

#### E Value Plus

# Technical & Quant Update

01-Oct-18

Edition 1165

#### **Trading Calls**

NMDC Long/Buy	26th September 2018
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Since 19th July 2018 stock is moving in impulse. Last few couple of days it was spending time in wave 4. As wave 2 was vertical fall so we expect that wave 4 should not damage price more. We are trying to incash the moment of wave 5 so we advise our client to buy in the range of 114.50-112 and on dip towards 109-105 for the price target of 126 and 133 with 95.90 as SL on closing basis.

#### MCDOWELL Long/Buy 26th September 2018

- 1. Completion of Bullish AB=CD Harmonic pattern suggest up move
- 2. Formation of Morning star along with Hammer creating positive sentiment
- 3. RSI reversing from oversold territory
- 4. If pattern unfolds, one can expect good move in coming session.

#### ITC Long/Buy 25th September 2018

Selling seems to be absorbed by buyers after giving 50% correction from the peak of 323 marks. Stock is bottomed out near 50% Fibonacci retracement of the entire upward swing from 259 to 323 levels which is supportive for the Bulls. Emergence of Tweezer bottom near the same suggest reversal in the coming sessions. Strong support is seen near 280-285 zone where 61.8% Fibonacci retracement is located of the same upward swing. Positive divergence in RSI and declining Histogram in MACD also indicate buying. Long ITC @ 291-295 and towards 280-284 with SL of 275 for the target of 320 and 335 mark.

#### AUROPHARMA Long/Buy 25th September 2018

Auropharma rebounded as it seemed bottomed out from broadening wedge falling trendline that boded well for bulls and they take the charge once again. There is multiple confluence of support at 725-735 levels coupled with RSI which has been sustaining above 50 mark showing a positive move on upside. Formation of Broadening wedge price pattern on hourly chart and inverted H&S suggest it has a potential to move on northward side in coming sessions. Breakout came with decent volume which imply bullishness in the scrip. One can take entry with the stop loss of 580 for the target of 750 and 800 marks.

#### TATASTEEL Long/Buy 29th August 2018

Formation of multi bullish candle above rising trend line showing that demand is going to generate from bulls side. Golden crossover is seen on daily chart where 50 DMA has crossed 100 DMA while going on upside. Both daily and weekly strength indicator RSI along with the momentum indicator Stochastic are in bullish territory and sustaining above their reference lines which signal strength and upward momentum in price. Thus, taking consideration the above factors, maximum upside can be expected to 700 and 750 marks.

#### INDIACEM Long/Buy 21st August 2018

On a weekly chart, stock has taken a support from its lower band of Falling channel formation and moving towards its upper band which suggests an upside move in the counter. On a daily chart, stock is going to form Inverted H&S and waiting for the breakout on upside. Moreover, Bullish crossover in MACD indicate positivity in the counter. A daily momentum indicator RSI reading is sustaining above 50 with positive crossover which point for a positive breath in the stock. Based on the above technical set up, we are expecting an upside momentum in the counter in the coming days.

Market	Value	% Change
SGX Nifty	10968.50	0.09%
Nifty Key Levels		
Support	S1:10850	S2:10800
Resistance	R1:11000	R2:11050

#### **Market Outlook**

After opening on a subdued note, Nifty continuous traded lower and made a low of 10852. Currently short term crucial support of Nifty lies in 10760 (200 SMA)-10866 (recent low) zone. A positive divergence in Stochastic is still maintained. Therefore some pullback is expected from the current level in extreme short term.

Institutional Turnover							
FII	Buy(cr.)	Sell(cr.)	Net(cr.)				
28-Sep-18	7,355	9,055	(1,700)				
Sep-18	113,806	123,275	(9,469)				
DII	Buy(cr.)	Sell(cr.)	Net(cr.)				
28-Sep-18	8,023	4,767	3,256				
Sep-18	82,989	70,485	12,504				

