This time its different; really?

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CHARTING THE ENERGY STORY THROUGH ‘THE ECONOMIST’ COVERS

Brent (USD Per Barrel)
THE KEY THEME HERE IS THAT

Something happens (shock, production disruption, environmental hazard, political, etc.) that succeeds in raising price, making us believe we’ve hit the peak

**Demand Response**
Reduced Consumption of Oil, Reduced Vehicle Miles Traveled (VMT), Search for Efficiency

**Supply Response**
New Sources of Supply; Search for Alternatives (natural gas, renewables, etc.)

**Technology Response**
Hybrids, EVs, etc.

**Political Response**
CAFE Regulations / ZEV mandates
Paris Climate Talks
The long rise in the VMT reversed in 2008 partially due to the oil price spike that year and the start of the ‘Great Recession’.
THE SUPPLY RESPONSE.
IN ONE CASE... DRILL, BABY, DRILL. ONE ALTERNATIVE WAS TO INVEST AND BOOST U.S. OIL PRODUCTION, LESSENING THE DEPENDENCE ON FOREIGN OIL

[President Obama] criticized Republicans who have called for the country to increase its own oil production, declaring that “anyone who tells you we can drill our way out of this problem doesn’t know what they’re talking about.”

Source: EIA

US Petroleum Supply: Crude Oil: Domestic Production (Mil Barrels Per Day)
THE JOURNEY TO A RENEWABLE ENERGY FUTURE IS TAKING LONGER THAN MANY ANALYSTS AND AGENCIES EXPECTED.

The share of US primary energy coming from renewable sources, and some notable forecasts

Another generation of electric car projections out of sync with reality
EV+PHEV sales as % of total car sales

Source: EIA, listed authors, Vaclav Smil, JPMAM 2015.
Note: Renewables include wind, solar hydropower, geothermal, biomass, wood and waste

Source: DOE, BEA, and listed organizations. 2015.
Note: global EV+PHEV sales in 2015 were also around 0.6%
THE SHIFT IN ENERGY SOURCE FOR POWER GENERATION ACROSS THE YEARS DEMONSTRATES THE SEARCH FOR ALTERNATIVES AS NEEDS CHANGE

Net U.S. Power Generation Share by Source, 1949-2012

Source: National Renewable Energy Laboratory
NATURAL GAS PRICES HAVE DECLINED IN THE LAST SEVERAL YEARS; CONTRIBUTING TO THE SHIFT TO NATURAL GAS SEEN ON THE PREVIOUS SLIDE

Natural Gas Price, Henry Hub, LA (AVG, $/mmbtu)

Under $6.00 since February 2014
Under $4.00 since November 2014
REGULATORS TYPICALLY SLOW TO REACT TO NEW TECHNOLOGIES

LOCOMOTIVE ACT OF 1865
“RED FLAG ACT”

HORSELESS CARRIAGES (CARS) HAD TO BE
PROCEEDED WITH SOMEONE WITH A RED FLAG
FOR SAFETY PURPOSES

JITNEYS - 1914

AN EARLY FOR OF RIDE SHARING
ABOUT 150,000 RIDES A DAY IN LA, YET
REGULATED OUT OF EXISTENCE BY 1919

157,000 UBER RIDES PER DAY IN LA IN 2016…

Source: AEI
Global Economics and Trade
OF COURSE, THE POLITICAL AND REGULATORY RESPONSE HAS IMPACTS AS WELL

U.S. EPA and NHTSA issuance on extending the National Program to further reduce greenhouse gas GHG emissions and improve fuel economy through the Clean Air Act and the Corporate Average Fuel Economy (CAFE) standards.

Benefits from Greenhouse Gas Reductions and Less Oil Dependency

Over the lifetimes of the vehicles sold in Model Years 2017 -2025 standards, this program is projected to save approximately 4 billion barrels of oil and reduce GHG emissions by 2 billion metric tons, with net benefits to society in the range of $326 - $451 billion. These savings would come on the top of savings that would already be achieved through the continuation of the MY 2016 standards

Office of Transportation and Air Quality: August 2012

Historical Fleet-Wide Fuel Economy & Enacted CAFE Standards

Source: EPA / NHTSA
“Climate negotiation breakthroughs are a dime a dozen. They live or die in the details, and the thunderous applause drowning out even the noise from the innumerable private jets departing Paris has obscured three crucial parameters that will make this agreement only the latest exercise in delusion:

Precisely what has been agreed, who actually will pay the costs, and the degree to which the “planet” has been “saved.”

