National Security Implications of Unconventional Oil and Gas Production Technologies

The University of Texas System Office
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April 30, 2015

Consensus View about Oil and National Security

1973 Oil Embargo's Domestic Impact

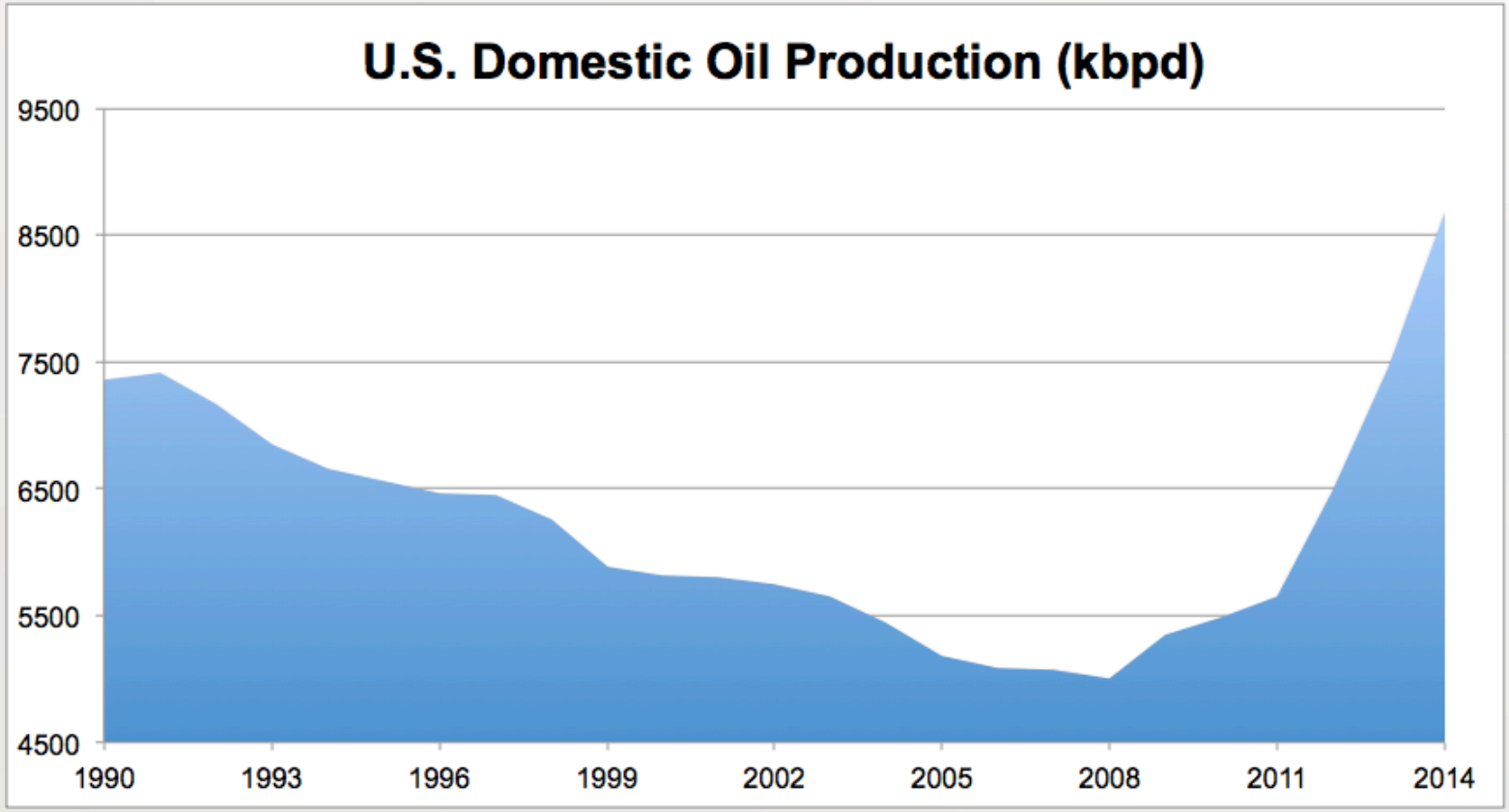
2003 Protests in Washington

"[O]il dependence creates political realignments that constrain the ability of the United States to form partnerships to achieve common objectives."

-Council on Foreign Relations, 2006

Impact of the Shale Revolution

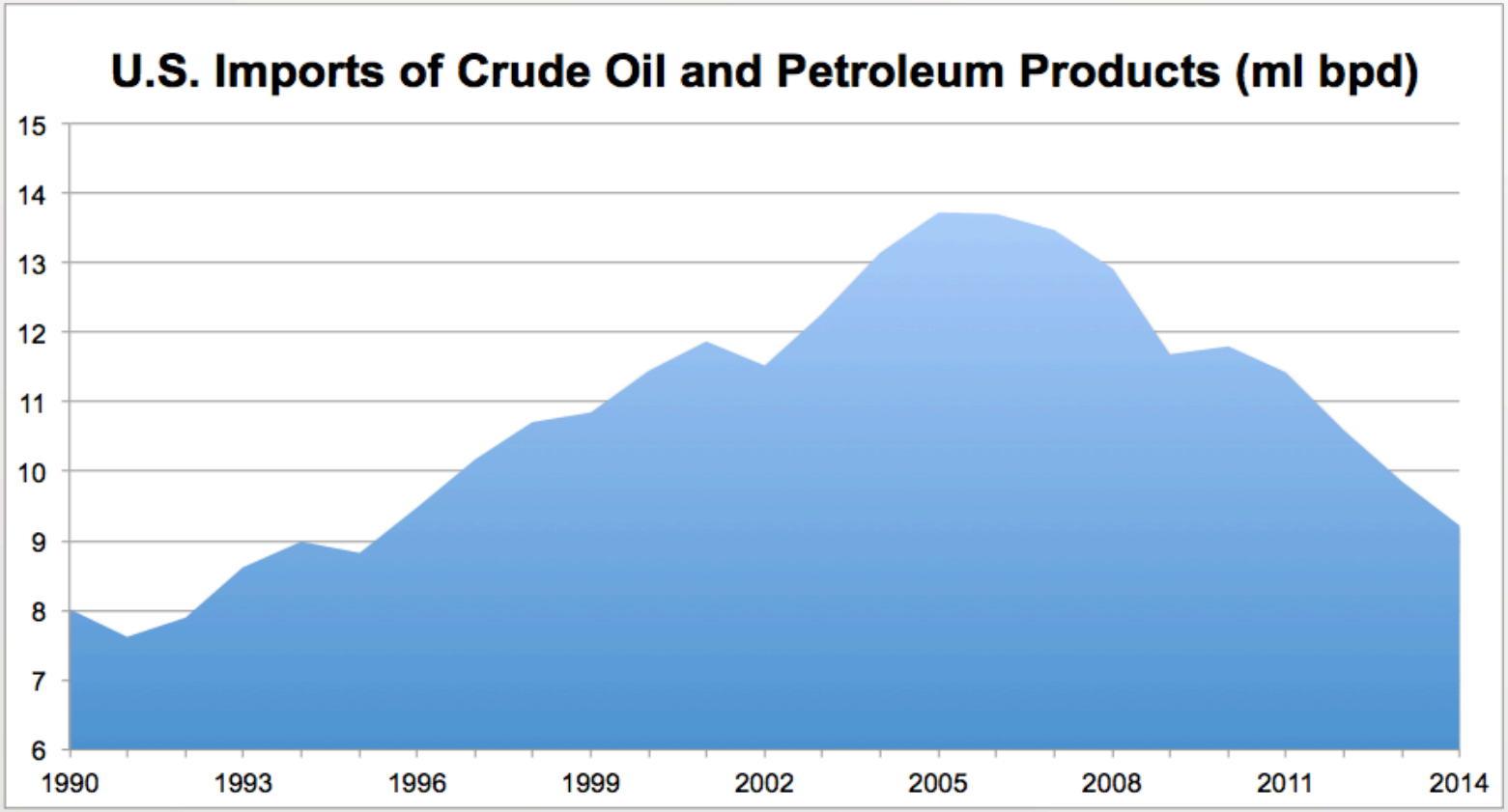
U.S. Domestic Production of Crude Oil and Petroleum Products



