

The First Tee...

Titanic Clean-up Effort...new air pollution requirement could jolt shipping costs:

- The International Maritime Organization (a United Nations agency) is implementing a new rule (IMO 2020) requiring ocean-going vessels to reduce their fuel's sulfur content to .5% from 3.5%:
 - The new emission standard was announced in October 2016, and will go in effect January 1, 2020:
 - The International Energy Agency (IEA) estimates 3 million barrels a day of high-sulfur bunker fuel is currently used by the global shipping industry...this group handles 90% of total worldwide trade (IMO has progressively raised sulfur limits since 2005).
- The global fleet is currently comprised of 95k ships, 55k are classified as large vessels:
 - To comply, shipping companies can purchase expensive cleaner fuel or install engine scrubbers:
 - Adding a scrubber can cost up to \$6 million per ship...over 20% of the fleet is over 15 years old, too aged for additional investment:
 - Less than a third of the merchant fleet is eligible to be fitted with scrubbers or technologies to meet the sulfur cap by 2020:
 - Just slightly over 2% of large ships are expected to have scrubbers by 2020...as much as 25% of the total global fleet could be scrapped.
 - The largest shipping companies are already reserving spaces for refits, while smaller operators are taking a wait and see approach:
 - Some companies may choose to ignore the new rules and take a chance on heavy fines...which may be the cheaper option.
 - The number of people taking cruises the past 10 years has increased by 65% (15.5 million in 2007 to 25.5 million in 2017).
 - Merchants ships have earned about \$9,800 per day this year, down from \$34k just ten years ago:
 - Merchant ships three main markets are container, dry-bulk cargo and oil...these sectors have overcapacity and depressed rates.
 - Higher operating costs and tough markets are further compounding the financial stress on cash-strapped ship owners.
 - Some shippers contend the new rules could potentially derail world trade...rising fuel costs during the 2000's did not constrain trade.
 - Sweet & Sour...demand for low sulfur fuel will ramp-up as shippers move towards IMO compliance:
 - Refineries will be pressured for additional sweet crude oil (low sulfur) such as Brent and West Texas, while demand for sour crude (high sulfur) primarily produced in the Middle East will fall (you're welcome Iran):
 - It is forecast that demand for high sulfur heavy fuel will contract to less than a tenth of current levels by 2020:
 - Less sophisticated refineries do not have the ability to convert production to compliant products...U.S. refiners should benefit from the change with their high-specification plants, while Europe will suffer without refinery updates.
 - Demand for middle-distillates (such as diesel & jet fuel) is expected to spike when the new standards begin:
 - Some analysts predict diesel's price premium over high sulfur fuel to rise to \$450/\$500 per ton (the current spread is \$250):
 - Demand for diesel could rise by 1 million barrels a day to 239.7 million...more than the combined demand gains of the past 4 years:
 - A 2016 study commissioned by refiners and shippers predicted insufficient capacity to produce the fuel needed to meet IMO 2020.
 - The cost of compliant fuel is expected to be about three times higher than what ships currently burn...shippers could pay an additional \$60 billion a year on higher quality fuel to comply with the new requirements...regulations and tariffs are not friends of consumers.
 - Time for another Tweet?...President Trump could intervene to derail the new IMO rule...but despite his complaints about higher oil prices, the President is unlikely to interfere due to the regulation change benefiting U.S. refineries.
 - Fuel cost issues are not limited to the high-seas...the new pollution standards for ships could also disrupt fuel supplies for the trucking, airline, and railroad industries, as well as automobile drivers:
 - Extra demand for cleaner fuel from shippers could evolve into refiners producing lower quantities of jet fuel and gasoline...raising concerns retail gasoline could hit mid-\$3 to \$4 per gallon price levels like those seen a decade ago:
 - The IEA is forecasting the new IMO rules could raise diesel prices by 20% to 30%...the last time diesel prices rose as much as the IEA is predicting was in 2008 when the price of crude-oil hit a record high of \$145 per barrel:
 - Trucking firms can negotiate a fuel surcharge to clients but these changes take weeks to enact after pump prices rise:
 - Trucking companies are already getting squeezed by slim margins and higher labor costs...average hourly driver wage is \$24.14, up 23% from 2009
 - It's not nice to fool mother nature...the principle reason for the new IMO rule is the environment:
 - It is estimated, a single cruise-ship produces as much sulfur pollution as 380 million automobiles:
 - A study by Finland in 2016 estimated air pollution from ships under current guidelines would contribute to more than 570k premature deaths worldwide between 2020 and 2025...sulfur air-pollution is also linked to asthma and acid rain.
 - The International Chamber of Shipping expects full implementation of IMO 2020 on the target date.

At the turn...

The Back Nine...

Jumping Jack Flash, it's a Gas...natural gas prices could be poised to rise to their highest level in four years during the coming winter as inventories are at a 13-year low:

- Despite natural gas production hitting an all-time high last month, the U.S. is also exporting record amounts of the fuel...through pipelines to Mexico and tankers overseas:
 - Gas pipeline shipments to Mexico have surged 22% so-far this year...to an average 7.2 million cubic feet per day:
 - There are new-pipeline projects to Mexico that will take additional natural gas from the Texas Permian Basin:
 - The new pipelines will be completed in the 4th quarter, about the same time domestic natural gas demand is increasing.
- As nuclear reactors and coal-fired generators are phased-out, natural gas has become the predominate fuel source to power electric plants...there are about 8100 power plants in the U.S.:
 - There are 1800 natural gas powered electric plants in the U.S. (producing 34% of total electricity output):
 - The number of natural gas powered electric plants compares to 400 coal powered plants (producing 30% of total electricity), 61 nuclear (20%), 1450 hydro-electric (7%), 1000 wind (6%), 1720 solar (1%) and 1075 petroleum (.5%).
 - The hot summer has resulted in a record amount of gas used to produce electricity to power air-conditioners.
- Hoping for a warm winter...the price of natural gas could double if the U.S. has a cold winter:
 - This could push the price to \$6 per million British thermal units...the highest since the polar vortex in 2014:
 - Natural gas inventories currently stand at 2.3 trillion Btu's...20% below the 5-year average at this time of year:
 - The Energy Information Administration expects gas stockpiles to peak below 3.4 trillion Btu's...the lowest level since 2005.
 - If the U.S. winter is warmer than normal?...*well then, never-mind!* (How I learned to stop worrying and love global warming!)

Power Rangers...the International Energy Agency sees the oil and gas supply surges from U.S. shale fields will push output to the largest in history...we're #1! (at least for a while):

- By 2025, U.S. oil production will equal Saudi Arabia's at the height of its expansion and U.S. natural gas extraction will exceed the record output of the then Soviet Union:
 - Despite growth in electric cars, oil consumption by 2025 will rise to \$100 million barrels per day:
 - Fracking technology has increased forecasts of the amount of oil recovered from shale by 30%...to \$105 billion barrels:
 - Due to the anticipated surge in oil supplies, the IEA has decreased its predictions on the price of oil in 2025 from \$101 per barrel to \$85 and for 2040 from \$125 to \$111 by 2040...U.S. shale output is expected to start slowing midway through the next decade placing OPEC back in the oil driver's seat...Middle East producers share of market is forecast to rise from 43% currently to 46% in 2040.

19th Hole...

The time to repair the roof is when the sun is shining.

John F. Kennedy

Ross Elford, First Vice President

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