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REVENUE WATCH INSTITUTE

A Ticking Bomb?

Iran's Oil and Gas Management

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Summary

Understanding Iran's management—and mismanagement—of oil and gas is vital to assessing the potential impact of international sanctions. Since 2005, oil and gas production has generated over $500 billion in government revenues. However authorities have failed to invest in economic development and have veiled their management in secrecy.

We believe the government has violated its own rules for oversight of the revenues. In 2000, the government began saving some of its oil revenues in an oil stabilization fund (OSF). We estimate that the OSF should have received $36 billion more between 2005 and 2011 than what the government has reported. Based on our analysis of data from the Central Bank of Iran and the IMF, we also estimate that the government withdrew over $150 billion from the fund between 2006 and 2011 without clear economic justification.

The government has spent a growing part of its budget on domestic energy subsidies, totaling at least $50 billion a year, about 15 percent of the national budget. In 2010, President Ahmadinejad announced a gradual end of subsidies by 2015, but his creation of an "oil-to-cash" transfer program, awarding about $40 a month to over 70 million citizens, costing about $45 billion a year.

In an unintended consequence, international sanctions have strengthened the economic power of Iran's Revolutionary Guard Corps, as restrictions on foreign investment in Iran have taken hold. The Revolutionary Guards' expanding role in the oil sector has also marginalized Iran's private sector in the most important part of the economy. This has in turn helped the Revolutionary Guards and the charitable trusts known as bonyads capture a greater share of oil revenues, further undermining economic development and democracy.

The current political environment makes it hard to imagine immediate change in Iran's oil and gas management, but it poses large risks for the government. High levels of poverty and unemployment, the opaque and unaccountable management of enormous revenues and, not least, the example of revolts in Arab countries, can combine to drive domestic demands for change. If candidates promise to promote the more effective use of oil and gas money, the presidential election in 2013 could become an opportunity for genuine reform.

Introduction

New U.S. sanctions targeting Iran's energy sector and the European's Union decision to end imports of Iranian oil highlight the fundamental importance of oil and gas to Iran's economic and political future. Understanding the management of money from oil and gas provides key insights into the effectiveness of sanctions and the potential for political reform.

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Since the 1960s, the oil and gas sector has fallen from an average of 40 percent of GDP to about 10.5 percent. However, revenues from oil and gas accounted for 65 percent of budget revenues and over 70 percent of export earnings over the last decade. They are destined to remain by far the main source for financing Iran's development.

As a presidential candidate in 2005, Mahmoud Ahmadinejad promised to bring the country's oil money to every household. However, his administration's higher public spending does not offset stagnant production, or poor overall economic performance. GDP growth per capita declined from an average 3.5 percent per year between 1997 and 2004 to 1.5 percent between 2005 and 2010. Over the same period, oil revenue per capita increased from $345 to $815.

Iran's management of oil and gas revenues is, by any measurement, opaque.[1] The lack of transparency and accountability of state firms and entities such as the National Iranian Oil Company has permitted the diversion of a significant share of the profits Iran collects into the hands of Iran's Revolutionary Guards.[2]

Though the actual impact of economic sanctions is impossible to predict, a radical change in the management of oil and gas money is indispensable to ensure Iran's long term prosperity and stability. Although external pressures may allow the current regime to limit domestic discontent, parliamentary elections on March 2 and the presidential election in 2013 could crystallize public opposition, which could in turn help redefine how oil and gas money is used in Iran.

Iran's dependency on oil and gas

Iran produces about 4 million barrels of oil per day, second only to Saudi Arabia within the Organization of the Petroleum Exporting Countries. Iran holds over 10 percent of the world's proven oil reserves, but lack of investment and the maturity of existing oilfields have undermined production capacity and exports. Between 2005 and 2010, domestic oil consumption grew by over 2 percent per year while production slightly fell, reducing earnings from oil exports.

Iran also has the second largest gas reserves in the world, after Russia. Although production has grown rapidly over the last 20 years, Iran consumes most of its gas domestically, and it faces technical challenges. The large off-shore South Pars field, which Iran shares with Qatar in the Persian Gulf, could meet growing demand and increase exports. Thanks to greater technical skill and investment, Qatar extracts 70 percent more gas than Iran.[3]

Over the last decade, Iran generated over a trillion dollars in rents from the oil and gas sector (Table 1). Windfalls from oil represent almost 80 percent of the total.