Source: U.S. Energy Information Administration

Impact of the Shale Revolution

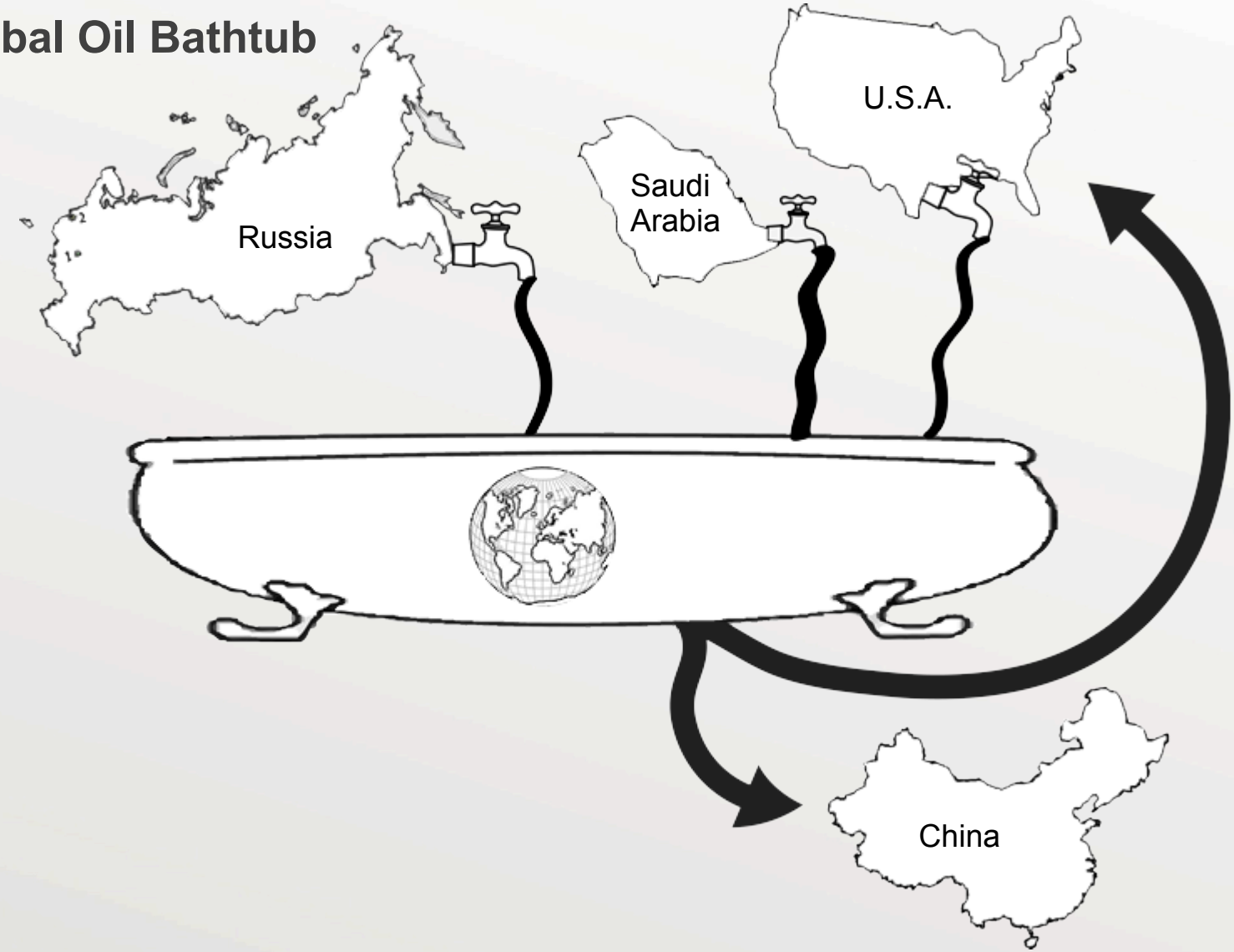
U.S. Net Imports of Crude Oil Decreasing Drastically



