CRUDE OIL MARKETS AND THEIR IMPACT ON THE TANKER MARKET

DECEMBER 16, 2010

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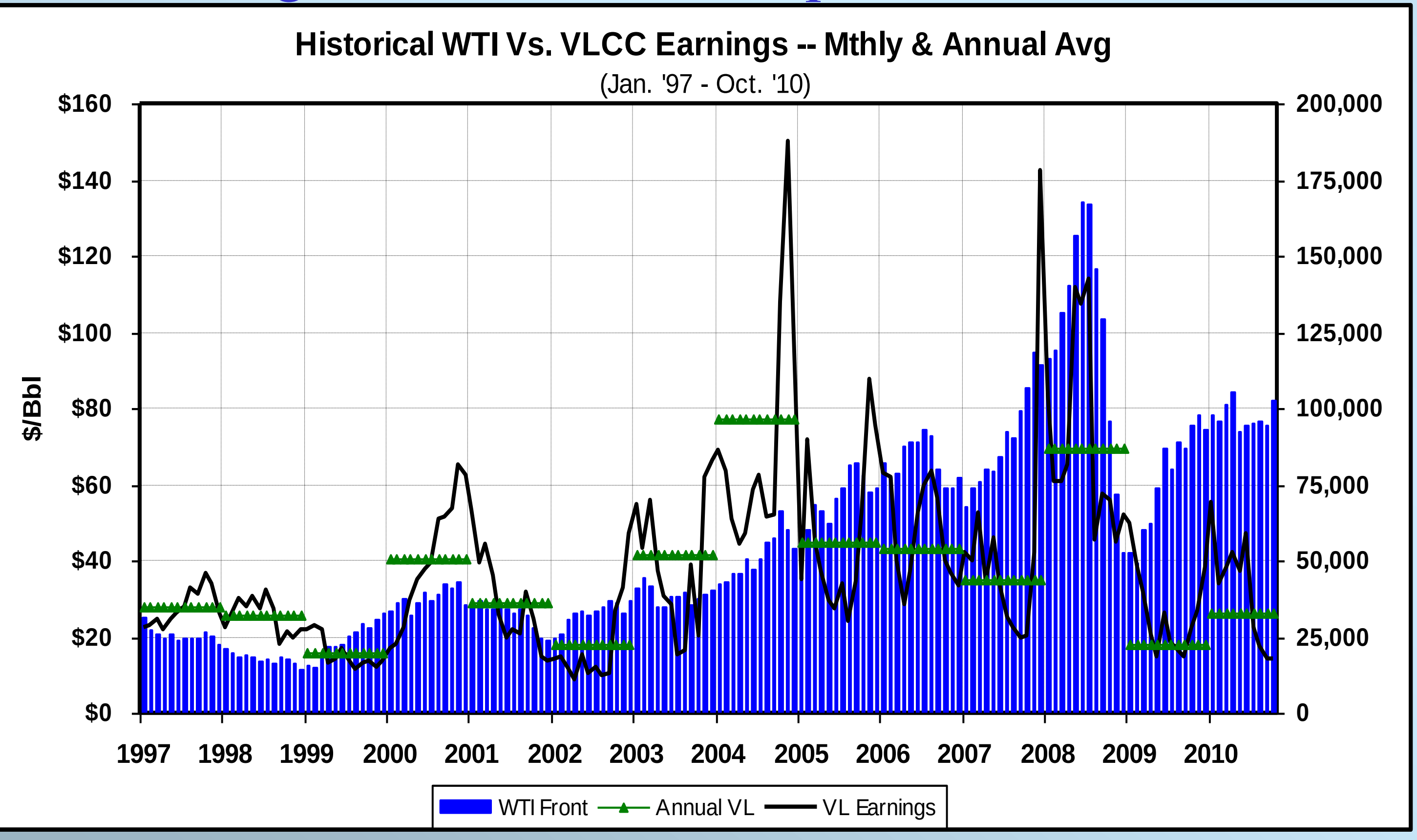
Areas of Influence

From a basic view to the more nuanced

- Pricing
  - Prompt and future price levels can enhance or diminish oil flows
- Inventory Levels
- Timing of Purchases
  - Seasonal Demand
- Where's it going – as destinations change so does tanker demand
- Non-Land Based Inventory

Pricing

- Conventional wisdom has been that strong tanker earnings are tied into strong oil prices …
- Implication is that high oil prices are a function of strong demand … strong demand implying increased demand for transportation
- Often true, but not always; strong earnings does not always imply rising earnings as the mid decade price run showed …



- And then there is the crude price level since mid 2009
- 2010 direction of avg earnings on target, but nominal VL earnings level has fallen as prices have risen

Pricing And Yr-on-Yr Earnings Changes Tend to Mesh

- Until the middle of this past decade the "conventional wisdom" held – see table on left, but this was when both markets experienced anomalous developments
  - Developing world oil demand growth and concerns about future oil production capability soared and oil prices followed

    At the same time …
  - There were temporary dislocations to oil supply logistics in '04 and '05 from hurricanes resulting in short-term tanker earnings spikes
  - The volatile impact on earnings associated with these occurrences disturbed other intuitive expectations

Years with differing direction are noted in bold below

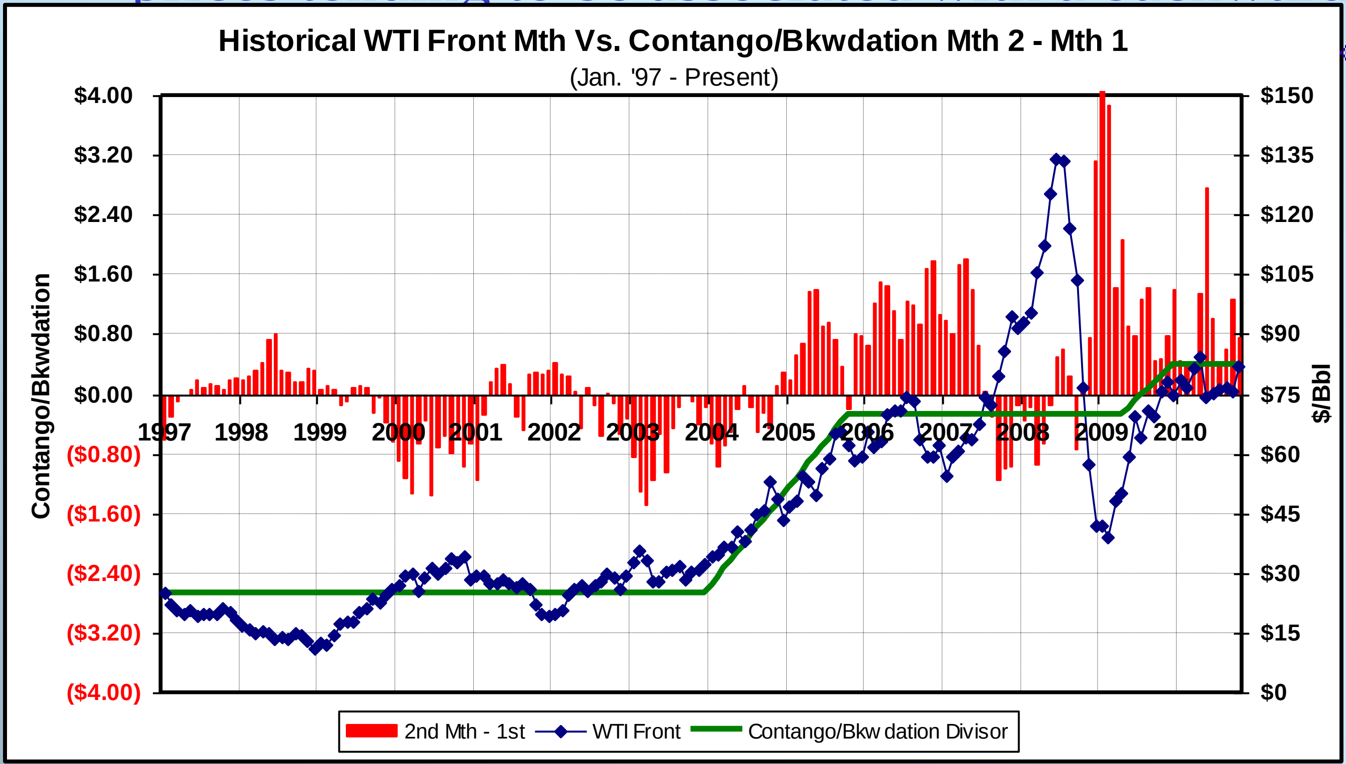
Annual Summary Comparing
Changes to Oil & Tanker Markets

