

Recent Developments in EU Refining and in the Supply and Trade of Petroleum Products

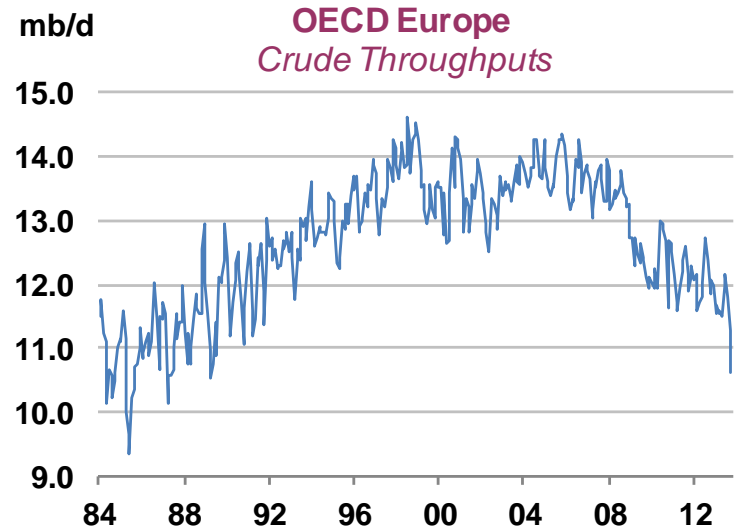
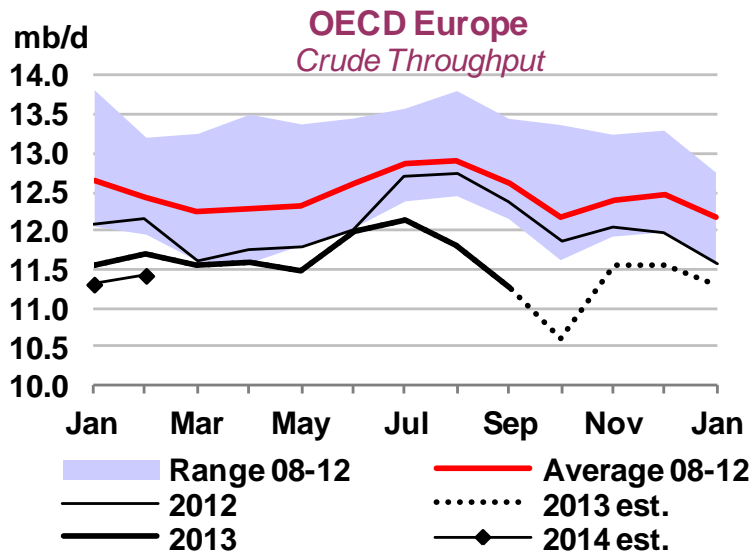


Second Meeting of the EU Refining Forum
Brussels, 27 November 2013
Toril Bosoni, International Energy Agency



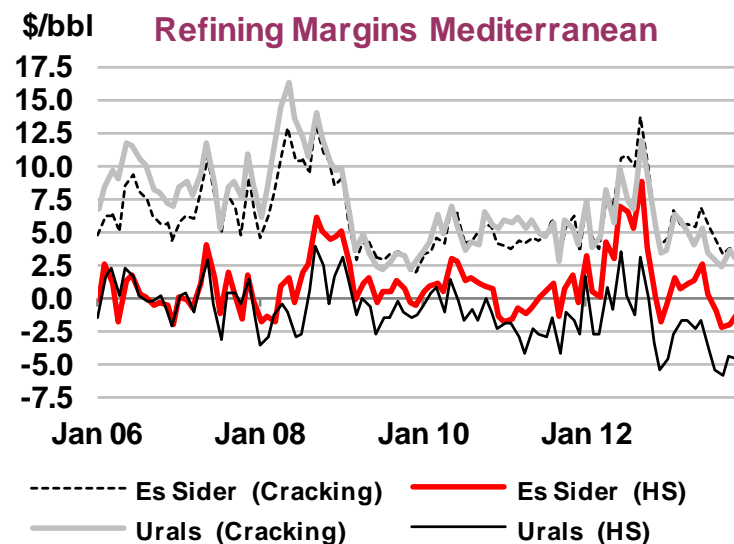
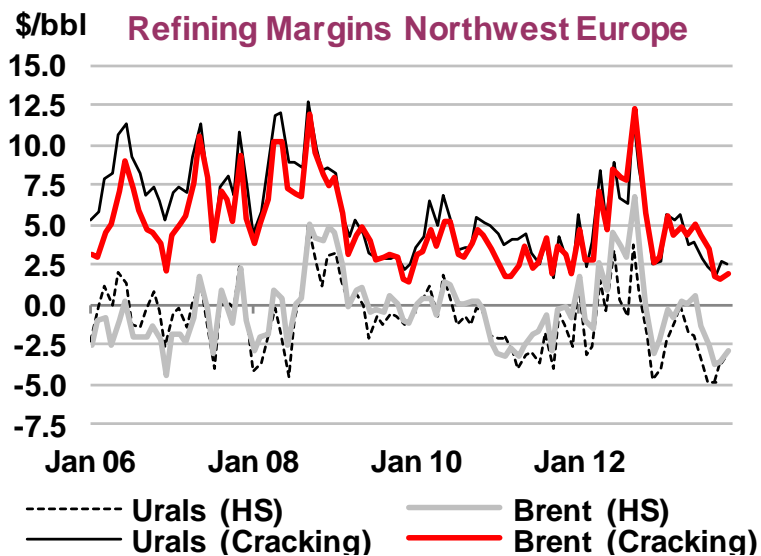
European Refinery Activity Takes Another Dive

Throughputs hits lowest level in 25 years in October



- Preliminary Euroilstock data show October EU16+Nor Refinery crude intake plummet to lowest level since April 1989
- September throughputs were already curtailed to lowest level since April 1991

