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Market Reporting

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illuminating the markets

Exporting around lower mandates: global demand trends & logistics in 2014

Nebraska Ethanol Board Emerging Issues Forum
Omaha

Zander Capozzola - Biofuels Editor, Americas
10 April 2014

Presentation overview

- Exporting around lower mandates
  - Shifting export landscape
  - Asian demand profile
  - Europe closed off
  - Arbitrage closures
- Market impact of logistics
  - Rail congestion
  - Inter-commodity rail competition
  - Overhauling an industry
- Outlook for LCFS in 2014
  - LCFS in oversupply
  - Biodiesel is main beneficiary

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Who is Argus?

- Argus reports on every global energy market.
- A world leader in energy price indexation.
- Owned by the family of the founder and by the employees.
- Over 500 employees. 18 offices.
- Recent acquisitions
  - FMB (Fertilizers)
  - DeWitt, JJ&A (Petrochem)
- Recent expansions
  - US Natural Gas
  - Base Oils
- Indexation
  - US Crude oil
  - Global NGLs
  - US Clean products

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Argus in global energy markets

- Global crude and product prices are indexed on Argus
- Argus indexation is used by end-users globally; transportation companies, airlines, utilities throughout North America, Europe and Asia
- Argus indexation is used by refiners in transfer pricing for clean products
- Argus is the leading index for US domestic and imported crude
- Argus assessments are used in financial risk management instruments i.e. RINS, biofuels

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Daily price reports

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Argus *US Products*

Issue 13E-171 | Thursday 5 September 2013

OVERVIEW

- Prompt F2 Rbob values continued to decline Thursday as the market nears the summer-to-winter RVP shift. Sellers have sought to capture high margins prior the transition, however buyers have been apprehensive over the past few sessions with the elevated basis.
- The Atlantic coast cash markets saw thin trade Thursday. The forward curve for all distillate products held in contango.
- Gulf coast gasoline levels weakened Thursday in opposition to a bullish inventory report from the Energy Information Agency. Trading activity slowed as the cycles rolled and the market began trading the 51st cycle as prompt.
- Outright cash prices and differentials firmed for jet fuel and diesel in the US Gulf coast distillates market Thursday. The October ULSD futures contract rose 0.26c, settling at $3.1397/bl. Activity was confined chiefly to afternoon trade after a sluggish morning session.
- VGO differentials to crude oil futures were steady to weaker Thursday, with high sulphur VGO values succumbing to prompt selling interest and softer cracks. Barge demand was particularly robust for requirements stretching from prompt out to late September. Cargo demand featured as far out as second half October.
- Heavy and full range N+A naphtha trading was curtailed by diminished supply and weakened Gulf coast waterborne unleaded gasoline values Thursday. Prompt Gulf coast M-grade unleaded gasoline moved from the 7.8 RVP to 11.5 RVP grade Thursday.

Contents

Gasoline	3
Distillates	7
Biofuels and blending components	11
Feedstocks and residual fuel oil	14
Latest news	18

MARKET SUMMARY

Price ¢/USG

	New York	Houston	Chicago	Los Angeles
Conventional	291.85	271.85	285.10	288.98
Rbob	296.60	272.48	296.35	295.35
Ethanol	265.50	284.90	279.90	269.00
Jet fuel	308.22	302.00	308.97	305.72
ULSD	313.22	310.05	312.47	314.72
Bunker fuel $/t	618.50	612.50		610.00

Differential to Nymex ¢/USG

	New York	Houston	Chicago	Los Angeles
Conventional	+8.25	-11.75	+1.50	+5.38
Rbob	+13.00	-11.13	+11.25	+11.75
Jet fuel	-5.75	-11.98	-5.00	-8.25
ULSD	-0.75	-3.93	-1.50	+0.75
Bunker fuel vs WTI $/bl	-10.44	-11.39		-11.79

Change on day ¢/USG

	New York	Houston	Chicago	Los Angeles
Conventional	-2.70	-5.08	-13.83	-1.08
Rbob	-5.33	-2.83	-12.58	-0.70
Ethanol	+3.00	+3.40	+3.40	+5.00
Jet fuel	+0.51	+1.29	+0.26	-0.61
ULSD	-0.11	+0.34	-1.24	-0.24
Bunker fuel $/t	+1.00	0.00		+2.50

Forward curves ¢/USG

Swap month	87 M USGC[1]	ULSD 62 USGC[1]	Nymex month	Rbob New York*	Heating oil New York*
Sep	275.10	310.17	Oct	283.60	313.97
Oct	275.23	311.21	Nov	282.23	314.06
Nov	269.84	308.57	Dec	280.84	313.57
Dec	267.17	307.04	Jan	280.17	313.04
Jan	270.27	307.06	Feb	280.02	311.81
Feb	271.47	305.66	Mar	280.72	309.66

**CME Nymex futures [1]swaps*

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Argus *Jet Fuel*

Issue 13-177 | Monday 9 September 2013

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Argus *US Ethanol*

Issue 13-173 | Monday 9 September 2013

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Argus *US West Coast Products*

Issue 13-175 | Monday 9 September 2013

NEWS

Industry seeks withdrawal of Obama carbon cost plan

Several major industry groups are asking the Obama administration not to use its new estimate of the social cost of greenhouse gas (GHG) emissions in any policy decisions.

The groups jointly filed a petition last week with the White House Office of Management and Budget (OMB) asking it to withdraw "flawed" technical support documents for the social cost of carbon estimate issued in June and the one it replaced, issued in 2010. The petition also asks OMB not to use either estimate "and to publicly direct other executive branch agencies not to utilize the 2010 and 2013 ... estimates for any regulatory action or policy-making."

The petition was submitted by America's Natural Gas Alliance, the American Chemistry Council, the American Petroleum Institute, the National Association of Home Builders, the National Association of Manufacturers, the Portland Cement Association, and the US Chamber of Commerce.

The groups said the processes an interagency working group used to develop the estimates were not transparent and relied on flawed modeling. The estimates "are the product of an opaque process and any pretensions to their supposed accuracy (and therefore usefulness in policy-making) are unsupportable," the groups said.

OMB in June raised its estimated cost of harm caused by GHG emissions to $36/metric tonne from $22.80/t, based on better accounting of the costs of sea level rise and updated assumptions of climate adaptation. Theestimate, which can be used by the Environmental Protection Agency (EPA), has become a focal point for groups and lawmakers opposed to federal regulation of GHGs. They say the new estimate allows regulators to inflate the benefits of reducing emissions.

The House of Representatives recently passed legislation that would prohibit EPA from including the social cost of GHG emissions in calculating benefits of regulations - a move unlikely to go anywhere in the Senate.

Key market prices

	Price	+
Los Angeles Carbob ¢/USG	307.74	+0.37
Los Angeles low C3 ethanol ¢/USG	272.00	+4.50
Los Angeles jet fuel ¢/USG	304.46	-6.17
Los Angeles Carb diesel ¢/USG	313.71	-4.92
Los Angeles 380cst bunker $/t	608.50	7.00
ARA delivered US VGC $/bl	113.27	-2.41
Clean freight Singapore to USWC $/t	50.00	0.00

Market summary

- West coast gasoline cash differentials rose Monday after another area refinery outage over the weekend, which comes on the heels of three major refinery unit shutdowns last week.
- The west coast distillates market saw another busy session and differentials mostly stronger Monday amid a host of regional refinery issues. Cash prices fell across the region amid weakness in the Nymex ULSD futures market, as investors saw the threat of a military strike in Syria dissipating somewhat.
- West coast bunker demand started the week on a quiet note, as crude declined and shipowners took to the sidelines, waiting for lower prices on Tuesday. Some suppliers were indicating the same prices as Friday, unwilling to drop their indications with crude.

