

Opportunity, Uncertainty and Risk

Recent Trends, a Comparison of Outlooks, IEF Initiatives





Flow

- 1. Recent Trends
- 2. Short-term IEA and OPEC outlooks
- 3. Medium-term IEA and OPEC outlooks
- 4. Long-term IEA and OPEC outlooks
- 5. Key IEF Initiatives



3 SURPLUSES

2 FALLS



5 CONTROLS

4 GUARANTEES



Trend

Low for longer

Certainties

Surplus supply

Lower demand

Uncertainties

Balance?

Technology?



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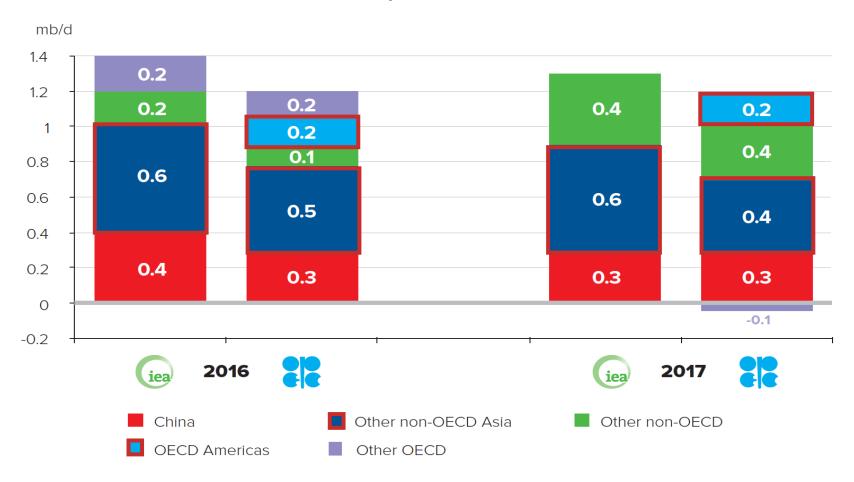
Seventh IEA IEF OPEC Symposium on Energy Outlooks 15 February 2017



2008 Jeddah Meeting on Oil Market Volatility
2010 Cancún Declaration, Attachment II IEA-IEF-OPEC Agree cooperation
2015 Istanbul 2016 Beijing G20 Energy Ministers: Continue fruitful collaboration
2016 International Energy Forum Ministers IEF15: Build on successful model

Differences in demand growth estimates relate to both Non-OECD Asia and OECD Americas

Short-term World Liquids Demand Annual Growth







Short-term non-OPEC supply declines in 2016 followed by modest growth in 2017

Short-term Non-OPEC Liquids Supply Annual Growth

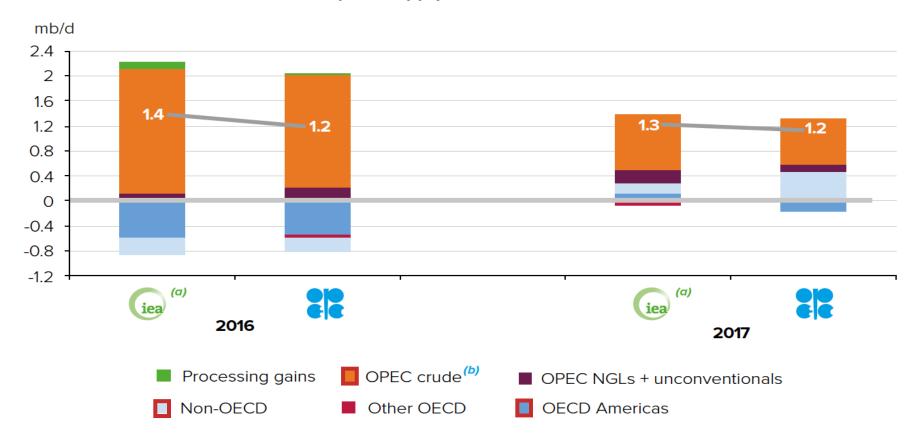






2016 and 2017 supply growth is led by OPEC, OECD Americas, and non-OECD producers

Short-term Liquids Supply Net Annual Growth Forecasts





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Medium-term price assumptions diverge by \$11 to \$20/bbl through to 2021