1 Iran ranks in the bottom third of Revenue Watch Transparency Index: http://www.revenuewatch.org/rwindex2010)

2 See Mahdavi (2012) and Wehrey at al. (2009) Chapter 5 page 55-70

3 http://www.crethiplethi.com/iran-s-revolutionary-guards-strike-oil/islamic-countries/iran-islamic-countries/2012/

Table 1

Oil and Gas rents[4]
2000-2011 (in billion $)

* Estimates
Source: Calculations based on IMF and Central Bank of Iran data

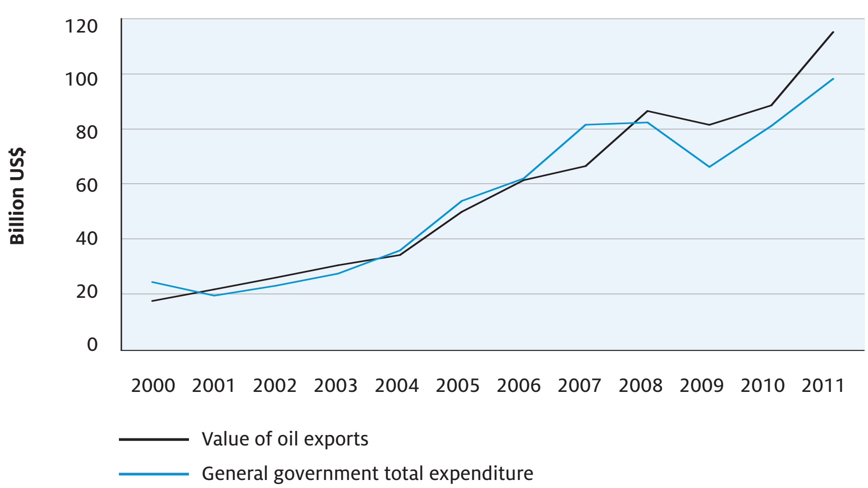
Year	Oil rent	Natural Gas rent	Total
2000	33.0	7.0	40.0
2001	27.4	7.0	34.4
2002	26.0	5.8	31.8
2003	33.6	10.8	44.4
2004	48.8	13.1	61.9
2005	73.2	22.5	95.7
2006	86.9	24.0	110.8
2007	93.3	26.8	120.2
2008	132.9	41.2	174.1
2009	77.6*	24.0*	101.6
2010	104.0*	27.3*	131.3
2011	140.1*	37.2*	177.3
Total	**876.8**	**246.9**	**1,123.7**

The government's reliance on this money to finance public expenditure undermines its ability to shelter the economy against a sudden drop in prices, as happened in 2008 when prices dropped from $140 to $40 per barrel in less than six months. The vulnerability to price changes has severe social consequences; for example, unemployment jumped from 9.9 percent in 2008 to over 15 percent in 2011. Graph 1 illustrates the correlation between the value of oil exports and government expenditure between 2000 and 2011.

Graph 1

Iran oil exports and total expenditure
2000-2011 (in billion $)

Source: IMF World Economic Outlook



A weak revenue management system

Iran has developed various mechanisms to address its dependency on energy resources. In 2000, the government created an oil stabilization fund (OSF) to save a portion of oil windfalls as protection against the effects of price changes. According to the government's published rules, 85.5 percent of oil and gas exports earnings in excess of the amount earmarked for the national budget go to the fund.[5]

4 Oil and gas rents are calculated as the difference between international market price and average production cost multiplied by the production volume. Figures probably overestimate rents-particularly for the gas sector- because production is not sold on international markets but foes into domestic consumption and injections into the oil fields. However the figures presented represents the potential revenue Iran could generate from oil and gas.

5 IMF (2011) Figure 3, Page 8

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But not all has gone according to the rules. Former Deputy Oil Minister for International Affairs Hadi Nejad-Hosseinian reported that "instead of using the money to extend loans to the private and public sectors, the funds are being used to make up for budget deficits…A major challenge to the economy at present is that the government is competing with the people to control the economy."[6]

Table 2

Oil Stabilization Fund (in Billion $) 2000-2011

Year	Inflows	Outflow	Fund Balance
2000	5.9	0	5.9
2001	1.8	0.8	6.9
2002	5.9	5.1	7.7
2003	5.8	5.4	8.1
2004	10.4	9.4	9.1
2005	13	11.5	10.6
2006	21.6	23	9.5
2007	34.3	24.7	21.6
2008	n.a.	21.6*	n.a.
2009	n.a.	22.6*	n.a.
2010	n.a.	23.6*	n.a.
2011	n.a.	39.2*	24.4*