Year	VL Earnings	WTI Price
1997	**Rose**	**Declined**
1998	Declined	Declined
1999	**Declined**	**Rose**
2000	Rose	Rose
2001	Declined	Declined
2002	**Declined**	**Rose**
2003	Rose	Rose
2004	Rose	Rose
2005	**Declined**	**Rose**
2006	**Declined**	**Rose**
2007	**Declined**	**Rose**
2008	Rose	Rose
2009	Declined	Declined
2010	Rose	Rose

*** VL Earnings used as a benchmark for the general level of tanker earnings**

Prompt Pricing & the Futures Curve

- WTI futures have exhibited extended periods in either a contango or backwardated shape
- This has often been in response to the nominal prompt price – higher prices tending to be associated with a backwardated oil market

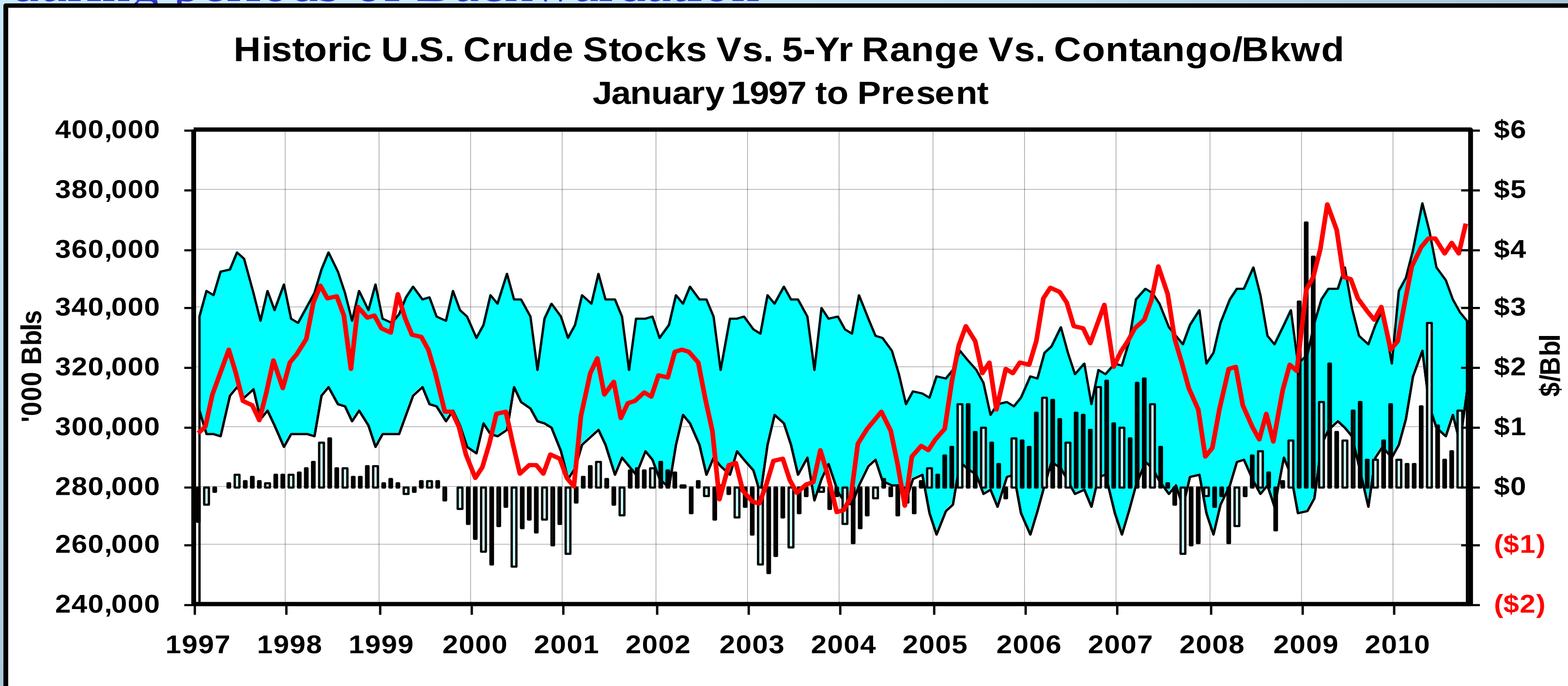


- In retrospect one can graphically introduce a "divisor" to separate contango and backwardated periods
  - Note '04 –'06 transition period was when VL earnings and pricing symbiosis faded

- The shape of the futures curve has logically impacted behavior in the oil sphere shaping the relative level of inventories …

