Testimony of John Kingston

President, McGraw Hill Financial Global Institute

Before the

U.S. House of Representatives

Energy & Commerce Committee

Subcommittee on Energy & Power

Hearing on: 21st Century Energy Markets: How the Changing Dynamics of World Energy

Markets Affect our Economy and Energy Security

March 3, 2015

Chairman Whitfield, Ranking Member Rush, and members of the Subcommittee, good afternoon and thank you for inviting me to share the views of the McGraw Hill Financial Global Institute (The Institute).

My name is John Kingston, and I am the newly-appointed President of The Institute, as well as the company's Director of Market Insights. The Institute is McGraw Hill Financial's (MHFI) thought-leadership platform.

MHFI provides independent benchmarks, credit ratings, portfolio and enterprise risk solutions, and analytics, and is home to some of the most iconic brands in U.S. finance, economics, and business, including Standard & Poor's Ratings Services, S&P Capital IQ, S&P Dow Jones Indices, Platts, and J.D. Power.

From the Industrial Revolution to the Digital Revolution and beyond, our core values – fairness, integrity, and transparency – have remained constant. This commitment ensures we best help individuals, markets, and countries grow and prosper by meeting critical needs for data and insight.

Prior to being appointed President of the Institute, I spent more than 29 years with Platts, the MHFI brand that provides the energy industry with independent news, analysis, and

benchmark price assessments that are used as the basis for billions of dollars in energy commerce throughout the globe.

Today, I hope to provide you with helpful insights from all of our brands, as well as additional unique insights from my role as Director of The Institute. Thank you for having me.

Over the last 30 years, oil prices have seen several booms and busts. However, the price slide of recent months is like no other. In 1998-99 the boom bust cycle could be attributed mostly to the Asian financial crisis and a collapse in demand from that region. The price collapse of 1985-86 bears more resemblance to the current cycle. Key producers like Saudi Arabia were determined to recapture market share against a backdrop of some increases in supply and some cuts in demand. Despite the similarities, the mid 80s did not feature the enormous North American-generated increases in supply and slide in prices we are witnessing today. I'll discuss that more shortly.

<Insert chart on oil prices since 1989>

While the Saudis and their Gulf allies are determined to hang on to market share this time, this is not the immediate reason for the price decline. Instead, it is the growing imbalance between supply and demand that finally combined this year to send the market plunging. It would have happened earlier had there not been so much disruption of international supply lines due to various political reasons. Once Libya came back toward 1 million barrels per day (b/d) in June and July, that tenuous balance could hold no more. It's interesting to note that since the surge out of Libya that country's output has fallen back significantly, yet the price remains at depressed levels.

The amount of capacity that is on the sidelines because of political issues is staggering. One recent estimate put it at 4.5 million b/d. It starts with small countries like the South Sudan and Syria, and rises up to outages close to 1 million b/d in Iran (due to sanctions) and Libya (due to civil war). And this does not even take into account that political mismanagement of a country's industry can and sometimes has given it a productive capacity far less than what it

should be (Venezuela is in this category). If there was any sort of significant move toward quiet in these areas, since the costs of production in most of those regions are all significantly less than in the U.S., oil prices would come under even greater pressure.

That said, while there are global factors contributing to the drop in oil prices, none compare to the scale of what the U.S. shale revolution has done in just a few short years.

About this time six years ago – during the financial crisis and following the collapse of oil prices from their mid-2008 run at \$150 per barrel – the price of crude began a slow rise that continued for five years. But it was not concurrent with a rise in U.S. natural gas prices. The price of U.S. oil and natural gas has never had a 1:1 correlation, but they historically tended to trend together. Lately they have not.