Contents

News	1, 3
Gasoline	2
Distillates	4
Fuel oil	4

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Exporting around lower mandates

- EPA cuts proposed 2014 standards
  - Renewable fuel mandate drops 8% to 15.21bn USG
  - Corn ethanol requirement falls nearly 6% to 13.01bn USG
  - Higher threshold for volumetric blendwall
- Cheap corn enhances US competitiveness abroad
  - US corn prices fell more than 50% from 2012 high
  - Crush spread as high as $4.19/bushel
  - US Ethanol highly competitive from Oct 2013 through Feb 2014
- US corn ethanol lowest priced fuel in the world
  - Jan 2014 US exports eclipse 64,000 b/d – most since Dec 2011

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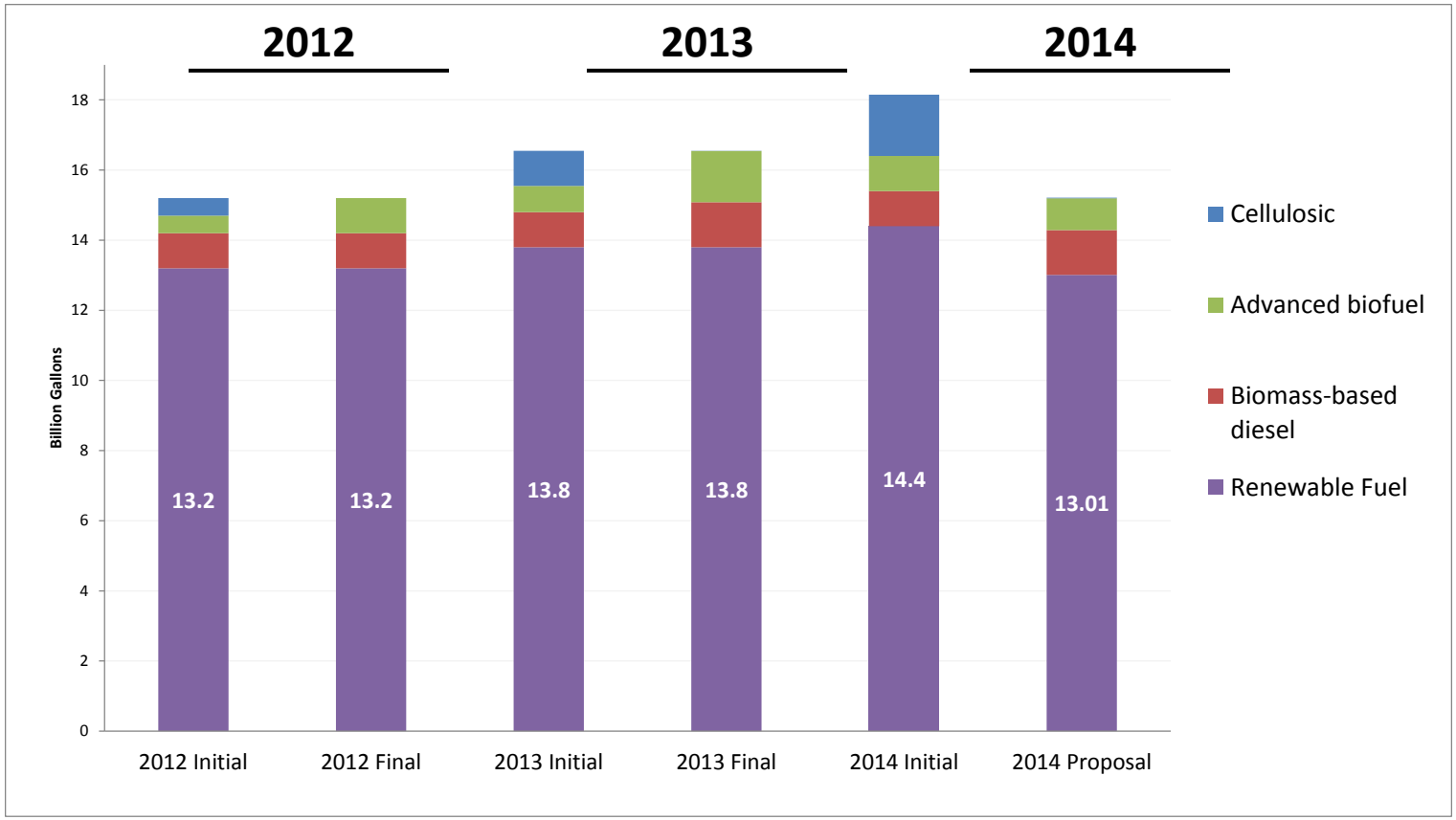
Proposed biofuels mandate 2014



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Shifting export landscape

- Canada consistent demand – limited growth
  - Most of Canada E5 some provinces 7.5% & 8.5%
  - RFS requirement of 2bn liters
  - Production Capacity of 1.7bn liters
  - Deficit of 79mn USG / 1.9mn bl
- New demand from The Philippines
  - Only 20pc of Philippines demand can be covered by production
  - E10 mandates in Thailand & The Philippines
- Surging Brazilian demand
  - Brazil E25 blend – government capping gasoline prices to control inflation, boosting demand
  - Large debt, financing issues, recent bad crops could turn country net short

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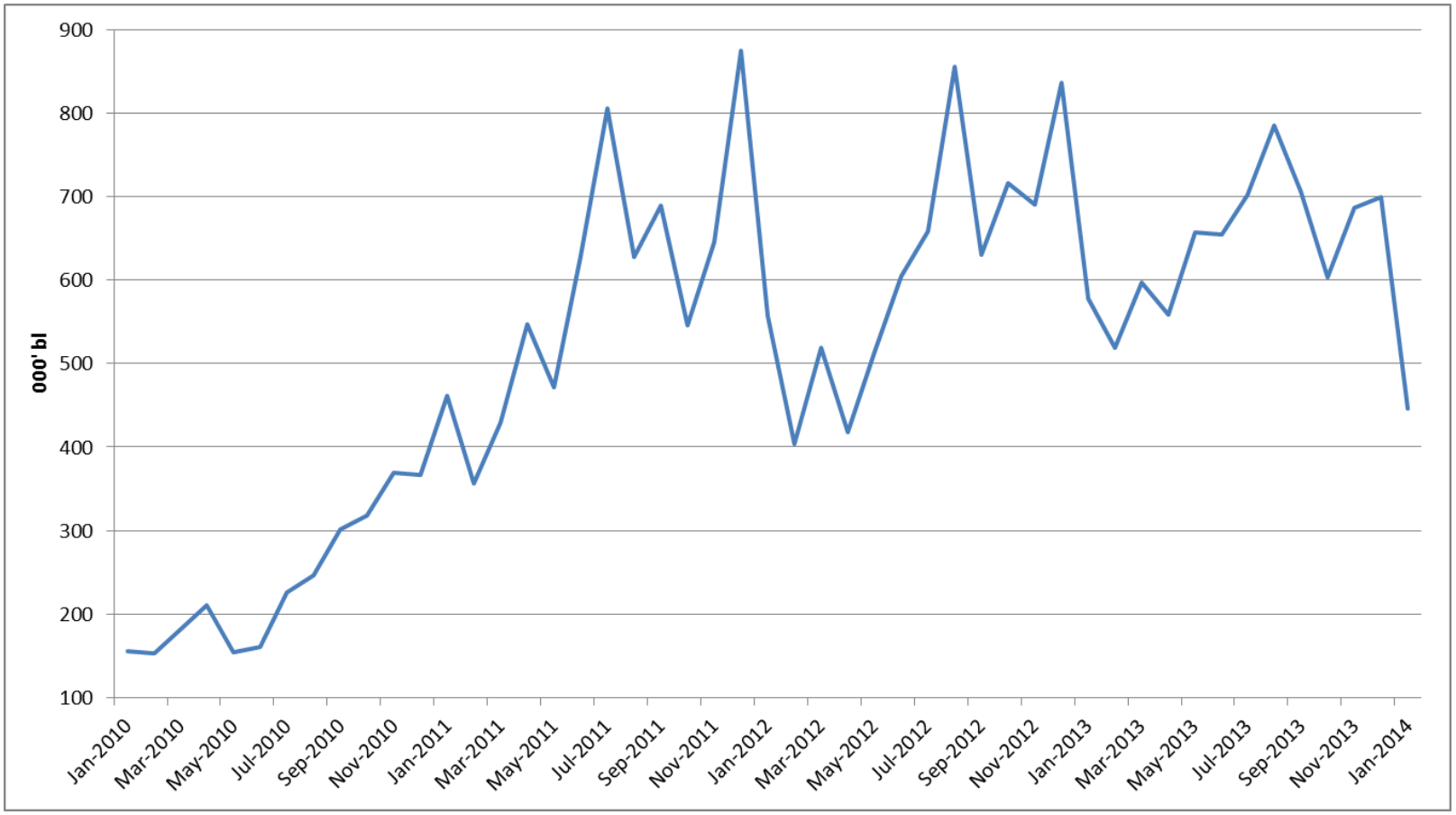
Canada hits its own blendwall