* Estimate ; n.a: data not available

Source: Calculations based on IMF and Central Bank of Iran data

After his election in 2005, President Ahmadinejad introduced reforms aimed at fulfilling his promise to give citizens a larger share of energy revenues. Public spending jumped from $34 billion a year to about $50 billion between 2005 and 2006 and will rise to an estimated $90 billion in 2012. A growing part of the budget paid for fuel subsidies—at least $50 billion a year, 15 percent of the government's annual budget. Ahmadinejad also introduced direct transfers of cash to citizens, such as through the Imam Reza Love Fund to pay the cost of weddings.[7]

In December 2010, the rising cost of energy subsidies, the impact of the world economic crisis and increasing pressure of international sanctions led the government to reform the subsidy program. President Ahmadinejad announced a gradual end of subsidies by 2015 (payments that benefited 80 percent of the population) and the start of direct cash transfers. Phasing out subsidies is also intended to curtail domestic consumption of oil and gas, which are among the highest per capita in the world.

The "oil-to-cash" transfers originally targeted the poorest part of the population. However, bad administration and enforcement have enlarged the program, which now awards about $40 a month to over 70 million Iranians. The transfer program has played a key role in limiting discontent with price increases. The cost of the cash transfer program is estimated at $45 billion a year.[8] Although the program is supposed to be temporary, the government will find it difficult to end, even as it continues to drain public finances.

6 Cited in Mahdavi (2012)

7 Pasaran (2012) Page 51-52

8 $30 billion in cash to individuals and $15 billion in transfers to companies – See Guillaume et al. (2011)

Another major reform took place in 2009, when the government created the National Development Fund (NDF) to replace the OSF. Rules for the NDF allocate the oil and gas profits based on oil price assumption as follows:[9]

- 63.5 percent to the national budget
- 20 percent to the NDF
- 14.5 percent back to the National Iranian Oil Company (NIOC)
- 2 percent to impoverished and oil-based regions

While public data on accruals to the two funds and their actual balance is unavailable after 2008 (table 2), we estimate NDF balance to be $24.4 billion (roughly 2 percent of GDP), based on recent statements by officials.[10]

Overall, the reforms have had minimal impact. According to Iran's Department of Statistics, 10 million Iranians—over 13 percent of the population—lived in absolute poverty in 2010.[11] Between 2005 and 2008, Iran earned as much from the oil and gas windfall (about $220 billion) than in the previous sixteen years (from 1988 to 2004). But economic growth averaged 4.8 percent between 2005 and 2010, short of the 8 percent goal set in the 4th Development Plan (2005-2010). Iran's fiscal policy also maintained inflation at about 15 percent a year between 2005 and 2010.

President Ahmadinejad had the good fortune to come into office during a rising oil price cycle, interrupted only by a sudden drop at the end of 2008. Increased revenues allowed high public spending but provided no incentives to manage the revenues with greater transparency.

Where did the money go?

Since 2005, oil exports generated over $500 billion in government revenues, but the government failed to translate this into economic gains. Between 2005 and 2011, the budget was based on a conservative oil price below its actual average, which should have led to significant additional savings in the OSF and the NDF. If Iran had adhered to the OSF rules, we estimate that inflows to the fund would have totaled $90 billion between 2005 and 2007. In practice the government deposited $69 billion between 2005 and 2007(table 3).

Since 2008, the Central Bank of Iran has stopped disclosing information about money coming in and out of the OSF and NDF. Despite this secrecy, we calculate that deposits over the last four years should have totaled $134 billion. That is, the funds should have received over $36 billion more between 2005 and 2011—if the government had followed its own revenue management rules[12]. This discrepancy does not take into account potential earnings from the financial investments of OSF monies.

The absence of clear rules for withdrawals marks another fundamental weakness in Iran's revenue management. According to the government's original plan, withdrawals are allowed only when the government's oil export receipts cannot cover public expenditures[13]. Although the government had a rationale for withdrawals to offset the world economic crisis and the temporary drop in oil prices in 2008-09[14], the argument for other, large withdrawals appears difficult to make. Indeed, the government drew over $150 billion from the two funds between 2006 and 2011 without clear economic justification.

