



Flying Above the Radar Sanctions Evasion in the Iranian Aviation Sector

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Center on Sanctions
& Illicit Finance

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Introduction

With the implementation of the Joint Comprehensive Plan of Action (JCPOA) in January 2016, most international sanctions against Iran have been lifted. These include long-standing U.S. sanctions against Iran's aviation sector. The United States has removed all but four Iranian civilian airlines – Caspian Airlines, Mahan Air, Meraj Air, and Pouya Air – from its sanctions lists. Companies can now sell planes, spare parts, and services to most of the aviation industry, and financial institutions can provide financial services.

Aviation sanctions against Iran have no historical precedent. No country has faced a complete prohibition of sales of aircraft and spare parts and the provision of maintenance and ground services. After 37 years of broad U.S. sanctions against Iran and 20 years of sanctions specifically targeting the aviation sector, Iran's airline industry was undeniably hobbled. Yet, the country's aviation industry has experienced a steady addition of new airlines, including numerous private ones, since the 1990s.

Sanctions evasion is now no longer necessary. In the past few months, Iran has signed multi-billion dollar deals with the world's two largest aircraft manufacturers – Airbus and Boeing – for a reported 218 combined planes.¹ It signed another deal for 40 regional aircraft with the Italian-French joint venture ATR,² and is rumored to be negotiating more acquisitions with Canada's Bombardier and Brazil's Embraer.³ The list

could grow further: Iran's transportation minister announced that the country is looking to buy as many as 400-500 aircraft in the next decade to rejuvenate the country's aging fleet.⁴

A closer look at the body of laws that restricted Iran's aviation sector and their impact over the years offers important lessons on the effectiveness of sector-based sanctions. Other important lessons can be drawn from Iran's sanctions evasion, including Mahan Air's May 2015 acquisition of nine planes. This study will provide policymakers, law enforcement agencies, and private sector compliance professionals unique insights into this cycle of sanctions and sanctions evasion. The goal is to draw lessons for future sanctions regimes, not to mention due diligence protocols.

Iran under Sanctions for Almost Four Decades

Iran has been subject to U.S. sanctions nearly continuously since the Iranian Revolution of 1979. While initial sanctions were not directly aimed at the aviation sector, broadly crafted sanctions affected Iran's ability to access goods and services for this industry.⁵

February 22, 2016. (<http://www.reuters.com/article/embraer-brazil-iran-idUSL2N16114X>)

4. Asa Fitch, "Iran Planning to Bolster Airplane Fleet After Landmark Nuclear Deal," *The Wall Street Journal*, August 2, 2015. (<http://www.wsj.com/articles/iran-planning-to-bolster-airplane-fleet-after-landmark-nuclear-deal-1438514651>); Fred Pleitgen and Jim Boulden, "Iran wants to buy 500 planes and resume flights to U.S.," *CNN*, January 25, 2016. (<http://money.cnn.com/2016/01/25/news/iran-planes-tourism-us-flights/>)

5. For an overview of the history of U.S. sanctions against Iran, see Yishai Schwartz, "Iran Sanctions 101: A Historical Primer," *Lawfare*, February 2, 2015. (<https://www.lawfareblog.com/iran-sanctions-101-historical-primer>); Kenneth Katzman, "Iran Sanctions," *Congressional Research Service*, March 23, 2016. (<https://www.fas.org/sgp/crs/mideast/RS20871.pdf>); Gary Samore, Ed., "Sanctions Against Iran: A Guide to Targets, Terms, and Timetables," *Belfer Center for Science and International Affairs*, June 2015, pages 3-11. (<http://belfercenter.ksg.harvard.edu/files/Iran%20Sanctions.pdf>)

1. Press Release, "Iran selects Airbus for its civil aviation renewal," *Airbus* (France), January 28, 2016. (<http://www.airbus.com/presscentre/pressreleases/press-release-detail/detail/iran-deal/>)

2. Robert Wall, "Iran to Buy up to 40 ATR Turboprop Planes," *The Wall Street Journal*, February 1, 2016. (<http://www.wsj.com/articles/iran-to-buy-up-to-40-atr-turboprop-planes-1454330448>)

3. Allison Lampert, "Bombardier says Iranian sales talks progress, denies new airline," *Reuters*, April 24, 2016. (<http://www.reuters.com/article/us-bombardier-canada-idUSKCN0XM007>); Lisandra Paraguassu, "UPDATE 2-Iran eyes Brazil deal for taxis, 50 Embraer jets -source," *Reuters*,

President Jimmy Carter first imposed sanctions freezing the assets of the Government of Iran ten days after the seizure of the American embassy in Tehran.⁶ Over the next year, Carter expanded sanctions to include, *inter alia*, the prohibitions on the export of any U.S.-origin goods (with certain humanitarian exceptions) including those for Iran's aviation sector.⁷

These prohibitions were revoked in 1981 following the resolution of the Iranian hostage crisis.⁸ But after a series of terrorist attacks by Iranian-backed groups and the 1983 bombing of the U.S. Marine barracks in Beirut, President Ronald Reagan designated Iran as a state sponsor of terrorism in January 1984.⁹ This designation imposed sanctions under the Export Administration Act, the Arms Export Control Act, and the Foreign Assistance Act, which together prohibit the export of military goods, restrict exports of certain dual-use items, and prohibit U.S. foreign assistance. Controlled dual-use goods include those related to Navigation and Avionics, and Aerospace and Propulsion.¹⁰ Additionally, certain aircraft parts applicable to both commercial and military aircraft were also restricted under the U.S. Munitions List.¹¹

6. Executive Order 12170, "Blocking Iranian Government property," November 14, 1979. (<http://www.archives.gov/federal-register/codification/executive-order/12170.html>)

7. Executive Order 12205, "Prohibiting certain transactions with Iran," April 7, 1980. (<http://www.archives.gov/federal-register/codification/executive-order/12205.html>); Executive Order 12211, "Further prohibitions on transactions with Iran," April 17, 1980. (<http://www.archives.gov/federal-register/codification/executive-order/12211.html>)

8. Executive Order 12282, "Revocation of prohibitions against transactions involving Iran," January 19, 1981. (<http://www.archives.gov/federal-register/codification/executive-order/12282.html>)

9. U.S. Department of State, Bureau of Counterterrorism, "State Sponsors of Terrorism," accessed May 17, 2016. (<http://www.state.gov/j/ct/list/c14151.htm>)

10. U.S. Department of Commerce, Bureau of Industry and Security, "Export Administration Regulation Downloadable Files," accessed June 1, 2016. (<http://www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear>)

11. Joseph D. West, Judith A. Lee, and Jason A. Monahan,

The rules governing the export and re-export of all U.S.-origin goods are set out in the Export Administration Regulations (EAR).¹² "Re-export" is the secondary sale of a good from one foreign country to another after it has already been exported from the United States.¹³ The EAR also requires foreign companies to receive export licenses if their goods contain a *de minimis* level of U.S.-made component parts depending on the type of good, the use, and the end-user.