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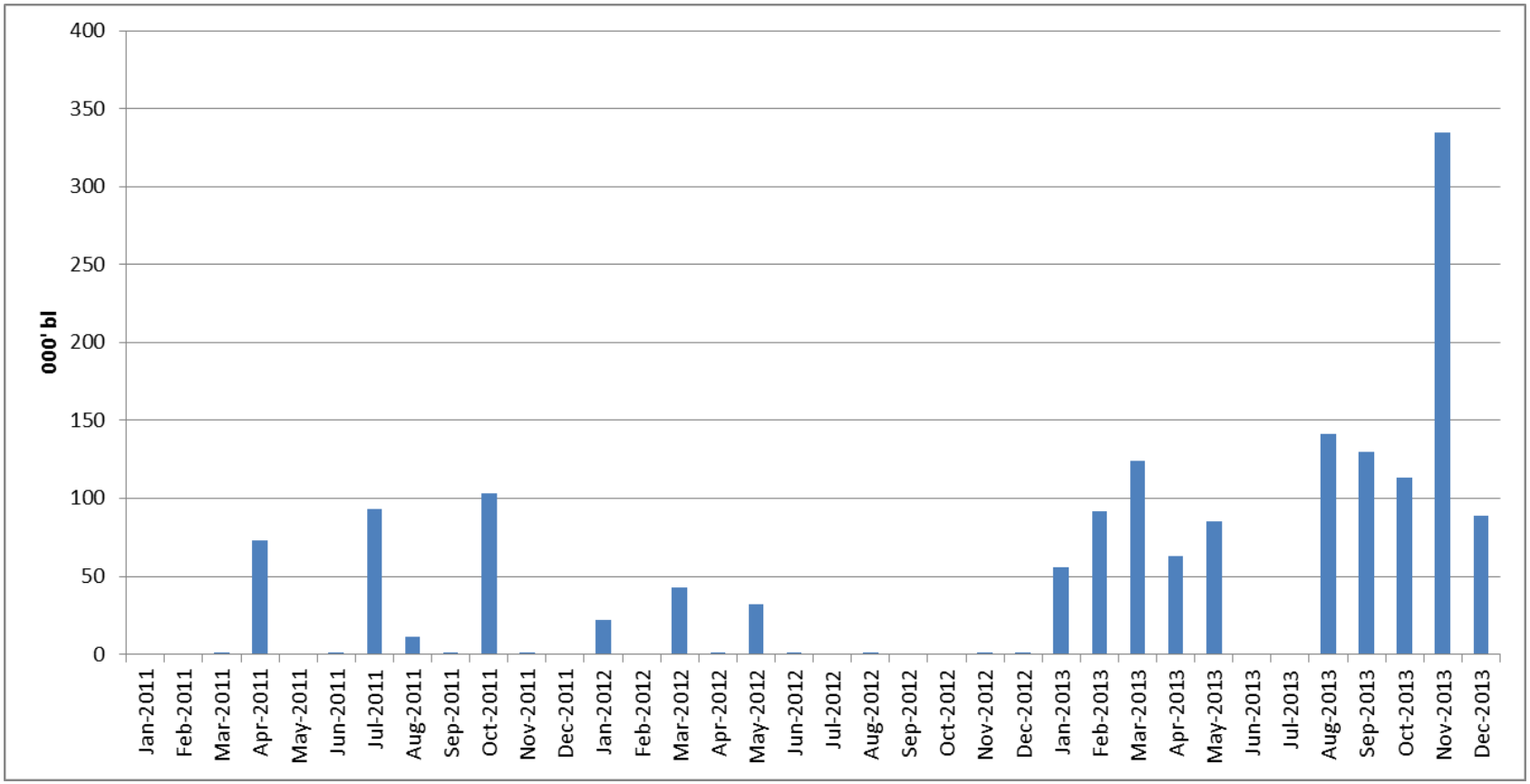
The Philippines soaks up US barrels



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Asia demand profile

	Mandate	Production	Imports
India	E5	1.9bn l/yr	No 2014 imports
Indonesia	E3	40mn l/yr	No 2014 imports Net exporter
Thailand	E3 / E10	22mn l/yr	Formerly Exporter
The Philippines	E10	80mn l/yr	2013 Imports 250mn l/yr

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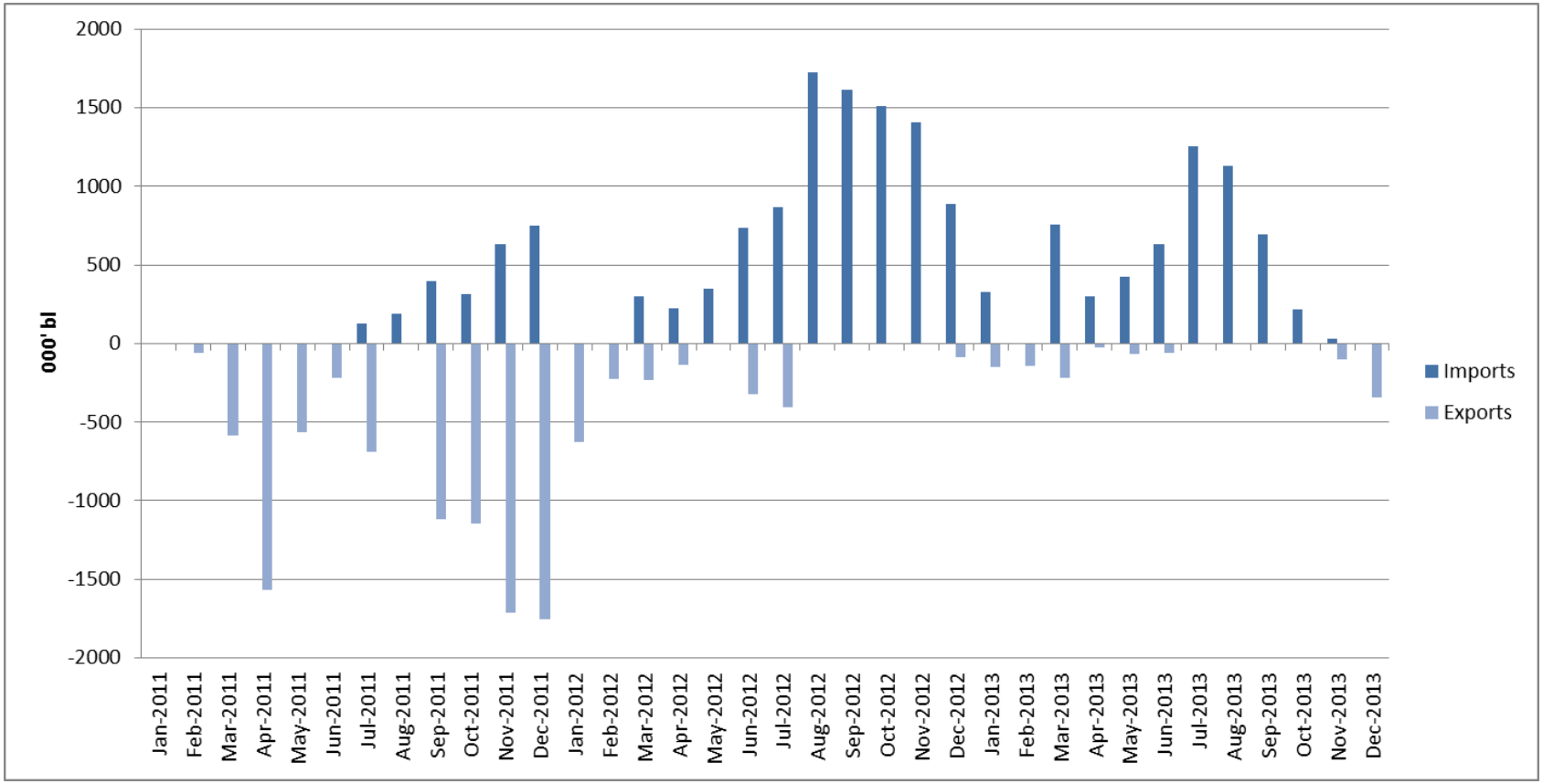
US ethanol trade with Brazil



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US- Brazil trade in 2014

- Reduced advanced biofuel mandates
  - 2013 standards saw 1.46bn USG requirement for advanced fuels when allowing for nesting reductions
  - 2014 could see just 900mn USG of requirement
- Collapsing of the D5/D6 RIN advantage / LCFS tumbles
- Brazil's poor harvest will curb exports
  - 2014/2015 harvest forecast 570-575mn t
  - 2013/2014 harvest was 596mn t
  - Q1 2014 exports down 47pc from Q1 2013

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Erosion of the advanced RIN incentive

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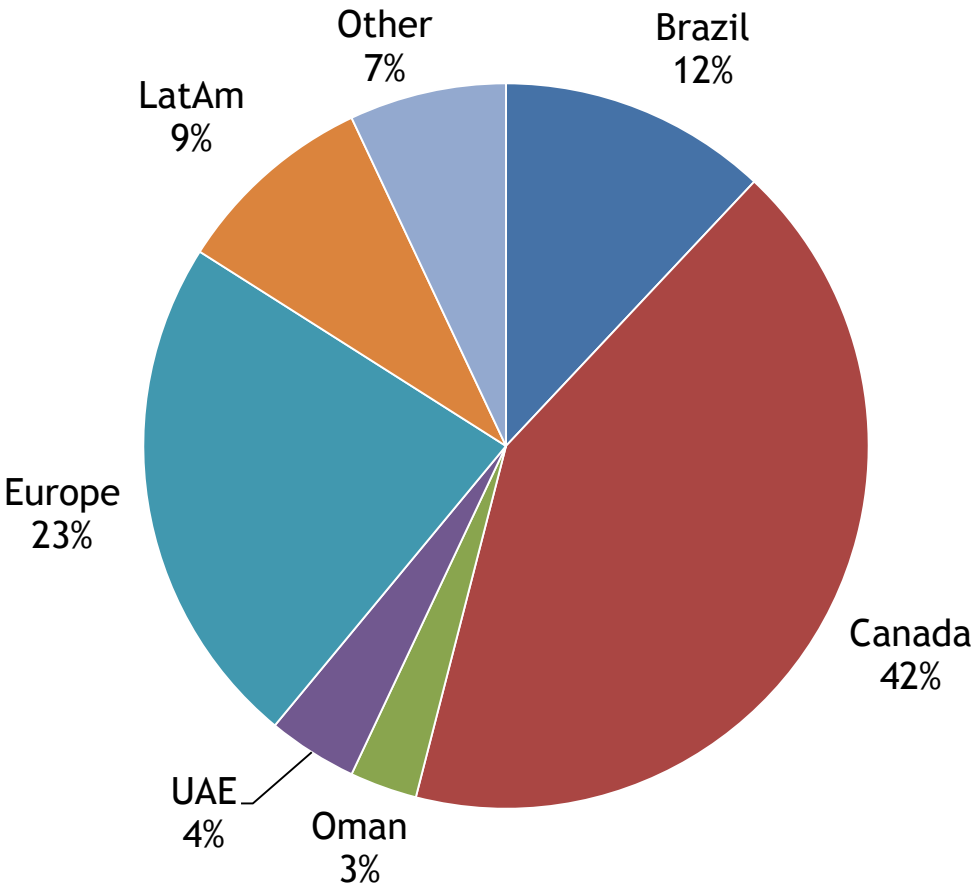
US 2012 export profile



