Summary

A close review of the Iran nuclear agreement, the Joint Comprehensive Plan of Action (JCPOA), has exposed a major divergence between estimates of the Iranian government's assets held abroad. A clear valuation of these assets is critical to understanding some of the short-term and long-term economic implications of the agreement and the resources Iran's government might have available to support the domestic economy, its regional partners like Syria, and its terrorist proxies like Hezbollah. We estimate that the Iranian government has about $90-$120 billion in foreign assets, of which $40-$60 billion is held in oil escrow accounts.

Despite prior estimates that Iran had foreign reserves of well over $100 billion that could be unlocked by sanctions relief, U.S. and Iranian officials now suggest that these assets are much smaller in volume, and that many are already allocated to international projects or belong to private companies and banks. The implication of this lower valuation is that the value of new funds available to support Iran's regional or domestic priorities is much smaller. We believe that an accurate and objective understanding of the value of Tehran's assets held abroad is useful for policymakers to assess the deal and the economic benefits to Iran that will arise from it.

In this piece, we review estimates of Iran's foreign assets, try to identify their key owners, assess some of the liabilities Iran may have accrued, and highlight how the release of funds from escrow accounts and other frozen accounts is likely to affect Iranian economic growth and resilience. We have focused our analysis on oil revenues held in escrow as a result of the "February 6" provision of the Iran Threat Reduction Act of 2012, which requires purchasers of Iranian oil to deposit revenues owed to Tehran as payment in escrow accounts starting on February 6, 2013. We also update our estimate of the impact of sanctions relief and other economic consequences of the agreement.

- **February 6 escrow accounts are sizeable:** We estimate that the value of foreign assets held by the government in foreign February 6 escrow accounts is between $40 and $60 billion. This amount does not include foreign assets, including frozen funds, which the Iranian government or government-owned entities accrued prior to February 2013. We estimate that the February 6 escrow assets are roughly split between accounts in China, Japan, Turkey, and India. Iran has mostly spent its savings in South Korea.

1. For example, "Iran to Have Access to Over $100 Billion When Deal Implemented: U.S. Officials," Reuters, July 14, 2015. ([http://www.reuters.com/article/2015/07/14/us-iran-nuclear-usa-details-idUSKCN0PO14D20150714](http://www.reuters.com/article/2015/07/14/us-iran-nuclear-usa-details-idUSKCN0PO14D20150714))

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• **Access to escrow accounts is not Iran’s only source of foreign assets:** We estimate Iran’s government has around $90-120 billion in official foreign assets, including the $40-60 billion in escrow accounts explained above. Based on an aggregate of estimates from the U.S. government, International Monetary Fund (IMF), and our assessment of trade flows, we determine that Iranian entities have at least another $50 billion in foreign assets beyond what is in the February 6 accounts. Some of these foreign assets may be cancelled out by losses in business ventures at home or abroad, while in other cases, they are backed by domestic liabilities – meaning they cannot be used for new spending. Still, because all of these funds are used to support Iran’s domestic economy, they should be counted towards the total amount of sanctions relief Iran will receive under the JCPOA.

• **Iran’s economic benefits from the nuclear deal are not limited to the release of frozen assets:** Iran is also on track to receive around $20 billion annually in new oil-exports revenue, assuming those export volumes rise by 1 million barrels per day and global oil prices remain around $50 per barrel. Over the coming years, these revenues should grow as oil prices rise. In addition, sanction suspensions will likely pave the way for increased petrochemical and non-energy exports while reducing the transaction costs of imports.

• **Iran has already been drawing down some foreign assets:** In addition to the funds to which Tehran gained direct access via the November 2013 interim nuclear agreement ($11.9 billion), the regime has drawn down the funds in some of its February 6 escrow accounts by purchasing goods from the countries holding those escrow accounts (notably China, South Korea, and more recently Japan). As oil export volumes flattened, oil prices fell, and imports picked up in mid-to-late 2014, Iran’s pace of accumulating assets in these accounts, particularly in China, slowed to a crawl and for some months reversed as Iran bought more than it sold.

• **Foreign assets are offset by foreign and domestic liabilities:** Although Iranian government entities have sizeable foreign-currency assets, many have reportedly been spent. Some of the funds in the February 6 escrow accounts may have been allocated to foreign joint ventures or may be involved in collateral agreements. It is possible that some have already been pledged as security for foreign trade (as with China) or are backing joint ventures. Other additional foreign assets may belong to private companies or banks. Finally, some of the foreign assets belonging to the Central Bank of Iran (CBI) will be used for liquidity support to avoid currency pressure and smooth out volatility of foreign exchange (FX). Since all of these funds are used to support Iran’s domestic economy, they should be counted towards the total amount of sanctions relief Iran will receive under the JCPOA.