<Insert chart showing correlation of U.S. natural gas and oil>

The shale boom that first led to a surge of natural gas supplies had begun to yield new flows, but because of the need to transport natural gas by pipeline these supplies essentially became stranded in the North American market. This slowly but inexorably led to rising U.S. competitiveness for a bevy of industries that use natural gas as a feedstock, from fertilizers to chemicals to smaller niche products that brought manufacturing back to the U.S. after a long absence. Direct reduced iron, a steelmaking feedstock, is a small but near perfect example of this. Indirectly, it slowed increases in the price of gas-generated electricity, but also slowed increases in coal-generated electricity prices, as gas became a competitive fuel against coal use. Other countries' natural gas prices were directly or indirectly linked to oil prices, making the U.S. prices the most competitive in the world.

When talking about U.S. competitiveness on energy, it's important not to forget that natural gas is what gives the U.S. an enormous edge. Because it's a pipeline-delivered product, it is only slightly part of a global market. Liquid Natural Gas (LNG) shipments are not enough to tie it fully to other markets. So you first had natural gas break away from its loose correlation with oil back in 2009, and, even with the fall in oil recently, that relationship remains at a level

that makes natural gas consumption in the U.S. far more competitive than gas consumption in the rest of the world.

Most important to note today is the duration of this revolution: six years and counting. In terms of economic transformation, six years is just a warm-up. The changes in the U.S. resulting from these added flows have just begun.

As far as how U.S. crudes would fare abroad if they were allowed to be exported, it's safe to say that some refiners probably have models, but they aren't widely distributed. The rise in U.S. crude oil exports to Canada, mostly via rail, indicates that Canadian refiners are finding U.S. crudes to be attractive. If they weren't, export numbers would be falling, not rising.

But a cautionary tale lies in the effort in the late 90s to lift the ban on exporting Alaskan North Slope (ANS) crude to Asia. That battle went on for several years, and, finally, the ban was lifted. Asian refiners processed ANS crude for a few months, and simply did not find it competitive. So if you look at the export data, you see this surge in exports that last for a few months, and then it drops back toward zero. So, as to how U.S. crudes would do battle in an international market if export bans were lifted, all we can say is: we'll see.

<Insert chart on ANS crude exports to show volatility>

Ultimately, a free market finds the best locations for any commodity to be consumed. So if a ban is lifted and U.S. crude doesn't go anywhere, that's probably a signal from the market that the rest of the world is better off consuming non-U.S. crudes. But the fact that the crude can be exported will help make a more competitive market. It's always out there as, at least, a potential source of supply.

Just a few weeks ago, MHFI President and CEO Doug Peterson gave a speech at nearby Georgetown University's Law School on how the state of U.S. infrastructure is badly in need of repair. He also discussed infrastructure's linkages to the economy and, specifically, the energy sector. He stated, "Infrastructure makes energy development possible and provides the tools necessary for its extraction, transportation, and transformation. Infrastructure moves

people, fosters urbanization, and catalyzes development through roads, rail, airports, and water transportation. Infrastructure provides a logistical framework for purchased goods to reach their consumer. Infrastructure connects people and provides the broadband, satellite, and internet support system for our world to function at the highly-efficient rate that it currently does."

I stress this because there is current discussion about the additional need for infrastructure, in order to keep production levels high enough to sustain a competitive environment.

I'll now turn my focus to the impact the current pricing environment is having domestically.

In regards to U.S. producers, and based on earnings calls, MHFI subsidiary S&P Ratings Services (S&P) is seeing, on average, a 35 percent reduction in capital expenditures (CAPEX) from exploration and production (E&P) companies. Ranges have gone as high as 50 percent reductions for firms with lower credit quality to as low as 10 percent for the major producers. Many are targeting running CAPEX at maintenance production levels.ⁱⁱ

In the E&P space, S&P is particularly concerned about liquidity for 'B' rated issuers. Note that companies rated lower than a BBB- are what S&P refers to as speculative grade as opposed to those rated higher than BBB, which are referred to as investment grade. These speculative-rated issuers rely on reserve-based borrowing credit facilities, which have borrowing limits determined by commercial bank's price decks and reserves to fund CAPEX.