During the 1980s and early 1990s, licenses for the direct export of U.S.-origin goods to Iran were generally denied, but the bans on re-exports to Iran and the sale of foreign goods with U.S. component parts contained several exceptions,¹⁴ including for certain navigation and aircraft parts.¹⁵ The exceptions also allowed foreign companies to

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"U.S. Export Control Compliance Requirements For Government Contractors," *Thomson West Briefing Papers*, November 2005. (<http://www.gibsondunn.com/fstore/documents/pubs/WestJ-LeeJ-MonahanBriefingPapers1105.pdf>)

12. U.S. Department of Commerce, Bureau of Industry and Security, "Legal Authority: Export Administration Regulations," January 23, 2013, page 66. (https://www.bis.doc.gov/index.php/forms-documents/doc_view/16-legal-authority); The Export Administration Act of 1979, Pub. L. 108-458, codified as amended at 50 U.S.C. §5. (<http://legcounsel.house.gov/Comps/ear79.pdf>)

13. U.S. Department of Commerce, Bureau of Industry and Security "Guidance to the Commerce Department's Reexport Controls," accessed June 13, 2016, page 2. (https://www.bis.doc.gov/index.php/forms-documents/doc_view/4-guidelines-to-reexport-publications)

14. U.S. Department of Commerce, Bureau of Export Administration, "Export Administration Regulation; Simplification of Export Administration Regulations," *Federal Register*, March 25, 1996, §742.8 Anti-Terrorism: Iran, page 12790. (<https://www.gpo.gov/fdsys/pkg/FR-1996-03-25/pdf/96-4173.pdf>)

15. U.S. Department of Commerce, "Category 7 - Navigation and Avionics," *Commerce Control List, Supplement No. 1 to Part 774*, pages 10-11. (https://www.bis.doc.gov/index.php/forms-documents/doc_view/1089-ccl7); U.S. Department of Commerce, "Category 9 - Aerospace and Propulsion," *Commerce Control List, Supplement No. 1 to Part 774*, pages 20-22. (https://www.bis.doc.gov/index.php/forms-documents/doc_view/991-ccl9);

U.S. Department of Commerce, Bureau of Export Administration, "Revisions to the Export Administration Regulations; Conforming Revisions to the Wassenaar Arrangement List of Dual-Use Items

re-export navigation and aircraft parts without a license, and to sell these products to Iran without a license even if they contained U.S.-origin component parts.

In the 1990s, amidst continued Iranian malign behavior, the United States began significantly expanding sanctions against the Islamic Republic. Among other measures, President Clinton issued Executive Order 13059 in 1999 prohibiting the export or re-export of all U.S.-origin goods to Iran¹⁶ and removing the navigation and aviation-related licensing exceptions, thus requiring export licenses for all sales to Iran's aviation industry.¹⁷

Secondary and Targeted Sanctions Expand Economic Impact on Iran

Throughout the 1990s, Iran could purchase goods and equipment for its aircraft through third countries,¹⁸ and according to industry insiders, export restrictions were not applicable or were not enforced on resellers of aircraft more than ten years after the date of manufacture.¹⁹ The environment, however, began to

change in 2006 as the Bush administration and then the Obama administration imposed more comprehensive financial sanctions against Iran.²⁰

Congress also contributed to these new restrictions through multiple bipartisan pieces of legislation.²¹ Among other measures, legislation in 2010 banned the sale of refined petroleum products to Iran, including jet fuel and aviation gasoline.²² This measure led international oil companies to cease refueling Iran Air planes in Europe and Asia, forcing the airline to cancel certain routes,²³ use secondary airports, or make

View from Iran," *AirInsight*, May 31, 2016. (<http://airinsight.com/2016/05/31/post-sanctions-opening-commercial-aviation-view-iran/>)

20. For an in depth description of these efforts, see Juan Zarate, *Treasury's War: The Unleashing of a New Era of Financial Warfare* (New York: Public Affairs, 2013), chapters 13-14; Mark Dubowitz and Annie Fixler, "'SWIFT' Warfare: Power, Blowback, and Hardening American Defenses," *Foundation for Defense of Democracies*, July 2015, Part 1. (<http://www.defenddemocracy.org/content/uploads/publications/Cyber Enabled Swift.pdf>)

21. Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010, Pub. L. 111-195, 124 Stat. 1312, codified as amended at 111 U.S.C. (<http://www.treasury.gov/resource-center/sanctions/Documents/hr2194.pdf>); National Defense Authorization Act for Fiscal Year 2012, Pub. L. 112-81, 125 Stat. 1298, codified as amended at 112 U.S.C. §1245. (<http://www.gpo.gov/fdsys/pkg/BILLS-112hr1540enr/pdf/BILLS-112hr1540enr.pdf>); Iran Threat Reduction and Syria Human Rights Act of 2012, Pub. L. 112-158, 126 Stat. 1214, codified as amended at 112 U.S.C. (<http://www.gpo.gov/fdsys/pkg/BILLS-112hr1905enr/pdf/BILLS-112hr1905enr.pdf>); National Defense Authorization Act for Fiscal Year 2013, Pub. L. 112-239, 126 Stat. 1632, codified as amended at 112 U.S.C. §§1241-1255. (<http://www.gpo.gov/fdsys/pkg/BILLS-112hr4310enr/pdf/BILLS-112hr4310enr.pdf>)

22. Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010, Pub. L. 111-195, 124 Stat. 1312, codified as amended at 111 U.S.C. §102. (<http://www.treasury.gov/resource-center/sanctions/Documents/hr2194.pdf>)

23. Thomas Erdbrink, "Iran's Aging Airliner Fleet Seen as Faltering Under U.S. Sanctions," *The New York Times*, July 13, 2012. (http://www.nytimes.com/2012/07/14/world/middleeast/irans-airliners-falter-under-sanctions.html?_r=1)

and Revisions to Antiterrorism Controls," August 7, 1998. (http://webapp1.dlib.indiana.edu/virtual_disk_library/index.cgi/5274509/FID661/bxa/pdf/fed_reg/1998/07aug98.pdf)

16. Executive Order 13059, "Prohibiting Certain Transactions With Respect to Iran," *Federal Register*, August 19, 1997. (<https://www.treasury.gov/resource-center/sanctions/Documents/13059.pdf>)

17. U.S. Department of the Treasury, "Iranian Transactions Regulations: Implementation of Executive Order 13059," *Federal Register*, April 29, 1999. (<https://www.gpo.gov/fdsys/pkg/FR-1999-04-26/pdf/99-10179.pdf>)

18. Ali Dadpay, "A Review of Iranian Aviation Industry: Victim of Sanctions or Creation of Mismanagement?" *Preliminary Draft Presented at the Conference on Iran's Economy, University of Chicago and University of Illinois*, October 2010, page 3. (<http://iranecconomy.csames.illinois.edu/full%20papers/Dadpay%20-%20IranAviation.pdf>)

19. "Post Sanctions and Opening Up Commercial Aviation - A

technical stopovers for refueling along the way, adding to operational costs and inconvenience.²⁴