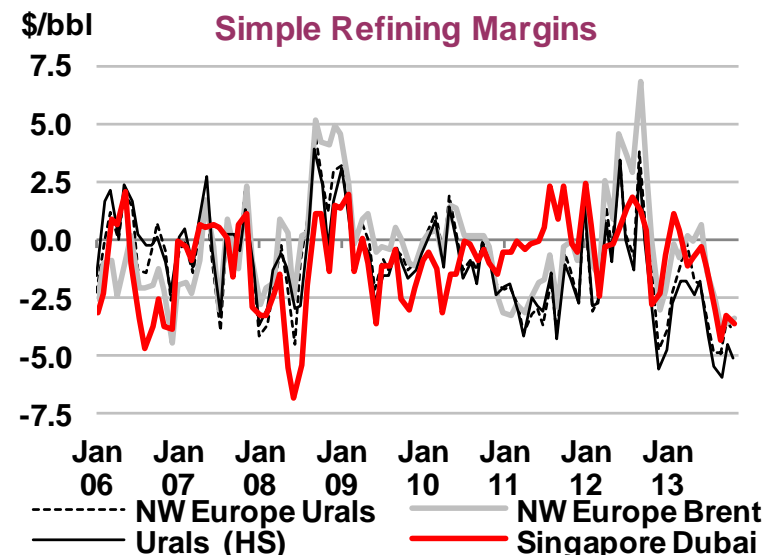
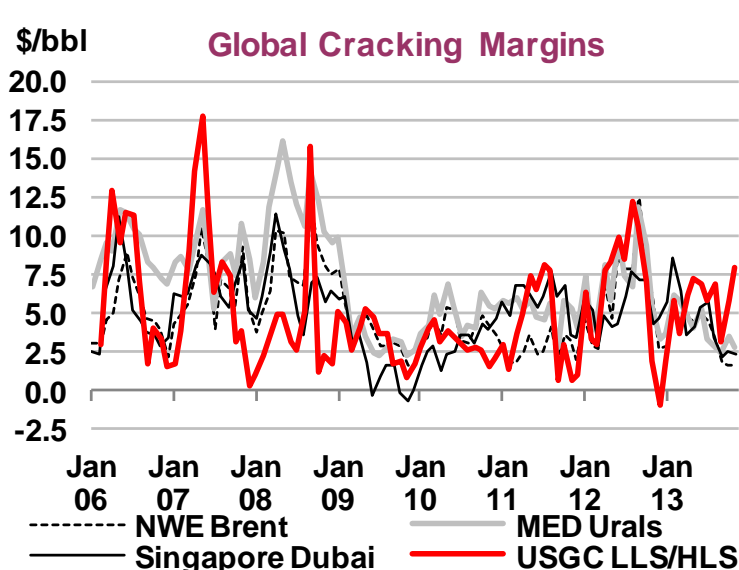
Refinery Margins and Company Earnings Plummet Despite Peak Autumn Maintenance



- Despite peak maintenance European Refining margins exceptionally weak in September
- September European margins \$9.95/bbl lower than year earlier on average. October \$5.85/bbl lower than 2012
- Scheduled shutdowns in September and October average 1.3-1.4 mb/d- slightly above historical shutdowns
- Major oil companies site weak refinery profitability as key to drop in earnings in 3Q13

Weak Margins not Restricted to European Plants

Simple refineries at worst level since 2008

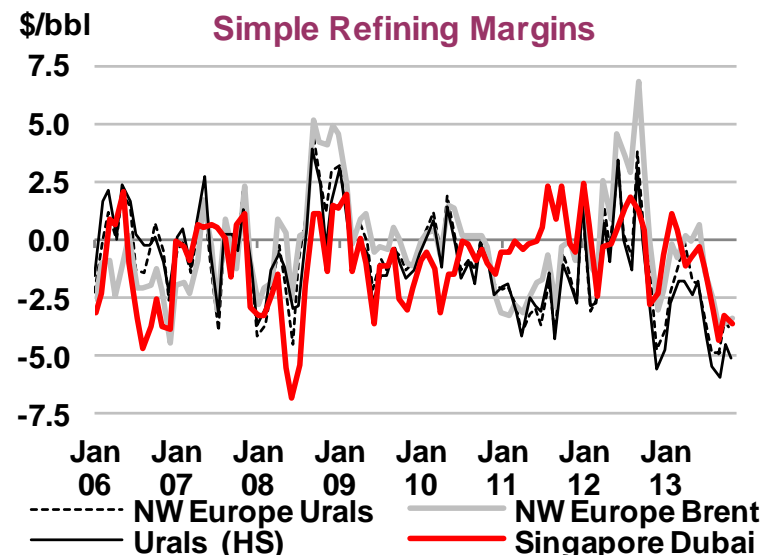
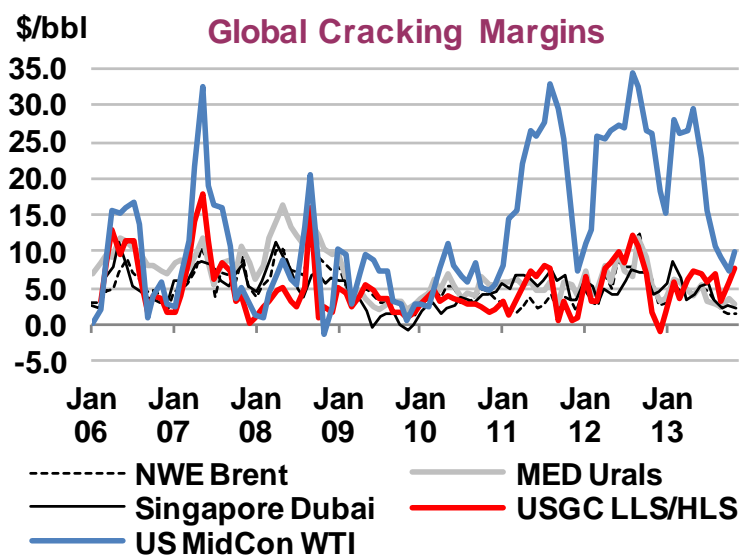


- Global margins follow suit. Singapore simple margins firmly negative and US rates come off earlier highs
- Weak gasoline cracks continue to weigh on refinery complex, diesel margins robust but low compared with last year's levels.
- As refiners cut runs, and crude prices come off summer peaks, margins improve somewhat
- Refiners with access to discounted crude and cheap refinery fuel (natural gas) fare better