The following report also analyzes the macro-economic implications and value of the sanctions relief in the JCPOA.

• If Iran’s liquid foreign assets are lower than previously implied, the short-term payoff for Iran and the front-loaded nature of the sanctions relief in the JCPOA will come more so as a result of increased oil exports. If Iran’s government has fewer savings to prime the pump for domestic investment, the economy will be even more reliant on attracting foreign investment to develop key sectors. The Rouhani

government's efforts to dampen inflation have tightened domestic liquidity, while lower oil prices and volumes have increased the borrowing of the government. These two factors have reduced the credit available to the private sector for new investment.

- Both liquid and illiquid assets (such as the $20-25 billion allocated to joint ventures in China) should be considered when calculating the value of sanctions relief to the Iranian economy, even if their impact on the local economy will differ. Assets already allocated for upstream energy investment, for example, will improve Iran's economy and help the government take part in this development. This is particularly relevant in the case of China, in which U.S. administration officials have been arguing that already-allocated funds or currently-illiquid assets should not be factored into a valuation of the funds available to support Iran's economy. However, investment in Iran's energy sector will help develop the sector and thus should be included even if they could not be reallocated towards other investments in other sectors.

- We continue to believe that economic growth will accelerate in FY 2016/17 to a 4-5% pace if the nuclear agreement is implemented, with imports (mostly of capital goods) and oil exports growing more quickly, followed more slowly by investment as foreign partners calculate risks in a post-sanctions environment. Iran will likely want to prioritize the import of capital goods over consumer goods as it tries to develop its domestic economy rather than primarily importing consumer goods as it has done in the last four years.

- Calculations of the impact of the release of frozen funds are only part of the economic picture. Iran will also receive relief from the lifting of sanctions on crude oil exports, petrochemicals, the automotive industry, precious metals, and other key sectors, all of which will trigger further economic relief that will be reflected in Iran's improving macroeconomic fundamentals. As with the 2013 interim agreement, which triggered a shift from a severe recession to a modest recovery, this impact of sanctions relief will grow over time, first with Asian and then with European countries likely to dominate investment. The scope and composition of economic benefits will depend significantly on Iranian economic reform and government policies including the terms offered to foreign investors and the split between domestic spending and support for regional allies.

**Estimating the Assets in the February 6 Escrow Accounts**

To better assess the volume of Iran's assets abroad, we conducted a simple calculation to estimate foreign holdings that have accrued from the country's energy trade since the February 6, 2013 measures came into effect. Since then, all of Iran's oil and condensate earnings have been accumulating in accounts abroad. The funds held in escrow could then only be used to finance the trade in goods from countries purchasing Iranian oil. Our estimate draws upon on trade data since February 2013.

We began by estimating the value of oil and condensate revenue that Iran received since January 2013 through oil and condensate trade with the six countries exempt from U.S. sanctions banning the purchase of Iranian crude oil (China, Japan, Taiwan, South Korea, India, and Turkey). These revenues varied significantly by country depending on the volume of oil imports. We then calculated the value of imports financed by oil and gas revenues, and inferred that the remaining funds were saved in the escrow accounts. We have not fully adjusted for any possible FX losses that may have accrued in U.S. dollar terms since the escrow accounts were established, but significant gains made
of the Turkish lira and Japanese yen against the U.S. dollar could have reduced stockpiles in USD terms, limiting Iran's future purchasing power.

When oil prices began to fall in the second half of 2014, imports from some of Iran's trading partners (especially imports from China) far outpaced export revenues for several months, suggesting that Iran was drawing down its assets. Tehran's trade surplus turned into a deficit in the second half of that year (i.e. it imported more than it exported), and its overall external balance (or current-account balance) shifted to a small surplus. Based on IMF and national data, Iran ran a $10-billion trade deficit in 2014, suggesting that it was running down its accumulated savings from past years. We infer that further drawdowns occurred in 2015. While Iran's import volumes have slowed since March 2015, weaker oil-export revenues due to lower global prices should have contributed to continued drawdowns. Data from Iran's customs authority suggests the country ran a $100-million trade surplus from March 2015 to July 2015 as oil exports stagnated, oil prices rose modestly, and imports – especially from China – were pared back. This compares to surpluses of more than $1 billion per month in early 2014.