Even as sanctions on Iran escalated between 2006 and 2012, Treasury's Office of Foreign Assets Control (OFAC) permitted the export to Iran (with a license) of equipment and parts for airline safety if the equipment was exclusively for U.S.-origin civilian, commercial aircraft.²⁵ During this time, however, very few licenses were granted.²⁶

Iran's Fleet Still Operated Under Sanctions, but Poorly

Over the two decades of sanctions, Tehran repeatedly argued that the U.S. sanctions affected the safety and security of Iranian aircraft by denying Iran "new

technology for fleet renewal, spare parts and safety-related aviation equipment."²⁷ The sector was certainly beset across the board by fleet age and quality issues, limited access to original spare parts, access only to second-hand planes, and little or no access to technical assistance and maintenance. This is a striking contrast to 1979, when Iran Air had one of the most modern fleets. Today it operates eight Boeing 747s with an average age of more than 35 years, and numerous Airbus aircraft, some of which were acquired second-hand, that are only marginally younger.²⁸

Officials with Iran's airlines have in recent years complained that they have been forced to ground numerous planes because they could not purchase the equipment to service them.²⁹ However, while sanctions have certainly been a burden, five of the seven major crashes of civilian aircraft between 2000 and 2009 involved Russian (or Soviet) aircraft not subject to U.S. sanctions.³⁰

One can also easily make the case that these crashes were the result of corruption and mismanagement. A *Los Angeles Times* report from September 2009 quoted an industry expert accusing "politically motivated

24. Gerald Traufetter, "The Geopolitics of Jet Fuel: Sanctions Create Headaches for Iran Air in Europe," *Spiegel Online International*, October 1, 2012. (<http://www.spiegel.de/international/world/sanctions-create-problems-for-iran-air-in-europe-a-858886.html>)

25. Erich Ferrari, "Aircraft Safety in Iran: OFAC is Not (Entirely) in The Way," *SanctionLaw*, April 7, 2010. (<http://sanctionlaw.com/aircraft-safety-in-iran-ofac-is-not-entirely-in-the-way/>); U.S. Department of the Treasury, Office of Foreign Assets Control, "Iranian Transactions Regulations," *Federal Register*, October 22, 2012, page 64682. (https://www.treasury.gov/resource-center/sanctions/Programs/Documents/fr77_64664.pdf)

26. Between 2000 and 2010, however, according to a *New York Times* report, Boeing received only two licenses for Iran, out of a total of 10,000 licenses issued to American companies, to provide goods or services to Iran, Cuba, and Sudan. One of Boeing's licenses was to provide electronic maps to help the French civil aviation agency investigate the crash of an Iran Air plane. Of the 100 cases studies that *The New York Times* detailed in its reporting, no others involved civil aviation. Jo Becker, "U.S. Approved Business With Blacklisted Nations," *The New York Times*, December 24, 2010. (http://www.nytimes.com/2010/12/24/world/24sanctions.html?_r=0); "Licenses Granted to U.S. Companies Run the Gamut," *The New York Times*, December 24, 2010. (<http://www.nytimes.com/interactive/2010/12/24/world/24-sanctions.html>)

27. Islamic Republic of Iran, "The Safety Deficiencies Arising Out of the United States Sanctions Against the Civil Aviation of the Islamic Republic of Iran," *International Civil Aviation Organization Working Paper*, September 20, 2007, page 2. (http://www.icao.int/Meetings/AMC/MA/Assembly%2036th%20Session/wp275_en.pdf)

28. Aaron S. Goldblatt and Roozbeh Aliabadi, "How sanctions relief will impact Iran's civil aviation industry," *The Hill*, June 5, 2014. (<http://thehill.com/blogs/congress-blog/foreign-policy/208085-how-sanctions-relief-will-impact-irans-civil-aviation>)

29. For example, see David Kaminski-Morrow, "International sanctions force Iran Air to ground its Airbus A310 fleet, but restrictions may be lifted as part of nuclear deal," *Flight Global*, June 12, 2006. (<https://www.flightglobal.com/news/articles/international-sanctions-force-iran-air-to-ground-its-airbus-a310-fleet-but-restrictions-may-be-207182/>)

30. "TIMELINE - Recent major plane crashes involving Iran," *Reuters*, July 15, 2009. (<http://in.reuters.com/article/idINIndia-41053520090715>)

regulators of failing to adequately inspect and publicize aviation accidents, and of bending rules to accommodate well-connected airlines.”³¹ The article cites a series of problems within the industry, including a lack of transparent investigations according to international standards and that “rules are bent to accommodate airlines with safety lapses.”

Remarkably, despite sanctions and these internal issues, Iran’s aviation industry has grown over the past decade, with total seat capacity for domestic and international flights increasing at an average three percent per year.³² (See Appendix A for a list of Iranian airlines.)

The key to this growth has been sanctions evasion. Utilizing front companies, middlemen, and multiple transshipment points, Iran has been able to purchase spare parts and even commercial aircraft.³³ These techniques are detailed in the case study section, but it is also worth highlighting a few historical examples that demonstrate a pattern.

In 2009, a Dutch firm pled guilty to violating U.S. sanctions by selling aircraft and electronic components to Iran between 2005 and 2007.³⁴ The company purchased U.S. goods on behalf of Iran and shipped them through the Netherlands, Cyprus, and the United Arab Emirates in order to obscure the final end-user in Iran.³⁵

Also in 2009, a U.S. citizen was sentenced to 46 months in prison for illegally exporting both civilian and military aircraft components between 1998 and 2007.³⁶ The commercial products were exported from the U.S. to Singapore and Malaysia, and then re-exported to Iran without obtaining U.S. export licenses and by falsely stating on export documents that companies in Singapore were the end users.

In 2012, an Iranian citizen and U.S. citizen with an Iranian passport pled guilty to charges of illegally exporting aircraft and components to Iran between 2007 and 2011. The scheme involved an Iranian firm that used its UK office as a transshipment point to ship goods from the U.S. to Iran through third countries.³⁷

These incidents demonstrate common sanctions evasion techniques involving transshipment, front companies, and middlemen. As detailed in the case study, Mahan Air deployed all of these tools in its May 2015 acquisition of nine Airbus aircraft.

