THE RAPIDAN GROUP
GLOBAL ENERGY INSIGHT

Presentation to IEF-KAPSARC Thought-Leaders's Roundtable on

Oil Market Volatility, Investment, and Spare Capacity: Connections, Costs, and Consequences

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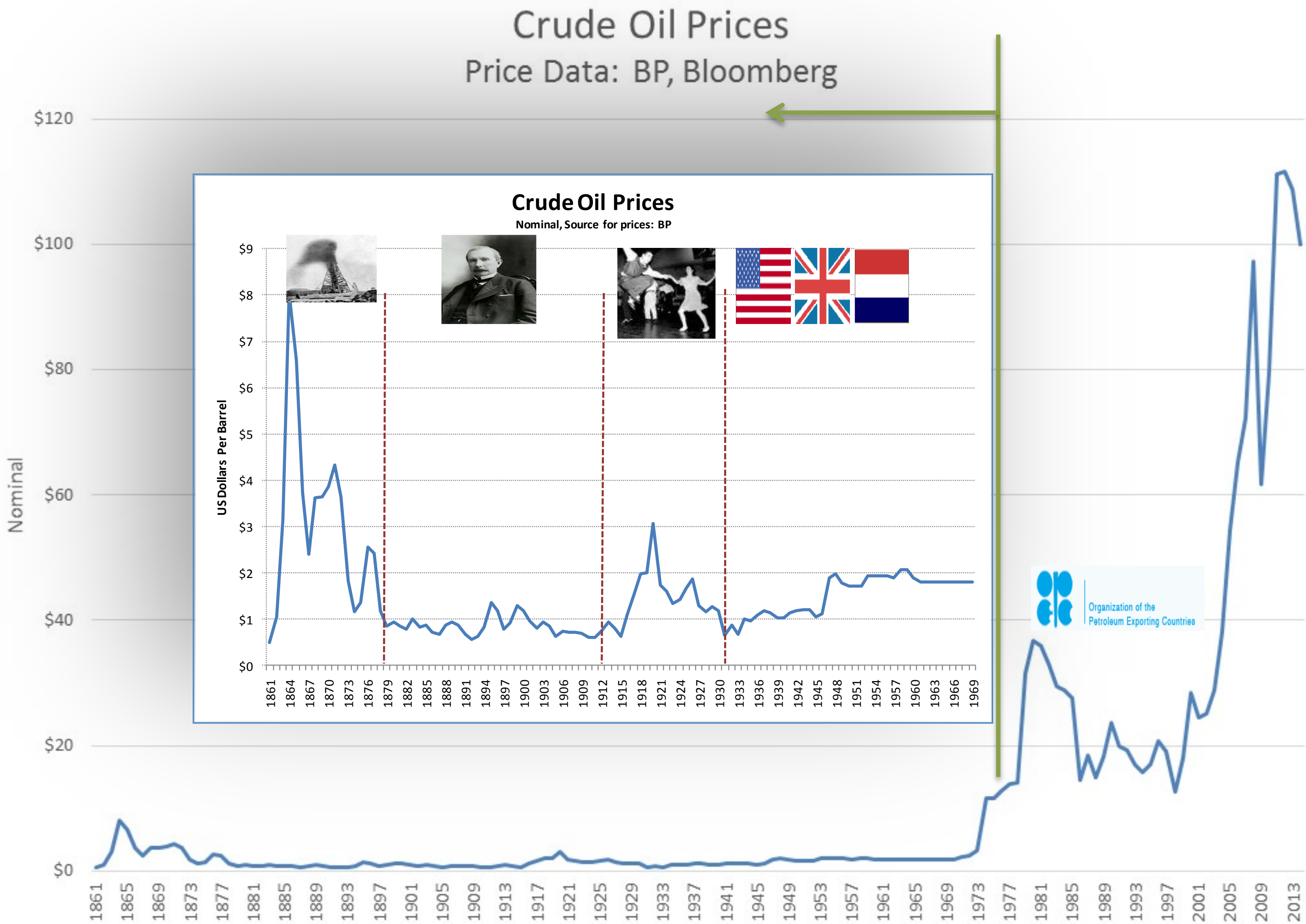
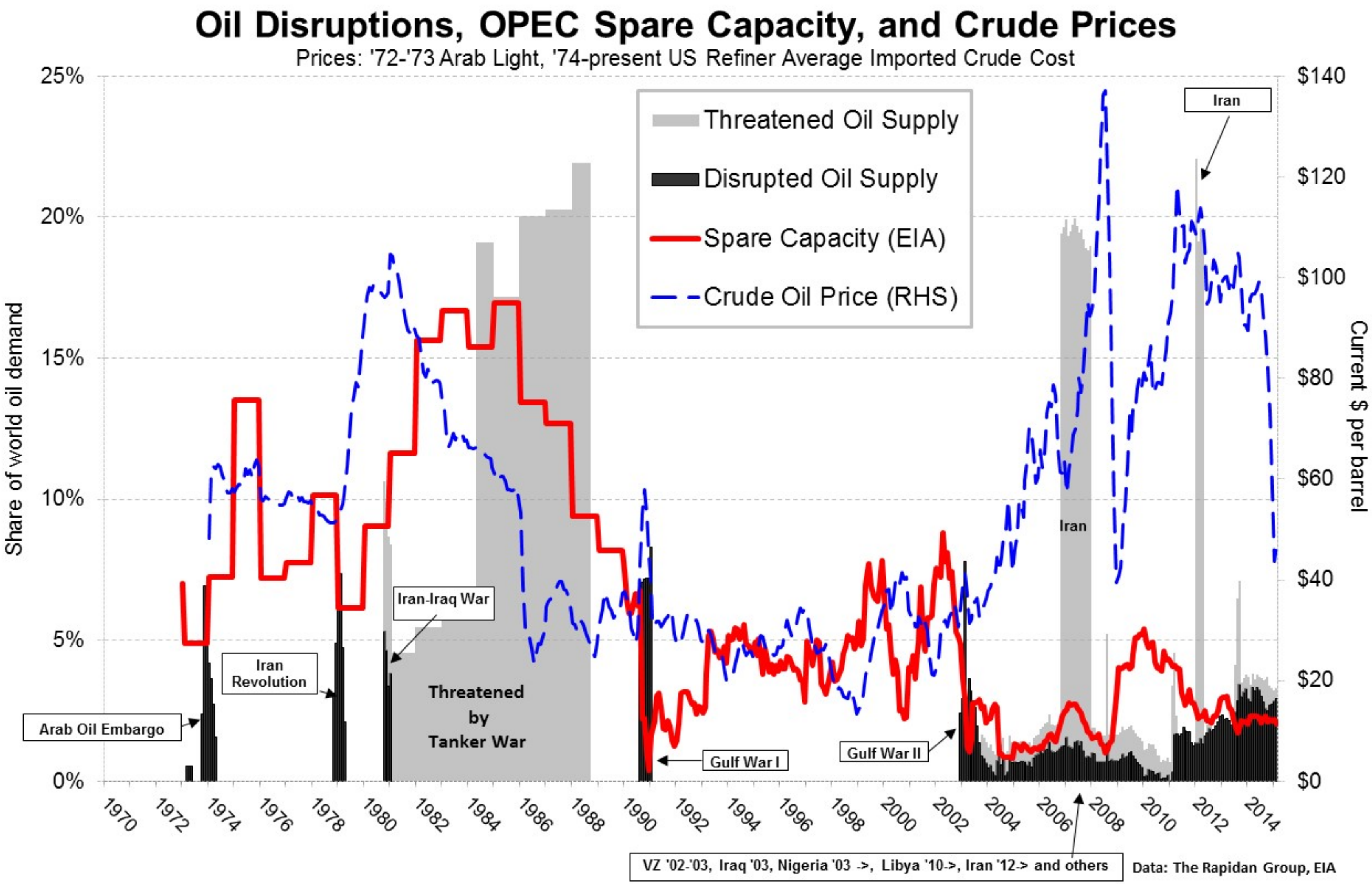
Unbalanced Market + No Supply Manager = Boom-Bust Price Gyrations



