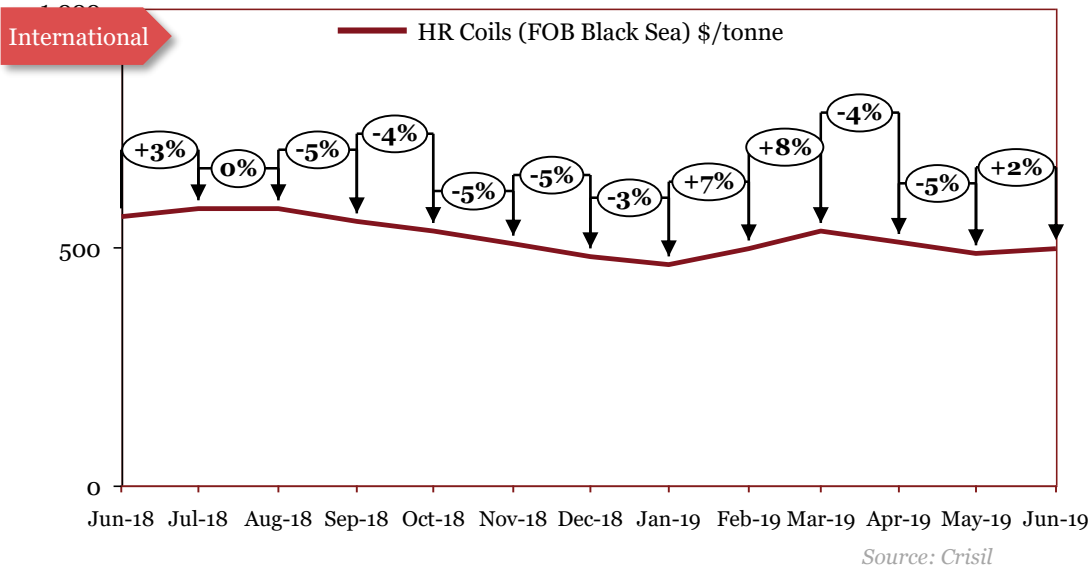
*The actual prices may vary depending on city, player, grade etc.

Outlook

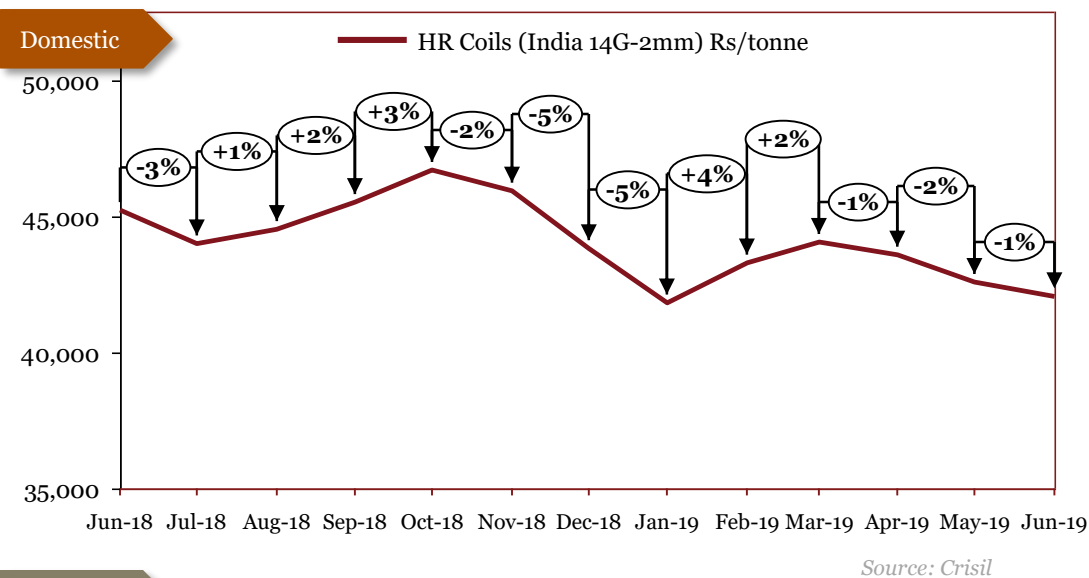
In July, prices in the domestic market fell due to decreased demand owing to fall in construction activity because of the monsoon season and reduced ability to export owing to international trade wars. In August, domestic prices continued to fall. In September, domestic prices increased primarily owing to increased off-take of medium size mills, lower inventories coupled with elevated input material costs. In October, billet prices experienced decline owing to weaker domestic demand. In November, prices fell in the global market due to a return of Chinese producers to the export market leading to increased supply. In December, international prices stagnated while domestic prices fell. In January 2019, prices remained unchanged due to stable demand-supply conditions. In February, domestic prices increased due to improved demand, especially from construction sector. In March, domestic steel billet prices fell whereas international prices remained unchanged. In April, international prices did not fluctuate due to unchanged market conditions while domestic prices fell. In May, market conditions remained unchanged for a second month in a row leading to stagnant prices. In June, international and domestic prices remained almost stagnant owing to unchanged demand scenario in the domestic & international markets.

^International prices changed due to change in the grade

Hot-Rolled (HR) Coils



Monthly Average Prices		
Period	*Int'l (\$/tonne)	^*Dom (Rs/tonne)
Jun-18	565	45,200
Jul-18	581	44,000
Aug-18	581	44,500
Sep-18	554	45,500
Oct-18	533	46,700
Nov-18	506	45,900
Dec-18	480	43,800
Jan-19	464	41,800
Feb-19	496	43,300
Mar-19	533	44,050
Apr-19	512	43550
May-19	485	42550
Jun-19	496	42050

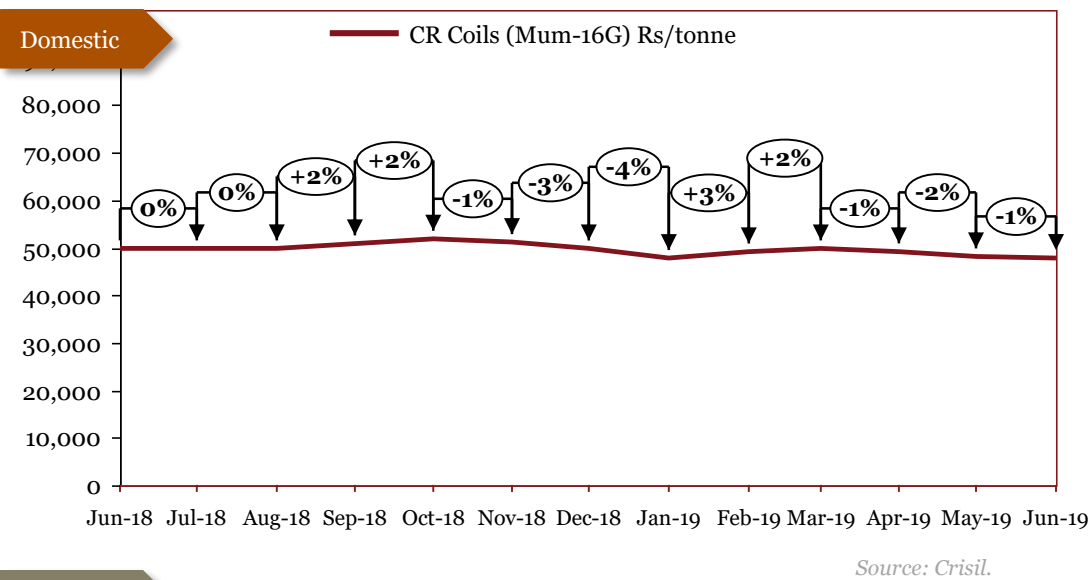
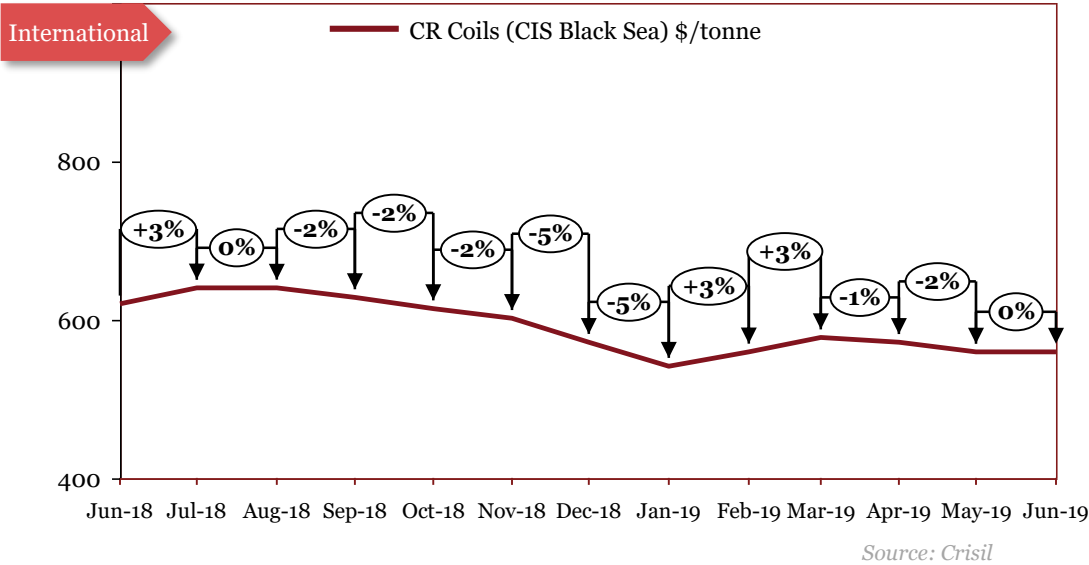


*The actual prices may vary depending on city, player, grade etc.

Outlook

In January 2019, international HR coil prices declined owing to weak demand. On domestic front, prices declined amid cost effective imports and bearish export market. In February 2019, international prices increased due to increase in raw material prices. Domestic prices increased in line with international prices. In March, temporary production cuts in China led to higher international prices. In line with International prices, domestic prices increased led by healthy domestic demand. In the month of April 2019, international prices declined on back of muted demand. In line with International prices, domestic prices declined led by moderation in domestic demand. In May, international prices decreased due to muted demand. Domestic prices fell too due to moderation in demand (especially from auto sector). In June, international prices increased marginally due to production curbs in China (to reduce emissions) and weakened international demand cancelling each other out. On the domestic front, demand weakened slightly due to buyers postponing purchases to after the government's budget announcement.

Cold-Rolled (CR) Coils



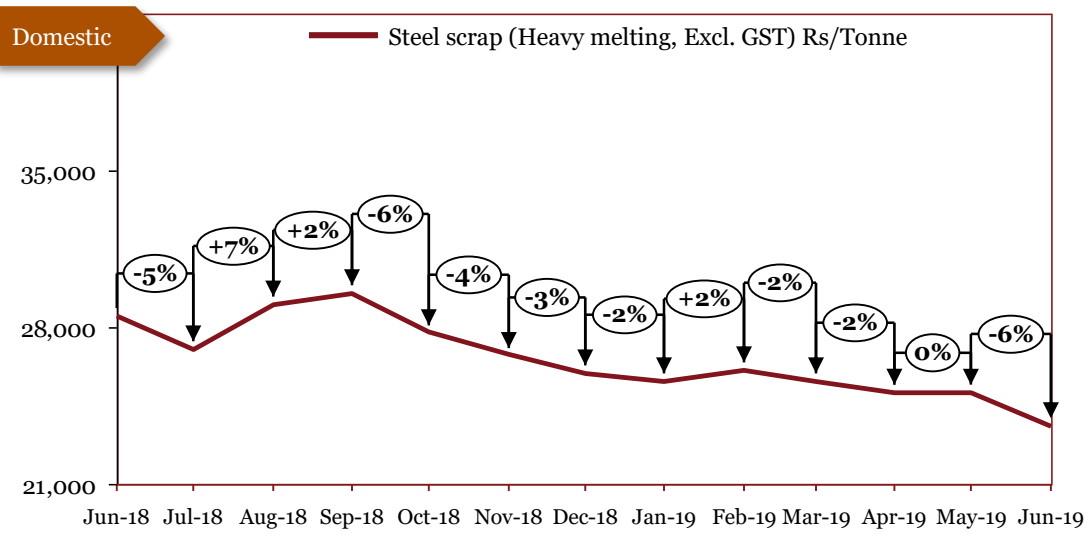
Monthly Average Prices		
Period	*Int'l (\$/tonne)	^*Dom (Rs/tonne)
Jun-18	621	49,722
Jul-18	640	49,722
Aug-18	640	49,722
Sep-18	627	50,722
Oct-18	615	51,900
Nov-18	603	51,300
Dec-18	572	49,800
Jan-19	541	47,800
Feb-19	560	49,000
Mar-19	578	49,750
Apr-19	572	49,250
May-19	560	48,250
Jun-19	560	47,750

*The actual prices may vary depending on city, player, grade etc.