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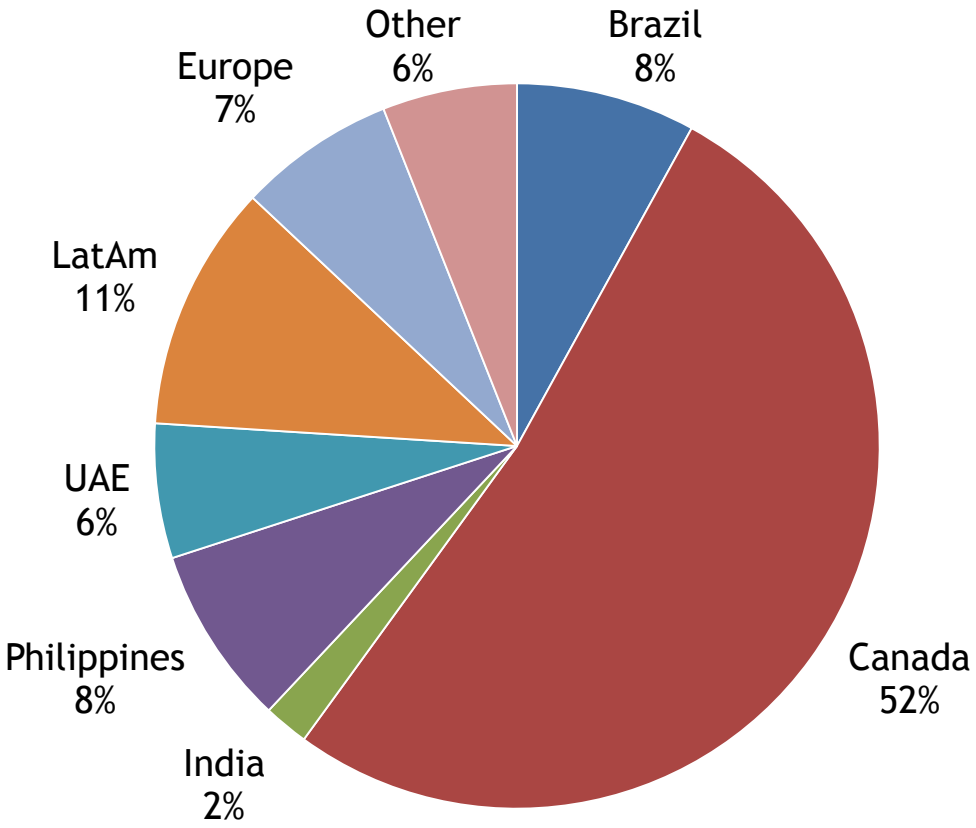
US 2013 export profile



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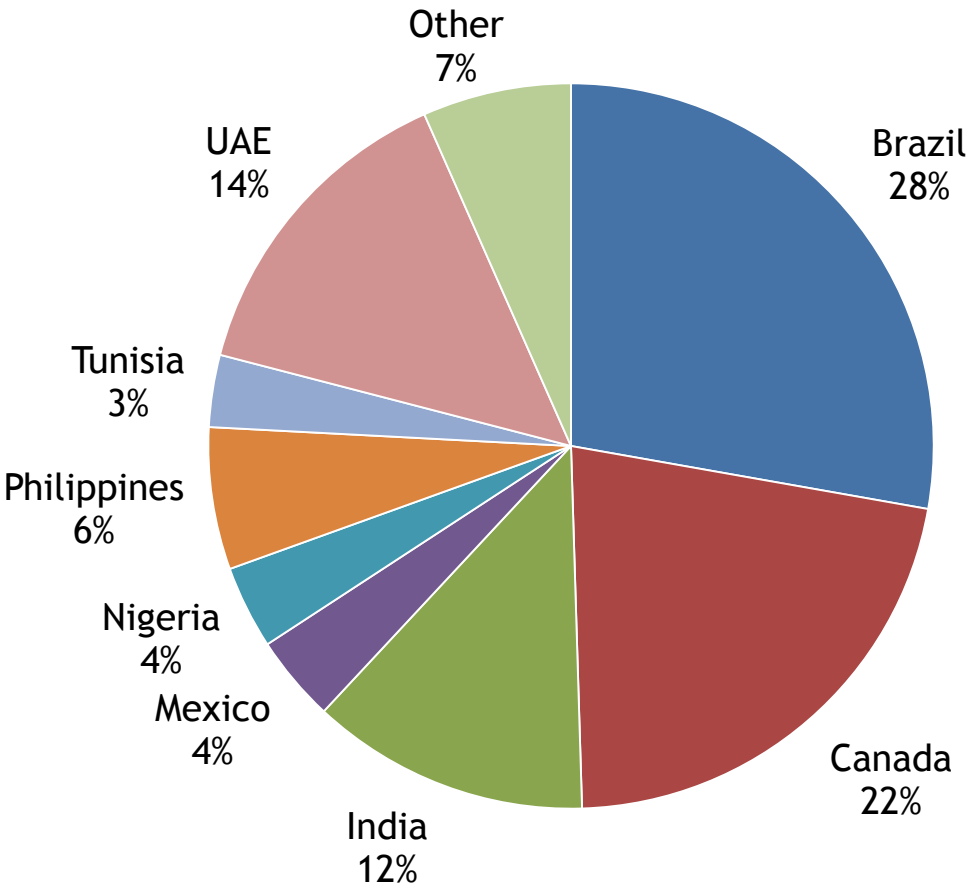
Jan 2014 US exports



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Exports tighten US inventories

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Rail rally hits

- Rail logistics drive ethanol rally
  - Low temps freeze switches, reduce air brake performance
  - Train size down as much as 20%
  - US train length restrictions stricter than Canadian
  - Dwell times double, Return times double
- Inter-commodity rail competition
  - Crude by rail, Coal, Midwest propane
  - Cochin pipeline reversal
- Producers turn to trucks
  - Trucking as far as 700 miles to market