eia Source: U.S. Energy Information Administration

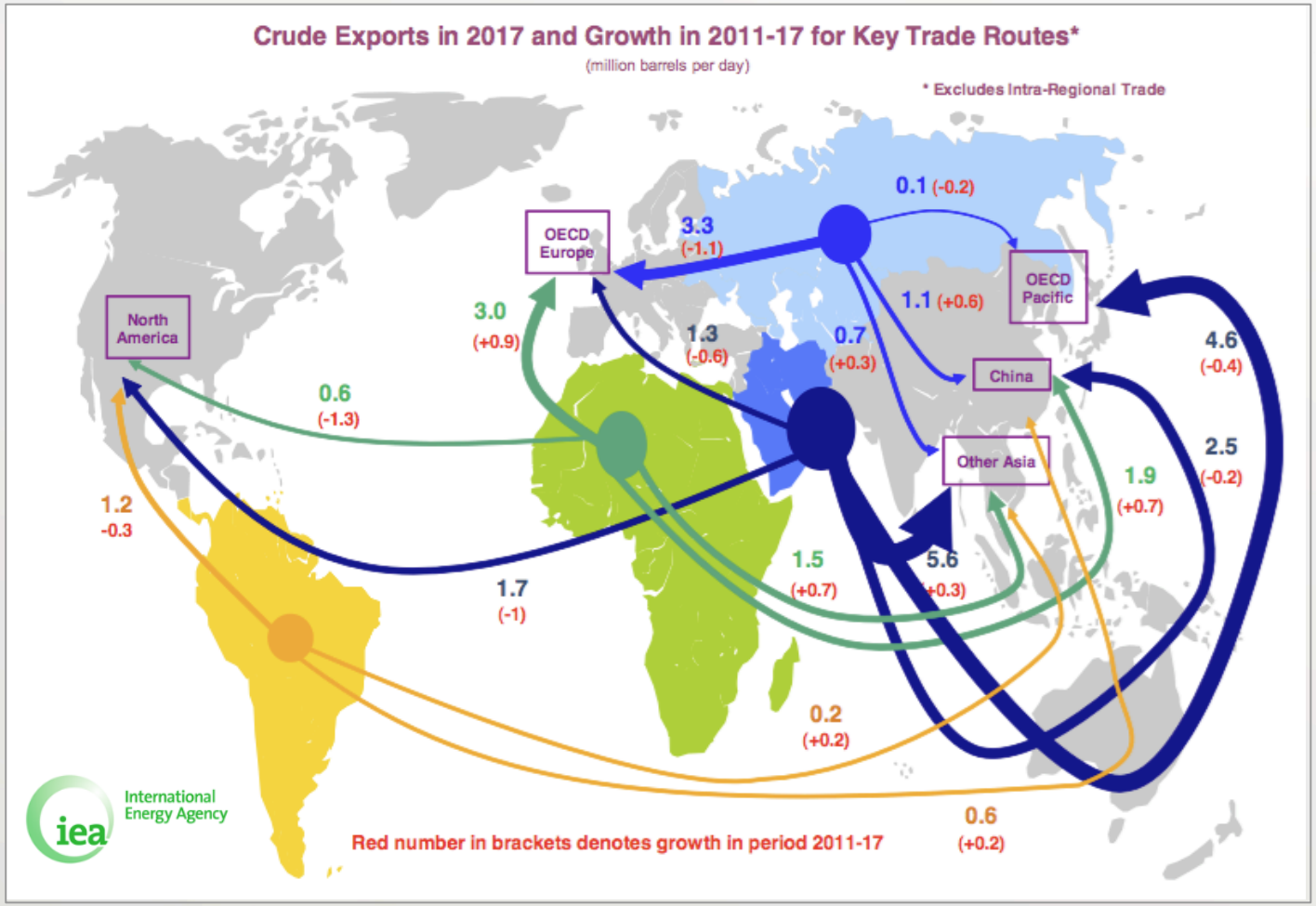
U.S. Energy Independence Isn't the Issue

