



Spotlight–Iran in 2016–Energy, Economics and Politics

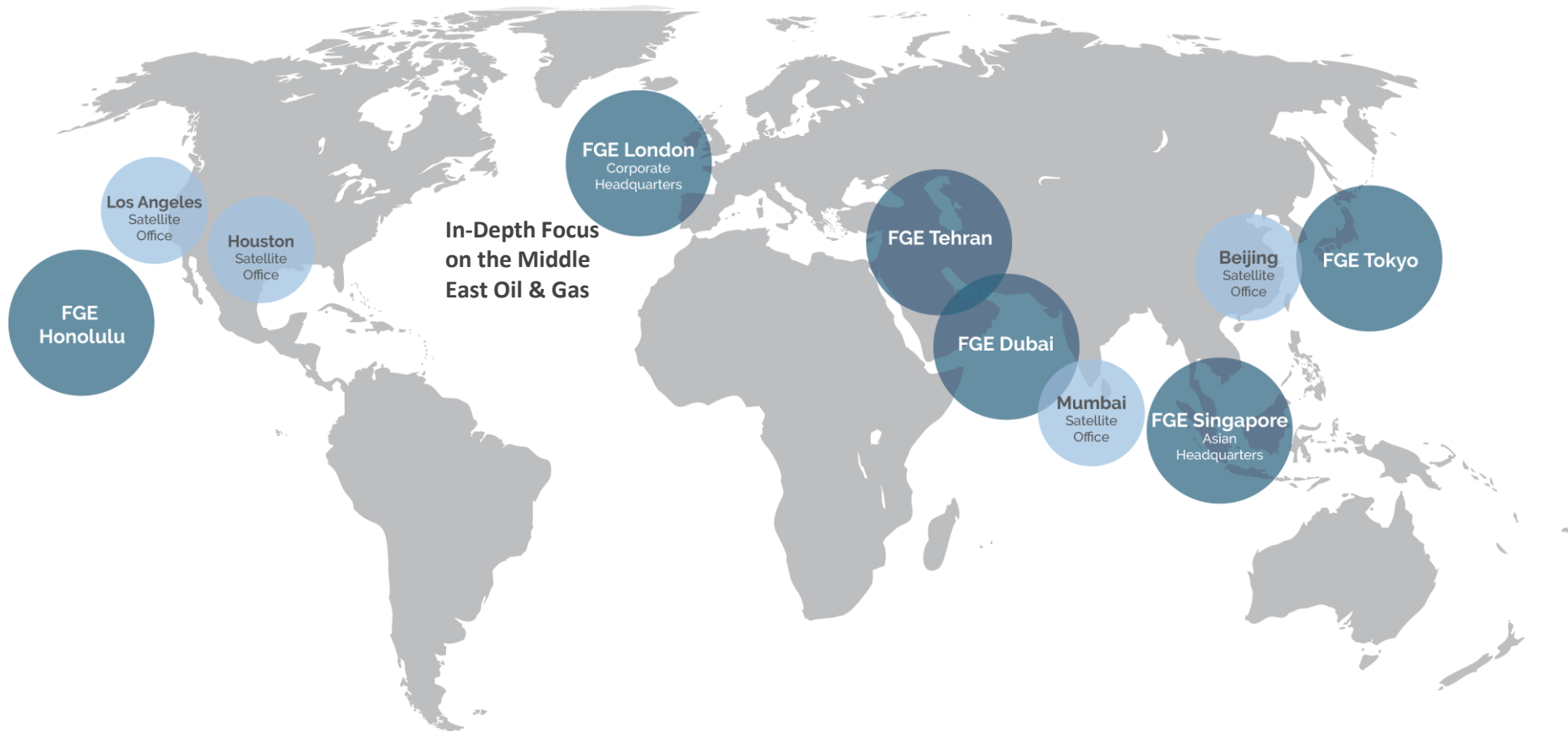
A Presentation in the Onshore Energy Conference

By Siamak Adibi, Senior Consultant and Head of Middle East Gas Team, FGE

London, November 2016

FGE as a Global Consulting Group

FGE provides studies and advisory services to governments, national oil and gas companies, major oil and gas companies, independent oil and gas companies, financial institutions, international and intergovernmental organisations, utilities, consultancies, and engineering design firms. FGE provides consulting services to over 270 clients globally.



Iran Post Sanction: Novelty in Business with Iran



Oil and Gas



Automotive



Power



Petrochemical



Infrastructure



Mining

Food & Beverage



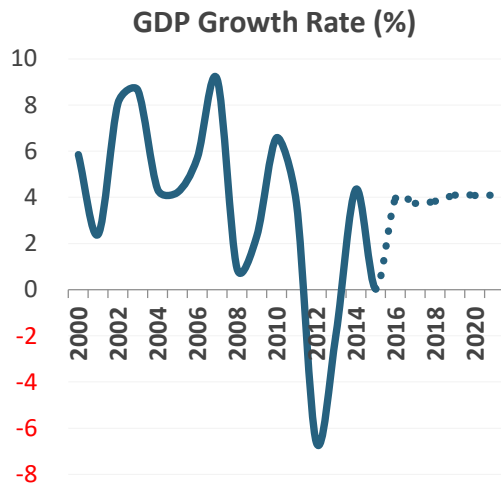
Transportation

Fashion



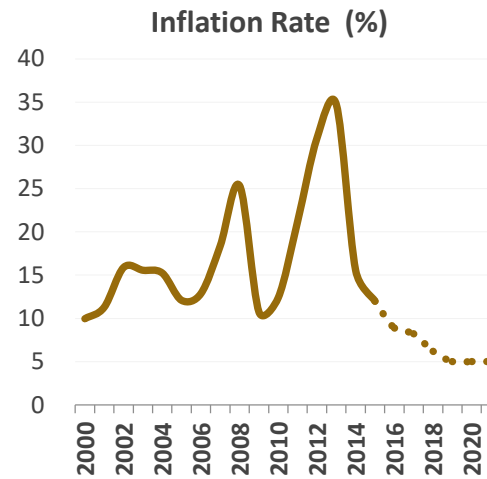
Tourism

Iran's Economy Snapshot



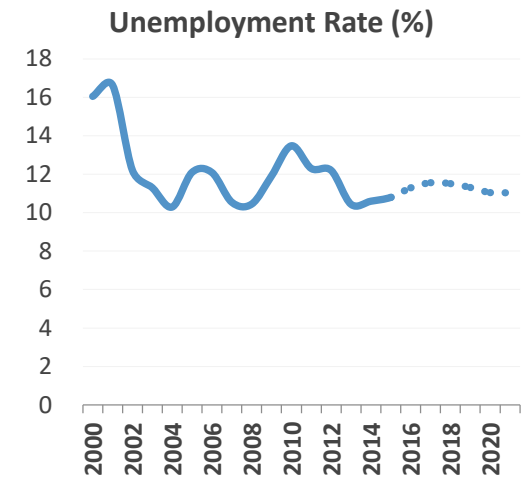
Source: IMF, 2016.