Sectoral Performance (%)							
	1 Day	1 Week	1 Month	1 Year			
Auto Components	(1.76)	(5.13)	(10.99)	(2.22)			
Automobiles	(2.77)	(8.53)	(14.78)	(11.46)			
Chemicals	(1.03)	(3.91)	(8.43)	5.30			
Construction & Engineering	(3.05)	(6.82)	(11.54)	(4.19)			
Construction Materials	(2.12)	(2.65)	(9.87)	(10.32)			
Diversified Financial Services	(0.77)	(7.89)	(18.28)	(8.54)			
Electrical Equipment	(1.75)	(5.19)	(11.45)	(4.49)			
Energy	0.37	0.79	(2.40)	17.97			
Financials	(0.34)	(4.74)	(14.72)	(3.30)			
Health Care	(1.47)	(3.83)	(3.82)	12.76			
Household Durables	(2.00)	(7.84)	(16.71)	(3.52)			
Household & Personal Products	(0.90)	(2.48)	(10.49)	23.87			
Information Technology	(0.06)	1.53	3.40	54.09			
Metals/Mining/Minerals	(4.77)	(5.35)	(5.33)	(0.52)			
Telecom	(3.83)	(8.45)	(11.44)	(22.88)			
Utilities	(2.61)	(5.09)	(9.88)	(10.77)			



#### Participant wise Open Interest In Equities Derivative (no. of contracts)

Long Position								
	DII	FII	Pro	Other				
Future Index	44360	104387	20878	112617				
Future Stock	19157	709916	128791	815479				
Option Index Call	30578	181732	126373	393091				
Option Index Put	88765	284311	158588	350079				
Option Stock Call	0	10403	29593	147229				
Option Stock Put	139	8273	38097	56196				

Short Position								
	DII	FII	Pro	Other				
Future Index	42384	112760	24252	102846				
Future Stock	970854	473775	58752	169962				
Option Index Call	0	95960	193418	442396				
Option Index Put	0	109849	159340	612554				
Option Stock Call	0	12913	71297	103015				
Option Stock Put	0	6111	31233	65361				

#### High ES & High PS Stock Maintaining Strength

BSE Code	NSE CODE	1 Month Return %
523367	DCMSHRIRAM	15.9
507685	WIPRO	9.3
524804	AUROPHARMA	7.9
500228	JSWSTEEL	6.9
532540	TCS	6.5
524735	HIKAL	6.3
500002	ABB	6.1
532504	NAVINFLUOR	6.0
500530	BOSCHLTD	5.7
513375	CARBORUNIV	4.9

#### High ES & Low PS Stock Showing Strength

BSE Code	NSE CODE	1 Month R	eturn %
530001	GUJALKALI		5.4
531500	RAJESHEXPO		3.3
532805	REDINGTON		1.5
534139	SCHNEIDER		1.1
532343	TVSMOTOR		-1.1
532798	NETWORK18		-1.7
532670	RENUKA		-1.8
532268	ACCELYA		-2.5
505242	DYNAMATECH		-2.8
532644	JKCEMENT		-3.1

#### Low ES & Low PS Stock Maintaining Weakness

<b>BSE Code</b>	NSE CODE	1 Month Return %
532712	RCOM	(36.36)
532430	BFUTILITIE	(32.09)
532915	RELIGARE	(30.97)
532461	PNB	(30.04)
500106	IFCI	(27.96)
532800	TV18BRDCST	(27.53)
523204	ABAN	(27.12)
500185	HCC	(26.89)
532477	UNIONBANK	(26.74)
523598	SCI	(26.41)

#### Low ES & High PS Stock Showing Weakness

BSE Code	NSE CODE	1 Month Return %
512599	ADANIENT	(38.19)
507880	VIPIND	(34.73)
533096	ADANIPOWER	(28.70)
532400	KPIT	(26.97)
532144	WELCORP	(23.50)
532622	GDL	(23.23)
500266	MAHSCOOTER	(23.04)
532483	CANBK	(22.48)
532839	DISHTV	(20.57)
532349	TCI	(20.52)

<sup>\*</sup> ES- Earning Score is average of EM (Earning Momentum defined as relative performance in terms of operating profit growth) and EQ (Earning Quality defined as relative balance sheet strength in terms of debt and working capital)

<sup>\*</sup> PS- Price Score is of a companiy is relative price performance in multiple time-frame

<sup>#</sup> Analysis shown here is only for companies with market cap more than Rs 1,000 Cr.