Weak Margins not Restricted to European Plants

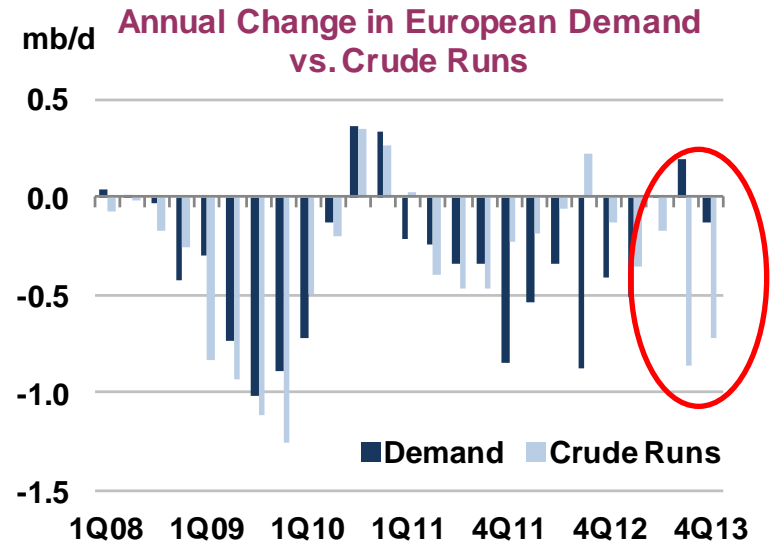
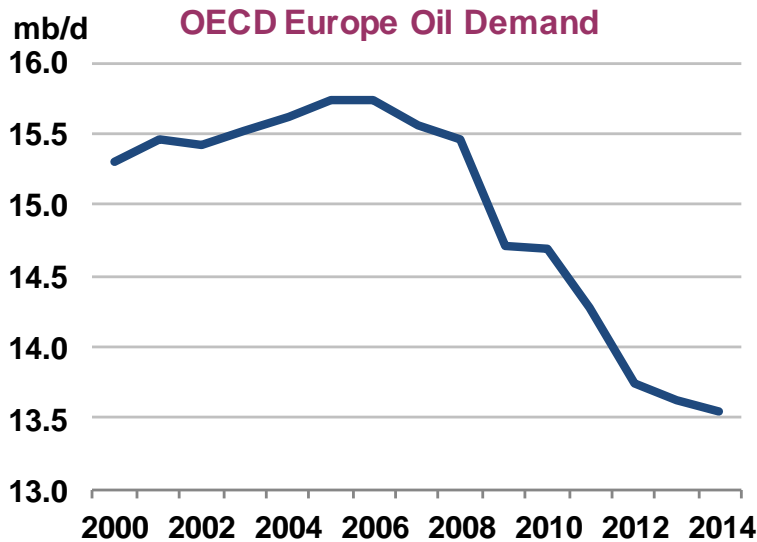
Simple refineries at worst level since 2008



- Global margins follow suit. Singapore simple margins firmly negative and US rates come off earlier highs
- Weak gasoline cracks continue to weigh on refinery complex, diesel margins robust but low compared with last year's levels.
- As refiners cut runs, and crude prices come off summer peaks, margins improve somewhat
- Refiners with access to discounted crude and cheap refinery fuel (natural gas) fare better

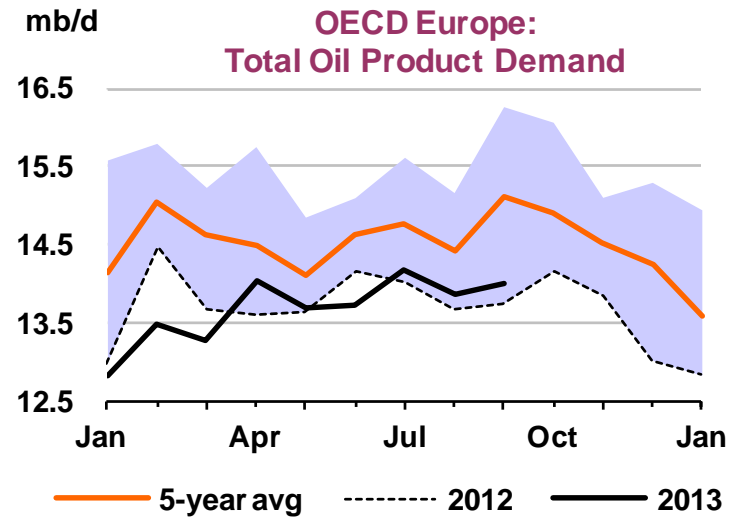
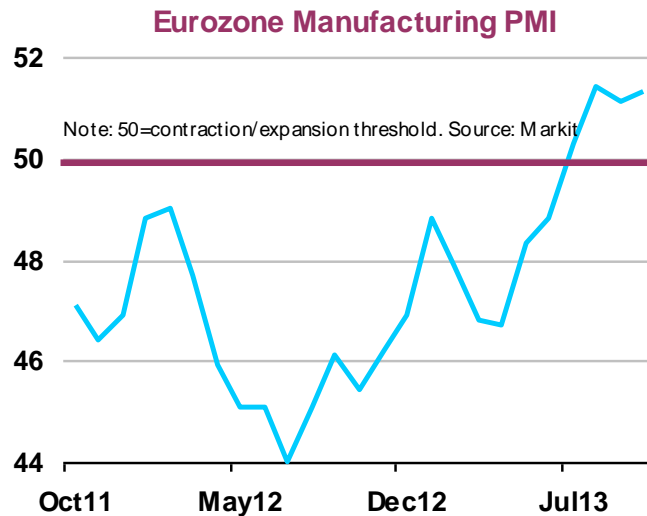
Regional Demand Slide Halted – For Now?