- GDP: US\$388 billion in 2015.
- GDP Outlook: 4% growth through 2020.



Source: IMF, 2016.

- Representing the second highest inflation rate in the Middle East region after Yemen.
- The government is trying to reduce the inflation rate to below 10% by the end of 2016.

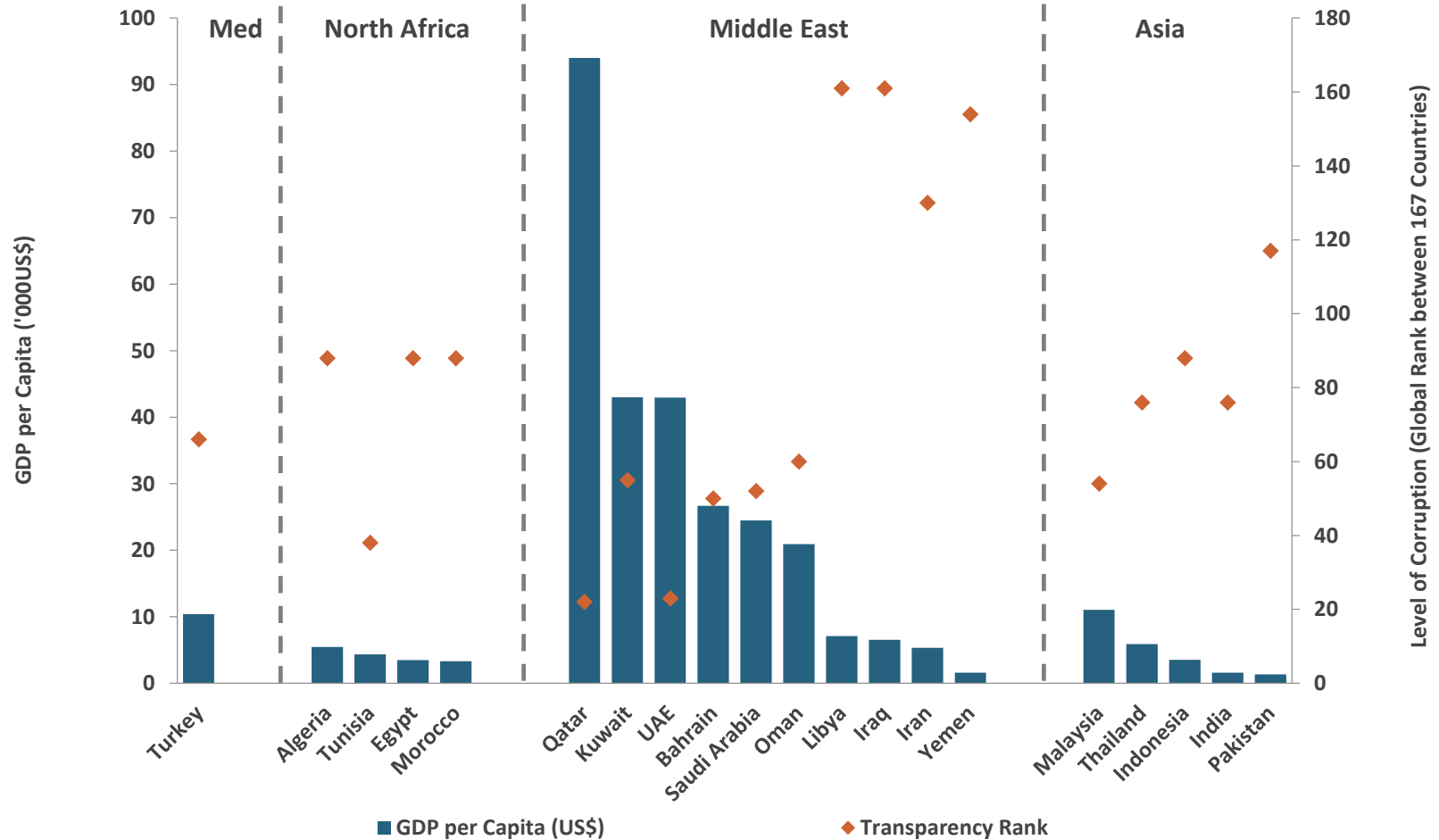


Source: IMF, 2016.

- Unemployment in Iran is still lower than Egypt, Tunisia, and/or Oman. But it is much higher than Indonesia and Turkey.