The Global Oil Bathtub



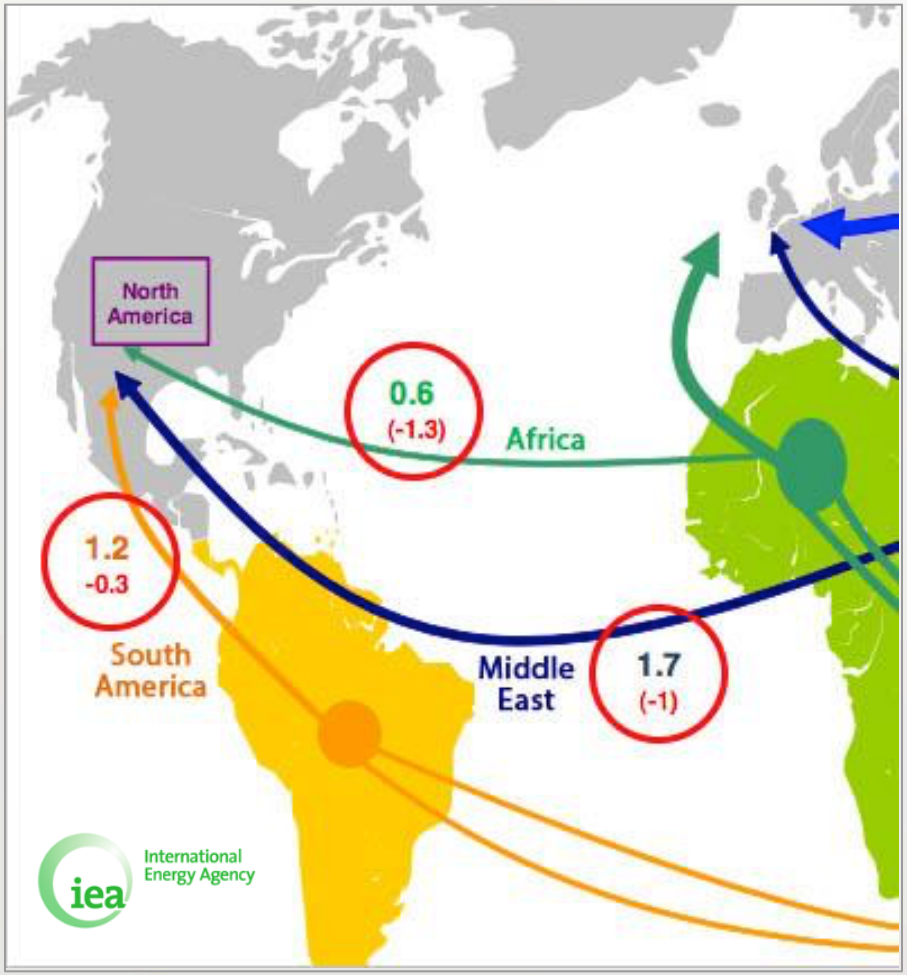
Changes in Oil Trade Flows

United States Importing Less Crude, Asia Purchasing More



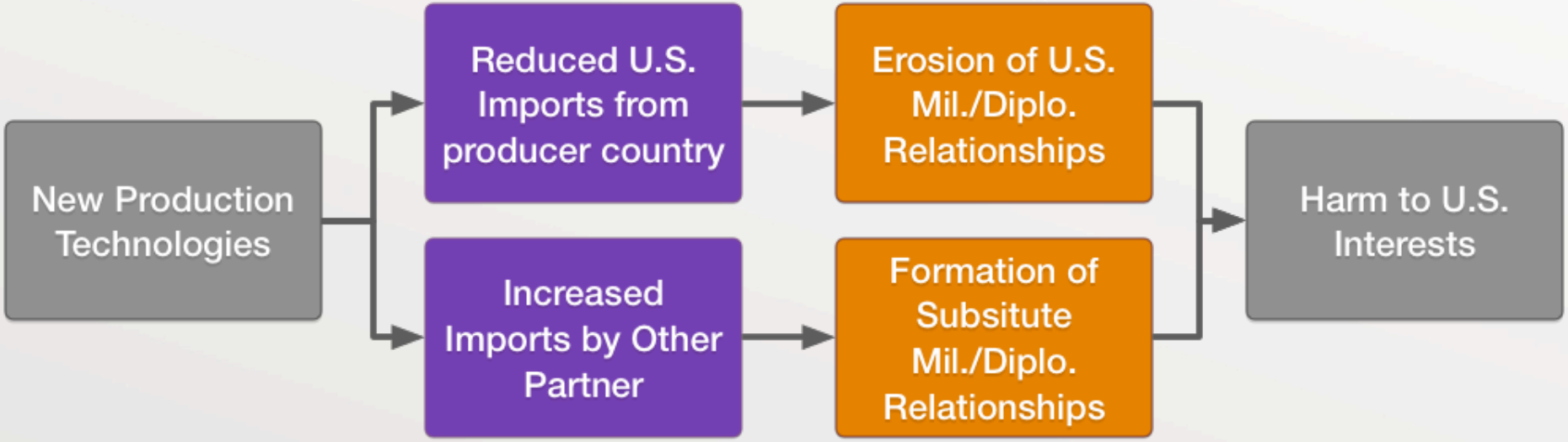
Changes in Oil Trade Flows

Reduction in Bilateral Oil Trade With Africa, South America, Middle East



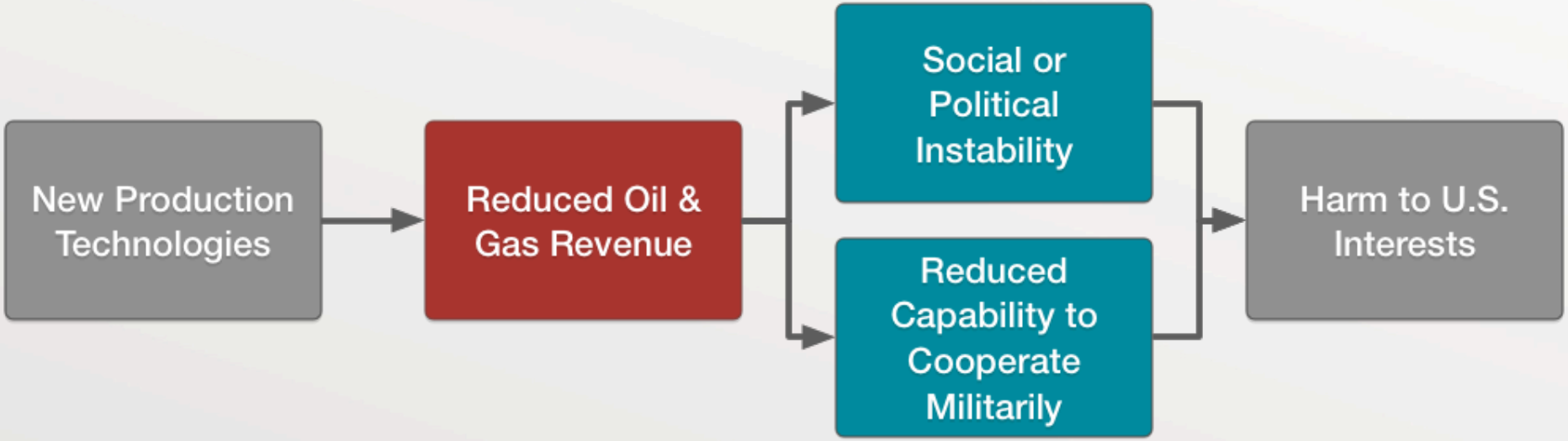
Petro Partners Hypothesis:

Links to U.S. National Security via Changing Trade Patterns



Reduced Revenues Hypothesis:

Links to U.S. National Security via Declining Energy Rents



Case Study Methodology

Finding Strong Tests for the Mechanisms

- Case studies provide *inference* to answer the broader questions
- "Most likely" cases are those in which we would *most expect* to observe the theories at work if they are valid
- Four case studies selected:

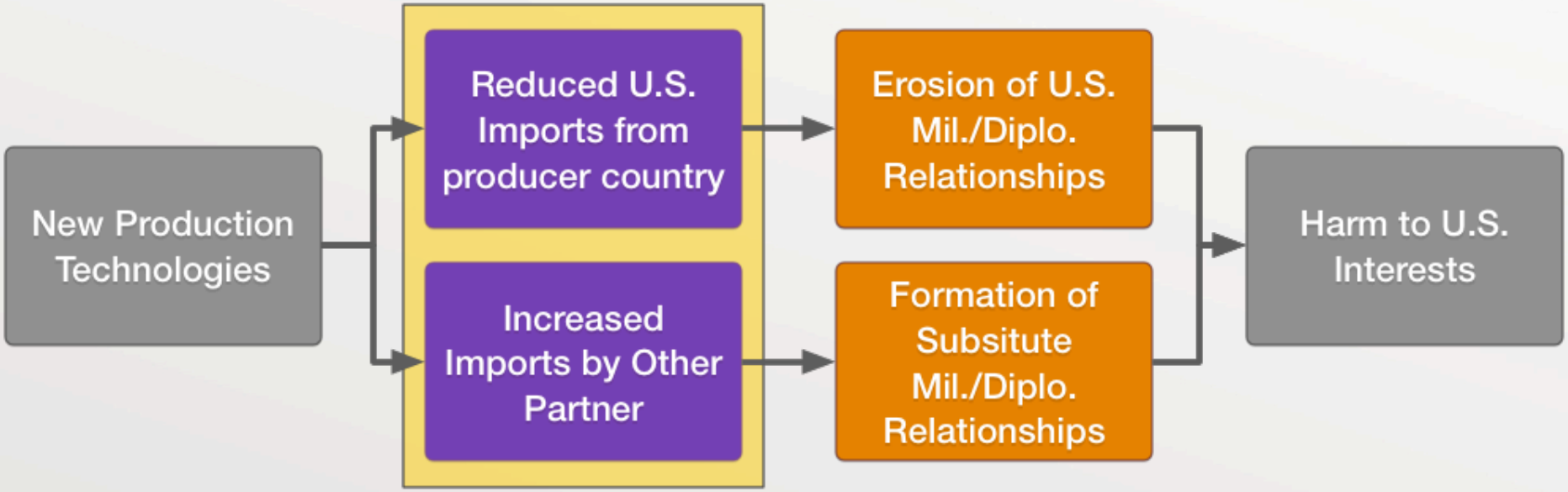

Angola


Gabon


Nigeria

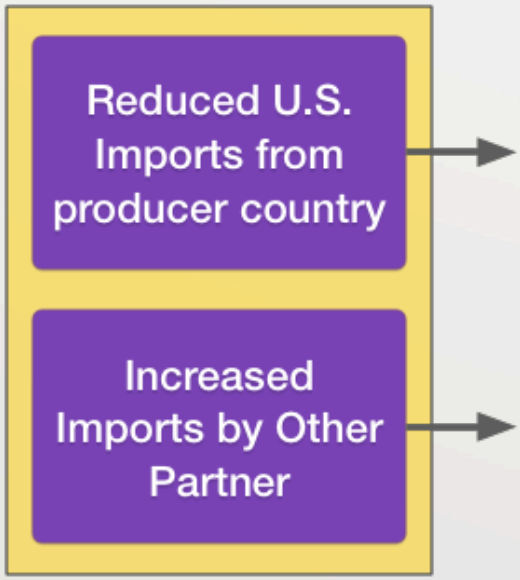

Trinidad & Tobago

Case Selection: Petro Partners



Case Selection: Petro Partners

Largest Declines in Crude and Petroleum Product Exports to the U.S.