Yet, Refineries Curb Runs Sharply



- After plummeting 1.7 mb/d in from 2008 to 2012, regional demand declines are a forecast more modest 100 kb/d in 2013 and 2014.
- In particular, 3Q13 European demand posted annual growth (of 200 kb/d) for the first time since 4Q10

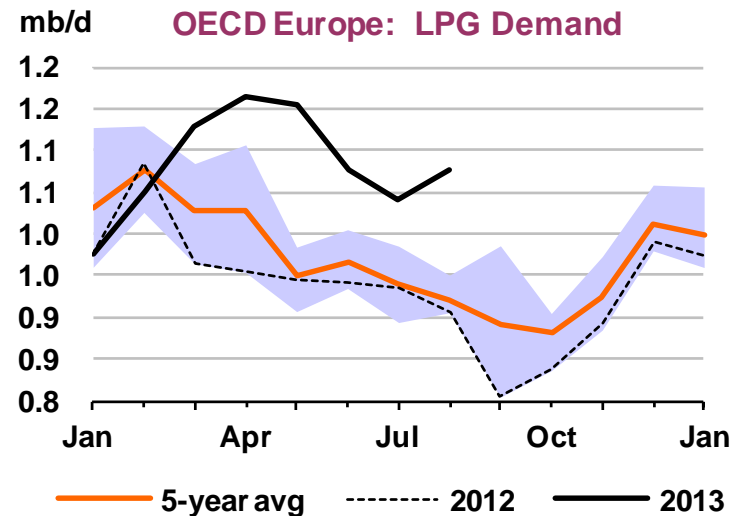
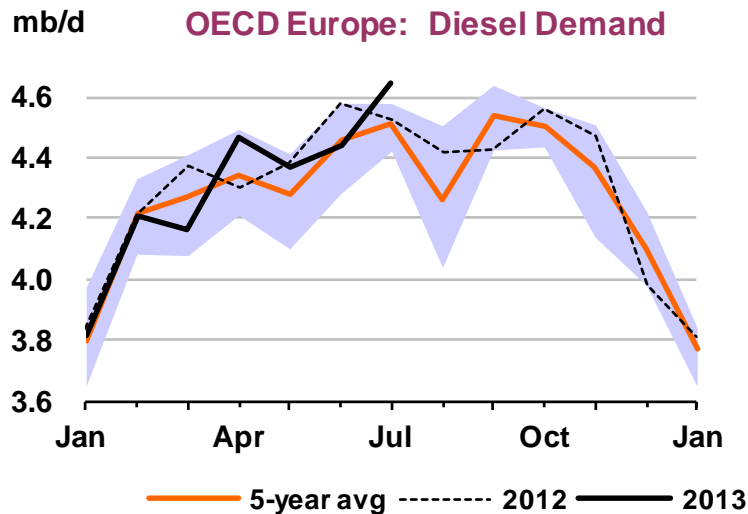
Europe Bounce Supports Short-Term Demand



- The pace of the European demand decline has eased in recent months, from string of steep drops in recent years
 - +1.4% y-o-y 3Q13, +0.1% 2Q13
 - -2.4% 5-year average, 2008-2012
 - Economic outlook has improved
- European demand still seen in structural decline -- post-recessionary bounce likely brief
 - -0.7% 2014, after -0.8% in 2013 (-3.8% 2012)

Industrial Demand Picking Up?

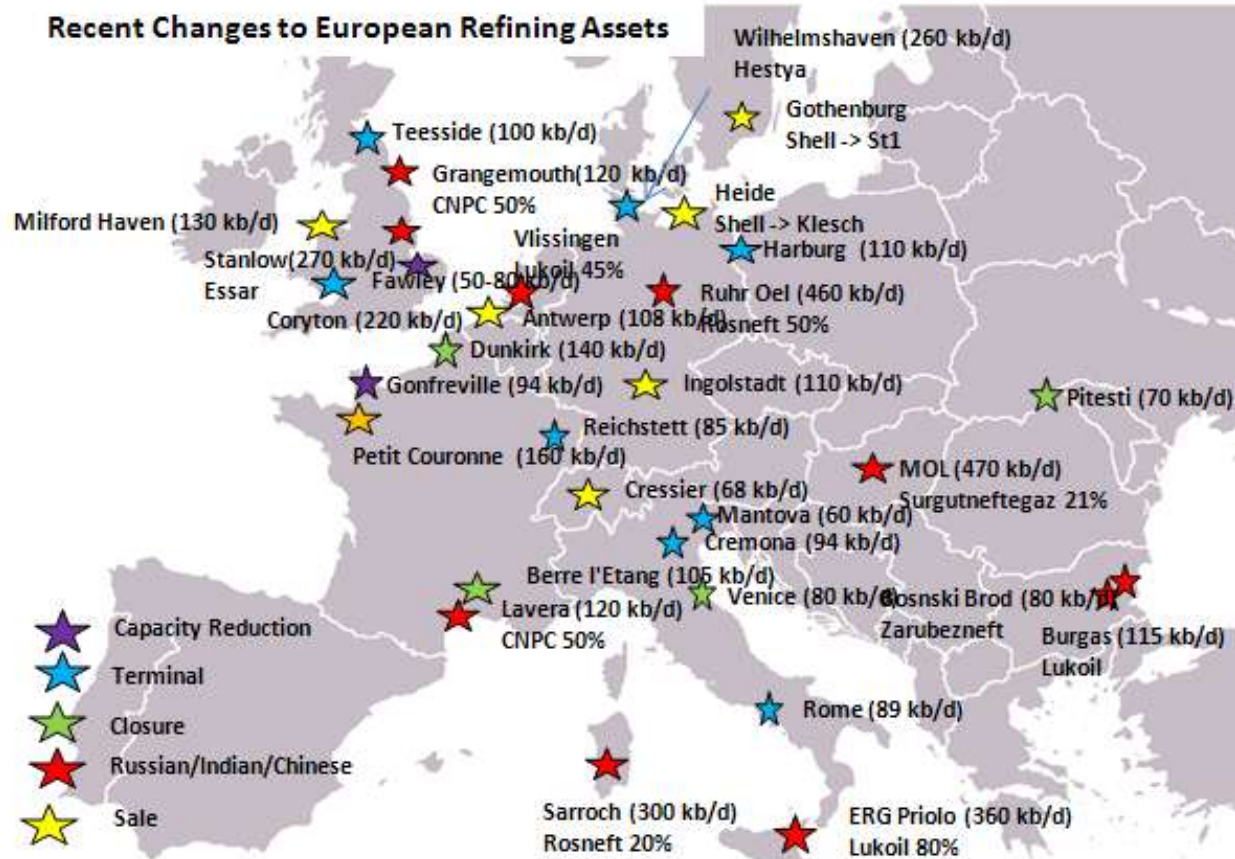
LPG imports from Russia and US on the rise



- Diesel demand goes above its historical range in July
- LPG demand from Belgium, the Netherlands, Norway post strong year-on-year growth so far in 2013.
- Imports this year (Jan-Aug) from the FSU up 24%
- Imports from US up 300% so far this year, but from low base