# STDC / R25 Open Calls for 01-Oct-2018 (12)

	R25 (4)								
No	Date	Type	Buy/Sell	Stock	Entry1	Entry2	SL	Tgt 1	Tgt 2
1	16-Aug-18	R25	BUY	SBIN	292.5	272.5	255	340	380
2	16-Aug-18	R25	BUY	AXISBANK	617.5	587.5	554	720	780
3	08-Aug-18	R25	BUY	VEDL	222.5	207.5	179	260	275
4	15-May-18	R25	Buy	PETRONET	210	190	173	238	270

	STDC (8)								
No	Date	Type	Buy/Sell	Stock	Entry1	Entry2	SL	Tgt 1	Tgt 2
1	26-Sep-18	STDC	BUY	MCDOWELL	530	512.5	495	570	599
2	26-Sep-18	STDC	BUY	NMDC	113.25	106.5	95.9	126	133
3	25-Sep-18	STDC	BUY	ITC	293	282	275	320	335
4	25-Sep-18	STDC	BUY	AUROPHARMA	755	730	695	850	900
5	29-Aug-18	STDC	BUY	TATASTEEL	597.5	577.5	540	700	750
6	21-Aug-18	STDC	BUY	INDIACEM	118	111	96	155	170
7	20-Aug-18	STDC	BUY	HINDALCO	223.5	210.5	190	275	300
8	19-Jun-18	STDC	BUY	POWERGRID	197	188	173	225	235



Nifty Weekly 1-0ct-18

#### **VIEW**

For the first time in last five months, Domestic market witnessed back -to -back follow-thru selling for four consecutive weeks. It continued to remain volatile as the liquidity crisis, triggered by the defaults of Banking and financial stocks. Indices continued to face selling pressure at higher levels with every pullback being sold into by the Bears. This week also witnessed the US fedral reserve meeting where it raised the target range by 25 basis point to 2.25%. Domestic market will keenly eye the outcome of RBI policy on 4th october and auto sale data in the coming week where market is expecting measures from the RBI to ease liquidity as well as an increase in interest rate.

#### **NIFTY-**

- a) Nifty formed Bearish Engulfing candlestick pattern followed by an uptick in volume on monthly chart.
- b) Lower highs and lower lows remains intact from last four weeks
- c) Support is gradually shifting lower on the way of 10850-10800 zone which coincides with its 200 EMA along with 50% fibonacci retracement of the advance move of 9950 to 11760 levels.
- d) Negative crossover in MACD and sustainability below 50 mark are giving cues of further selling
- e) However, above mentioned support zone act as point of polarity in which previous resistance become its support where it can find base in coming week.
- f) Possibility of bounce back towards the levels of 11170 followed by 11280 where resistance are located.
- g) On sustaining below 10800 level, it can show further weakness till 10650 levels where 61.8% fibonacci retracement of the upside move from 9950 to 11760 levels.



	SUPPO	RT & RESISTANCE LEVELS	
RESISTANCE/SUPPORT	NIFTY LEVEL	JUSTIFICATION	
Resistance 2	11280	Previous swing high	
Resistance 1	11170	Immediate Resistance	
Close	10931		
Support 1	10800	Point of polarity	
Support 2	10650	Previous base	





## **Banknifty Weekly**

1-Oct-18

After opening with a red session, Banknifty continuously fell to make a weekly low of 24678 on Tuesday. However it was unable to maintain at the lower level and some pullback up to 25525 was witnessed on Wednesday. At last Banknifty ended the week with a net loss of 1.80% over the previous week's close.

#### **OBSERVATIONS:**

- 1) A positive divergence was witnessing in Stochastic on daily chart of Banknifty. It is the indication of some pullback after a stiff selloff.
- 2) The indicators (like RSI & MACD) have reached at their oversold zone. Therefore pullback rally is likely to push the index higher from the current level in extreme short term.

According to the above observations we expect the selling is likely to get a pause and some technical pullback is expected in Banknifty in the current week .







## **USDINR Weekly**

1-Oct-18

USDINR pair took a breather after hitting a record high of 73 marks. After that, it gave a halt on its upside move. From last three weeks, Pair has been trading in the range of 73 and 71.50 levels. Although rupee got some relief for short period of time but in the long run, probability is higher that it can hit 75 marks. Rising crude oil prices, fear of hike in interest rate along with inflation, broadening of the fiscal and CAD are the worries which continue to make it vulnerable.