Iran Gets Sanctions Relief under the Nuclear Agreement

In November 2013, the United States, UK, France, Germany, Russia, and China (the P5+1) announced

31. Borzou Daragahi, “Iran’s aviation regulation seen as a factor in air crashes,” *Los Angeles Times*, September 15, 2009. (<http://articles.latimes.com/2009/sep/15/world/fg-iran-aviation15>)

32. “Window on Iran’s aviation market,” *OAG*, 2016. (<http://www.oag.com/window-on-irans-aviation-market-0>)

33. Tim Hether, “‘State-of-the-art’ subterfuge: how Iran kept flying under sanctions,” *Reuters*, January 31, 2016. (<http://www.reuters.com/article/us-iran-sanctions-aviation-insight-idUSKCN0V908Q>)

34. Charlie Savage and Mark Landler, “Black Market Shows Iran Can Adapt to Sanctions,” *The New York Times*, October 4, 2009. (http://www.nytimes.com/2009/10/05/world/middleeast/05sanctions.html?_r=1)

35. U.S. Department of Justice, Press Release, “Dutch Firm and Two Officers Plead Guilty to Conspiracy to Export Aircraft

Components and Other Goods to Iran,” September 24, 2009. (<https://www.justice.gov/opa/pr/dutch-firm-and-two-officers-plead-guilty-conspiracy-export-aircraft-components-and-other>)

36. U.S. Department of Justice, Press Release, “Director of Singapore Firm Sentenced for Illegally Exporting Controlled Aircraft Components to Iran,” November 5, 2009. (<https://www.justice.gov/opa/pr/director-singapore-firm-sentenced-illegally-exporting-controlled-aircraft-components-iran>)

37. Federal Bureau of Investigation, Press Release, “Iranian Citizen, U.S. Citizen Living in Kentucky and Holding Iranian Passport Plead Guilty in Plot to Export Aircraft and Aircraft Parts to Iran,” December 3, 2012. (<https://www.fbi.gov/louisville/press-releases/2012/iranian-citizen-u.s.-citizen-living-in-kentucky-and-holding-iranian-passport-plead-guilty-in-plot-to-export-aircraft-and-aircraft-parts-to-iran>)

that they had reached an interim nuclear agreement with Iran.³⁸ Regarding aviation sanctions, the interim agreement committed the United States to license the provision of spare parts to non-sanctioned airlines as well as to Iran Air,³⁹ which Washington had sanctioned in June 2011 for providing material support and services to Iran's Islamic Revolutionary Guard Corps (IRGC) and Ministry of Defense.⁴⁰ Iran Air's cargo division had also been specifically singled out in United Nations Resolution 1929 (2010) for possible involvement in sanctions evasion.⁴¹

In the 18 months following the interim agreement, limited sales ensued. General Electric received a license to service 18 engines from 1970s-era aircraft.⁴² Boeing reported that it sold manuals and navigation charts to Iran Air, generating a modest \$12,000 in net profits.⁴³ Boeing also signed an agreement to service seven motors.⁴⁴ While paltry, this was the first aerospace-

related trade between Iran and American companies since 1979.⁴⁵ Iran also benefited from the relaxation of sanctions against aviation services. As of June 2014, main airports in Europe restored refueling services to Iran Air commercial flights, enabling the carrier to terminate costly technical stopovers outside the European Union.⁴⁶

In July 2015, the P5+1 and Iran reached a final nuclear agreement. After Iran implemented specific obligations in January 2016, sanctions were lifted on financial transactions, key sectors of the Iranian economy, and on individuals and companies (including Iran Air). Among other measures, the United States began "allow[ing] for the sale of commercial passenger aircraft and related parts and services to Iran," as well as the export, lease, and transfer of aircraft, and the provision of associated services to aircraft, provided they are "for exclusively civil aviation end-use."⁴⁷ Export licenses are still required for individual sales, but the Treasury Department issued a general license allowing companies to engage in preliminary discussions.⁴⁸

Days after the sanctions were lifted, Airbus announced a multi-billion dollar deal with Iran Air for the sale

38. Joint Plan of Action, Geneva, November 24, 2013. (http://eeas.europa.eu/statements/docs/2013/131124_03_en.pdf)

39. U.S. Department of the Treasury and U.S. Department of State, "Guidance Relating to the Provision of Certain Temporary Sanctions Relief in order to Implement the Joint Plan of Action Reached on November 24, 2013, Between the P5 + 1 and the Islamic Republic of Iran, as Extended through June 30, 2015," November 24, 2015, page 5. (https://www.treasury.gov/resource-center/sanctions/Programs/Documents/guidance_ext_11252004.pdf)

40. U.S. Department of the Treasury, "Fact Sheet: Treasury Sanctions Major Iranian Commercial Entities," June 23, 2011. (<https://www.treasury.gov/press-center/press-releases/Pages/tg1217.aspx>)

41. United Nations Security Council, Resolution 1929, June 9, 2010, page 7. (https://www.iaea.org/sites/default/files/unsc_res1929-2010.pdf)

42. Parisa Hafezi, "Iran to buy 400 airliners if sanctions lifted, top official says," *Reuters*, May 1, 2014. (<http://www.reuters.com/article/us-iran-sanctions-aviation-idUSBREA400CF20140501>)

43. Zacks Equity Research, "Boeing Sells Spare Aircraft Parts to Iran as Sanctions Ease - Analyst Blog," *Nasdaq*, October 24, 2014. (<http://www.nasdaq.com/article/boeing-sells-spare-aircraft-parts-to-iran-as-sanctions-ease-analyst-blog-cm406135>)

44. "Iran says three deals signed with Boeing," Press TV (Iranian), February 21, 2015. (<http://www.presstv.ir/Detail/2015/02/21/398558/Iran-says-three-deals-signed-with-Boeing>)

45. Parisa Hafezi, "Iran aviation official in Vienna to discuss sanctions relief," *Reuters*, April 8, 2014. (<http://www.reuters.com/article/us-iran-nuclear-aviation-idUSBREA371Q020140408>)

46. "Iran Air to Cease Refuelling in Ex-YU," *EX-YU Aviation News*, June 29, 2014. (<http://www.exyuaviation.com/2014/06/iran-air-to-cease-refuelling-in-ex-yu.html>)

47. Joint Comprehensive Plan of Action, Annex II – Sanctions related commitments, July 14, 2015, section 5.1.1. (http://eeas.europa.eu/statements-eeas/docs/iran_agreement/annex_2_sanctions_related_commitments_en.pdf)

48. U.S. Department of the Treasury, Office of Foreign Assets Control, "General License I: Authorizing Certain Transactions Related to the Negotiation of, and Entry into, Contingent Contracts for Activities Eligible for Authorization Under the Statement of Licensing Policy for Activities Related to the Export or Re-export to Iran of Commercial Passenger Aircraft and Related Parts and Services," March 24, 2016. (https://www.treasury.gov/resource-center/sanctions/Programs/Documents/iran_gli.pdf)

of 118 aircraft.⁴⁹ Iran Air also announced it would purchase as many as 40 turboprops from the French-Italian company ATR.⁵⁰ And in June 2016, Boeing and Iran reached a preliminary agreement for the sale of 80 aircraft valued at as much as \$25 billion.⁵¹

While these sales are legal (with proper licensing), Western companies involved may soon be dismayed to find out that their aircraft could be implicated in illegal activities. Iran Air has a history of illicit activities and sanctions evasion. When it designated Iran Air in 2011, Treasury noted, “Rockets or missiles have been transported via Iran Air passenger aircraft, and IRGC officers occasionally take control over Iran Air flights carrying special IRGC-related cargo. The IRGC is also known to disguise and manifest such shipments as medicine and generic spare parts ... carried aboard a commercial Iran Air aircraft, including to Syria.”⁵² Iran Air was delisted in January 2016 as a result of a political agreement – the JCPOA – not based on merit. Three times in June 2016, Iran Air flew known routes used to resupply Syrian President Bashar al-Assad’s war machine.⁵³ If Iran Air is used by the IRGC to ship weapons to Syria, the company could face new sanctions.