Outlook

In November, international and domestic CR coil prices declined followed trend of declining HR prices. In December, international indexed CR coil prices declined in December 2018 on back of declining international HR prices. In January 2019, prices continued declining trend. In February, both international and domestic prices increased in line with HR prices. International indexed CR coil price increased in March 2019 on back of increasing international HR prices. Domestic CR prices increased in line with HR prices. International indexed CR coil price declined in April 2019 on back of declining international HR prices. Domestic CR prices declined during the month, mirroring HR prices trend. In May, prices declined both internationally and domestically due to declining HR prices. In June, international prices remained the same due to unchanged demand & supply. Domestically, demand weakened slightly due to buyers postponing purchases to after the government's budget announcement.

Steel Scrap (Heavy Melting)



Source: CRISIL

Monthly Average Prices	
Period	*Dom (Rs/Tonne)
Jun-18	28500
Jul-18	27000
Aug-18	29000
Sep-18	29500
Oct-18	27750
Nov-18	26750
Dec-18	25950
Jan-19	25550
Feb-19	26050
Mar-19	25550
Apr-19	25050
May-19	25050
Jun-19	23550

**The actual prices may vary depending on city, player, grade etc.*

Outlook

Domestic scrap prices have displayed a downward trend over the last one year owing to a stronger dollar which made exports less competitive leading to excess supply in the market. Another reason for excess supply in the market is seen as slowing infrastructure growth due to which inventories have piled up. In May, steel scrap prices remained unchanged due to the lack of demand growth in the market. In June, scrap prices dropped due to low exports demand from countries such as Turkey which is the largest buyer of steel scrap.

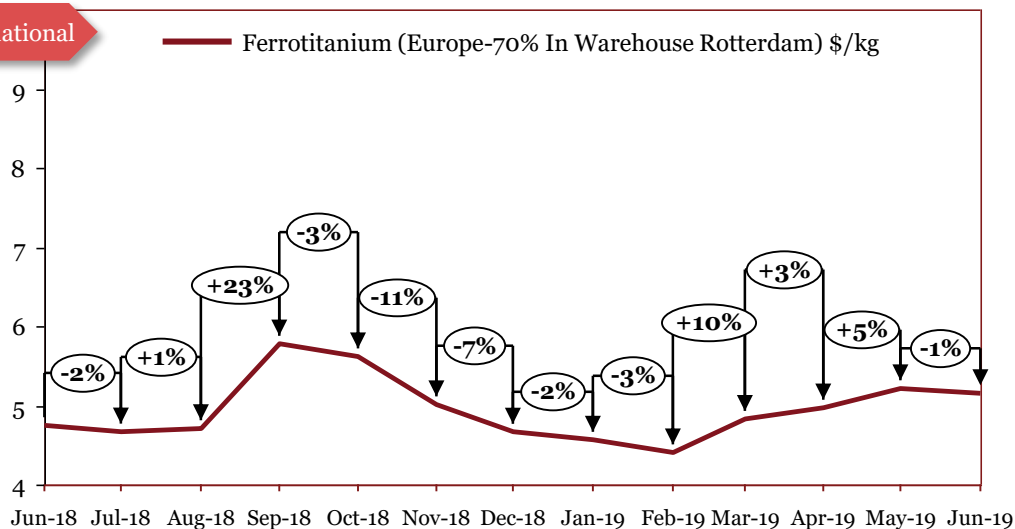
<i>Ferro-alloys</i>	Ferro-alloys	16
8	Ferro titanium	17
9	Ferro chrome	18
10	Ferro molybdenum	19
11	Ferro vanadium	20
12	Ferro silicon	21
13	EN8 Alloy Steel (Forging)	22
14	Stainless Steel	23
15	20MnCr5 Alloy Steel (Forging)	24

Ferro titanium

Monthly Average Prices

Period	^*Int'l (\$/kg)
Jun-18	4.75
Jul-18	4.66
Aug-18	4.7
Sep-18	5.78
Oct-18	5.61
Nov-18	5
Dec-18	4.66
Jan-19	4.56
Feb-19	4.41
Mar-19	4.83
Apr-19	4.97
May-19	5.21
Jun-19	5.16

International



Grade specifications changed from Metal Bulletin to Asian Metals
 Source: Bloomberg

*The actual prices may vary depending on city, player, grade etc.

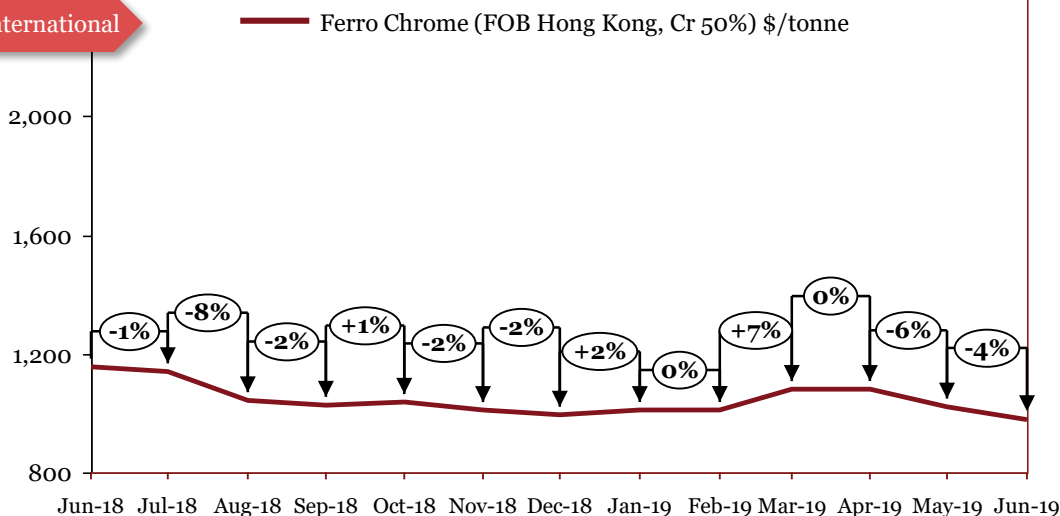
Outlook

Prices increased in June and declined in July due to seasonal slowdown. In August, prices increased due to persistent low supply. Global prices in September increased due to tightness in ferro-titanium availability as well as higher grade scrap - particularly from Russia. In addition, consumer activity picking up after seasonal slowdown also led to increase in prices. In October 2018, high-volume sales to Europe from Russia dragged down prices. From November 2018, ferrotitanium prices have witnessed consistently declining trend owing to unfavourable market conditions which has continued till February 2019. In March, ferrotitanium prices increased owing to increased demand and potentially reduced supply from one major supplier. In April, increasing trend in prices continued. In May, supply worries from a major producer in UK forced prices to continue an upward trend. In June, prices trended marginally downward due to fears of weakening demand from the European steel market.

^International prices changed due to change in grades at the source

Ferro chrome

International

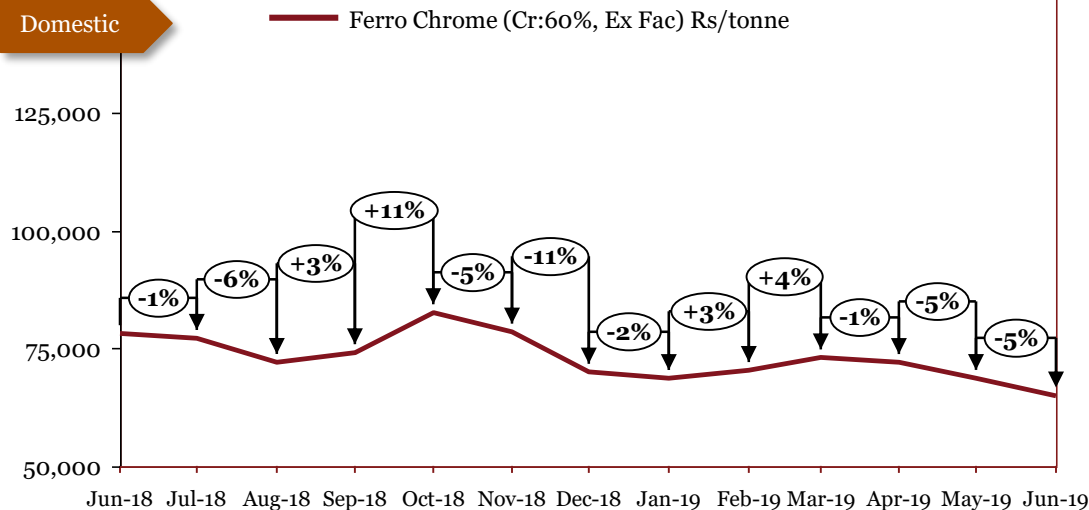


Source: Crisil

Monthly Average Prices

Period	*Int'l	*Dom
	(\$/tonne)	(Rs/tonne)
Jun-18	1,156	78,000
Jul-18	1,147	77,000
Aug-18	1,044	72,000
Sep-18	1,027	74,000
Oct-18	1,036	83,500
Nov-18	1,010	78,500
Dec-18	993	70,000
Jan-19	1010	68,500
Feb-19	1010	70,500
Mar-19	1079	73,000
Apr-19	1079	72000
May-19	1019	68500
Jun-19	976	65000

Domestic



Source: Crisil

*The actual prices may vary depending on city, player, grade etc.

Outlook

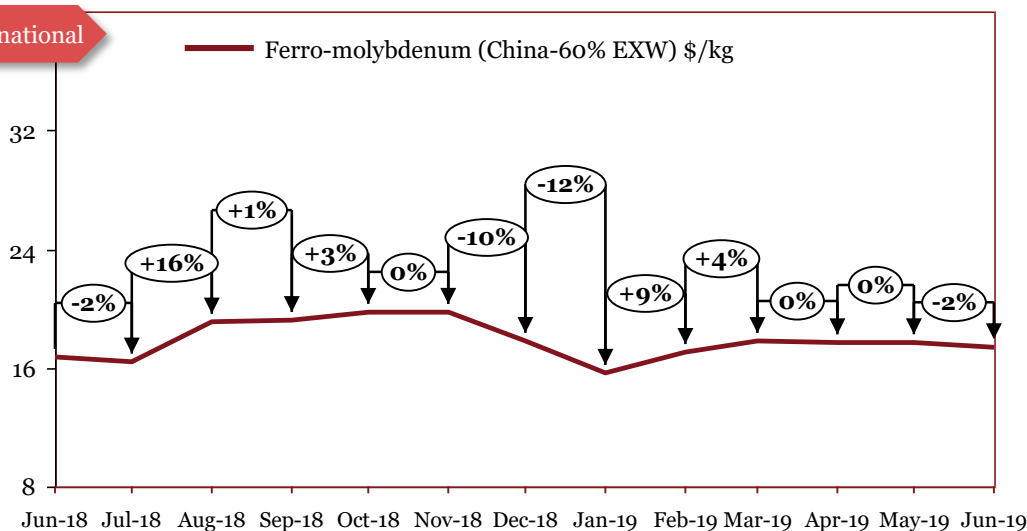
International index price of ferro chrome in February remained stable owing to muted Chinese demand. On domestic front, prices recorded an increase on back of rise in chrome ore prices. In March, international index price of ferro chrome increased amidst healthy Chinese demand, led by increase in alloy tender prices and power constraints in two major ferro-chrome producing regions in China. On domestic front, prices recorded an increase on back of rise in chrome ore prices. International index price of ferro chrome remained unchanged in April amidst stable Chinese demand. On domestic front, prices recorded a decline on back of weak demand. In May, international and domestic prices declined owing to the back of continued weakening in demand. In June, domestic & international prices of ferro-chrome continued to decline owing to declining stainless steel production globally.

Ferro molybdenum

Monthly Average Prices

Period	*^Int'l (\$/kg)
Jun-18	17
Jul-18	16
Aug-18	19
Sep-18	19
Oct-18	20
Nov-18	20
Dec-18	18
Jan-19	16
Feb-19	17
Mar-19	18
Apr-19	18
May-19	18
Jun-19	17

International



Grade specifications changed from Metal Bulletin to Asian Metals
 Source: Bloomberg

*The actual prices may vary depending on city, player, grade etc.

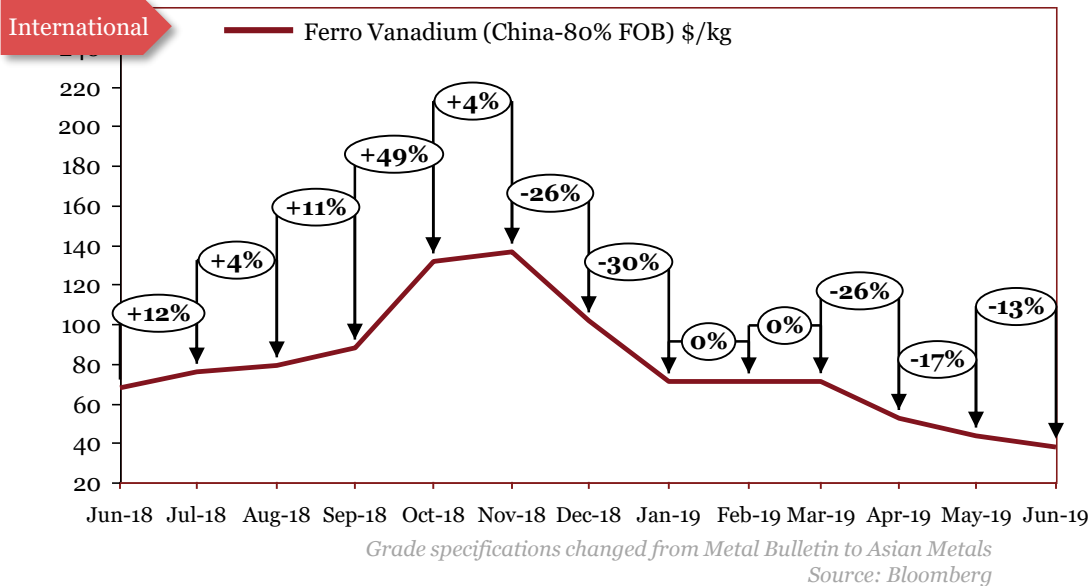
Outlook

In December, the prices increased due to tight supply, restocking and increased costs of raw materials. In January 2018, the prices continued to increase on back of the rising demand. In Feb 2018, the prices increased due to continued demand. The prices in March increased as the demand increased. In May, production from Chinese ferro molybdenum producers and global copper producers (molybdenum is produced as a by-product of copper production) acted as a cap for ferro molybdenum prices by enabling stable supply. In June and July, prices continued with declining trend. In August, declining trend in prices was reversed on account of firm demand. In September, prices remained stable. Prices increased in October 2018. Prices witnessed declining trend since November 2018, following the price movements in other ferro-alloys. In February 2019, declining trend was reversed. In March, prices increased owing to demand growth. In April, increasing trend in prices continued. In May, stable market conditions resulted in stable prices. In June, prices decreased due to easing demand from major steel producers such as China.