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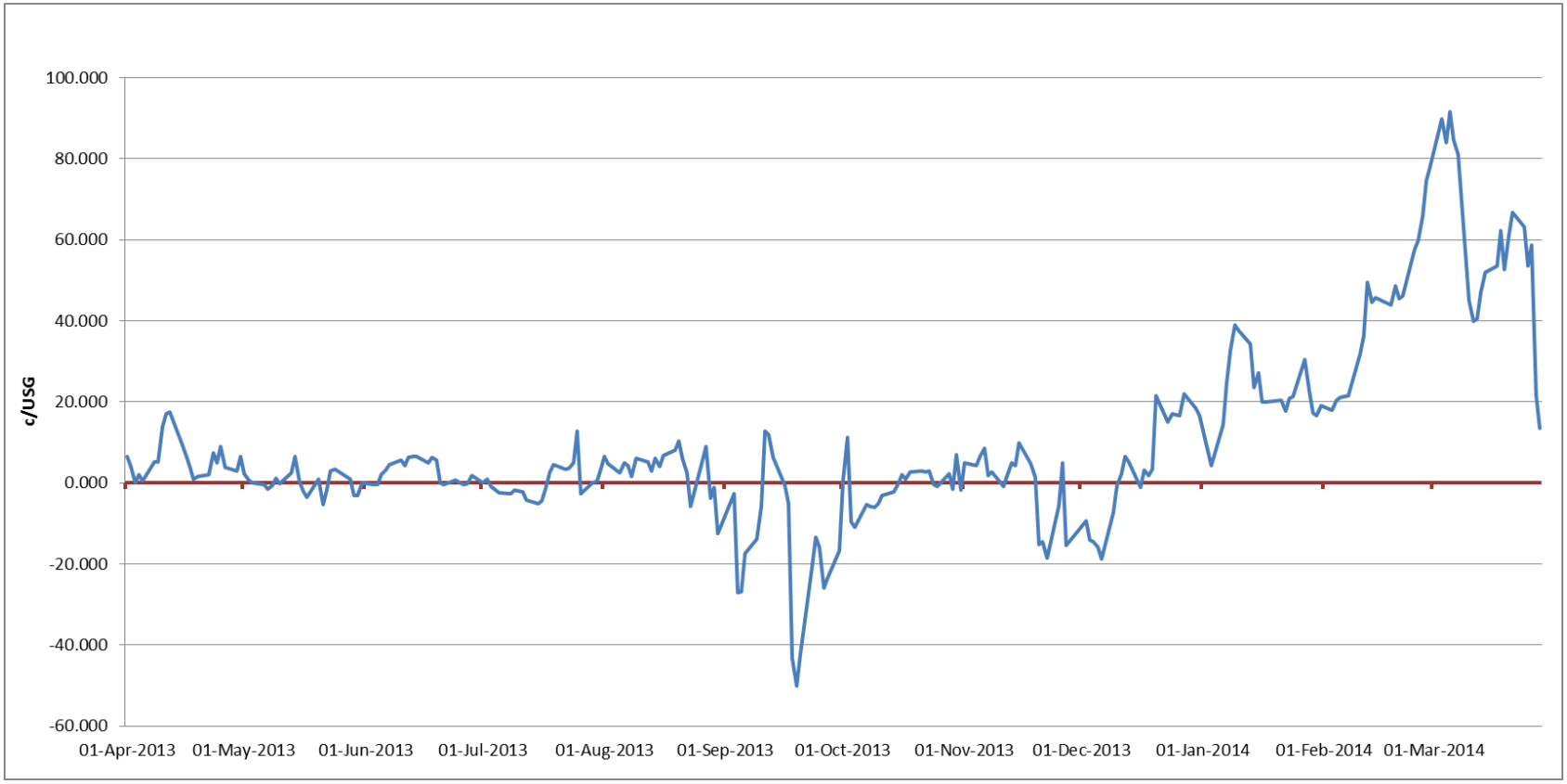
US market off the rails: Rule 11 premium to Argo



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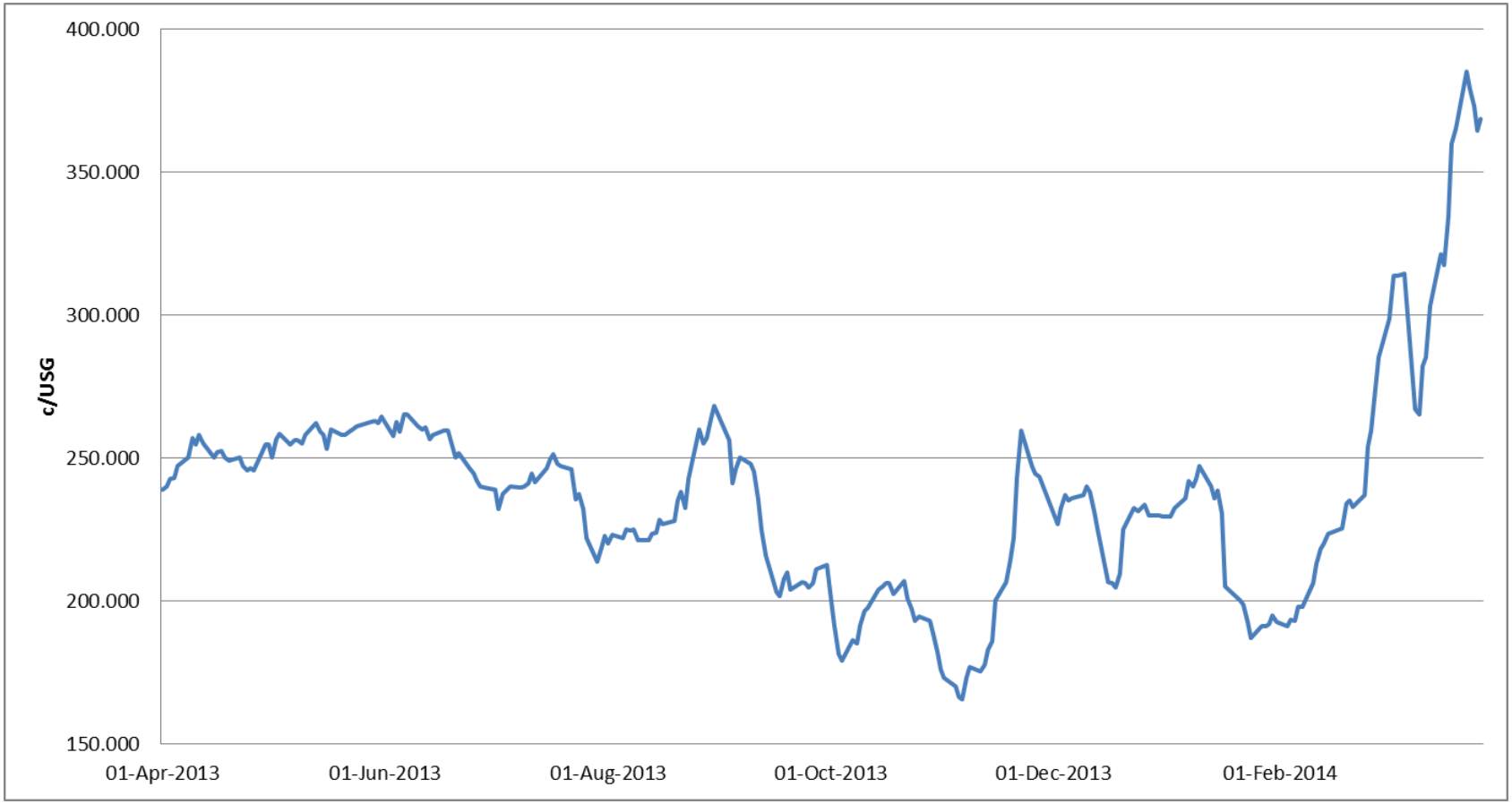
US market off the rails: Nebraska UP



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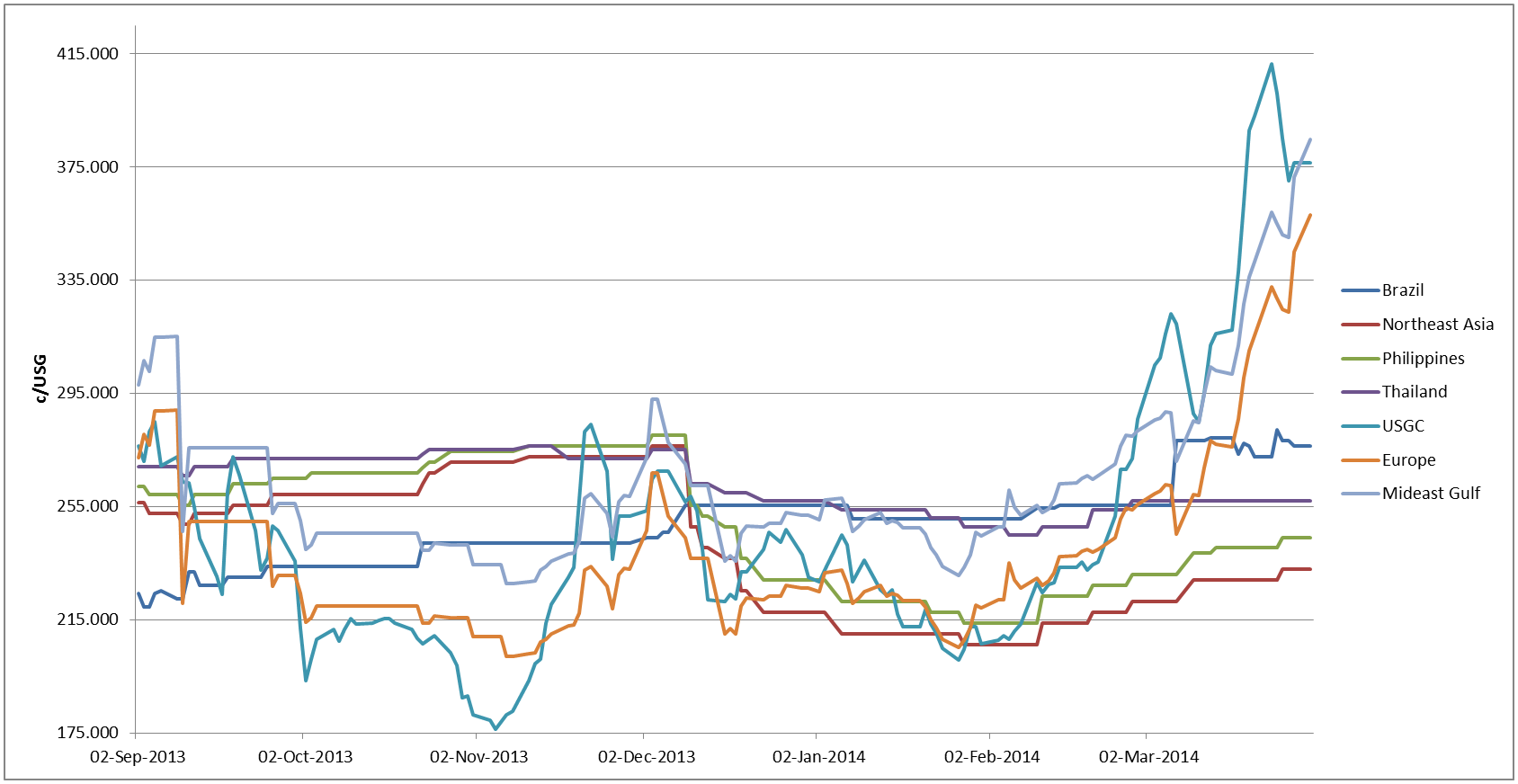
US rally closes the door