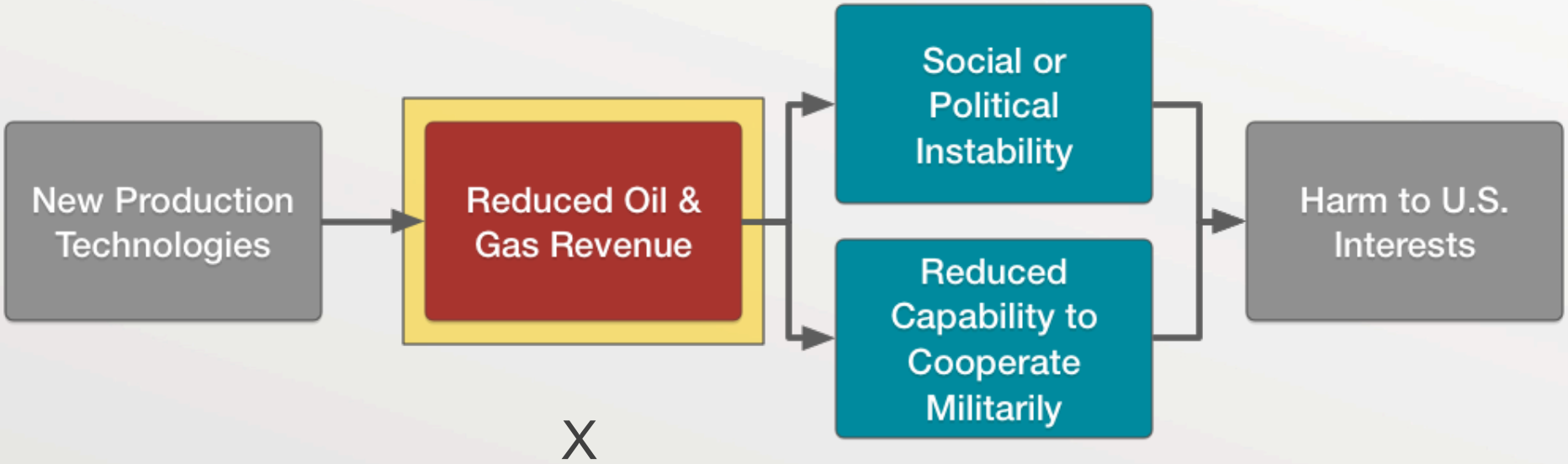


Country	Peak Year*	Decline to 2014 (kbpd)	Percent Decline
Australia	2002	55	96.5%
Equatorial Guinea	2009	89	95.5%
Gabon	1997	212	92.2%
Nigeria	2005	1074	92.1%
Norway	2002	348	88.6%
Algeria	2007	561	83.7%
Argentina	2002	90**	78.3%
Trinidad & Tobago	2006	91	77.8%
United Kingdom	2002	362	75.7%
Angola	2006	383	71.7%

Source: EIA

*Since 1995 **Until 2013

Case Selection: Reduced Revenues



X

High Level of Dependence

Case Selection: Reduced Revenues

2008-09 Oil Price Crash Brought Reduced Revenues for all Exporters

X

Dependence

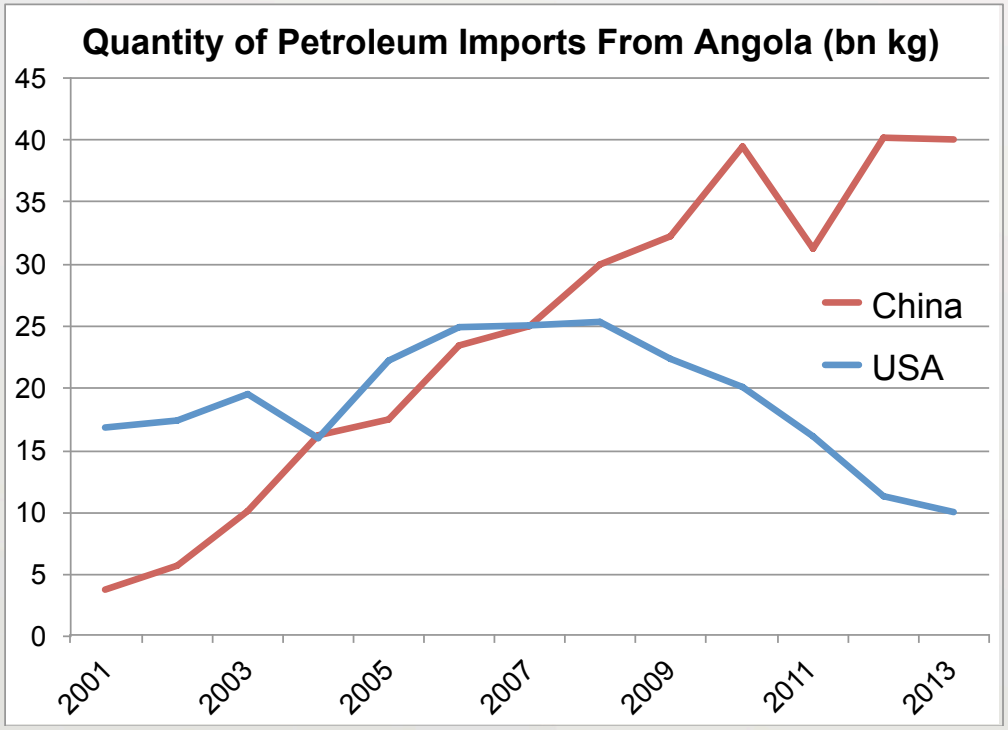
Country	Oil as Percent of Total Revenues	Percent Decline
Trinidad & Tobago	~ 60%	40%
Angola	> 75%	39%
Gabon	> 50%	38%
Nigeria	> 90%	35%

