

WORKING GROUP PRESENTATION FOR DISCUSSION PURPOSES
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JULY 28, 2016

MEMORANDUM FOR: IAN MEAD
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FROM: VIPIN ARORA
TEAM LEADER
MACROECONOMIC ANALYSIS TEAM

SUBJECT: SUMMARY OF THE *AEO2017* MACROECONOMIC
WORKING GROUP MEETING

REGISTERED ATTENDEES: Andre Barbe (in-person)
Bob Hershey (in-person)
Nate Aden
Jim Barrett
Chris Doleman
Kevin Dubina
Francis Wood
Keith Jamison
Bruce Lung
Michael Nadew
Neeharika Naik-Dhungel
Ron Gecan
Shellee Simmons
Skip Laitner
Bill Morrow

PRESENTERS: VIPIN ARORA
ELIZABETH SENDICH
RUSSELL TARVER

The presenters outlined preliminary macroeconomic and industrial sector economic activity results for *AEO2017*. The key points included:

- There are historical baseline changes to GDP, gross output (for some industries), and physical-to-dollar values for goods and services as compared with *AEO2016*.
- Assumptions about future US productivity growth are lower than *AEO2016*.
- Real GDP growth will average 2.2% per year in 2015-40, similar to *AEO2016*, and in-line with other projections/forecasts.
- Consumption's importance in the demand mix fades over the projection as non-residential investment becomes more important.
- Total industrial sector growth is similar to *AEO2016*, although the composition is slightly different.
- Nonmetallic minerals and bulk chemicals lead early industrial sector growth, giving way to rapid growth in metal-based durable goods and their suppliers in primary metals.

During the course of the presentation several comments and questions came up, including:

- Q: Had EIA done sensitivity analysis on the CPI variable in the macro model? A: No.
- Q: How is non-residential investment linked to exports and imports? A: They are not directly related in terms of the modeling, but such investment will affect the capability to export and import.
- Q: What is the assumed rate of population growth? A: 0.7% per year from 2015-2040.
- Q: What drives the changing share of each industry with regards to the total over time? A: Each industry has a suite of drivers, many were addressed in the presentation during the discussion of detailed results by industry.
- Q: What is the difference between industrial supplies and capital goods? A: These categories are based on the BEA trade accounts, which can be found at <http://bea.gov/international/index.htm>.
- Comment: There was a concern expressed about the projection for growth in consumer goods. The commenter believes the market in developing countries may be saturated.
- Q: What effect does self-sufficiency have on consumer goods exports? A: While our baseline only includes broad assumptions about international growth, exchange rate trends against major trading partners show that U.S. competitiveness improves. This is

true for consumer goods exports from the U.S. as well, and may ameliorate the impact of self-sufficiency in other countries.

- Q: Are you showing value-added or gross output for the industrial portion of the brief.
A: Gross output.
- Q: Why such large revisions in historical data for industrial sectors. A: BEA—our primary source—incorporated the 2012 Economic Census and made historical revisions after *AEO2016*.
- Q: Why is GDP growth similar to *AEO2016* even though total shipments are growing noticeably faster? A: The ratio of services gross output to GDP is higher this year than last, indicating that the value of inputs is higher in the current projection. Input costs are higher, particularly in services, because productivity growth is lower, resulting in greater labor expenses. Higher commodity and energy prices and a depreciating exchange rate also contribute to input cost differences.
- Q: Why is fixed residential investment growing nearly nine times faster than over the last 25 years? A: Because the recession of 2008/2009 led to such a large reduction in residential investment that the 25-year average is skewed downward.