#### **TECHNICAL FACTORS-**

- a) Shrinking range of candlesticks on weekly chart showing some hope for the appreciation in near term.
- b) Although it formed Double Top price pattern on daily chart but its break down is expected to come below the levels of 71.50 marks
- c) We highlighted in our previous report, "Support is located at 71.50 followed by 71.30- 71.20 zone and as long as it sustains above these levels, the pair is positive", this is unfolding nicely.
- d) A break down below 71.20 can see it drag down further till 70.80 levels where next support lies.
- e) On crossing and sustaining above 73 levels, Pair will extend its up move towards 75 levels.







STDC: Long / BUY 26-Sep-18

BSE Code	526371
NSE Symbol	NMDC
52wk Range H/L	162.55/93.50
Mkt Capital (Rs Cr)	36,970.00
Av.Cash Volume(,000)	9242
Open Interest	



STDC-BUY NMDC @ 114.50-112 AND ON DIP TOWARDS 109-105 SL- 95.90 (CLOSING BASIS) TGT-126, 133.

Since 19th July 2018 stock is moving in impulse. Last few couple of days it was spending time in wave 4. As wave 2 was vertical fall so we expect that wave 4 should not damage price more. We are trying to incash the moment of wave 5 so we advise our client to buy in the range of 114.50-112 and on dip towards 109-105 for the price target of 126 and 133 with 95.90 as SL on closing basis.





STDC: Long / BUY 26-Sep-18

BSE Code	532852
NSE Symbol	MCDOWELL
52wk Range H/L	801/468
Mkt Capital (Rs Cr)	235,094.00
Av.Cash Volume(,000)	1194600
Open Interest	



STDC- BUY MCDOWELL @ 525-535 AND ON DIP TOWARDS 510-515 SL- 495 (CLOSING BASIS ) TGT-570, 599

- 1. Completion of Bullish AB=CD Harmonic pattern suggest up move
- 2. Formation of Morning star along with Hammer creating positive sentiment
- 3. RSI reversing from oversold territory
- 4. If pattern unfolds, one can expect good move in coming session.





## STDC: Long / BUY 25-Sep-18

BSE Code	500875
NSE Symbol	ITC
52wk Range H/L	353/250
Mkt Capital (Rs Cr)	235,094.00
Av.Cash Volume(,000)	8829841
Open Interest	

## **Technical Chart**



STDC- BUY ITC @ 291-295 AND ON DIP TOWARDS 280-284 SL- 275 (CLOSING BASIS) TGT-320, 335

Selling seems to be absorbed by buyers after giving 50% correction from the peak of 323 marks. Stock is bottomed out near 50% Fibonacci retracement of the entire upward swing from 259 to 323 levels which is supportive for the Bulls. Emergence of Tweezer bottom near the same suggest reversal in the coming sessions. Strong support is seen near 280-285 zone where 61.8% Fibonacci retracement is located of the same upward swing. Positive divergence in RSI and declining Histogram in MACD also indicate buying. Long ITC @ 291-295 and towards 280-284 with SL of 275 for the target of 320 and 335 mark.





STDC: Long / BUY 25-Sep-18

BSE Code	524804
NSE Symbol	AUROPHARMA
52wk Range H/L	809/527
Mkt Capital (Rs Cr)	17,886.00
Av.Cash Volume(,000)	4422526
Open Interest	



#### STDC- BUY AUROPHARMA @ 750-760 AND ON DIP TOWARDS 725-735 SL-695 (CLOSING BASIS) TGT- 850, 900

Auropharma rebounded as it seemed bottomed out from broadening wedge falling trendline that boded well for bulls and they take the charge once again. There is multiple confluence of support at 725-735 levels coupled with RSI which has been sustaining above 50 mark showing a positive move on upside. Formation of Broadening wedge price pattern on hourly chart and inverted H&S suggest it has a potential to move on northward side in coming sessions. Breakout came with decent volume which imply bullishness in the scrip. One can take entry with the stop loss of 580 for the target of 750 and 800 marks.