1861-1944 US Average.
1945-1983 Arabian Light posted at Ras Tanura.
1984-2014 Brent dated.

Low OPEC Spare Capacity Is the Defining Feature of Current Oil Market



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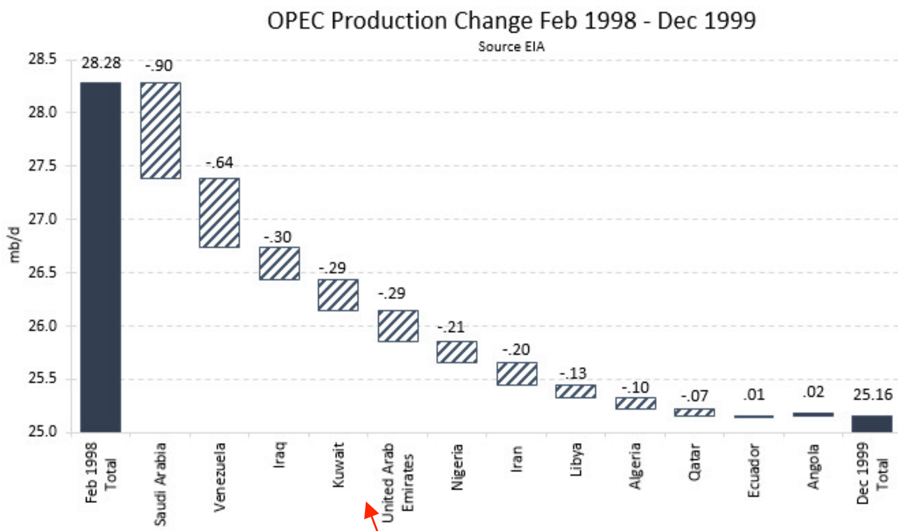
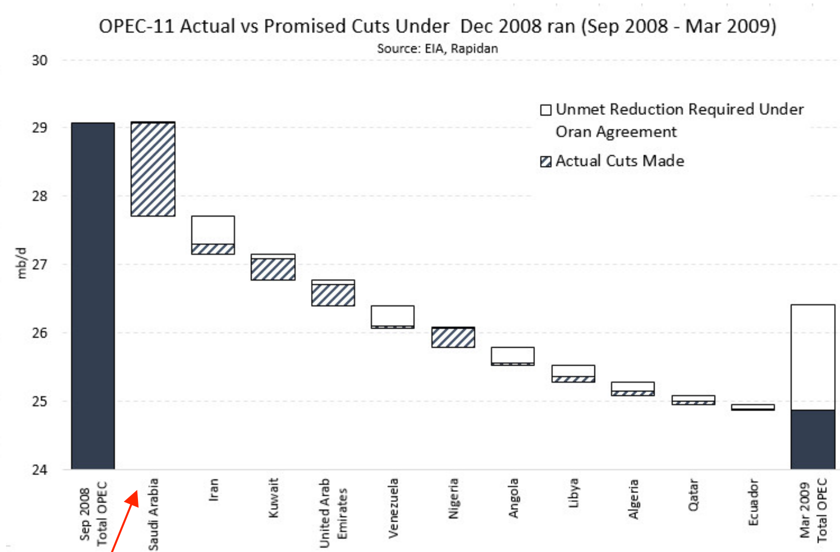
Barring Very Low Prices, Saudi Arabia Shouldered Most of OPEC's Cuts





