



# Credit Suisse Energy Summit

*February 2013*



# Safe Harbor Statement

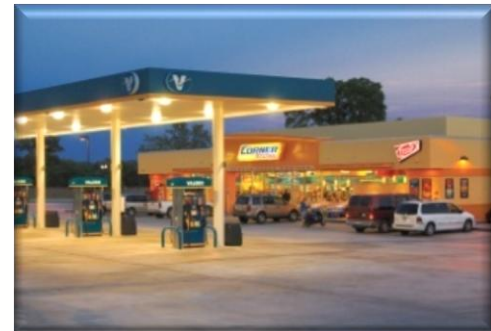
Statements contained in this presentation that state the Company's or management's expectations or predictions of the future are forward-looking statements intended to be covered by the safe harbor provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934. The words "believe," "expect," "should," "estimates," "intend," and other similar expressions identify forward-looking statements. It is important to note that **actual results could differ materially from those projected in such forward-looking statements. For more information concerning factors that could cause actual results to differ from those expressed or forecasted, see Valero's annual reports on Form 10-K and quarterly reports on Form 10-Q,** filed with the Securities and Exchange Commission, and available on Valero's website at [www.valero.com](http://www.valero.com).



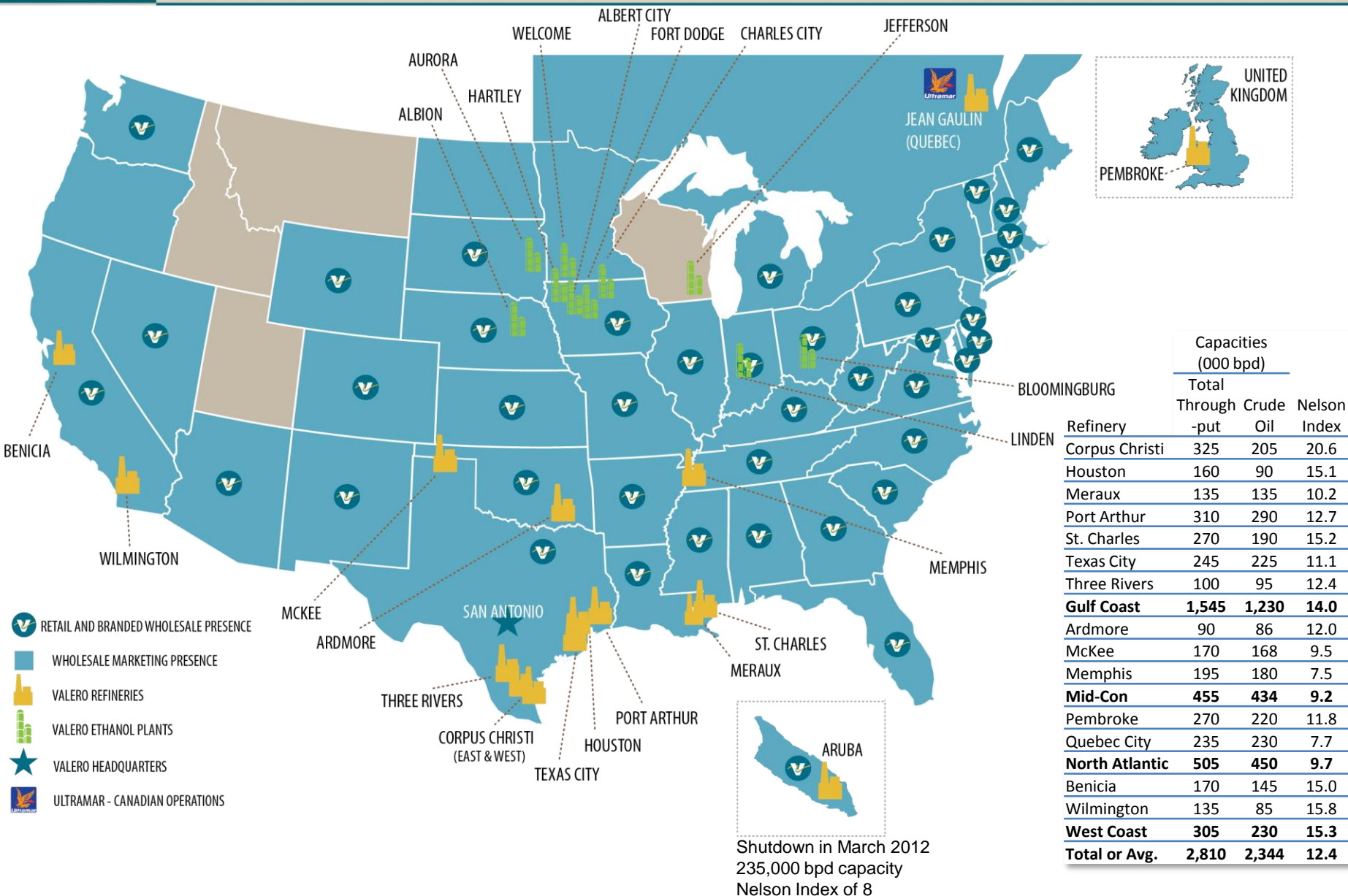


# Valero Energy Today

- **World's largest independent refiner**
  - 16 refineries
  - 3 million barrels per day (BPD) of throughput capacity, with average capacity of 187,000 BPD
- **Approximately 6,800 branded marketing sites**
  - Nearly 1,900 sites in U.S. and Canada Retail segment
  - Announced intention to separate Retail segment
- **One of the largest renewable fuels companies**
  - 10 efficient corn ethanol plants with total of 1.1 billion gallons/year (72,000 BPD) of nameplate production capacity
    - All plants located in resource-advantaged U.S. corn belt
  - Diamond Green Diesel JV under construction (renewable diesel from waste cooking oil and animal fat)
    - 10,000 BPD capacity, 50% to Valero
- **Approximately 22,000 employees**



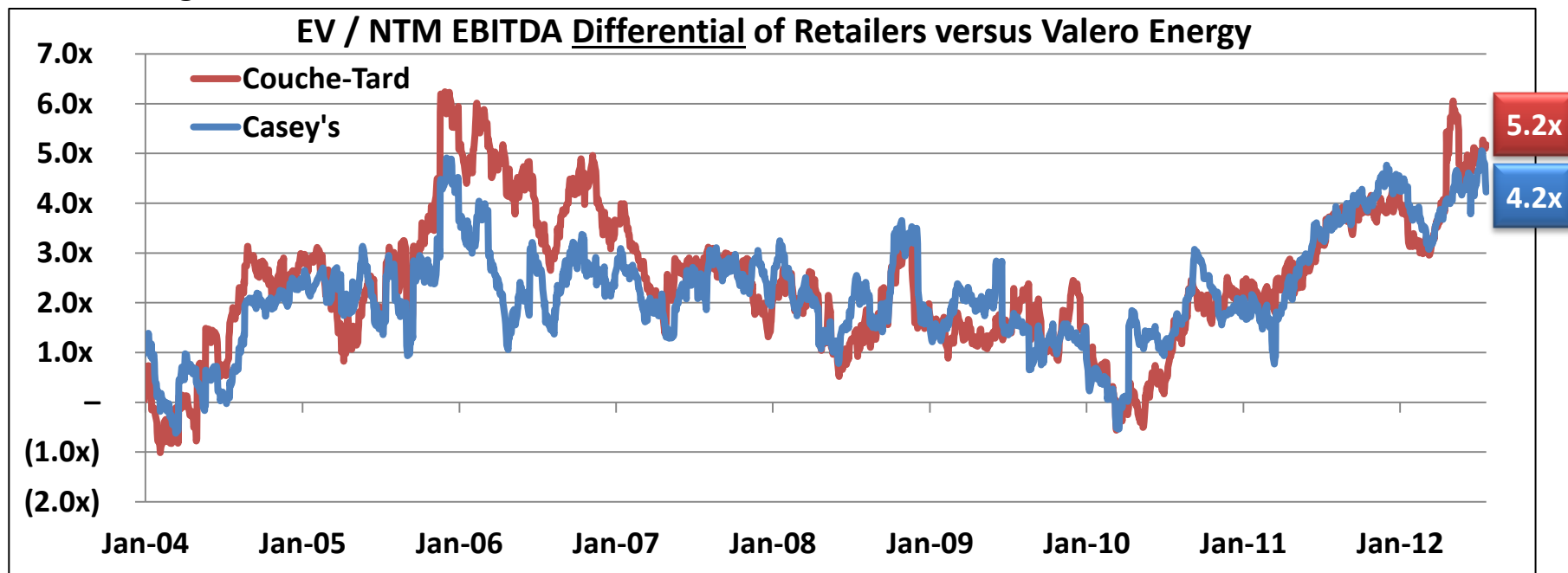
# Valero's Geographically Diverse Operations





# Update on Potential Retail Separation

- Making progress on our plan to separate our retail business as new company called CST Brands, Inc. and unlock value for shareholders
  - CST Brands, Inc. (formerly Corner Store Holdings, Inc.) has filed a draft registration statement with the SEC
  - Intend to distribute to VLO shareholders 80% of CST Brands outstanding shares to trade on the NYSE under the ticker symbol “CST”
- Valero expects to receive approximately \$1.1 billion in cash via new debt on CST Brands and incur a tax liability of approximately \$300 million, mainly due to Canadian assets
- Expect separation to occur in 2Q13, subject to timing of IRS, SEC, and other regulatory agencies
- Investors and analysts have treated Valero mainly as a refiner, ignoring higher potential value of retail segment as shown in chart below



# Overview of CST Brands, Inc.

- Expect to be one of the largest independent retailers of transportation fuels and convenience merchandise in North America
- Nearly 1,900 sites in two geographic segments: U.S. and Canada
- **Retail-U.S.**
  - 1,032 company-operated retail sites, of which 81% are owned
  - Sites located in the central and southwest U.S.
- **Retail-Canada**
  - Consists of Motorist, Cardlock, and Home Heat businesses in eastern Canada
  - 848 retail fuel sites
    - 768 sites in the Motorist business
    - 80 unattended sites in the Cardlock business
    - 38% of sites are owned and 62% are leased



# CST Brands –Highlights

- **Large scale with nearly 1,900 sites will make it the second-largest publicly traded independent retailer of fuel and convenience merchandise in North America**
- **Sites located in geographically diverse regions: the southwestern United States and eastern Canada**
- **61% of U.S. sites are in Texas, which has a relatively favorable economy and attractive demographics for convenience stores**
- **Solid performance track record**
- **Competitively positioned with good brand recognition**
- **Significant growth opportunities**
  - New-To-Industry (NTI) retail site program
  - Growing food service and increasing emphasis on in-store merchandise
    - Excellent logistics, private label program, and existing strong core merchandise sales

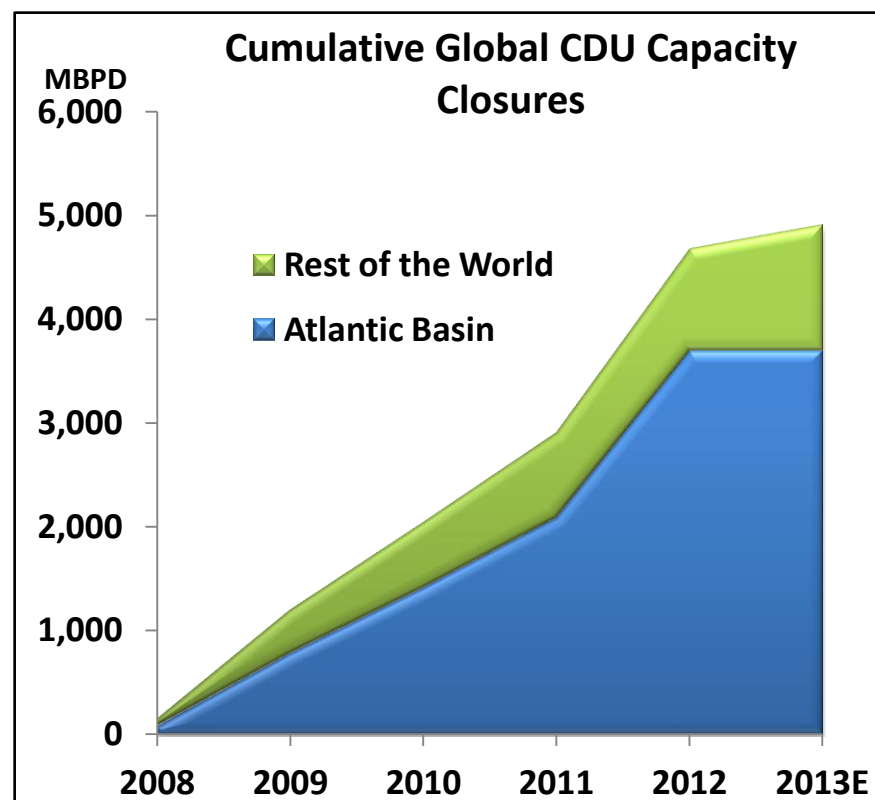
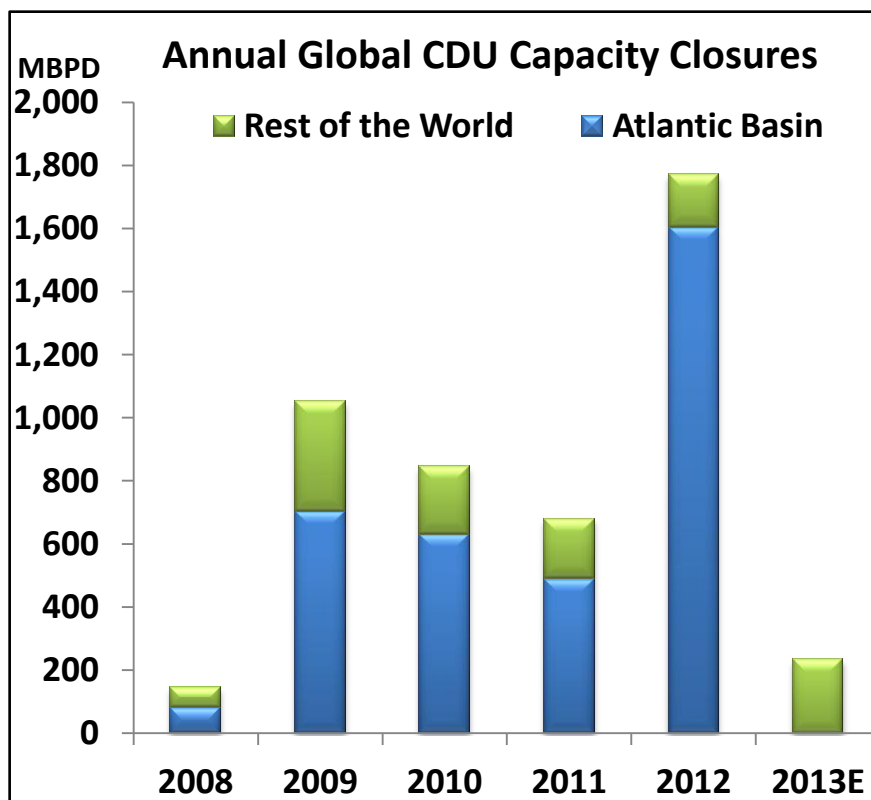


# **VLO Well-Positioned to Benefit from Changing Market Trends**

- **Atlantic Basin refining closures reducing excess capacity**
- **U.S. competitively exporting into growing and undersupplied markets**
- **Expect abundant and growing U.S. shale oil and Canadian production to provide feedstock cost advantage**
- **Low-cost U.S. natural gas provides competitive advantage**
- **Increasing Valero's yield of distillates, which have higher margins and global growth**

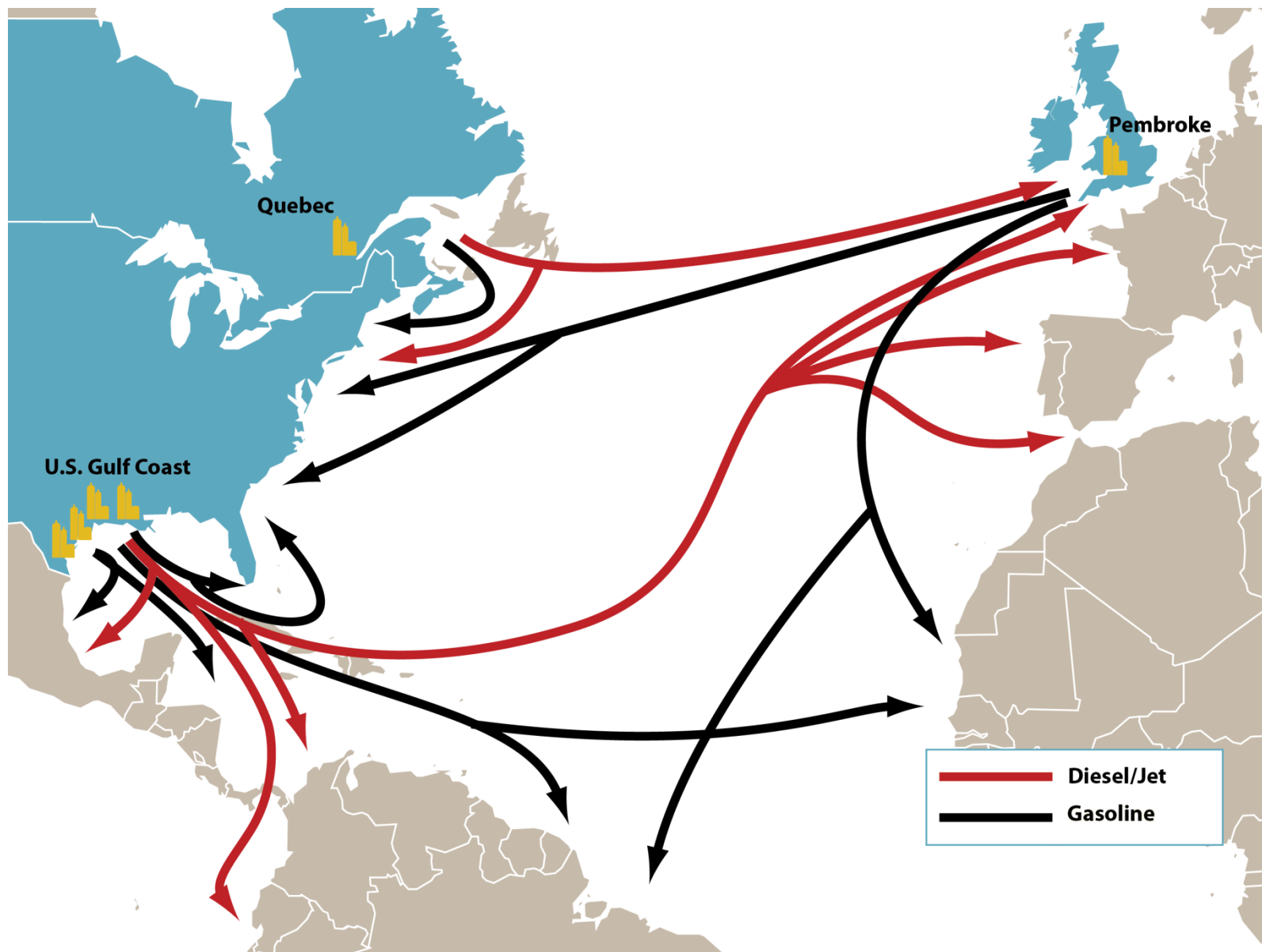
# Atlantic Basin Closures Reduce Excess Capacity

- Capacity closures have been concentrated in the Atlantic Basin: U.S. East Coast, Caribbean, Western Europe; expect more will occur
- Combined with poor reliability and low utilization in Latin American refineries and demand growth in Latin America, creates opportunity for competitive refineries to export quality products



Sources: Industry and Consultant reports and Valero estimates

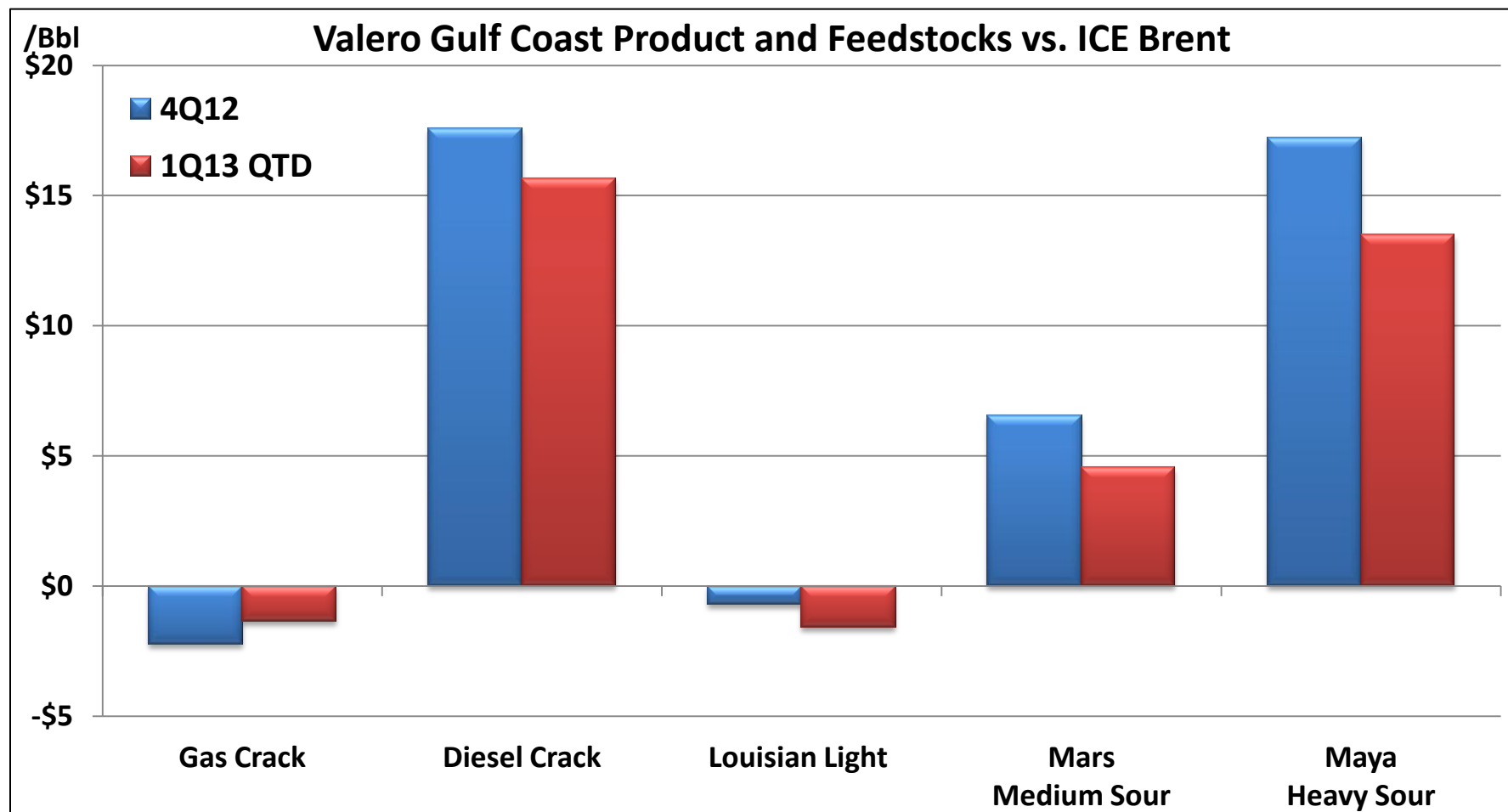
# Valero in the Atlantic Basin





# Gulf Coast Crude Discounts and Product Margins: 4Q12 to 1Q13

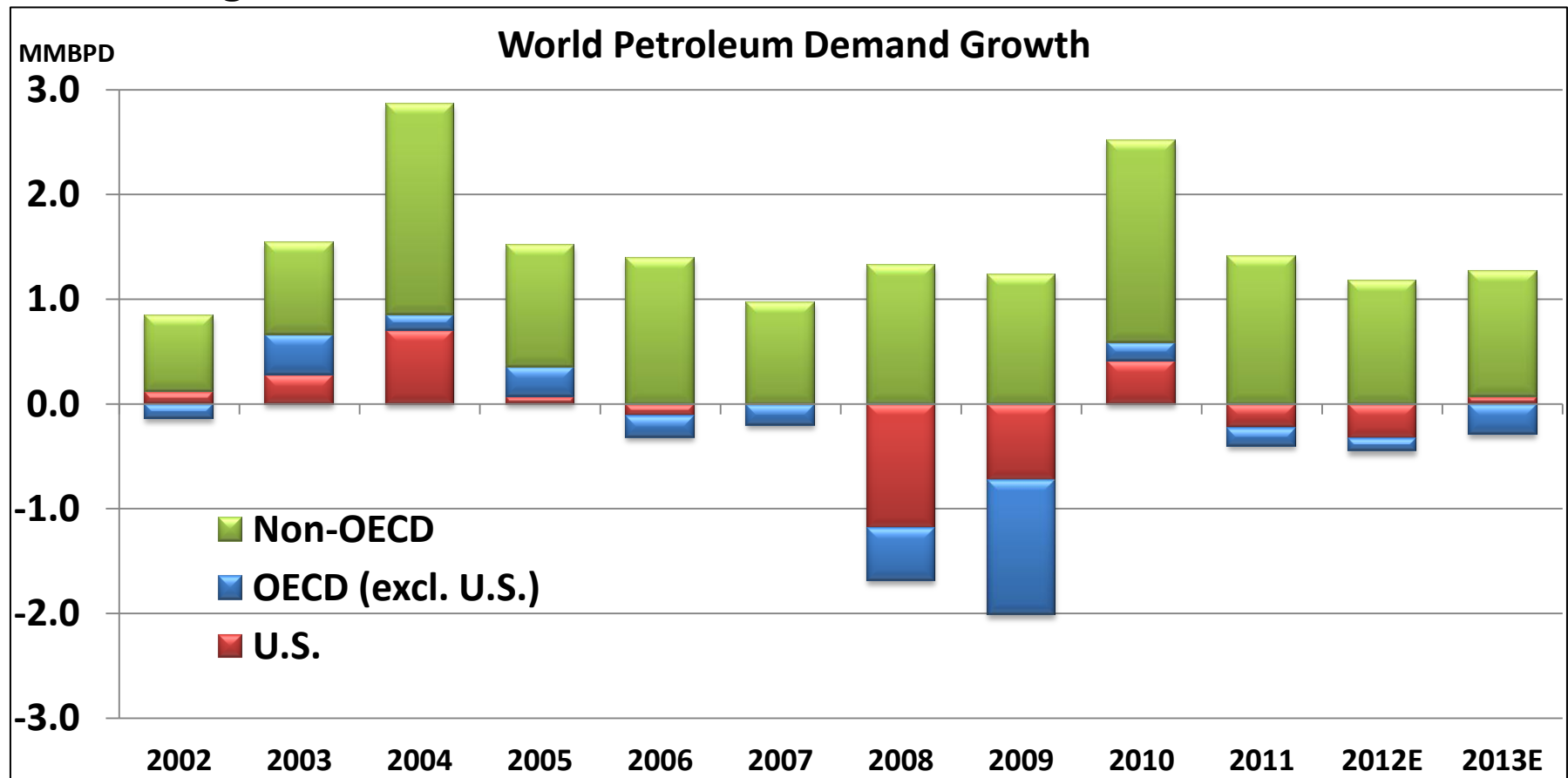
- In 1Q13, LLS has been pricing at a premium to ICE Brent due to limited trading volumes combined with market impacts such as the recent proration of Seaway pipeline
- Heavy sour and medium sour discounts have declined from 4Q12 levels