STDC: Long / BUY	29-Aug-18
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BSE Code	500470
NSE Symbol	TATASTEEL
52wk Range H/L	747/493
Mkt Capital (Rs Cr)	66,918.00
Av.Cash Volume(,000)	988532
Open Interest	

## **Technical Chart**



#### STDC- BUY TATASTEEL @ 595-600 AND ON DIP TOWARDS 575-580 SL-540 TGT- 700, 750

Formation of multi bullish candle above rising trend line showing that demand is going to generate from bulls side. Golden crossover is seen on daily chart where 50 DMA has crossed 100 DMA while going on upside. Both daily and weekly strength indicator RSI along with the momentum indicator Stochastic are in bullish territory and sustaining above their reference lines which signal strength and upward momentum in price. Thus, taking consideration the above factors, maximum upside can be expected to 700 and 750 marks.





R-25 : Long / BUY	16-Aug-18
R-23 : LONG / BO I	10-Aug-10

BSE Code	500112	Buy Price
NSE Symbol	AXIS BANK	Stop Loss
52wk Range H/L	635/447	Target Price1
Mkt Capital (Rs Cr)	106,335.00	Target Price2
Av.Cash Volume(,000)	18777302	Upside in Tgt1
Open Interest		Upside in Tgt2

#### **Technical Chart**



#### R-25:BUY AXIS BANK AROUND 615-620 AND AROUND 585-590 SL- 554 (CLOSING BASIS) TGT- 720, 780

Since long, Axis bank has been forming Ascending triangle pattern which suggest an upside movement. On weekly char it has already given Double bottom breakout and on daily chart it gave Flag breakout which indicate bullish momentum in the counter. Currently, stock is trading above its all significant moving averages which shows positive trend in the scrip. Monthly RSI gave trend line breakout which is also conducive for the price pattern. Based on the above technical structure, we are expecting an upside momentum in the stock in coming sessions.





## R-25 : Long / BUY 16-Aug-18

BSE Code	500112
NSE Symbol	SBIN
52wk Range H/L	351/230
Mkt Capital (Rs Cr)	2,049,752.00
Av.Cash Volume(,000)	113967
Open Interest	

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#### R-25:BUY SBIN AROUND 290-295 AND AROUND 270-275 SL- 255 (CLOSING BASIS) TGT- 340, 380

Stock bottomed out near the levels of 230-235 and has been forming cup and handle as being mother pattern on weekly chart. Emergence of Bullish engulfing showing upswing move towards channel resistance line from where stock can give breakout on upside. Scrip has respected the up trendline and prices has started running in the channel. Sustainability above 61.8% Fibonacci retracement of the fall from 351 to 230 marks also creating positive rhythm in the scrip. Declining MACD histogram and sustainability of RSI above 50 adds the conviction of going long for the target of 340 and 380 with SL of 255 marks.



Av.Cash Volume(,000)

Open Interest



23%

30%

Upside in Tgt1

Upside in Tgt2

R-25 : Long / BUY	•		8-Aug-18
BSE Code	500295	Buy Price	211.5
NSE Symbol	VEDL	Stop Loss	179
52wk Range H/L	355/270	Target Price1	260
Mkt Capital (Rs Cr)	40,721.89	Target Price2	275

10712428



R-25:BUY VEDL AROUND 220-225 AND AROUND 205-210 SL- 179 (CLOSING BASIS) TGT- 260, 275

Scrip has witnessed a decent correction from the peak of 355 to show signs of bottoming out at around 215-220 levels and currently It gave faling channel breakout on weekly chart to show strength and is poised for an upward move in coming days with bias improving and turning out to positive. Back to back white candles above falling channel breakout also giving cues for going north in the stock. RSI seems to be bottoming out near oversold zone and Positive crossover in MACD also conducive for its upmove. With decent volume participation , we recommend buy in this stock.





VIEW 15-May-18

BSE Code	532522
NSE Symbol	PETRONET
52wk Range H/L	275.65
Mkt Capital (Rs Cr)	198.2
Av.Cash Volume(,000)	1690759
Open Interest	NA



#### BUY PETRONET @ 205-210 SL-173 TGT-238, 270

After hitting high of 275, scrip has seen correction till 61.8% Fibonacci retracement of the up move from 163 to 275 level which indicate halt in this fall.