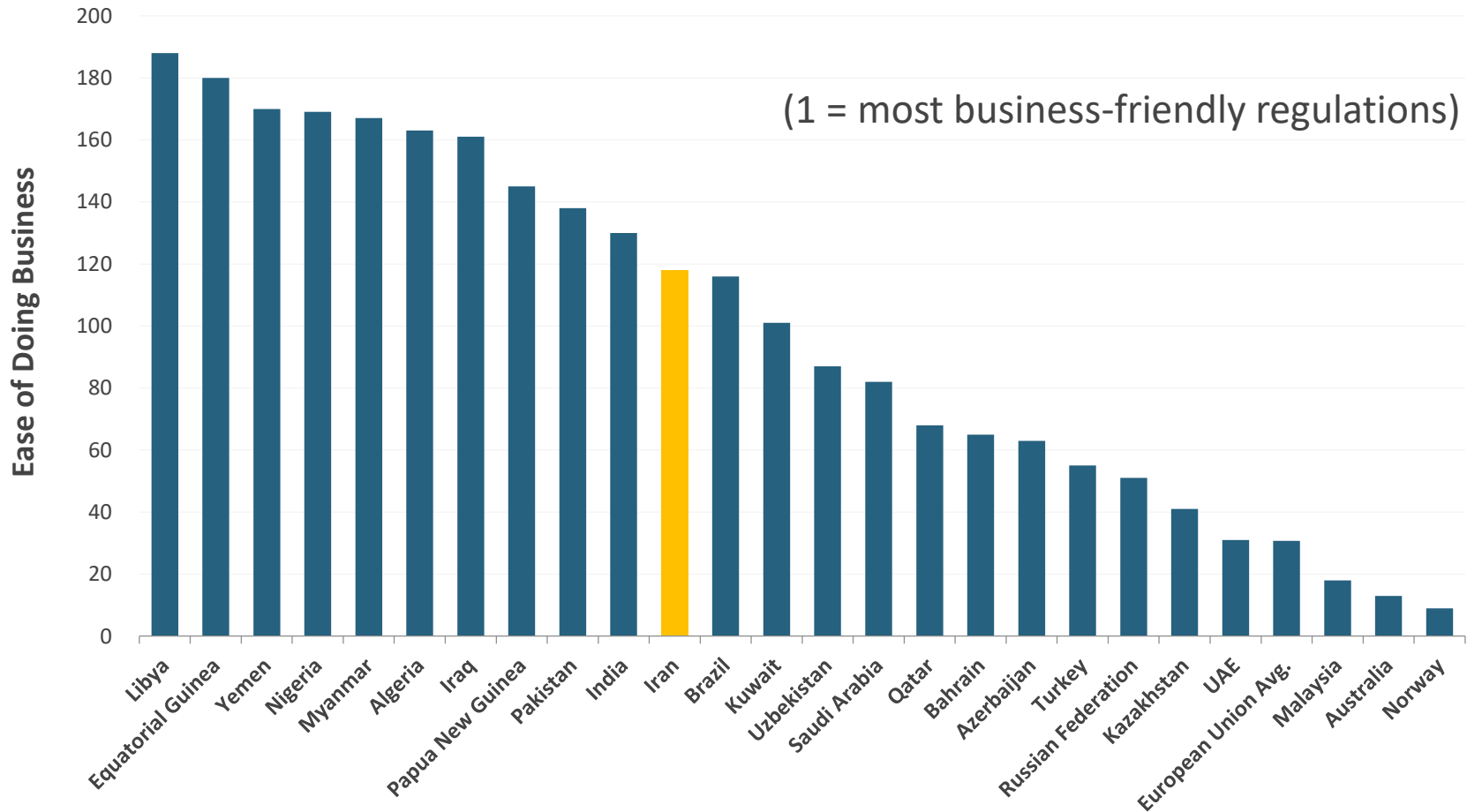
Iran's Business Environment in the Regional Context

Ranked as one of the most corrupt countries in the world.



Source: Transparency International & IMF, 2015.

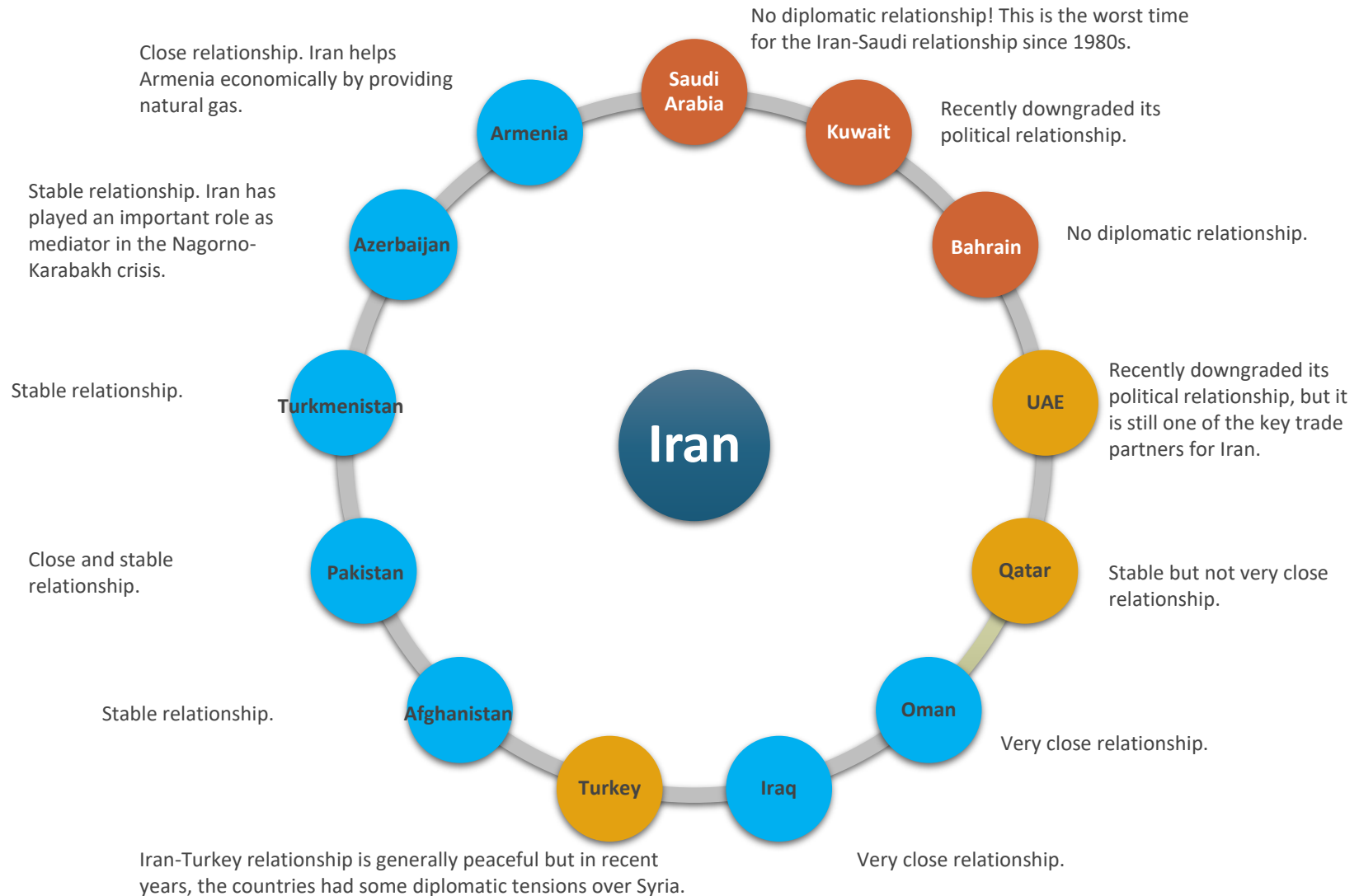
Ease of Doing Business with Iran (2015 Evaluation)



Source: World Bank

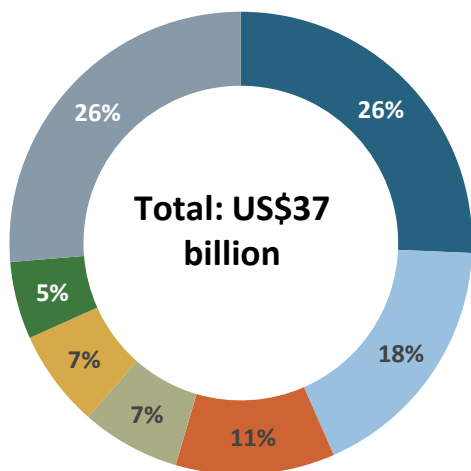
Iran's Diplomatic Relationship with its Neighbours

Attack on the Saudi Embassy in Tehran created several political challenges.