Source: Argus, 1Q13 quarter-to-date pricing is through 2-1-13; Gas crack uses USGC CBOB

# Continued Global Demand Growth Important to Refining Margins

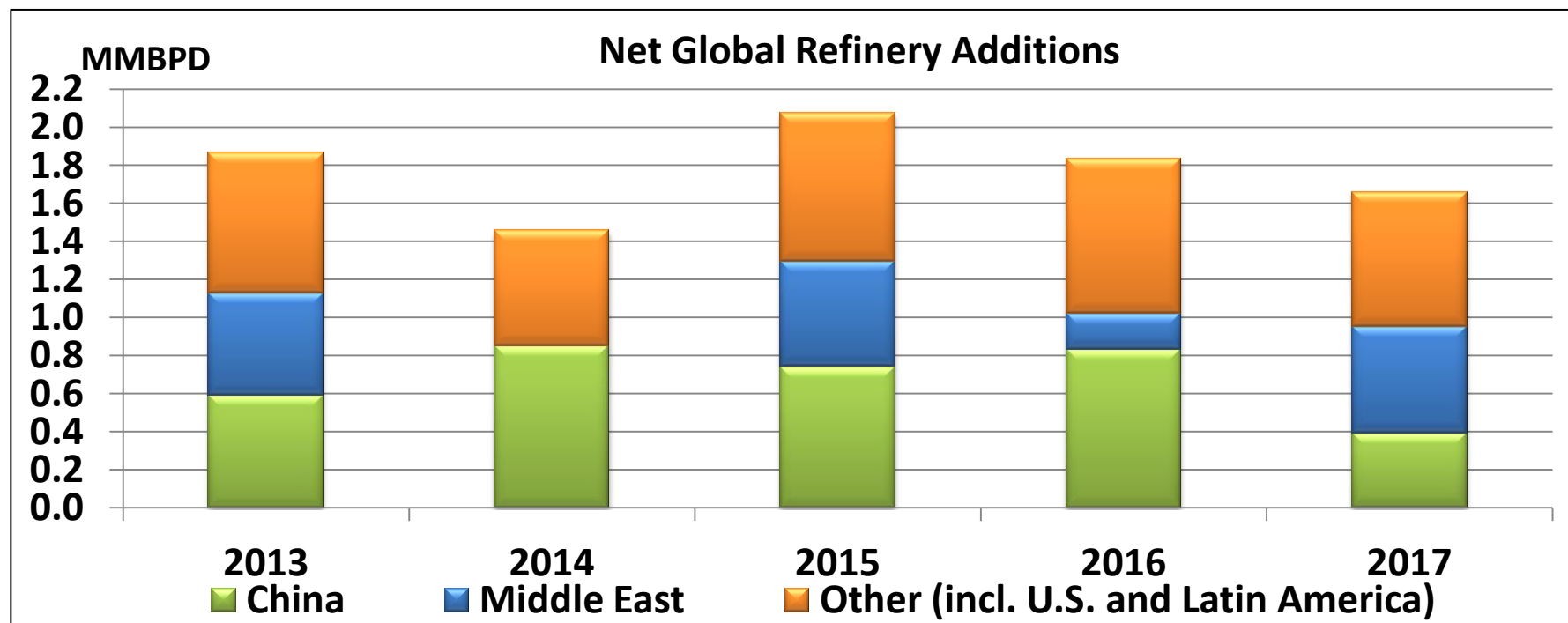
- Emerging markets are taking the lead in terms of global petroleum demand growth, but refining is a global business and world growth impacts refiners in every market because products are generally very storable, transportable, and fungible commodities



Source: Consultant and Valero estimates

# World Refinery Capacity Growth

- **Expect significant new global refining additions in the next several years**
  - Mainly new plants in Asia and the Middle East
  - Some investment in Latin America
- **New capacity announcements from Brazil, Mexico, and Columbia will likely be much smaller and much later than originally announced**
- **Others very unlikely to happen because of costs: Ecuador, Peru, Algeria, Egypt**
- **Asian demand growth has been consuming Asian refining growth**

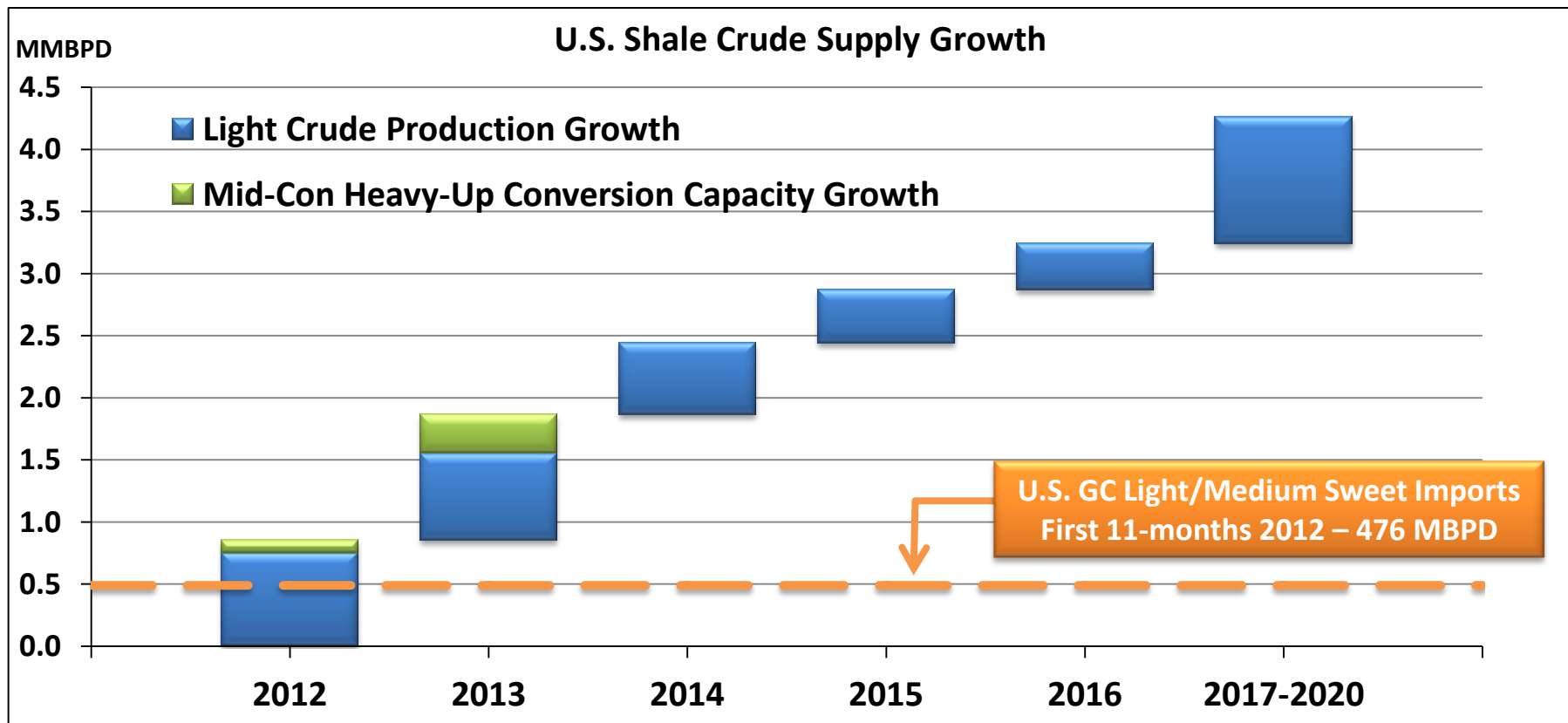


Source: Consultant and Valero estimates; Net Global Refinery Additions = New Capacity + Restarts- Closures



# Rapid Growth in U.S. Crude Supply

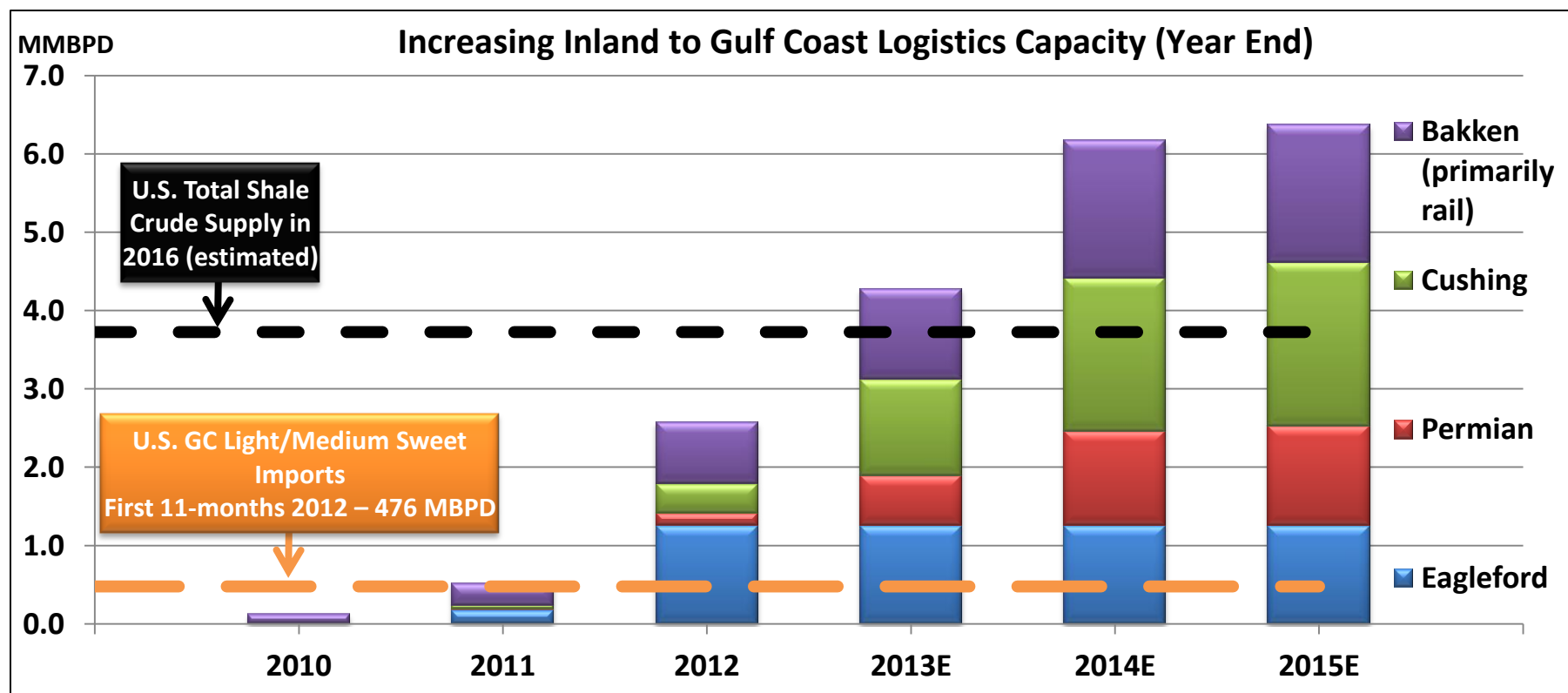
- Shale oil production growth and Mid-Continent heavy-up projects are rapidly increasing domestic light, sweet crude supplies
  - This has created a bottleneck of crude oil that has exceeded the capacity of inland refineries and needs to move to markets outside of the Mid-Continent
  - NGLs and condensate supplies also increasing rapidly and must move to market



Source: Valero estimates; Note: Import volumes include light and medium crudes between 28 and 50 API with less than 0.7% sulfur

# Rapid Growth in Logistics to U.S. Gulf Coast

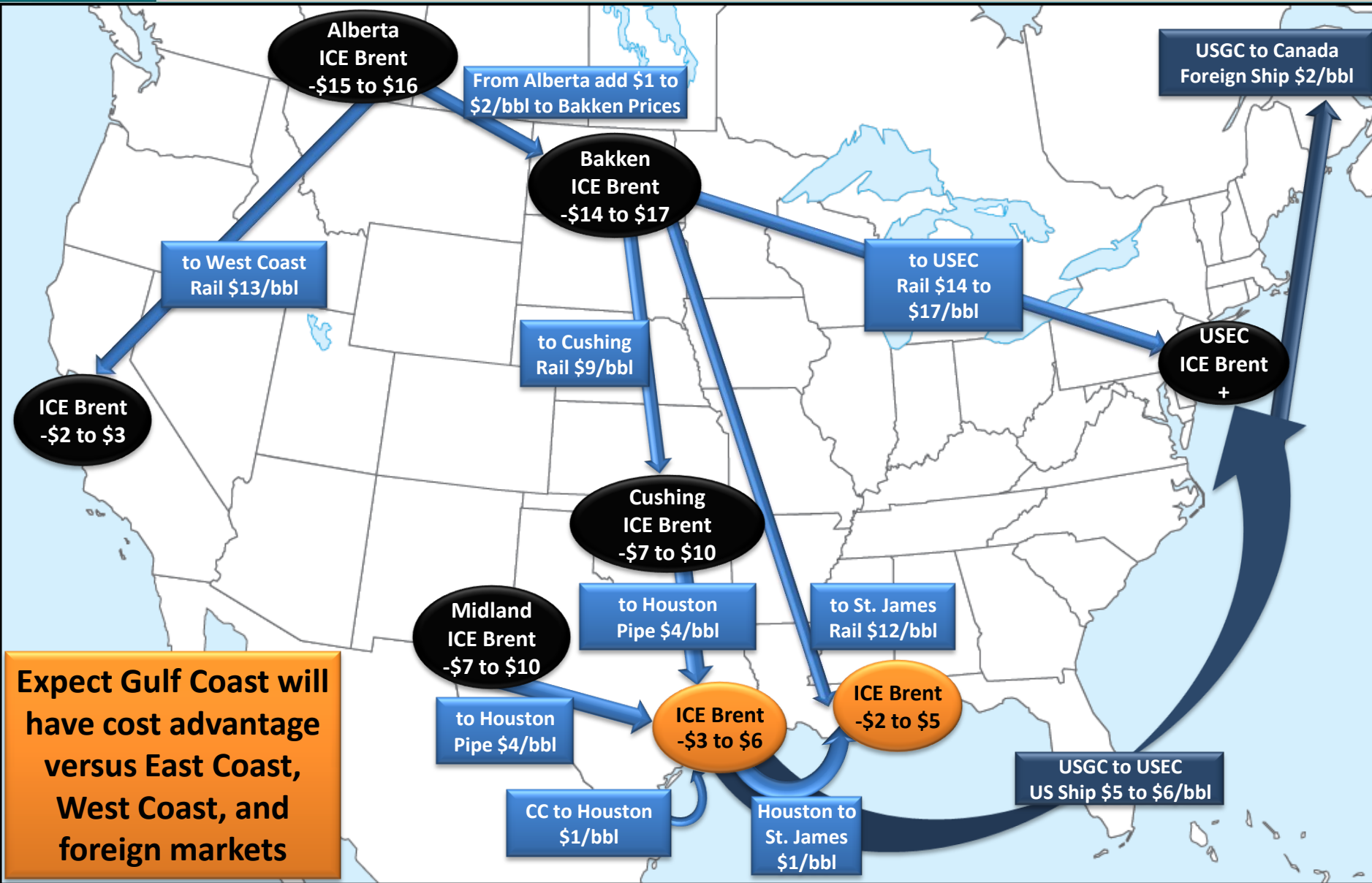
- Logistics capacity to move inland crude from the Mid-Continent and Texas to the U.S. Gulf Coast is expanding quickly to debottleneck inland markets
- Seeing significant rail capacity coming online, particularly in Bakken and Canada
  - Popular for East and West Coasts destinations, where pipeline access is unlikely, but tends to be higher cost delivery than to Gulf Coast



Source: Consultants, company announcements and Valero estimates

Note: Import volumes include light and medium crudes between 28 and 50 API with less than 0.7% sulfur

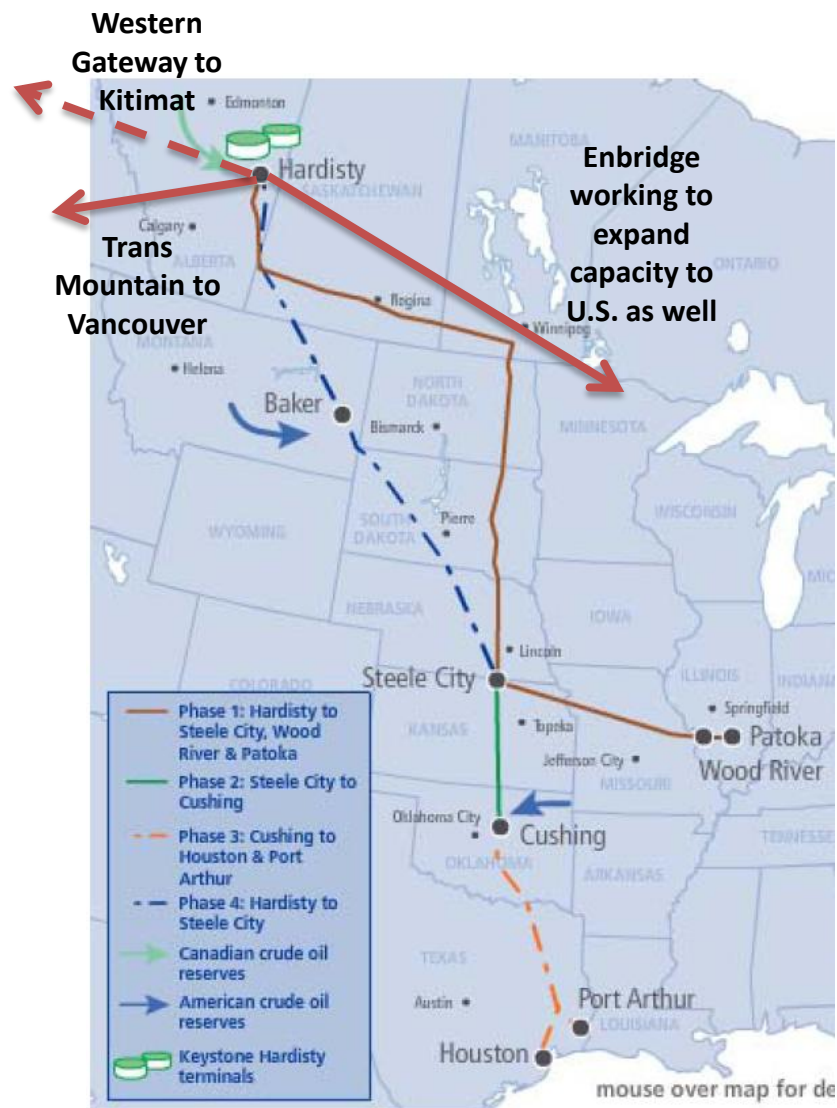
# Valero's Estimate of Marginal Light Crude Oil Costs in 12 to 24 Months





# Keystone XL Pipeline

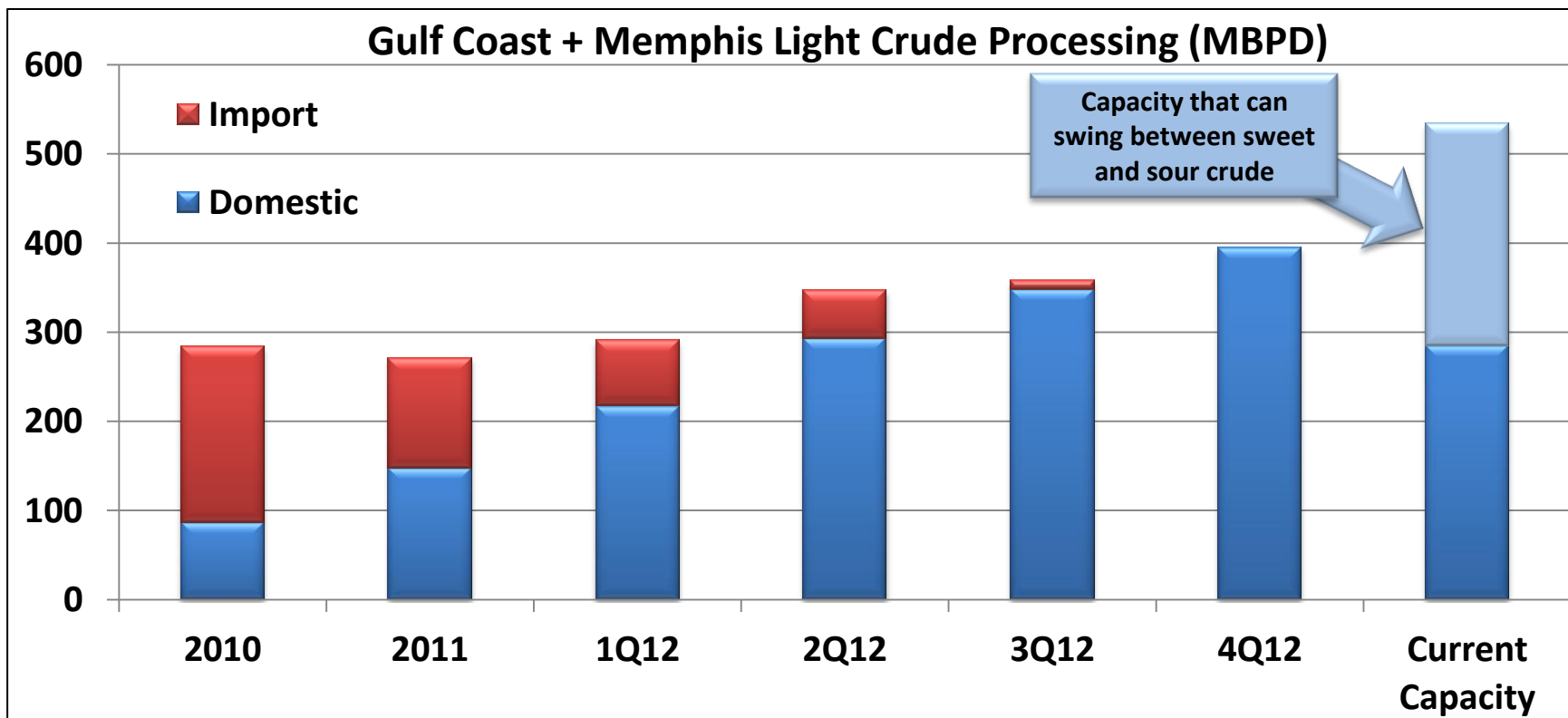
- **Keystone XL Pipeline Presidential Permit Delay**
  - TransCanada 1,661 mile pipeline that will bring 700,000 bpd of Canadian oil into U.S. markets
  - Expected to create 20,000 U.S. manufacturing and construction jobs; \$5.2 billion tax revenue in Keystone corridor states over 20 years
  - Canadian approval granted; waiting on U.S. regulatory approval
    - U.S. Decision postponed until early 2013
    - Nebraska Governor recommended approval of the route in January 2013
  - Cushing to Gulf Coast leg has been separated from the project, and has started construction. Expected to complete late 2013
- **Expect to use rail and other pipeline options if not approved**



Source: TransCanada Corporation

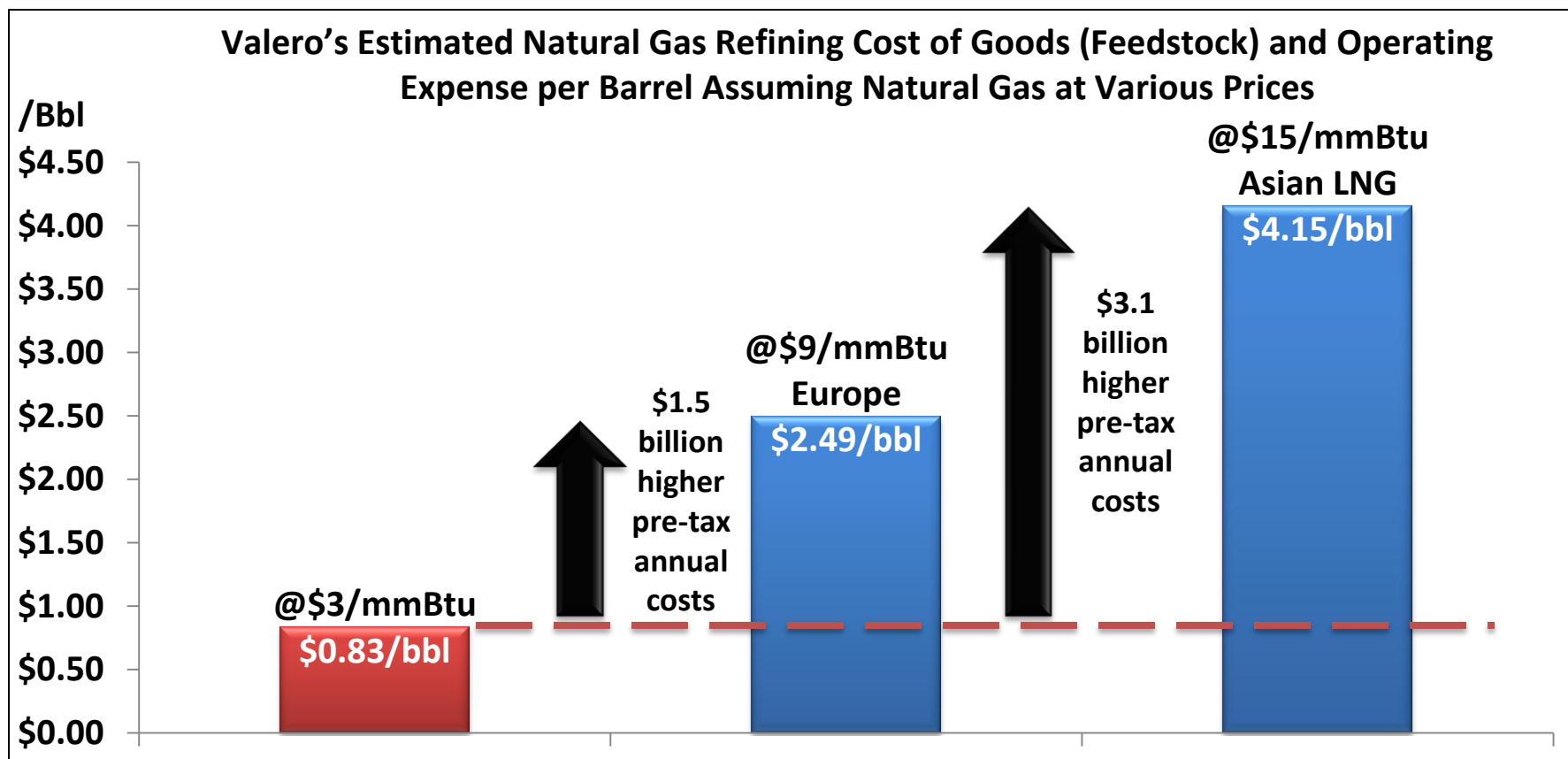
# Valero's Ability to Run Discounted Light Crude at Gulf Coast and Memphis Refineries

- Valero has increased the amount of domestic light crudes processed as additional volumes have become available
- Valero has ceased all imports of foreign light crudes for its Gulf Coast and Memphis refineries
- Valero is evaluating potential projects to further increase its domestic light crude processing capacity