Point of

Polarity due to falling red trendline suggest a support for the scrip

Demand zone is created due to its previous resistance which becomes its support at current juncture



## PETRONET LNG LTD.

Industry Oil And Gas
Bloomberg PLNG IN
BSE Code 532522
NSE Code PETRONET

30 July 2018		
RATING	BUY	
CMP	230	
Price Target	286	
Previous Target	286	
Potential Unside	24%	

#### Stock Info

Otook iiiio	
52wk Range H/L	275/198
Mkt Capital (Rs Cr)	34,762
Free float (%)	50%
Avg. Vol 1M (,000)	3318
No. of Shares (Crore)	150
Promoters Pledged %	0%

## Volume growth outlook remains robust

#### **Key Highlights**

- Higher demand from power and fertilizer plant led volume growth of 16% YoY coupled with improved margins put PLNG into sweet pot.
- ☑ BPCL Kochi refinery has now stabilized, and is currently started offtaking gas of around 2 MMSCMD. The management has guided for sequential improvement in utilization.and current volume offtake trend will continue in accordance with the BPCL off taking volumes.
- Ministry has allowed use of LNG gas in heavy transport vehicles. Company is now planning to open 20 new natural gas stations in our country and is trying to partner with OMC's to market natural gas to heavy vehicles in coming 2-3 years of timeframe.
- Company has taken 5% hike in realization in Jan 2018. Hike in realization has now reflected in the books by improved margins in the last quarter.
- Dahej capacity expansion to 17.5MMT is on track and is expected to come on stream in the month of March 2019.

#### 1Q FY19 Result:

Petronet LNG has posted strong set of numbers with sales and PAT growth of 42% to Rs. 9169 Cr and 34% to Rs. 587 Cr. respectively in Q1 FY19. Higher volumes, improved realizations and better cost efficiencies techniques have helped PLNG to clock robust growth in the last quarter. Capacity utilization at Dahej terminal stands at 112% and Kochi at 10%. Capacity utilization at Kochi terminal remain subdued in last quarter due to no offtake from one client which was partially offset by the BPCL's Kochi refinery which is now stabilized and is taking around 2 MMSCMD gas from Petronet Kochi terminal.

#### View and Valuation

Considering volume growth to remain in the range of 9-11% in FY19 and improved margins at both terminals for next couple of years. We remain optimistic on this stock and expect revenue and PAT grow at 8% and 9% CAGR over FY18-20 respectively.

We value PETRONET at 16x FY20e EPS and maintain our previous target price of Rs.286 and recommend BUY.

#### Key Risks to our rating and target

- ♦ Weakness of rupee against dollar will make import of LNG costlier for the company
- Decline in the prices of the alternate fuel
- Any delay in supply of Gorgon Volume will lead to lower capacity utilization

KEY FINANCIAL/VALUATIONS	FY16	FY17	FY18	FY19E	FY20E
Net Sales	27133	24616	30599	34209	35708
EBITDA	1586	2592	3312	3609	3776
EBIT	1265	2223	2901	3247	3408
PAT	913	1706	2078	2371	2560
EPS (Rs)	6	11	14	16	17
EPS growth (%)	1%	87%	22%	14%	8%
ROE (%)	14%	21%	21%	21%	19%
ROCE (%)	14%	23%	28%	27%	24%
BV	44	54	65	76	89
P/B (X)	3	4	4	3	2
P/E (x)	21	18	18	14	13

Research Analyst
ADITYA GUPTA

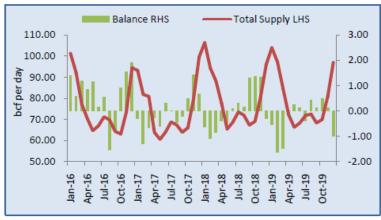
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#### Natural Gas Quarterly Outlook

#### **Demand Supply Scenario:**



Source: Narnolia Research, U.S. EIA

US Natural gas market normally shifts into deficit during the November to February period i.e. winter season in US. During this high period of demand, natural gas should be well-supplied or else supply tightness worry will emerge and prices will start to rally higher.