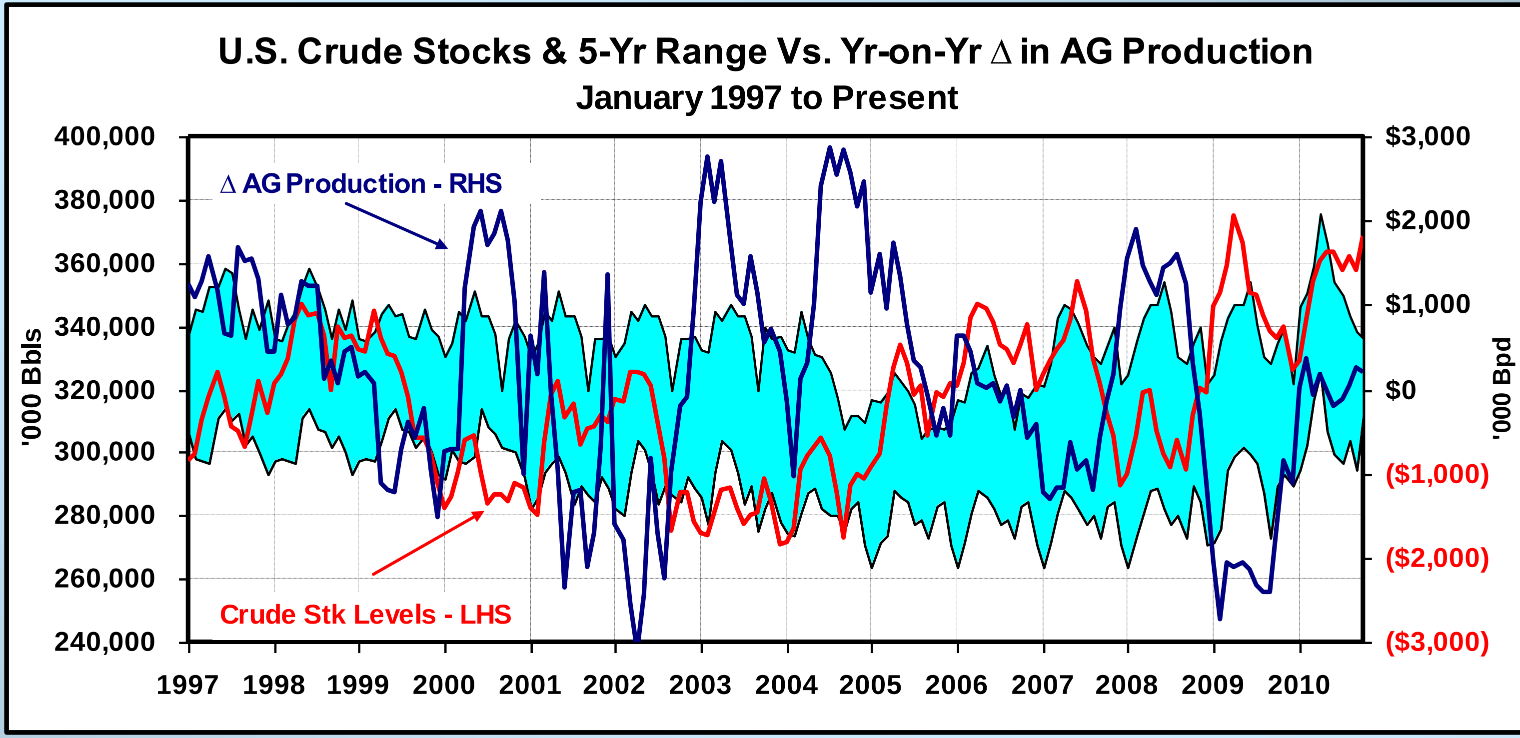
Contango/Backwardation & Inventory Levels

- During periods of Contango inventories are high on a relative level and vice versa during periods of Backwardation



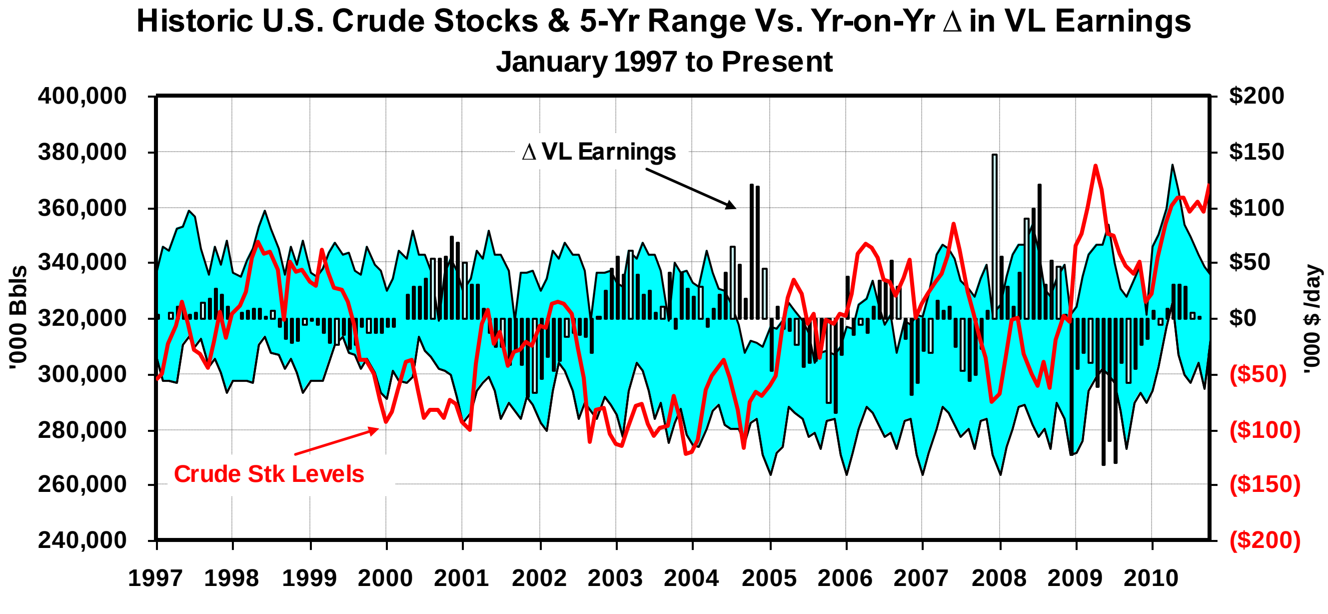
- The eventual flip from low to high inventory levels is preceded/facilitated by an increase in oil flows/tanker volume and vice versa – high to low results from a reduction in production …

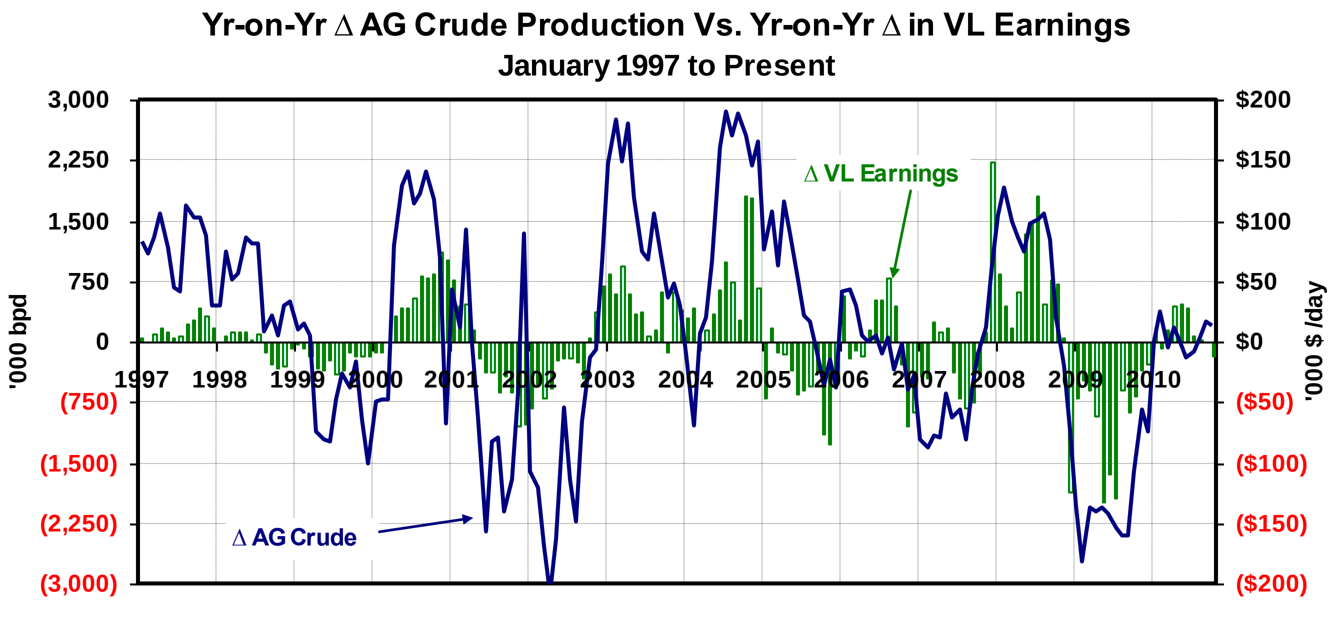
Inventories and AG Production



- Following OPEC's "re-dedication" in 1999 high inventories generally led to a reduction to crude production and conversely low inventories eventually experienced and an increase in production
- The 2010 "relative rise" in the "Blue" production line should not be confused with a rise in production – the "flattish" nature this year is a function of an extended period of reduced output – '10 output level being similar to that of '09 – similar to what happened in '05/'06