# Lower-Cost Natural Gas Provides Structural Advantage to U.S. Refiners

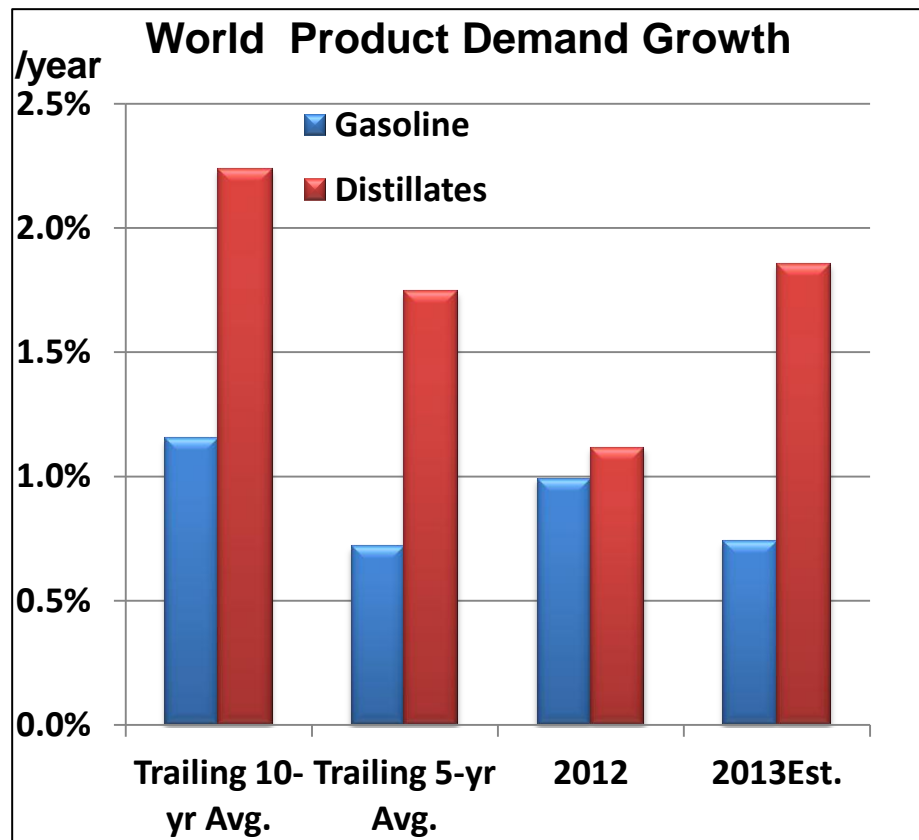
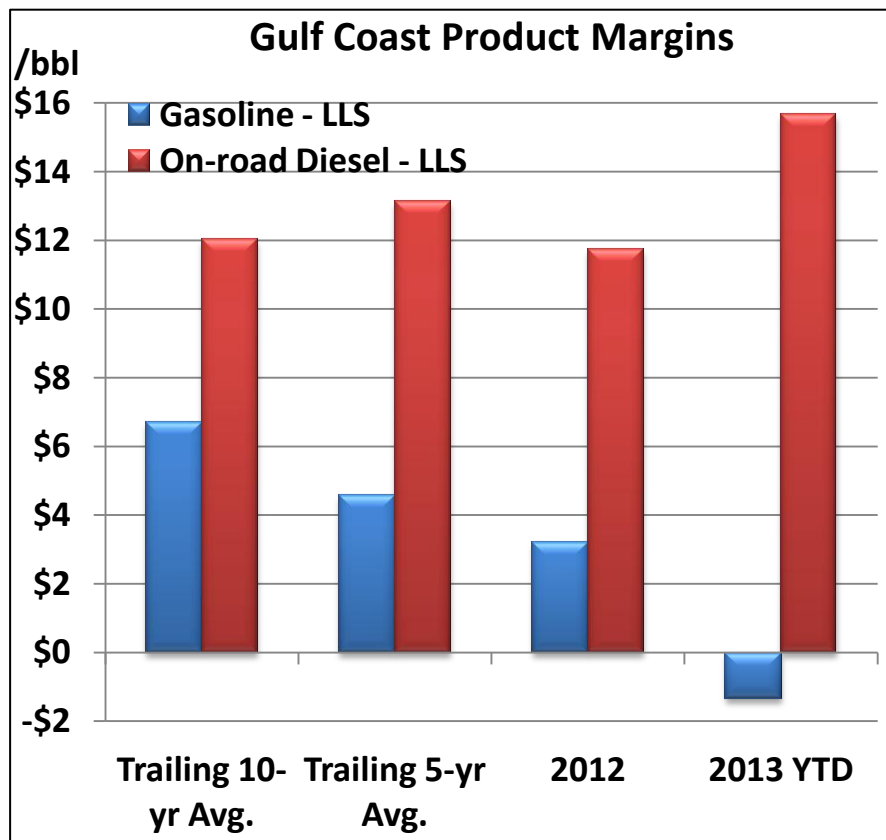
- Expect U.S. natural gas prices will remain low and disconnected from global oil and LNG prices for foreseeable future
- VLO refinery operations consume up to 700,000 mmBtus/day of natural gas at full utilization, split roughly in half between operating expense and gross margin
  - Increased from 600,000 with the addition of hydrocrackers at Port Arthur and St. Charles



Note: Per barrel cost of 600,000 mmBtus/day of natural gas consumption at 90% utilization (2,529 MBPD) of Valero's capacity

# Distillates Have Higher Margins and Faster Growth

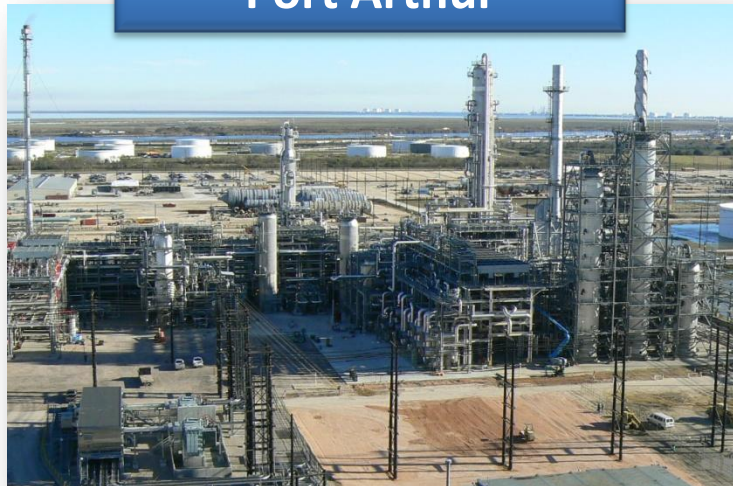
- Distillate (diesel, kero, jet fuel) margins are significantly higher than gasoline
- Distillate demand growth rate is much higher than gasoline
- Europe continues to be short diesel, but long marginal refining capacity and processing expensive crude oils and natural gas



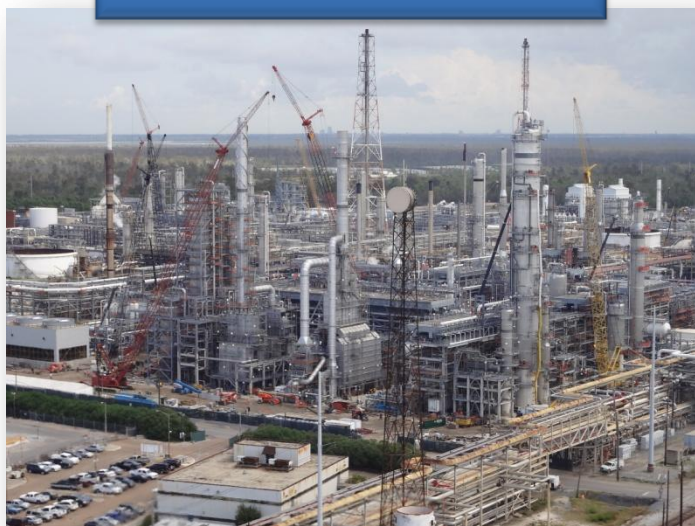
Source: Argus, 2013 YTD through February 1, 2013

# Successfully Completed Port Arthur Hydrocracker

**Port Arthur**



**St. Charles**

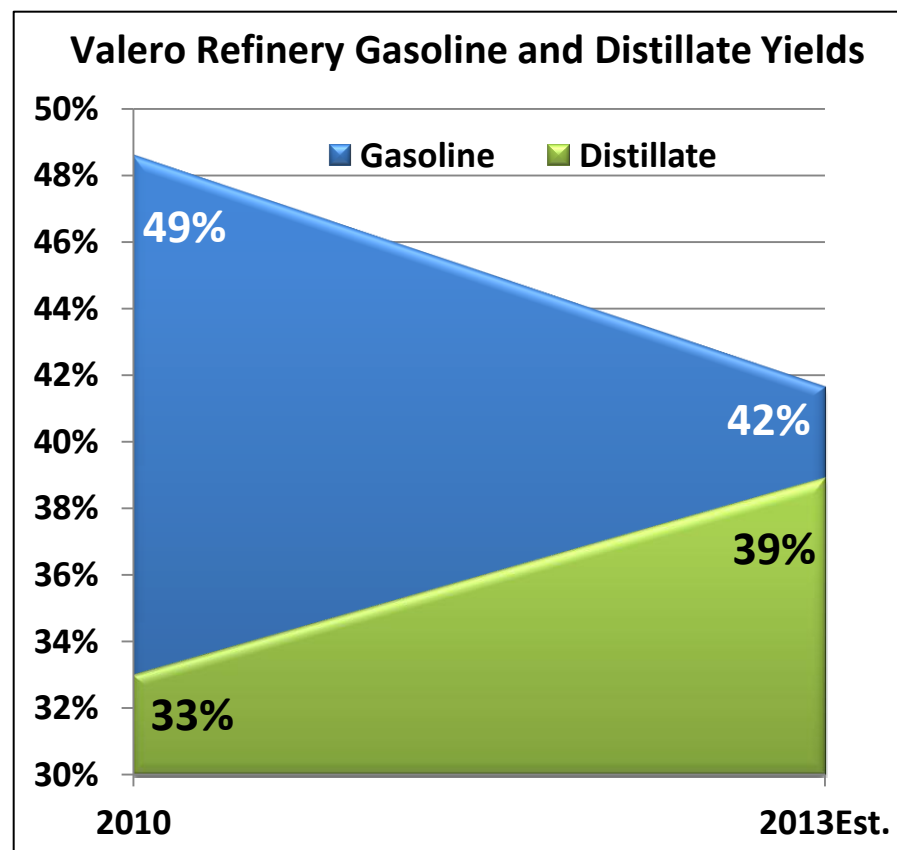
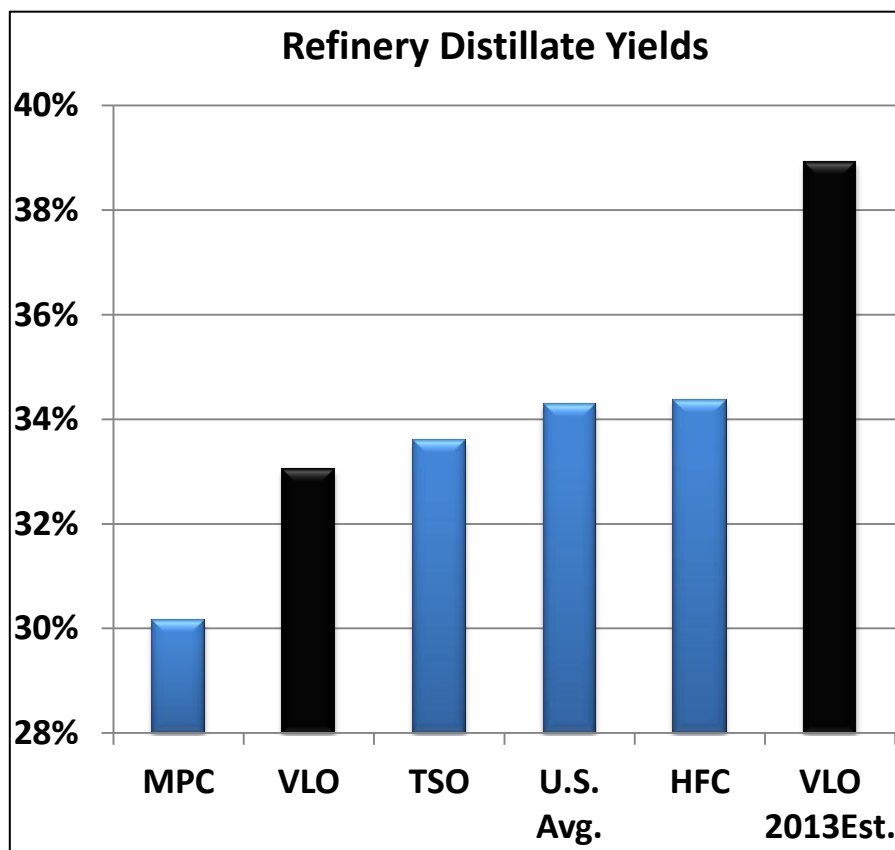


- **57,000 BPD Port Arthur hydrocracker completed and operating above expectations**
  - With recent price environment and current unit performance, project is meeting or exceeding economic expectations
  - Diesel quality higher than expected
    - Provides blending opportunity to upgrade margin on lower-quality distillate production
  - Total distillate yield higher than expected
- **Estimate 60,000 BPD St. Charles HCU mechanical completion and operating at capacity in 2Q13**
- **Both hydrocrackers were designed to benefit from the high crude and low natural gas price outlook**
- **Pursuing projects to expand capacity of each unit to 75,000 BPD in 2015**



# Valero Increasing Distillate Yields

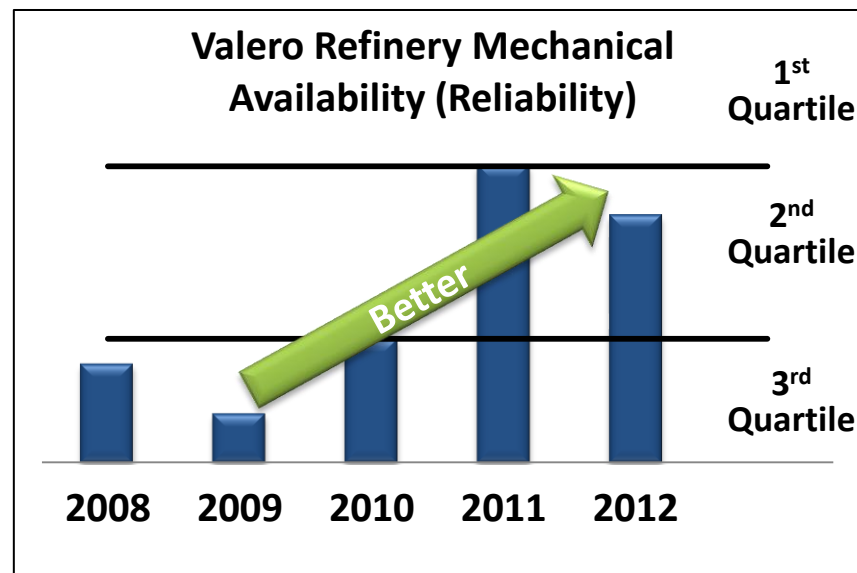
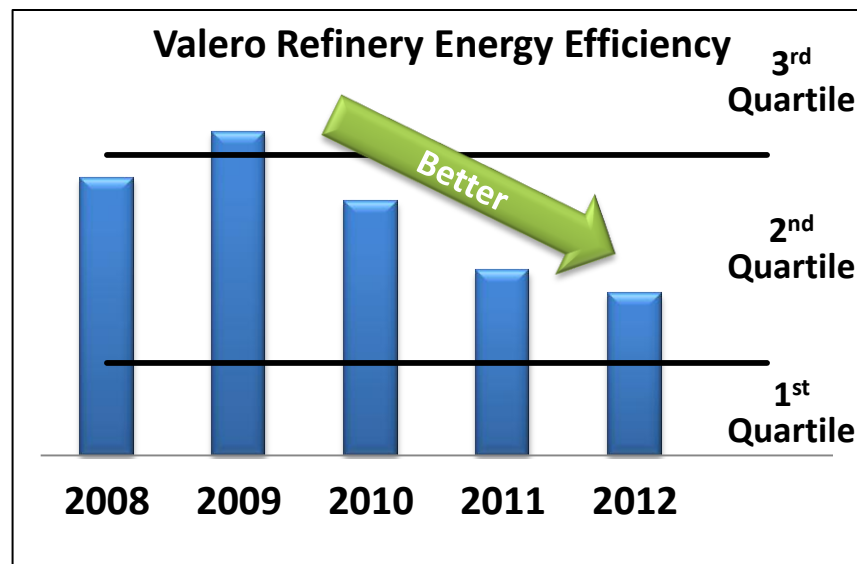
- Valero's refining system distillate yields are expected to grow from 33% in 2010 to 39% in 2013
- Primary driver for increase is the completion of hydrocracker projects
- Recent acquisitions have also increased distillate yields



Source: Company Reports and EIA, yield data is for 2010; gasoline and distillate as a percent of total production volumes; distillate includes jet fuel

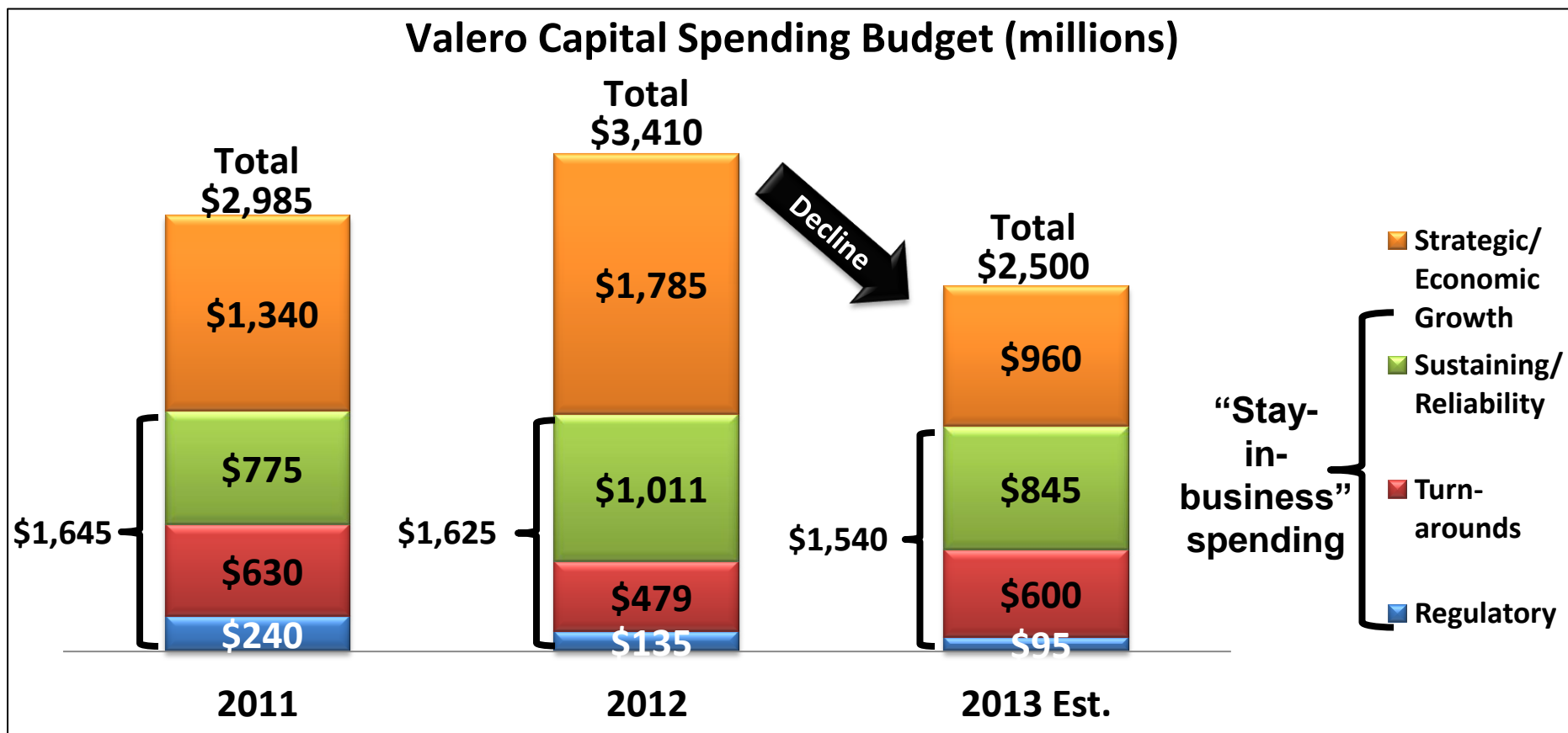
# Improving Refinery Operations

- Our goal is to be a 1<sup>st</sup>-quartile refiner
- Refining industry benchmark studies show our portfolio continues to improve
- Seven refineries currently operating in 1<sup>st</sup> quartile for mechanical availability, the most important Solomon metric
- Saw results from improvement initiatives in 2011 and 2012
  - 2011 was first full-year with 1<sup>st</sup> quartile portfolio performance in mechanical availability
  - 2012 is best-ever energy efficiency for refining portfolio
  - Excluding Meraux fire in 3Q12, mechanical availability would have remained 1<sup>st</sup> quartile in 2012
- Working diligently on weaker performers to improve entire portfolio



Source: Solomon Associates and Valero Energy; excludes Aruba

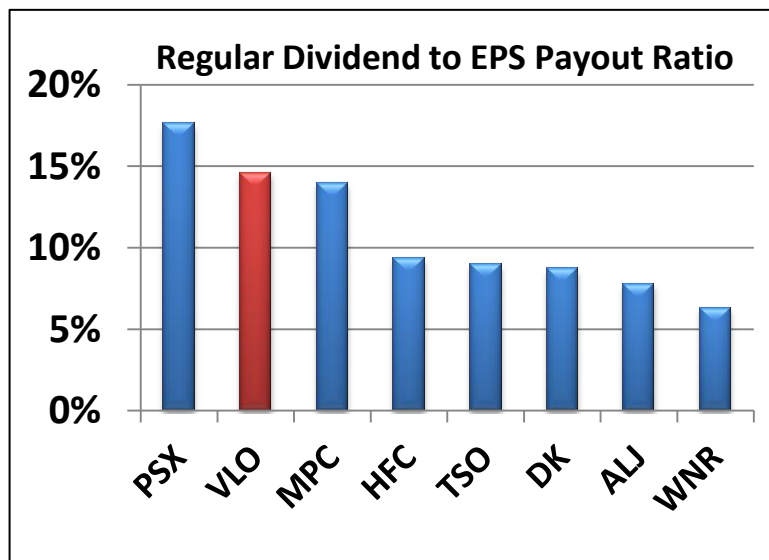
# Expect Large Decline in Capital Spending in 2013



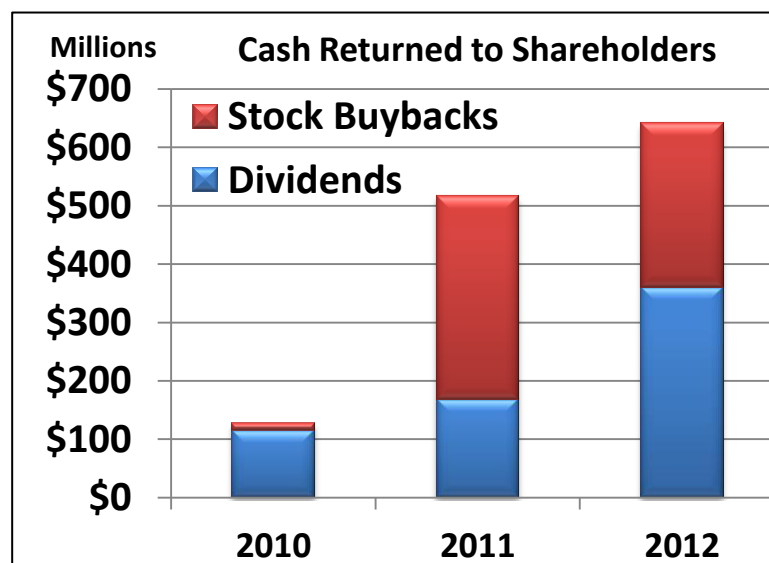
- 2012 capital high due to spending on growth projects, mainly on two new hydrocrackers
- For 2013, largest category of strategic/growth spending is for logistics projects (pipelines, tanks, docks and rail)
- 2013 Retail (U.S. and Canada) capital estimated at approximately \$200 million with about 75% in the strategic/economic growth category

# Managing Financial Strength and Growing Cash Yield

- **Expect significant contributions of free cash flow from reduced capital spending and earnings from major capital projects in 2013**
- **Returning cash to shareholders**
  - Increased quarterly dividend from \$0.05 per share in 2Q11 to \$0.20 per share in 1Q13
  - Bought 10.6 million shares for \$281 million in 2012 and 16.7 million shares for \$347 million in 2011
- **Goal is to have one of the highest cash yields among peers via dividends and buybacks**
- **\$1.7 billion of cash and \$5.7 billion of additional liquidity on December 31, 2012**
- **Maintaining investment grade credit rating is a priority**
  - Reduced debt by \$558 million in 2012
  - Paid off \$180 million of debt in January 2013 and plan to pay off an additional \$300 million in 2Q13
  - Net debt-to-cap ratio at 12/31/12 was 22.7%
    - Far below credit facility covenant of 60%
    - No other coverage-type ratios or borrowings on bank revolver
- **Retail spin-off to shareholders planned for 2Q13**
  - Returning more value to shareholders



Source: 2013 EPS estimates from First Call as of 1-29-13



# Valero's Strategic Priorities

- **Constant focus on safety, environmental, and regulatory compliance**
- **Maintain investment grade credit rating**
- **Continue improvement in refining portfolio performance to 1<sup>st</sup> quartile levels**
- **Complete major, value-added capital projects**
- **Improve portfolio performance**
  - Evaluate options for poor performing assets
  - Evaluate attractively priced, strategic, and accretive acquisitions with strong synergies
  - Continue to upgrade product streams
- **Continue to return available cash to shareholders, with high yield vs. peer group**

**Goal: Increase long-term shareholder value**



# **We Believe Valero Is an Excellent Buy Today**

- **Seeking shareholder value creation via retail separation**
- **Well-positioned to benefit from changing market trends**
  - **Atlantic Basin capacity closures have improved refining fundamentals**
  - **Benefiting from strong export market**
  - **Expect abundant U.S. shale and Canadian crude oil production to provide a cost advantage to U.S. Gulf Coast refiners versus foreign and U.S. East and West Coast refiners**
  - **Valero's hydrocracker projects take advantage of low-cost natural gas and high distillate demand and margins**
- **Improving performance and competitiveness of refining portfolio**
- **Key growth projects and falling capital expenditures should contribute significant free cash flow in 2013**
- **Returning more cash to shareholders**
  - **Goal to have one of the highest cash yields among peers (buybacks and dividends)**