As a result of these calculations, we conclude that Iran has between $40 and $60 billion in February 6 escrow accounts.

**Figure 1: Estimates of Accumulated Assets in Escrow Accounts (From January 2013 to July 2015, USD billion)**

![Bar chart showing estimated assets in escrow accounts for China, India, Turkey, and Japan.]

*Source: Haver Analytics*

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Estimates of Total Iranian Foreign Assets Varied Significantly Before Mid-2015

Unlike most countries, Iran does not report the value of its FX reserves, making it difficult to determine the current value. A wide range of estimates from international organizations in late 2014 and early 2015 suggested that Iran's total foreign assets exceeded $120 billion. In fact, IMF estimates published in the May 2015 Middle East and Central Asia regional economic outlook suggested that Tehran's foreign assets would exceed $130 billion by the end of 2015, despite low oil prices and an upswing in imports. Private sector estimates indicated foreign assets were closer to $100 billion, a number we have previously suggested was realistic.

Figure 2: International Monetary Fund Estimates of Iranian FX Reserves ($ billion)

Source: International Monetary Fund

During the nuclear negotiations, U.S. administration officials suggested that front-loaded asset transfers would be an easy way to give Iran a quick economic benefit from the deal, further suggesting quickly after reaching a deal, Tehran might regain access to as much as $50-$70 billion in foreign assets, out of a total of $100-$150 billion.

However, since announcing the JCPOA, U.S. officials have downplayed the value of Iranian government foreign assets and rejected the idea that those funds could be meaningful for Iran’s economic and regional role.

Recently Iranian and U.S. authorities have suggested that total government foreign assets (or at least unallocated assets) that have not been pledged to specific projects may be much lower ($50 billion or lower) and that Iran has sizeable debts that it must pay back. That line of reasoning suggests that usable, unallocated funds that could be deployed to new projects could be much smaller than previously assumed. Moreover, Iran’s Central Bank would need to maintain a cushion of foreign-exchange reserves to support the functioning of the FX market and provide liquidity for international trade. Below, we examine the plausibility of the above explanations and try to estimate the funds accruing to the Iranian government abroad.

**How Could the Numbers Be So Different?**

There are several possible explanations for the discrepancy in foreign-asset estimates. Early estimates may have conflated official assets and quasi-official (such as state-owned enterprises or banks) assets abroad, as neither Iran nor the U.S. had an interest in providing clarity on the full assets available. Iranian authorities may also not have known about the full extent of liabilities and non-performing assets that were built up abroad during the most intense sanctions.

Sanctions covered a broad range of Iranian entities, meaning that frozen assets abroad included not only government assets but also those of state-owned enterprises, banks, and a wide set of financing vehicles, which may together be worth as much as $50-$70 billion. These may also have included government assets that predated the oil- and condensate-fueled escrow accounts (specifically the February 6 accounts).

Given Iran’s capital controls, all foreign-currency transactions are facilitated by the Central Bank, which then provides domestic currency to the local population as needed. For example, some of the foreign assets accrued to NIOC, the national oil company, have already been dispensed in Iranian rials to local actors. Government FX reserves are the counterpart of private sector foreign-currency transactions in which exporters sold or bought local currency in exchange for FX and the Central Bank provided cash needed for trade. As the ultimate owners of these assets are in the private sector, the government cannot mandate how these are used in the domestic economy. Although these foreign assets remained abroad, in some cases the domestic asset offsetting them was spent within Iran. Given the Central Bank’s liquidity management, these assets cannot be spent by the government without generating significant inflation at home. Finally, the Central Bank will need to keep some of its reserves for the purpose of avoiding sharp currency and liquidity shocks (the reasons countries have reserves).

Additionally, some of these foreign assets may be illiquid (e.g. property) or loss-making, meaning that liquidating them would generate much less cash being available for new investments than book value would indicate. In July,

8. For example, during a Senate Foreign Relations Committee hearing, Treasury Secretary Jack Lew stated, “Iran’s $100 billion in restricted foreign reserves, which many fear will be directed for nefarious purposes, constitute the country’s long-term savings, and not the budgetary allowance. We estimate that after sanctions relief, Iran will only be able to freely access around half of these reserves, or about $50 billion, and that’s because over $20 billion is committed to projects with China, where it cannot be spent; and tens of billions in additional funds are non-performing loans to Iran’s energy and banking sector.” Jack Lew, “Iran Nuclear Agreement Review,” Hearing before the Senate Foreign Relations Committee, July 23, 2015. (http://www.foreign.senate.gov/hearings/072315)
Iran’s Central Bank Governor Valiollah Seif and Minister of Economic Affairs Ali Tayebnia suggested that total foreign currency reserves may be close to $100 billion, but that $35 billion of that belonged to subsidiaries of the National Iranian Oil Company (Naft Intertrade Company), which may have already allocated it to projects at home and abroad. They also said that an additional $22 billion may have already been used as collateral for energy projects with China and thus is unavailable for new spending. Officials suggested that the latter $22 billion was pledged as collateral for use by Chinese oil tankers or for investment in natural gas.