U.S. Inventory Levels and VL Earnings



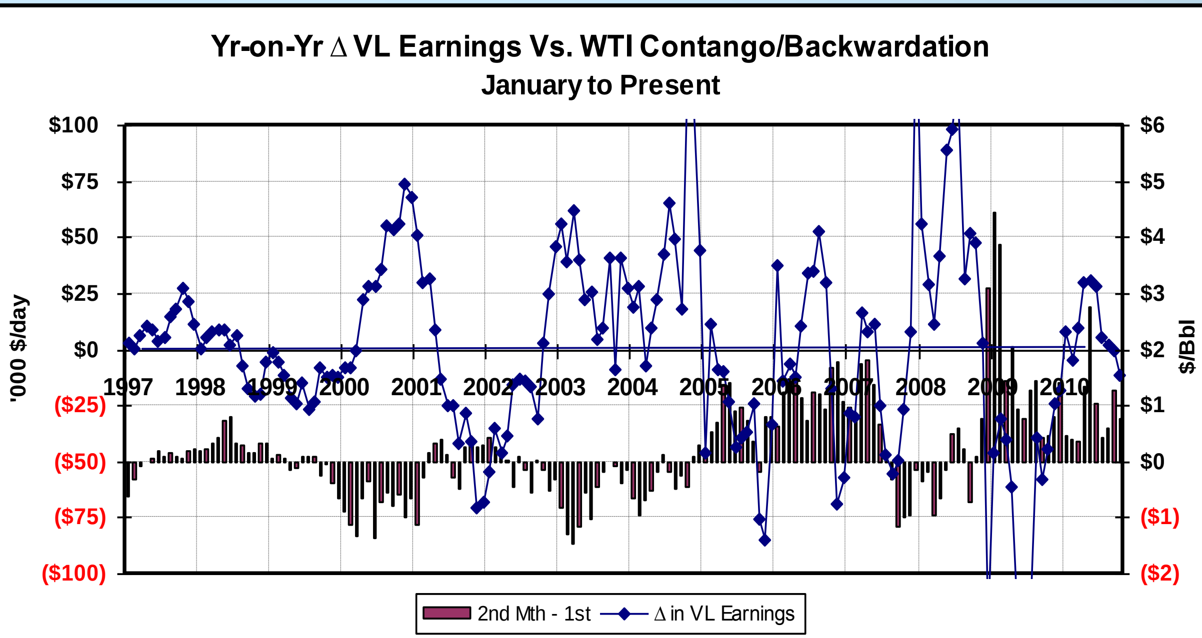


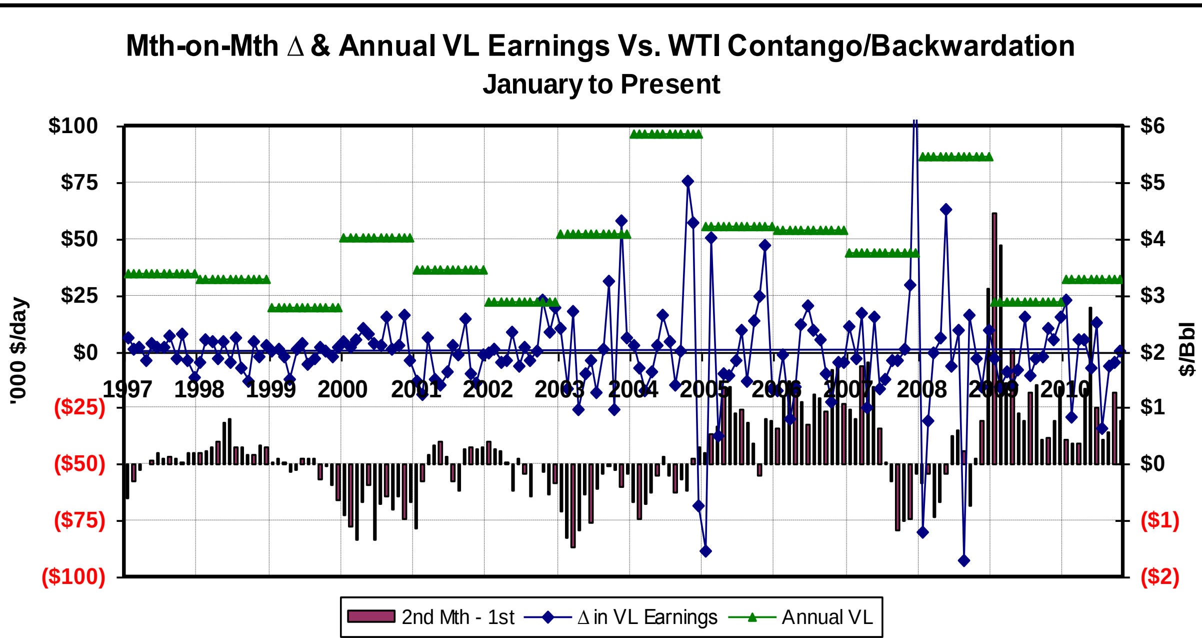
- Top graph indicates that earnings have improved when crude stocks are low
- As we've seen, this is also when crude prices rise
- Higher prices, increased crude supply …

If it's produced it will get carried

- But this translates into stronger earnings during backwardated periods and vice versa …