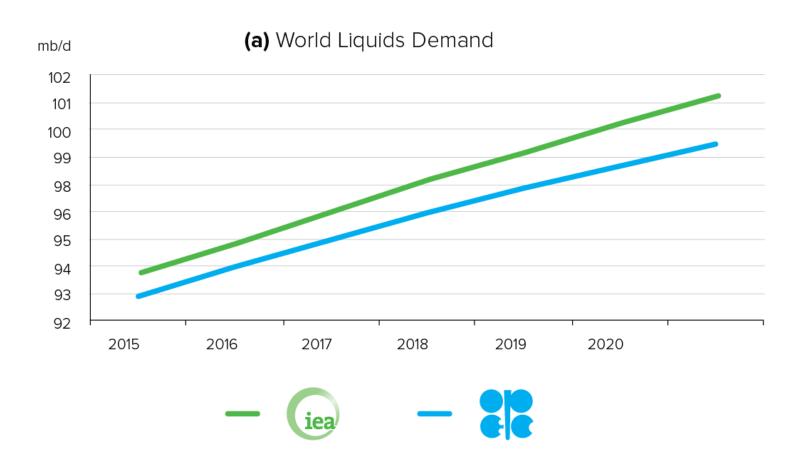
Medium-term Oil Price Assumptions (nominal US\$)





IEA projects demand growth to be slightly faster and reach higher levels than OPEC

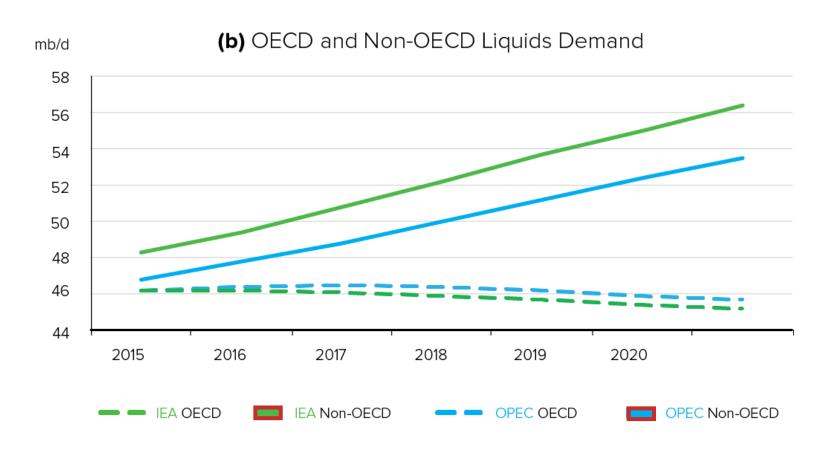
Medium-term Liquids Demand





Medium-term demand projection difference mainly comes from Non-OECD regions

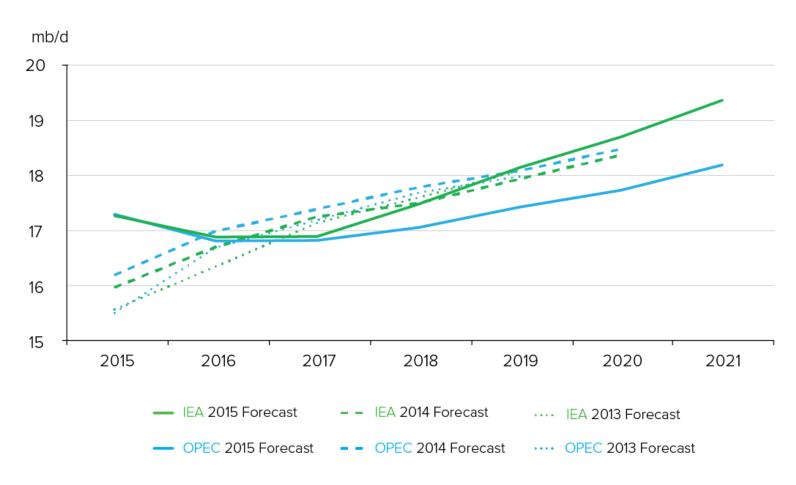
Medium-term Liquids Demand





IEA and OPEC differ on US and Canadian supply growth outlooks underscoring uncertainty

Medium-term US and Canadian Oil Supply (excluding biofuels)