Other official statements suggest that this Chinese collateral stemmed from agreements made during the administration of former president Mahmoud Ahmadinejad, leaving the assets inaccessible to Iran even if sanctions are suspended. The details of these agreements have not been made public. It is possible that some of the foreign investments and joint projects have failed to yield returns, just as many of the investments made by beneficiaries of Iran’s oil-stabilization fund have struggled to repay debts. While the allocated funds may not be liquid or available for new investments, they should still be included in the calculations of Iran’s total foreign assets because if they are allocated to upstream energy investment, they will contribute to the country’s economic growth.

Unlike many of its oil-exporting peers, Iran’s government has struggled to build up fiscal savings, and has little in net savings to deploy to support the domestic economy. This contrasts with countries like Saudi Arabia which have sizeable government savings they can use to support the domestic economy and fill the budget gaps. Iranian messaging on low levels of reserves and government assets may be part of a government effort to lower domestic expectations about economic improvement. Statements on fewer assets being available may be an attempt to manage expectations over the slow improvement of domestic economic conditions. This may be particularly important for a government elected on the promise of economic growth.

Finally, given the obstacles that trading partners have experienced in trying to secure insurance, the allocated funds may partly represent deposits for imports. To the extent that Iran has prepaid for investments, these investments will still be supportive of economic growth and the import of needed inputs. Based on certain agreements with Latin American oil producers, China may have agreed to accept oil (or the oil revenues in escrow accounts) as in-kind payment for other investments, especially if Iran has failed to provide cash. The China-Iran energy relationship has been fraught, with Beijing claiming Tehran has created regulatory hurdles and failed to provide needed capital and investment inputs; for its part, Iran has claimed oil production volumes have not materialized. It is therefore possible that China extracted penalties from Iran for ongoing operations. Additional investigation is necessary for a fuller picture of those foreign assets that are not already allocated. Even if these foreign-assets-as-joint-ventures are illiquid or already allocated to projects, they should still be counted as a component of Iran’s assets and future investment potential.

9. “Vazir-e eghtesad: ragham-e ghabel-e estefade az dollarha-ye block shod-e kamtar az 30 milliard dollar ast (Minister of Economy: Usable Figure from Blocked Dollars are Less than 30 billion dollars), Islamic Republic News Agency, July 22, 2015. (http://www.irna.ir/fa/News/81690784/)
10. “Gharardad-e shoom-e chiniha-ra man emza nakardam (I Did Not Sign the Cursed Chinese Agreements), Shargh Daily (Iran), July 25, 2015. (http://www.sharghdaily.ir/News/68875/%D9%82%D8%B1%D8%A7%D8%B1%D8%AF%D8%A7%D8%AF-%D8%B4%D9%88%D9%85-%DA%86%DB%8C%D9%86%DB%8C%E2%80%8C%D9%87%D8%A7-%D8%B1%D8%A7-%D9%85%D9%86.%D8%A7%D9%85%D8%B6%D8%A7-%D9%86%DA%A9%D8%B1%D8%AF%D9%85)
Implications of Foreign Assets on Iran’s Economy

U.S. and Iranian statements suggest that Iran’s net or unallocated assets at the disposal of the government and Central Bank are much smaller – potentially closer to $25-$50 billion. If this is the case, the funds available to finance new imports (of capital or consumer goods) are smaller than was expected, leaving the Iranian economy even more reliant on foreign investment, either from foreign companies or banks to finance domestic development. These trends would change the composition of growth in Iran’s economy.

Nonetheless, unfreezing foreign assets and suspending the sanctions that restrict Iranian access to them would reduce Iran’s transactions costs and increase the room to maneuver. Lifting other trade restrictions and financial regulations would reduce transactions costs for Tehran. All of these foreign assets (which we continue to estimate at $90-$120 billion despite the arguments above) belong to Iranian entities which can now more easily repay old debts, address FX volatility, and engage in joint ventures. While not all of them consist of unallocated cash available to support the economy, these foreign assets will support trade and build resilience. Moreover, if private Iranian actors regain access to overseas assets they can more easily conduct business and look for partners.