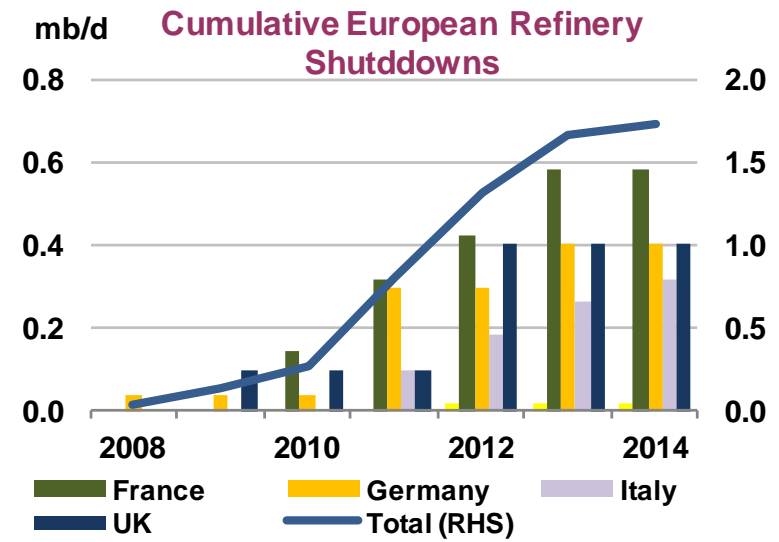
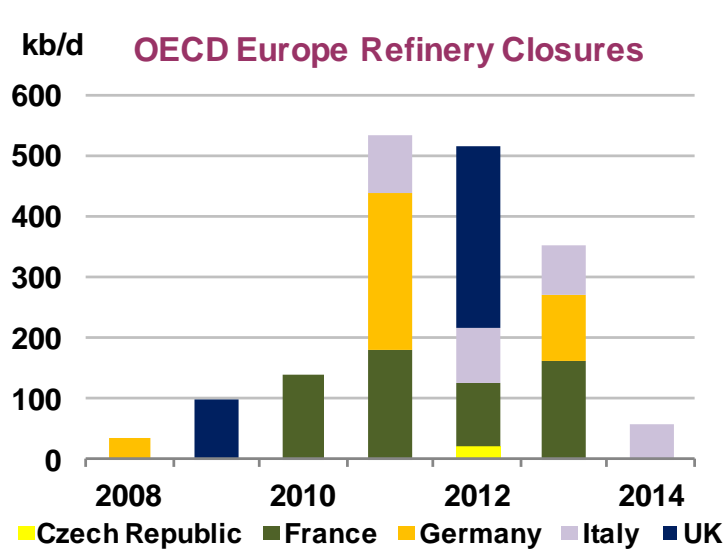
European Industry Restructuring Continues

MOL's Mantova Refinery in Italy, 16th to shut or reduce capacity



- Europe shut 350 kb/d this year, for a total of 1.7 mb/d since 2008
- In addition, lot of ownership changes, with Russian, Chinese, Indian players entering the market, as well as trading companies (Vitol, Gunvor)

Plant Closures in France, Germany, Italy and UK

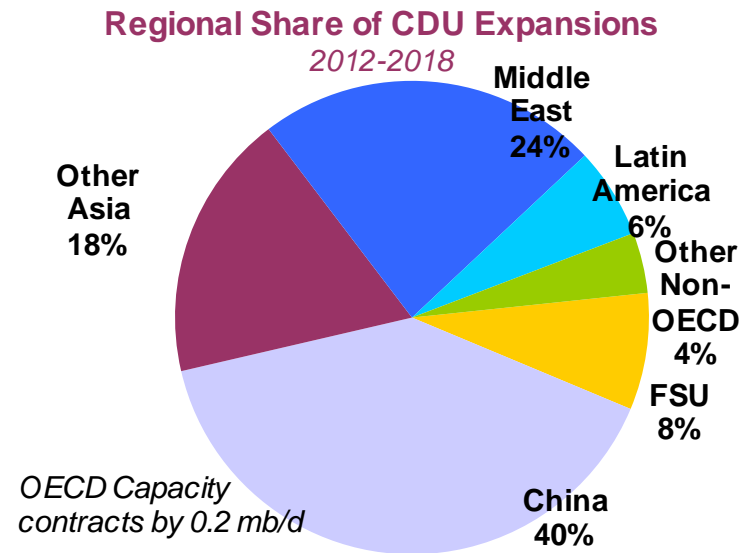
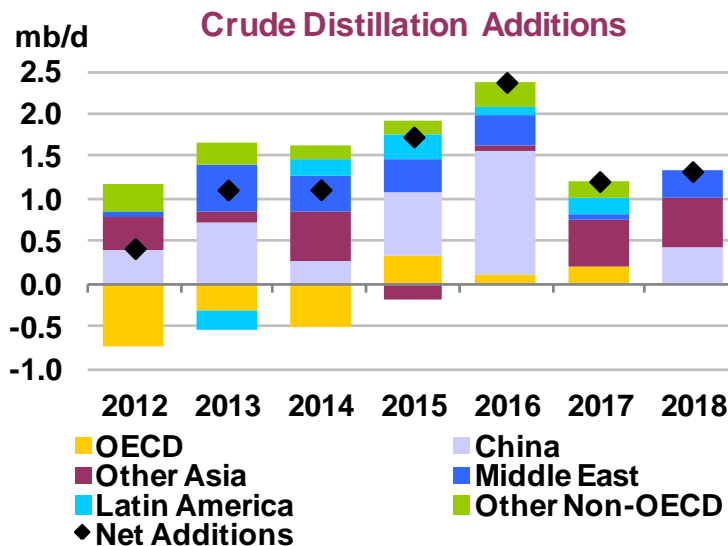


Refinery Closures to Date:

- France 585 kb/d
 - Germany 400 kb/d
 - UK 400 kb/d
 - Italy 320 kb/d
-
- From 2007 to 2013, a total of 1.7 mb/d of capacity shut in total. Comparatively, demand fell by 1.9 mb/d