Additionally, Iran Air may not retain all of the aircraft it purchases. Its fleet currently stands at 39 aircraft, but its deals with Airbus and Boeing top 200 planes, and the head of Iran’s Civil Aviation Organization remarked that Iran will buy 80-90 planes per year from Boeing and Airbus.⁵⁴ These announcements appear out of step with the expectations of Iranian airline executives who say they plan to “maintain ... current schedules” and modernize existing systems for the next three years.⁵⁵ Iran Air may therefore sell or lease many of the new planes to other Iranian airlines, including those that remain under sanctions. This would create additional liability for Airbus, Boeing, and other sellers.

Iran Likely to Evade Remaining Aviation Sanctions

Even after January 2016, four Iranian commercial airlines remain under U.S. sanctions because they provided support to Iran’s operations in Syria and other terrorist activity. They are therefore off-limits to U.S. and foreign companies (see Appendix A). For example, Mahan Air and Caspian Airlines are on Treasury’s sanctions list and are actively engaged in sanctions evasion. In recent months, Treasury sanctioned individuals and companies involved in facilitating sanctions evasion for Mahan Air,⁵⁶ and the Commerce Department issued a temporary denial of export privileges when companies attempted to sell aircraft to Caspian.⁵⁷

49. Press Release, “Iran selects Airbus for its civil aviation renewal,” *Airbus* (France), January 28, 2016. (<http://www.airbus.com/presscentre/pressreleases/press-release-detail/detail/iran-deal/>)

50. Robert Wall, “Iran to Buy up to 40 ATR Turboprop Planes,” *The Wall Street Journal*, February 1, 2016. (<http://www.wsj.com/articles/iran-to-buy-up-to-40-atr-turboprop-planes-1454330448>)

51. Jon Ostrower and Doug Cameron, “Proposed Boeing-Iran Air Deal Involves 80 Jets,” *The Wall Street Journal*, June 23, 2016. (<http://www.wsj.com/articles/proposed-boeing-iran-air-deal-involves-80-jets-1466701529>)

52. U.S. Department of the Treasury, Press Release, “Fact Sheet: Treasury Sanctions Major Iranian Commercial Entities,” June 23, 2011. (<https://www.treasury.gov/press-center/press-releases/Pages/tg1217.aspx>)

53. @eottolenghi, “Iran Air flying Abadan to Damascus. Less than 6 months after JCPOA implementation, Iran Air running #SyriaExpress,” *Twitter*, June 9, 2016. (<https://twitter.com/eottolenghi/status/741034437341786112>); @eottolenghi, “Iran Air’s Flight IR3486 from Damascus returning 2 Iran. Why so many flights 2 Damascus suddenly? Asking 4 a friend,” *Twitter*, June 15, 2016. (<https://twitter.com/eottolenghi/status/743131053766934529>)

54. Asa Fitch, “Iran Planning to Bolster Airplane Fleet After Landmark Nuclear Deal,” *The Wall Street Journal*, August 2, 2015. (<http://www.wsj.com/articles/iran-planning-to-bolster-airplane-fleet-after-landmark-nuclear-deal-1438514651>)

55. “Bigger than Dubai? Iran is targeting more than fleet renewal after the lifting of aviation sanctions,” *The Economist*, February 4, 2016. (<http://www.economist.com/blogs/gulliver/2016/02/bigger-dubai>)

56. U.S. Department of the Treasury, Press Release, “Treasury Sanctions Supporters of Iran’s Ballistic Missile Program and Terrorism-Designated Mahan Air,” March 24, 2016 (<https://www.treasury.gov/press-center/press-releases/Pages/jl0395.aspx>)

57. Samuel Rubinfeld, “U.S. Aviation Exports to Iran Still at Risk from Sanctions,” *The Wall Street Journal*, March 30, 2016.

With other Iranian airlines removed from sanctions lists and significant sales pending, the opportunity for sanctions evasion – particularly for un-sanctioned Iranian airlines serving as middlemen (or as lessors) for airlines that remain sanctioned – has increased. Congress is particularly concerned about this question. Earlier this year, the House adopted an amendment to the National Defense Authorization Act requiring the administration to report on Iran’s use of commercial aircraft for military or other illicit purposes.⁵⁸ On July 7, the House went a step further by prohibiting funds from being used by the Office of Foreign Assets Control to issue licenses for aircraft sales or to authorize U.S. financial institutions to provide financial transactions related to the export or re-export of aircraft.⁵⁹ These bipartisan amendments, authored by Representatives Peter Roskam (R-IL) and Brad Sherman (D-CA) to the Financial Services and General Government Appropriations Act were adopted with broad support.⁶⁰

Even with new legislation, challenges remain. The following case study on Mahan Air’s successful acquisition of nine aircraft in May 2015 illustrates the difficulties of continuing to implement restrictions against Iran’s still-sanctioned airlines, particularly now that the blanket bans against Iran’s aviation sector are no longer in place. It also highlights sanctions enforcement challenges: Despite U.S. sanctions,

Mahan Air procured planes and spare parts, and its aircraft fly to international destinations that include close U.S. allies. Since its establishment in 1991, it has successfully expanded and diversified its fleet to include long-haul and short-haul jets and small regional travel aircraft (both jet and turboprop).

Mahan Air Case Study

Mahan Air was founded in 1991 in Iran’s Kerman province. From the very beginning, it maintained a close relationship with the IRGC and the Iranian government. Officially, Mahan is owned by a charitable organization, but a former senior manager for Mahan’s procurement operations abroad, who agreed to speak on condition of anonymity, explained that the airline is controlled by former Iranian President Akbar Hashemi Rafsanjani.⁶¹ Hamid Arabnejad Khanooki, Mahan Air’s chairman and CEO, is a former member of the IRGC, and according to our interlocutor, he is a veteran of the same local IRGC division that spawned IRGC-Quds Force Commander Qassem Soleimani.⁶²

These leaders reportedly were blood brothers on the frontline of the Iran-Iraq War in the 1980s. When Mahan was established, Arabnejad, a local Kermani with a strong record of loyalty in the service, was entrusted with running the airline. Arabnejad is believed to have been the man in charge of Iran’s clandestine military supply operation to Bosnia’s Muslim forces during Yugoslavia’s civil war in the 1990s.