American Enterprise Institute

However, if the agreement is fully implemented, it is likely that oil production growth will be stymied, contributing to a ‘lower for even longer’ price environment and discourage innovation in cleaner energy technologies.
CAR AND RIDE SHARING VIEWS HIGHLIGHT CONFLICTING TRENDS ON INDUSTRY SALES.

KPMG PROJECTION: THE DECLINE OF THE HOUSEHOLD CAR

Source: KPMG, “Me, My Car, My Life”

Global Economics and Trade
JEREMY GRANTHAM’S “ADMISSION OF A PAST MISTAKE ON RESOURCES”

THE FEAR IS ALWAYS, “ARE THESE NEW HIGH PRICES PERMANENT? IS IT A PARADIGM SHIFT?”

Oil -- the “Original Paradigm Shift”
WTI Per Barrel (Real, 2010 $)

Texas Railroad Commission
The First Oil “Cartel”
U.S. based pro-rationing system

Source: GMO Quarterly Update
THE WORLD BANK REFERS TO OPEC AS THE ONLY SURVIVING [FOR NOW] COMMODITY ORGANIZATION SEEKING TO ACTIVELY MANAGE A GLOBAL COMMODITY MARKET

There are some differences between OPEC and the earlier commodity agreements:

“OPEC does not have a legal clause on how to intervene when market conditions warrant, thus, allowing it to respond flexibly to changing circumstances.

OPEC could be “dormant” for some time and re-emerge at a later date

OPEC’s actions and effectiveness may well be limited as it competes with nimble new technologies and producers.”

HOWEVER, DUE TO STRONG ANTI-TRUST LAWS, OPEC CAN NOT BRING U.S. PRODUCERS INTO THE CARTEL

Source: World Bank
OPEC’s “cartel” isn’t the first one to come to an end
“EVERY MAJOR BULL EVENT IS CALLED A PARADIGM SHIFT BUT THEY ALMOST NEVER EXIST. ALMOST NEVER. BUT NOT NEVER, EVER.” - JEREMY GRANTHAM

**Tin:** First negotiated in 1954 with the objective of maintaining prices within a desired, the International Tin Agreement (ITA) collapsed in 1985. The Agreement made tin prices higher and stable, and as a result, **new producers outside the Agreement entered the market:**

Higher tin prices also encouraged the development of a substitute product, aluminum, which gained market share by capturing the growing demand from the beverage can producers.

**Coffee:** In 1962, coffee-producing countries, accounting for 90% of global coffee output, and almost all developed coffee-consuming countries signed the International Coffee Agreement (ICA) with the objective of stabilizing world coffee prices through mandatory export quotas.

Elevated coffee prices encouraged the emergence of new producers. In 1970, Vietnam produced just 0.7% of global production. It now accounts for 20 percent of global coffee production.

**Rubber:** The Rubber Cartel collapsed during the Asian financial crisis due to currency developments of three key producers, Indonesia, Malaysia, and Thailand.

However, the currencies devalued sharply during the Asian crisis and raised the local-currency prices of rubber, **triggering a production expansion** in the rubber pricing mechanism. This inconsistency eventually led to the collapse of the agreement.

Source: World Bank / Haver Analytics

Global Economics and Trade
OIL PRICES COULD STAY LOWER FOR LONGER

- The crude oil market experienced a similar drop in 1986 as we’re seeing today, as Saudi Arabia and neighboring countries maintained production levels even as North Sea oil production increased.
  - More similarities between 1986 decline and today’s drop than with the drop associated with the great recession of 2008 – 2009
  - In the 1986 drop, prices declined about 63% in 8 months; adjusted for inflation, the price did not return to its prior peak until mid-2005, or 236 months. (about 20 years!)
- Expected that low prices will be maintained for 2016 – 2017 with potential for extension into the out years.
EMERGING ECONOMIES COULD HELP CLOSE THE SUPPLY / DEMAND GAP OVER TIME

By 2026, BRIC countries will account for about 45% of global volume

Source: IHS
THANK YOU!

BRANDS THAT INSPIRE PASSION AND LOYALTY
Overall Frequency

A score based on the count for the frequency of each work in the quote as compared with the other quotes. This is then divided by a fraction of the total number of words in this quote. The hope is for densely meaningful quotes to score highly, and for similar quotes, used by different publishers, to be grouped together.

MAJOR MEDIA GOT IT WRONG

Drill, baby, Drill

This is one emergency we can’t drill our way out of

If we’re serious about addressing our energy problems, we’re going to have to do more than drill

There’s a problem with a strategy that only relies on drilling, and that is America uses more than 20% of the world’s oil. If we drilled every square inch of this country…we’d still have only 2% of the world’s known oil reserves.

Source: Inarticle

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