Contango/Backwardation & VL Earnings

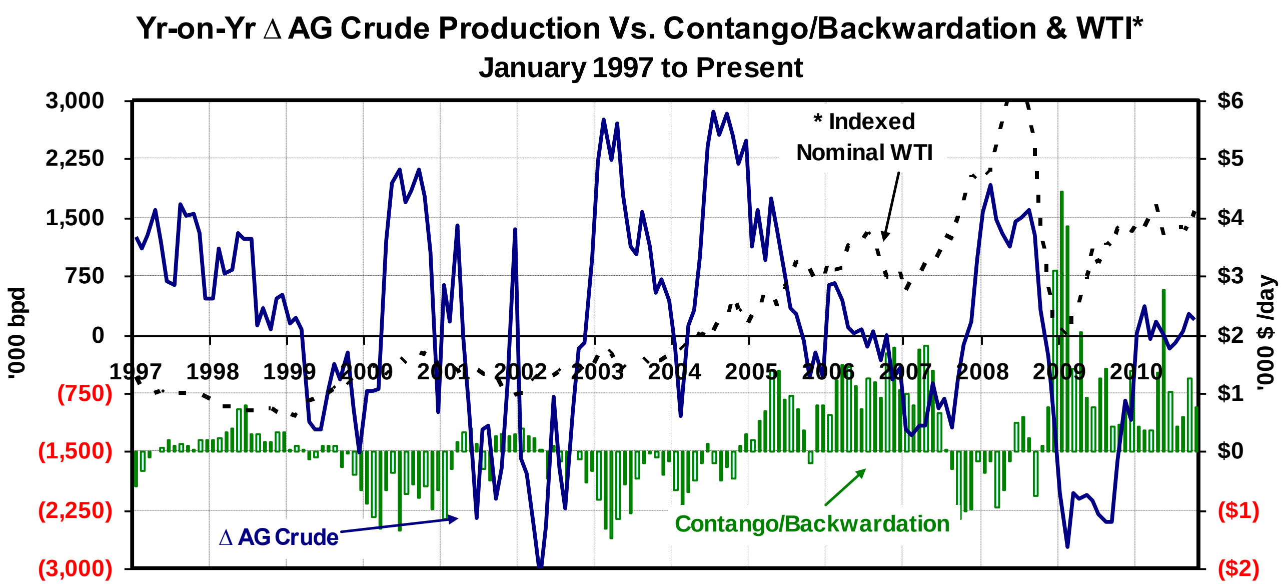


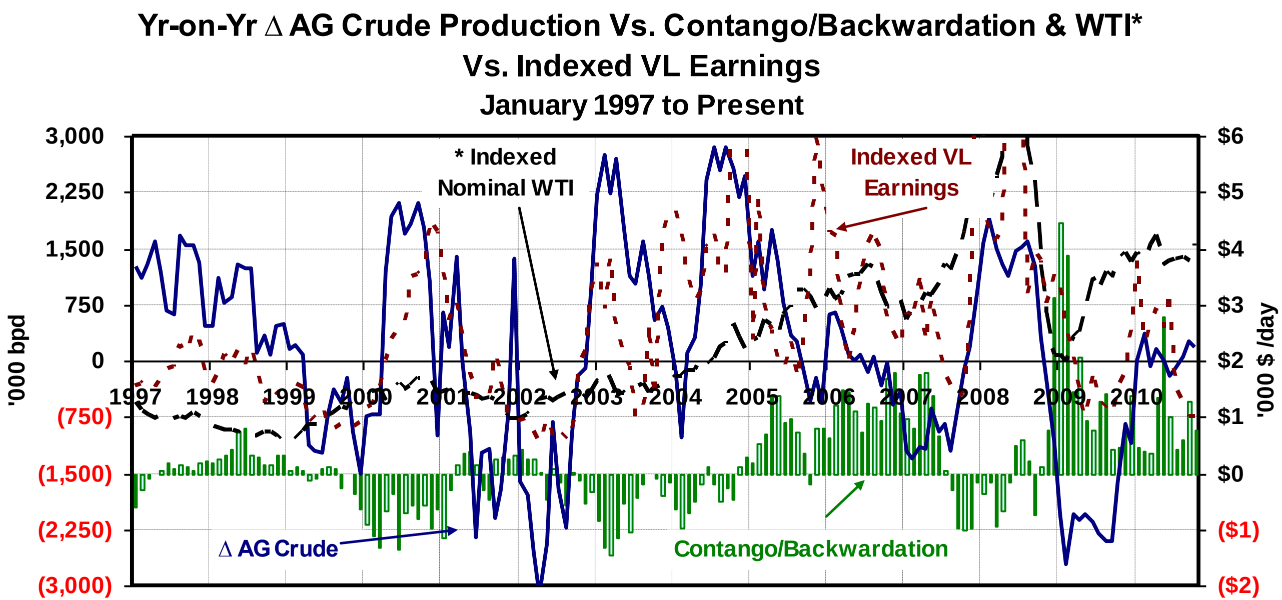


- The last bullet from the preceding slide is particularly striking depending upon how one measures earnings
  - Yr – on – Yr measure of earnings Δ on left highlights Contango earnings issues when crude pricing is at an inflection point, but
- Contango facilitates continued high crude production – strong, albeit softer market maintained
- In contrast …
  - Backwardated periods provide an opportunity for earnings spikes due to the associated low inventory levels, additionally …
  - **Backwardated mkts are associated with higher nominal prices – which follows another driver …**

Production

Crude Drivers Impacting Tanker Earnings
Nominal Price, Future Curve & AG Production





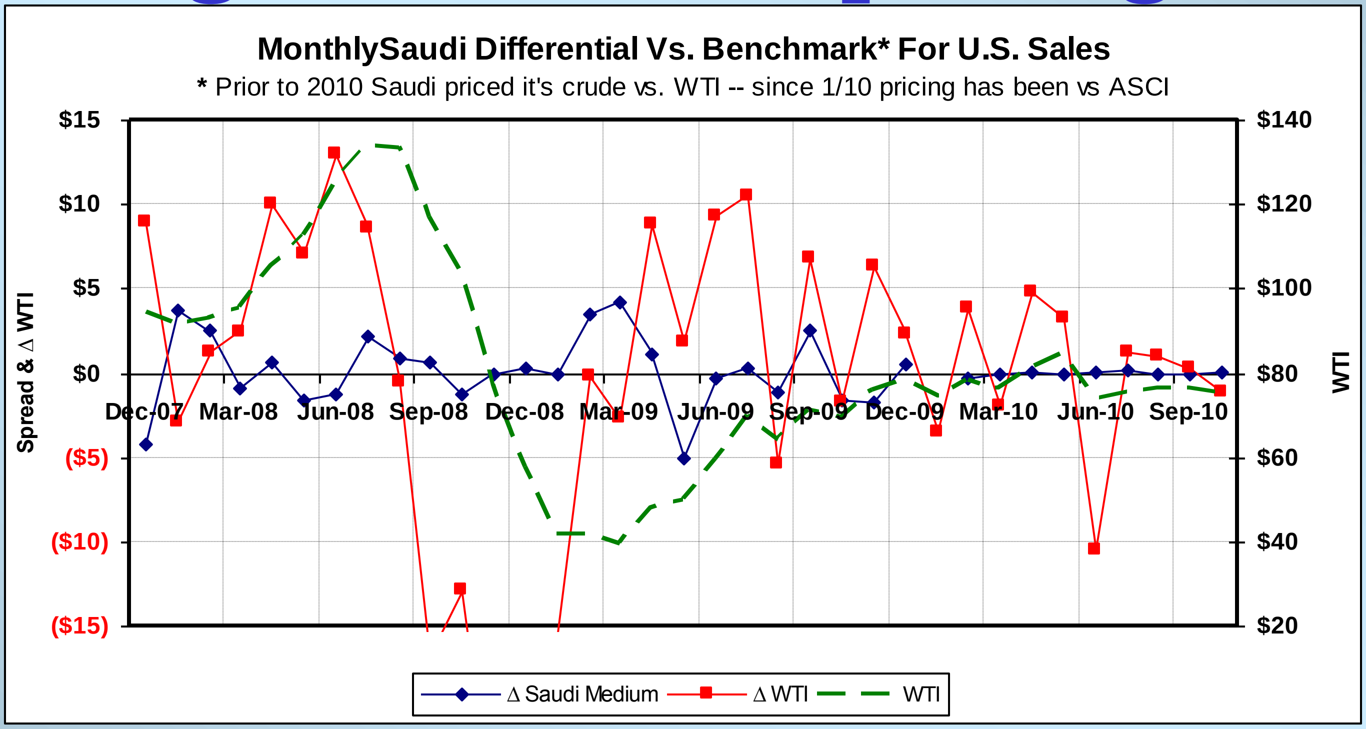
- AG output increased during backwardated periods as prices rose
- Yr-on-Yr production increase rarely occurred for more than 1 yr – except '03/04
  - Production & price Δ magnitude similar until '05
- Indexed tanker earnings moved with production regardless of price
  - Earnings surges due to anomalous events