#### US Dry gas production

US Dry natural gas production is rising this year and is estimated to be at 82.2 bcf per day in August, up by 0.7 bcf/day in July, almost 7.4 bcf per day higher than last year. In 2018, US Dry gas production has increased by almost 10% on an average as compared to last year. Furthermore, EIA expects the dry natural gas production to keep rising on an average of 84.7 bcf per day in the coming year. Due to significant natural gas production increase in 2018, NYMEX natural gas prices have been unable to breach \$3 per MMbtu for the most of the summer.

#### US Gas consumption

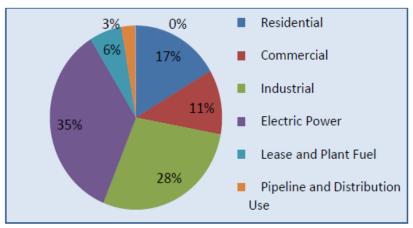
US Natural gas consumption has increased by 7% this year standing at 79.86 bcf per day. This increase in consumption is due to higher demand from the residential and industrial sector along with higher exports as compared to last year levels. Higher consumption of natural gas has been one of the reason for the lowest storage injection this October since the year 2005.

There are two demand driving season for natural gas – Winter and Summer. During winter, demand is measured by number of heating degree days and during summer, natural gas demand is measured by the number of cooling degree days.

# Narnolia™

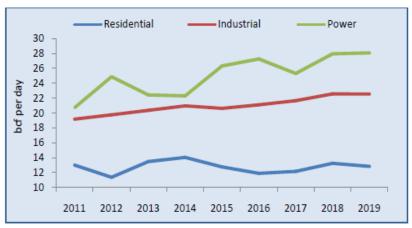
Cooling degree days (CDD) reflects the amount of energy required to cool a residence, industrial or a business. In 2018, CDD stood 18% higher than the previous year and averaged 25% above normal on hottest summer leading to strong air conditioning demand in the summer season. Warmer than normal temperatures extended into the month of September and provided further firmness to the natural gas prices.

#### Sector wise: Natural Gas Consumption Demand



Source: Narnolia Research, Bloomberg

From the above figure, we can conclude that the major consuming sectors of natural gas are Electric Power, Industrial and Residential sector. With Electric power being the major consumer of natural gas comprising 35% of the total natural gas consumption followed by Industrial and Residential sector.

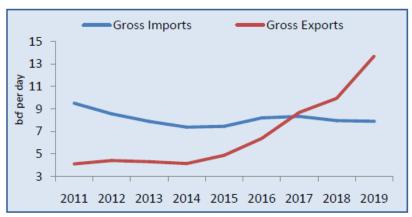


Source: Narnolia Research, Bloomberg

As you can see in the above figure, natural gas demand from largest contributing sector – power and industrial has been rising since the year 2011. Electric Power demand has risen from 20.7 bcf per day in 2011 to 28.07 bcf per day in 2018. Industrial demand of natural gas has increased on a slower rate as compared to electric power however, overall demand from this sector has shown a rising trend.



#### **US Attention towards Exports**

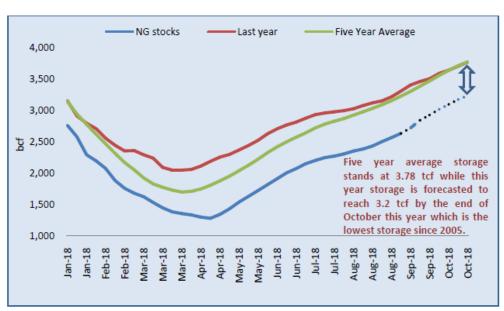


Source: Narnolia Research, EIA Short-Term Energy Outlook

United States had been a net importer while a time ago but after the shale gas revolution in the US, the nation has shifted from net importer to evolving natural gas exporter.

US exports have risen tremendously from 5 bcf per day in 2014 to almost 9bcf per day in 2018, an increment of 80%. Furthermore, there are expectations of US exports to reach 13 bcf per day in 2019. US Exports accounts for 12% of the total natural gas consumption. US LNG exports have started to rise from last year after the US removed ban on US gas exports. As of now, only few US companies have been allowed to export natural gas to other countries. Moreover, more permission will be granted to other companies to exports this year. We expect US LNG exports to rise by threefold by 2020.