^International prices changed due to change in grades at the source

Ferro vanadium

Monthly Average Prices	
Period	*Int'l (\$/kg)
Jun-18	68
Jul-18	76
Aug-18	79
Sep-18	88
Oct-18	131
Nov-18	137
Dec-18	101
Jan-19	71
Feb-19	71
Mar-19	71
Apr-19	52
May-19	43
Jun-19	38

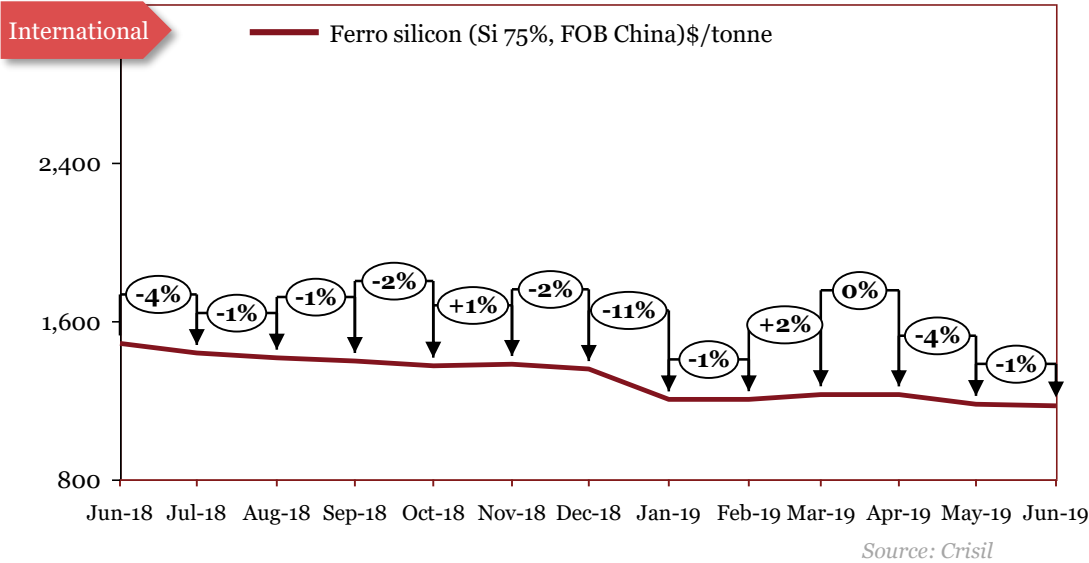


*The actual prices may vary depending on city, player, grade etc.

Outlook

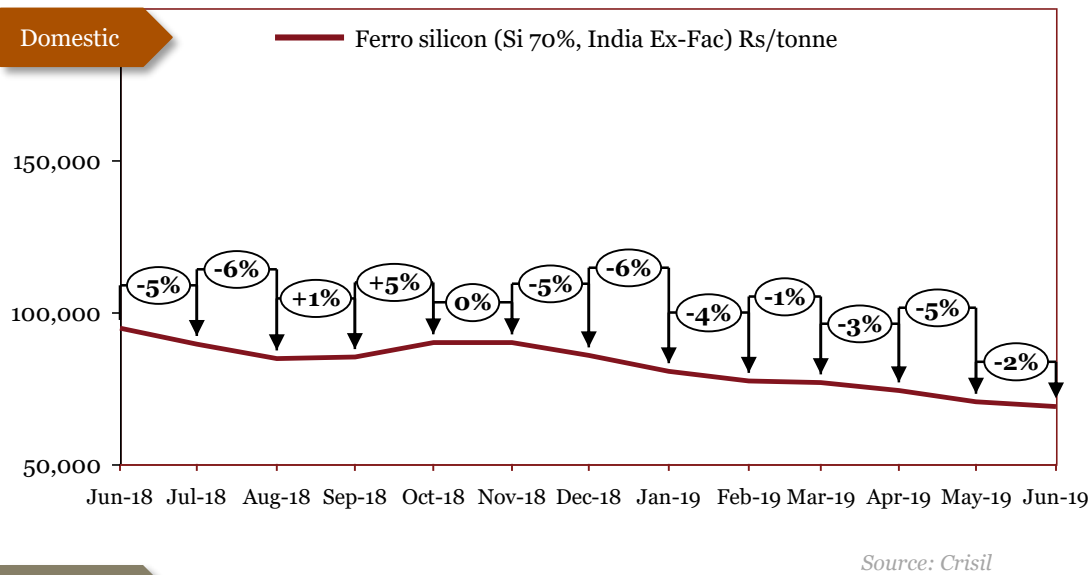
In September, global prices continued with increasing trend due to global supply constraints. In October, prices increased due to the impending imposition of stringent rebar standards in China together with tight vanadium supply globally. Since November 2018, ferro-vanadium prices have witnessed declining trend owing to weak buying interest and unfavourable market sentiment. Prices remained unchanged in February 2019 due to stable market conditions. In March, prices remained unchanged due to stable market conditions. In April, prices increased due to strong demand from Chinese market, which in turn can be partly attributed to increase in demand arising from the implementation of new rebar manufacturing standards in China. In May, prices continued to decline due to sluggish demand from the European automotive sector. In June, prices continued to fall sharply due to weak summer demand in China & Europe.

Ferro silicon



Monthly Average Prices

Period	*Int'l (\$/tonne)	*Dom (Rs/tonne)
Jun-18	1,490	94,700
Jul-18	1,442	89,700
Aug-18	1,415	84,500
Sep-18	1,401	85,500
Oct-18	1,373	90,000
Nov-18	1,380	90,200
Dec-18	1,359	85,700
Jan-19	1,208	80,700
Feb-19	1,201	77,200
Mar-19	1,228	76,700
Apr-19	1,228	74,200
May-19	1,180	70,700
Jun-19	1,173	74,200



*The actual prices may vary depending on city, player, grade etc.

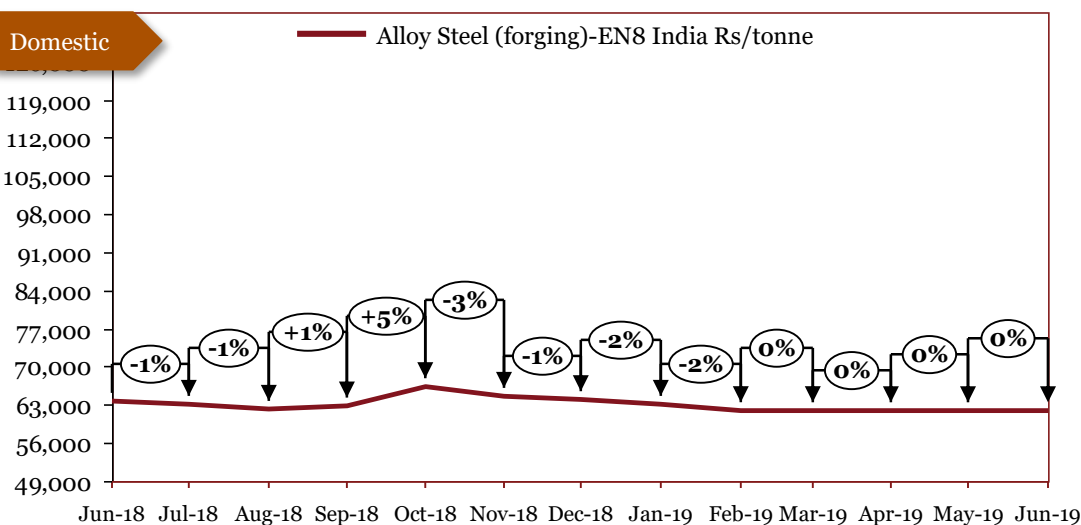
Outlook

International ferro silicon prices declined in January 2019 owing to muted demand, especially in China. Many ferro silicon suppliers in China have shifted to the production of silicon carbide due to low demand. In line with global prices, domestic ferro silicon prices declined on the back of increasing inventories with manufacturers and supply outstripping demand. International ferro silicon prices declined in February 2019 owing to muted demand, especially in China. In line with global prices, domestic ferro silicon prices declined on the back of increasing inventories with manufacturers and supply outstripping demand. International ferro silicon prices increased in March 2019 with marginal improvement in demand, especially in China. International ferro silicon prices remained constant in April 2019 owing to moderation in demand, especially in China. Domestic ferro silicon prices declined on the back of weak demand. In May, lower prices were seen as a result on increased supplies and lower tender prices. In June, prices dropped due to additional supply in markets which resulted in producers lowering their prices.

EN8 Alloy Steel (Forging)

Monthly Average Prices

Period	*Dom (Rs/tonne)
Jun-18	63,800
Jul-18	63,200
Aug-18	62,300
Sep-18	62,800
Oct-18	66,200
Nov-18	64,500
Dec-18	64,000
Jan-19	63,000
Feb-19	62,000
Mar-19	62,000
Apr-19	62,000
May-19	62,000
Jun-19	62,000



Source: PwC Research

*The actual prices may vary depending on city, player, grade etc.

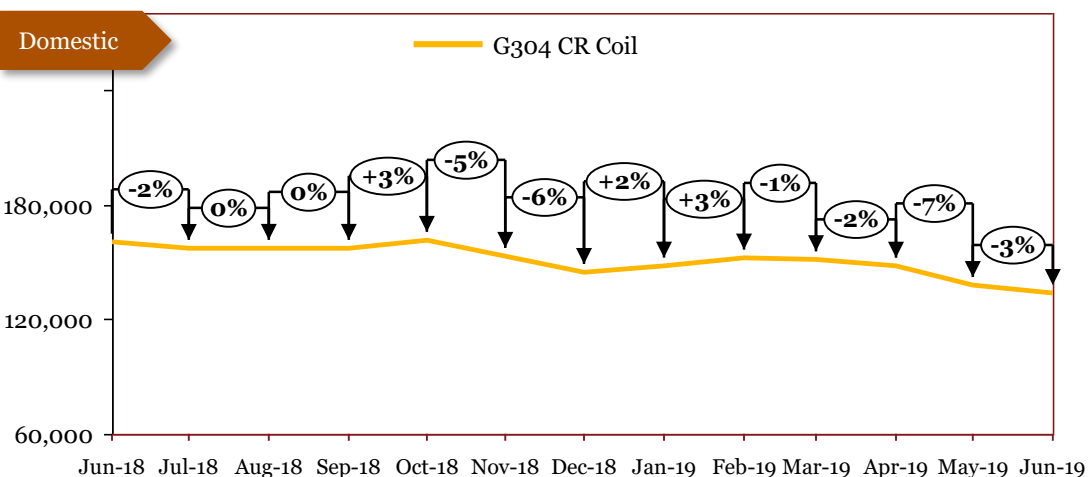
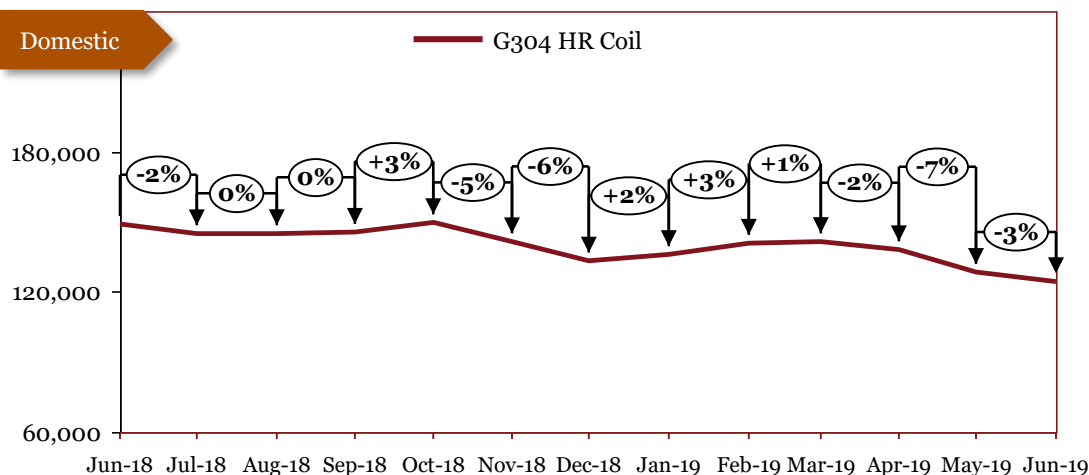
Outlook

In April, prices remained constant due to stable market conditions and increased in May along with other steel products. Similarly, prices increased in June in step with other steel products. In July, prices fell due to unfavourable demand. In August, prices continued to fall. In September, prices increased along with price rise in other steel products. In October, prices increased in line with other products whose prices depend on the fundamentals of the economy. In November, domestic prices witnessed decline. In December, prices declined further owing to a decrease in the Chinese market. In January 19, prices continued with declining trend. In February, declining trend continued. In March, prices remained unchanged due to stable market conditions. In April, market conditions remained unchanged, reflecting in the prices for the month. In May, market conditions continued to remain unchanged resulting in stable prices. In June, prices remain unchanged once again, stemming from stable market conditions.