Anomalous VL Earning Periods

In Chronological order

- Q4 2004 --- IVAN
- Q4 2005 --- Katrina
  - Extended disruption of production in U.S. Gulf region – arguably demand destruction was greater than loss of supply
- December 2007 --- “Saudi initiated” Contango
  - Following a 2- month $16 rise in WTI Saudi Arabia announced that it would increase the discount on its crudes vs. the benchmark WTI by over $4/bbl – VL rates increased by over $140k mth-on-mth
    - A win-win for Saudi as they were increasing production as prices surged, they maintained buying interest by providing the appearance of a “sale”
    - Dec production levels were 500k+ bpd greater than YTD Nov ‘07
- May – July 2008 --- Surging crude prices and final push into Beijing Olympics

Current Crude Pricing Evolution Saudi Pricing – From Self-Initiated Contango to ASCI Replacing of WTI



- Month-on-month differentials vs. the benchmark WTI were highly volatile reflecting the inherent WTI volatility
- Since Jan. 2010 the volatility of both have declined

Current Environment

- Has featured what would be described as an anomalous situation – high prices and low AG/OPEC production
- High crude prices – only 2008 experienced a higher annual average price for WTI in recent memory
- 2009/2010 AG production at lowest levels since the Iraqi issues during 2003 and the OPEC cutbacks of 2002
- VL and other tanker sector earnings have been morbid to generally soft during this period – positive periods tending to occur due to support from crude pricing and/or short-term tanker supply imbalances
- Low AG/OPEC supply facilitated by Non-OPEC supply growth and 2008/'09 decline in global demand
- Changing trade patterns – can be expressed as due to shorter voyages or incremental vessel meeting greater percentage of global demand or simply less tonne-miles

Changing Trade Patterns

OECD Vs Non-OECD Oil Demand Growth

(Growth in ' 000 bpd)

Period	OECD/ Non-OECD	Beg/End Wrld Dmd	Period Growth OECD	Period Growth Non-OECD
1990 - '94		66.2/67.9	3,076	(1,427)
1990	63%/38%	(mm bpd)		
1994	65%/35%			
1995 - '99		67.9/75.8	3,498	4,406
1995	64%/36%	(mm bpd)		
1999	63%/37%			
2000 - '04		75.8/83.0	1,605	5,603
2000	63%/37%	(mm bpd)		
2004	60%/40%			
2005 - '07		83.0/86.2	(188)	3,342
2005	59%/41%	(mm bpd)		
2007	57%/43%			
2008 - '10		86.2/86.8		
2008	56%/44%	(mm bpd)	(3,347)	3,929
2010*	53%/47%			

* YTD 10/2010

Data as per Energy Intelligence Group

- Changing trading patterns followed changing demand
- Since 1995 demand growth in the developing world is 11x that of the developed world
- Nominal demand is now close to being evenly split between developing and developed economies

Changing Trade Patterns

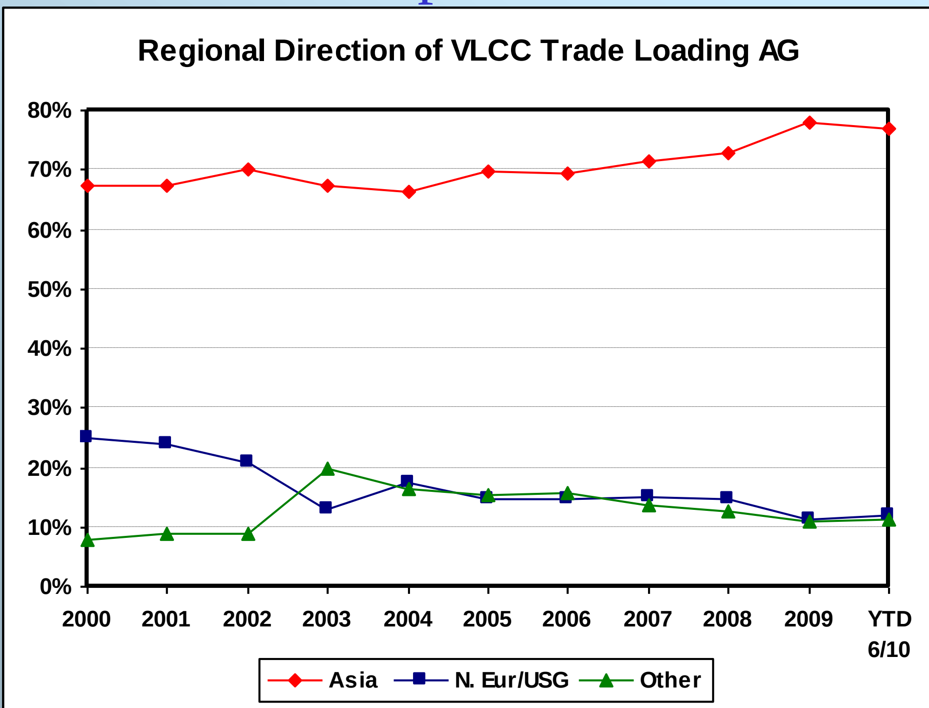
- Geographic focus of the changes in global demand as 2010 began – Western deficit and Eastern gain

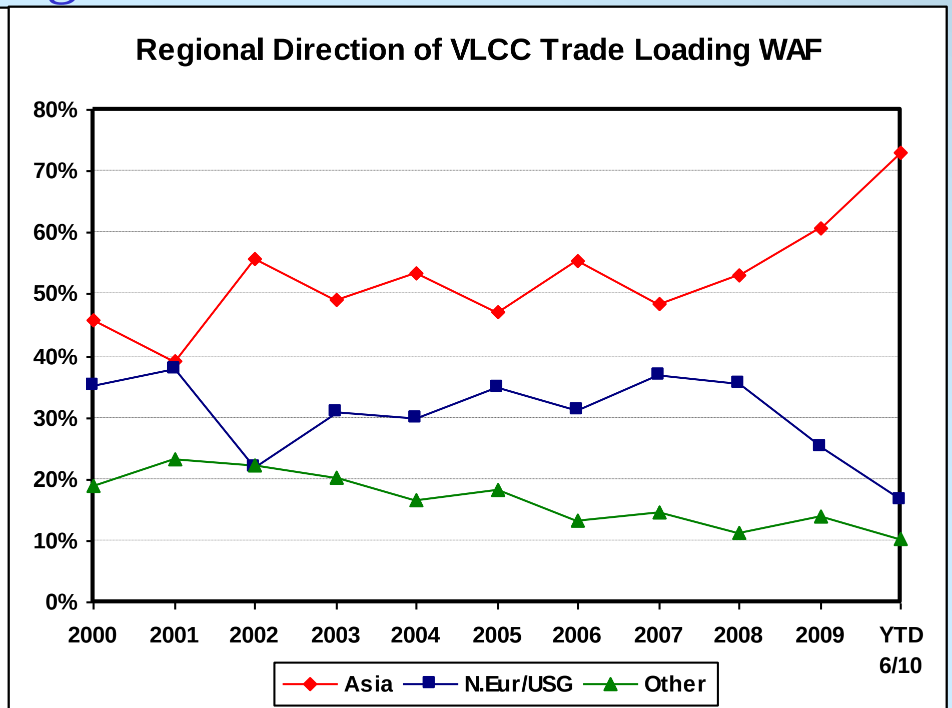
Oil Demand Decline -- 2007 Peak to One - Year Post Crisis in the Three Key Regions