#### Storage Levels



Source: Narnolia Research, Bloomberg



As per our calculation, we expect U.S. natural gas inventories will total 3.2 trillion cubic feet (Tcf) at the end of October 2018 which will be way below the five year average of 3.781 tcf. At present, natural gas inventories are at 2.722 tcf, natural gas inventories are 586 bcf or 20% below than the last year level and 672 bcf or 17.5% below the five-year average.

The inventory level is at the lowest level for that time of year since 2005 on high air conditioning demand this summer causing power generators to burn more gas than usual and leaving less gas available to go into storage. U.S. gas inventories will start the winter heating season at the lowest level since 2005, leaving the market vulnerable to winter price spikes.

**Winter season forecast** – Natural gas prices are unlikely to give a steep fall ahead of winter season forecast. If the weather forecast shows a cold winter ahead, prices would immediately get the support on future rise in demand for natural gas.

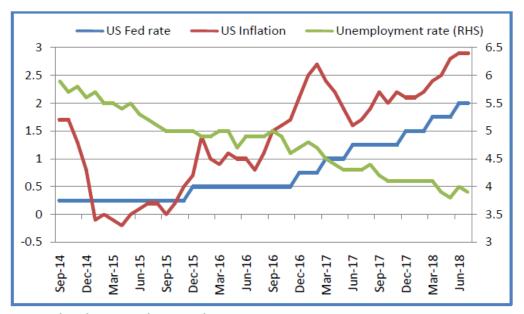
#### Outlook

After taking all the factors into consideration, we expect Natural Gas prices are likely to remain strong this winter season. With low stockpiles heading into the winter demand season, robust domestic consumption and higher natural gas exports from US are propping up prices, which are expected to average \$3.10/MMBtu this year and \$3.25/MMBtu in 2019. The only factor keeping the prices closer towards \$3/MMbtu is the record high production of natural gas in the United States. However, tightness in inventory during the winter season will overshadow the worries of record high production which will drive prices higher. We expect MCX Natural gas prices to test 245-250 levels in the coming six months time frame. Therefore, any downside until the end of October towards Rs 205-210 in MCX should be used as the buying opportunity.



#### Fed Powell Shifting Towards New Normal, Sidelines Trump's Criticism

The US Fed Chairman Powell emphasized the central bank's push to raise interest rates despite President Donald Trump's recent criticism of higher interest rates. The topic of Fed Powell speech at the symposium was "Monetary Policy in Changing Economy". US have gradually raised its interest rates from 0.25% at crisis level towards the new normal rate of 2.0% at present. Fed sees the current path of slowing raising rates to be the new normal policy as the unemployment rate has declined steadily, currently near 3.9% which is at a 20 year low while inflation has recently moved up near 2 percent suggest that there is no sign that the economy is overheating.



Source: Bloomberg, Narnolia Research

According to the Fed, US economy faces three of the real long term structural challenges – slow growth in real wages, decline in economic mobility, meeting the budget deficit and a decade long low productivity path.

Fed reversed its monetary policy and increased rates seven times by 25 bps since December 2015 with no looking back on its course of action expressing confidence in the economy and further gives assurance that it can keep the inflation well under control. Fed said with strong economic outlook, inflation close to its targeted level and job market running satisfactorily well, my team of analyst are monitoring the economic data and setting up that the appropriate policy which could benefit the growth, strong labour market and keep inflation at appropriate levels. At the same time, Powell said that in case the economy faces any financial crisis or inflation rises beyond controllable level, "We will do whatever it takes."

With the US economy on a verge of new normalization, US Fed doesn't seem comfortable in viewing the changes in inflation as a single barometer to decide on future course of action over interest rate hikes as other

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economic areas are performing strong with solid household, business and consumer confidence, continuous increase in job creation, slow and steady rise in income and employment.

Fed Powell's measured tone about the economy and the message he gave appeared to have reached the investors quite clearly with the stock markets closing in green and Dollar index reversing its uptrend. Fed Powell is on track for at least several more increases in the Fed's benchmark short-term interest rate which means September rate hike appears to be right on table. As of 2018, there have been two rate hikes and two more rate hikes are coming, one on next month and other in December.

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