Stainless Steel

Monthly Domestic Average Prices

Period	*G304 HR (Rs/tonne)	*G304 CR (Rs/tonne)
Jun-18	148,700	160,250
Jul-18	145,200	156,750
Aug-18	145,200	156,750
Sep-18	145,700	157,250
Oct-18	149,700	161,250
Nov-18	141,700	153,250
Dec-18	133,200	144,750
Jan-19	136,200	147,750
Feb-19	146,700	152,250
Mar-19	141,700	151,250
Apr-19	138,200	147,750
May-19	128,200	137,750
Jun-19	124,200	133,750



*The actual prices may vary depending on city, player, grade etc.

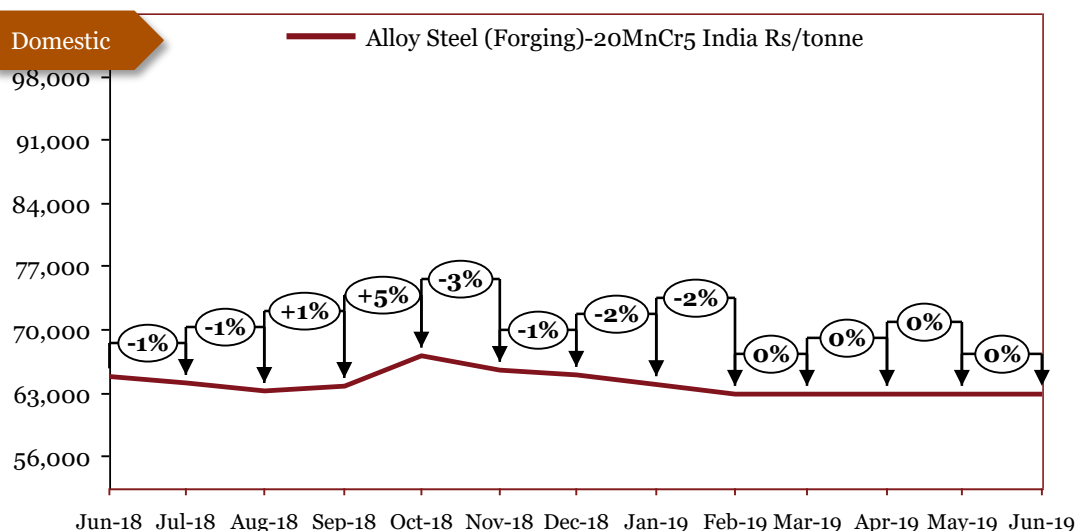
Source: PwC Research

Outlook

In Feb 2018, the increase in the domestic prices continued on the back of the rising input material prices. In March, the prices continued to increase on the back of the rising demand. In April, the domestic prices decreased owing to the reduced demand and continued higher supply. In May, declining trend was reversed as prices increased. In June, prices increased owing to strong demand. In July, domestic prices for stainless steel declined following global cues. In August, prices remained the same owing to stable market conditions. In September, prices continued to remain stable. In October, prices increased after flat trend over past months. In November, international and domestic prices decreased simultaneously. In December, prices continues to decline. In January 2019, domestic prices increased on account of increase in price of raw material imports. In February, increasing trend in HR and CR coil prices continued. In March, price trend from previous months was reversed. In April, prices continued to decline. In May, prices declined marginally due to weak Nickel prices. In June, prices declined due weak demand scenario and fall in price of inputs such as ferro-alloys.

20MnCr5 Alloy Steel (Forging)

Monthly Average Prices	
Period	*Dom (Rs/tonne)
Jun-18	64,800
Jul-18	64,200
Aug-18	63,300
Sep-18	63,800
Oct-18	67,200
Nov-18	65,500
Dec-18	65,000
Jan-19	64,000
Feb-19	63,000
Mar-19	63,000
Apr-19	63,000
May-19	63,000
Jun-19	63,000



Source: PwC Research

*The actual prices may vary depending on city, player, grade etc.

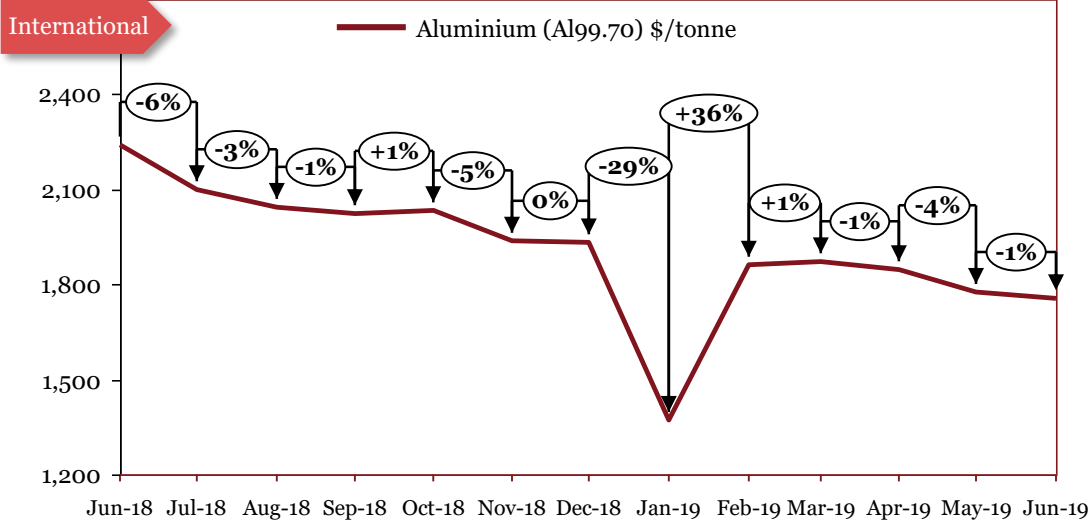
Outlook

In March, the domestic prices increased due increased demand. In April, prices remained constant due to stable market conditions and increased in May along with other steel products. In June, prices increased in step with other steel products. Similarly, prices in the domestic market fell in line with other steel products owing to muted demand. In August, process continued to fall. In September, domestic prices reversed declining trend. In October, declining trend in prices was reversed. In November, prices fell due to muted demand. Prices fell in line with other steel products. In January 2019, prices continued with declining trend. In February, prices remained unchanged due to stable market conditions. In March, prices remained unchanged due to stable market conditions. In April, market conditions remained unchanged, reflecting in the prices for the month. In May, market conditions continued to remain unchanged resulting in stable prices. In June, prices continued to hold stable.

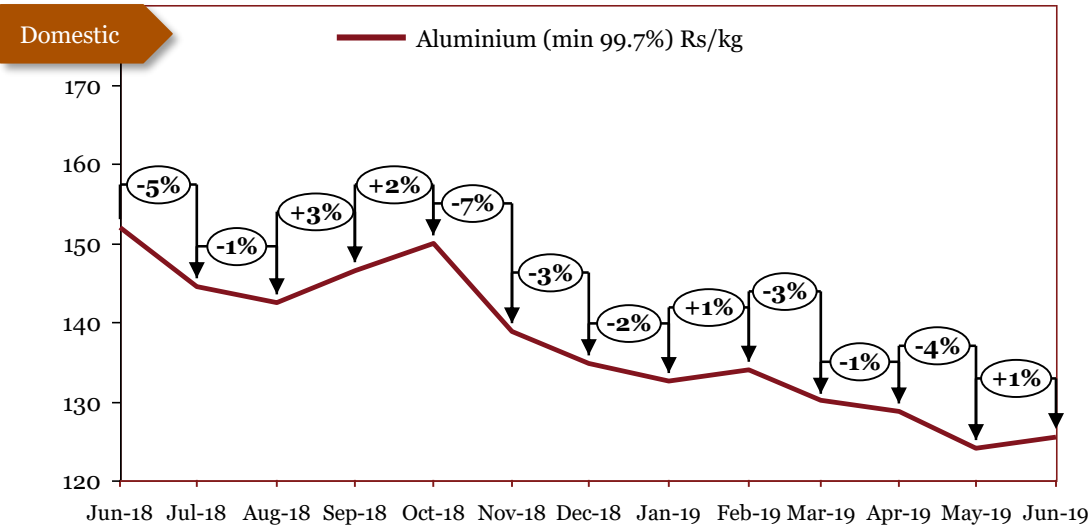
Base Metals

Base Metals		25
16	Aluminium	26
17	Copper	27
18	Zinc	28
19	Nickel	29
20	Tin	30
21	Magnesium	31

Aluminium



Source: LME



Source: NCDEX

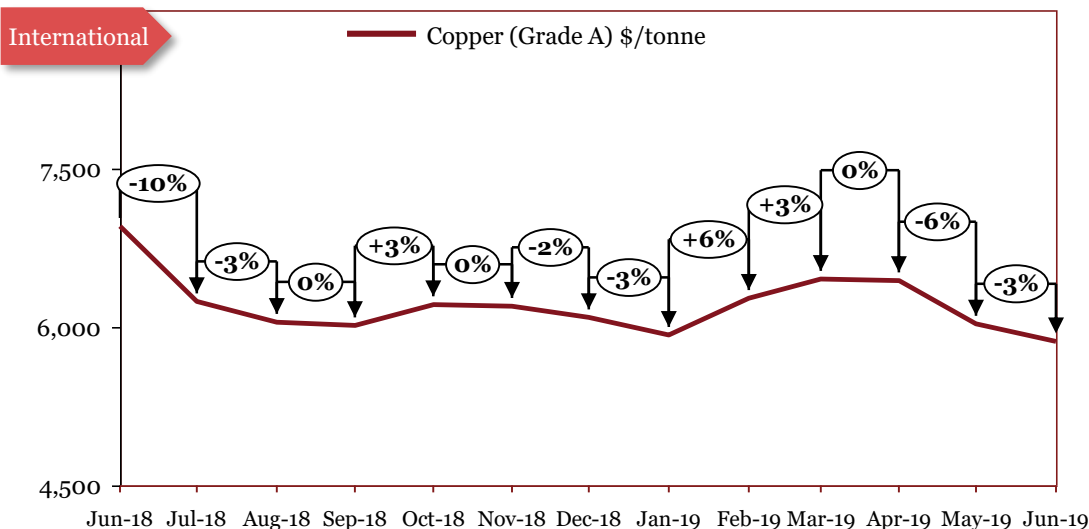
Monthly Average Prices		
Period	*Int'l (\$/tonne)	*Dom (Rs/kg)
Jun-18	2,240	152
Jul-18	2,098	144
Aug-18	2,045	142
Sep-18	2,023	146
Oct-18	2,034	150
Nov-18	1,937	139
Dec-18	1,931	135
Jan-19	1,371	132
Feb-19	1,859	134
Mar-19	1,872	130
Apr-19	1,849	129
May-19	1,775	124
Jun-19	1,754	125

*The actual prices may vary depending on city, player, grade etc.