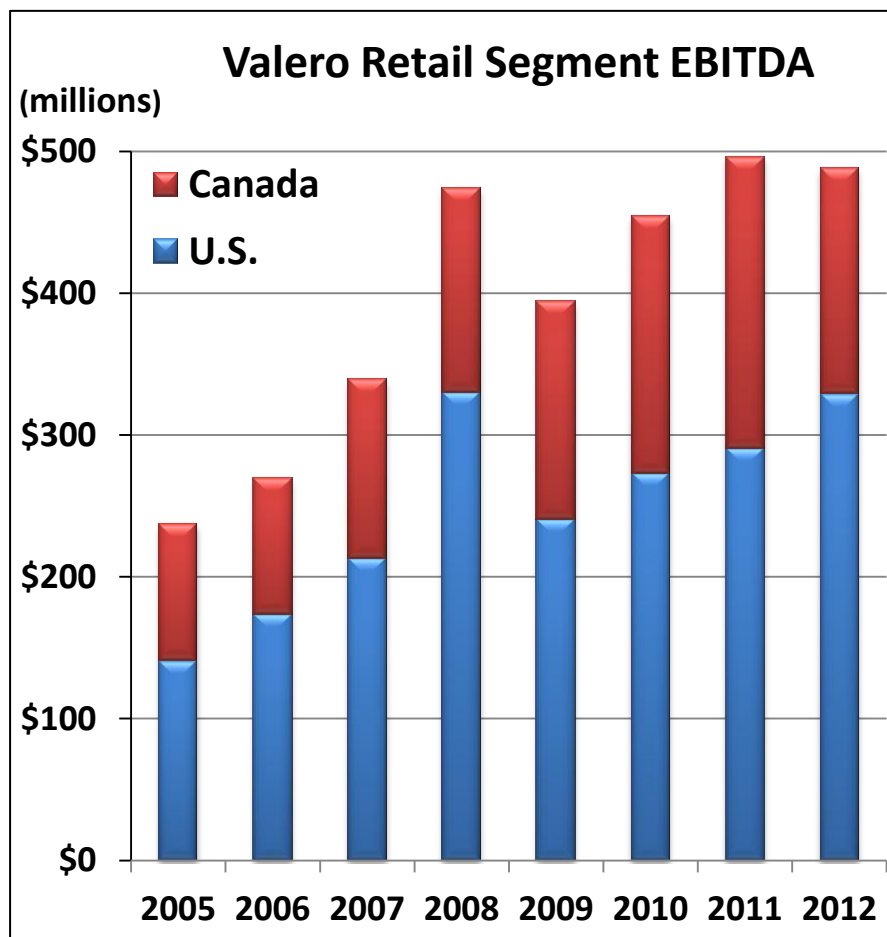
# Appendix

# Made Excellent Ethanol Acquisitions

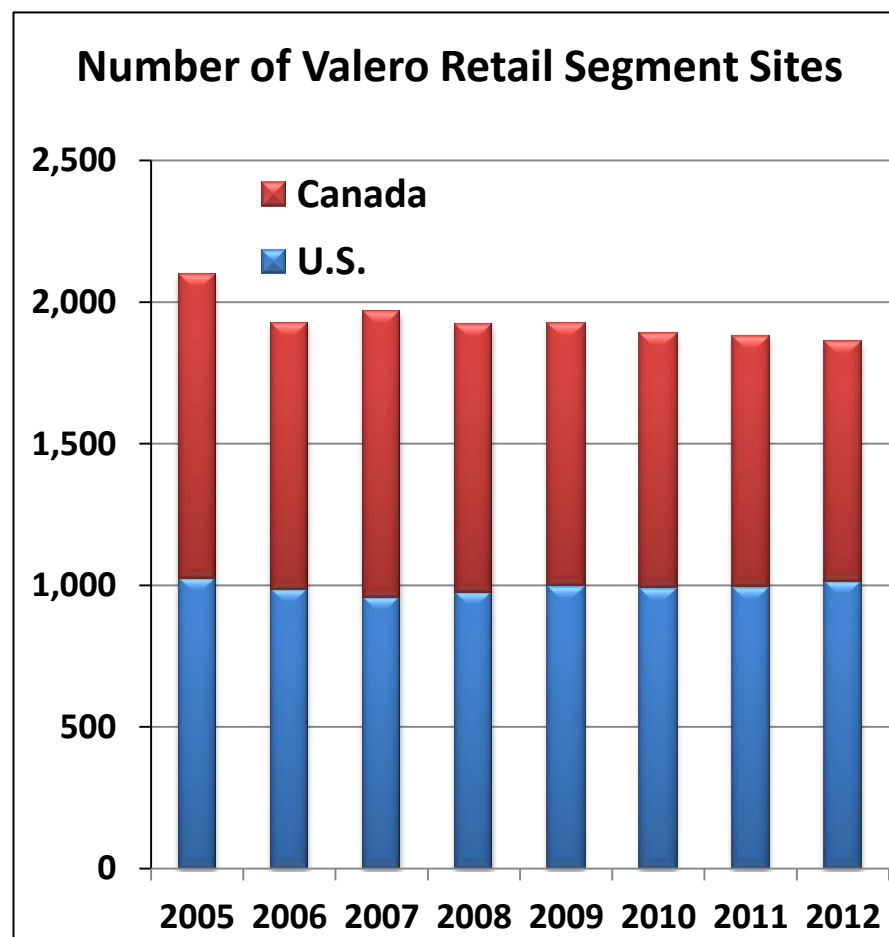
- **Built position for average of only 35% of estimated replacement cost**
  - 2Q09: Acquired 7 plants with 780 million gallons per year of world-scale capacity in advantaged locations
  - 1Q10: Added 3 plants with 330 million gallons per year of capacity
- **Expect margins to improve**
  - Extended narrow margins should rationalize less competitive capacity
  - High crude oil prices support ethanol prices
  - International demand supporting margins
  - 2013 corn ethanol mandate grows 4.7% over 2012
- **Valero's low-cost acquisitions of high-quality plants imply a competitive advantage in any margin environment**
- **Provides platform for future production of advanced biofuels**



# Valero's Retail Segment Performance



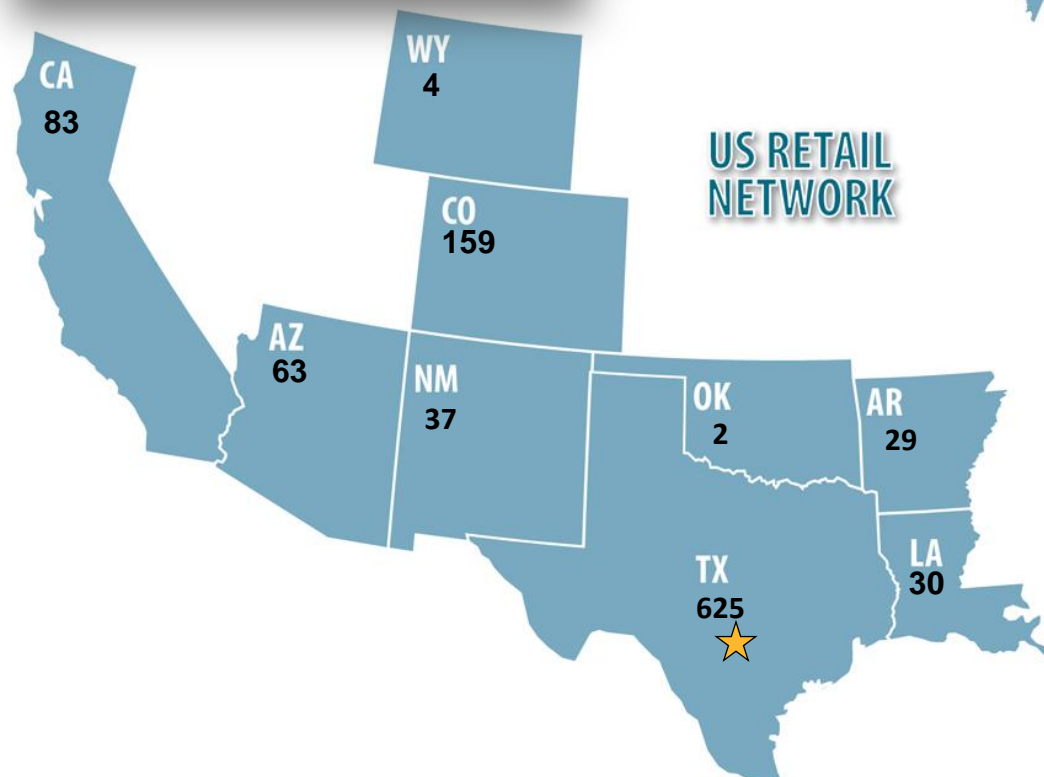
Note: EBITDA = Pretax operating income + depreciation and amortization + special items, excludes interest expense; see reconciliation in appendix



Note: includes all Canadian motorist and cardlock sites reported in Canadian results

- **Retail achieved record EBITDA in 2011 and second highest year in 2012**
- **Going forward, CST Brands, Inc. will incur incremental costs not reflected in the numbers above, such as corporate G&A**

# Geographically Diverse Operations



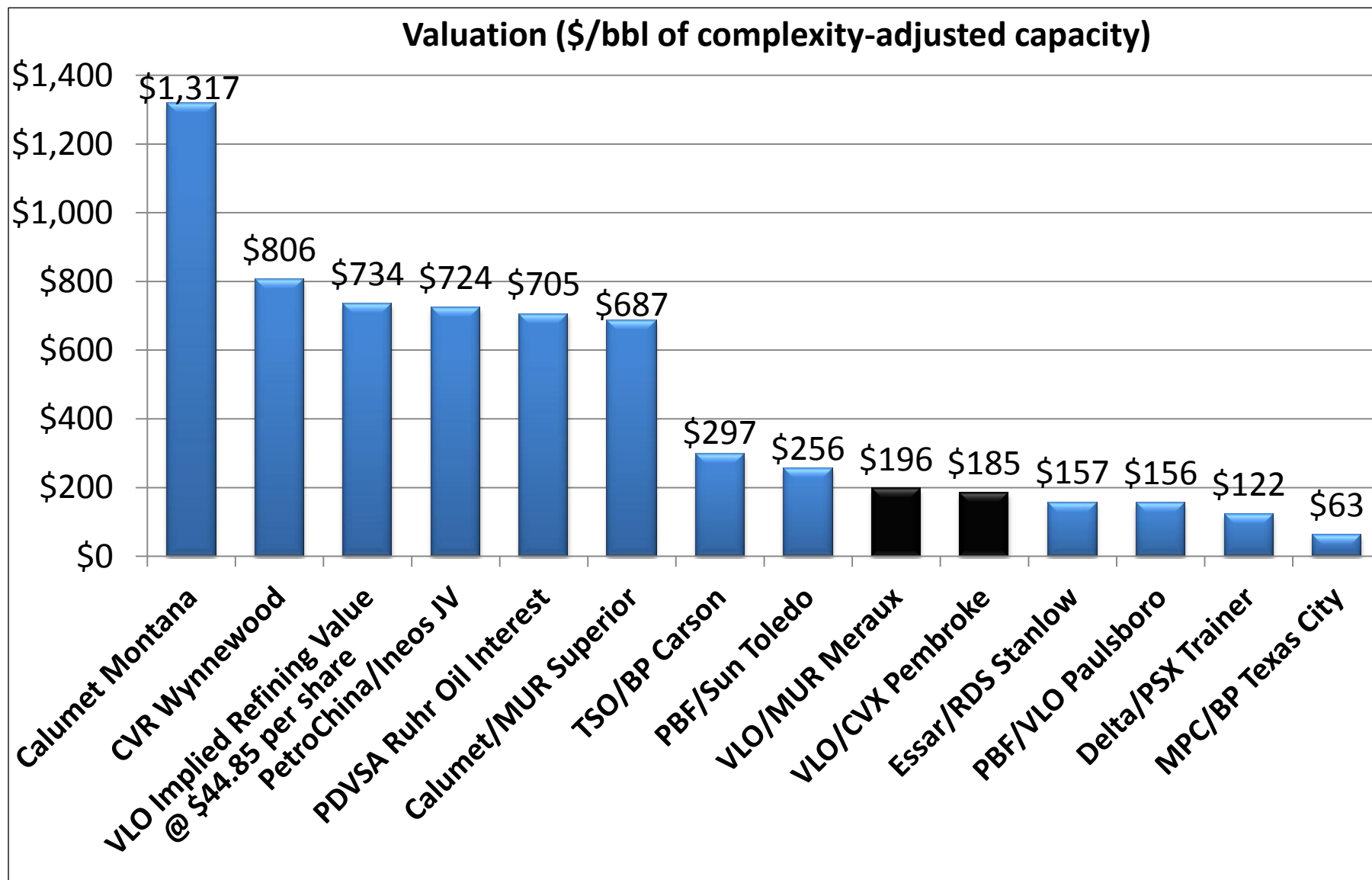
|                                  | U.S.         |             | Canada     |             | Total        |             |
|----------------------------------|--------------|-------------|------------|-------------|--------------|-------------|
| Owned                            | 833          | 81%         | 284        | 33%         | 1,117        | 60%         |
| Leased land, and/or improvements | 199          | 19%         | 484        | 57%         | 683          | 36%         |
| Cardlock                         | 0            | 0%          | 80         | 10%         | 80           | 4%          |
| <b>Total</b>                     | <b>1,032</b> | <b>100%</b> | <b>848</b> | <b>100%</b> | <b>1,880</b> | <b>100%</b> |

As of December 31, 2012

★ Corner Store Headquarters – San Antonio, Texas



# Attractive Acquisition Prices for Meraux and Pembroke



# 2013 Strategic/Economic Growth Spending Details

| Refinery                | Project                    | Estimated Total Investment (millions) | Estimated 2013 Spend (millions) | Estimated Completion Date                | Estimated Key Economic Benefit                             | Key Drivers/Additional Comments  |
|-------------------------|----------------------------|---------------------------------------|---------------------------------|--|--|--|
| McKee                   | 25 MBPD Crude Unit Project | \$130                                 | \$50                            | 2Q14                                     | \$9 mm per year of EBITDA for every \$1/bbl of Brent – WTI | Brent – WTI differential; permitting in progress                                       |
| Quebec                  | Crude Logistics            | \$110-\$200                           | \$45                            | Early 2015                               | \$2-\$5/bbl improvement in feedstock cost                  | Enables substitution of cheaper North American crude oil versus more expensive imports |
| Houston                 | 90 MBPD Crude Topper       | \$220-\$280                           | \$110                           | Early 2015                               |  |  |
| Port Arthur             | 15 MBPD HCU Expansion      | \$160                                 | \$20                            | 2015                                     | Similar margins to base HCU project                        | Natural gas to diesel spread, volume expansion with high crude price                   |
| St. Charles             | 15 MBPD HCU Expansion      | \$160                                 | \$20                            | 2015                                     | Similar margins to base HCU project                        |  |
| Port Arthur/St. Charles | HCUs and Crude Projects    | \$135                                 | \$110                           | 2013 for HCUs<br>2014 for crude projects | Spending to complete HCUs and associated projects          |  |
| Meraux                  | 20 MBPD HCU Expansion      | \$160                                 | \$60                            | 2014                                     | \$75 - \$100 mm per year EBITDA                            |  |

Note: EBITDA = Pretax operating income + depreciation and amortization, excludes interest expense

# 2013 Strategic/Economic Growth Spending Details

| Refinery          | Project                    | Estimated Total Investment (millions) | Estimated 2013 Spend (millions) | Key Driver/Additional Comments  |
|-------------------|----------------------------|---------------------------------------|---------------------------------|---|
| Various locations | Logistics Improvements     | \$365                                 | \$205                           | Additional logistics facilities focused on lowering feedstock costs, increasing product marketing flexibility. Projects include dock facilities, rail unloading, pipeline, and terminal projects                              |
| Various locations | Rail Car Purchase          | \$260                                 | \$60                            | Purchase 2,000 rail cars to expand fleet of rail cars to approximately 9,000 cars. Increases feedstock flexibility and access to discounted inland crudes   |
| Various Locations | Alternative Fuels Delivery | \$35                                  | \$30                            | Add additional facilities for ethanol receipts and sales at Pembroke and add biodiesel blending facilities at Three Rivers  |
| Various Locations | Refinery Optimization      | \$185                                 | \$60                            | Many smaller projects to improve the efficiency and profitability of our refineries. Examples: new reactor for previous Port Arthur hydrocracker to extend runtime, energy efficiency projects, and advanced process controls |
| Retail            | Strategic Capital          | N/A                                   | \$145                           | New stores, remodels, and various other strategic spending  |

- Estimate total investment is spread over 2 to 5 years depending on the project

# Port Arthur Hydrocracker Project

## Investment Highlights

- Favorable economics driven by margin and volume gains
- Main unit is 57,000 barrels/day hydrocracker (rolling 12-month average per permit)
- Creates high-value products from low-value feedstocks plus hydrogen sourced from relatively inexpensive natural gas
- Unit has volume expansion up to 30%, but plan to optimize at 20%: 1 barrel of feedstocks yields up to 1.2 barrels of products
- Main products are high-quality diesel and jet fuel for growing global demand for middle distillates
- Located at large, Gulf Coast refinery to leverage existing operations and export logistics
- Also adding facilities to process over 150,000 barrels/day of high-acid, heavy sour crudes (e.g. Canadian and Latin American). This benefit is delayed until late-2014.

## Summary of Project Status and Economics<sup>1</sup>

|   |                 |
|---|-----------------|
| <b>Estimated mechanical completion date</b>   | <b>Complete</b> |
| <b>Estimated operation date</b>   | <b>Complete</b> |
| <b>Estimated total investment (mil.)</b>  | <b>\$1,620</b>  |
| <b>Cumulative spend thru 4Q 2012 (mil.)</b>   | <b>\$1,550</b>  |
| <b>Estimated Incremental EBITDA (Operating Income before D&amp;A<sup>2</sup>) (mil.), Base Case</b>         | <b>\$520</b>    |
| <b>Estimated Unlevered IRR on Total Spend, Base Case</b>  | <b>23%</b>      |
| <b>Estimated Incremental EBITDA (Operating Income before D&amp;A<sup>2</sup>) (mil.), 2011 Prices – LLS</b> | <b>\$634</b>    |

<sup>1</sup>See Appendix for key price assumptions; <sup>2</sup>D&A = depreciation and amortization expense

# St. Charles Hydrocracker Project

## Investment Highlights

- Favorable economics driven by margin and volume gains
- Main unit is 60,000 barrels/day hydrocracker
- Creates high-value products from low-value feedstocks plus hydrogen sourced from relatively inexpensive natural gas
- Unit has volume expansion up to 30%, but plan to optimize at 20%: 1 barrel of feedstocks yields up to 1.2 barrels of products
- Main products are high-quality diesel and jet fuel for growing global demand for middle distillates
- Located at large, Gulf Coast refinery to leverage existing operations

## Summary of Project Status and Economics<sup>1</sup>

|  |         |
|--|---------|
| Estimated mechanical completion date   | 2Q13    |
| Estimated operation date   | 2Q13    |
| Estimated total investment (mil.)  | \$1,630 |
| Cumulative spend thru 4Q 2012 (mil.)   | \$1,400 |
| Estimated Incremental EBITDA (Operating Income before D&A <sup>2</sup> ) (mil.), Base Case         | \$380   |
| Estimated Unlevered IRR on Total Spend, Base Case  | 17%     |
| Estimated Incremental EBITDA (Operating Income before D&A <sup>2</sup> ) (mil.), 2011 Prices – LLS | \$487   |

<sup>1</sup>See Appendix for key price assumptions; <sup>2</sup>D&A = depreciation and amortization expense



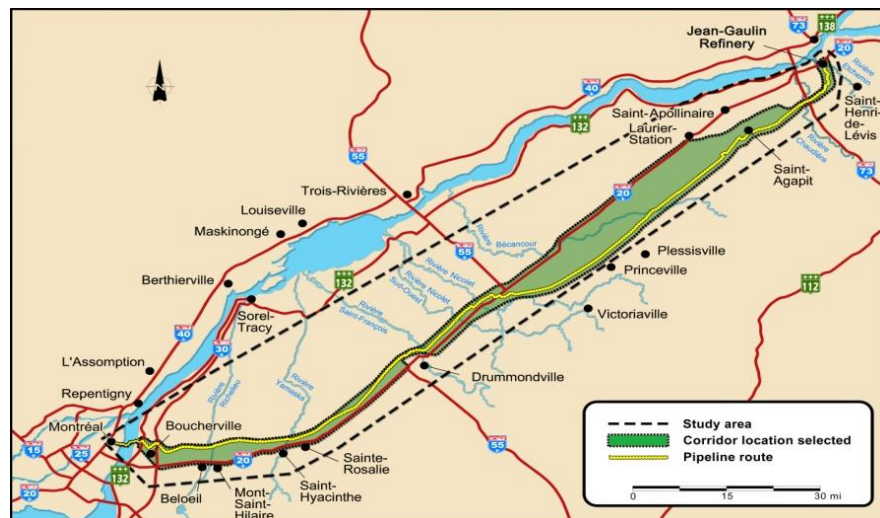
# Montreal Pipeline Project

## Investment Highlights

- Favorable economics driven by reducing transportation costs and growing volumes
- New pipeline with 100,000 barrels/day of throughput capacity
- Planned closure of Shell Montreal refinery allows Valero to place additional products into Montreal and Ontario markets
- Quebec refinery is largest refinery in the region with 1<sup>st</sup>-quartile performance and has a cost advantage
- Economic benefit builds to base case from 2013 to 2016

## Summary of Project Status and Economics<sup>1</sup>

|  |          |
|--|----------|
| Estimated completion date  | Complete |
| Estimated total investment (mil.)  | \$370    |
| Cumulative spend thru 4Q 2012 (mil.)   | \$370    |
| Estimated Incremental EBITDA (Operating Income before D&A <sup>2</sup> ) (mil.), Base Case | \$55     |
| Estimated Unlevered IRR on Total Spend   | 12%      |



<sup>1</sup>See Appendix for key price assumptions; <sup>2</sup>D&A = depreciation and amortization expense

# Diamond Green Diesel Joint Venture

## Investment Highlights

- Building a 9,300 BPD renewable diesel plant adjacent to Valero's St. Charles refinery
- 50/50 JV project with Darling Int'l, a leading gatherer of used cooking oils and animal fat
- Uses refinery technology to produce high-quality diesel from low-quality, low-cost cooking oils and fats
- Diesel production qualifies as biomass-based diesel, a difficult specification under the Renewable Fuels Standard
- Total estimated project cost of \$368 million
- Valero to provide 14-year term loan for up to \$221 million to JV at attractive rates
- Base case economics assume \$1.25/gal RIN value, when current market is \$0.45/gal to \$0.65/gal

## Summary of JV Status and Economics<sup>1</sup>

|  |                   |
|--|-------------------|
| <b>Estimated mechanical completion date</b>  | <b>Late 1Q13</b>  |
| <b>Estimated operation date</b>  | <b>Early 2Q13</b> |
| <b>Estimated Partner Equity (mil.)</b>   | <b>\$106</b>      |
| <b>Cumulative Valero project spend thru 4Q 2012 (mil.)</b>                                     | <b>\$314</b>      |
| <b>Estimated Valero EBITDA (Operating Income before D&amp;A<sup>2</sup>) (mil.), Base Case</b> | <b>\$55</b>       |
| <b>Estimated Unlevered IRR on Partner Equity and Loan, Base Case</b>                           | <b>21%</b>        |

<sup>1</sup>See Appendix for key price assumptions; <sup>2</sup>D&A = depreciation and amortization expense

# Project Price Set Assumptions

- Prices shown below are for illustrating a potential estimate for Valero's economic projects
- Price assumptions are based on a blend of recent market prices and Valero's price forecast

| Commodity                        | Base Case<br>(\$/barrel) | 2008<br>(\$/barrel) | 2009<br>(\$/barrel) | 2010<br>(\$/barrel) | 2011<br>(\$/barrel) | 2012<br>(\$/barrel) |
|----------------------------------|--------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| LLS Crude oil <sup>1</sup>       | 85.00                    | 102.07              | 62.75               | 81.64               | 111.09              | 112.20              |
| LLS - USGC HS Gas Oil            | -3.45                    | 2.03                | -2.86               | -2.72               | -5.75               | -7.59               |
| USGC Gas Crack                   | 6.00                     | 2.47                | 6.91                | 5.32                | 5.11                | 4.66                |
| USGC ULSD Crack                  | 11.00                    | 20.5                | 7.26                | 8.94                | 13.24               | 15.99               |
| Natural Gas, \$/MMBTU<br>(NYMEX) | 5.00                     | 8.90                | 4.16                | 4.38                | 4.03                | 2.71                |

<sup>1</sup>LLS prices are roll adjusted

# Project Price Sensitivities

- Price sensitivities shown below are for illustrating a potential estimate for Valero's economic projects
- Price assumptions are based on a blend of recent market prices and Valero's price forecast

| EBITDA <sup>1</sup> Sensitivities<br>(Delta \$ millions/year) | Port<br>Arthur<br>HCU | St.<br>Charles<br>HCU |
|---|-----------------------|-----------------------|
| Crude oil, + \$1/BBL  | 4                     | 3.6                   |
| Crude oil - USGC HS Gas Oil, + \$1/BBL                        | 16.7                  | 17.8                  |
| USGC Gas Crack, + \$1/BBL                                     | 12.9                  | 13.3                  |
| USGC ULSD Crack, + \$1/BBL                                    | 18.4                  | 20.8                  |
| Natural Gas, - \$1/MMBTU                                      | 18.3                  | 19.7                  |
| Total Investment IRR to 10% cost                              | 1.3%                  | 1.5%                  |

<sup>1</sup>Operating income before depreciation and amortization expense

# Key Drivers for a 60,000 BPD Hydrocracker

- Key economic driver is the expected significant liquid-volume expansion of 20%, which primarily comes from the hydrogen saturation via the high-pressure, high-conversion design
- Designed to maximize distillate yields

## Hydrocracker Unit Feedstocks

|                                       |               |
|---------------------------------------|---------------|
| High-sulfur VGO                       | 60,000 BPD    |
| (Internally produced or purchased)    |               |
| Hydrogen                              | 124 MMSCF/day |
| (via 40,000 mmbtu/day of natural gas) |               |

## Hydrocracker Unit Operating Costs

|  |                   |
|--|-------------------|
| Heat, power, labor, etc.                               | \$1.50 per barrel |
| (per barrel amount based on hydrocracker unit volumes) |                   |

