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Equity Research

9 May 2018

U.S. Independent Refiners

Ethanol Export RINs Would Be a Better Solution than Year-Round E15

INDUSTRY UPDATE

U.S. Independent Refiners
POSITIVE
Unchanged

U.S. Independent Refiners
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Yesterday, 5/8/18, President Trump and U.S. senators from agriculture and refining states came to an agreement on reforming the RFS implementation. The basic points of agreement were: (1) Ethanol blends of 15%, or E15, would no longer be banned in summer months; (2) RINs could potentially be issued on ethanol exports—though it is unclear if this will actually be implemented; (3) discussion around a RIN price cap was abandoned. We expect more updates and implementation details from the EPA over the coming months.

Impact to the group

- We reiterate our Positive sector view on the Refiners. While we think RIN prices are at least partially (if not fully) reflected in gasoline and diesel prices, lower RIN prices will have a positive sentiment effect on the refiners and also improves refiners' margin capture rates versus their benchmark indicators (RINs are part of COGS). It will improve the refiners near term earnings predictability.
- We believe lower RIN prices will also improve competitive positions of the merchant refiners such as PBF, CVRR, VLO, and HFC against their downstream integrated peers such as PSX. We reiterate our OW ratings on HFC, PBF, and VLO and our UW on PSX.
- We note that the drop in ethanol RIN prices by >50% YTD was largely due to the series of 2016 and 2017 waivers provided by the EPA, which has functionally reduced RIN demand. However, retroactive waivers, while offering temporary price relief through balancing RIN supply/demand, are not a structural or sustainable solution. The E15 and ethanol export updates are more targeted attempts to fundamentally correct imbalances in the RIN market (in our view, the former is less realistic, while the latter would be sound solution, as elaborated on below).

Implications of the E15 and ethanol export RINs update

- Importantly, we do not believe the potential year-round sale of E15 will have any material impact on the gasoline market. Despite the waiver in the RVP requirement, refiners still face potential product liability concerns related to E15 use in cars of older model years. Unless the auto industry will be willing to offer warranties related to older models or an outright waiver by Congress on the refiners' potential product liability is passed, we do not believe refiners will produce the CBOB or RBOB for the E15 blend after their experience with MTBE lawsuits more than a decade ago.
- In addition, E15 market acceptance could remain an issue due to mispricing. In light of the fuel's lower energy efficiency, we estimate E15 would need to be priced at least ~$0.05 per gallon lower than E10 in today's market for greater implementation. We estimate ethanol has a ~35% lower energy intensity than neat gasoline which translates to 1.75% lower mileage than E10. Retailers may not be willing to sell the product at such a big discount. As pump prices rise, the discount would also need to further increase.

Continued on Page 2

- Based on the EIA's Short-Term Energy Outlook as of 5/8/18, 2018 gasoline demand is estimated at 9.32 million barrels a day (mmb/d) and blended ethanol at 0.95 mmb/d. This translates to ~142.9 billion gallons and 14.6 billion gallons of finished gasoline and fuel ethanol, respectively, or an expected effective 10.2% blend. The current 2018 RVO mandates 15 billion gallons of conventional ethanol, or a ~0.4 billion gallon RIN deficit (excluding any future exemptions) based on the EIA's estimates. In order for E15 to close the gap using increased ethanol production, E15 would need to deploy across an additional 5-6% of U.S. gas stations. In this hypothetical case, the slight increase in E15 would displace ~8.6 million barrels annually of gasoline, or <25 mb/d (000 b/d) – a minor ~0.3% impact on U.S. unblended gasoline demand.

- Possibility of ethanol exports being counted toward the RIN requirement could potentially solve the RIN deficit issue and lead to a structurally much lower RIN price. Before 2013, D6 RIN price was consistently less than 5-6 cents, equivalent to transactional costs. If the market is convinced there will be no shortage, we will not be surprised if D6 RINs would drop below 10 cents going forward, in this scenario. However, there are conflicting signals on whether this is supported by the farm lobby and if it will be included in the agreement.