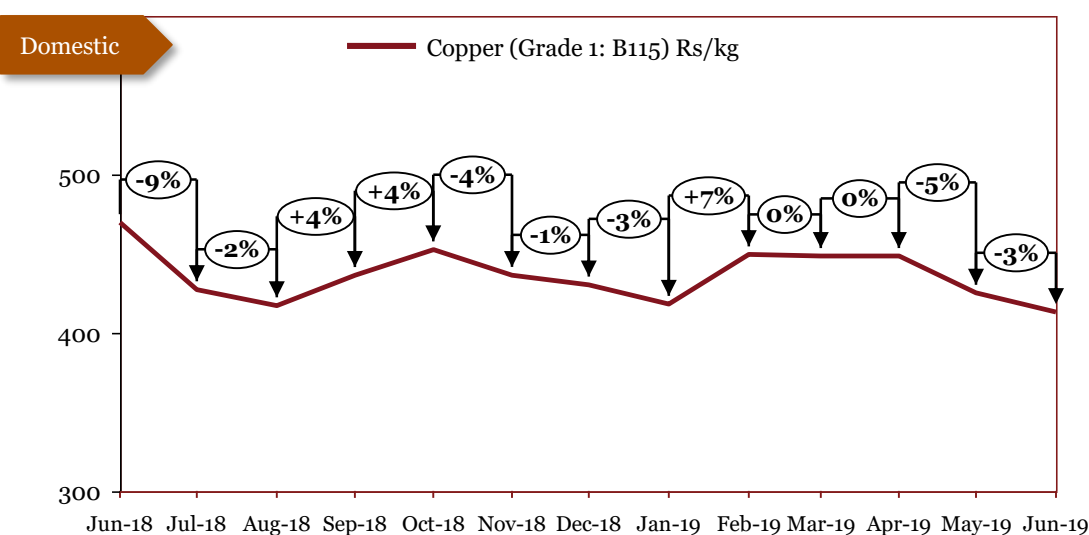
Outlook

In November, the LME prices fell over the uncertainty in demand from China. The domestic prices have declined comparatively less owing to the sustained local demand. In December, the international prices increased due to the supply disruption in China. However, in the domestic market, the excess supply caused reduction in the prices. In January, trade sanctions imposed by US on Chinese exports led prices to fall in the international market. Domestic market followed the suit. In February, the international and domestic prices remained steady compared to last month due to balanced supply-demand conditions in the market. In March, the international prices decreased owing to the strengthening of the dollar and simmering trade concerns between US and China. Domestic market followed suit. In April, prices decreased owing to many aluminium companies shedding capacity in China after situation of overcapacity in the past couple of months. In May, domestic iron prices declined due muted demand stemming from General Elections. International prices declined due to trade tensions between China & the US. In June, international prices declined slightly due to weak manufacturing data from top economies. Domestically, aluminium prices increased slightly due to superior demand conditions.

Copper



Source: LME



Source: MCX

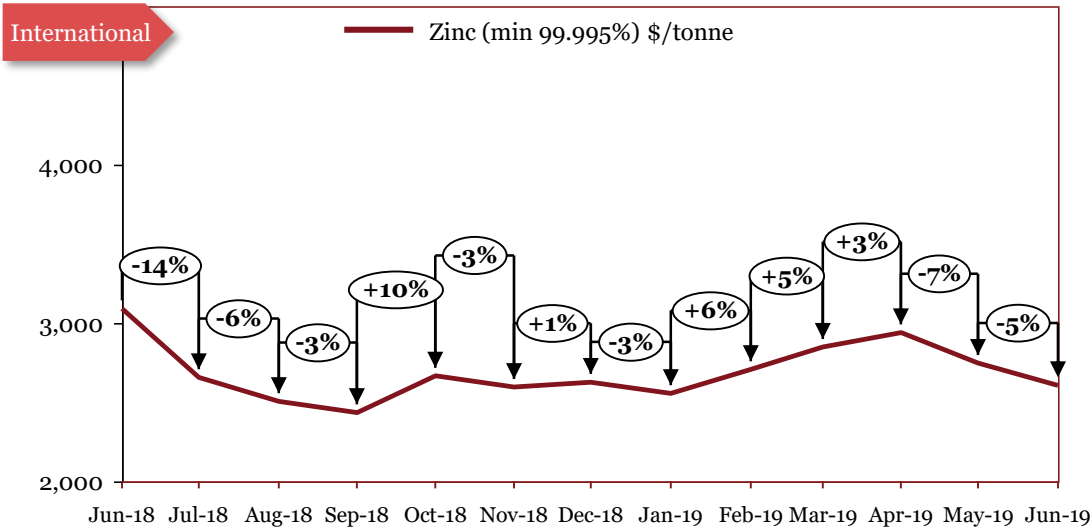
Monthly Average Prices		
Period	*Int'l (\$/tonne)	*Dom (Rs/kg)
Jun-18	6,954	469
Jul-18	6,248	428
Aug-18	6,039	418
Sep-18	6,020	436
Oct-18	6,215	453
Nov-18	6,192	437
Dec-18	6,094	430
Jan-19	5,932	419
Feb-19	6,278	450
Mar-19	6,450	448
Apr-19	6,445	449
May-19	6,028	425
Jun-19	5,868	413

*The actual prices may vary depending on city, player, grade etc.

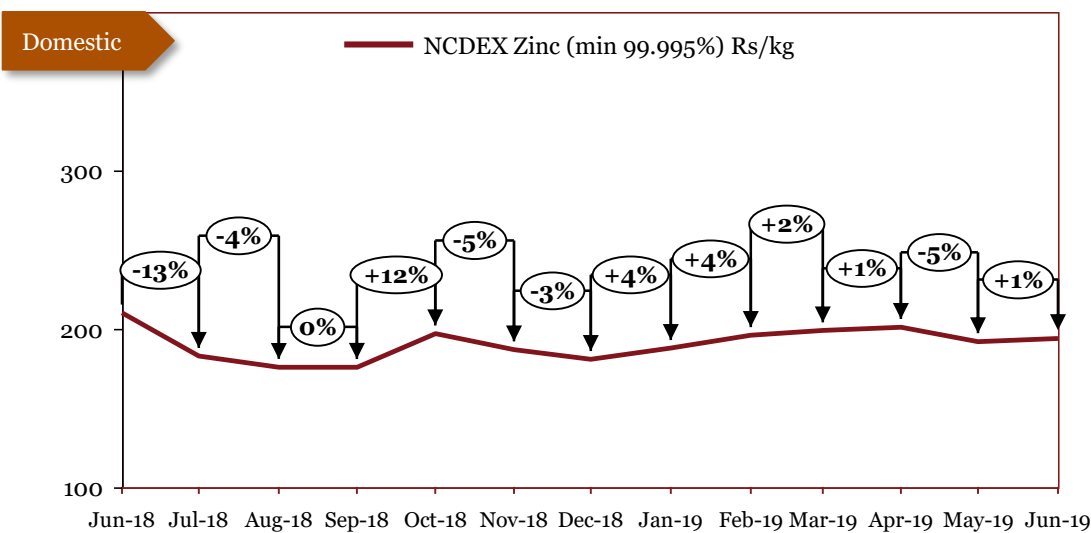
Outlook

In September, global prices fell further while domestic prices reversed declining trend. In October, international prices increased on account of high volumes of imports to China. Domestic prices rose on account of increased demand from consuming industries. In November, domestic prices followed trend in domestic demand from consuming industries. In December, prices in the international market fell due to lower volumes and continued market worries over a prolonged trade war. In January 2019, domestic prices reflected trend in global prices. In February, prices increased as global demand outpaces supply. Domestic prices followed suit. In March, international prices increased on the back of positive sentiment due to progress with US-China trade talks. In April, prices remained unchanged due to stable market conditions. In May, prices fell due to profit booking by traders and also lower demand in both domestic and international markets. In June, international Copper prices fell due to weak production data released by China and a threat of tariffs imposed by the US on Mexico. Domestically, prices fell due to slackened demand from consuming industries.

Zinc



Source: LME



Source: NCDEX

Monthly Average Prices		
Period	*Int'l (\$/tonne)	*Dom (Rs/kg)
Jun-18	3,091	210
Jul-18	2,658	183
Aug-18	2,510	175
Sep-18	2,433	176
Oct-18	2,671	197
Nov-18	2,592	187
Dec-18	2,625	181
Jan-19	2,558	188
Feb-19	2,702	196
Mar-19	2,851	199
Apr-19	2,938	201
May-19	2,747	192
Jun-19	2,602	194

*The actual prices may vary depending on city, player, grade etc.

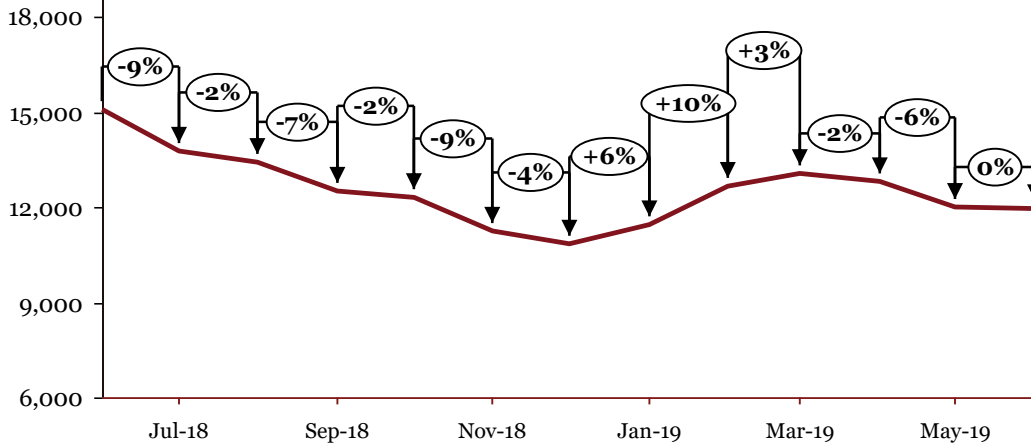
Outlook

In August, zinc prices crashed owing to excess supply in the market and muted demand from China. In September, international prices fell further while domestic prices rose amid sustained demand from alloy industries. In October, global zinc prices rose due to depleting inventories and domestic prices followed suit. In November, prices fell due to slowing demand from major buyers owing to falling economic growth which in turn is putting pressure on prices. In December, prices in the international registered increase whereas prices in the domestic market continued to fall due to dampened demand. In January 2019, international prices increased whereas domestic prices fell. In February, increasing trend in domestic prices continued. In March, international zinc prices rose on back of rising global base metal prices and domestic zinc prices increased on account of demand growth. In April, increasing price trend continued. In May, international prices fell due to re-opening of some mines globally. Domestically, there was muted demand in the market resulting in lower prices. In June, international Zinc prices retreated due to rising inventories. In India, prices increased marginally due to an increment in the demand scenario.

Nickel

International

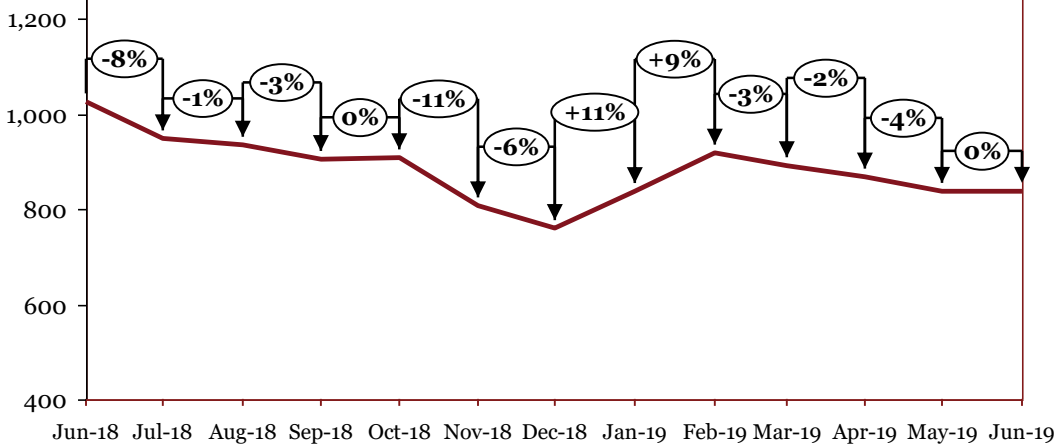
Nickel (min 99.80%) \$/tonne



Source: LME

Domestic

Nickel (4"×4" cut Nickel min 99.80%) Rs/kg



Source: NCDEX

Monthly Average Prices

Period	*Int'l (\$/tonne)	*Dom (Rs/kg)
Jun-18	15,107	1025
Jul-18	13,768	948
Aug-18	13,429	936
Sep-18	12,524	906
Oct-18	12,323	909
Nov-18	11,249	806
Dec-18	10,833	759
Jan-19	11,452	839
Feb-19	12,647	918
Mar-19	13,056	891
Apr-19	12,815	869
May-19	11,995	837
Jun-19	11,967	839

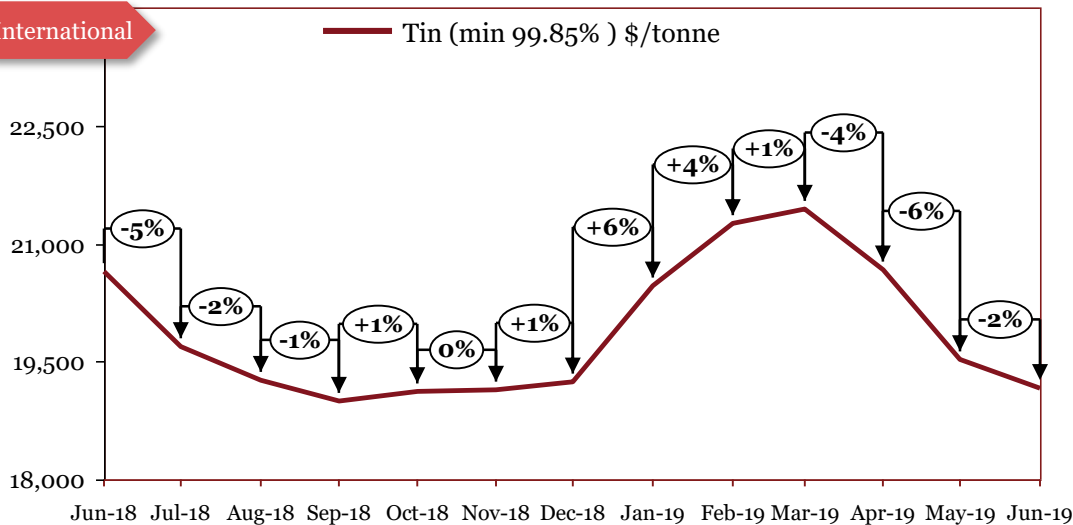
*The actual prices may vary depending on city, player, grade etc.