9 See note 5

10 http://www.tehrantimes.com/economy-and-business/93631-national-development-fund-allocates-500m-to-cooperatives-bank

11 http://www.payvand.com/news/10/may/1316.html

12 Unconfirmed reports speculate that up to $200 billion of Iran's currency reserves have gone missing during Ahmadinejad's Presidency. See: http://ireport.cnn.com/docs/DOC-624163

13 Based on rules set in the Third and Fourth Five-Year Development Plans. See Mahdavi (2012), page 250-251

14 Iran's economic growth remained positive despite the crisis and the budgeted oil price stayed above Iran light oil annual price average

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Table 3

Actual vs. Theoretical OSF Deposits (in billion $) 2005-11

Year	Oil Price ($ per barrel)	Budgeted oil price ($ per barrel)	Actual inflows	Theoretical inflows	Outflow
2005	53.35	40.00	13	17.66	11.5
2006	64.27	33.70	21.6	39.59	23
2007	71.13	33.70	34.3	47.18	24.7
2008	97.04	39.70	?	74.79	21.6*
2009	61.78	37.50	?	31.64	22.6*
2010	79.03	65.00	?	18.62	23.6*
2011	103.99*	81.50	?	29.83	39.2*

* Estimate

Source: Calculations based on IMF, OPEC and Central Bank of Iran data. Based on Brent prices.

A comparison between the government's total revenues and expenditures underscores the magnitude of the money outside the state's budget control: Over the last decade the difference between revenues and spending reaches close to $200 billion—an amount that, by any normal measure, remains unaccounted for.

The lack of transparency makes it practically impossible to follow oil and gas money. The government's regular practice is to present its budget to parliament without details and not to release data to the public. In July 2007, President Ahmadinejad further restricted the flow of financial information by dissolving the Management and Planning Organization, the government body in charge of preparing and monitoring the annual budget and medium-term planning.

Such pervasive secrecy prevents public scrutiny of how the government manages Iran's public assets and undermines the effective use of money for the public good. Not least, the lack of transparency facilitates corruption and misuse of funds. We believe the lack of transparency helps explain allegations over the last year of large-scale corruption by the president's allies.[15]

The National Iranian Oil Company, which is at the center of financial flows in the oil sector, plays a critical role in collecting proceeds from exports and is entitled to 14.5 percent of the revenues. As a major operator in developing Iran's reserves, it also allocates billions in contracts every year. Yet it provides scant financial information and ranks at the bottom of Transparency International/ Revenue Watch companies transparency Index.[16]

NIOC's governance has deteriorated significantly under President Ahmadinejad's administration. NIOC used to make public annual reports and audits, but has not released these documents since 2005. During Mohammad Khatami's presidency (1997-2005), a contractual framework that allowed NIOC to share production with international oil companies forced NIOC to open its books in exchange for greater interaction with companies like Inpex, Shell, and Total.

A large share of oil and gas revenues has gone to the bonyads[17] and the Iranian Revolutionary Guard Corps (IRGC).[18] For example, the Bonyad-e Mostazafan (the Oppressed and Disabled Foundation), which reported profits of $480 million in 2008, operates more than 170 companies in Iran and

15 For instance: http://www.reuters.com/article/2012/02/17/us-iran-politics-idUSTRE81G0MK20120217 and http://www.insideiran.org/media-analysis/ahmadinejad-tied-to-billions-lost-in-corruption-case/

16 See: http://www.revenuewatch.org/publications/promoting-revenue-transparency-2011-report-oil-and-gas-companies

17 Bonyads (foundations) are Islamic semi-private organizations created after the revolution in order to manage the confiscated assets of key players in the Shah regime. Bonyads mandate was originally to increase the welfare of the poor by managing seized assets and allocating profits among the poor.

18 The Islamic Revolutionary Guard Corps was founded at the order of Ayatollah Khomeini at the start of the revolution to protect the Islamic revolution from external and in particular internal enemies. Article 150 of the Constitution assigns the IRGC the "role of guarding the Revolution and its achievements".

abroad and has significant interests in the oil sector.[19] Bonyads controlled an estimated 10–20 percent of Iran's GDP in 2009.[20]

The Revolution Guards' role in the economy began growing in 1988, after the war with Iraq. Since then, the IRGC it has gained control of as much as a third of the economy.[21] Khatam al-Anbia—an IRGC subsidiary—has become the largest contractor with the Iranian government, managing 1,500 national projects in the last four years. In July 2011, President Ahmadinejad appointed IRGC Maj. Gen. Rostam Qassemi as oil minister, bringing the number of former IRGC officers in the cabinet to 12 out of 18.