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Materially Mentioned Stocks (Ticker, Date, Price)

CVR Refining LP (CVRR, 08-May-2018, USD 18.85), Equal Weight/Positive, CE/J/K/M

HollyFrontier Corp. (HFC, 08-May-2018, USD 67.10), Overweight/Positive, CD/CE/D/J/L

PBF Energy Inc. (PBF, 08-May-2018, USD 39.65), Overweight/Positive, A/CE/D/J/K/L/M

Phillips 66 (PSX, 08-May-2018, USD 116.25), Underweight/Positive, A/CD/CE/D/J/K/L/M/N

Valero Energy (VLO, 08-May-2018, USD 113.19), Overweight/Positive, A/CD/CE/D/J/K/L/M

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U.S. Independent Refiners

Andeavor (ANDV)	CVR Refining LP (CVRR)	Delek US Holdings Inc. (DK)
HollyFrontier Corp. (HFC)	Marathon Petroleum Corp. (MPC)	PBF Energy Inc. (PBF)

IMPORTANT DISCLOSURES CONTINUED

Phillips 66 (PSX)	Valero Energy (VLO)

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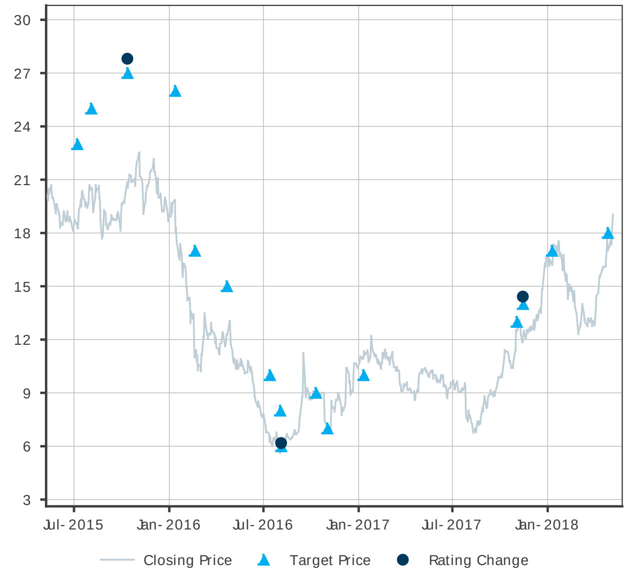
IMPORTANT DISCLOSURES CONTINUED

CVR Refining LP (CVRR / CVRR)	Stock Rating	Industry View
USD 18.85 (08-May-2018)	**EQUAL WEIGHT**	**POSITIVE**

Rating and Price Target Chart - USD (as of 08-May-2018)



Source: IDC, Barclays Research

Currency=USD

Publication Date	Closing Price	Rating	Adjusted Price Target
27-Apr-2018	17.00		18.00
09-Jan-2018	16.30		17.00
14-Nov-2017	11.90	Equal Weight	14.00
02-Nov-2017	12.45		13.00
10-Jan-2017	11.00		10.00
01-Nov-2016	7.05		7.00
10-Oct-2016	8.97		9.00
04-Aug-2016	6.09	Underweight	6.00
02-Aug-2016	5.62		8.00
13-Jul-2016	6.25		10.00
21-Apr-2016	12.28		15.00
19-Feb-2016	11.01		17.00
12-Jan-2016	19.85		26.00
12-Oct-2015	20.87	Overweight	27.00
03-Aug-2015	20.44		25.00
07-Jul-2015	18.57		23.00

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Source: Thomson Reuters, Barclays Research

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Valuation Methodology: For refining MLPs, we apply 15-20% long-term yield assumption to our forward 5-year average estimate of annual distributions of $2.94 per unit, in order to derive a fair equity value per unit. However, we see CVRR's upside as limited given the potential scenario of a privatization by the GP and its affiliates.

Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Risks to our estimates include sustained refining margin weakness and disruptions at its single asset facility. Refining margin weakness would reduce cash flows and combining the variable distribution structure may potentially result in no distribution. In addition, the company faces regulatory risk which may require the company to spend in order to continue operating. Other risks are cost of capital risk, loss of MLP tax status and reduction in refined products demand.

IMPORTANT DISCLOSURES CONTINUED

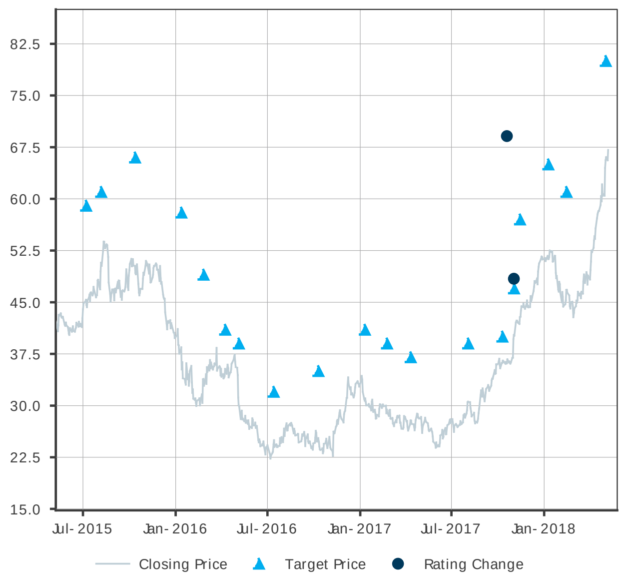
HollyFrontier Corp. (HFC / HFC)