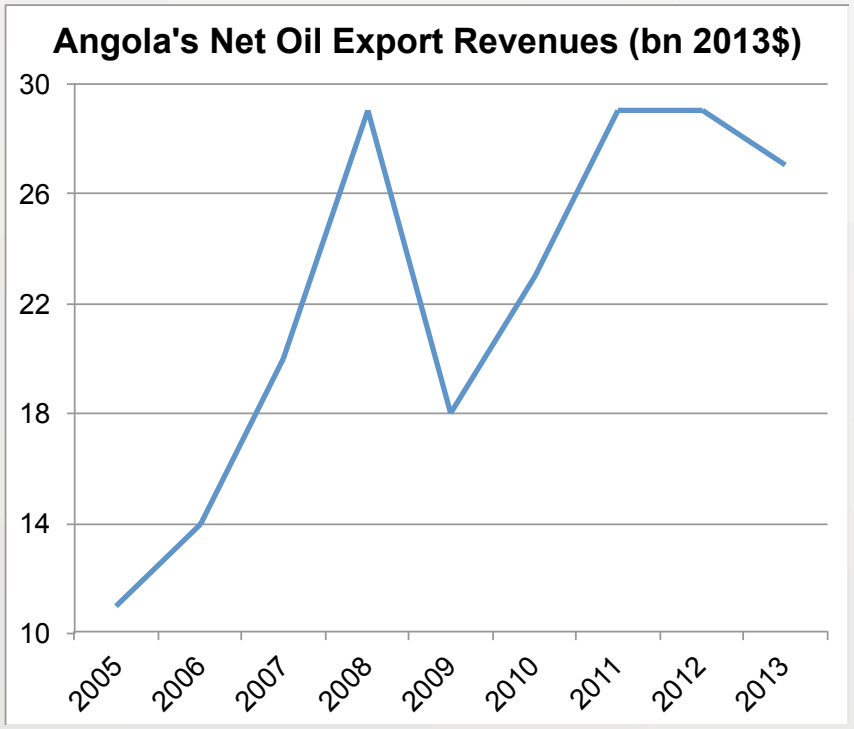
Source: EIA production data 2008-2009, Brent crude spot prices.

Angola

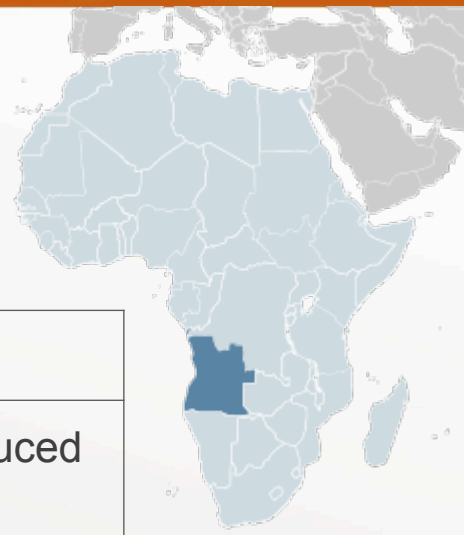
Observed Changes

- 2007 to present: leveling off and subsequent decline in U.S. imports.
- 2001 to present: continuous growth in Chinese imports.
- 2009-2010: significant drop in net oil export revenue from peak levels.





Angola



Petro Partners: ~

Oil Trade → Bilateral Relations

Prediction	Outcome
Angola resistant to sign bilateral agreements with U.S.	SPD signed in 2010, despite reduced oil trade with the U.S. ✘

Reduced Revenues: ✘

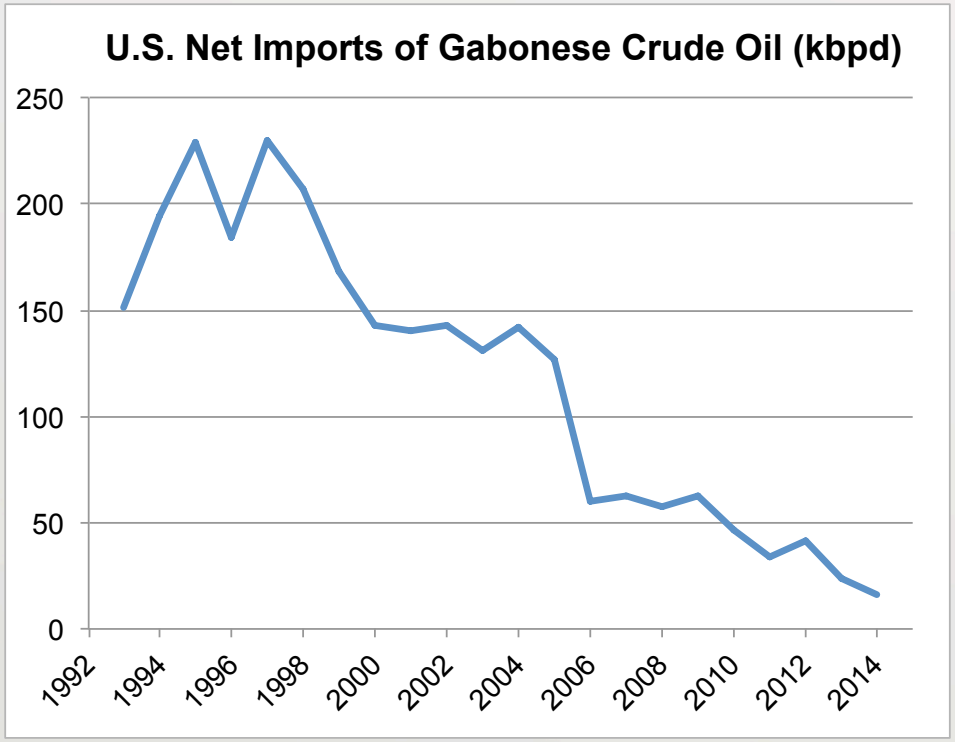
Reduced Revenue → Instability

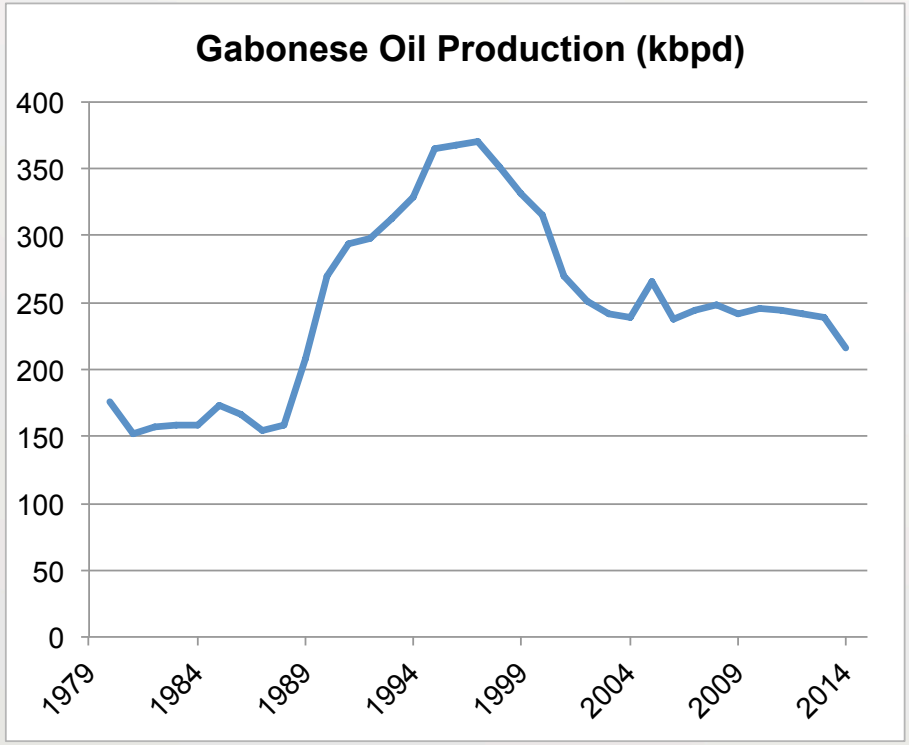
Prediction	Outcome
Increase in social and political instability.	Protests and government reshuffles, but not due to loss of oil revenues. ✘

