Iran's gas exports: can past failure become future success?

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Outline

1. Iran's failure in becoming a major gas exporter
2. Obstacles to Iranian gas exports
3. Outlook: turning past failure into success?

– Findings from a study published by the OIES at:
  http://www.oxfordenergy.org/wpcms/wp-content/uploads/2013/06/NG-78.pdf

Iran's failure in becoming a major gas exporter

- Iran holds the world’s largest gas reserves
- Ambitious export plans announced by Iranian officials
  - 10%-share of global gas trade

Source: Pana News (2013, 16 April)

- In reality, net-importer with exports of only 8.4 bcm in 2012
- Exports of world’s top-5 all above 50 bcm/y
  - Russia (200 bcm/y), Qatar (125 bcm/y), Norway (111 bcm/y), Canada (84 bcm/y), Algeria (50 bcm/y)

Source: BP (2013)

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Current export projects

Turkey

- Contract for 10 bcm/y
- 2012: 7.5 bcm

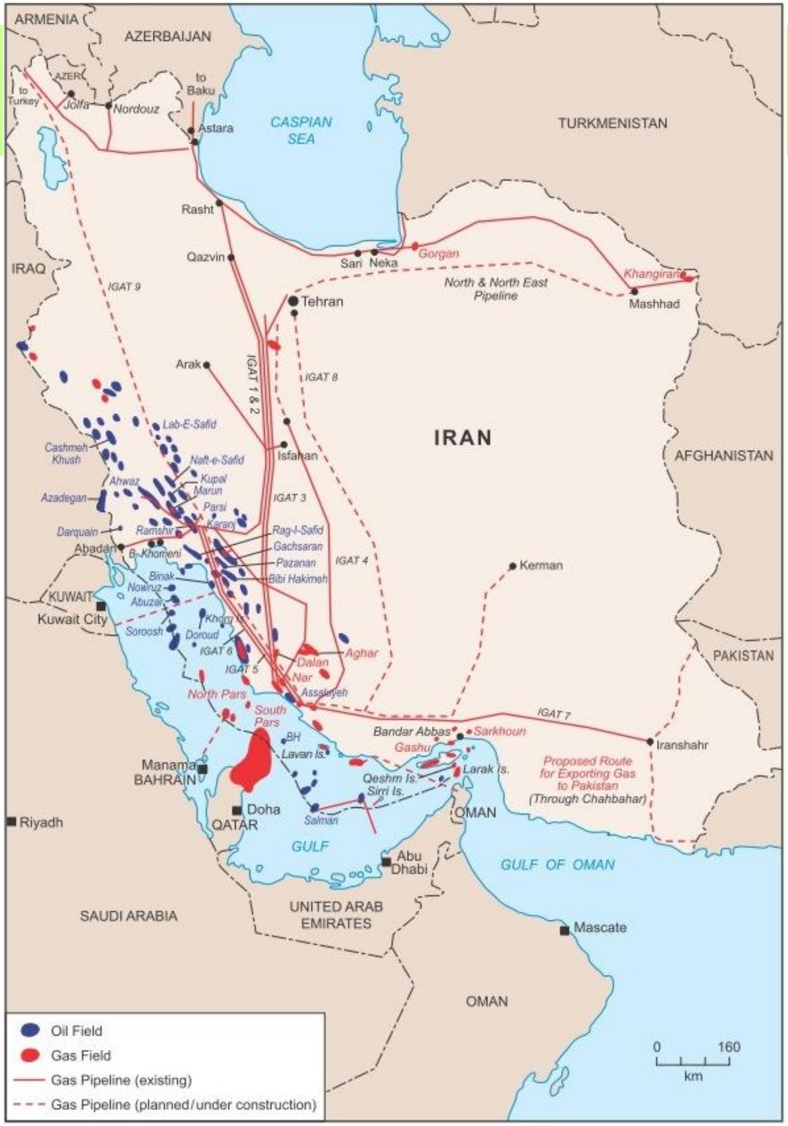
Armenia

- Pipeline capacity of 2.3 bcm/y
- 2011: 0.5 bcm

Azerbaijan

- Swap-Deal for Azerbaijani enclave
- 2011: 0.25 bcm

Source: BP (2013)



Source: Adibi and Fesharaki (2011; updated)

Envisaged export projects of the past decade

By Pipeline:		
Country	*Year of contract/latest MoU*	*bcm/y*
Pakistan	2009 (Contract)	8
Switzerland (EGL/TAP)	2007 (Contract)	5.5
Iraq	2013 (Preliminary Contract)	7.3-9.1
Syria	2011 (MoU)	5.5-7.3
Kuwait	2010 (MoU)	3.1
Bahrain	2007 (MoU)	10.2
Oman	2005 (MoU)	8
UAE	2001 (MoU)	5.2
Total envisaged pipeline export quantities		**52.8-56.4**
By LNG:		
Iran LNG		15
Pars LNG		14
Persian LNG		22
Golshan LNG		14
Lavan LNG		3-4
North Pars LNG		28
Qeshm LNG		4-5
Total envisaged LNG export quantities		**100-102**
Overall:		
Total envisaged gas export quantities		**152.8-158.4**