## Hydrocracker Unit Products (BPD)

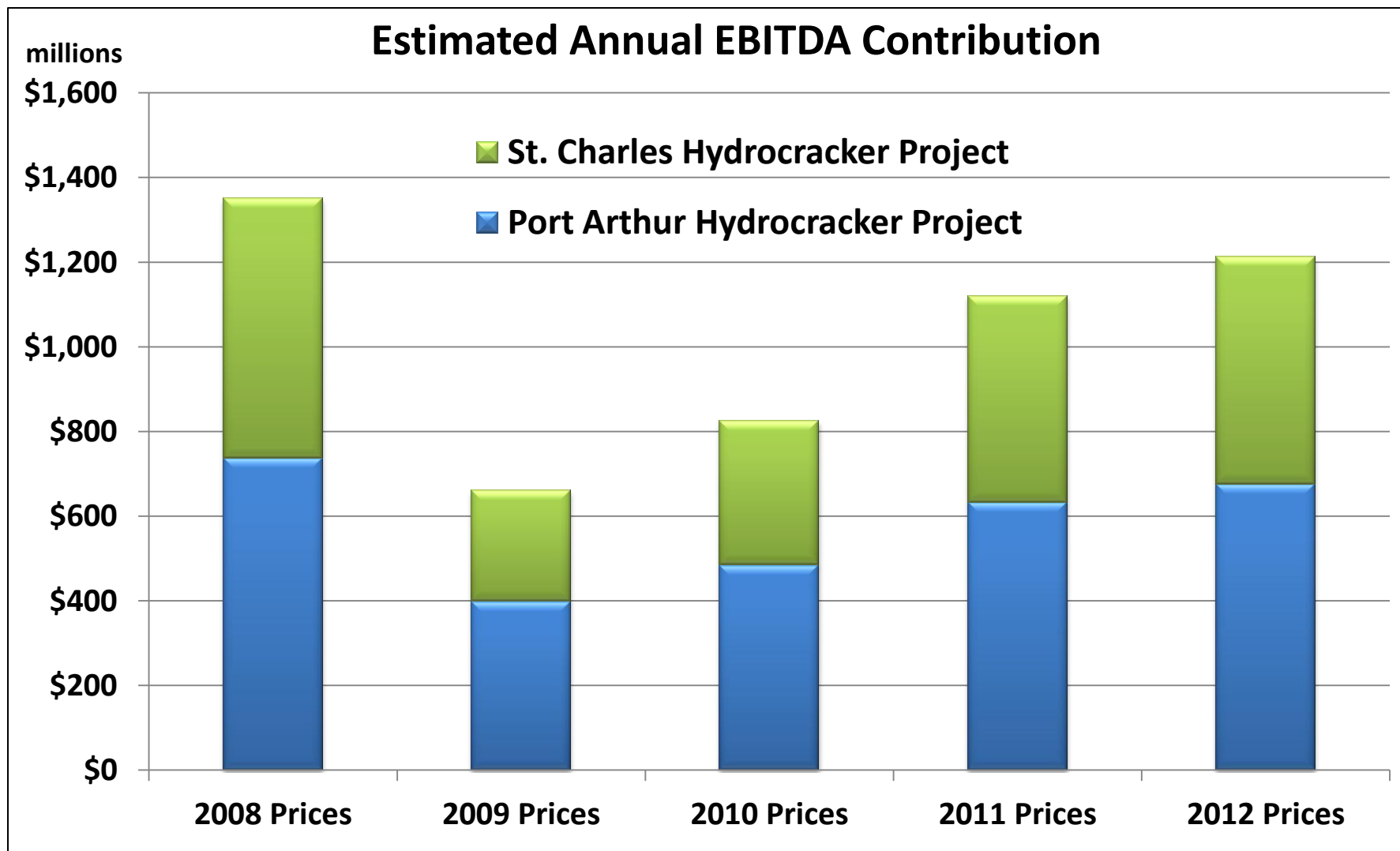
|                                 |               |
|---------------------------------|---------------|
| Distillates (diesel, jet, kero) | 44,000        |
| Gasoline and blendstocks        | 24,000        |
| LPGs                            | 3,000         |
| Low-sulfur VGO                  | 1,000         |
| <b>Total</b>                    | <b>72,000</b> |

## Synergies with Plant

|  |                 |
|--|-----------------|
| With existing plant                                    | ~\$1 per barrel |
| (per barrel amount based on hydrocracker unit volumes) |                 |

**12,000 BPD (20%) volume expansion**

# Valero's Hydrocracker Projects Show Profits Under Various Price Sets



Note: EBITDA = Pretax operating income + depreciation and amortization, excludes interest expense; see details in appendix;





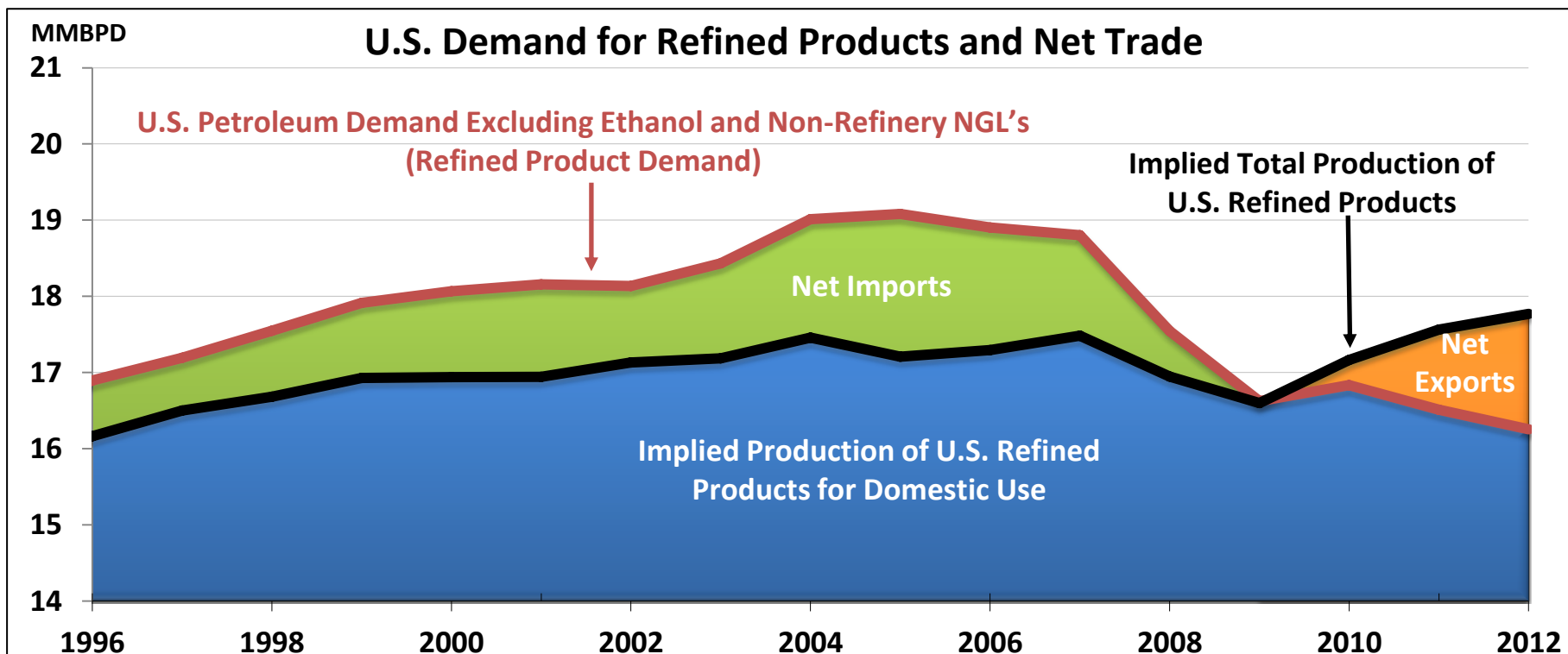
# 60,000 BPD Hydrocracker Model Estimates Under Various Price Sets

| Key Drivers and Prices                 | 2008 Prices |            | 2009 Prices |            | 2010 Prices |            | 2011 Prices |            | 2012 Prices |            |
|--|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|
| LLS /bbl                               | \$102.07    |            | \$62.75     |            | \$81.64     |            | \$111.09    |            | \$112.20    |            |
| LLS – HSVGO /bbl                       | \$2.03      |            | -\$2.86     |            | -\$2.72     |            | -\$5.75     |            | -\$7.59     |            |
| GC Gasoline – LLS /bbl                 | \$2.47      |            | \$6.91      |            | \$5.32      |            | \$5.11      |            | \$4.66      |            |
| GC Diesel – LLS /bbl                   | \$20.50     |            | \$7.26      |            | \$8.94      |            | \$13.24     |            | \$15.99     |            |
| Natural Gas (NYMEX) /mmBtu             | \$8.90      |            | \$4.16      |            | \$4.38      |            | \$4.03      |            | \$2.71      |            |
| Natural Gas to H2 cost factor \$/mmBtu | 1.5x        |            | 1.5x        |            | 1.5x        |            | 1.5x        |            | 1.5         |            |
| H2 Consumption SCF /bbl                | 2,050       |            | 2,050       |            | 2,050       |            | 2,050       |            | 2,050       |            |
| GC LSVG0 – HSVGO /bbl                  | \$4.28      |            | \$2.85      |            | \$3.21      |            | \$3.87      |            | \$3.14      |            |
| GC LPGs – LLS /bbl                     | -\$40.02    |            | -\$20.11    |            | -\$23.97    |            | -\$38.30    |            | -\$49.70    |            |
| Feedstocks (Barrels per day)           | Bbl/day     |            | Bbl/day     |            | Bbl/day     |            | Bbl/day     |            | Bbl/day     |            |
| HSVGO                                  | 60,000      |            | 60,000      |            | 60,000      |            | 60,000      |            | 60,000      |            |
| Hydrogen                               | 6,709       |            | 6,709       |            | 6,709       |            | 6,709       |            | 6,709       |            |
| Product Yields                         |             |            |             |            |             |            |             |            |             |            |
| Distillates (diesel, jet, kero)        | 61%         | 43,902     | 61%         | 43,902     | 61%         | 43,902     | 61%         | 43,902     | 61%         | 43,902     |
| Gasoline and blendstocks               | 33%         | 23,940     | 33%         | 23,940     | 33%         | 23,940     | 33%         | 23,940     | 33%         | 23,940     |
| LPGs                                   | 4%          | 3,042      | 4%          | 3,042      | 4%          | 3,042      | 4%          | 3,042      | 4%          | 3,042      |
| LSVGO                                  | 2%          | 1,338      | 2%          | 1,338      | 2%          | 1,338      | 2%          | 1,338      | 2%          | 1,338      |
| Total Product Yields                   | 100%        | 72,222     | 100%        | 72,222     | 100%        | 72,222     | 100%        | 72,222     | 100%        | 72,222     |
| Volume Expansion on HSVGO              | 20%         |            | 20%         |            | 20%         |            | 20%         |            | 20%         |            |
| Estimated Profit Model                 | Per Bbl     | \$Mil./day | Per Bbl     | \$Mil./day | Per Bbl     | \$Mil./day | Per Bbl     | \$Mil./day | Per Bbl     | \$Mil./day |
| Revenues                               | \$136.87    | \$8.2      | \$82.71     | \$5.0      | \$105.85    | \$6.4      | \$143.72    | \$8.6      | \$146.33    | \$8.8      |
| Less: Feedstock cost                   | -\$109.07   | -\$6.5     | -\$69.83    | -\$4.2     | -\$88.80    | -\$5.3     | -\$120.93   | -\$7.3     | -\$122.54   | -\$7.4     |
| = Gross Margin                         | \$27.80     | \$1.7      | \$12.88     | \$0.8      | \$17.05     | \$1.0      | \$22.79     | \$1.4      | \$23.79     | \$1.4      |
| Less: Cash Operating Costs             | -\$1.50     | -\$0.1     | -\$1.50     | -\$0.1     | -\$1.50     | -\$0.1     | -\$1.50     | -\$0.1     | -\$1.50     | -\$0.1     |
| Add: Synergies                         | \$1.70      | \$0.1      | \$0.55      | \$0.0      | \$0.03      | \$0.0      | \$0.95      | \$0.1      | \$0.95      | \$0.1      |
| = EBITDA                               | \$28.00     | \$1.7      | \$11.93     | \$0.7      | \$15.57     | \$0.9      | \$22.24     | \$1.3      | \$23.24     | \$1.4      |
| Estimated Annual EBITDA (\$MM/year)    | \$613       |            | \$261       |            | \$341       |            | \$487       |            | \$509       |            |

Note: 2012 YTD prices as December 31, 2012

# U.S. Shifted to Net Exporter

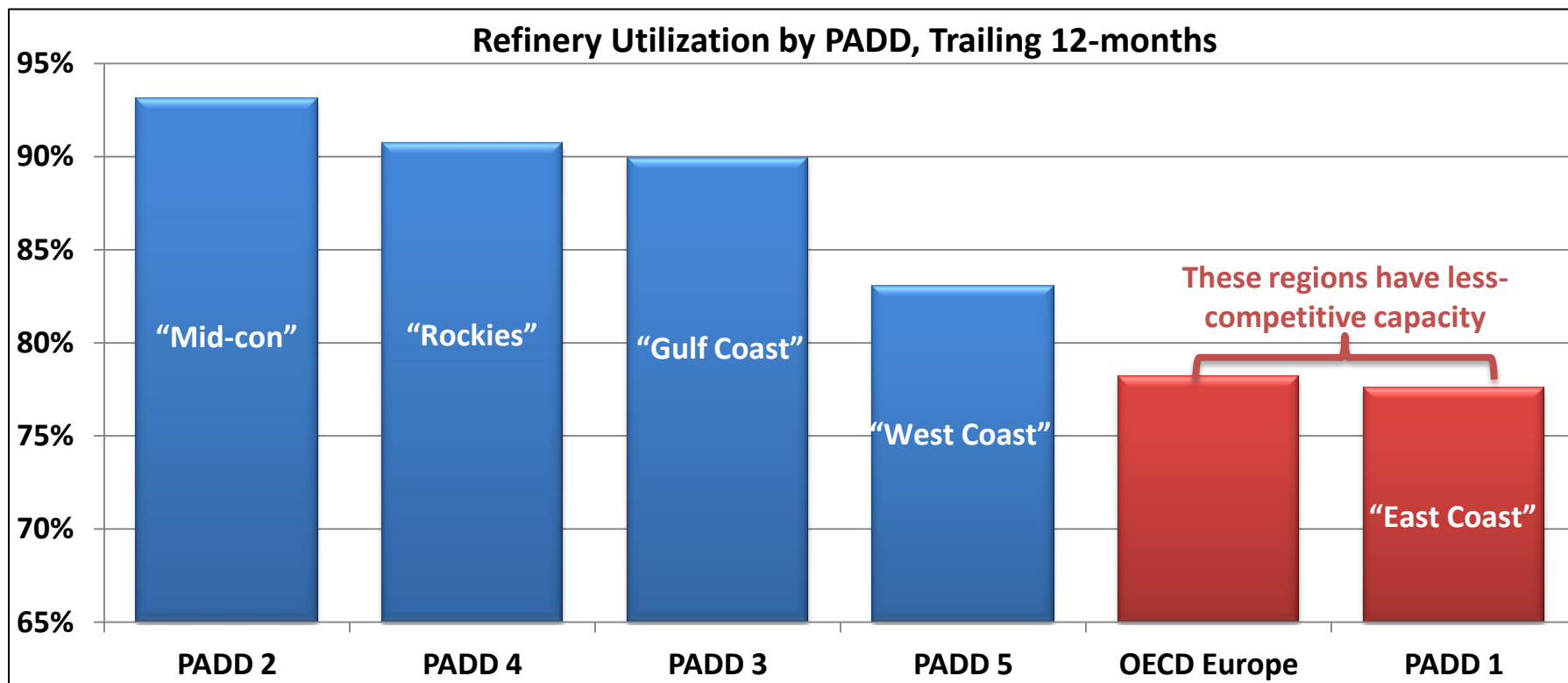
- The transition of the U.S. refining system to being a net exporter to the world market has mitigated the impact of declining domestic demand
  - Large quantities of U.S. diesel and gasoline exports to Latin America and diesel exports to Europe
- Strong international demand has been “pulling” products and paying higher values than in the U.S
- Valero’s share of U.S. exports has averaged 20% to 25% over the past few years



Note: Implied production = Petroleum demand excluding ethanol and non-refinery NGLs minus product net imports; Source: EIA, Consultant and Valero estimates

# U.S. Refining Capacity Is Globally Competitive

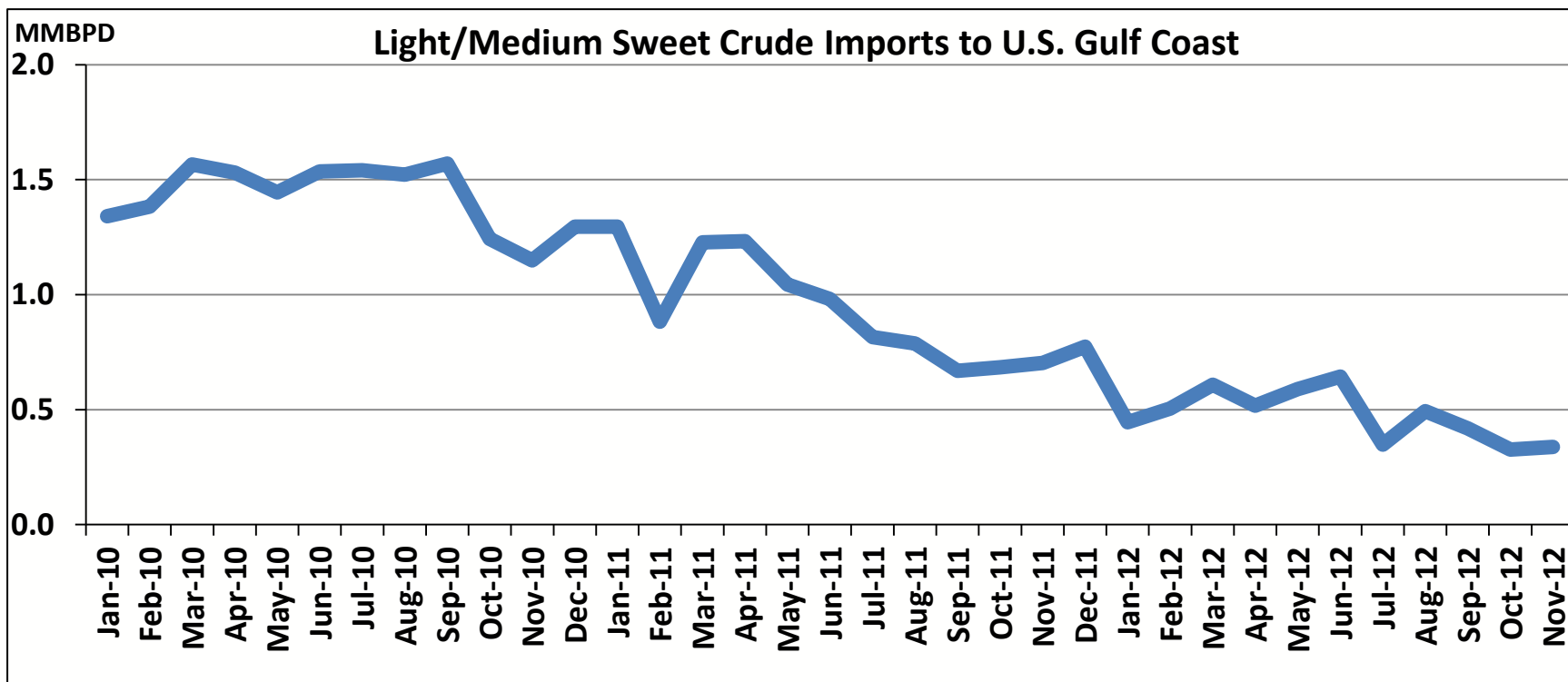
- U.S. refiners in PADDs 2, 3, and 4 have higher utilization due to structural advantages of increasing access to discounted crude feedstocks and low-cost energy via natural gas
- PADD 1 and Europe have lower utilization due to structural disadvantages of higher crude oil and operating costs
- Industry capacity expansions will continue to put pressure on marginal refineries in less-competitive regions, including recent restarts of previously closed capacity



Source: EIA and IEA, data as of November 2012

# Expect U.S. and Canadian Crude Supply to Provide Feedstock Cost Advantage

- Movements of inland crude to the U.S. Gulf Coast have caused Gulf Coast light/medium sweet crude imports to decline by about 1 MMBPD since 2010
- Expect all Gulf Coast light/medium crude imports could be pushed out of PADD III in 2013
  - Expect cost of Gulf Coast light crudes will go from structural ~\$2/bbl premium to structural discount under Brent
  - Expect Brent priced light sweet crudes to set global prices for waterborne crude and feedstocks
  - LLS may not be a good marker for Gulf Coast light crudes with abundant supply into Texas

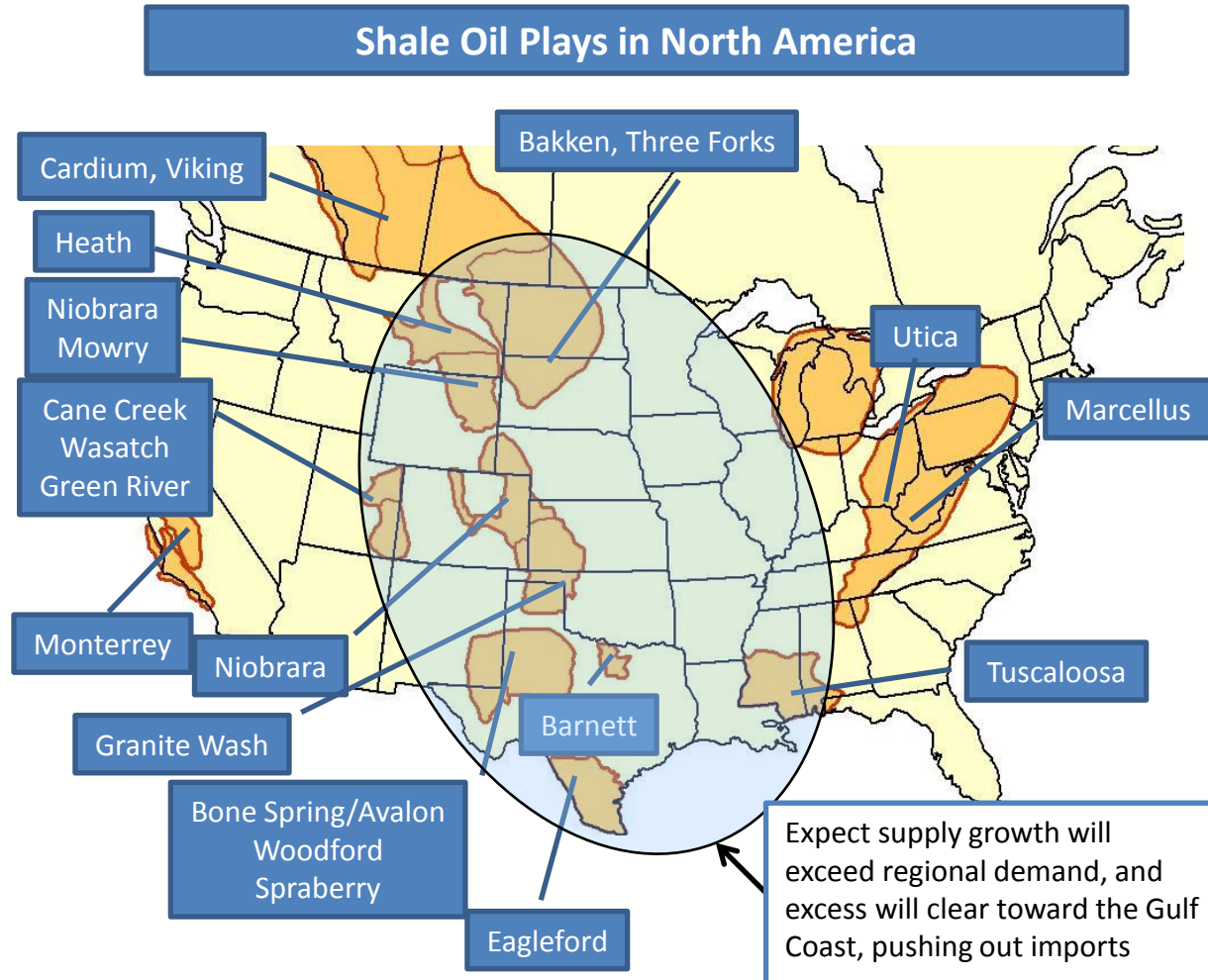


Note: Import volumes include light and medium crudes between 28 and 50 API with less than 0.7% sulfur

# U.S. Crude and Natural Gas Production – Tight Oil Supply Growth

The new U.S. shale plays are located in places that should provide additional barrels into the Rockies and Gulf Coast - pressuring crude imports and lowering natural gas prices

- The furthest along in development are in North Dakota (Bakken) and South Texas (Eagle Ford)
  - Each could see 500+ MBPD of growth in the next few years and potentially more thereafter
- Utica (Ohio) is potentially a large play, but is not as far along in development and oil production results so far have been weak
- Permian Basin – potentially huge



Source: Map from CERA

# Global Refining Capacity Rationalization

| Location                      | Owner        | CDU Capacity<br>Closed<br>(MBPD) | Year<br>Closed |
|-------------------------------|--------------|----------------------------------|----------------|
| Perth Amboy, NJ               | Chevron      | 80                               | 2008           |
| Bakersfield, CA               | Big West     | 65                               | 2008           |
| Westville, NJ                 | Sunoco       | 145                              | 2009           |
| Bloomfield, NM                | Western      | 17                               | 2009           |
| Teesside, UK                  | Petroplus    | 117                              | 2009           |
| Gonfreville, France*          | Total        | 100                              | 2009           |
| Dunkirk, France               | Total        | 140                              | 2009           |
| Japan*                        | Nippon Oil   | 205                              | 2009           |
| Toyama, Japan                 | Nihonkai Oil | 57                               | 2009           |
| Arpechim, Romania *           | Petrom       | 70                               | 2009           |
| Cartagena*                    | REPSOL       | 100                              | 2009           |
| Bilboa*                       | REPSOL       | 100                              | 2009           |
| Arpechim, Romania             | OMV          | 70                               | 2010           |
| Japan*                        | Cosmo        | 94                               | 2010           |
| Nadvornaja, Ukraine           | Privat Group | 50                               | 2010           |
| Montreal, Canada <sup>1</sup> | Shell        | 130                              | 2010           |
| Yorktown, Virginia            | Western      | 65                               | 2010           |
| Reichstett, France            | Petroplus    | 85                               | 2010           |
| Wilhelmshaven, Germany        | Phillips 66  | 260                              | 2010           |
| Ingolstadt, Germany           | Bayernoil    | 90                               | 2010           |
| Cremona, Italy                | Tamoil       | 94                               | 2011           |
| St. Croix, U.S.V.I.*          | Hovensa      | 150                              | 2011           |
| Funshun, China                | PetroChina   | 70                               | 2011           |

| Location                            | Owner           | CDU Capacity<br>Closed<br>(MBPD) | Year<br>Closed |
|-------------------------------------|-----------------|----------------------------------|----------------|
| Keihin Ohgimachi, Japan             | Showa Shell     | 120                              | 2011           |
| Clyde, Australia                    | Shell           | 75                               | 2011           |
| Porto Marghera, Italy               | ENI             | 70                               | 2011           |
| Marcus Hook, PA                     | Sunoco          | 175                              | 2011           |
| Harburg, Germany                    | Shell           | 107                              | 2012           |
| Berre, France                       | LyondellBassel  | 105                              | 2012           |
| Coryton, U.K.                       | Petroplus       | 220                              | 2012           |
| Petit Couronne, France <sup>1</sup> | Petroplus       | 160                              | 2012           |
| St. Croix, U.S.V.I                  | Hovensa         | 350                              | 2012           |
| Aruba                               | Valero          | 235                              | 2012           |
| Rome, Italy                         | TotalErg        | 82                               | 2012           |
| Fawley, U.K.*                       | ExxonMobil      | 80                               | 2012           |
| Trecate, Italy*                     | ExxonMobil      | 70                               | 2012           |
| Paramo, Czech Republic              | Unipetrol       | 20                               | 2012           |
| Lisichansk, Ukraine                 | TNK-BP          | 175                              | 2012           |
| Bakersfield/Paramount, CA           | Alon            | 90                               | 2012           |
| Ewa Beach, Hawaii                   | Tesoro          | 94                               | 2013           |
| Port Reading, NJ                    | Hess            | N/A                              | 2013           |
| Sakaide, Japan                      | Cosmo Oil       | 140                              | 2013           |
| Japan                               | Indemitsu Kosan | 100                              | 2014           |
| Japan                               | Nippon          | 200                              | 2014           |
| Kurnell, Australia                  | Caltex          | 135                              | 2014           |

\*Partial closure of refinery captured in capacity Note: This data represents refineries currently closed, ownership may choose to restart or sell listed refinery

Sources: Industry and Consultant reports and Valero estimates

<sup>1</sup>The Petit Couronne refinery has shut completely when processing deal with Shell ended in December 2012