USD 67.10 (08-May-2018)

Stock Rating: **OVERWEIGHT**

Industry View: **POSITIVE**

Rating and Price Target Chart - USD (as of 08-May-2018)



Source: IDC, Barclays Research

Currency=USD

Publication Date	Closing Price	Rating	Adjusted Price Target
03-May-2018	65.63		80.00
14-Feb-2018	46.78		61.00
09-Jan-2018	51.26		65.00
14-Nov-2017	42.84		57.00
02-Nov-2017	40.25	Overweight	47.00
19-Oct-2017	36.13	Rating Suspended	
10-Oct-2017	36.19		40.00
03-Aug-2017	30.56		39.00
11-Apr-2017	27.85		37.00
23-Feb-2017	29.40		39.00
10-Jan-2017	30.71		41.00
10-Oct-2016	25.27		35.00
13-Jul-2016	24.41		32.00
05-May-2016	30.04		39.00
08-Apr-2016	35.31		41.00
25-Feb-2016	33.86		49.00
12-Jan-2016	38.46		58.00
12-Oct-2015	50.26		66.00
06-Aug-2015	50.73		61.00
07-Jul-2015	45.36		59.00

On 09-May-2015, prior to any intra-day change that may have been published, the rating for this security was Overweight, and the adjusted price target was 58.00.

Source: Thomson Reuters, Barclays Research

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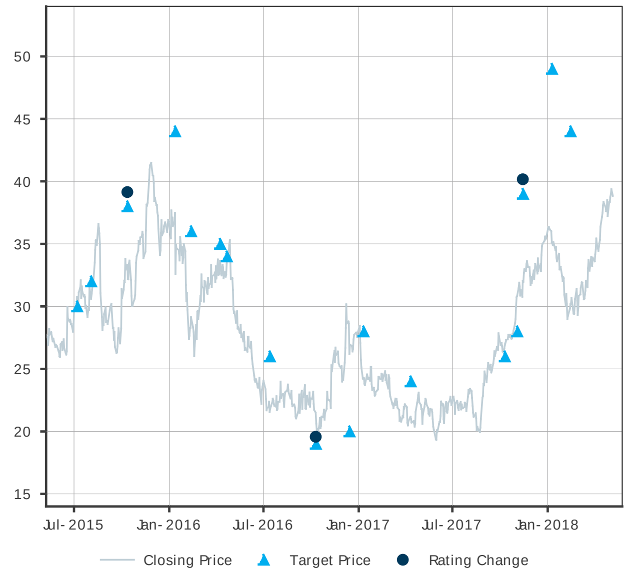
Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Our earnings estimates are based on Barclays Research's current commodity price assumptions, including oil & gas prices, refining and marketing margins as well as chemical product margins. Thus, results will be subject to change due to fluctuations in the macro commodity market environment.

IMPORTANT DISCLOSURES CONTINUED

PBF Energy Inc. (PBF / PBF)	Stock Rating	Industry View
USD 39.65 (08-May-2018)	**OVERWEIGHT**	**POSITIVE**

Rating and Price Target Chart - USD (as of 08-May-2018)



Source: IDC, Barclays Research

Currency=USD

Publication Date	Closing Price	Rating	Adjusted Price Target
14-Feb-2018	30.20		44.00
09-Jan-2018	35.10		49.00
14-Nov-2017	32.03	Overweight	39.00
03-Nov-2017	30.83		28.00
10-Oct-2017	26.82		26.00
11-Apr-2017	21.17		24.00
10-Jan-2017	24.19		28.00
14-Dec-2016	26.20		20.00
10-Oct-2016	21.50	Underweight	19.00
13-Jul-2016	21.55		26.00
21-Apr-2016	33.42		34.00
08-Apr-2016	33.64		35.00
12-Feb-2016	29.13		36.00
12-Jan-2016	37.49		44.00
12-Oct-2015	33.31	Equal Weight	38.00
03-Aug-2015	30.61		32.00
07-Jul-2015	30.76		30.00

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Source: Thomson Reuters, Barclays Research

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Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Our earnings estimates are based on Barclays Research's current commodity price assumptions, including oil & gas prices, refining and marketing margins as well as chemical product margins. Thus, results will be subject to change due to fluctuations in the macro commodity market environment.