Outlook

In August, prices declined following the trend in base metal prices. In September, prices continued to fall. In October, global prices fell due to weakness in the stainless steel market, increasing nickel pig iron production and rising Shanghai nickel inventory. In November, prices fell in the global market due to growing concerns over slowing demand in top consumer China. Domestic prices followed suit. In December, nickel prices declined, following the price trends of other base metals. In January 2019, domestic nickel prices rose on account of limited supply. In February, prices increased as demand outpaced supply. In March, global prices rose on account of positive sentiment owing to positive US-China trade talks. Prices in domestic market fell due to subdued demand. In April, nickel prices fell owing to increased market supply. Domestic prices fell owing to subdued demand. In May, prices fell due to volatility in demand stemming from electric vehicle production numbers. In June, both international & domestic Nickel prices remain unchanged due to a balance of demand, supply and inventory levels.

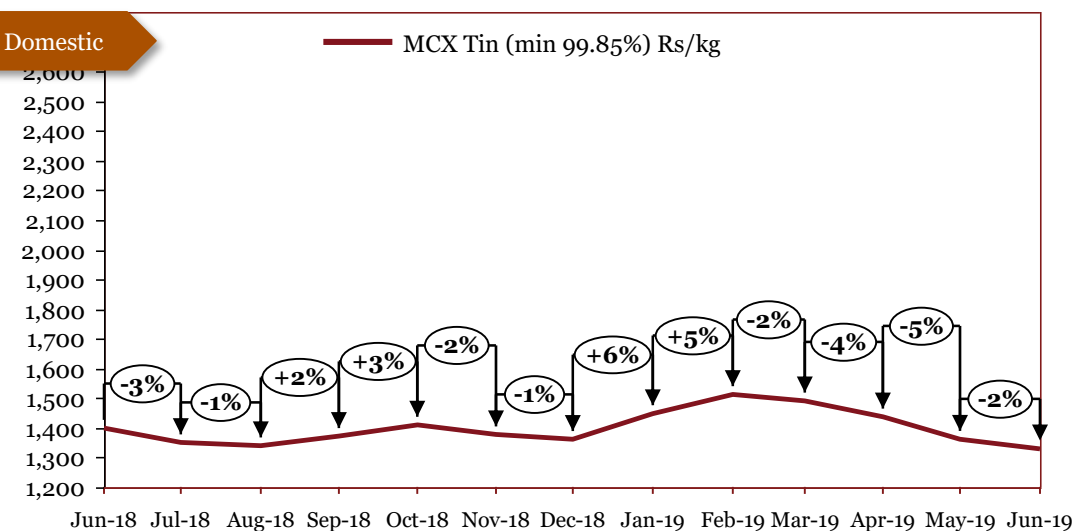
Tin

International



Source: LME

Domestic



Source: MCX

Monthly Average Prices		
Period	*Int'l (\$/tonne)	*Dom (Rs/kg)
Jun-18	20,652	1,400
Jul-18	19,689	1,353
Aug-18	19,268	1,342
Sep-18	18,990	1,372
Oct-18	19,117	1,408
Nov-18	19,130	1,376
Dec-18	19,232	1,361
Jan-19	20,471	1,445
Feb-19	21,257	1,514
Mar-19	21,433	1,490
Apr-19	20,671	1,436
May-19	19,520	1,364
Jun-19	19,163	1,331

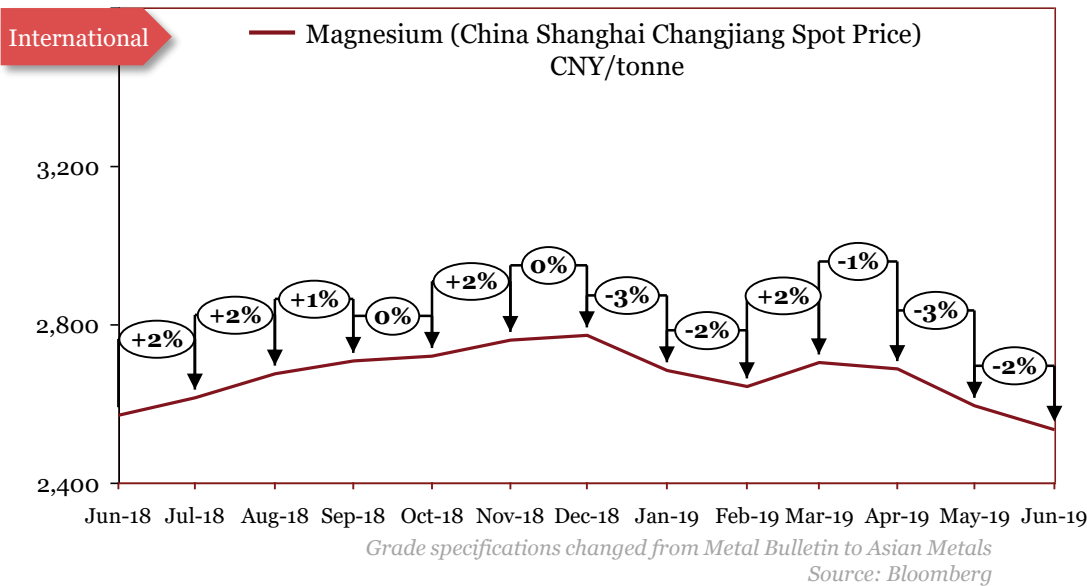
*The actual prices may vary depending on city, player, grade etc.

Outlook

In October, global tin prices increased on concerns of tightened supply. Domestic prices followed international price trend. In November, international prices were unchanged due to stable market conditions. In December, tin outperformed other base metals in the international market. In January 2019, international prices witnessed increase due to supported by improving market sentiment amid ongoing trade talks between China and the United States. In February, tin prices increased in line with other base metal prices. International prices continued existing trend in March. Domestic prices fell due to subdued demand. In April, increasing trend in international prices was reversed. In May, Tin prices continued to decline due to weak demand stemming from drop in semiconductor sales. In June, international and domestic Tin prices continued to slide owing to weaker demand from consuming industries.

Magnesium

Monthly Average Prices	
Period	*Int'l (\$/tonne)
Jun-18	2,569
Jul-18	2,612
Aug-18	2,675
Sep-18	2,708
Oct-18	2,719
Nov-18	2,760
Dec-18	2,770
Jan-19	2,684
Feb-19	2,643
Mar-19	2,705
Apr-19	2,688
May-19	2,595
Jun-19	2,532



*The actual prices may vary depending on city, player, grade etc.

Outlook

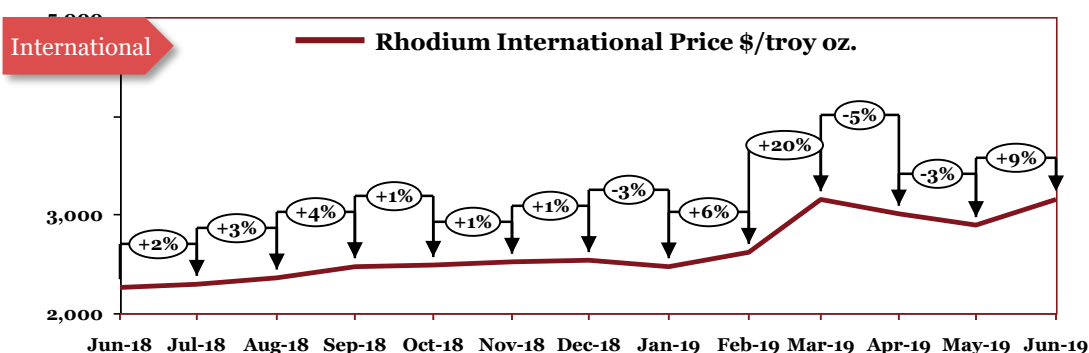
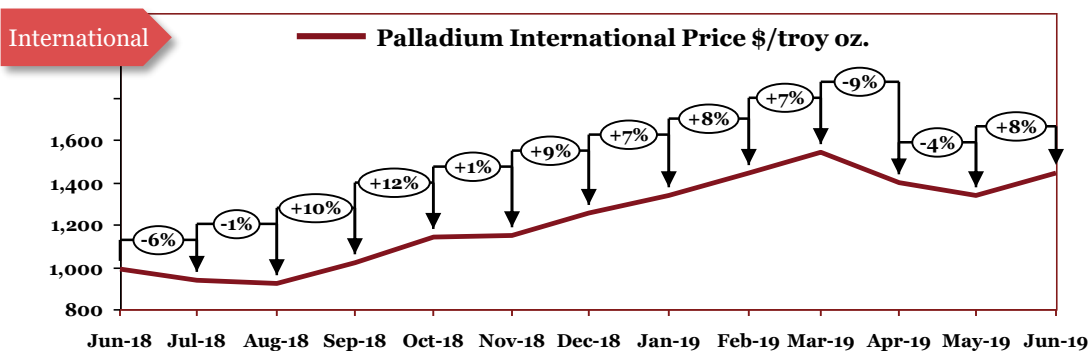
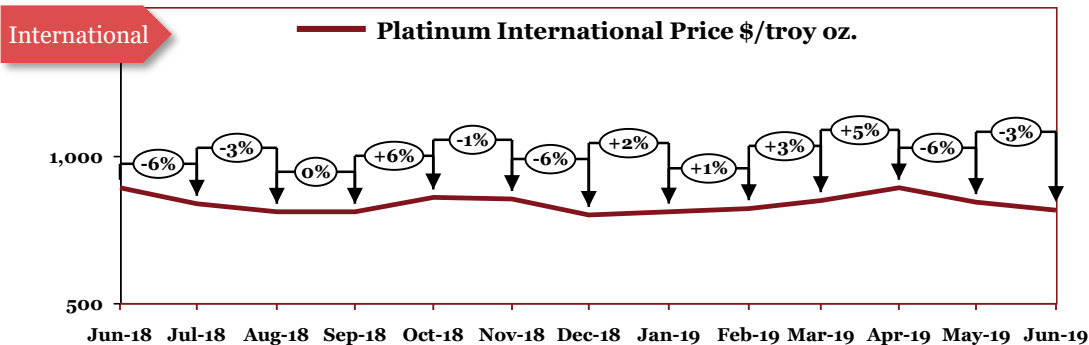
In January 2018, the market remained stable resulting in no fluctuations in prices. In Feb 2018, prices increased due to supply deficits and continued demand. In March, the prices declined due to decrease in the raw material prices. In April, the prices decreased owing to the slack in demand. In May, June and July, magnesium prices have witnessed increasing trend owing to favourable market conditions. In August, prices continued to rise. In September, prices rose on account of tighter supply. In October, magnesium prices continued with increasing trend. In November and December 2018, magnesium prices rose on account of tight market supply primarily from China and decreased in January 2019 with fall in demand. In February, magnesium prices continued to fall. In March, price trend was reversed. In April, prices fell owing to subdued demand. In May, the declining trend in prices continued due to low demand across global markets. In June, prices fell due to oversupply in the market from Turkey.

^International prices changed due to change in grades at the source

Precious Metals

	Precious Metals	32
22	Precious Metals	33

Precious Metals



Monthly Average Prices (\$/Oz)			
Period	Pt	Pd	Rh
Jun-18	890	991	2,255
Jul-18	835	936	2,295
Aug-18	809	924	2,358
Sep-18	808	1,017	2,463
Oct-18	856	1,138	2,490
Nov-18	851	1,145	2,512
Dec-18	797	1,253	2,539
Jan-19	811	1,338	2,473
Feb-19	821	1,441	2,616
Mar-19	845	1,542	3,144
Apr-19	891	1399	3001
May-19	838	1340	2900
Jun-19	813	1446	3157

Source: Johnson Matthey

*The actual prices may vary depending on city, player, grade etc.