<sup>2</sup>Alon announced the closure of these refineries for economic reasons, may restart



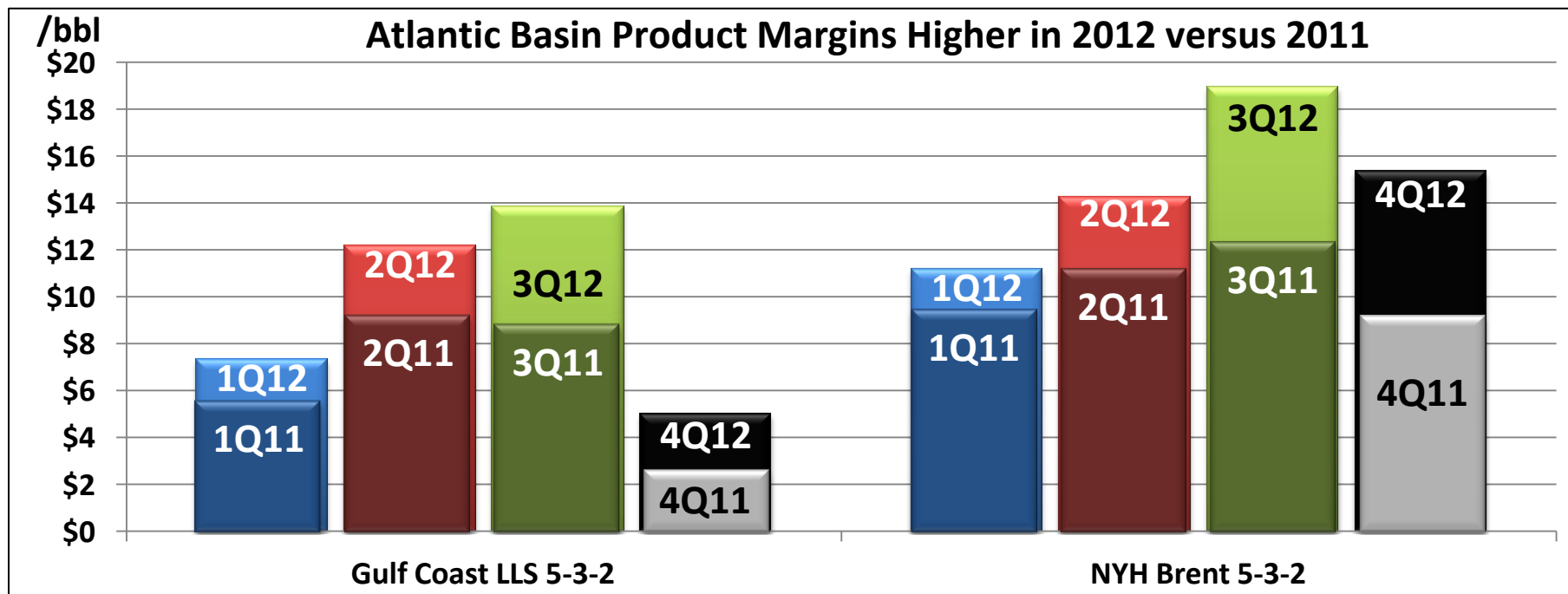
# Global Refining Capacity For Sale or Under Strategic Review

| Location                     | Owner                   | CDU Capacity (MBPD) |
|------------------------------|-------------------------|---------------------|
| Gothenburg, Sweden           | Shell                   | 80                  |
| Kapolei, HI                  | Chevron                 | 54                  |
| Milford Haven, UK            | Murphy                  | 108                 |
| Whitegate, Ireland           | Phillips 66             | 70                  |
| Mazeikai, Lithuania          | PKN                     | 190                 |
| Various Japanese Locations   | JX Energy               | 400                 |
| Incheon, South Korea         | SK Group                | 275                 |
| Okinawa, Japan               | Petrobras/Nansei Sekiyu | 100                 |
| Brisbane, Australia (Lytton) | Caltex                  | 109                 |
| Mongstad, Norway             | Statoil                 | 220                 |
| Dartmouth, Canada            | Imperial Oil            | 88                  |
| Pasadena, TX                 | Petrobras               | 100                 |
| Okinawa, Japan               | Petrobras               | 100                 |
| Falconara, Italy             | API                     | 80                  |

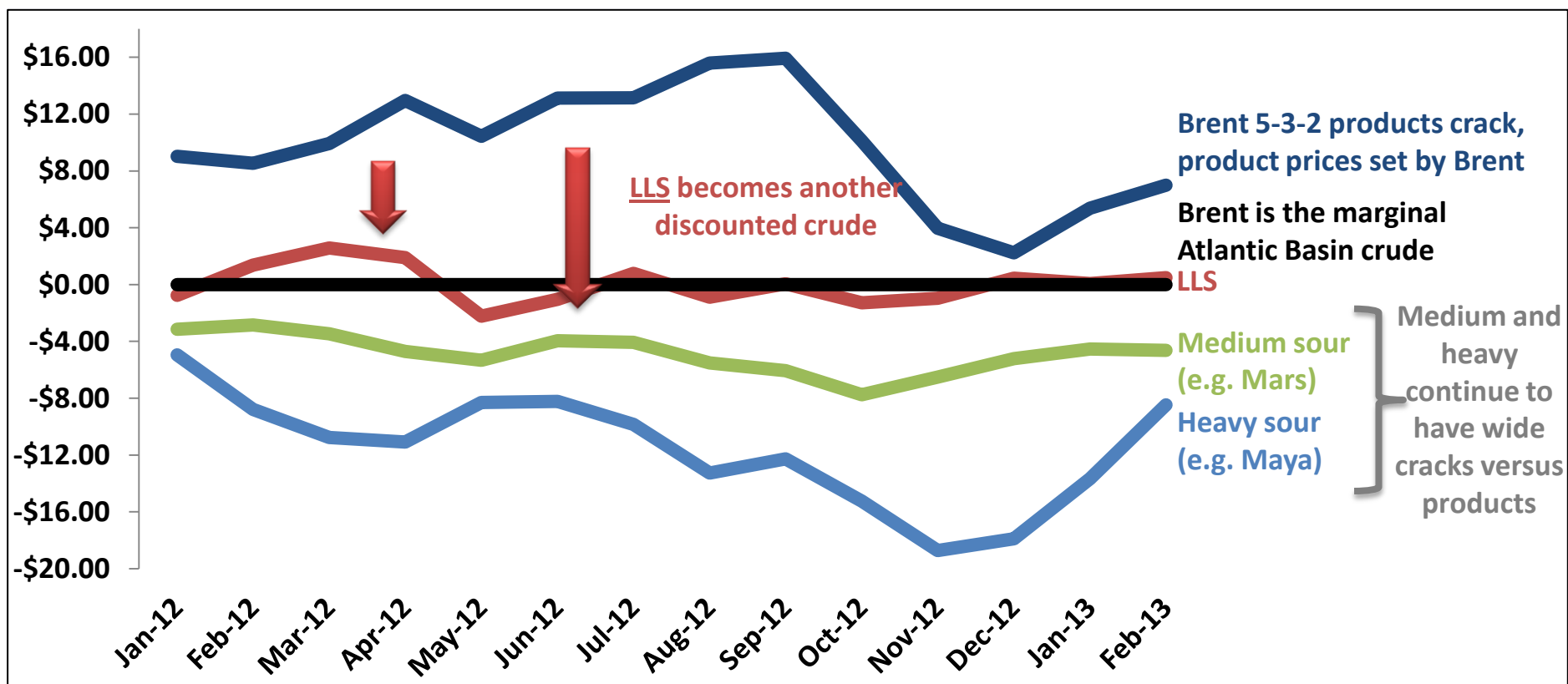
Sources: Industry and Consultant reports and Valero estimates

# Product Margins Responding to Atlantic Basin Closures

- With closures in 2012, Atlantic Basin product margins increased from prior year levels
  - Both gasoline and distillates (diesel, jet fuel, kerosene) improved over 2011
- Atlantic basin distillate inventories remain supportive



# Gulf Coast Light Crude Discount to Brent Improves Gulf Coast Competitiveness

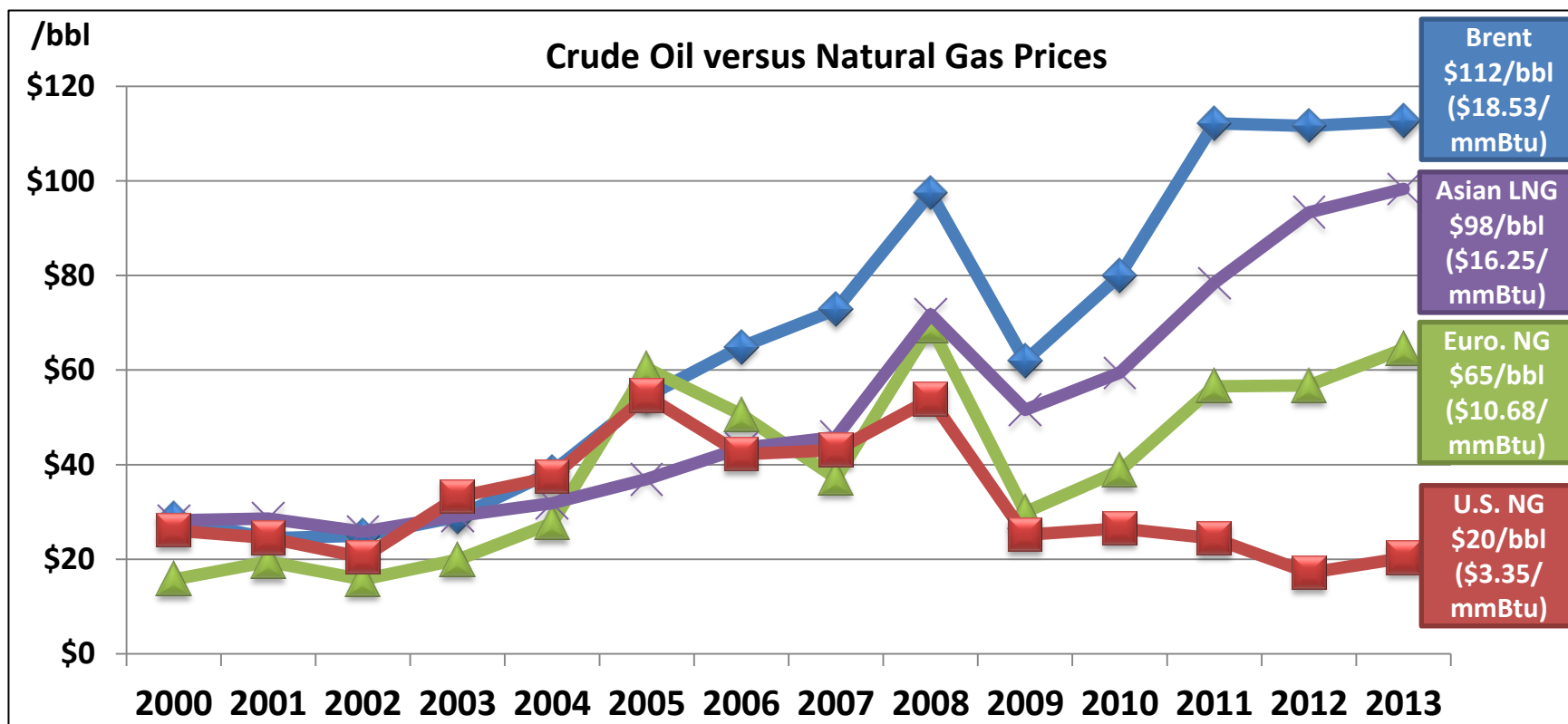


Source: Argus, 2013 data through 2-1-13

- In 2012, LLS flipped from a historical premium to a discount to Brent (but we expect continued volatility)
- Over time, Valero expects:
  - The LLS (or U.S. Gulf Coast light crude) discount to Brent will become a structural cost advantage, increasing margins versus other Atlantic Basin refiners that process higher-priced, Brent-type crude
  - LLS pricing-benefit will accrue to Valero's lighter capacity on the Gulf Coast plus Memphis, which can process > 500,000 bpd without new investment

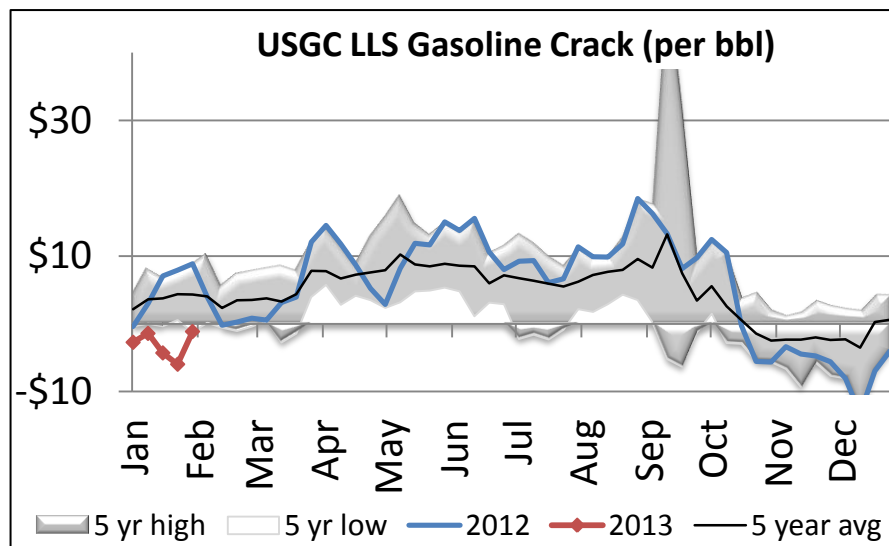
# Low-Cost U.S. Natural Gas Provides Competitive Advantage

- U.S. natural gas trading at a significant discount to Brent crude oil price (on energy equivalent basis)
- Expect U.S. natural gas prices will remain low and disconnected from global oil and gas prices for foreseeable future
- VLO refinery operations use up to 600,000 mmBtus/day of natural gas at full utilization, split roughly in half between operating expense and gross margin

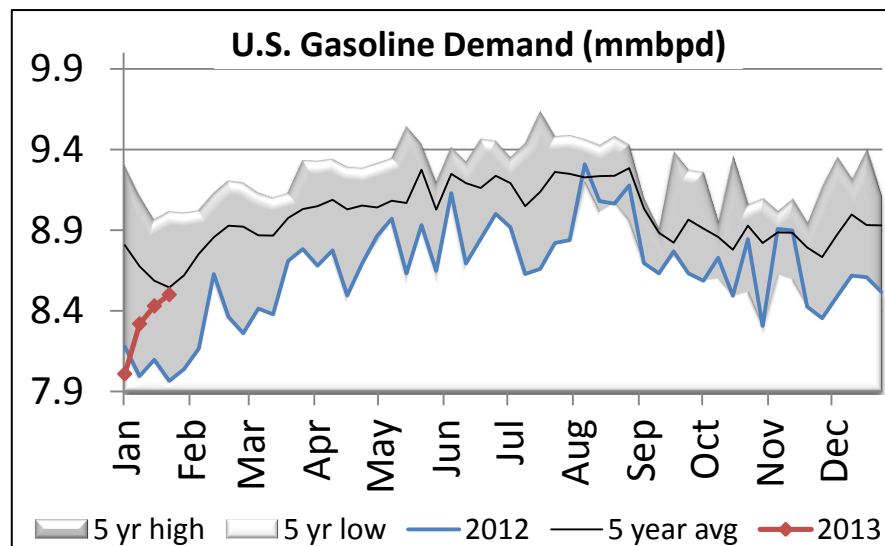


Source: Argus, 2013 = YTD through February 1, 2013; natural gas price converted to barrels using factor of 6.05x

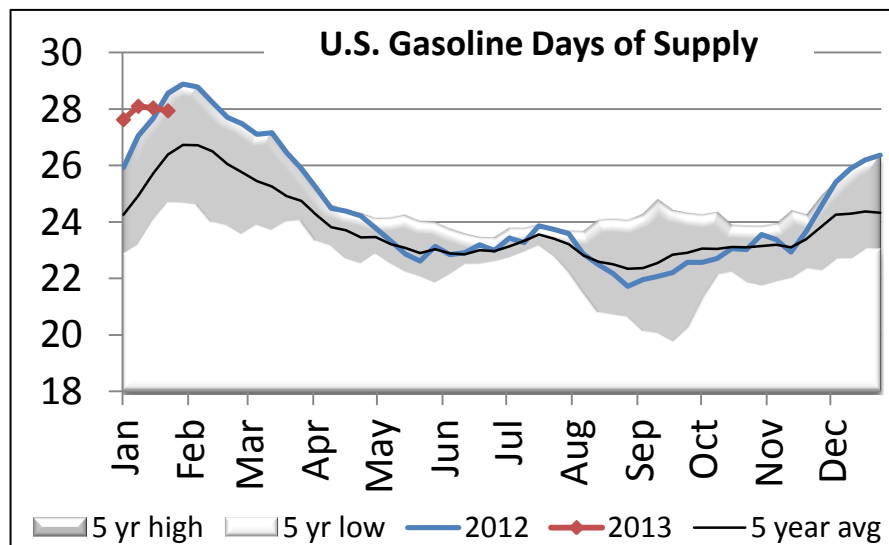
# Gasoline Fundamentals



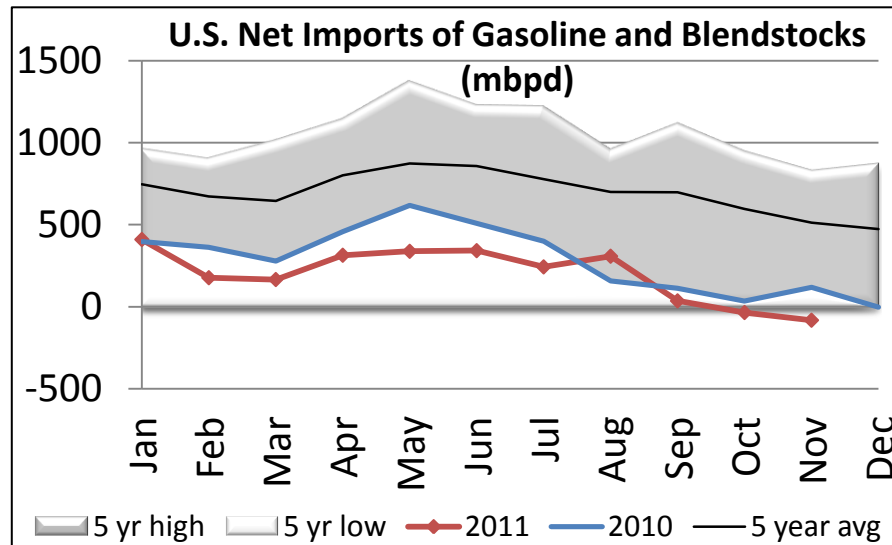
Source: Argus; 2013 data through February 1



Source: DOE weekly data; 2012 data through week ending January 25

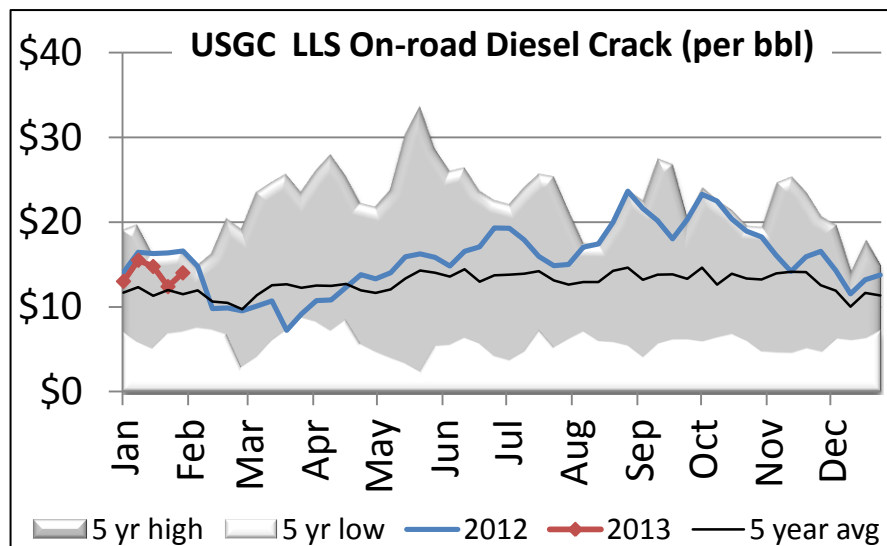


Source: DOE weekly data; 2012 data through week ending December 28

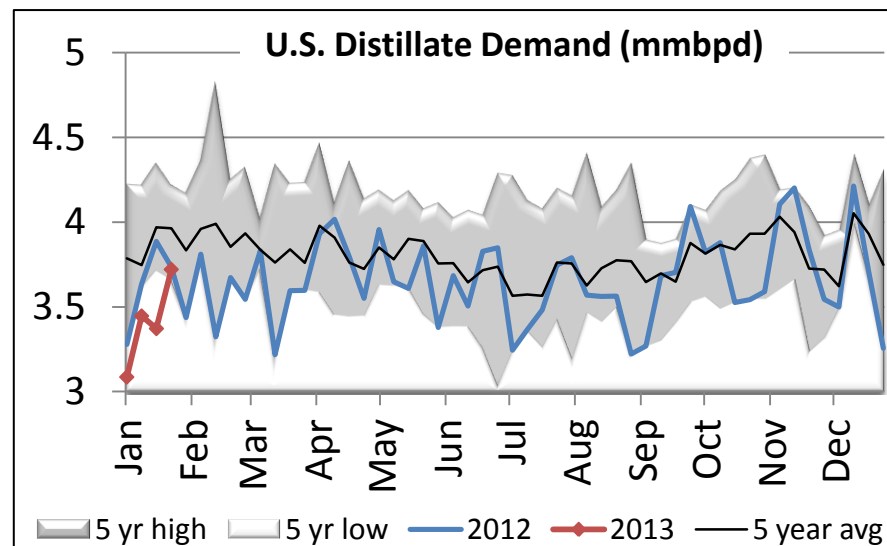


Source: DOE monthly data; 2012 data through November 2012

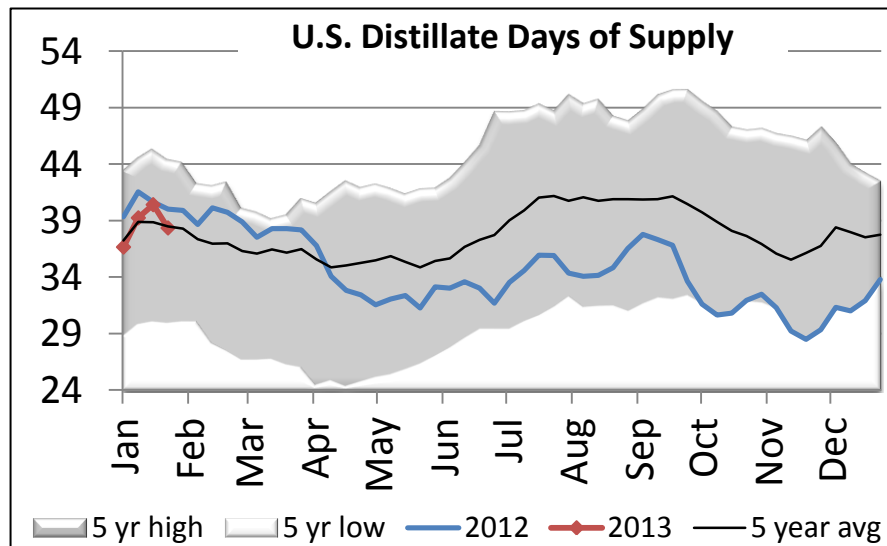
# Distillate Fundamentals



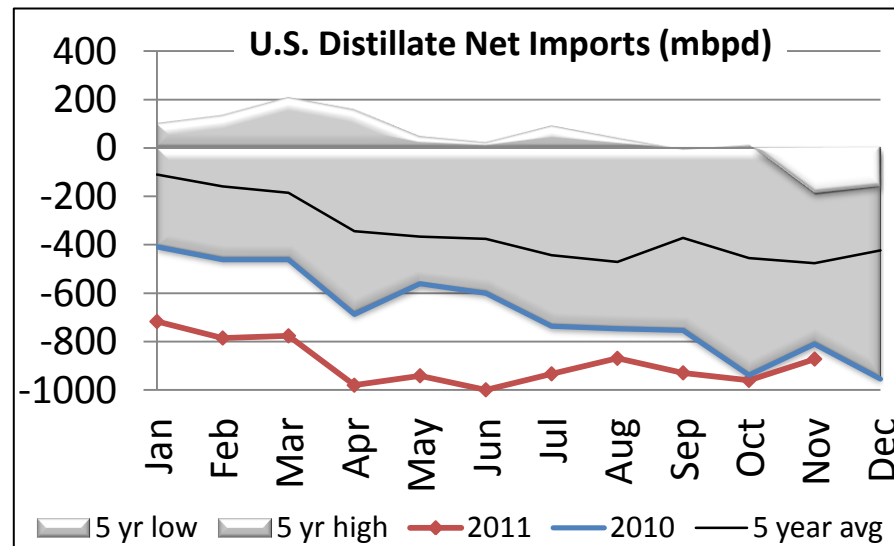
Source: Argus; 2013 data through February 1