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Current state of US ethanol market

- Inventories depleted from heavy exporting
  - US Atlantic coast supplies at all-time low
- Heavy backwardation & volatility discouraging resupply
  - Global producers hesitant to export into backwardated US market
- Rail congestion leading to short squeezes
  - Responsible for record high prices
- Export arbitrages slammed shut
  - Barrels intended for Asia blending back to US spec
- Production down
  - Producers have storage for up to 10 days of output
- Use of trucking increased sharply
  - Trucks economic to move volumes as far as 700 miles

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LCFS 2014

The Low-Carbon Fuel Standard

- Targets took effect in 2011, significant amendments pending for this fall
- Program is currently well oversupplied, but is expected to become very short in later years
- Market really kicked off in late 2012/2013
- British Columbia, Oregon and Washington either have ones or are intending to get them in place

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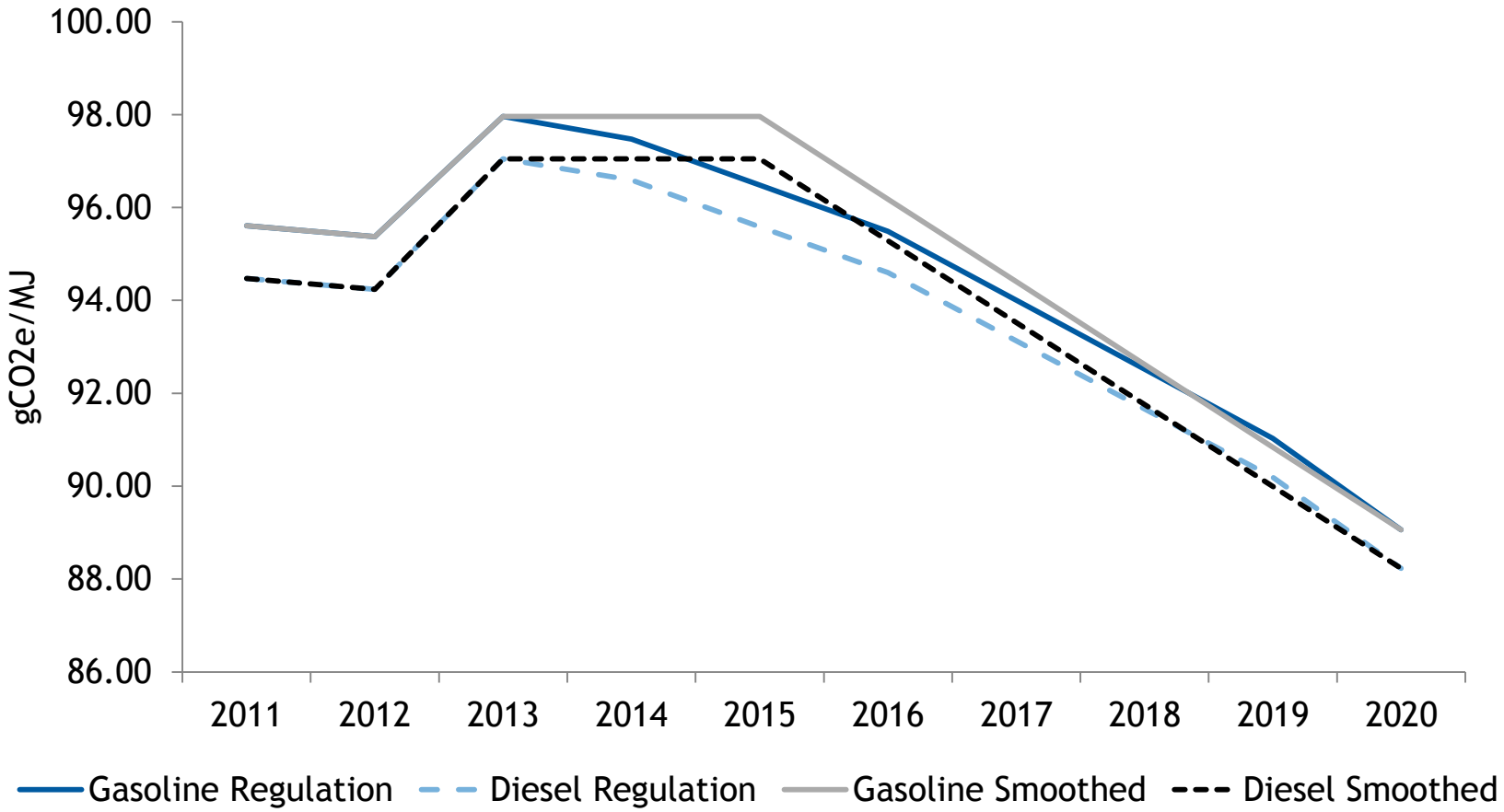
LCFS targets



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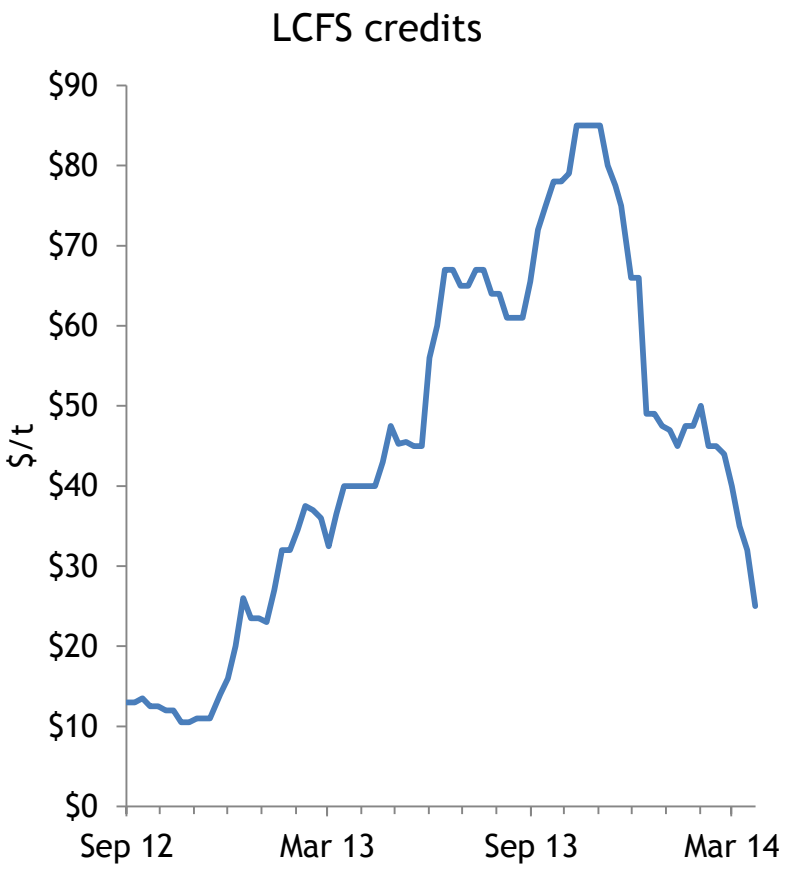
Oversupply weighing on credit prices

- LCFS credit prices have fallen significantly due to:
  - Uncertainty over the amendments this year
  - The pause in targets through 2015 keeping the market in oversupply longer
  - Lack of speculative appetite to carry credits to later in the decade