Iran's Key Trade Partners

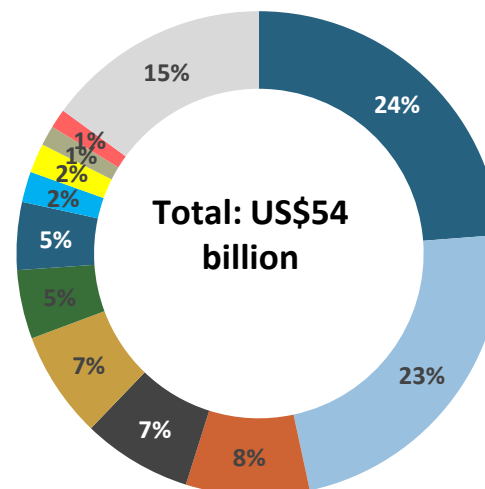
Iran's Non-Oil Exports by Country (2015)



■ China ■ Iraq ■ UAE ■ India ■ Afghanistan ■ Turkey ■ Others

- China and Iraq are main destinations for the Iranian goods. Total exports to these two countries exceeds US\$16 billion.

Iran's Imports by Country (2015)

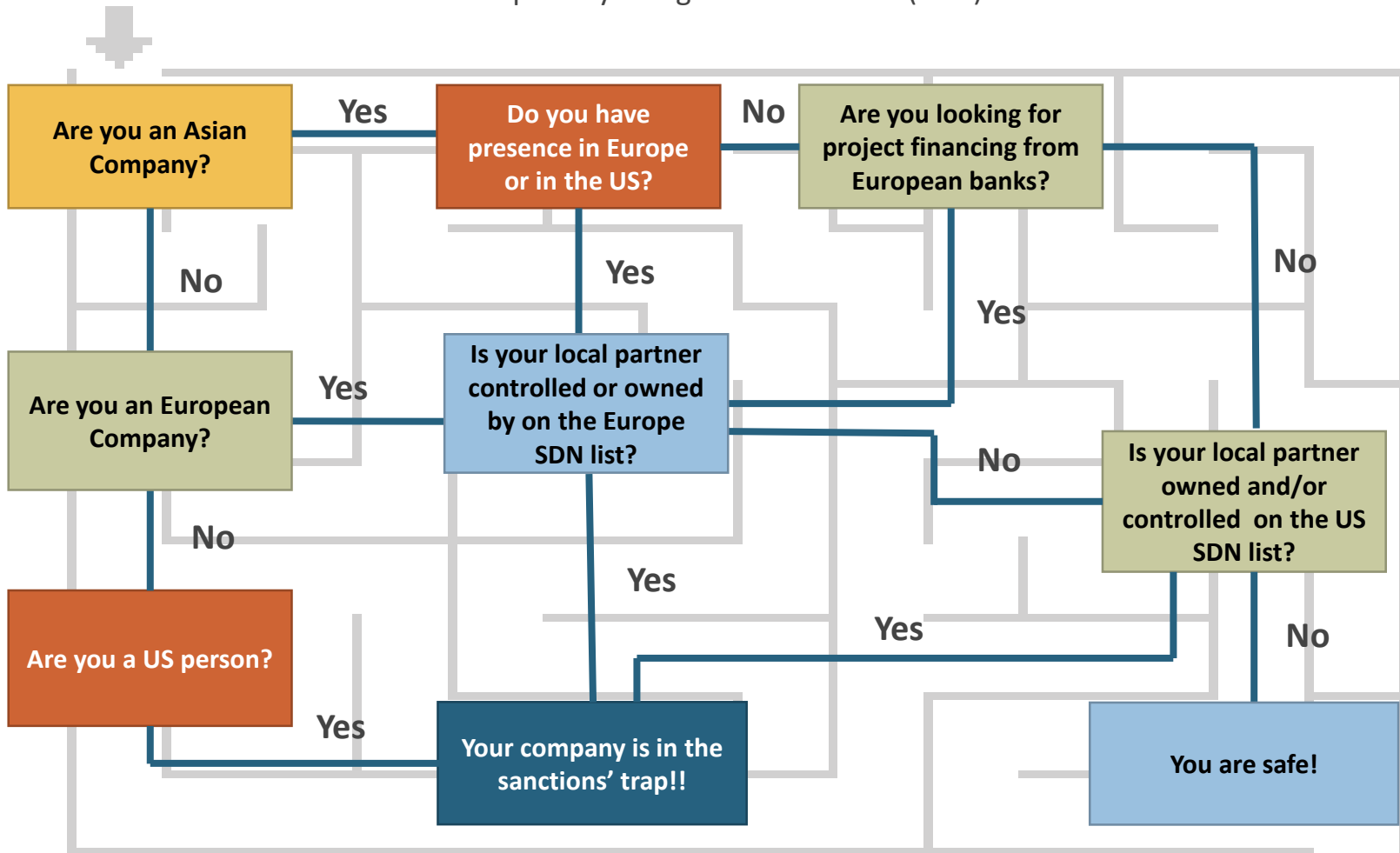


■ China ■ UAE ■ South Korea ■ Turkey ■ India ■ Germany ■ Switzerland ■ Italy ■ Netherlands ■ Taiwan ■ Russia ■ Others

- China and the UAE represent almost half of total Iranian imports.

Sanctions' Maze

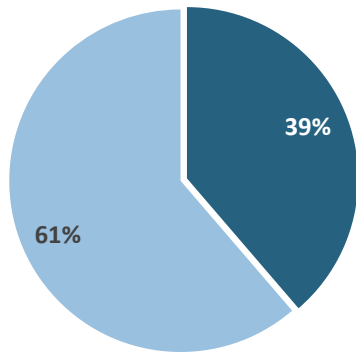
The non-nuclear related sanctions imposed by the US and the EU are still in place. Over 200 Iranian entities and nationals continue to remain on the US Specially Designated Nationals (SDN) list.



The persons and/or entities on the SDN lists are primarily the IRGC and its agents, affiliates and other persons/entities identified to be sponsors and supporters of terrorism or associated with human right violations.