Source: DOE weekly data; 2012 data through week ending February 1



Source: DOE weekly data; 2012 data through week ending February 1

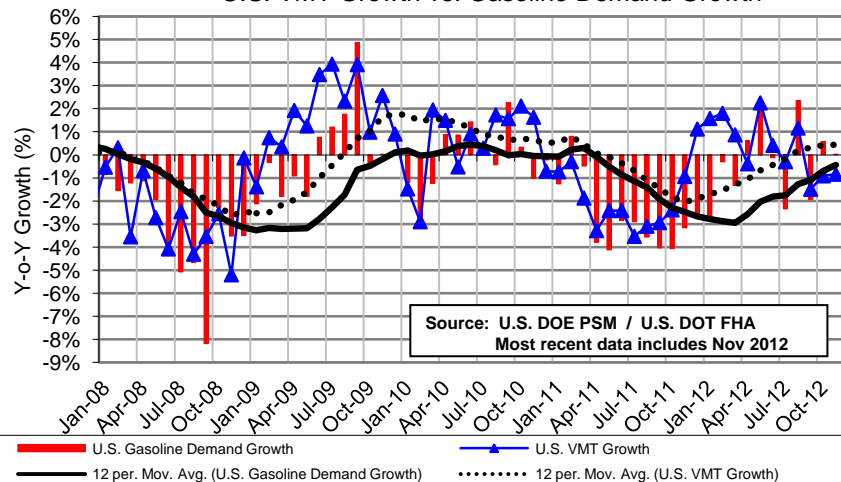


Source: DOE monthly data; 2012 data through November 2012

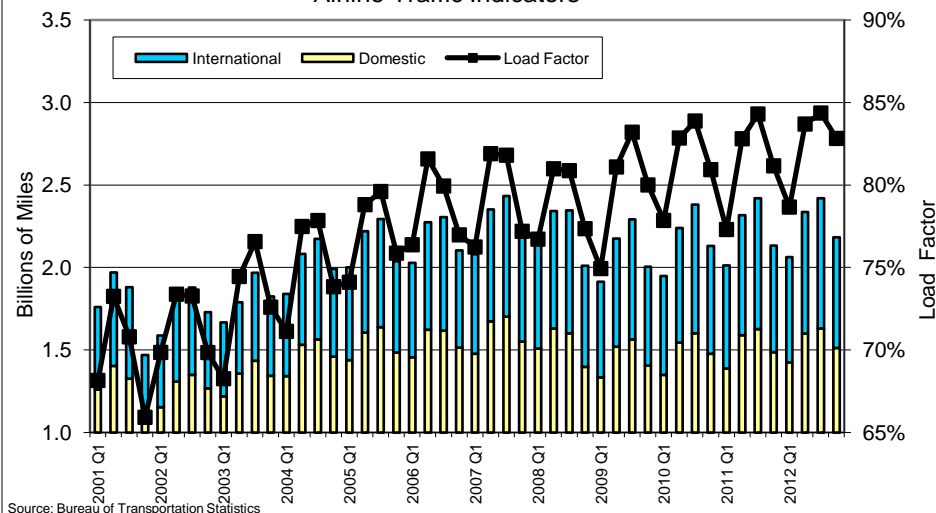


# U.S. Transport Indicators

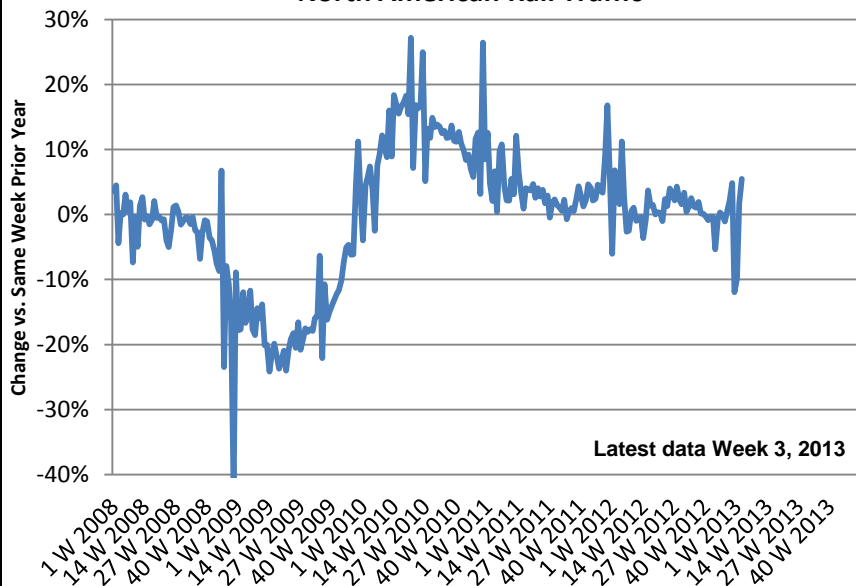
## U.S. VMT Growth vs. Gasoline Demand Growth



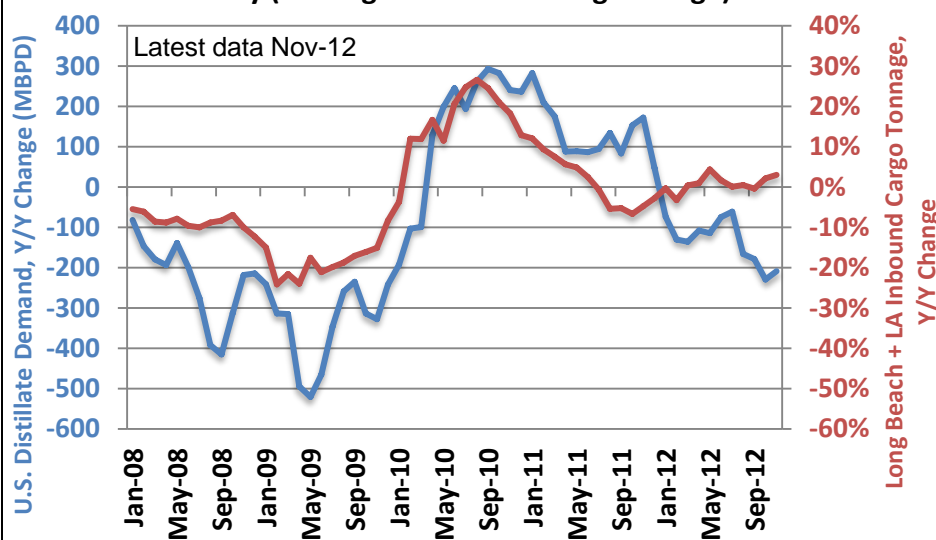
## Airline Traffic Indicators



## North American Rail Traffic

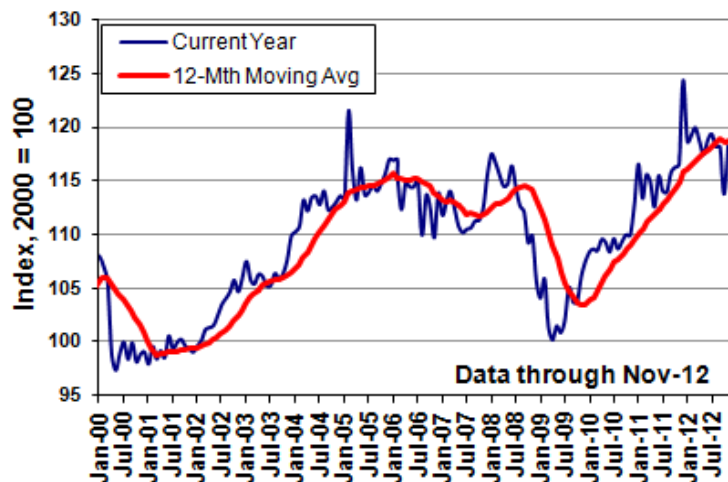


## U.S. Distillate Demand and Long Beach + LA Cargo Activity (Trailing 3-Month Moving Average)



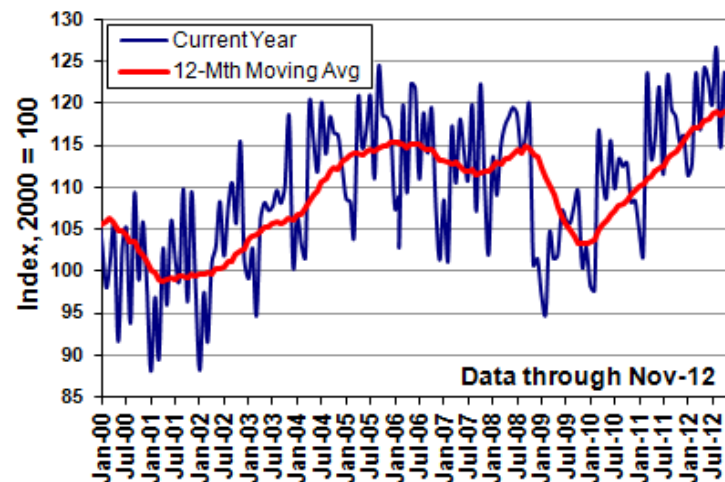
# U.S. Transport Indicators: Trucking Indicators

**ATA Seasonally Adj Truck Tonnage Index**



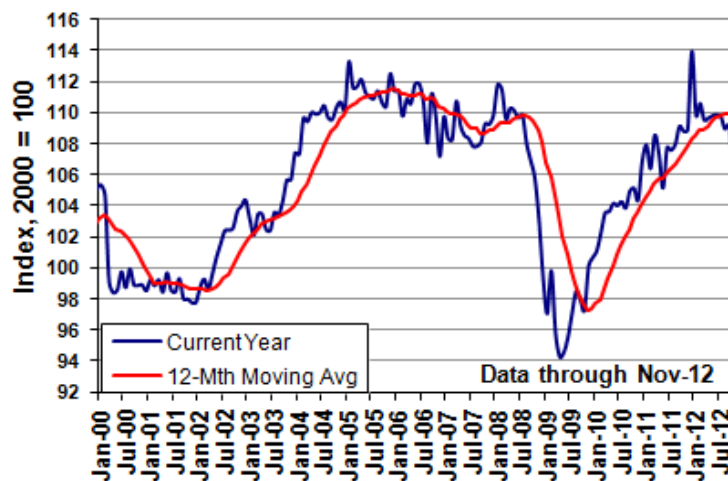
Source: ATA

**ATA Non-Seasonally Adj Truck Tonnage Index**



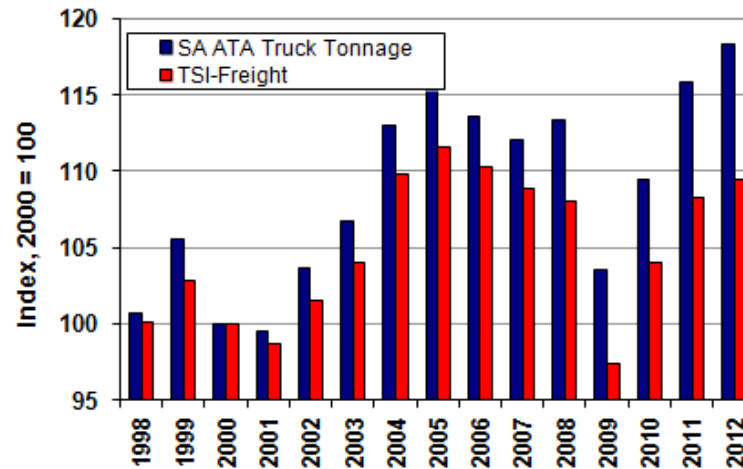
Source: ATA

**Transportation Services Index - Freight**



Source: ATA

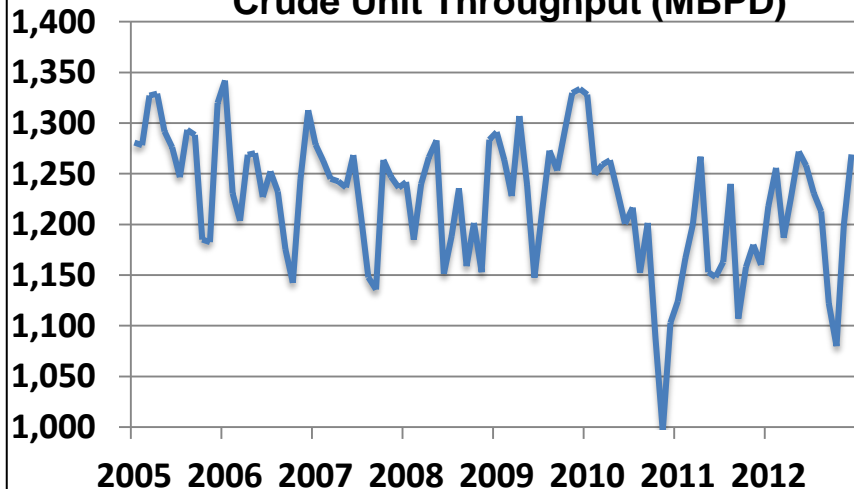
**Freight: Annual Index Averages**



Source: ATA, BTS ATA data through Nov-12, TSI data through Nov-12

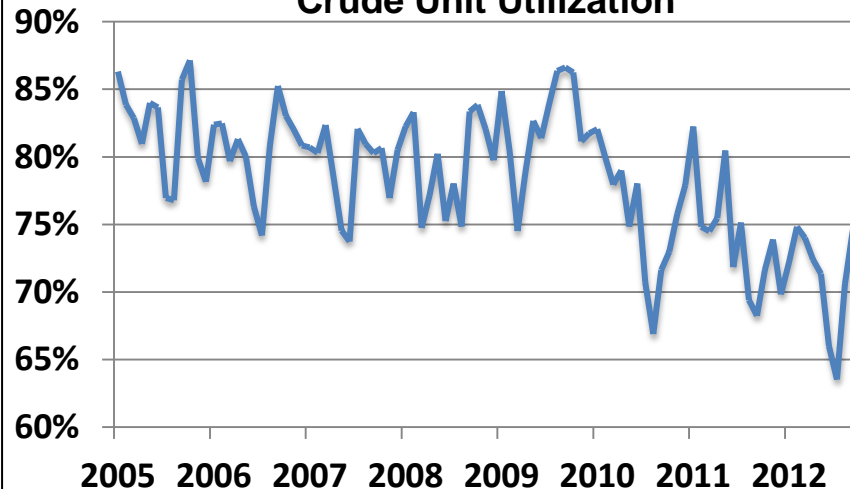
# Mexico Statistics

**Crude Unit Throughput (MBPD)**



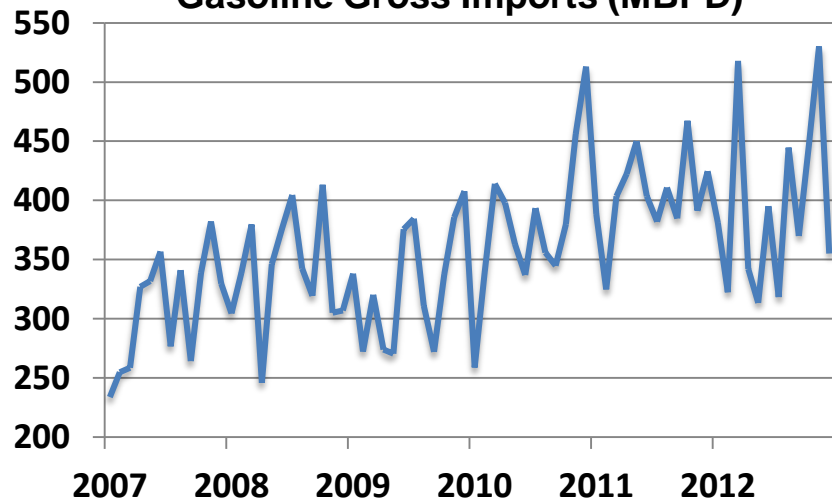
Source: Mexico Secretary of Energy, latest data December 2012

**Crude Unit Utilization**



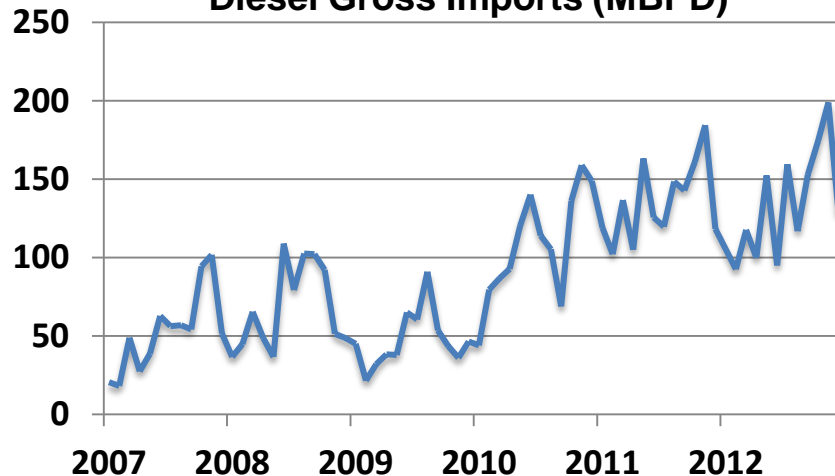
Source: Mexico Secretary of Energy, latest data December 2012

**Gasoline Gross Imports (MBPD)**



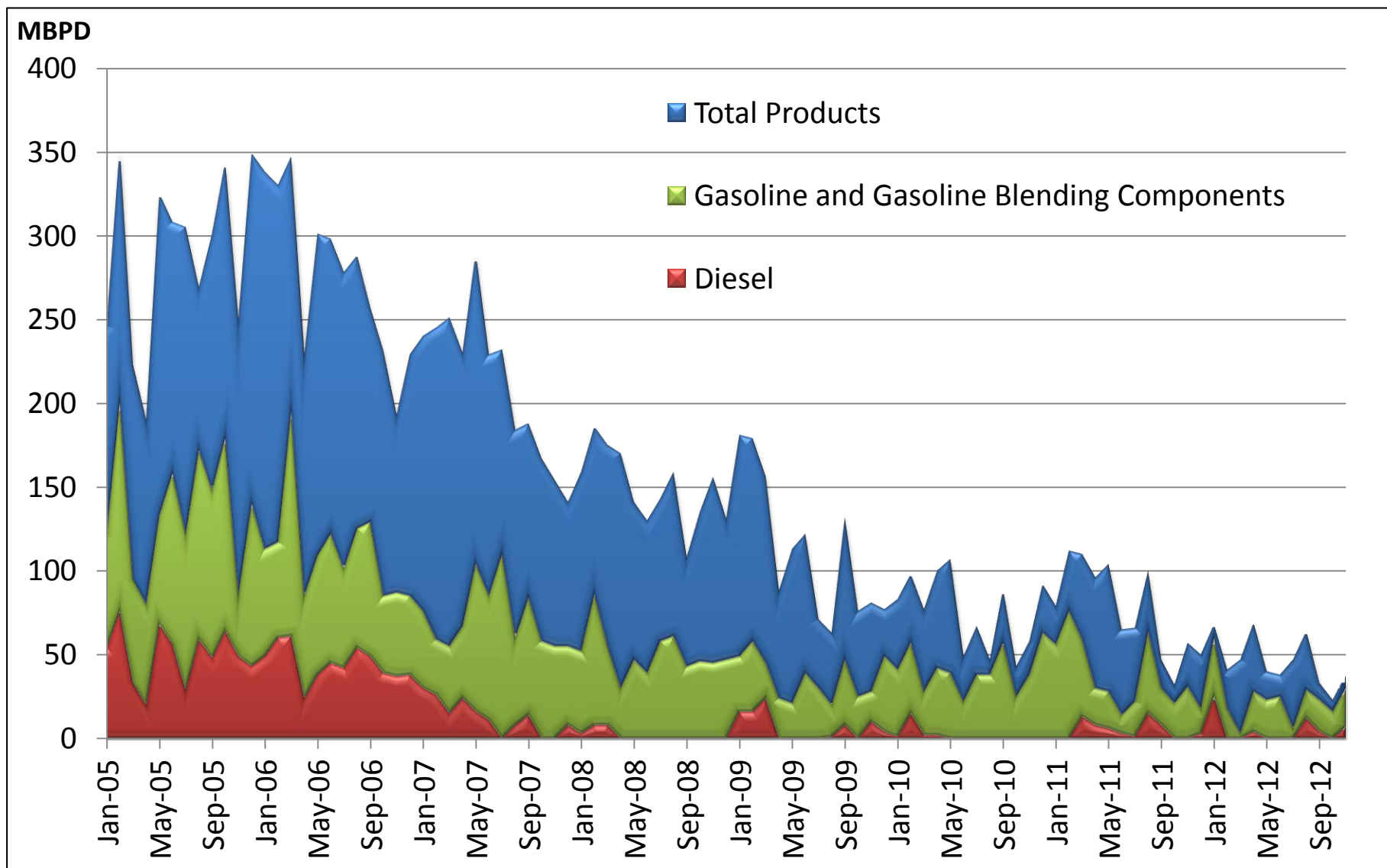
Source: PEMEX, latest data December 2012

**Diesel Gross Imports (MBPD)**



Source: PEMEX, latest data December 2012

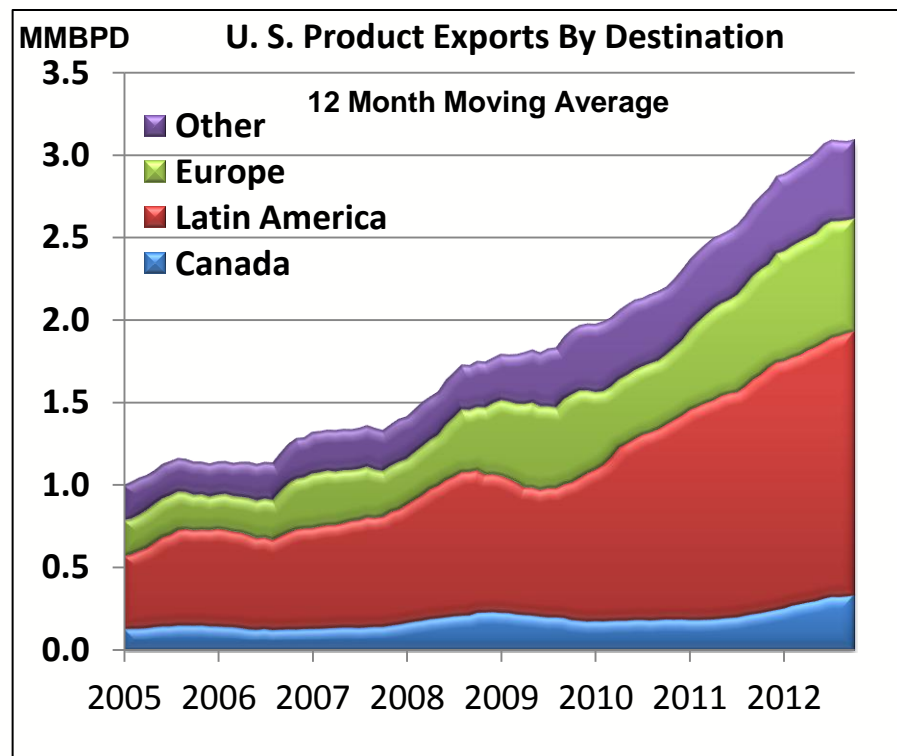
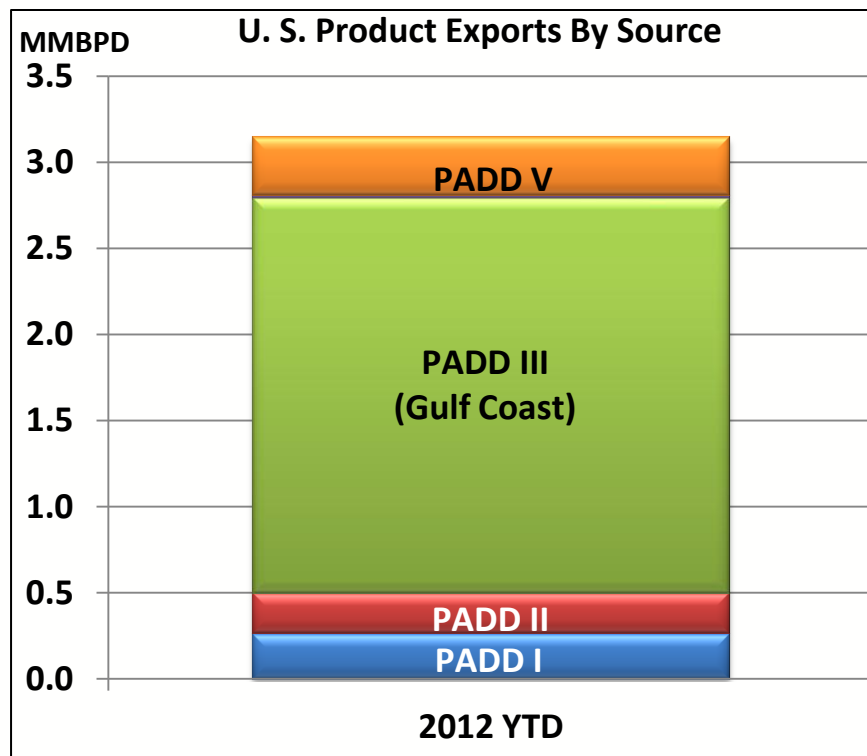
# Venezuelan Exports to the U.S.



Source: EIA, November 2012

# Competitively Exporting into Growing Markets

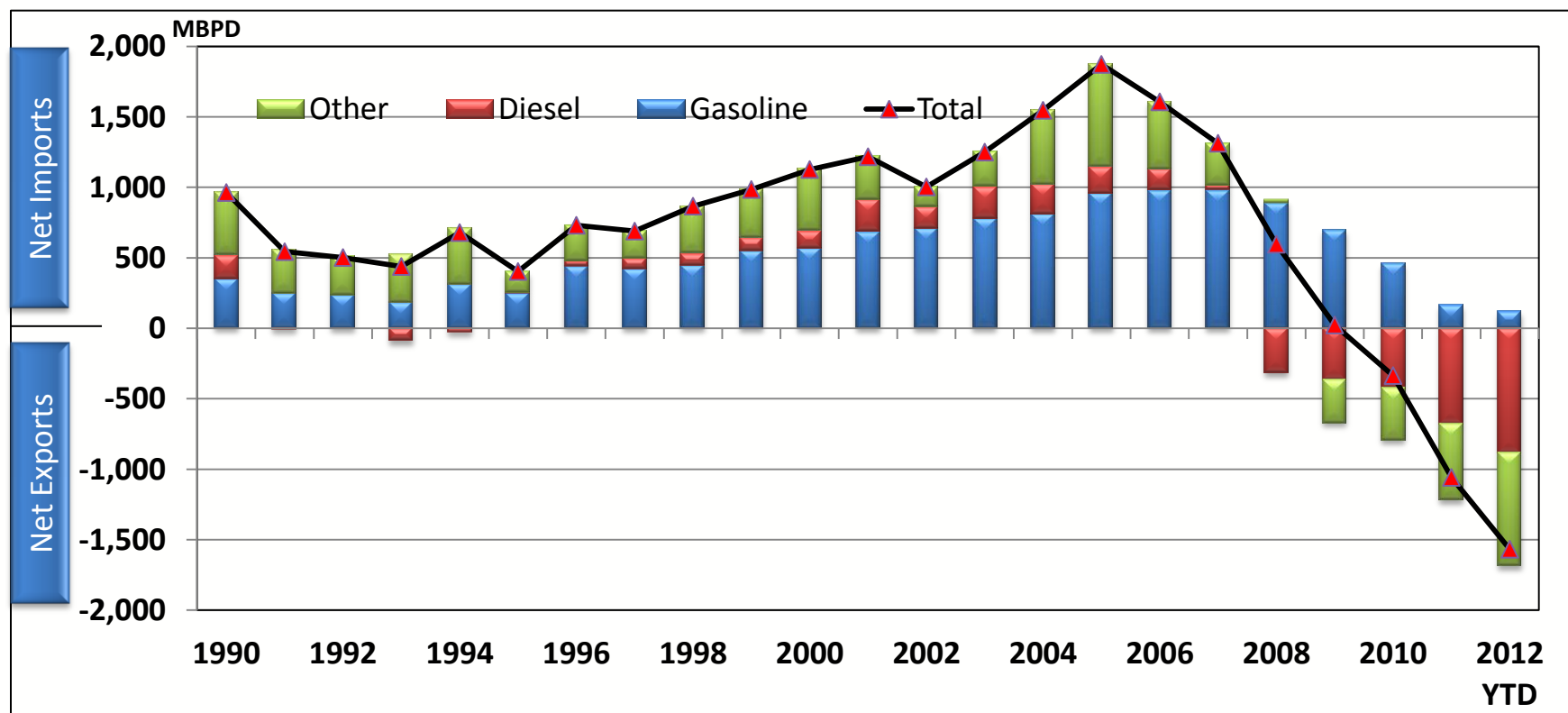
- U.S. has become a net exporter of refined products due to growth in developing countries, Atlantic Basin capacity closures, Western European diesel demand, and Latin American refining operating issues
- U.S. Gulf Coast (PADD III) is largest source of exported products
- Latin America continues to be the largest U.S. export market, followed by Western Europe
  - Latin American petroleum demand has been increasing 2.3% per year over the past 5 years versus U.S. decreasing 1.7% per year



Source: DOE Petroleum Supply Monthly with data as of November 2012, Latin America includes South and Central America plus Mexico

# U.S. Shifted to Net Exporter

- As a result of the continued shift towards exports, U.S. net exports of petroleum products have increased from 335 MBPD in 2010 to 1,568 MBPD in 2012 YTD
  - Diesel net exports continue to rise significantly, with U.S. refiners sending a net of 887 MBPD to other countries in 2012
  - Gasoline net imports have fallen from almost 1 MMBPD in 2006 to only 119 MBPD in 2012 YTD
  - Still, gasoline and blendstocks are the only product category where the U.S. remains a net importer