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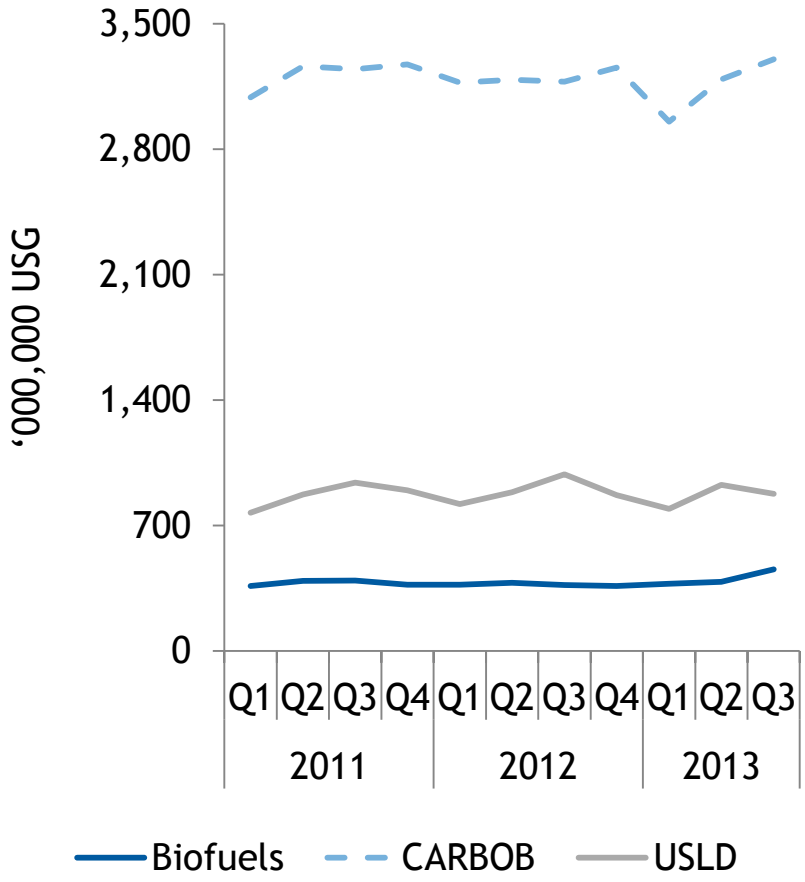
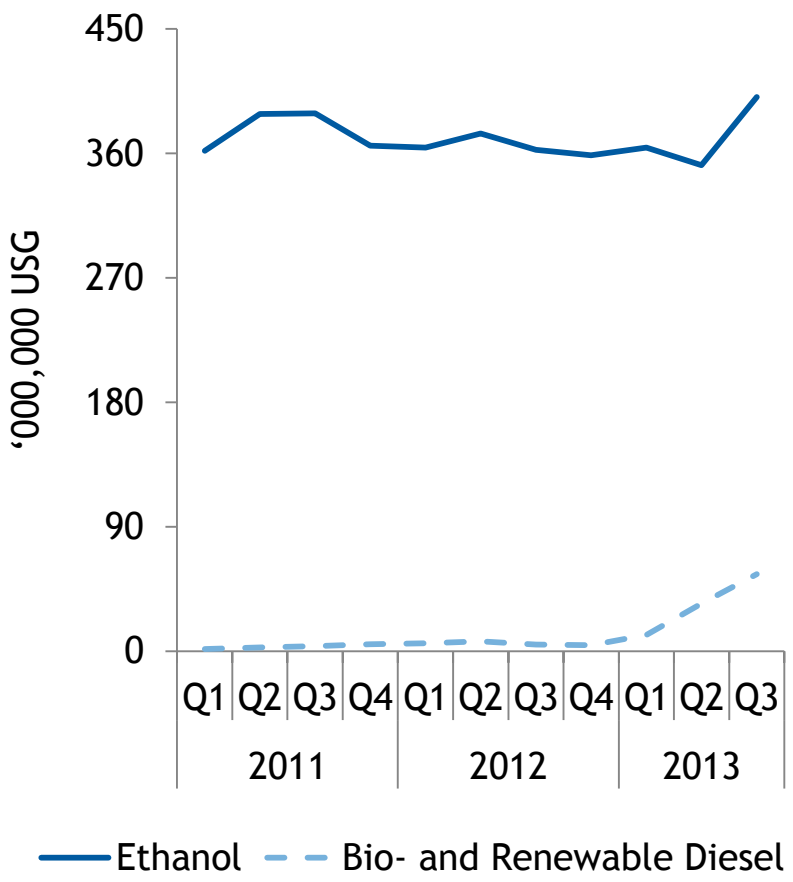
Biofuel use starting to tick up





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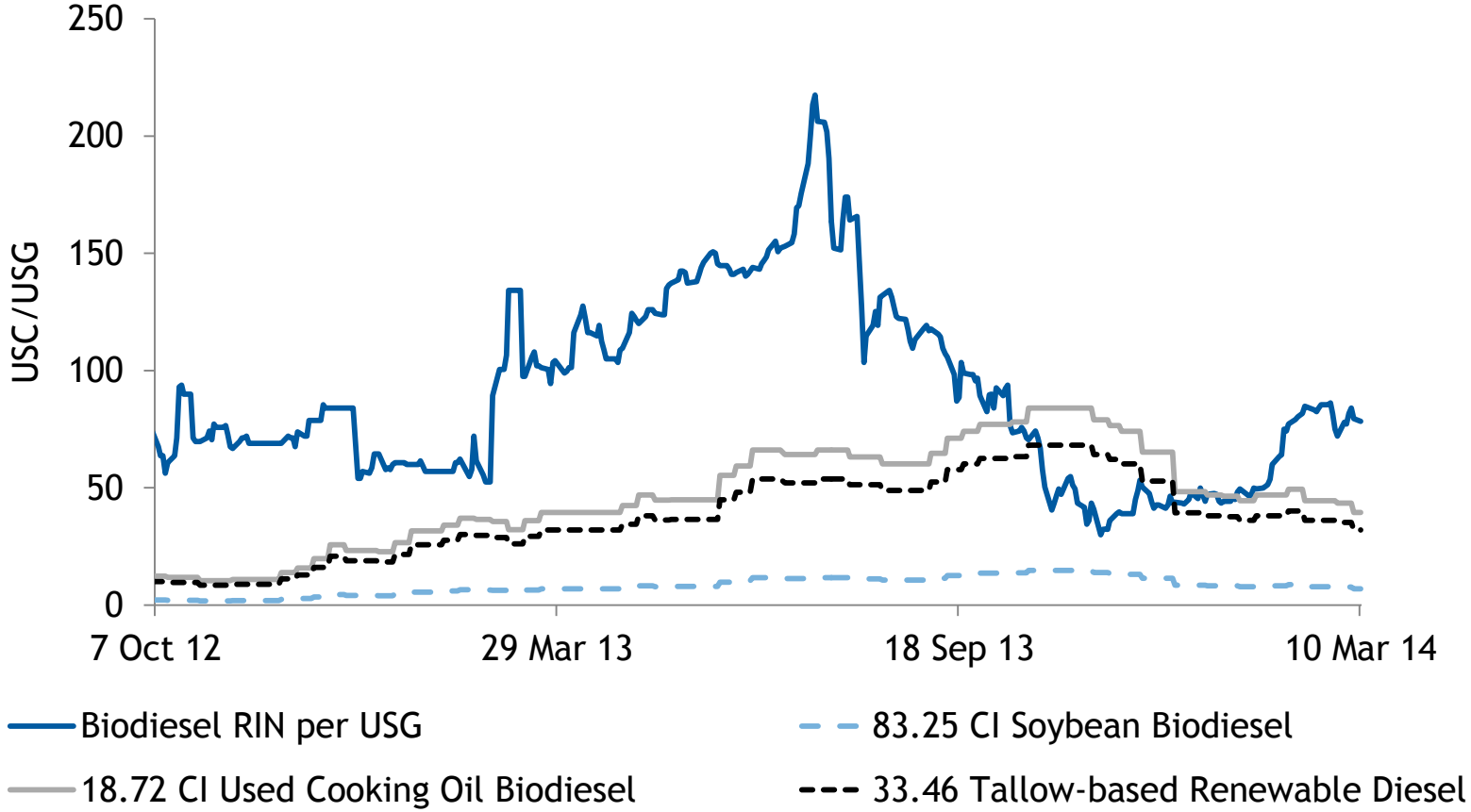
Mainly on the biodiesel side given incentives