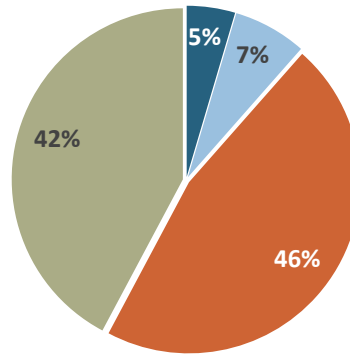
Privatization in the Iranian Energy Industry

Oil Refineries
(1.86 mmb/d of refining capacity)



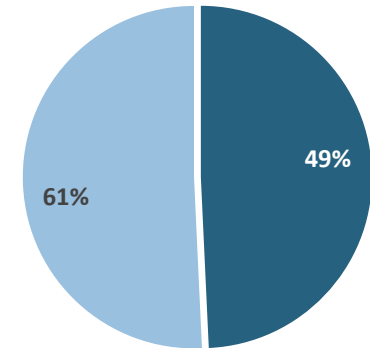
■ Government

Petrochemical Projects
(60 mmtpa of installed capacity)



■ Foreign Companies
■ NPC
■ Semi Private Entities
■ Private Entities

Power Plants
(74 GW of Installed capacity)



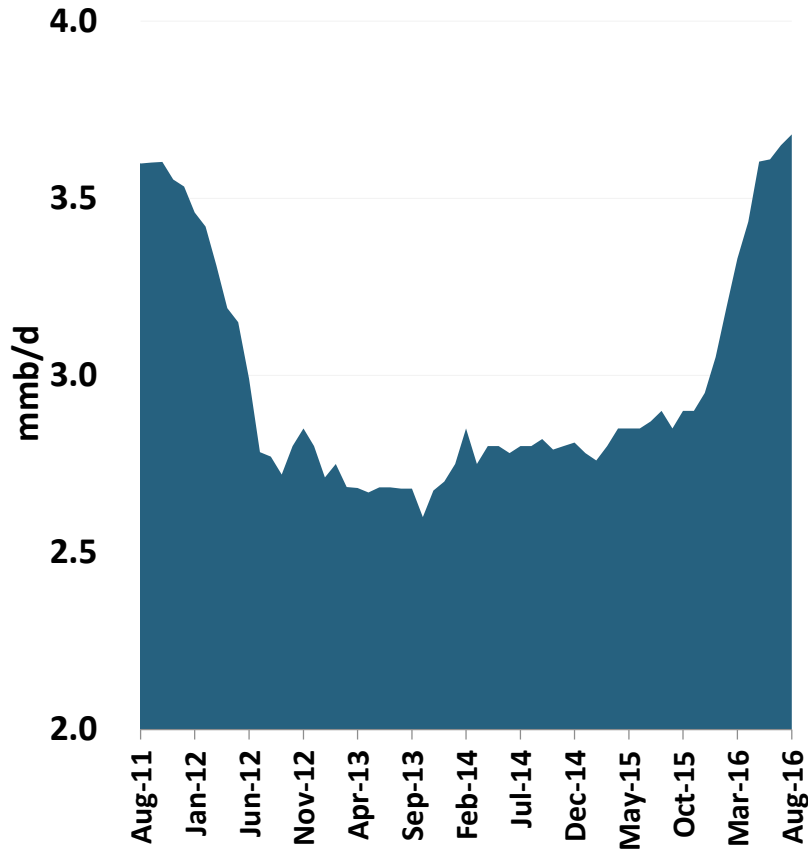
■ Government
■ Private/Semi Private Sector

- The ownership and control of Iranian companies is often unclear. Iranians are masters of designing ownership webs, and tracing who is the controlling party in these companies is not an easy job.
- Several private or semi-private companies involved in the energy projects still directly or indirectly fall under the sanction lists. This makes it difficult to navigate the waters in finding the right people or companies for partnership in Iranian petrochemical projects.

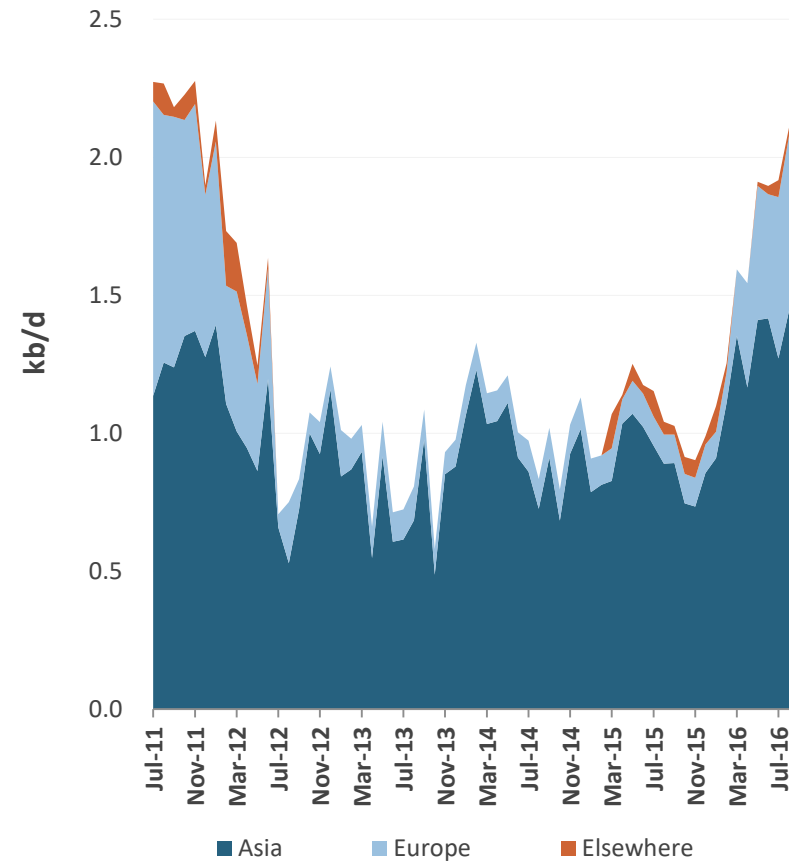
Iran's Crude Oil Production and Exports

Over 700 kb/d increase since December 2015!