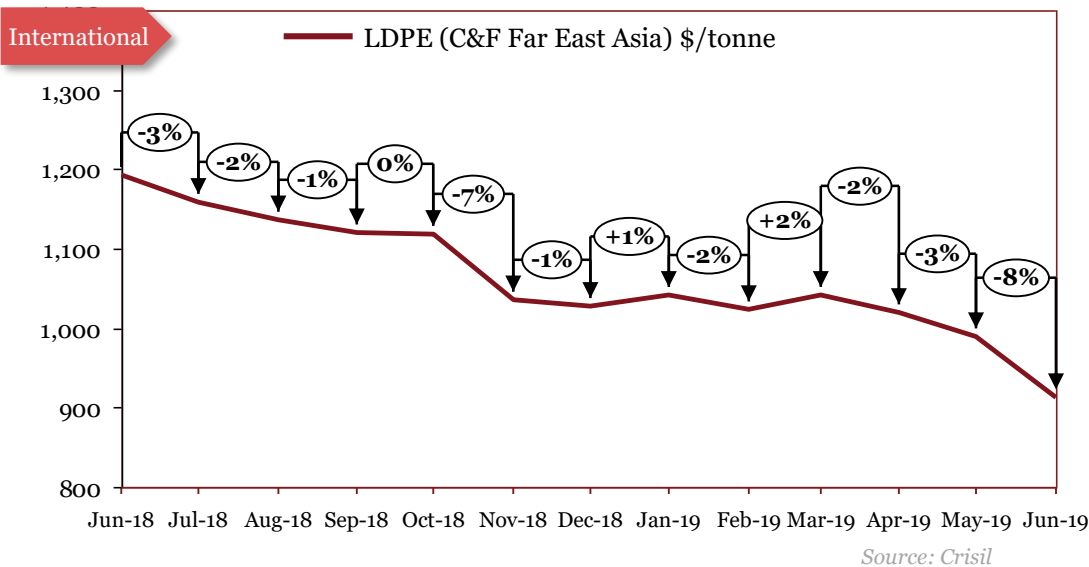
Outlook

In October 2018, palladium prices increased owing to strong fundamentals and platinum prices increased in line with other precious metal price movements. In November, prices were largely unchanged. In December, platinum prices fell due to fall in demand from the automotive industry. Palladium prices increased due to increase in demand for hybrid and electric vehicles. Increase in palladium demand due to aforementioned reasons and limited supply in January 2019 led to continued increase in international market prices. In February, palladium prices rose further as demand outstripped production. In March, rhodium prices increased owing to growing demand and shrinking supply. Platinum prices increased owing to increase in demand from consuming industries. In April, platinum prices continued with rising trend. Palladium prices witnessed decrease owing to sluggish performance of both US and China auto markets. In May, prices for Palladium and Rhodium declined due to production cuts across automobile manufacturers on the back of high unsold inventory. Platinum prices fell due to decline in quantity of exports to global markets. In June, platinum prices fell and palladium & rhodium prices increased as auto-manufacturers decided to favour the 2 more expensive metals due to improved emissions results.

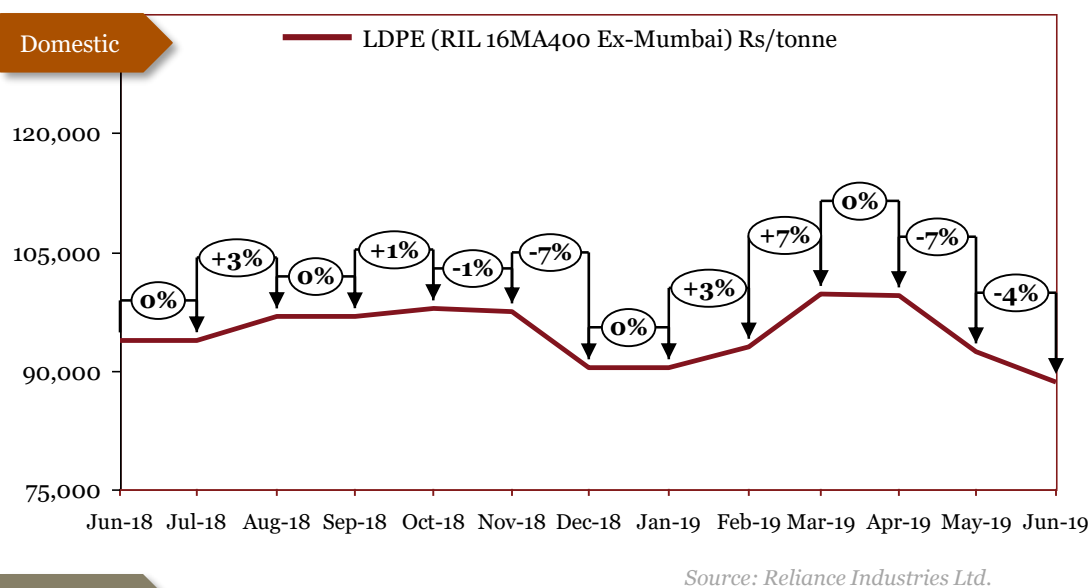
Polymers & Rubber

Polymers & Rubber		34
23	Low density polyethylene (LDPE)	35
24	Polypropylene (PP)	36
25	Rubber	37

Low density polyethylene (LDPE)



Monthly Average Prices		
Period	*Int'l	*Dom
	(\$/tonne)	(Rs/tonne)
Jun-18	1,192	93,819
Jul-18	1,159	93,819
Aug-18	1,137	96,819
Sep-18	1,121	96,819
Oct-18	1,118	97,927
Nov-18	1,036	97,378
Dec-18	1,028	90,411
Jan-19	1,041	90,411
Feb-19	1,024	92,911
Mar-19	1,041	99,611
Apr-19	1,020	99,468
May-19	989	92,325
Jun-19	913	88,579

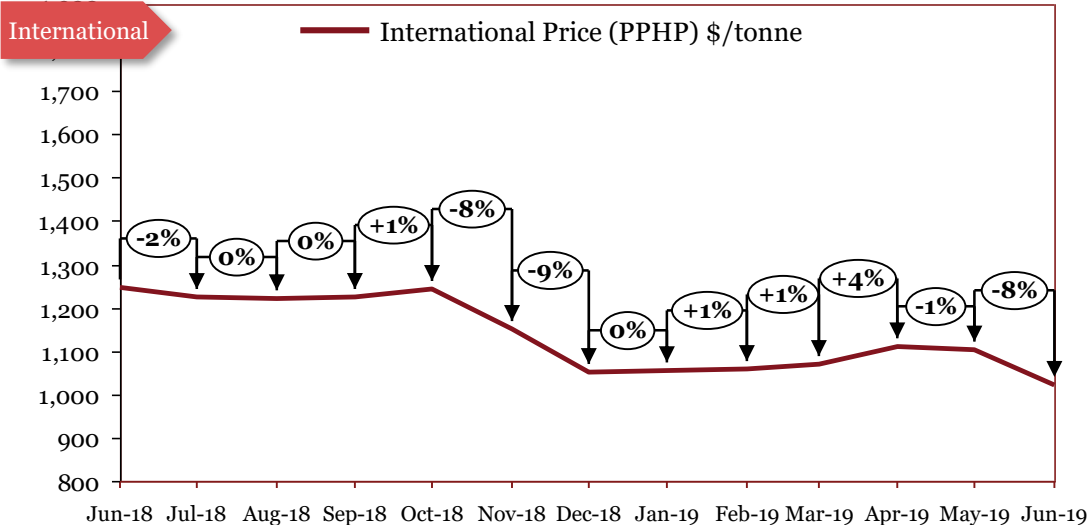


*The actual prices may vary depending on city, player, grade etc.

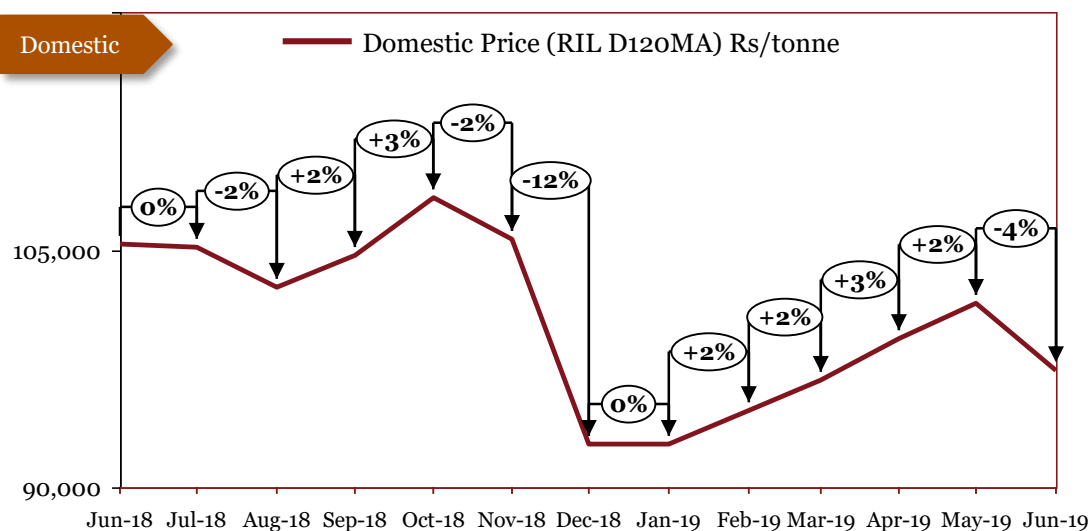
Outlook

In May, international prices remained stable. In June, international prices witnessed decline whereas domestic prices continued to rise. In July, international prices fell owing to fall in feedstock ethylene prices coupled with weak demand. In August, international LDPE prices decreased in spite of rise in ethylene prices. On the domestic front, RIL increased domestic and deemed export prices of LDPE. In September, international LDPE prices declined due to weak demand. In October 2018, LDPE prices were stable given no major change in demand-supply. In October, global prices saw flat growth. In November, prices witnessed decline. In December, prices fell due to fall in feedstock prices. Prices remained unchanged in January 2019 due to stable market conditions. In February, international prices decreased due to muted demand, a contributing factor to which was due to Chinese lunar new year holidays. In March, international prices and domestic prices increased. In April, domestic prices witnessed decrease. In May, domestic prices fell sharply owing to a price war that has resulted from new capacity in the US coming on-stream. In June, new manufacturing units scaled up production resulting in an oversupply in the market. This has caused prices to fall both globally & domestically.

Polypropylene (PP)



Source: Crisil



Source: Reliance Industries Ltd.

Monthly Average Prices		
Period	*Int'l	*Dom
	(\$/tonne)	(Rs/tonne)
Jun-18	1,248	105,378
Jul-18	1,224	105,128
Aug-18	1,220	102,628
Sep-18	1,226	104,628
Oct-18	1,244	108,234
Nov-18	1,150	105,618
Dec-18	1,051	92,718
Jan-19	1,053	92,718
Feb-19	1,060	94,885
Mar-19	1,060	94,885
Apr-19	1,071	96,718
May-19	1,104	101,567
Jun-19	1,020	97,334

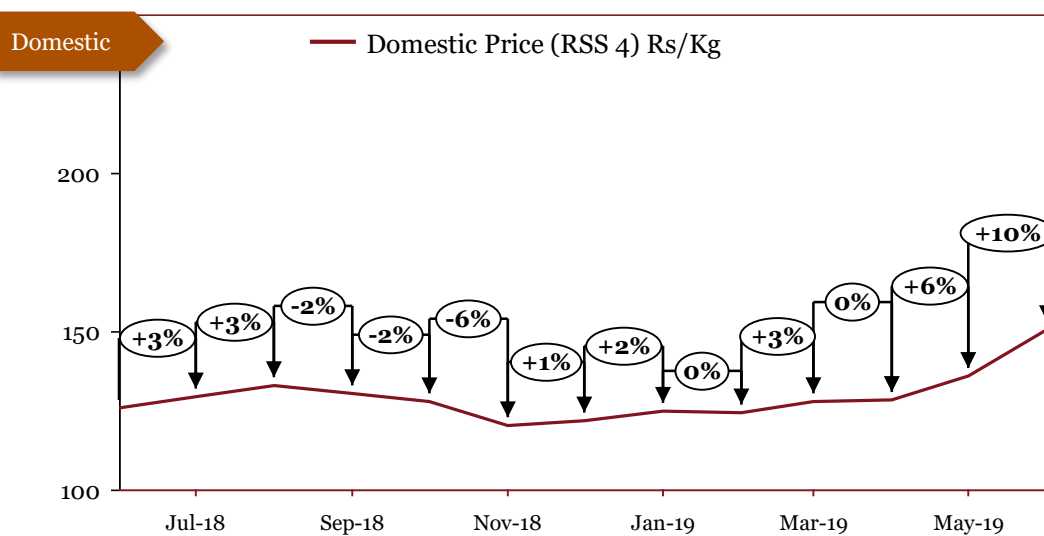
*The actual prices may vary depending on city, player, grade etc.

Outlook

In August, despite rise in feedstock propylene prices, international prices were range bound due to weak demand. In September 2018, PP prices increased due to rise in feedstock propylene prices. In October 2018, PP prices increased owing to uptick in demand during second half of month from manufacturing segment as plants resumed normal operations post Chinese golden week holidays. In October 2018, both global and domestic prices witnessed increase. In November, prices declined due to poor demand. In December 2018, PPHP prices decreased primarily on account of decline in feedstock propylene prices. In January 2019, prices remained the same as last month. In February 2019, international and domestic prices witnessed increase. In March 2019, PP prices increased on account of supply tightness in the market. However, further increase in price was restricted due to no uptick in the demand. In April, domestic prices continued rising trend. In May, domestic prices of PP continued to increase due to supply issues, maintenance shutdowns and restricted supply among major grades of PP. In June, PP prices declined internationally and globally as plants shut for maintenance came back on-stream increasing supply in markets,

Rubber

Monthly Average Prices	
Period	*Dom (Rs/kg)
Jun-18	126
Jul-18	129
Aug-18	133
Sep-18	130
Oct-18	128
Nov-18	120
Dec-18	122
Jan-19	125
Feb-19	124
Mar-19	128
Apr-19	128
May-19	136
Jun-19	150



Source: Rubber board

*The actual prices may vary depending on city, player, grade etc.