	Europe		U.S. Canada		Asia					
	Big 4	W. Europe	U.S.	Canada	China	India	Japan	Korea	Australia/NZ	Other Asia
Demand Δ For '08 & '09 ('000 bpd)	(410)	(930)	(1,910)	(160)	890	320	(670)	(50)	0	610
			(2,070)		1,210		(720)			
					490					

Changing Trade Patterns Con't

- As per demand growth previously described trade patterns have become more "Eastern" focused
  - Approximately 75% of the AG and WAF loadings are bound for Asia or Indian Sub-continent – '00 to '07 WAF avg was about 50%
  - N.Europe/USG component of AG lifting has fallen by over a third from a '00 to '07 average of 18% to sub 12% this year
  - From WAF the drop has been from about a third to half that level this year
- On average each VLCC is meeting a greater amount of daily demand vs. 2007 as laden portions are increasing as WAF/East traffic increases

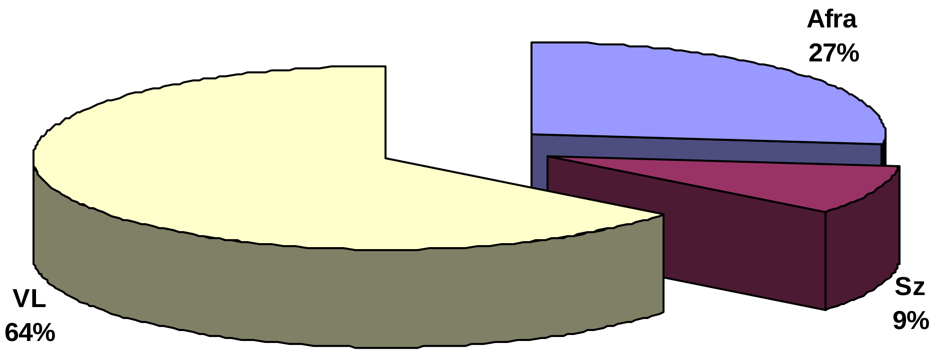




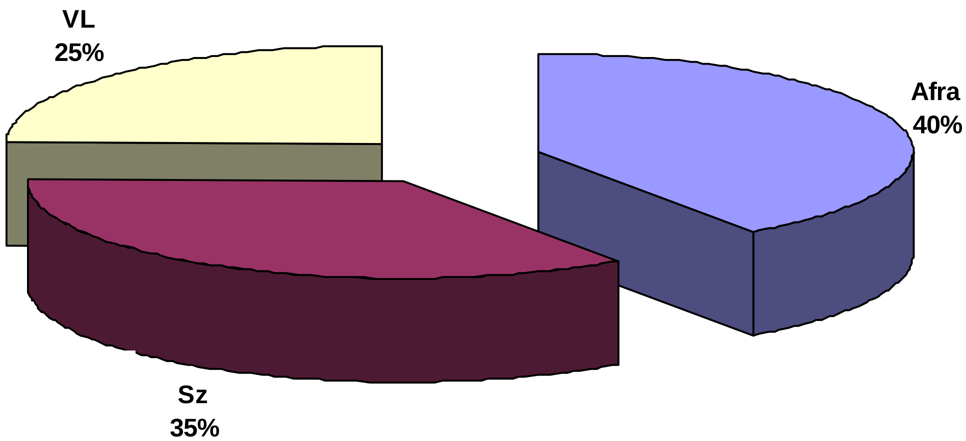
Changing Trade Patterns Con't

- The impact of oil demand growth on tanker market varies as different regions rely on different tanker sectors

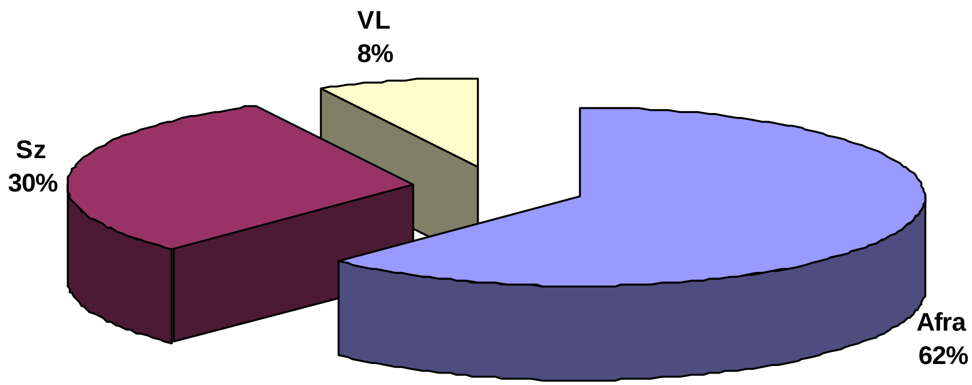
Asian & Australian Crude Imports By Sector - 2010



U.S. & Canada Crude Imports By Tanker Sector - 2010



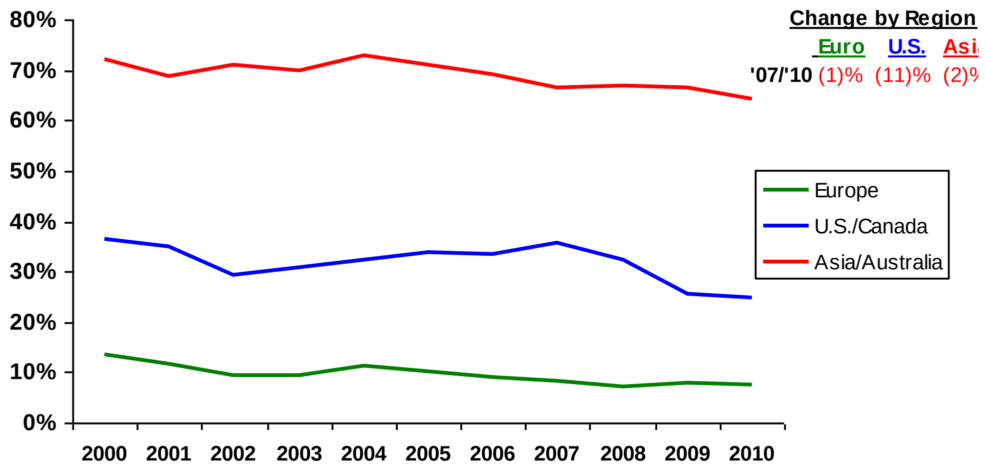
European Crude Imports By Sector - 2010



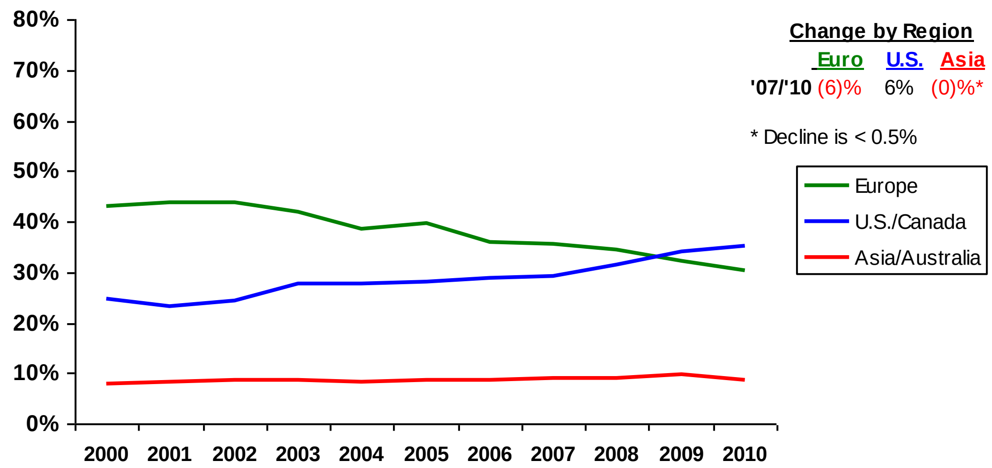
* Trade data as per MJLF and Lloyds/Fairplay