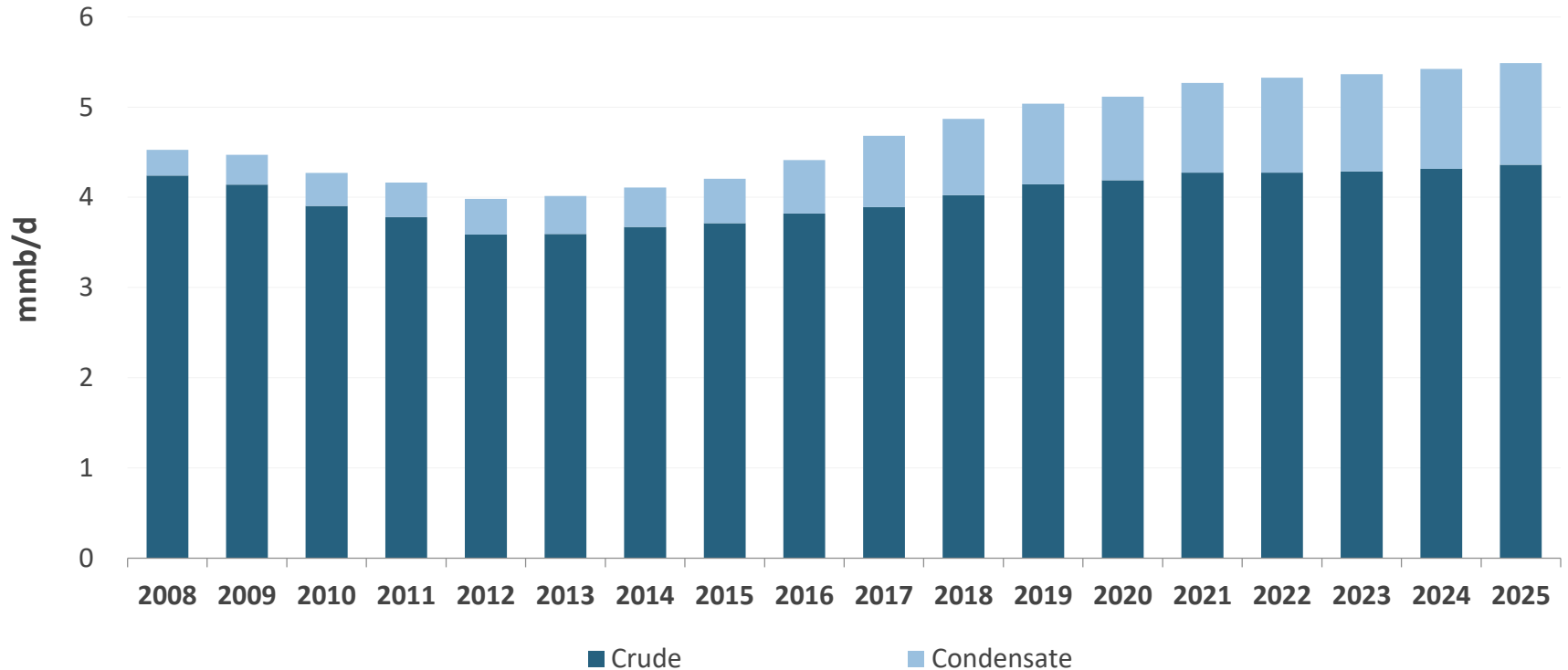
Crude Oil Production



Crude Oil Exports



Iran's Oil Production Outlook



- Iran has ambitious goals to increase its crude oil production capacity to around 5 mmb/d by the end of this decade.
- The West Karoon fields are currently producing 225 kb/d of oil, but Iran is convinced some 700 kb/d of oil will be supplied from these fields by 1Q 2018.

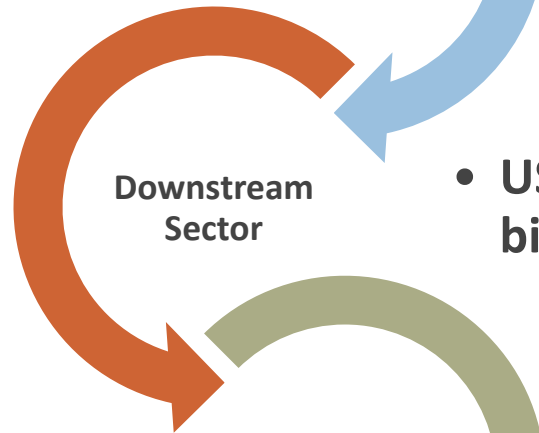
Massive Investment Requirements!

Investment requirements over the next 5 to 6 years.



Upstream
Sector

- US\$130 billion



Downstream
Sector

- US\$70 billion



Power Sector

- US\$10 billion

Iran As A Gas Province!

Iran's Gas Industry: Key Facts and Figures

Massive gas re-injection requirements

- 3 bscf/d of gas re-injection in 2015 (22 mmtpa of LNG equivalent).

Large gas flaring

- 1.5 bscf/d of gas flaring in 2015 (roughly 11 mmtpa of LNG equivalent or 3 times more than Thailand's LNG imports).

Regulated domestic gas prices

- Between US\$0.8 and US\$2.3 per mmBtu.

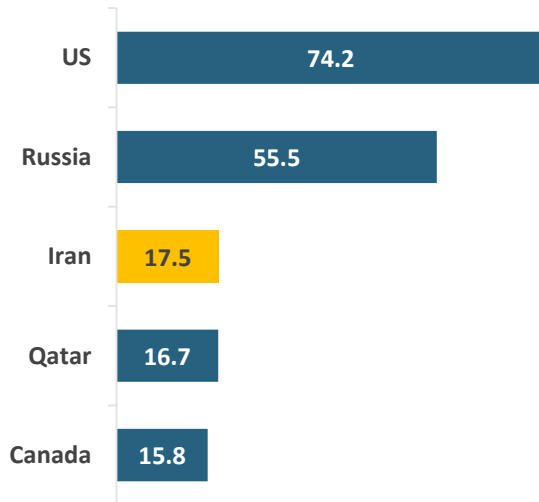
Wasteful consumption

- 30-35% efficiency in gas-fired power plants.
- Roughly 1 bscf/d of gas is wasted by the residential & commercial sectors.

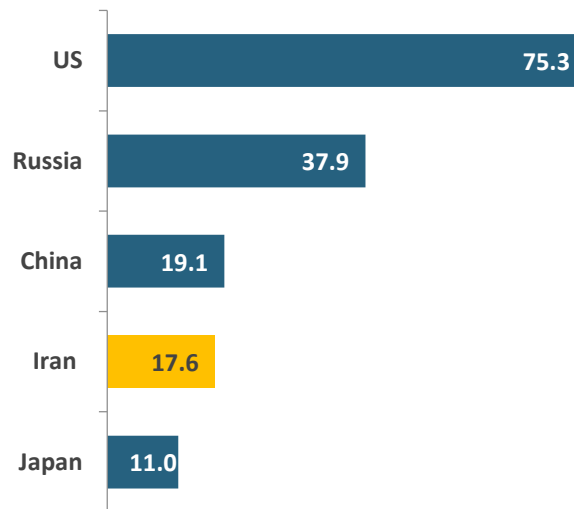
Current exports

- Roughly 1 bscf/d to Turkey, Armenia, and Nakhchivan.