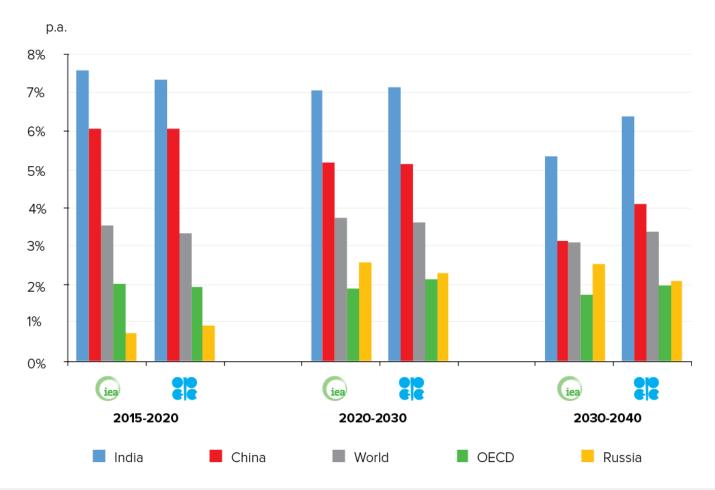
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Global GDP projections show large differences for China and Russia

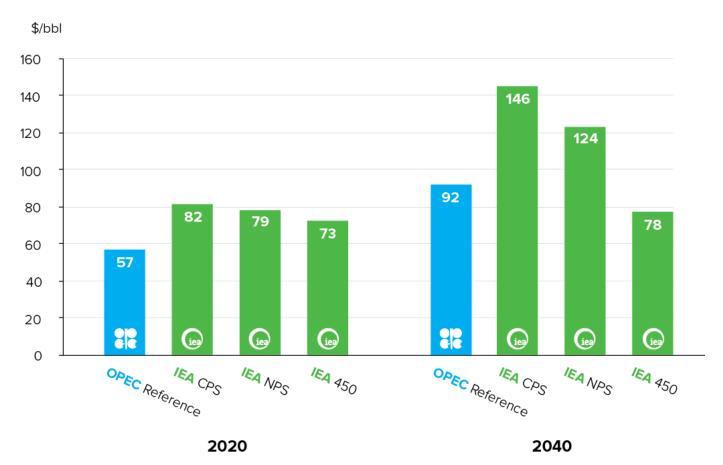
Long-term GDP Growth Assumptions for Selected Regions





IEA's long-term oil price assumptions are substantially higher than those of **OPEC**

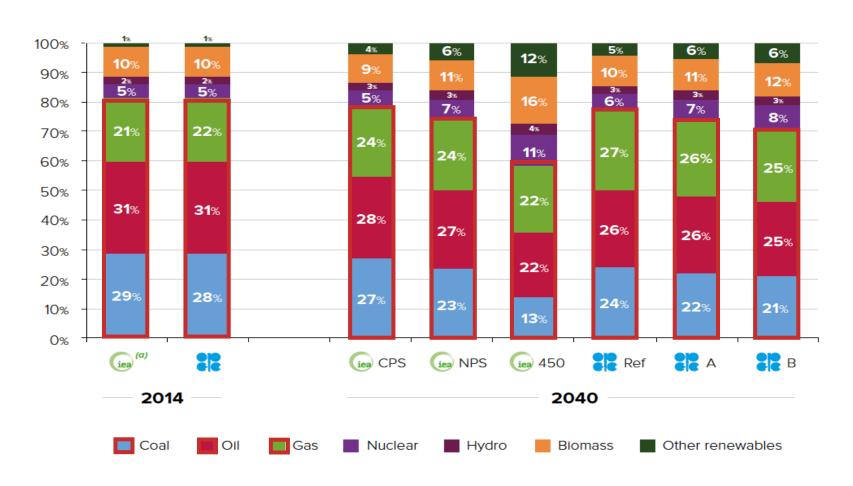
Long-Term Oil Price Assumptions (real 2015 US\$/bbl)





The IEA and OPEC shows that fossil fuel shares will range between 57% and 79% in 2040