Source: Jalilvand (2013)

Obstacles to Iranian gas exports

External: Sanctions

- Significant only since 2010
- Main Effects
  - Western companies left Iran
  - European market out of reach (‘geopolitics of gas trade’)
  - No access to latest LNG technology

Internal:

- Subsidies
- Objections to foreign participation
- Policy and institutional conflicts

Subsidies (1)

- For decades, natural gas available at highly subsidized prices
- Poor energy intensity
  - Worse than average of Middle East (1.8x), World (3.6x); OECD (6.4x)

Source: IEA (2012), 48-57

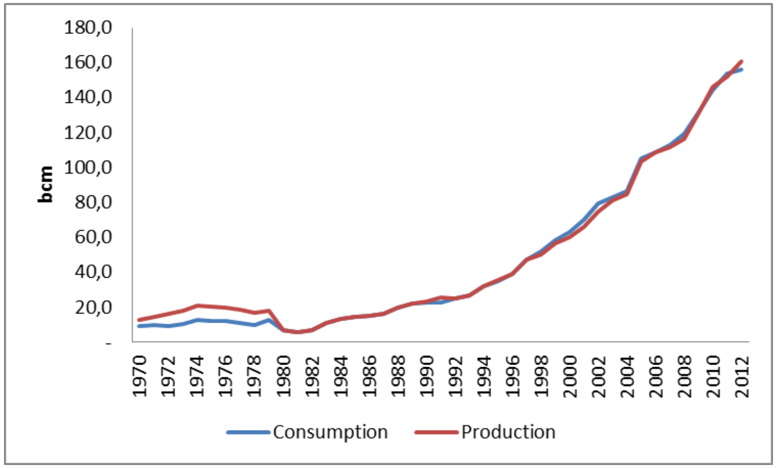
- Subsidy-Reform under way since December 2010
  - But currently halted by Parliament

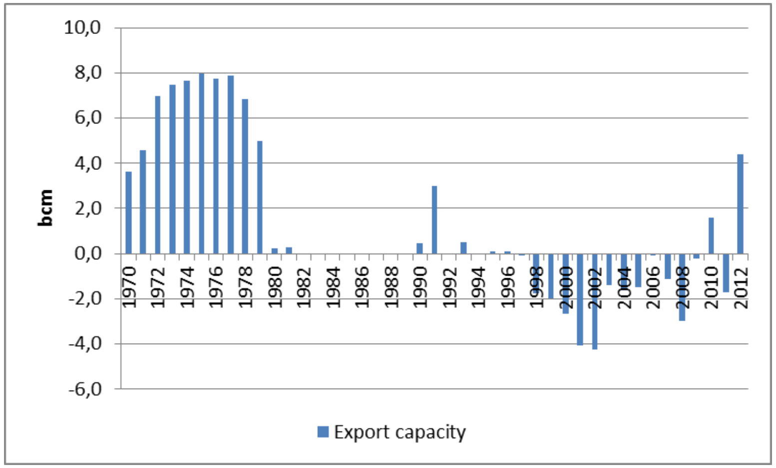
	pre-2007	Summer 2011	by 2015/2020
Residential and commercial	$0.4/mmBtu	$3.1/mmBtu	75% of export price index (2015) (at the end of February 2013, this would have been $9.8/mmBtu)
Industrial	$0.53/mmBtu	$2.0/mmBtu	65% of export price index (2020) (at the end of February 2013, this would have been $8.5/mmBtu)

Source: Adibi (2011)

Subsidies (2)

- Consequence: domestic over-consumption
  - Any increase in production was absorbed by the domestic market
  - No spare capacity available