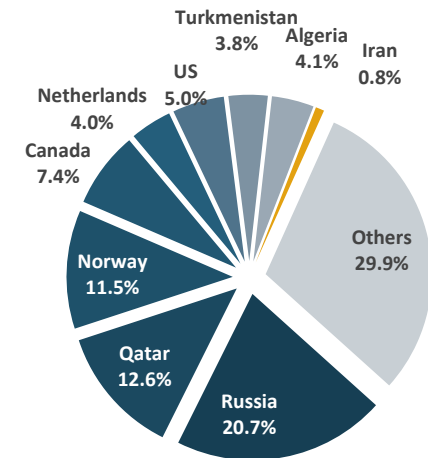
World's Top 5 Gas Producers
(Marketed Gas in bscf/d, 2015)



World's Top 5 Gas Consumers
(bscf/d, 2015)



Global Gas Trades
(Pipeline & LNG in 2015)



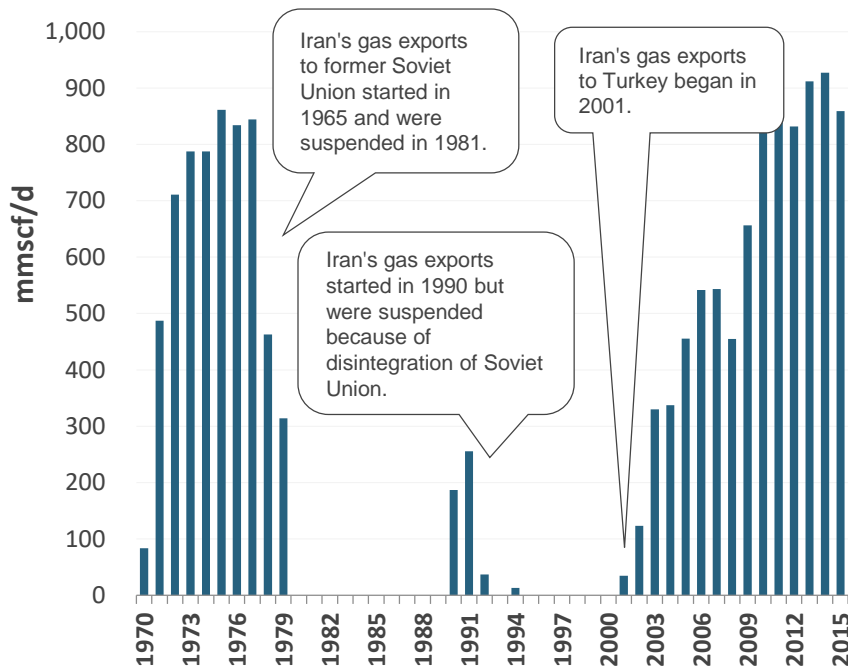
Extensive Gas Infrastructure!

- IGATs: Over 7,850 km of high pressure pipeline network and 2,900 km planned pipeline projects (IGATs 9 and 11).
- 16 gas processing plants with total processing capacity of 24 bscf/d (6 gas processing plants are located in Assaluyeh).
- 6 under construction and 3 planned gas processing plants.
- 17 gas/NGL plants with a gas processing capacity of 4 bscf/d.
- 2 under construction and 6 planned NGL projects.



Pipeline Exports is the Cornerstone of Iran's Gas Export Policy!

Iran's Gas Exports by Pipeline



- A major part of this gas can be exported by pipeline to the neighboring countries; Iran has the potential to export an additional 3-4 bscf/d of gas by pipeline to the Gulf market. This potential gas exports by pipeline to the Gulf market would be equivalent to some 20-30 mmtpa of LNG for the country.

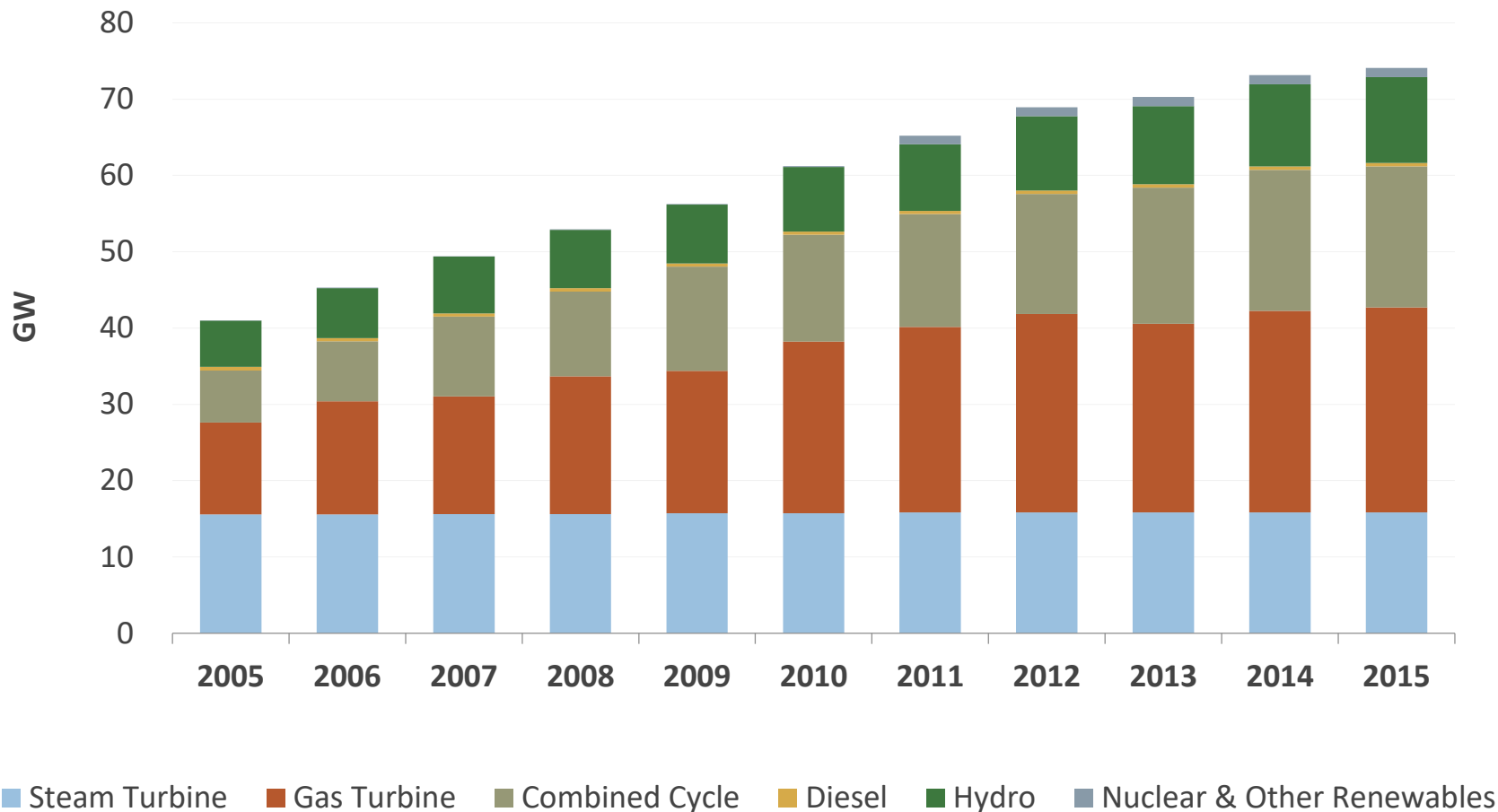
Will Iran Export LNG?