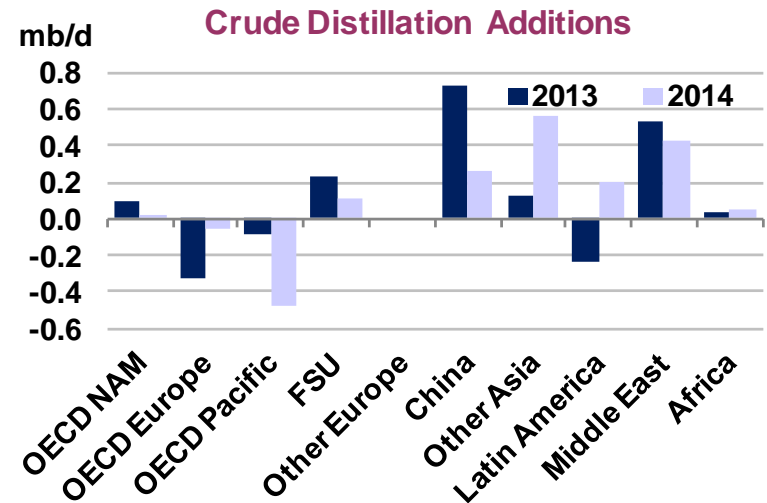
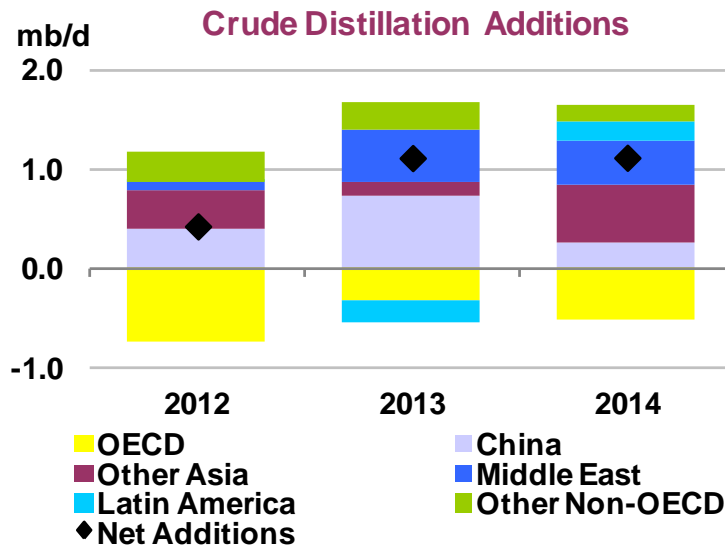
Non-OECD Refinery Additions Become Reality

More than 9 mb/d added by 2018?



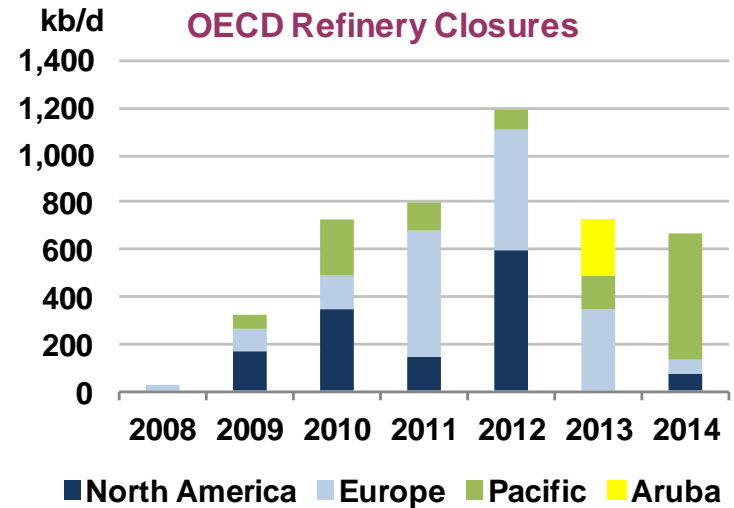
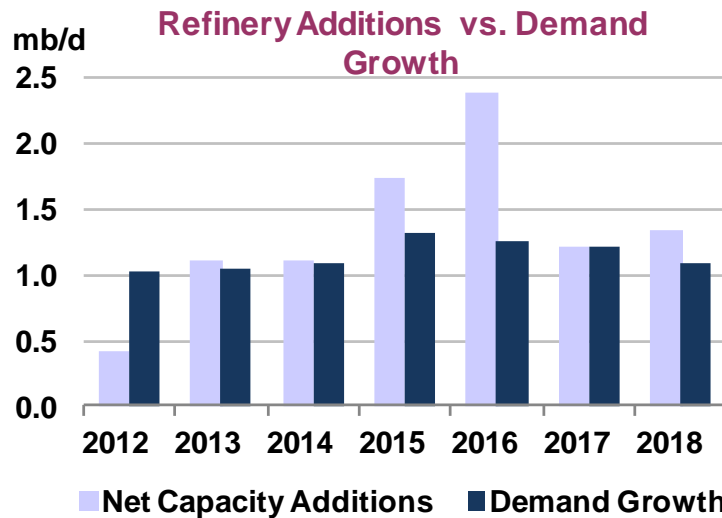
- While OECD refinery capacity has been rationalised, non-OECD expansions continue at rapid pace.
- A net 9.3 mb/d of new distillation capacity is expected in the 2013-2018 period
- Non-OECD Asia, Middle East account for 80% of net gain
- Overall OECD capacity contracts by 0.2 mb/d, but North America expands on new liquids supply and cheap energy costs