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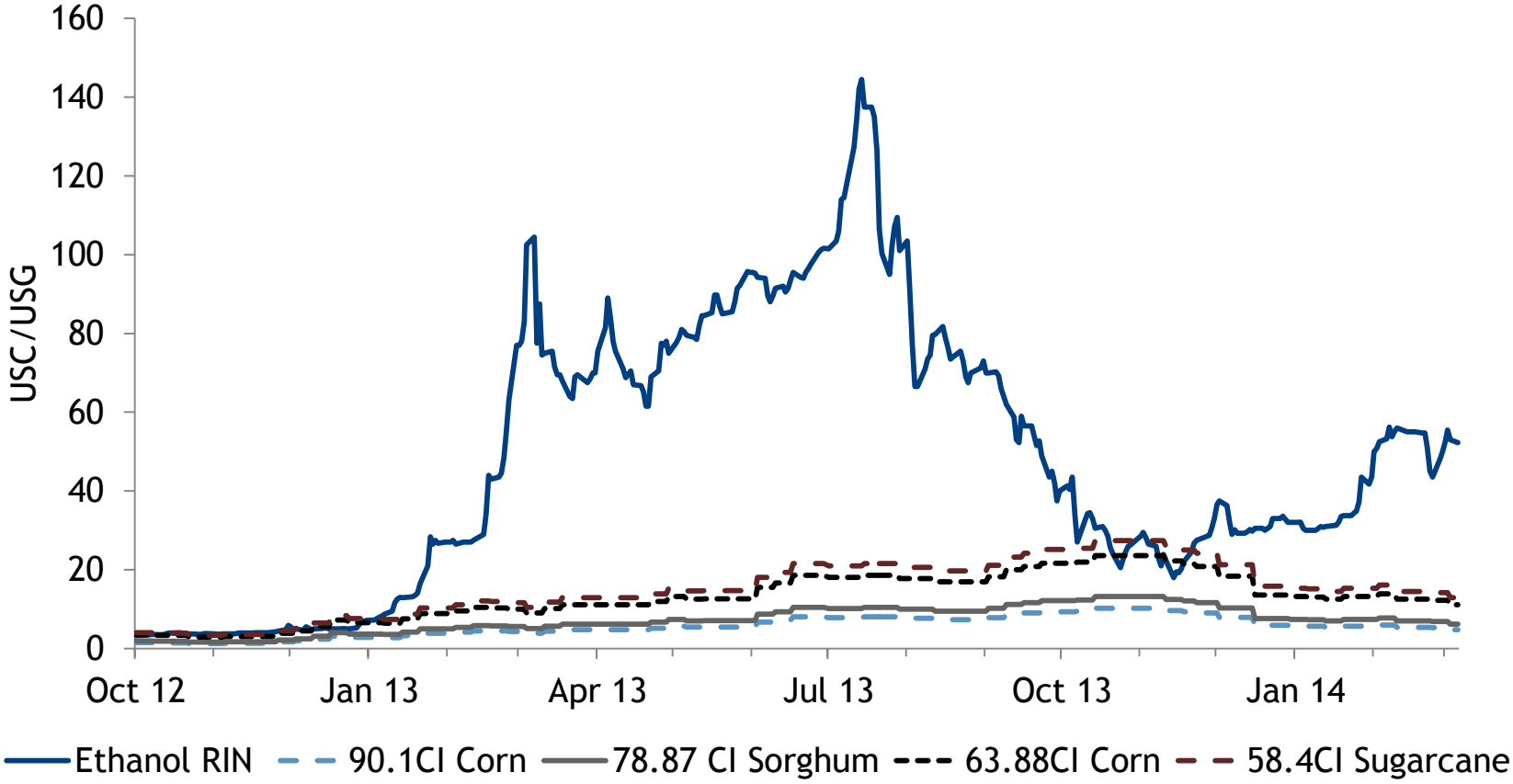
Ethanol incentives generally less per gallon



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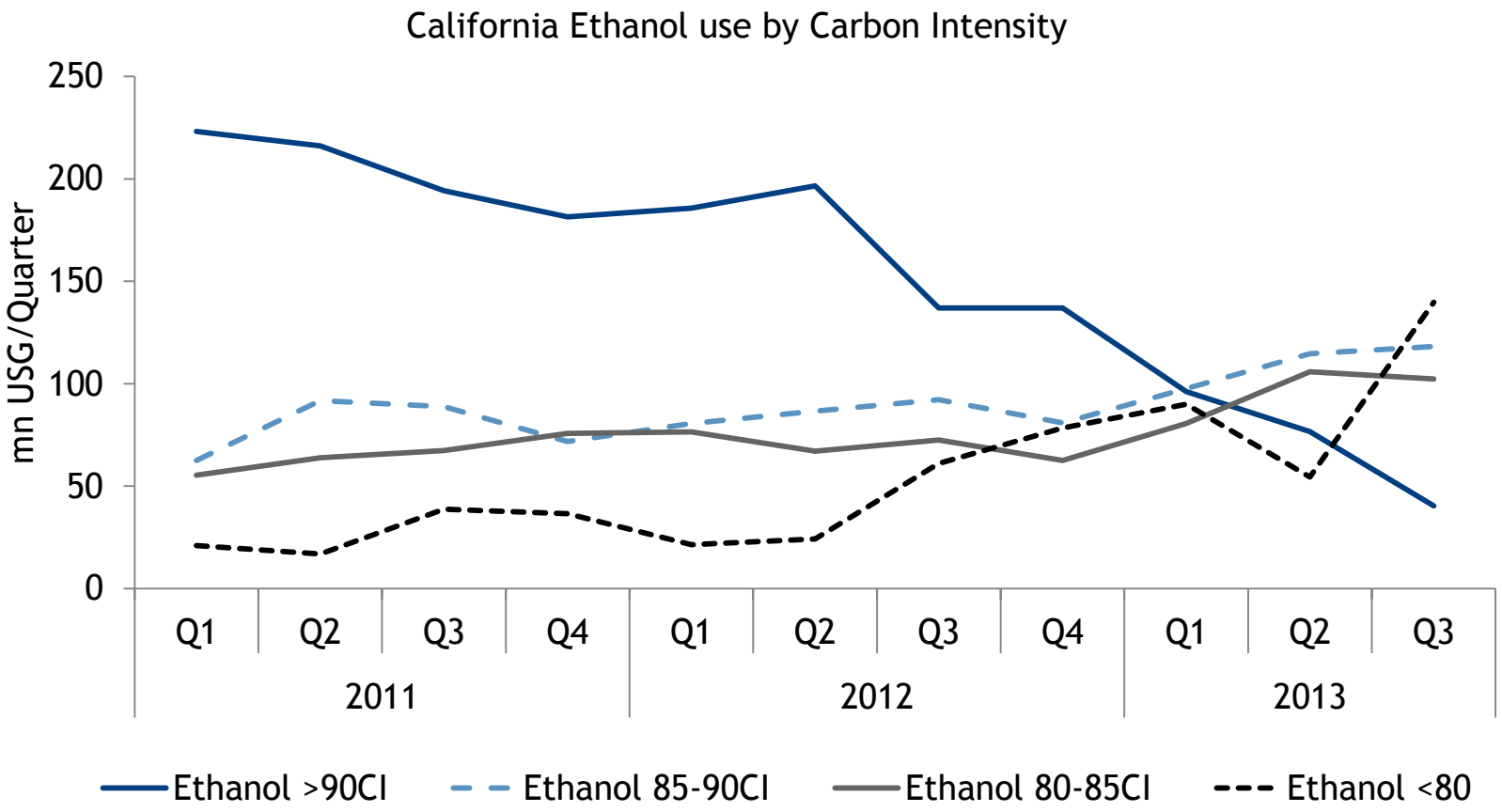
But enough to push high CI out of the market



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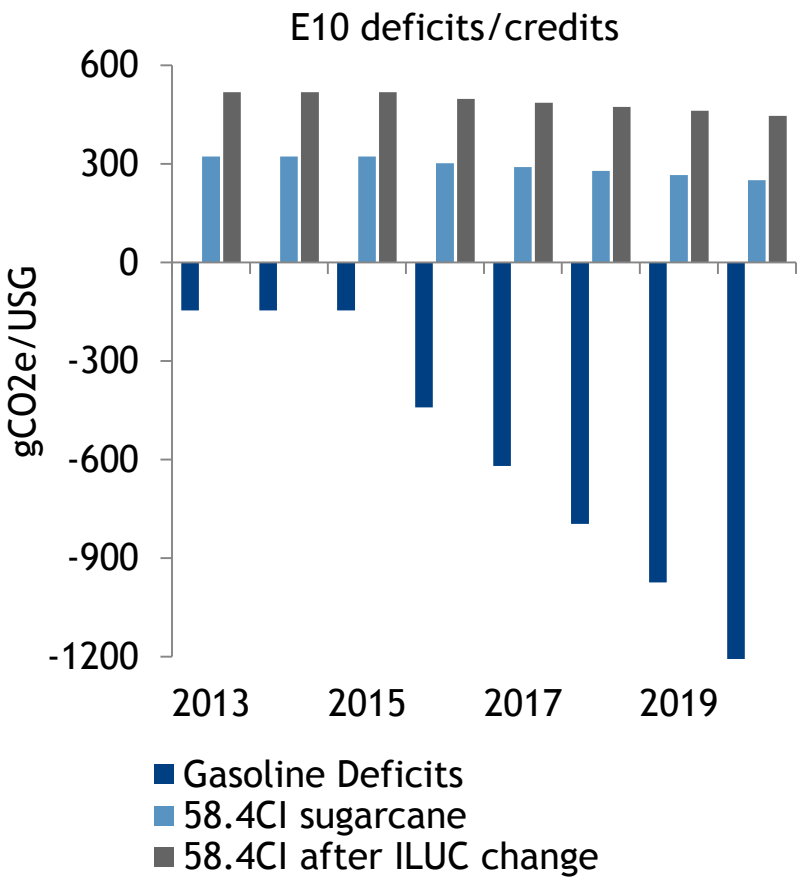
Gasoline blending under LCFS

- At some point no ethanol will make E10 gasoline compliant on its own
- Likely carrying of 2013 standard through 2015, ILUC changes help
- Incentive remains to use lowest-carbon ethanol possible



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Any questions?

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