Halfway through the first quarter in 2015 (as of mid-February) S&P has downgraded 26 oil and gas companies – the largest number of oil and gas downgrades over a single quarter since 1999 when 28 were downgraded. Additionally, a majority of these downgrades were in the U.S.

While speculative grade companies will bear the brunt of oil price volatility, it should be noted that a majority of the recent U.S. downgrades are somewhat mitigated by the number of

relatively recent upgrades that occurred across the sector. For instance, upgrades in the U.S. reached a 2014 high in the fourth quarter.

In order to preserve liquidity, many companies are hunkering down and reducing CAPEX to maintenance levels (keeping production flat) and many have hedges in place for 2015 and long-dated maturity schedules. However, with decline curves so steep, producers inevitably will be forced to reinvest to replenish depleting reserves and production, most likely requiring capital market access. Without a meaningful rebound in pricing in 2016, we could see increasing issuer defaults.

<Insert chart on upgrades versus downgrades>

In 2015, as I have stated, S&P does not expect the price impact on companies to translate to significant defaults, although reducing CAPEX certainly affects the employment market. The oil and gas sector has been aggressively adding jobs during the economic recovery. Job growth for the oil and gas industry was 39 percent as opposed to the 8 percent growth for the U.S. overall.

<Insert chart on job growth of logging, mining and oil and gas extraction>

That said, the oil and gas extraction industry showed job losses of 2,000 for the month of January. This was the highest monthly loss since the recession. Moreover, regions that are heavily reliant on the energy sector could see a greater negative impact on employment and their surrounding economies. The recent Challenger report showed a spike in layoffs in January, which were predominately concentrated in the state of Texas. According to the employer survey, over 40 percent of job cuts were attributed to the change in the price of oil.

However, the oil and gas sector, by itself, only represents 200,000 U.S. jobs. This is just 0.14 percent of the 140 million jobs in the U.S. economy. Energy capital expenditures of \$183 billion equal roughly just 1 percent of the U.S.'s \$17.6 trillion GDP. And while the impact of oil prices will differ based on a region's concentration, and the oil and gas industry's supply chain, low oil prices, in the near term, is a boon for the overall economy, according to a recent report

by S&P's U.S. Chief Economist Beth Ann Bovino and her colleague U.S. economist Satyam Panday.

According to the report, the recent decline in oil prices is a result of a combination of supply and demand shocks but weighted slightly higher on the supply side. The key is that the U.S. is not leading the demand shock, rather, it's a foreign one. See, when there's a positive supply shock, as there is today, it leads to a transfer of income from oil exporters to oil importers. Demand shocks, on the other hand, tend to lead to weaker effects.

While the outlook for domestic demand in the U.S. is expected to remain solid, the opposite is expected for foreign demand.

Because the U.S. is still a net importer of oil, part of each dollar spent on petroleum is sent abroad and doesn't contribute to domestic production, employment, or U.S. GDP. The positive "terms of trade" shock of lower oil prices in the U.S. means that less money is sent abroad and therefore stays within the economy. It then becomes available for consumption and production, which supports domestic jobs and GDP.

<Insert chart on U.S. net imports of crude oil>

While the magnitude of this positive "terms of trade" shock is lower today than it was several years ago – the U.S. has cut its oil import levels by more than half – it is still a net positive. S&P estimates that a \$50 drop in the price of oil calculates to a \$240 million decline in oil imports every day. This translates to about \$87.6 billion of savings per year. The overall impact to the economy, however, will depend on how much of these savings will be spent versus parked in the bank.

The typical American households buys more than 1,000 gallons of gas each year and, since last year, gas prices have fallen \$1 per gallon. Therefore, households would have at least an extra \$1,000 to put toward other expenses or pay down existing debt this year. If all of this were spent, the "gas dividend" would be up to two-thirds of a percentage point of GDP all else being equal.

To add, gasoline expenditures make up a higher proportion of disposable income for lower-income households. Therefore, falling energy prices disproportionately raise real incomes for a large majority of Americans. The "gas dividend" would most likely be spent, given this dynamic.