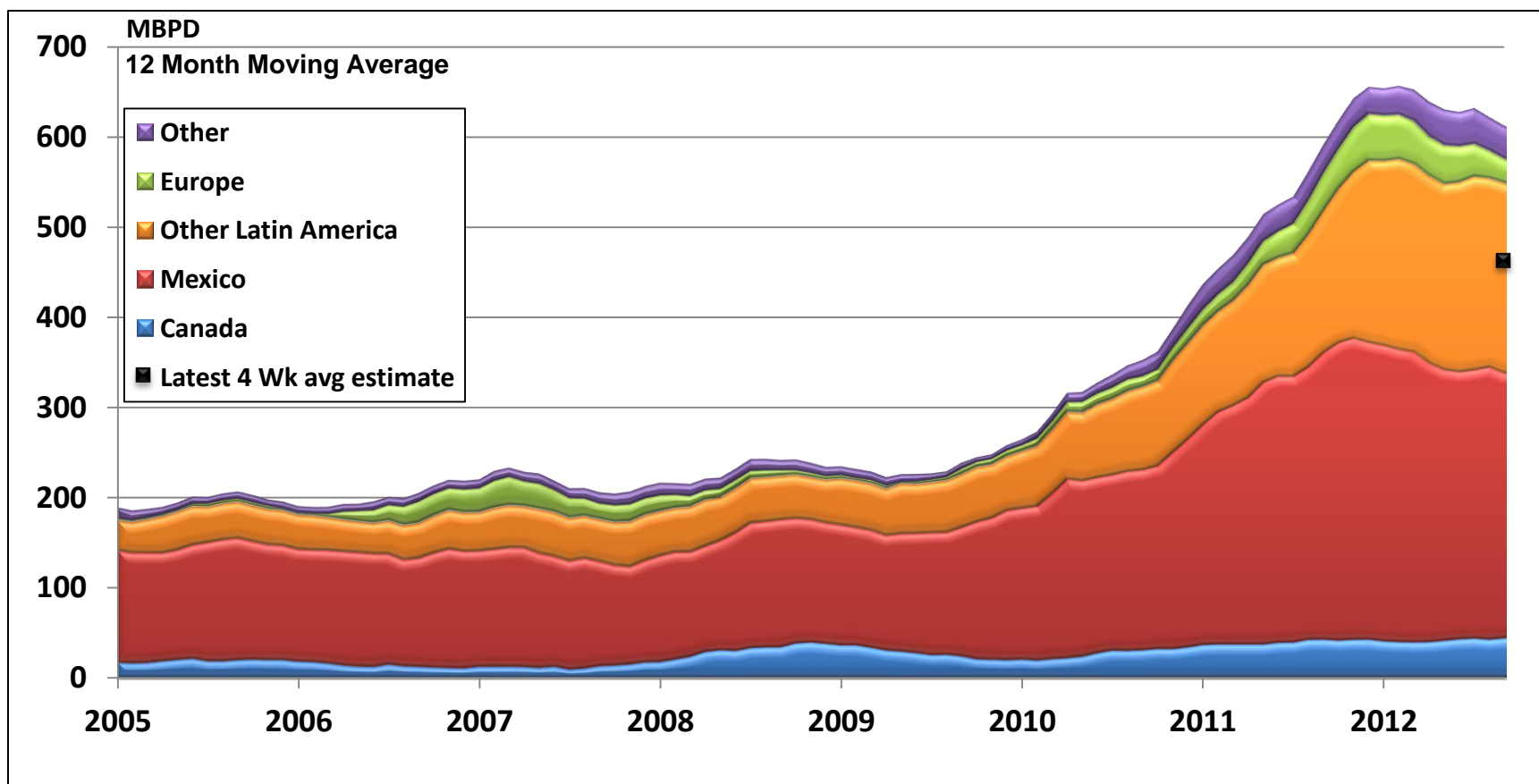


Note: Gasoline includes ethanol, MTBE, and other oxygenates; Source: DOE Petroleum Supply Monthly with data as of November 2012



# U.S. Gasoline Exports by Destination

- Gasoline exports remain at elevated levels due to the strong demand from Latin America, including Mexico

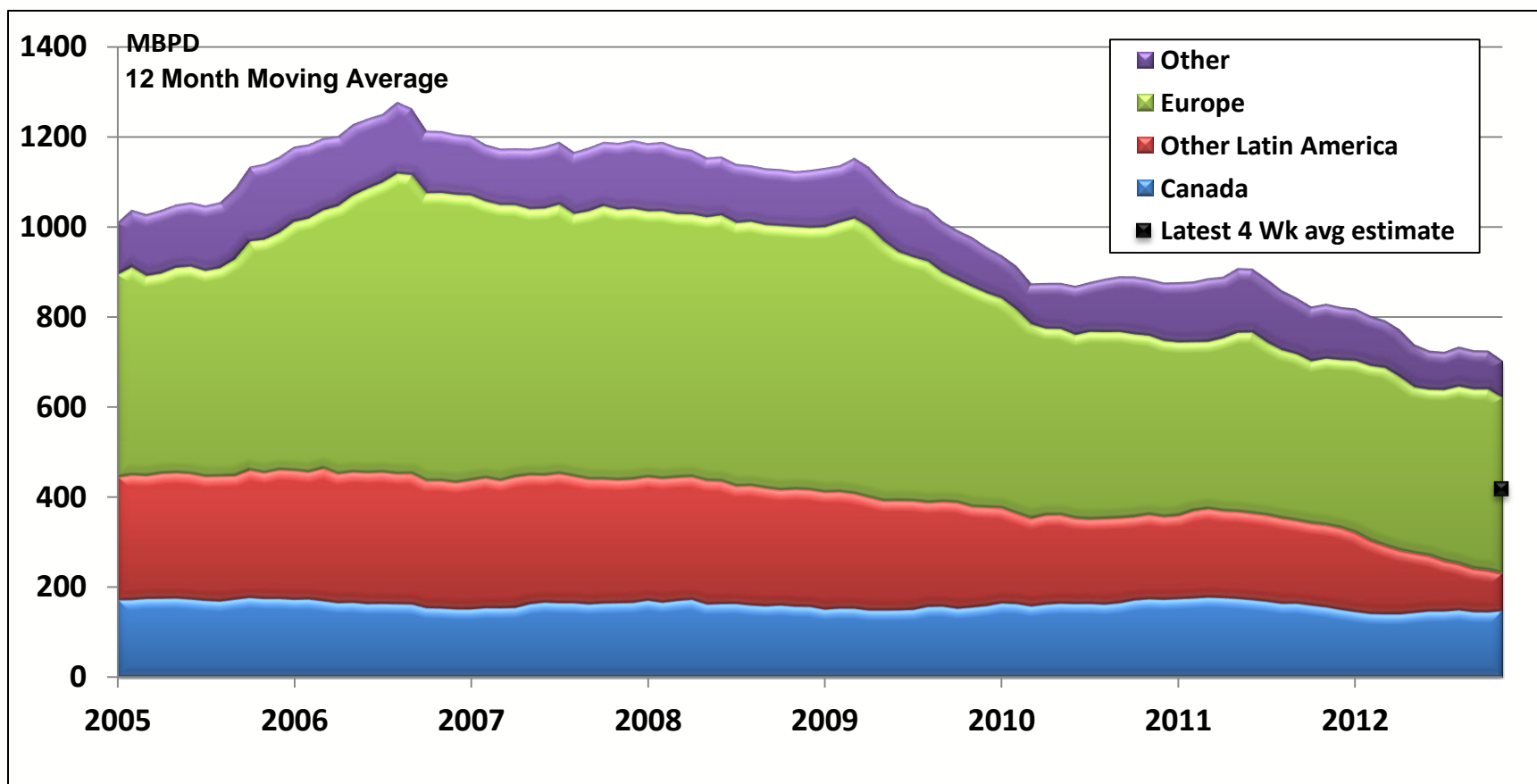


Note: Gasoline represents all finished gasoline plus all blendstocks (including ethanol, MTBE, and other oxygenates)

Source: DOE Petroleum Supply Monthly with data as of November 2012. 4 Week Average estimate from Weekly Petroleum Statistics Report and VLO estimates

# U.S. Gasoline Imports by Source

- Gasoline imports have declined steadily since 2007
  - Shutdown of the Atlantic Basin refineries will keep pressure on this trend
  - Although the shutdown of U.S. East coast refineries will require more gasoline to balance

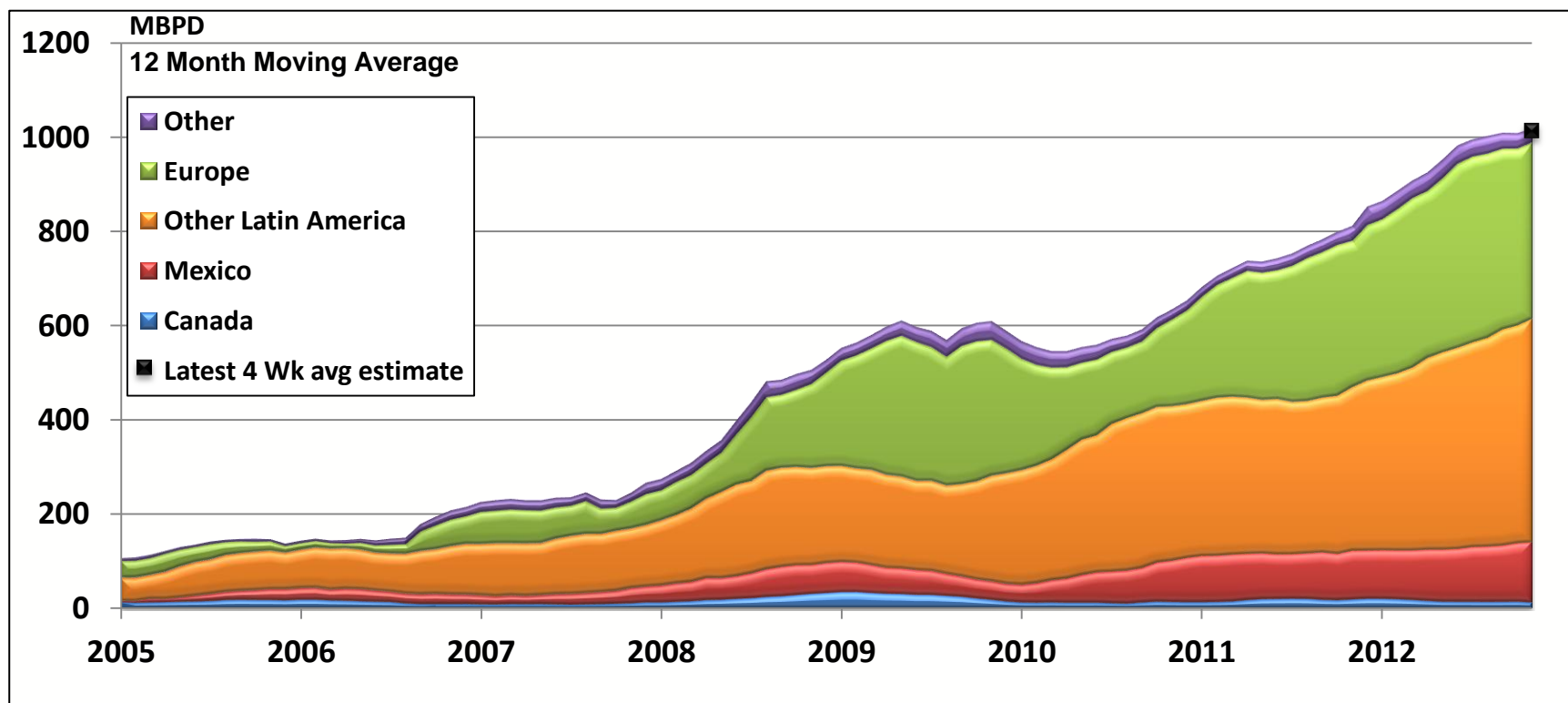


Note: Gasoline represents all finished gasoline plus all blendstocks (including ethanol, MTBE, and other oxygenates)

Source: DOE Petroleum Supply Monthly with data as of November 2012. 4 Week Average estimate from Weekly Petroleum Statistics Report and VLO estimates

# U.S. Diesel Exports by Destination

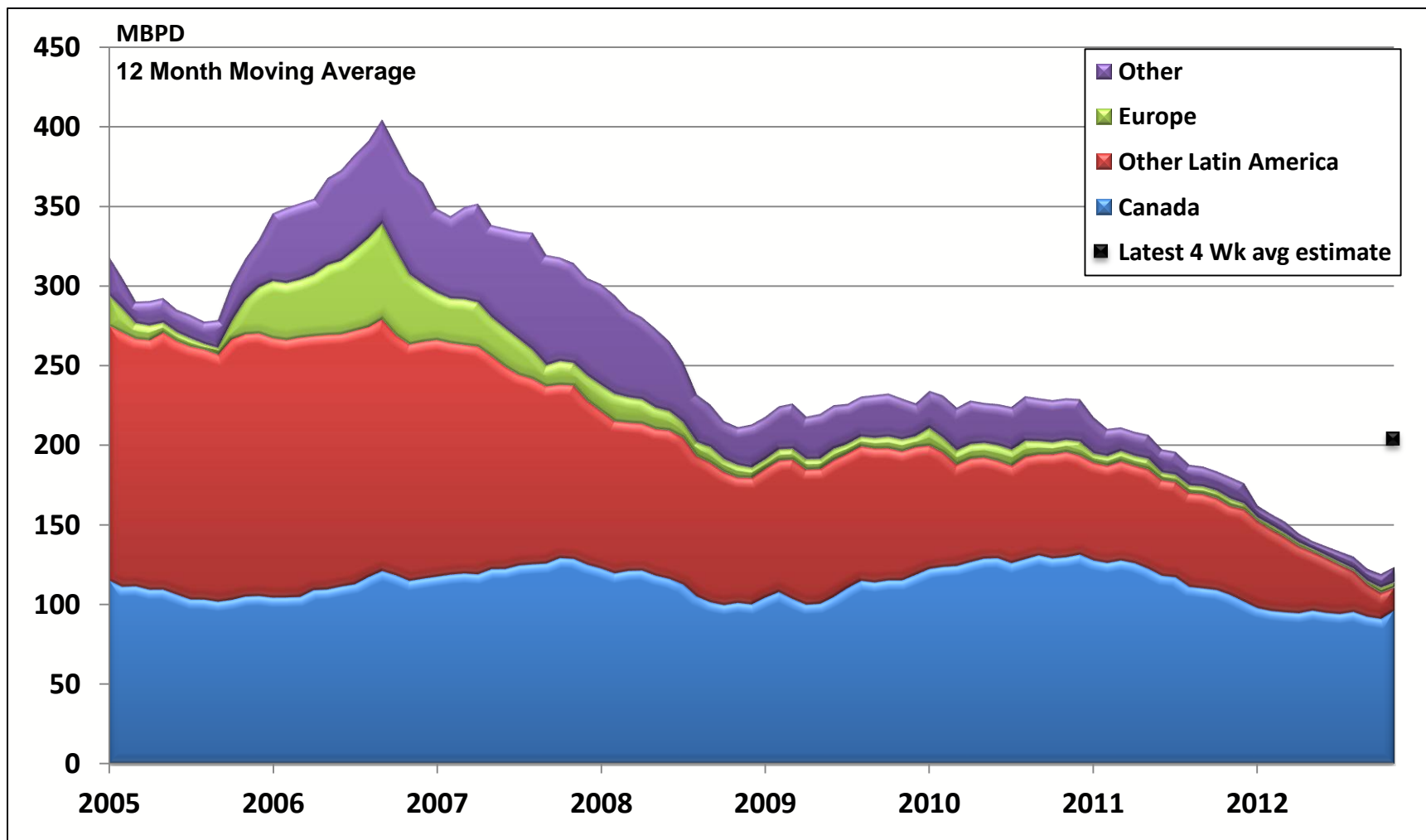
- Diesel exports to Latin America continue to exceed exports to Europe, but over two-thirds of diesel export growth in 2011 was to Europe
  - Latin America needs remain high on good demand growth and continued challenges running refineries in key countries



Source: DOE Petroleum Supply Monthly with data as of November 2012. 4 Week Average estimate from Weekly Petroleum Statistics Report

# U.S. Diesel Imports by Source

- Diesel imports continue to fall in 2012 due to less volume from Latin America



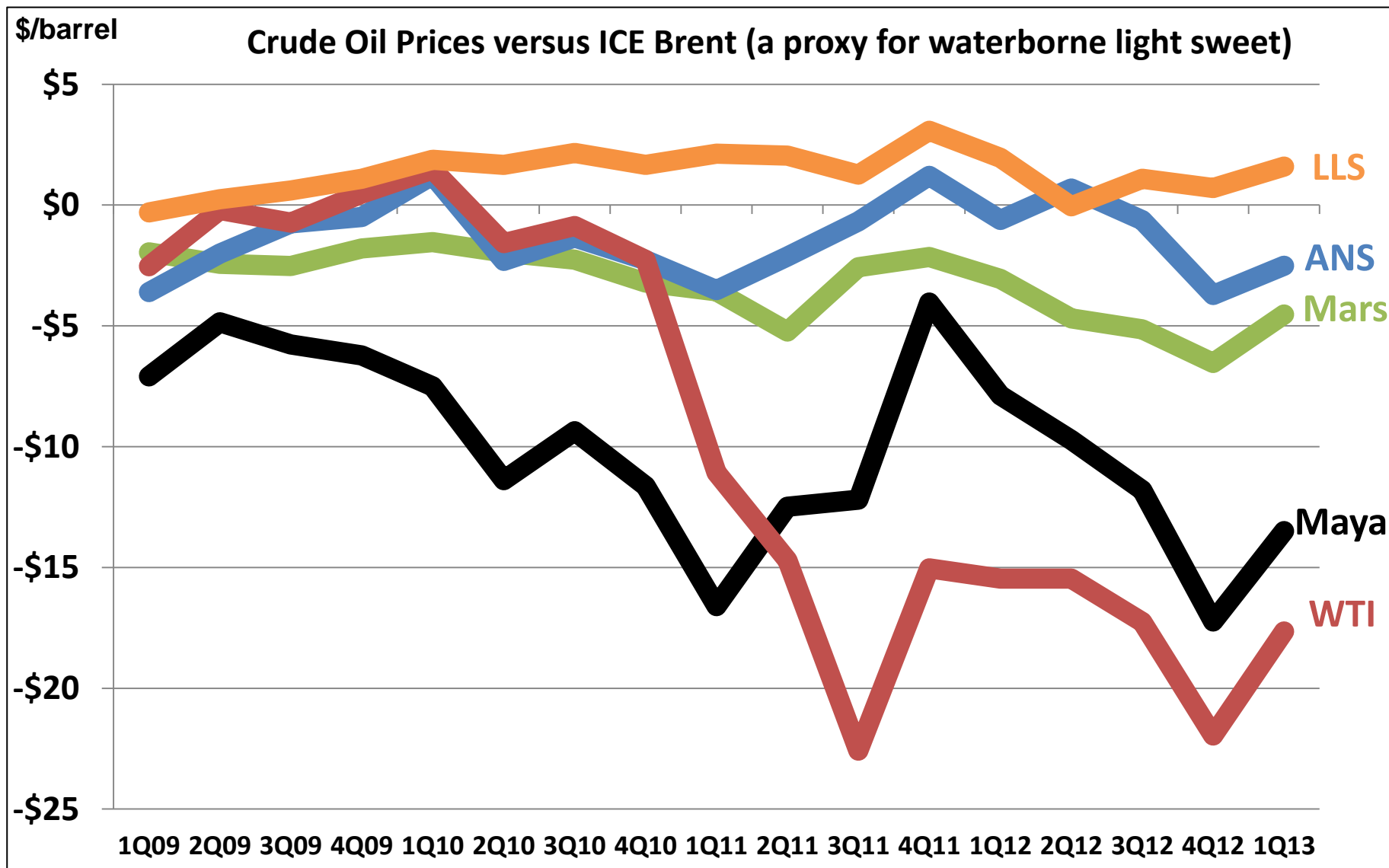
Source: DOE Petroleum Supply Monthly with data as of November 2012. 4 Week Average estimate from Weekly Petroleum Statistics Report



# Ethanol and Retail Reconciliation of Operating Income to EBITDA

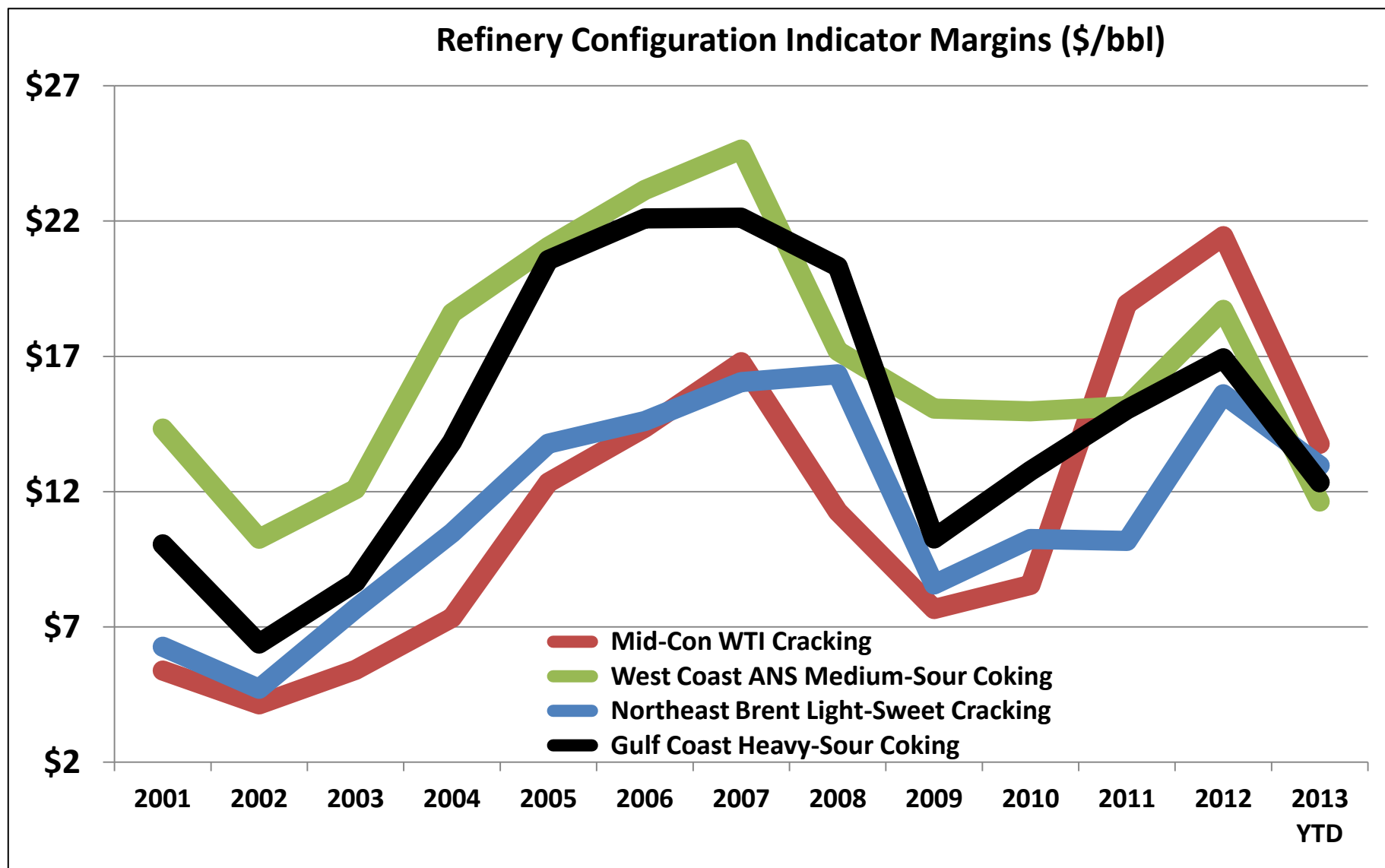
| Retail (millions)                              | 2005         | 2006         | 2007         | 2008         | 2009         | 2010         | 2011         | 2012         |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| U.S. Operating Income                          | \$81         | \$113        | \$154        | \$260        | \$170        | \$200        | \$213        | \$240        |
| + U.S. depreciation and amortization expense   | \$60         | \$60         | \$59         | \$70         | \$70         | \$73         | \$77         | \$77         |
| Non-cash Asset Impairment                      | =            | =            | =            | =            | =            | =            | =            | <u>\$12</u>  |
| = U.S. EBITDA                                  | <u>\$141</u> | <u>\$173</u> | <u>\$214</u> | <u>\$330</u> | <u>\$240</u> | <u>\$273</u> | <u>\$290</u> | <u>\$329</u> |
|  |              |              |              |              |              |              |              |              |
| Canada Operating Income                        | \$73         | \$69         | \$95         | \$109        | \$123        | \$146        | \$168        | \$108        |
| + Canada depreciation and amortization expense | \$23         | \$27         | \$31         | \$35         | \$31         | \$35         | \$38         | \$42         |
| Non-cash Asset Impairment                      | =            | =            | =            | =            | =            | =            | =            | <u>\$9</u>   |
| = Canada EBITDA                                | <u>\$96</u>  | <u>\$96</u>  | <u>\$126</u> | <u>\$144</u> | <u>\$154</u> | <u>\$181</u> | <u>\$206</u> | <u>\$159</u> |

# Most Crude Oil Discounts Improving



Source: Argus; 2013 year-to-date through February 1; LLS prices are roll adjusted

# Regional Refinery Indicator Margins



Source: Argus; 2013 year-to-date through February 1; see Appendix for details on refinery configuration assumptions



# Assumed Regional Indicator Margins

- **Gulf Coast Indicator:**  $(\text{GC Colonial 85 CBOB A grade} - \text{LLS}) \times 60\% + (\text{GC ULSD 10ppm Colonial Pipeline prompt} - \text{LLS}) \times 40\% + (\text{LLS} - \text{Maya Formula Pricing}) \times 40\% + (\text{LLS} - \text{Mars Month 1}) \times 40\%$
- **Mid-con Indicator:**  $[(\text{Group 3 Conv 87 Gasoline prompt} - \text{WTI Month 1}) \times 60\% + (\text{Group 3 ULSD 10ppm prompt} - \text{WTI Month 1}) \times 40\%] \times 60\% + [(\text{GC Colonial 85 CBOB A grade prompt} - \text{LLS}) \times 60\% + (\text{GC ULSD 10ppm Colonial Pipeline} - \text{LLS}) \times 40\%] \times 40\%$
- **West Coast Indicator:**  $(\text{San Fran CARBOB Gasoline Month 1} - \text{ANS USWC Month 1}) \times 60\% + (\text{San Fran EPA 10 ppm Diesel pipeline} - \text{ANS USWC Month 1}) \times 40\% + 10\% (\text{ANS} - \text{West Coast High Sulfur Vacuum Gasoil cargo prompt})$
- **North Atlantic Indicator:**  $(\text{NYH Conv 87 Gasoline Prompt} - \text{ICE Brent}) \times 50\% + (\text{NYH ULSD 15 ppm cargo prompt} - \text{ICE Brent}) \times 50\%$
- LLS prices are Month 1, adjusted for complex roll
- Prior to 2010, GC Colonial 85 CBOB is substituted for GC 87 Conventional

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