In an unintended consequence, international sanctions have actually strengthened the IRGC's economic power, as few foreign firms risk investing in the country and as the IRGC marginalizes the domestic private sector. In 2011, a senior oil ministry official, Mahdi Fakoor, announced that the IRGC's key subsidiary, Khatam-al-Anbia, would develop two gas fields in the south of the country without tender.[22] According to the BBC, the oil ministry in 2011 awarded projects valued at $21 billion in the South Pars gas field to domestic firms, with the IRGC taking more than half.[23] The Revolutionary Guards are also involved in oil and gas transmission pipelines. For example, early in President Ahmadinejad first term, the IRGC was awarded a gas pipeline project worth $1.3 billion. In 2009, the Revolutionary Guards won contracts for road, dam, oil and gas projects worth $15 billion.[24]

Under President Ahmadinejad, the IRGC has also gained privileged access to the OSF. In 2009, the IRGC received $1 billion from the fund to address its credit constraints and develop the South Pars gas field.[25] The IRGC has also established its several banks, including Ansar Bank and Mehr Finance and Credit Institution.

Iran's uncertain future

No one can predict with certainty the economic impact of the sanctions against Iran. Unless all nations strictly observe an embargo on imports of Iranian oil, the most likely effect is that countries ignoring the sanctions will buy more oil from Iran, which will thus maintain export levels.[26] Closure of the Strait of Hormuz would cause a profound dislocation of oil markets, with major geopolitical and economic consequences for Iran and the world.

Iran's increasing isolation only worsens its governance of oil and gas revenues. As the government exploits external threats to justify secrecy about those revenues, the IRGC and the bonyads are tightening their control over the sector. This undermines the already extremely limited ability of parliamentarians, media and civil society to monitor and to hold the government to account. Following the aborted "Green Revolution" in 2009 and the rise of external threats, civil society is in a weak position to challenge the regime.

The current political environment makes it hard to imagine immediate change in Iran's oil and gas management. But dependency on oil and gas revenues makes Iran economic development vulnerable to oil price volatility.

There are also larger political risks for the government: High levels of poverty and unemployment, the

19 One of its holdings is the Sina Energy Development Company, which has five sub-companies: Petro Khazar, Nasir Energy Development, Pars Energy Development, Payandan, and Pars Tatnaft Kish. Mostazafan Bonyad is also active in oil marketing. In 2008, for the first time in the post-revolutionary period, the Iranian Oil Ministry awarded the right of selling Iranian oil to the Mostazafan Bonyad as a private company.

20 See Thaler (2010) Page 58

21 http://www.bbc.co.uk/news/world-middle-east-10743580

22 http://ca.finance.yahoo.com/news/Iran-Revolutionary-Guard-capress-3936077278.html?x=0

23 http://www.bbc.co.uk/persian/iran/2011/02/110226_ka_sepah_khatam_oil.shtml

24 http://www.bbc.co.uk/persian/business/2010/06/100605_l01_elec_anniv_khatam.shtml

25 http://zamaaneh.com/news/2009/12/post_11607.html

26 http://www.econbrowser.com/archives/2012/01/iranian_oil_emb.html

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opaque and unaccountable management of enormous revenues and, not least, the example of revolts in Arab countries, can combine to drive domestic demands for change. Divisions within the ruling elite are becoming more public, and tensions between President Ahmadinejad and Ayatollah Khamenei are growing.[27] The presidential election in 2013 may be the next best opportunity for reform, if candidates promise to take steps to promote the transparent, accountable and effective use of oil and gas money.

Though there would be many challenges, practical reforms include the following:

- Establishing clear rules for accruing and withdrawing the NDF's oil and gas revenues.
- Increasing saving into the NDF to reduce the effects of sudden drops in oil prices.
- Changing NIOC corporate governance to ensure greater financial transparency in line with international accounting standards.
- Publishing in full the president's proposed budget, the enacted budget as well as audit reports in a timely, regular manner to enable public oversight of the use of oil and gas wealth.
- Restoring the authority and independence Management and Planning Organization to audit Iran's budgets and medium term plans.
- Establishing competitive procurement for all awards related to oil and gas sector.
- Requiring full disclosure of financial and operational business and charitable activities of the Bonyads and the IRGC.
- Stimulating competition from private sector companies to generate economic growth in the non-resource sector.

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27 http://www.nytimes.com/2011/10/27/world/middleeast/in-iran-rivalry-khamenei-takes-on-presidency-itself.html

The Revenue Watch Institute promotes the effective, transparent and accountable management of oil, gas and mineral resources for the public good. Through capacity building, technical assistance, research, funding and advocacy, we help countries to realize the development benefits of their natural resource wealth.

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