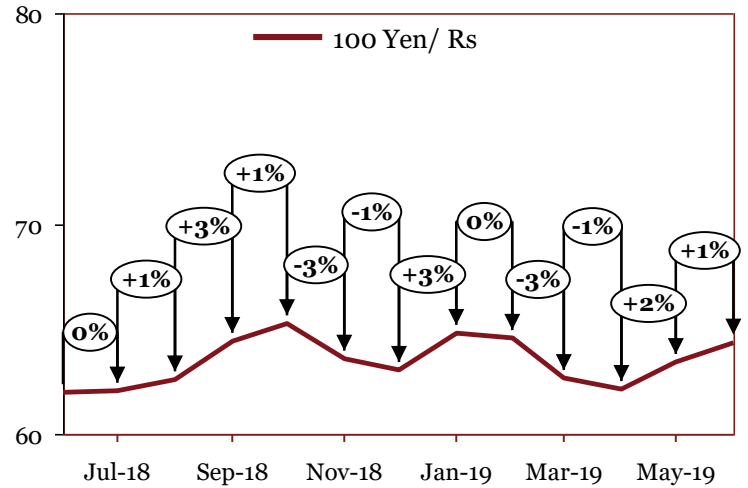
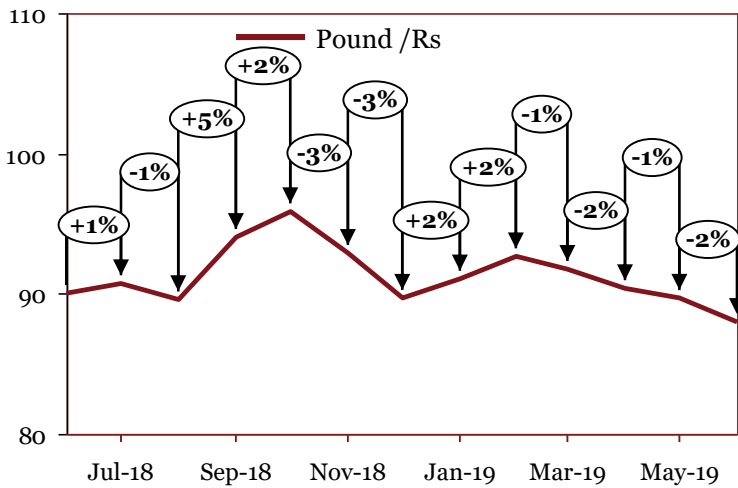
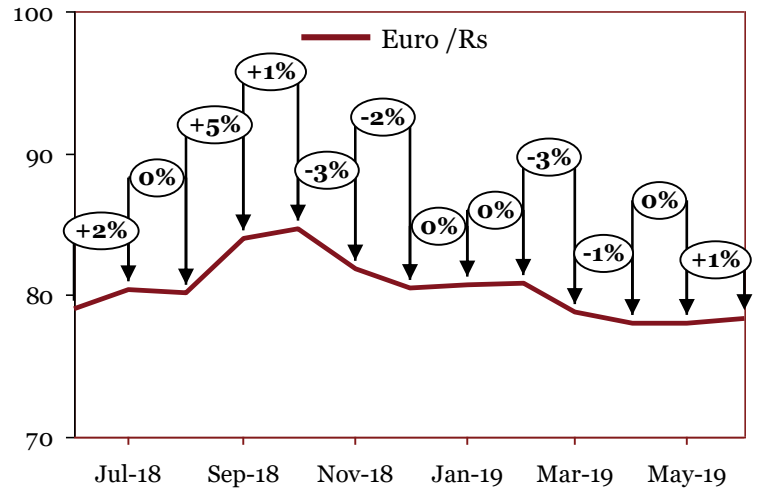
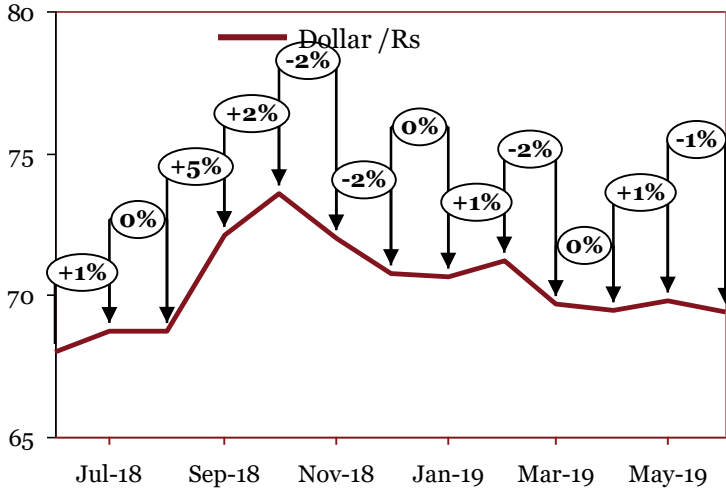
Outlook

In July, rubber prices increased due to improved demand. In August, domestic rubber prices increased owing to floods in Kerala. In September, prices declined on account of subdued demand. In October, increasing trend in domestic prices was reversed. In November, prices continued to decline. In December, prices increased owing to improved market conditions from last month. In January 2019, growth trend in prices was maintained due to fall in output and rise in demand. In February, domestic prices followed trends in international market and decreased owing to negative market sentiment and uncertainty in the global economy. In March, price trend was reversed. In April, prices remained unchanged due to stable market conditions. In May, rubber prices continued to increase due to supply constraints amid speculation that farmers are holding back stocks in anticipation of higher prices. In June, rubber prices increased substantially due to high demand of domestic rubber stemming from high import duties on rubber,

Appendices

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Forex Movement

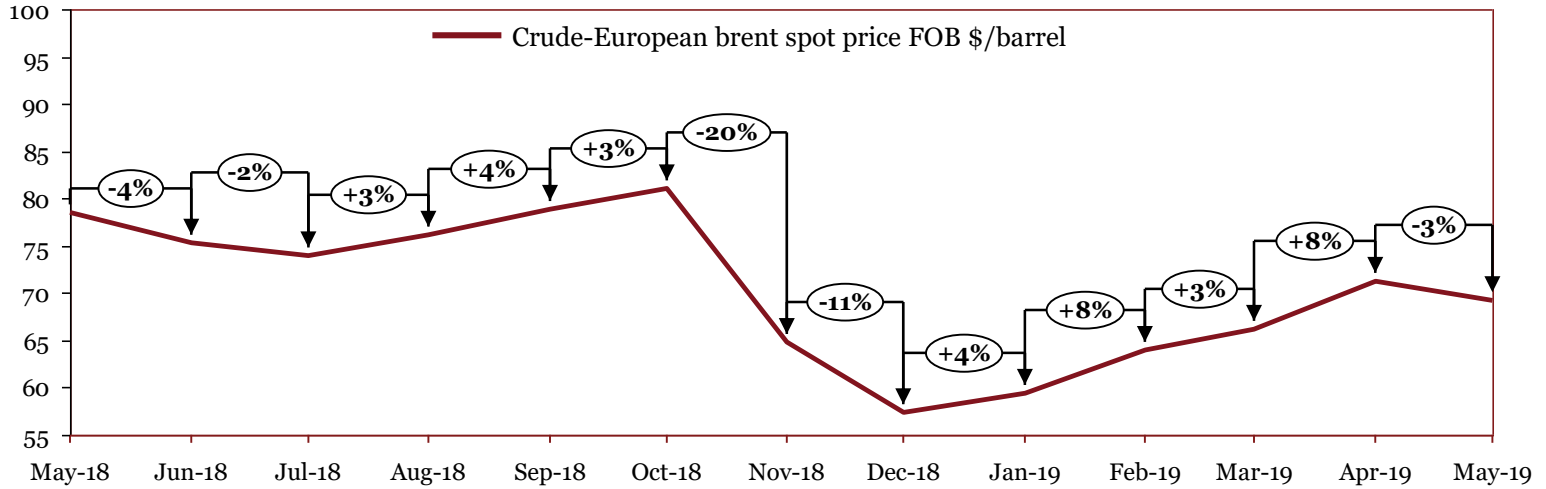


Source: Reserve Bank of India

Monthly Average Prices (Rs)

	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
\$	68	69	69	72	74	72	71	71	71	70	69	70	69
£	79	80	80	84	85	82	80	81	81	79	78	78	78
€	90	91	90	94	96	93	90	91	93	92	78	78	78
¥	62	62	63	64	65	64	63	65	65	63	78	78	78

Crude Oil



Source: EIA

Monthly Average Prices (\$/barrel)													
	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
	75	74	75	79	81	65	57	59	64	66	71	69	67

Commodity Specifications

Commodity	International	Domestic
Iron Ore	IOECI635 Index (CIF China) - (Fe63.5%) CIF China	Crisil - Grade 1: 58% to below 60% Fe Fines - Grade 2: 60% to below 62% Fe Fines - Grade 3: 62% to below 65% Fe Fines - Grade 4: 65% and above Fe Fines
Pig Iron	Crisil -Foundry grade FOB CIS	Crisil -Foundry grade ex-factory, India
Stainless steel	NA	PwC Research -G 304 CR Coil -G 304 HR Coil
Wire rod	Crisil -CIS Black Sea (US \$/Tonne)	Crisil - Wire rods: 5.5 mm (Prices are inclusive of excise duty by exclusive of VAT/Sales tax)
Steel Billets	Crisil -FOB CIS Black Sea <i>Previously: FOB Latin America</i>	Crisil - 100^100 mm (Avg. prices collated from 2-3 locations)
Hot-rolled coils	Crisil -FOB Black Sea	Crisil - 14G 2mm (Avg. prices collated from 2-3 locations)
Cold-rolled coils	Crisil -(CIS) FOB Black Sea	Crisil - Mumbai 16G (Avg. prices collated from 2-3 locations)
Steel Scrap	NA	Crisil - Heavy melting (excl. GST)
EN 8	NA	PwC Research -EN8 Alloy forging
20MnCr5	NA	PwC Research -Alloy forging
Ferro titanium	Ferrotitanium (Europe-70% In Warehouse Rotterdam) <i>Previously: Ferrotitanium (min 70% in warehouse Rotterdam, Europe) \$/kg</i>	NA
Ferro chrome	Crisil : FOB Hong Kong Cr 50%	Crisil: Ex-factory Cr 60%
Ferro molybdenum	Ferro-molybdenum (China-60% EXW) <i>Previously: Ferro-molybdenum (65%min in warehouse Rotterdam, Europe) \$/kg</i>	NA

Commodity Specifications

Commodity	International	Domestic
Ferro vanadium	Ferro Vanadium (China -80% FOB) \$/kg <i>Previously: Ferrovandium 78-82% V max 1.5% Si FOB North America warehouse USD/lbs</i>	NA
Ferro silicon	Crisil - FOB China Si 75%	Crisil - Ex-factory Si 70%
Aluminium	LME -Primary aluminium with impurities no greater than the chemical composition of one of the registered designations: •P1020A in the North American and International Registration Record entitled “International Designations and Chemical Composition Limits for Unalloyed Aluminium” (revised March 2007) •Al99.70 in the GB/T 1196-2008 Standard entitled “Unalloyed aluminium ingots for remelting”	NCDEX -Primary aluminium 99.7% purity (minimum) form: ingots, T-bars,
Copper	LME -Grade A copper must conform to the chemical composition of one of the following standards: •BS EN 1978:1998 - Cu-CATH-1 •GB/T 467-2010 - Cu-CATH-1 •ASTM B115-10 - cathode Grade 1	MCX - Grade 1 electrolytic copper as per B115 specification
Zinc	LME -Special high-grade zinc of 99.995% purity (minimum) must conform to the chemical composition of one of the following standards: •BS EN 1179:2003 - 99.995% grade •ISO 752:2004 - ZN-1 grade •ASTM B6-12 - LME grade •GB/T 470-2008 - Zn99.995 grade	NCDEX - Zinc of 99.995% minimum purity. Zinc must conform with the 99.995% graded chemical composition of BS EN 1179:1996 Standard entitled “Zinc and Zinc alloys primary Zinc” Form: ingots

Commodity Specifications

Commodity	International	Domestic
Nickel	LME - Nickel of 99.80% purity (minimum) conforming to B39-79 (2013) - GB/T 6516-2010	NCDEX - 4”*4” approved pure cut Nickel of 99.80% purity (minimum)
Tin	LME - Tin of 99.85% purity (minimum) conforming to BS EN 610:1996	MCX - The LME approved tin ingot of 99.85 purity (minimum)
Magnesium	Magnesium (China Shanghai Changjiang Spot Price) CNY/tonne <i>Previously: Magnesium (99.8% FOB China Main Ports Spot Price) \$/tonne</i>	NA
Platinum	Metal in sponge form with minimum purities of 99.95% for platinum and palladium, and 99.9% for rhodium	
Palladium		
Rhodium		
Low density polyethylene (LDPE)	International price (C&F FEA) \$/tonne	RIL-16MA400 grade
Polypropylene (PP)	International Price (PPHP) \$/tonne	RIL-D120MA grade
Rubber Prices	NA	NCDEX/Rubber board - RSS 4 (Ribbed Smoked Sheet 4) ex-warehouse Kochi exclusive of all taxes
Forex Movement	RBI reference rates	
Crude	European Brent spot price FOB \$/barrel – Energy Information Administration (EIA)	



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