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(<http://blogs.wsj.com/riskandcompliance/2016/03/30/u-s-aviation-exports-to-iran-still-at-risk-from-sanctions/>)

58. National Defense Authorization Act for Fiscal Year 2017, H.R. 4909, 114th Congress (2016), Amdt. 86. (<http://www.gop.gov/bill/h-r-4909-national-defense-authorization-act-fiscal-year-2017/>)

59. “H.R. 5485, Financial Services and General Government Appropriations Act, 2017,” *Republican Policy Center*, accessed July 9, 2016. (<https://policy.house.gov/legislative/bills/hr-5485-financial-services-and-general-government-appropriations-act-2017>)

60. Kristina Wong, “House passes legislation blocking Boeing sale to Iran Air,” *The Hill*, July 7, 2016. (<http://thehill.com/policy/defense/286957-house-passes-legislation-blocking-boeing-sale-to-iran-air>)

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61. Such proximity was confirmed by a diplomatic cable filed by the U.S. Consulate in Istanbul in 2010. “Turkey-Iran Trade Woes; Rafsanjani Family and Business Allies Under Pressure,” *WikiLeaks*, February 2, 2010. (https://www.wikileaks.org/plusd/cables/10ISTANBUL43_a.html)

62. According to his U.S. Treasury designation, Arabnejad “has a close working relationship with IRGC-QF personnel and coordinates Mahan Air’s support and services to the paramilitary group.” U.S. Department of the Treasury, Press Release, “Treasury Announces New Sanctions Against Iran,” May 31, 2013. (<https://www.treasury.gov/press-center/press-releases/Pages/jl1965.aspx>)

This close connection to the IRGC is critical in understanding Mahan Air's place in the U.S. sanctions architecture. In 2011, the U.S. Department of the Treasury designated Mahan Air under Executive Order 13224 for its logistical support to the IRGC-Quds Force.⁶³ In 2013, Treasury targeted front companies Mahan used to procure aircraft and parts. Arabnejad himself was also sanctioned.⁶⁴

Since Syria's civil war erupted in 2011, Mahan Air has been the IRGC's main conduit to carry weapons and personnel to Syria. The ongoing airlift – which has surged since the summer of 2015 – provides key weapons and provisions to Syria's embattled president, Bashar al-Assad, and Iran's proxy terror group in Lebanon, Hezbollah. It has enabled Iran to deploy thousands of troops – including Afghan, Pakistani, and Iraqi militias – to Syria's battlefields.⁶⁵

Mahan has not only managed to operate under a stifling sanctions environment, but it has actually modernized its aircraft – even after 2011. Given the relatively small size of the aviation industry, it is all the more remarkable that Mahan could circumvent sanctions. It did so mainly thanks to a network of front companies it established across numerous jurisdictions.

The former Mahan manager we interviewed explained that the airline established companies to operate for six-to-eighteen months solely for procurement purposes. These companies were used for a handful of transactions before being closed and replaced with new entities. The short lifespan is designed to avoid law enforcement.

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63. U.S. Department of the Treasury, Press Release, "Treasury Designates Iranian Commercial Airline Linked to Iran's Support for Terrorism," October 12, 2011. (<http://www.treasury.gov/press-center/press-releases/Pages/tg1322.aspx>)

64. U.S. Department of the Treasury, Press Release, "Treasury Announces New Sanctions Against Iran," May 31, 2013. (<http://www.treasury.gov/press-center/press-releases/Pages/jl1965.aspx>)

65. "Iran Sending Thousands of Afghans to Fight in Syria," *Human Rights Watch*, January 29, 2016. (<https://www.hrw.org/news/2016/01/29/iran-sending-thousands-afghans-fight-syria>)

Orders were placed, paid for, and shipped, and the middleman took delivery of items. The intermediary arranged for items to be repackaged and for new paperwork to be produced. Certificates of origin were changed to show a different provenance for the items. Different itemized lists were also created, so that the consignment elicited no suspicion. Once this process was done, the middleman shipped the merchandise to its final destination in Iran. Such shipments occurred by air, sea, or land, and sometimes required an additional intermediate stop through another company.

These middlemen routinely overcharged the next buyer up the chain, usually with the full knowledge and acquiescence of the Iranian buyer who was funding the operation. The middlemen, predictably, expected a commission. But the additional funds were also used to buy off those involved in the logistical pipeline. Also, middlemen required funds to pay for their operating costs, including salaries, rent, and legal services.

The former Mahan official we interviewed claimed that during his tenure, he was able to procure two original aircraft engines through a German company. Mahan also used a UK firm headed by a dual UK-Iranian national for its 2007 purchase of six used Boeing 747 cargo aircraft. The firm used an Armenian registered subsidiary to purchase the aircraft and then re-exported them to Iran.⁶⁶ The company also leased U.S.-origin aircraft to Mahan Air for flights to and from Iran. In 2010, the UK firm agreed to pay \$15 million in fines (one of the largest in history for an export violation) for illegally exporting three Boeing aircraft to Iran without an export license.⁶⁷ Mahan appears to have repeated this scheme on May 9,

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66. Laura Rozen, "UK firm pleads guilty to selling U.S. 747 to Iran," *Politico*, February 5, 2016. (http://www.politico.com/blogs/laurarozen/0210/UK_firm_pleads_guilty_to_selling_US_747s_to_Iran.html)

67. U.S. Department of Justice, Press Release, "U.K. Firm Pleads Guilty to Illegally Exporting Boeing 747 Aircraft to Iran," February 5, 2010. (<https://www.justice.gov/opa/pr/uk-firm-pleads-guilty-illegally-exporting-boeing-747-aircraft-iran>)

2015, when it managed to acquire nine Airbus aircraft (eight long-haul and one short- to medium-haul). For this procurement, instead of using a British company and an Armenian airline, Mahan relied on an Iraqi regional airline, Al-Naser Airlines (see Figure 1), and, according to Treasury's designation, a Dubai-based company and its Syrian owner to broker the deal.⁶⁸

Al-Naser acted as intermediary and purchased all nine planes on Mahan's behalf, four of which were first transferred to a Maltese leasing company, HiFly Malta, and then to Al-Naser. There is no indication that Airbus or other European companies that owned or leased the planes prior to the sale to Al-Naser were aware that the company planned to transfer the aircraft to Mahan Air in violation of U.S. sanctions.⁶⁹

To understand this scheme, we traced the ownership of the nine Airbus-made aircraft (seven A340-600s, one A340-300, and one A321-131 aircraft). Information from the British Civil Aviation Registry and open sources provide details of ownership until for each plane until they were deregistered and transferred to either Iraq or Malta's civil aviation registries.

The scheme began in 2014. By that time, all of the planes – which had been previously leased by Virgin Atlantic and the Chinese Sezhuan Airlines – had reverted to their lessors: Blue Aviation Ltd (three aircraft), Airbus Financial Services (one aircraft), Avaio Ltd (one aircraft), Avaio 371 Ltd (one aircraft), Avaio

376 Leasing Ltd (one aircraft), and ILFC UK (two aircraft).⁷⁰ Avaio, Avaio 371, Avaio 376 Leasing, and Blue Aviation are all special purpose companies set up by Airbus for standard leasing purposes.⁷¹

Then, one-by-one the planes were sold, deregistered from the UK aviation registry, and transferred to Iraq's registry. Four of the planes were first registered on the Maltese registry when they were purchased by HiFly Malta and then moved to the Iraqi registry, and one also passed through the Guernsey Island registry.⁷² After Al-Naser took possession of all nine planes, it then transferred them to Mahan Air.

