Global Economic Challenges and Implications for Energy Markets

Blu Putnam, Chief Economist & Managing Director, CME Group Inc.
September 2016
Investment advice is neither given nor intended

The research views expressed herein are those of the author and do not necessarily represent the views of CME Group or its affiliates.

All examples in this presentation are hypothetical interpretations of situations and are used for explanation purposes only.

This report and the information herein should not be considered investment advice or the results of actual market experience.
Disclaimer

Futures trading is not suitable for all investors, and involves the risk of loss. Futures are a leveraged investment, and because only a percentage of a contract’s value is required to trade, it is possible to lose more than the amount of money deposited for a futures position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade. All references to options refer to options on futures.

Swaps trading is not suitable for all investors, involves the risk of loss and should only be undertaken by investors who are ECPs within the meaning of section 1a(18) of the Commodity Exchange Act. Swaps are a leveraged investment, and because only a percentage of a contract’s value is required to trade, it is possible to lose more than the amount of money deposited for a swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles. And only a portion of those funds should be devoted to any one trade because they cannot expect to profit on every trade.

Any research views expressed are those of the individual author and do not necessarily represent the views of the CME Group or its affiliates.

CME Group is a trademark of CME Group Inc. The Globe Logo, CME, Globex and Chicago Mercantile Exchange are trademarks of Chicago Mercantile Exchange Inc. CBOT and the Chicago Board of Trade are trademarks of the Board of Trade of the City of Chicago, Inc. NYMEX, New York Mercantile Exchange and ClearPort are registered trademarks of New York Mercantile Exchange, Inc. COMEX is a trademark of Commodity Exchange, Inc. KCBOT, KCBT and Kansas City Board of Trade are trademarks of The Board of Trade of Kansas City, Missouri, Inc. All other trademarks are the property of their respective owners.

The information within this presentation has been compiled by CME Group for general purposes only. CME Group assumes no responsibility for any errors or omissions. Additionally, all examples in this presentation are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience.

All matters pertaining to rules and specifications herein are made subject to and are superseded by official Exchange rules. Current rules should be consulted in all cases concerning contract specifications.

Copyright © 2016 CME Group. All rights reserved.
Global Economic Challenges and Implications for Energy Markets

- Central Bank Policy Failures
- Political Event Risk & Options Products
- Global Energy Meets Weather Volatility
Market Challenges Facing Our Clients:
Central Bank Policy Failures

- US Fed Rate Decision
- Why QE and Negative Rates Failed to Work
- Pendulum Shifts to Fiscal Policy
- Potential Unintended Consequences for Equities
Government 10-Year Bond Yields:
US, Germany, and Japan

Source: Bloomberg Professional (USGG10YR, GJGB10, GDBR10)
Inflation Trends (Smoothed): US, Germany, and Japan

Smoothed (exponentail lag) of Year-over-Year General Consumer Price Inflation (including sales tax increases, food, energy, etc.)

Source: Bloomberg Professional (GRCP2000, JCPNGEN, CPI INDX)
Real GDP Growth: US, Euro-Zone, Japan

Source: Bloomberg Professional for historical data (GDP CHWG, JGDPGDP, EUGNEMU);
Next “New” Policy Idea:

Since Monetary Policy Failed to Create Growth and Inflation, Let’s try Fiscal Policy.
European disunity after Brexit

US Election probably not a major market mover, however, probabilities of a 2H/2017 or 1H/2018 two-quarter recession are rising with policy uncertainty

Options as an event risk management tool
Political Event Risk

- October 2, 2016 – Austria & Hungary
- November 8, 2016 – United States
- March 15, 2017 – The Netherlands
- April 23 & May 7, 2017 – France
- September or October 2017 – Germany
Market Challenges Facing Our Clients: Global Energy meets Weather Volatility

- Context: Slow Growth World
- Framing Energy in terms of Power and Transport
- Power – Dynamic Shifts in Sources of Fuel
- Natural Gas – Regional Markets Reconnecting
- Oil – Oil markets have already reconnected
- Weather to impact energy sector
Petroleum Used by Transportation Sector in the US

Peak year was 2006

Source: US Energy Information Administration, "August 2016 Monthly Energy Review", Table 2.5.
Global Growth Rate of Electrical Power Consumption

Source: Enerdata, "Global Energy Statistical Yearbook 2016".
Source: Enerdata, "Global Energy Statistical Yearbook 2016".
US Electrical Power Generation by Fuel
Source: Coal vs Natural Gas

Japan - 2010: Electrical Power Generation
Source: The Shift Project Data Portal

- Nuclear: 27%
- Oil, Hydro, Other: 17%
- Gas: 28%
- Coal: 28%

Japan - 2014: Electrical Power Generation
Source: The Shift Project Data Portal

- Coal: 30%
- Oil, Hydro, Other: 26%
- Gas: 44%

China - 2014: Electrical Power Generation
Source: The Shift Project Data Portal

- Coal: 72%
- Other: 8%
- Hydroelectric: 20%

India - 2014: Electrical Power Generation
Source: The Shift Project Data Portal

- Coal: 72%
- Other: 17%
- Hydroelectric: 11%
Mexico - 2014: Electrical Power Generation
Source: The Shift Project Data Portal

- Oil: 36%
- Gas: 33%
- Hydroelectric: 16%
- Other: 15%
Natural Gas Prices: US, Germany, Japan

US Dollars per Million BTUs of Natural Gas


Source: Bloomberg Professional (NG1, NGIMGEP2, LNGJLNJP)

© 2016 CME Group. All rights reserved.
US Field Production of Crude Oil

Weekly U.S. Field Production of Crude Oil (Thousand Barrels per Day)

Source: US Energy Information Administration (key = WCRFPUS2).
North Sea Oil Production

Source: Bloomberg Professional
(ST14NS, from the US Department of Energy)
WTI and Brent Crude Oil
Cash Prices

Source: Bloomberg Professional (USCRWTIC, EUCRBRDT)
February 2015 – There was no El Niño

Source: US National Oceanographic and Atmospheric Administration – NOAA
August 2015 – El Niño built quickly, peaked in Q3 2015

Source: US National Oceanographic and Atmospheric Administration – NOAA.
April 2016 – La Niña forming???

Source: US National Oceanographic and Atmospheric Administration – NOAA
September 2016 – La Niña possibly starting to form

NOAA/NESDIS 50 KM GLOBAL ANALYSIS: SST Anomaly (degrees C), 9/5/2016
(white regions indicate sea-ice)

Source: US National Oceanographic and Atmospheric Administration – NOAA.

© 2016 CME Group. All rights reserved.
http://www.cmegroup.com/putnam

Thank you