Figure 3: Rolling 12-Month Average Trade Surplus (USD billion)

Source: Haver Analytics
**Figure 4: Iran Is Now Running a Trade Deficit**

![Graph showing trade deficit for Iran and various countries from 2012 to 2015](image)

*Source: Haver Analytics, International Monetary Fund, Roubini Global Economics*

**Implications of the Reassessment of Foreign Assets**

The argument over the size of the government’s liquid assets misses the point: namely, that Iran’s ability to access its savings and financial markets reduces the costs of doing business and allows Tehran and Iranian entities to choose how to spend their funds. That ability allows the Islamic Republic to restart trade relationships on a more equal footing and leaves it less vulnerable to price-setting behavior from major trading partners like China. Iran will no longer be limited to trade primarily with the handful of countries that buy its oil. Moreover, the suspension of financial and insurance sanctions may make it easier and cheaper to insure Iran-bound cargos and reduce the mark-up involved in Iranian imports.

Still, if Iran’s assets are smaller and it has fewer savings than commonly thought, it might be more reliant on increasing oil and condensate export revenues and attracting foreign investment as it has fewer government savings to repatriate and deploy. If so, the country would also be even more reliant on foreign investment to begin a positive feedback loop in the economy. Growth dynamics might therefore diverge slightly from those described in our June report.11 We noted in that assessment that front-loaded imports, partly financed by a lump-sum payment from the escrow accounts, would be a primary driver of growth. Indeed, we predicted import growth would outpace exports, meaning that in GDP accounting terms, net exports would be negative as Iran purchased more from abroad to support future investment. If Iran had access to fewer funds, it would need to front-load oil exports.

(and seek to increase non-oil exports further) and prioritize the import of capital goods (machinery, equipment) needed for domestic production rather than consumption.

Additionally, if a large percentage of foreign assets belong to state-owned enterprises or to Iran’s Islamic Revolutionary Guard Corps (IRGC), deploying them to support the economy or foreign policy goals may require greater domestic coordination, and will be a test of the government’s ability to convince other actors to follow its direction.

**Updating Our Assessment of the Benefits of a Final Agreement**

Although this report focuses on the foreign-assets outlook and on which liquid assets are available to Iran, it is worthwhile to put into context the other implications of the nuclear agreement and the resulting lifting of sanctions.

The following benefits accruing from the JCPOA are particularly significant:

- Access to foreign assets
- Increased oil and energy output (even if lower oil prices temper revenues)
- Access to financial and insurance measures allowing greater trade and reducing transactions costs
- Greater flexibility in bilateral trade
- Access to precious-metals trade
- Reductions in petrochemical export barriers
- Foreign investment

The JCPOA timeline defers immediate sanctions suspensions until “Implementation Day,” after the International Atomic Energy Agency (IAEA) has concluded that Iran has completed certain nuclear-related obligations under the JCPOA. Experts calculate that it may take Iran at least six months to complete its requirements, and therefore, will be able to release only modest additional oil volumes into the market in late 2015 and early 2016. Similarly, investment will likely be only moderate in this period. We thus maintain our forecast of economic growth of around 2% for the current fiscal year 2015/16, due to implementation timelines and the impact of lower oil prices on Iran’s revenues.

We now assess that our forecast for growth in FY 2016/17 (4%) may have been too conservative. An average growth of more than 4-5% in the three years starting that fiscal year is plausible if Iranian authorities continue economic reforms and begin to attract investment, and if Tehran is able to significantly boost oil exports. Risks to that view are mostly based on domestic Iranian policy choices, such as failing to move forward with reforms and failing to recognize the greater competition in global oil markets and the global economy.

The most recent Central Bank data suggests that in the final quarter of the previous fiscal year the Iranian economy stagnated. Nonetheless, the disaggregated breakdown has yet to be released. High-frequency data including trade, oil output, and sentiment indicators are consistent with a soft start to the 2015/16 fiscal year. We assume that Iranian actors remained cautious, preferring to delay new activity until after the deal’s completion once it became clear that an agreement was imminent. Trade data does suggest a pick-up in petrochemical exports as a result of sanctions relief already received through the 2013 interim agreement. However, monetary policy and fiscal policy remain tight, and local banks have no space to expand credit.
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