An in-depth look at one particular plane helps explain the pattern: From December 2002 to December 2012, Virgin Atlantic operated an Airbus A340-600 with the manufacture serial number (MSN) 449.⁷³ Then, the aircraft was put in storage for two years, and on November 19, 2014 it was registered in Malta. When Al-Naser leased the plane from HiFly Malta eight days later, it was transferred to the Iraqi registry.⁷⁴ The aircraft was again stored until May 2015, when it was transferred to Mahan Air, under its new EP-MMQ tail number. Al-Naser used the same technique for the other eight aircraft.

68. U.S. Department of Treasury, Press release, "Treasury Department targets those involved in Iranian scheme to purchase planes," May 21, 2015. (<https://www.treasury.gov/press-center/press-releases/Pages/jl10061.aspx>)

69. Virgin Atlantic, HiFly (the parent company of HiFly Malta), and AerCap (which merged with ILFC UK), declined to answer our requests for comments. Airbus confirmed its relationship with its subsidiaries and stated that the company "fully respects international rules and export controls put in place by EU, US or UN in regards to Iran." Email from Airbus Spokesman Justin Dubon to Emanuele Ottolenghi, July 7, 2016.

70. By then, ILFC UK had merged with the Dutch company, AerCap NV.

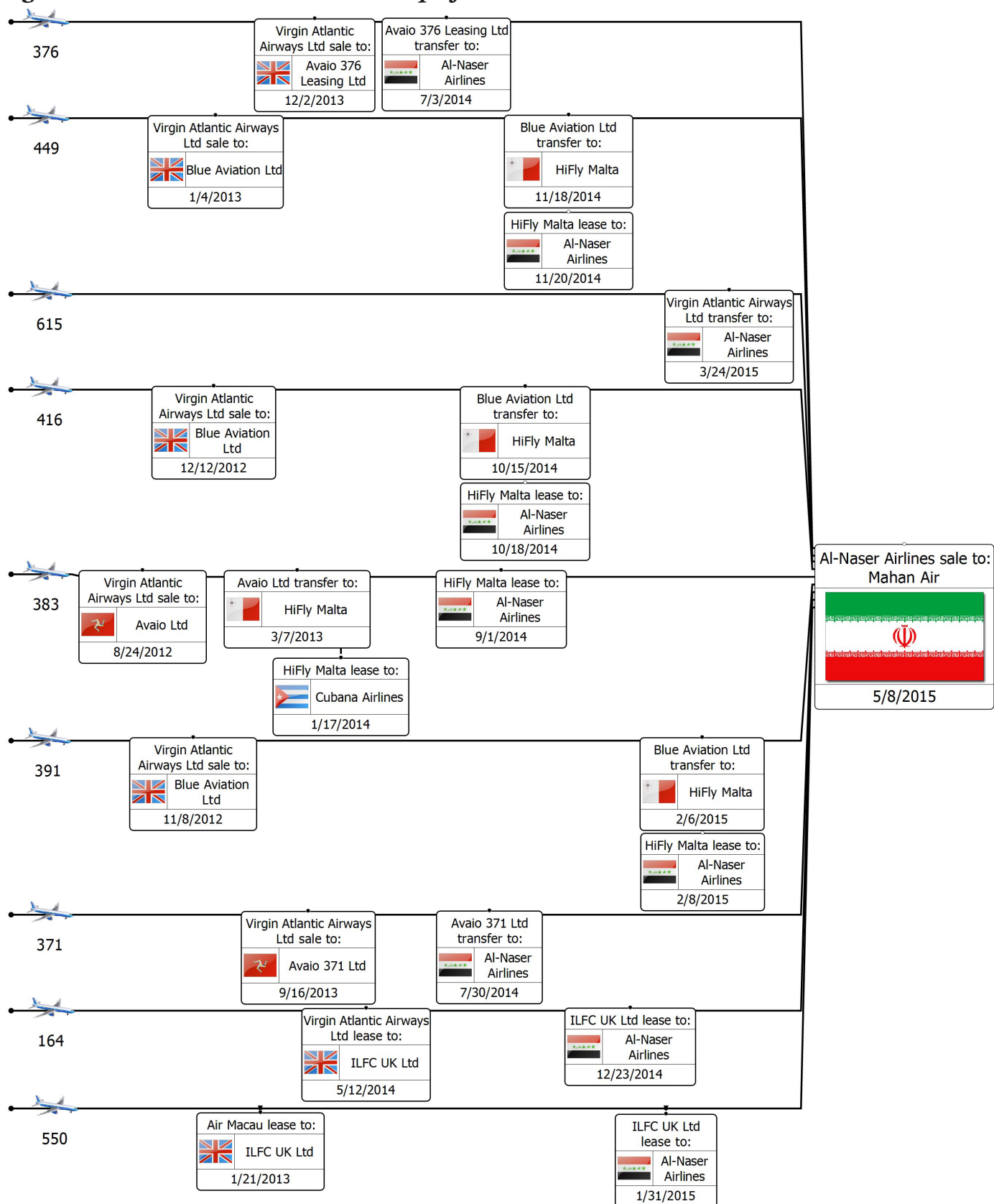
71. Email from Airbus Spokesman Justin Dubon to Emanuele Ottolenghi, July 7, 2016.

72. "Channel Islands Guernsey Aircraft Register," *Bones Aviation Page*, accessed July 7, 2016. (<http://woodair.net/Guernsey%20Register/GuernseyRegister001.htm>)

73. "Airbus A340 - MSN 449 - EP-MMQ," *AirFleets.net*, accessed July 2, 2016. (<http://www.airfleets.net/ficheapp/plane-a340-449.htm>)

74. "EP-MMQ Mahan Airlines Airbus A340-642 - cn 449," *PlaneSpotters.net*, accessed July 7, 2016. (<https://www.planespotters.net/airframe/Airbus/A340/449/EP-MMQ-Mahan-Airlines>)

Figure 1: Mahan Air Secures Ownership of Airbus Planes



On May 21, 2015, the U.S. Department of the Treasury sanctioned Al-Naser Airlines and each of the nine planes.⁷⁵ At the same time, Treasury also sanctioned Syrian businessman Issam Shammout and his Dubai-based company Sky Blue Bird Aviation FZE, and the Commerce Department issued temporary denial orders against Al-Naser Airlines, Bahar Safwa General Trading, and Ali Abdullah Alhay for attempting to illegal export aircraft to Mahan Air.

Nevertheless, this action came too late. Mahan is currently operating all these aircraft on both European and Asian routes. Public information indicates that no country of destination has agreed to cooperate with U.S. efforts to impound the aircraft. Instead, Mahan Air lands at major international destinations where it receives services such as baggage handling, ticketing, and a variety of other ground services in violation of U.S. sanctions.⁷⁶

The Mahan Air case study suggests that, although U.S. sanctions successfully limited Iranian access to modern aircraft and attendant services, they did not prevent Iran's airlines from acquiring aircraft to continue its operations. Nor did Treasury's sanctions discourage all European and Asian companies from transacting with Mahan Air, an airline that has prioritized its logistical support for terrorism and Iran's military involvement in Syria over commercial operations.