Evolving Sector Utilization By Region

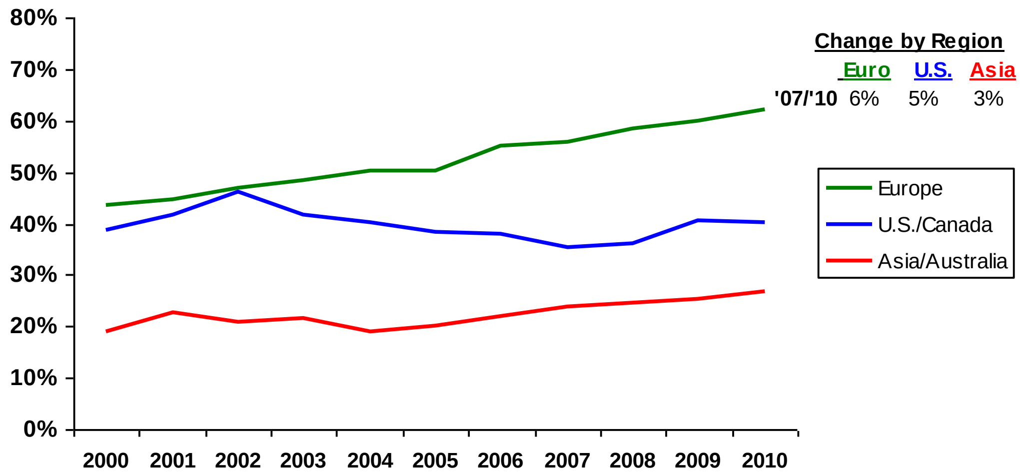
VLCC Carriage of Regional Crude Imports



Suezmax Carriage of Regional Crude Imports



Aframax Carriage of Regional Crude Imports

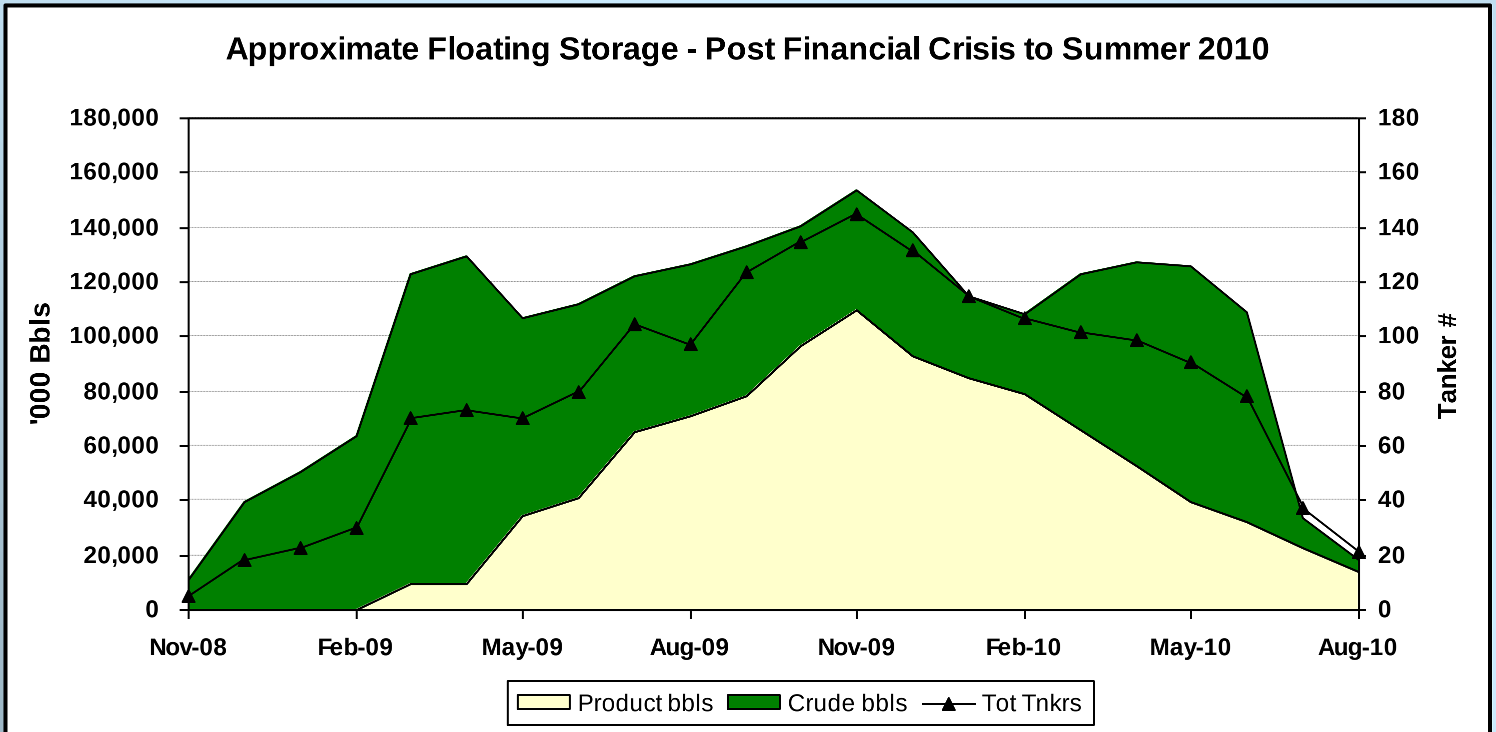


Sourcing of Crude Matters

- Recent increase in Non-OPEC sourcing has reduced VLCC and increased Aframax market share in all 3 regions
- Decline in OPEC production has eroded VLCC market share even for Asia
- Only U.S. experienced an increase in Sz market share

Non-Land Based Inventory

- Became a larger issue in aftermath of Financial Crisis
- High shore-side inventories, high crude prices co-existing with a contango futures curve and low freight costs for tankers all combined to provide incentives to increase floating storage –
  - A major contributor to recent periods of "market firmness" despite relative lack of AG production



Non-Land Based Inventory

- Decline in floating storage during summer coincided with softening of contango on the crude side –
  - Front end of the WTI curve declined in to $0.30's and Dated Brent was backwardated vs. 1st month from mid July to Mid August
- Additionally, while European distillate stocks remained high they were still ≈ 20 mm bbls below beginning year levels
- It is noteworthy that a firm WTI contango returned in fall but Brent has not – as Saudi no longer prices off WTI - ASCI is related to WTI, but ..
  - Brent is the benchmark for WAF crudes does this imply less significance for WTI?
- Brent has flirted with backwardation during December

Over Simplified Conclusion

- Whatever condition in the oil market that results in increased AG production* will generally benefit the tanker market as whole and vice versa
- There are pricing and other special events that can simulate what happens to tanker logistics from increased/decreased production and this too will benefit/harm earnings
  - Futures curve shape
  - Shifts in oil supply sourcing
  - Supply disruptions (i.e. hurricanes)
  - Economic sanctions
  - Etc…

*** AG production benefits the VL sector the most, which has been used in this discussion as an indicator of tanker market health due to the relationship that has historically been found between to exist between the VL's and other sectors**