<chart on U.S. expenditures by share of disposable income>

Although time will tell, the large decline in gasoline prices appears to have raised consumer confidence. Both the University of Michigan Consumer Sentiment and Conference Board Consumer Confidence indices have risen sharply in the past few months. This is additional rationale for why a majority of the savings would lead to household consumption rather than savings.

For sectors and industries outside of energy, the lower energy prices reduce the cost of doing business, all else being equal. For example, the transportation, petrochemicals, agricultural, and manufacturing sectors are major beneficiaries. Many of the leading investment indicators that are so closely tied to perceptions from manufacturing and non-manufacturing (excluding energy) manger surveys support this view and expect a pick-up in business investment.

Recently, S&P looked at state budgets and their dependencies on the energy industry. Vi While some states are heavily reliant on the industry from an employment perspective, many of their budgets are not. In the short term, at least, state operating budgets appear safe. In the long term, however, given a long-term secular slide in oil prices, states will have to react by altering their fiscal management. No two states are alike; even ones with similarly size oil producing industries. Therefore, many questions need to be answered, primarily:

- What oil price and production level did the state assume in its budget?
- How much does the state's operating budget rely on oil-related tax revenue?
- Did the state use prior period of high oil prices to accumulate reserves?

Lastly, I'd like to quickly touch on an issue out in California that our Platts brand is following. I'i I do this purely to provide the subcommittee members helpful information. An ongoing labor strike and an explosion at a major California facility may compel U.S. West Coast refiners to seek a Jones Act waiver from the Obama administration. While the application process is confidential, government sources said that no company has formally applied for a Jones Act waiver. But market and legal sources said ExxonMobil is considering such a request amid climbing prices and supply shortages. The Jones Act, enacted as the Merchant Marine Act of 1920, requires all vessels shipping cargo between two U.S. locations to be U.S.-built, majority U.S.-owned, and have at least 75 percent of the crew be U.S. citizens. Jones Act vessels are more expensive than non-Jones Act vessels, however, and are in short supply, making it difficult to move gasoline and other products to California from other U.S. ports. Obviously, this could lead to a gasoline shortage, and we're already seeing prices rise in Los Angeles, making it the most expensive form of gasoline of its type in the country. While commercial reasons alone may not be enough reason for a Jones Act waiver, a short-term waiver, similar to the temporary waivers that were provided during hurricanes Katrina, Rita, and Sandy, may be justified.

Analyzing all the impacts of oil prices is a monumental task, but I'm proud to say that MHFI, through its brands, has done a remarkable job of collecting and disseminating data and insights. In fact, oil markets can be very opaque. We are committed to bringing more transparency to these markets, particularly through the work our Platts business does with our market on close price assessment process. The work of all of the MHFI brands brings more data and information to investors and market participants globally so they can understand commodity markets and make informed decisions.

I'm glad to provide more information on any of the issues discussed here today, or any others offered by MHFI, in the question and answer session or any time in the future.

Thank you.

¹ Tom Watters, "Standard & Poor's Publishes Revised Oil And Gas Price Assumptions," S&P Ratings Services, 1/9/2015

ii Watters

iii http://www.standardandpoors.com/ratings/definitions-and-fags/en/us

^{iv} Diane Vazza, "Taking Stock Of The Oil And Gas Sector After The Recent Downgrades," S&P Ratings Services, 2/19/2015

^v Beth Ann Bovino, "The Sharp Drop In Crude-Oil Prices Is A Net Plus For The U.S. Economy," S&P Ratings Services, 2/13/2015

vi Gabriel Petek, "How Might The Oil Price Plunge Affect U.S. States' Credit Quality?" S&P Ratings Services, 1/27/2015

 $^{^{}m vii}$ U.S. Refiners May Seek Jones Act Waiver Amid Strike, Torrance Explosion," Platts, 2/26/2015 $^{
m viii}$ Ibid