IMPORTANT DISCLOSURES CONTINUED

Phillips 66 (PSX / PSX)

USD 116.25 (08-May-2018)	Stock Rating **UNDERWEIGHT**	Industry View **POSITIVE**

Rating and Price Target Chart - USD (as of 08-May-2018)

Source: IDC, Barclays Research

Currency=USD

Publication Date	Closing Price	Rating	Adjusted Price Target
30-Apr-2018	111.31		115.00
14-Feb-2018	93.33		105.00
09-Jan-2018	101.72		111.00
14-Nov-2017	92.83	Underweight	100.00
10-Oct-2017	93.47		95.00
02-Aug-2017	86.67		89.00
06-Feb-2017	79.14		87.00
10-Jan-2017	83.76		93.00
31-Oct-2016	81.15		85.00
10-Oct-2016	81.30		84.00
13-Jul-2016	76.25	Equal Weight	86.00
02-May-2016	82.20		93.00
21-Apr-2016	87.40		97.00
08-Apr-2016	86.06		98.00
12-Jan-2016	77.82		102.00
02-Nov-2015	90.60		105.00
12-Oct-2015	83.87		104.00
03-Aug-2015	78.68		114.00
07-Jul-2015	82.35		113.00

On 09-May-2015, prior to any intra-day change that may have been published, the rating for this security was Overweight, and the adjusted price target was 116.00.

Source: Thomson Reuters, Barclays Research

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Valuation Methodology: Our price target is based on our sum-of-the-parts analysis. We start with the company's est. bottom of the cycle refining EBITDA of $912 mn (adjusted for our long-term crude differential assumptions and major project impacts), and then apply implied high case, base case, and low case refining multiples of 15.0x, 14.0x, and 13.0x, respectively. From here, we adjust for balance sheet items, taking into account the c-corp's increased cash payment from drop downs into its MLP (dropped down at a discount to the implied high/base/low multiple scenarios).

Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Our earnings estimates are based on Barclays Research's current commodity price assumptions, including oil & gas prices, refining and marketing margins as well as chemical product margins. Thus, results will be subject to change due to fluctuations in the macro commodity market environment.

IMPORTANT DISCLOSURES CONTINUED

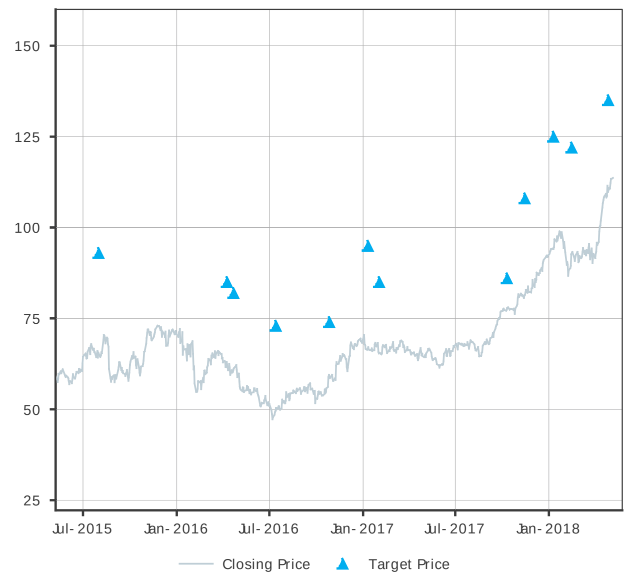
Valero Energy (VLO / VLO)

USD 113.19 (08-May-2018)

Stock Rating: **OVERWEIGHT**

Industry View: **POSITIVE**

Rating and Price Target Chart - USD (as of 08-May-2018)



Source: IDC, Barclays Research

Currency=USD

Publication Date	Closing Price	Rating	Adjusted Price Target
27-Apr-2018	109.78		135.00
14-Feb-2018	92.63		122.00
09-Jan-2018	94.10		125.00
14-Nov-2017	81.37		108.00
10-Oct-2017	77.37		86.00
01-Feb-2017	65.37		85.00
10-Jan-2017	66.53		95.00
26-Oct-2016	59.52		74.00
13-Jul-2016	49.54		73.00
21-Apr-2016	60.65		82.00
08-Apr-2016	63.06		85.00
31-Jul-2015	65.60		93.00

On 09-May-2015, prior to any intra-day change that may have been published, the rating for this security was Equal Weight, and the adjusted price target was 86.00.

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Link to Barclays Live for interactive charting

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