Net Refinery Additions Match Demand growth in 2013 and 2014



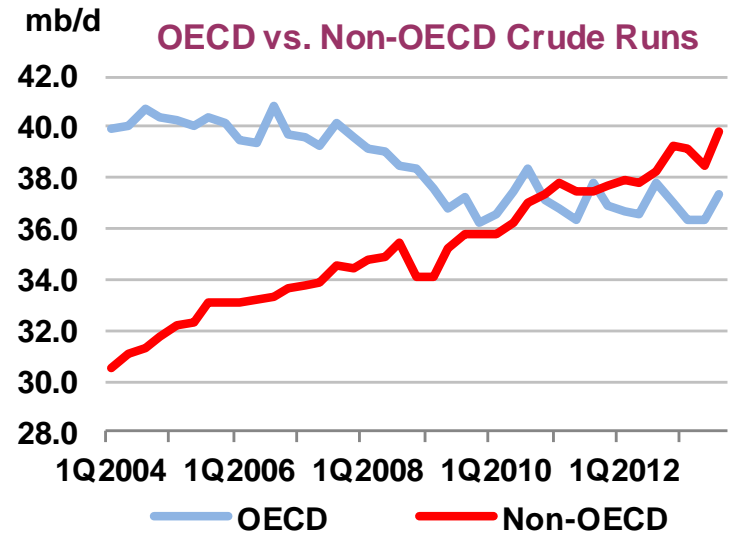
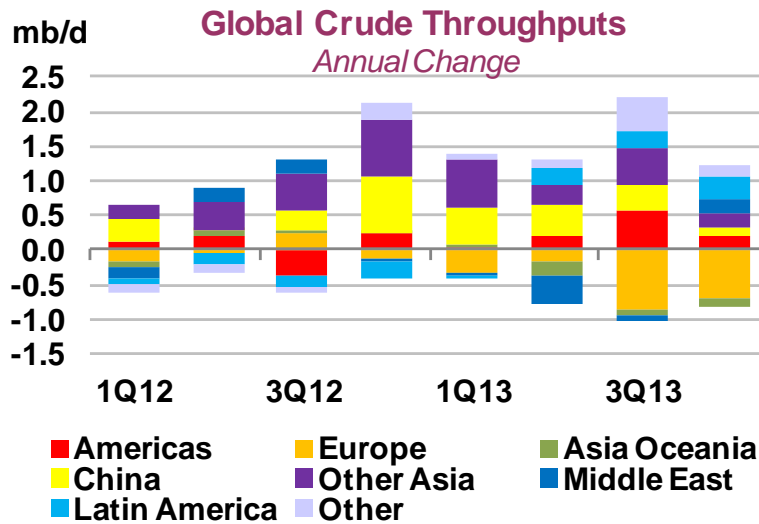
- Non-OECD add 1.4 mb/d and 1.7 mb/d of net new distillation capacity in 2013 and 2014
- China, Middle East, India account for most of new capacity
- As OECD close plants, net additions amount to 1.1 mb/d for both 2013 and 2014, largely matching expected global demand growth.

Globally, Surplus Refining Capacity Still Exist



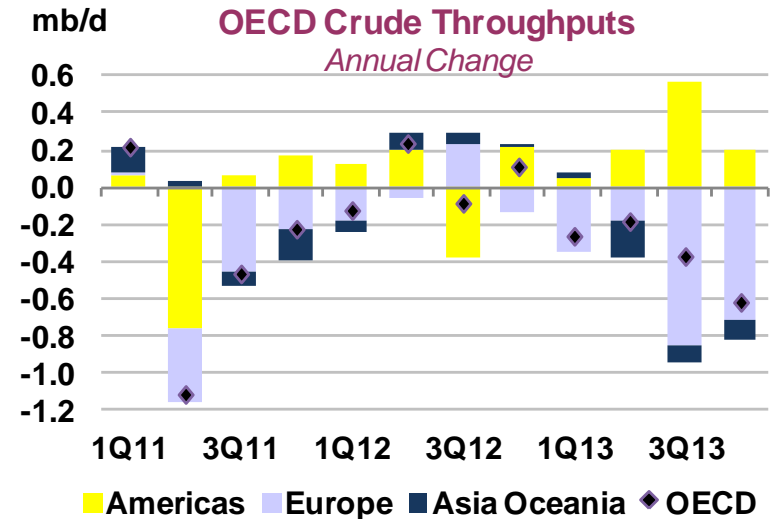
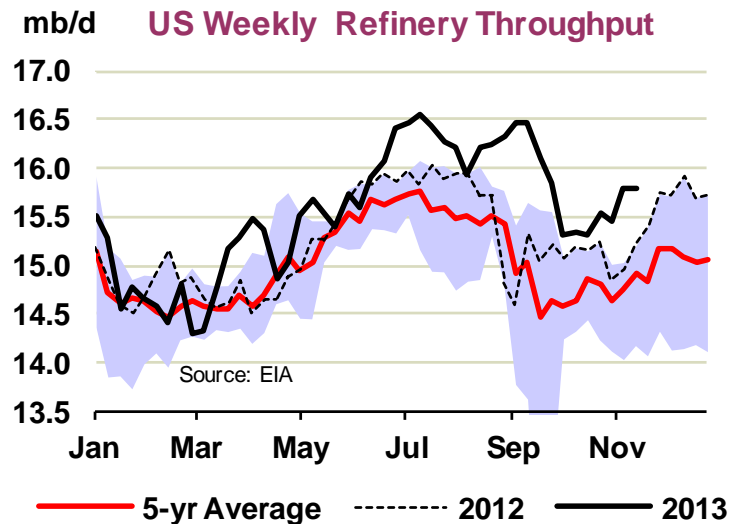
- Despite OECD refinery closures, surplus distillation capacity exist
- 3.8 mb/d of OECD capacity already shut since 2008 (including Valero's 235 kb/d Aruba refinery)
- Another 670 kb/d scheduled for 2014, mostly in Japan
- Additions exceed projected demand growth to 2018
- Furthermore, biofuels, NGLs etc. meet larger share of demand

Non-OECD Continues to Drive Growth



- Non-OECD refinery runs up 1.6 mb/d y-o-y in 3Q13, and 1.0 mb/d in 4Q13
- Non-OECD Asia is largest contributor to growth, led by China
- Russia, Brazil also at record levels through summer
- Middle East saw the start-up of 400 kb/d Jubail refinery in Saudi Arabia in September, expected to reach full capacity before year-end
- China to add new capacity by year-end, India early next year (Pengzhou 200 kb/d, Quanzhou 240 kb/d, Paradeep 300 kb/d)