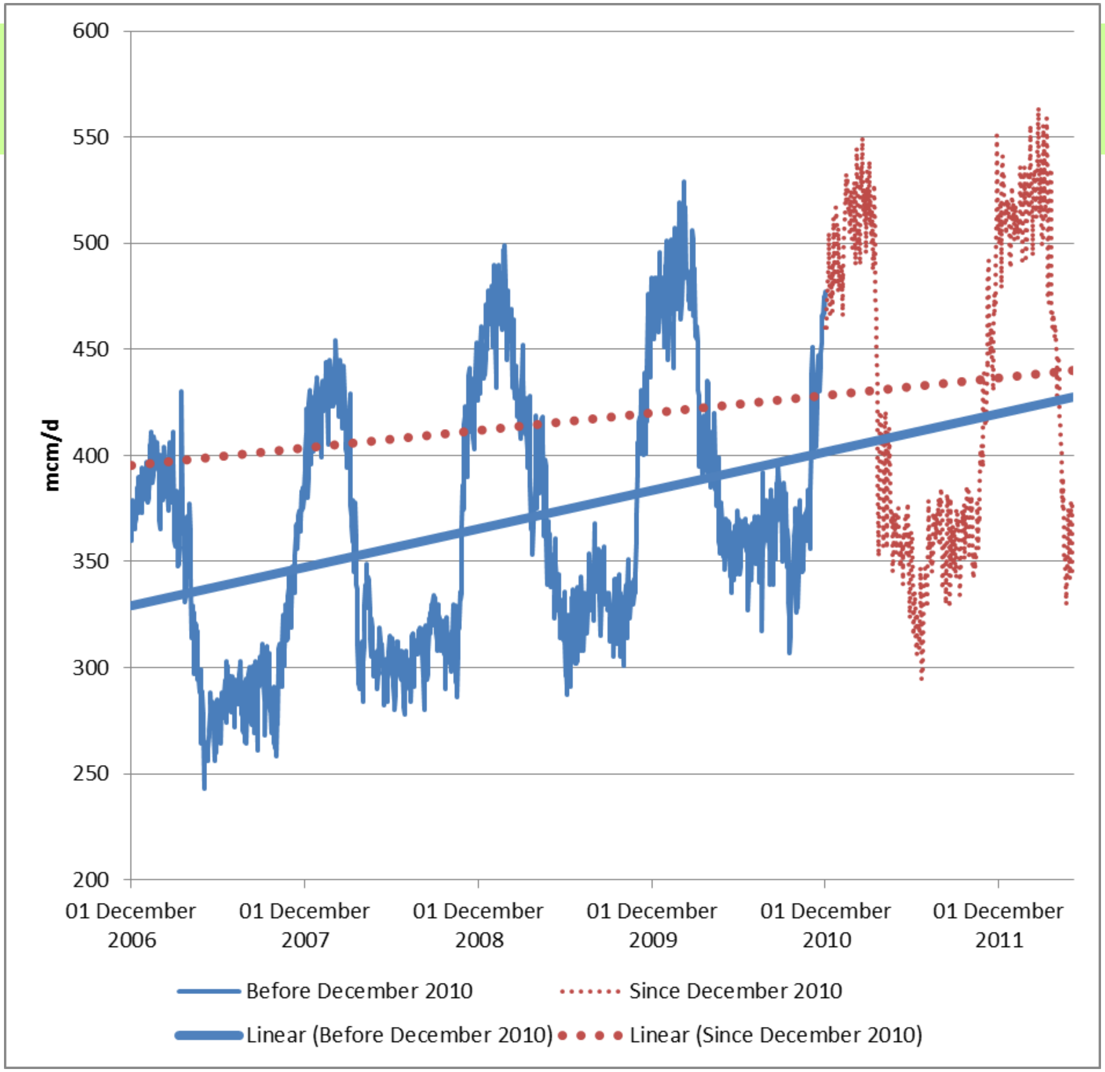


Source: BP (2013)

Subsidies (3)

- Increase of prices reduced growth in domestic consumption
- New peaks predicted by NIGC:
  - 800 mcm/d in 1392 (2013/14)
  - 895 mcm/d in 1393 (2014/15)
  - 950 mcm/d in 1394 (2015/16)
  - 437 mcm/d in 2007

Source: Shana (2013, 19 February); NIGC (2013)



Source: NIGC (2013)

Objections to foreign participation

- In response to historical experiences (D'Arcy Concession/AIOC,…), significant objections to foreign participation since 1979 revolution
- In the energy sector -> buyback-scheme
  - Reducing the role of any foreign partner to that of a service-provider
- Buyback-scheme did not prevent co-operation but reduces its attractiveness for international companies

Policy and institutional conflicts

Policy

– Exports vs. domestic use (re-injection into oil fields, electricity generation, feedstock for industry,…)

Institutional

– Organisation of responsibilities among Ministry of Petroleum, Ministry of Energy, NIOC and subsidiaries

– Interference in the energy sector from political branches

Outlook: turning failure into success? (1)

What would be necessary for Iran to become a major natural gas exporter? (i.e. exports of more than 50 bcm/y or so)

- Create a sufficient export capacity
- Secure contracts

Outlook: turning failure into success? (2)

Creating a sufficient export capacity:

- Full implementation of subsidy reform
  - Increasing marketable production at a faster rate than domestic consumption
  - Addressing the question of flaring and losses (37 bcm in 2011)

Source: Cedigaz (2012)

Outlook: turning failure into success? (3)

Securing contracts:

- Rationalize relations among politics and energy sector
  - Stop politics from interfering in negotiations
  - Provide effective framework
- Improvement of Iranian-Western relations
  - Access to European market; access to LNG technology; Western technology for development of gas industry
- Embracing the benefits of a changing gas market in Europe
  - Spot-Pricing as opposed to long-term oil indexation
  - ‘Norwegian model of taking over shares from Russia’

Conclusions

- In principle, sufficient potential for exports of > 50 bcm/y
- Sanctions 'only' add to domestic obstacles
- Several issues need to be addressed for Iran to become a major exporter
  - Full implementation of subsidy-reform -> export capacity
  - Rationalize relations among politics and energy sector
  - Improvement of Iranian-Western relations
  - Embracing the benefits of a changing gas market in Europe

Thank you very much for your attention!

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