Gabon

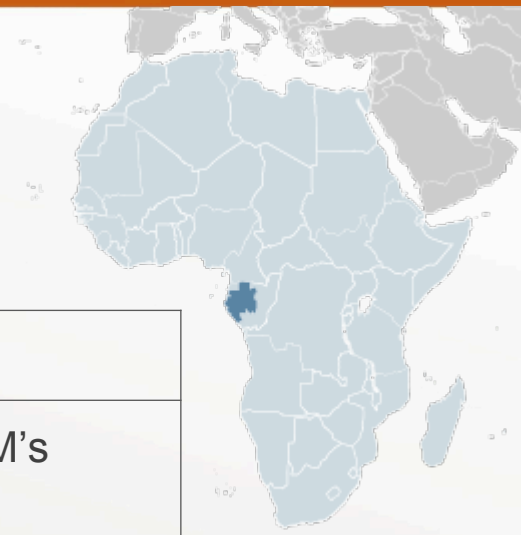
Observed Changes

- 2006 to present: sudden decline in U.S. imports.
- 1997-2003: drop in oil production.
- 2008-2009: drop in oil revenue.





Gabon



Petro Partners: ✘

Prediction	Outcome
Gabon resistant to participate in bilateral military exercises.	2009 Gabon hosted AFRICOM's Africa Endeavor Exercise. ✘

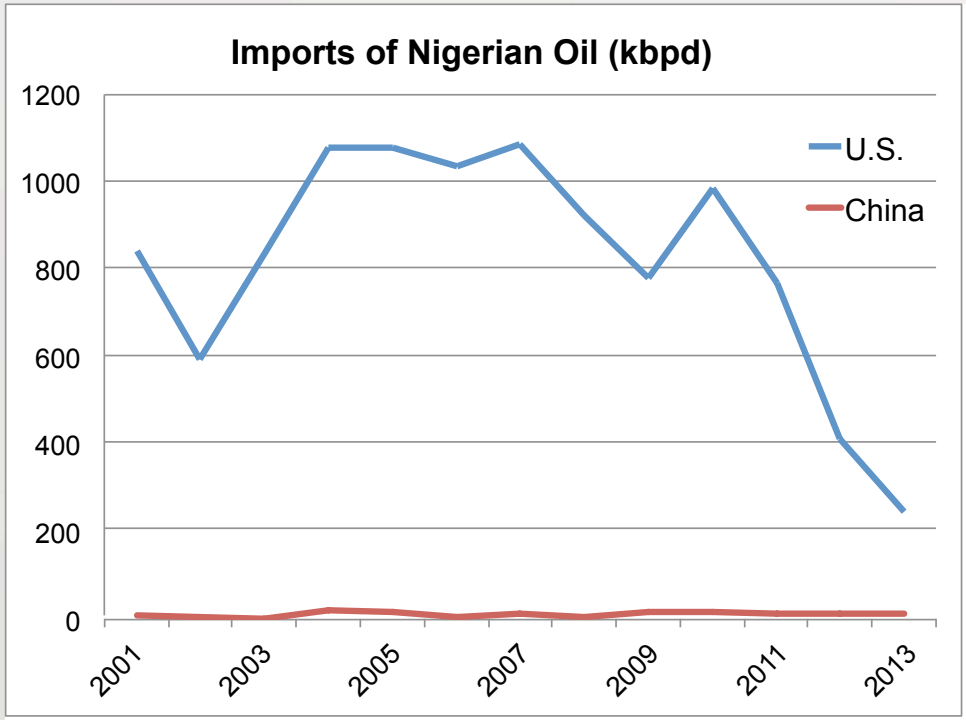
Reduced Revenues: ✘

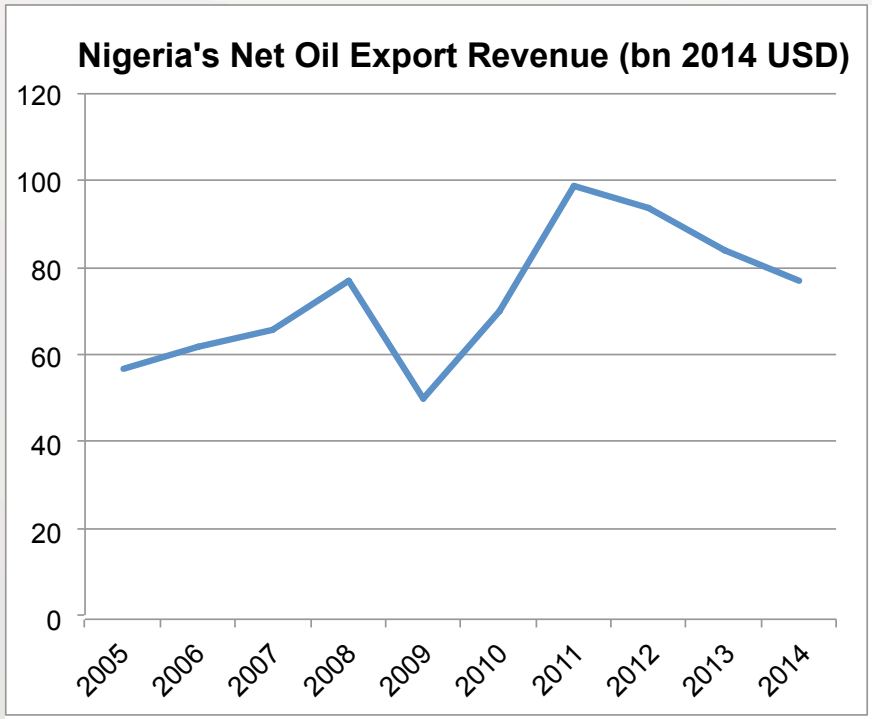
Prediction	Outcome
Increase in social and political instability.	Protests increase, but not due to loss of oil revenues. ✘

Nigeria

Observed Changes

- 2010 to present: steady decline in U.S. imports.
- 2008-2009: drop in oil revenue, but almost full recovery within one year.