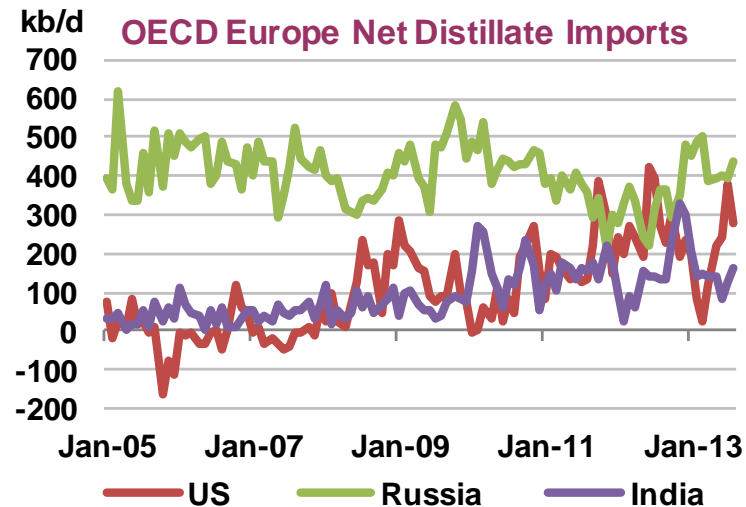
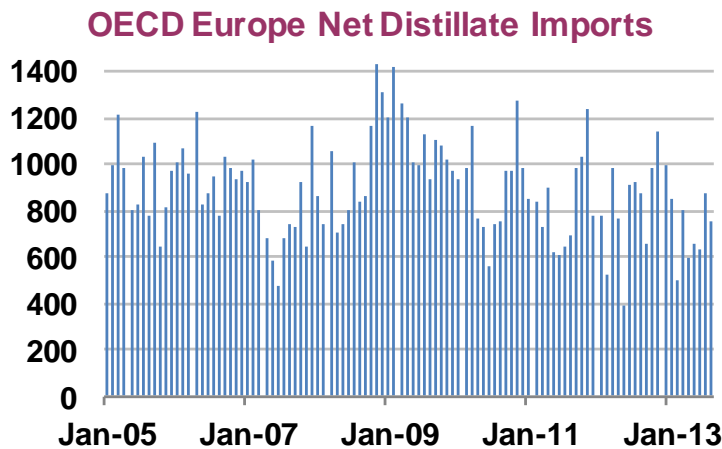
US Refinery Renaissance



- US refiners processed 725 kb/d more crude in September this year, compared with last
- So, far this year (including October), US crude intake has increased 240 kb/d year-on-year
- Reports are that the high crude runs resulted in record shipments of distillate to Europe
- Surging domestic liquids supply and better refinery profitability lead to increased downstream investment – 500 kb/d of new capacity likely by 2018

European Net Distillate Imports On Declining Trend

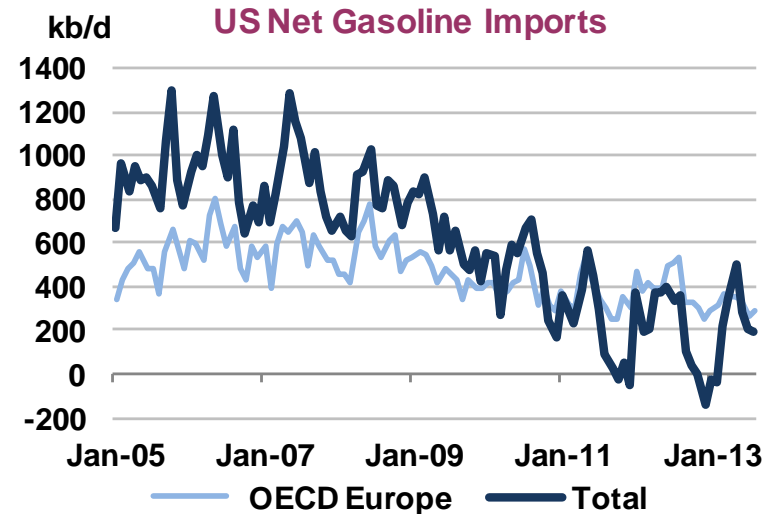
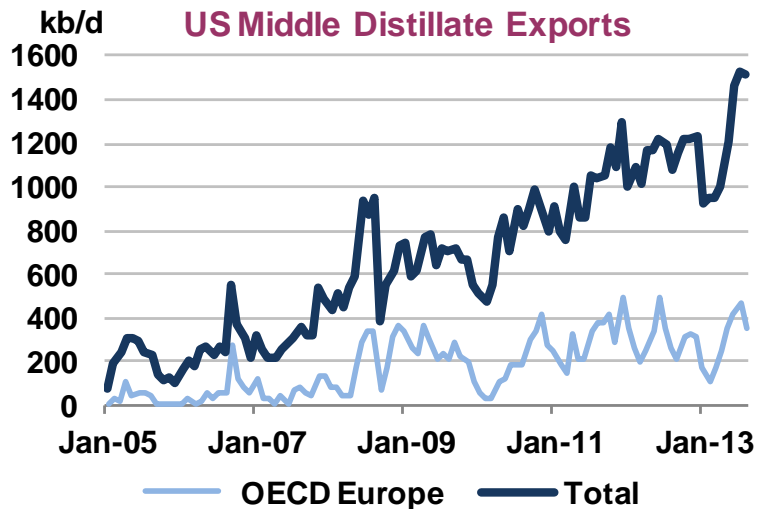
But increasing volumes coming from US, Russia, India, and Saudi?



- Year-to-date, European Net Distillate imports have averaged 700 kb/d in 2013 (through August), compared with 830 kb/d in 2012 and 1.1 mb/d in 2009.
- Russia remains main supplier, providing 430 kb/d so far in 2013
- Increasing volumes coming from US (190 kb/d) and India (140 kb/d), with US surpassing Russia as key European supplier sporadically

Europe Still Minor Market for US Distillates

And US gasoline imports from Europe Eroding



- Europe represent less than a quarter of total US distillate exports, but share rising
- US imports of gasoline stabilised at around 300 kb/d?
- US net exporter of gasoline in certain months

Russian Proposed Tax Changes

- Russia is expected to approve changes to its product export duties by the end of 2013.
 - Incentivizes refinery modernisation and product exports.
 - Fuel oil duty will be raised from 66% of crude oil to 75% and 100% in 2014 and 2015, respectively.
 - Clean product duties will be reduced from 66% to 65%, 63% and 61% in in 2014, 2015, and 2016 respectively.
 - Gasoline duties will remain at 90%
-
- The incentive for modernisation grows, and simple refineries no longer viable
 - Closures of simple plants likely, and unprecedentedly big reward for refiners that modernize
 - Less fuel oil supply and exports, more diesel





Thank you

toril.bosoni@iea.org