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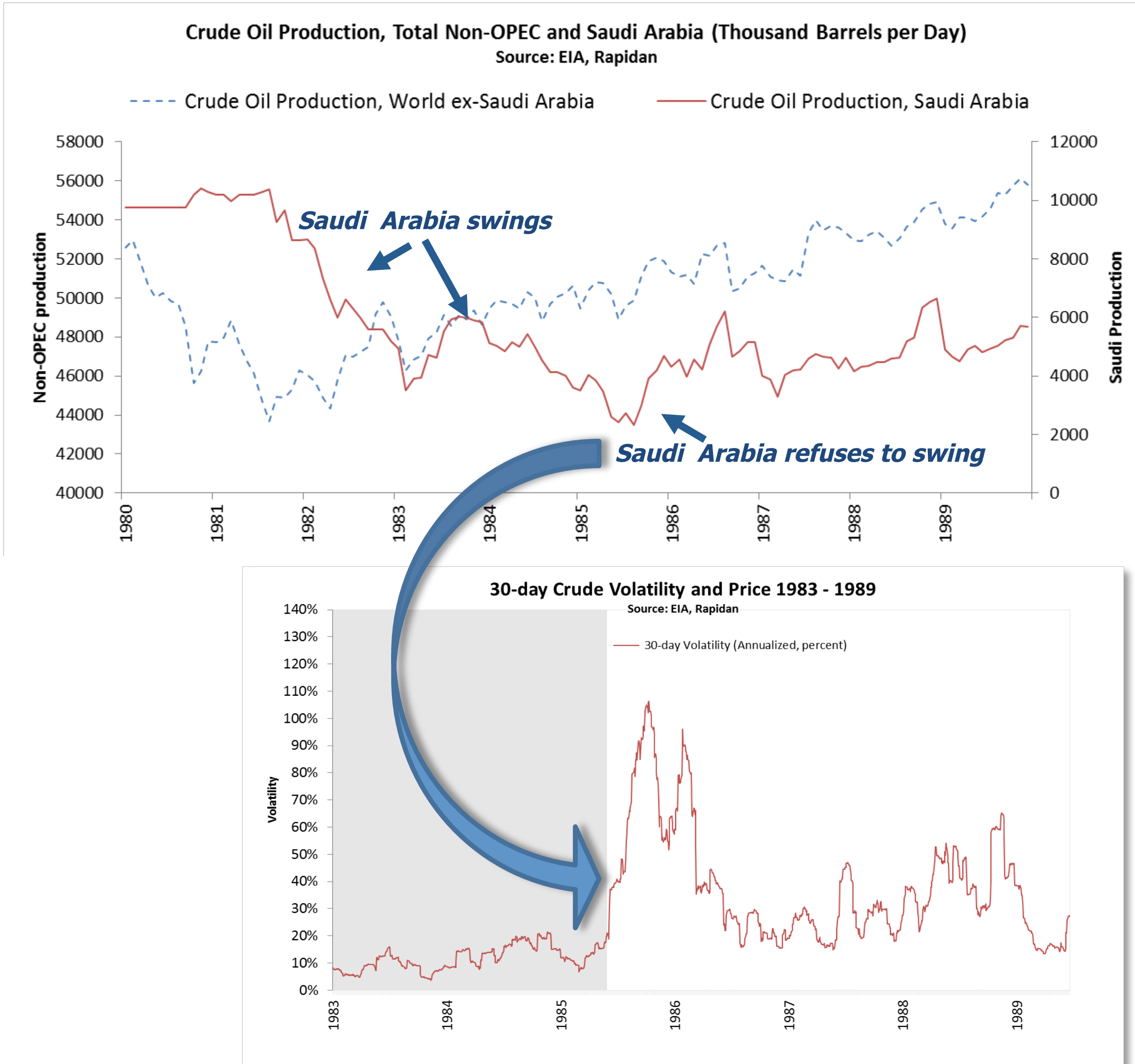
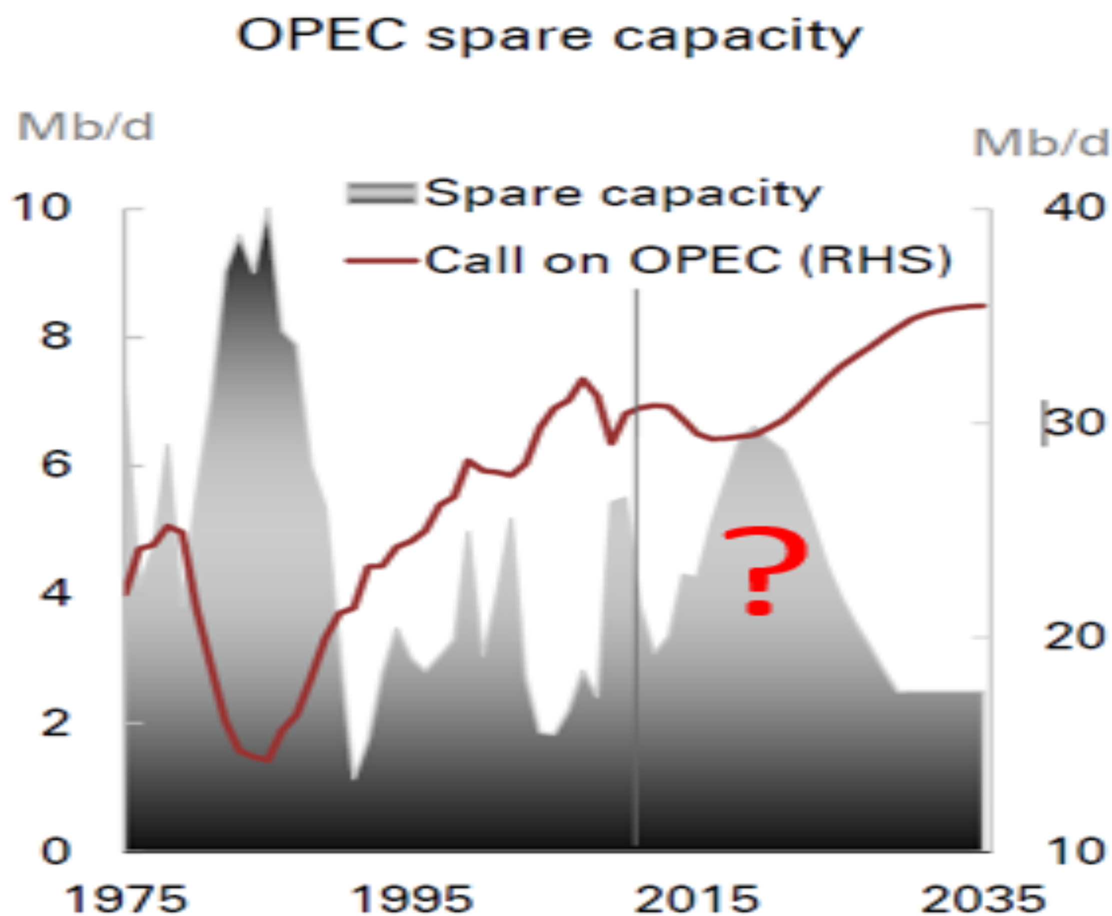
Saudi Arabia Won't Swing Alone

Historical aversion, present geopolitical/commercial considerations, and shale oil



Will Saudi Arabia Shoulder the Bulk of Expected OPEC Cuts Through 2020?



BP Energy Outlook, 2014