Nigeria

Petro Partners: ✘

Prediction	Outcome
Nigerian resistant to U.S. military cooperation.	Nigeria participates in Obangame Express and IMET program. ✘

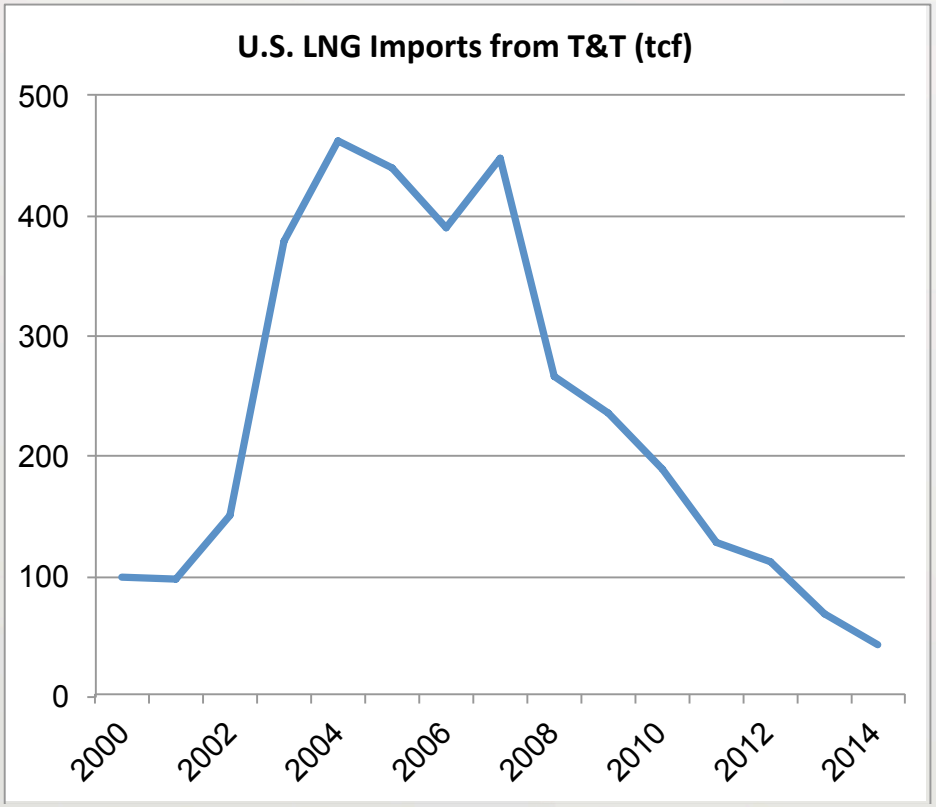
Reduced Revenues: ✘

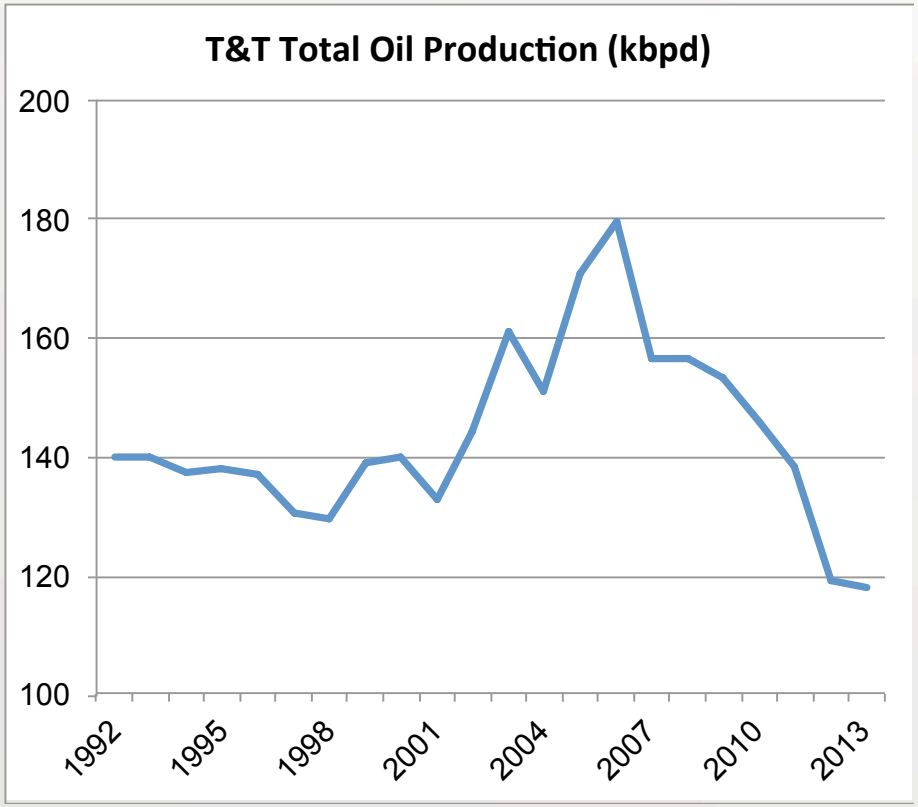
Prediction	Outcome
Increase in social and political instability.	No oil-related instability, because of use of rainy day fund. ✘

Trinidad & Tobago

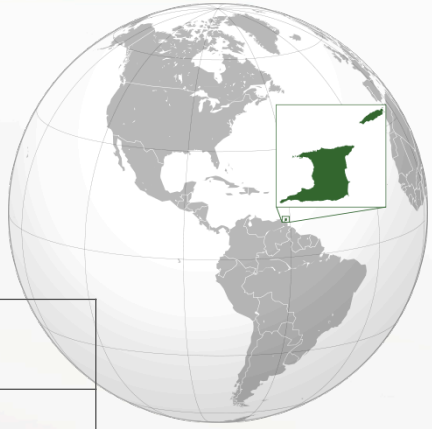
Observed Changes

- 2006 to present: steady decline in U.S. energy imports.
- 2008-2010: drop in oil revenue.





Trinidad & Tobago



Petro Partners: ✘

Prediction	Outcome
T&T resistant to bilateral drug interdiction and military agreements.	Shiprider Agreement and SOFA indicate positive relations. ✘

Reduced Revenues: ✘

Prediction	Outcome
Increase in social and political instability.	No oil-related instability, because of use of export diversification. ✘

What Have We Learned?

Petro Partners:

- No case offered clear support
- Should not be overly concerned about erosion of diplomatic/military ties

Reduced Revenues:

- Case countries were able to “break the chain”
    - Sovereign wealth funds, foreign financing, etc
- Low risk of instability

Implications

Russia:

- Fear of Europe's dependence on Russia
- Other factors overwhelm Petro Partnership

Russian President Putin and Former German Chancellor Schröder

Saudi Arabia:

- Fear of Saudi instability due to loss of revenue
- Reduced Revenues theory not valid

2011 Uprising in in Bahrain

Don’t panic.

Final Project Notes

Web Resource:

- Information on an array of topics relevant to energy and national security
- https://strausscenter.org/energy-and-security/

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