- As the EU and US nuclear-related sanctions have been lifted, Iran will be able to resume construction of the Iran LNG project and the project is now likely to become operational sometime in 2021/2022.
- Although the project is still on hold, Iran has spent nearly US\$2 billion on this project since 2009, therefore Tehran remains intent on developing it.
- With lifting of the sanctions, there may be few other options for Iran to export LNG in the future. These options could be:
 - Utilization of Qalhat LNG in Oman.
 - Possible use of the Das Island LNG facilities in Abu Dhabi.
 - Few small/mid-scale LNG/FLNG projects, each with 1.0-2.5 mmt of liquefaction capacity.

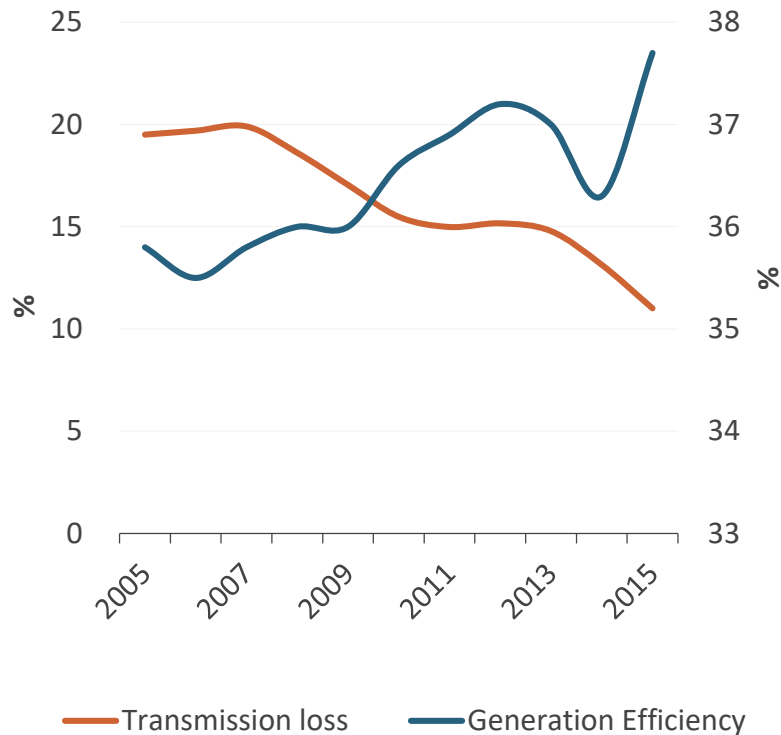
Iran's Power Generation Capacity

The country plans to expand its total installed capacity from the current 74 GW to 100 GW by 2020 and later to 120 GW by 2025.

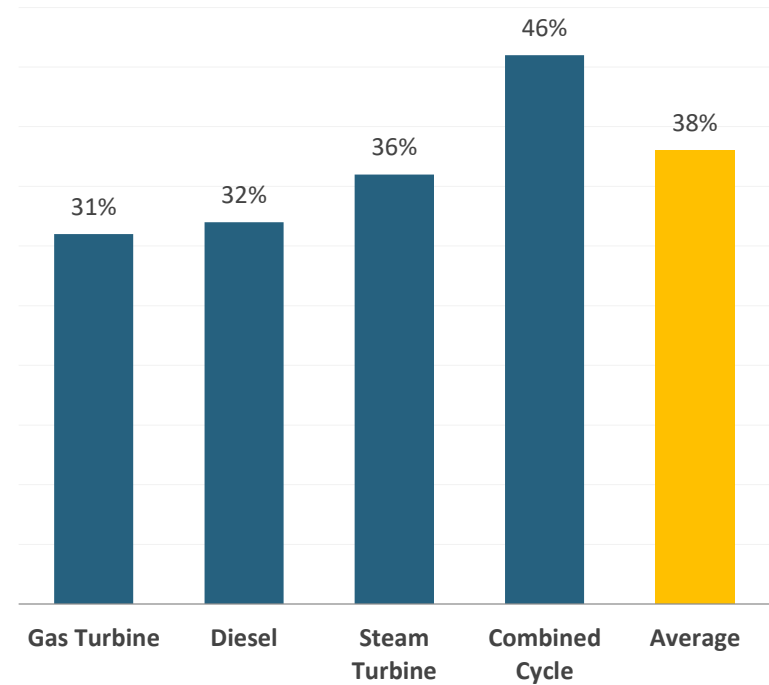


Efficiency and Loss in the Iranian Power System

Efficiency in Power Transmission and Generation



Efficiency in the Iranian Power Plants (2015)



SWOT Analysis for Doing Business in Iran

Strengths

- Well established regulatory framework
- Suitable tax regime.
- Availability of young, talented, and skilled work force.
- Well developed infrastructure (roads, airports, ports as well as oil/gas pipelines and processing facilities).

Weaknesses

- Strong government influence on the business.
- High level of corruption. Beware of several middlemen!
- General instability in the Iranian economical and political systems.
- Lack of international management expertise in the Iranian system. Iranians are generally talented businessmen (so called "Bazari") but they don't have international experience in management and/or professional partnership.

Opportunities

- Untouched and unique market for foreign companies: Several business opportunities for investment in the Iranian oil and gas upstream, and/or downstream sectors.
- Business opportunities for oil, gas, and product trades (NIOC and private players).
- Novelty in doing business with Iran.

Threats

- Change in the US government policies against Iran.
- Radical change in the Iranian political system especially after the Iranian presidential election in 2017 (return of a conservative president).



Thank You

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