World Primary Energy Fuel Shares in 2014 and Outlook for 2040

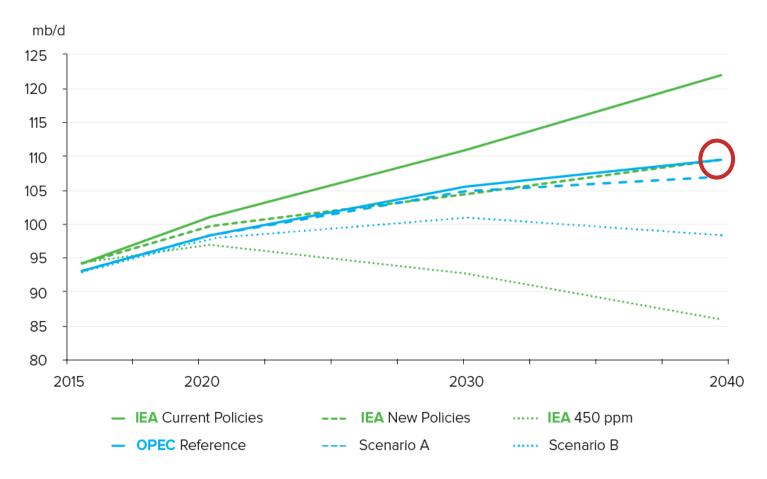




Scenarios show growing uncertainty post 2020

but OPEC Reference case and IEA New Policies Scenarios are very similar

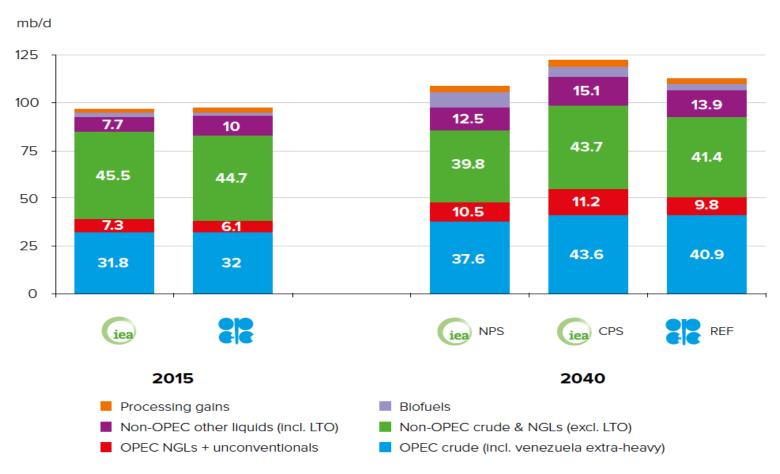
World Liquids Demand Projections in Various Scenarios (mb/d)





Non-OPEC conventional supply declines but unconventional supply grows

Liquids Supply Sources in 2015 and Outlook for 2040 (mb/d)

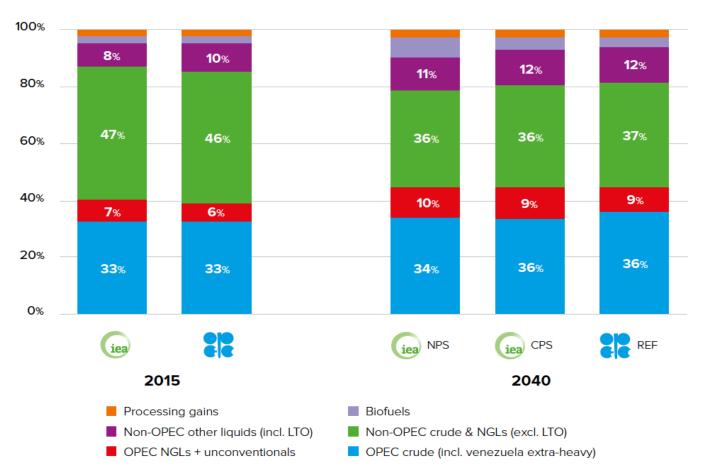






The share of OPEC crude grows in all scenarios

Share of Liquids Supply by Types in 2015 and Outlook for 2040





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Proposals:

Strengthen JODI

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Transparency

+ Information

Full use of IEF Platform



Dialogue

& Cooperation

Action on new trend



Green, Low Carbon, Efficient, Sustainable



3 Key upcoming IEF Initiatives

1. IEA-IEF-OPEC Meeting on Physical and Financial Energy Market Interactions, 16 March 2017 | Vienna, Austria

- 2. 15th Regional **JODI Training Workshop for Africa** and the **3rd IEF-OFID Symposium on Energy Poverty** 11-13 April 2017 | Tunis, Tunesia
- 3. 2nd IEF **Symposium on Human Resource Management in the Energy Industry:** Implications of a New Market Environment and Energy Transition 17-18 May 2017 | Manama, Bahrain

2 IEF supported Ministerial Meetings

ASIAN ENERGY EFFICIENCY CONFERENCE and EXPO



30 October - 2 November 2017 | Riyadh, Saudi Arabia



HOSTED BY SAUDI ARABIA

Kingdom of Saudi Arabia
Ministry of Energy, Industry & Mineral Resources



CO-CHAIRED BY JAPAN SUPPORTED BY IEF



SEVENTH ASIAN MINISTERIAL ENERGY ROUNDTABLE

Global Energy Markets in Transition: From Vision to Action

1 - 3 November 2017 | Bangkok, Thailand

HOSTED BY THAILAND



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