Lack of enforcement of U.S. sanctions against designated Iranian airlines and entities like Mahan Air by U.S. allies means that whenever the airline flies abroad, the limitations of U.S. sanctions becomes painfully manifest.

75. U.S. Department of the Treasury, Press Release, "Treasury Department Targets Those Involved in Iranian Scheme to Purchase Airplanes," May 21, 2015. (<http://www.treasury.gov/press-center/press-releases/Pages/jl10061.aspx>)

76. Julian Pequet, "U.S. seeks to block sanctioned Iranian airline's flights to Europe," *Al Monitor*, February 11, 2016. (<http://www.al-monitor.com/pulse/originals/2016/02/us-treasury-block-iran-airline-mahan-sanctions.html>)

Recommendations

The history of sanctions against Iran's aviation sector, the pattern of Iranian sanctions evasion, and the above case study reveal important lessons. We offer the following recommendations for both companies considering signing deals with Iran's aviation sector and for regulators and policymakers working on other sanctions regimes.

1. In addition to strict due diligence and end-user controls, companies need to be acutely aware of common sanctions evasion schemes.

Aviation firms should know Iran's pattern of transshipment and using front companies. To protect themselves, companies should institute strict due diligence practices to verify end-users ahead of the sale. Firms should provide procurement officers with training on detecting sanctions evasion methods.

Additionally, companies need to be more circumspect when selling aircraft, especially to small, regional airlines. Al-Naser Airlines is a small airline with only one operational plane. The airline flies only local routes, yet purchased eight long-haul A340 Airbus planes. The fact that Al-Naser did not fly routes that require long-haul aircraft should have raised red flags that the company may have been intending to resell the planes.

2. The U.S. Treasury should ramp up sanctions enforcement.

To deter sanctions evasion, companies that violate U.S. sanctions must face fines and other punishments. Over the past decade, global banks have paid billions of dollars in fines for violating U.S. laws and facilitating transactions on behalf of sanctioned Iranian entities. Aviation companies and other global businesses should also be held to strict compliance standards. Companies that fail to do proper due diligence should face fines

and temporary denial orders from the Commerce Department. Moreover, sanctioning middlemen is insufficient. Procurement networks can be reconstituted faster than Treasury can sanction them. Indeed, with new fronts created every six-to-eighteen months, the U.S. government will always lose the game of whack-a-mole. Punishing suppliers is a more effective way to deter reputable firms from engaging in risky sales that turn out to be fronts for sanctions evasion.

3. U.S. and foreign governments should use export controls to complement sanctions and block trade in military and dual-use goods to risky end-users.

This memo has repeatedly referred to sanctions against the Iranian aviation sector, but the majority of the restrictions were not economic sanctions administered by OFAC. Rather, the U.S. government used export controls linked to Iran's support for terrorism, nuclear and missile proliferation, and other illicit activities to block the sale of aircraft and aviation equipment to Iran. Even as Iran evaded these restrictions and procured used aircraft, these controls effectively limited the export of modern U.S. goods and foreign products containing U.S. components without the direct use of financial measures that have come to dominate U.S. sanctions.⁷⁷ This can serve as a model for future sanctions programs.

Export controls should be used to provide an effective and flexible way to limit trade in certain products to problematic end-users. For example, even though the United States considers Egypt to be an ally, the Commerce Department still requires export licenses

77. Arguably, the overall financial sanctions against Iran and banks' risk assessment were reinforcing and played a role by making it nearly impossible for companies to secure financing for large aviation sales; however, at no point did the U.S. government expressly forbid the financing of the sales. Instead, the government restricted the export and held responsible all parties involved in an export control violation, including financial institutions.

for reasons related to chemical and biological weapons, nuclear nonproliferation, national security, regional stability, human rights, and other concerns.⁷⁸ The U.S. government can then tighten or loosen the licensing approval process based on a country's track record. This can provide incentives that are calibrated to a recipient country's behavior. This is preferable to the wholesale lifting of sanctions as we have seen in the case of the Iran nuclear deal.

Finally, Washington should share with its allies the enforcement lessons it has learned and help them to implement their own export control regimes, especially as it relates to equipment and dual-use goods relevant to weapons of mass destruction. This is particularly relevant to the enforcement of the JCPOA, which created a Procurement Channel of permitted nuclear trade with Iran. Experts have pointed out that this mechanism has a weakness because it requires robust export controls by each individual exporting country – something not all countries have.⁷⁹

Conclusion

Immediately after sanctions were lifted, Iran held its first aviation summit since the 1979 revolution. Iranian officials stated that representatives from 100 Iranian and foreign companies were scheduled to attend.⁸⁰ However, industry experts caution that a

78. U.S. Department of Commerce, "Commerce Country Chart: Reason for Control," *Commerce Control List Overview and the Country Chart, Supplement No. 1 to Part 788*, December 3, 2015. (https://www.bis.doc.gov/index.php/forms-documents/doc_view/14-commerce-country-chart)

79. For example, see David Albright and Andrea Stricker, "The Iran Nuclear Deal's Procurement Channel: Overcoming Post-Implementation Day Issues," *The Institute for Science and International Security*, April 21, 2016. (http://isis-online.org/uploads/isis-reports/documents/JCPOA_Procurement_Channel_Post_Implementation_Day_21April2016_Final1_1.pdf)

80. "100 companies to attend Iran Aviation Summit 2016," *Islamic Republic News Agency* (Iran), January 20, 2016. (<http://www.irna.ir/en/News/81928788/>)

number of factors point to limited growth in Iran's aviation sector. In addition to the risk of renewed sanctions and low oil prices limiting Iran's spending power, Iranian airlines currently spend 25 percent of their revenues on maintenance, repair, and overhaul – compared to the industry average of six percent.⁸¹ Simply put, the industry is inefficient. Iranian pilots and technicians initially also may lack the expertise needed to operate a new generation of airline technology acquired post-sanctions.⁸² These factors point to the long-term, residual impact of sanctions even after they are lifted.

And yet, major aviation companies are lining up to ink billion-dollar deals with Iran. Suppliers will therefore need robust due diligence processes to ensure that their planes are not resold or leased to sanctioned entities, and that they are not used to support terrorist operations or ship weapons and personnel to the Syrian theater. Strong U.S. government sanctions enforcement will also help identify the risks associated with the Iranian aviation sector and will inform companies' compliance processes. By contrast, weak sanctions enforcement and poor due diligence will only enhance Iran's ongoing illicit activities and make Western companies complicit in Iran's continued illicit activities across the Middle East.

81. Ian Sheppard, "Airlines Queue Up as Iran Sanctions Lifted," *AIN Online*, January 19, 2016. (<http://www.ainonline.com/aviation-news/air-transport/2016-01-19/airlines-queue-iran-sanctions-lifted>)

82. Martin Rivers, "Freed from sanctions, Iran's airlines go on a spending spree," *Al Arabiya* (UAE), February 6, 2016. (<http://english.alarabiya.net/en/business/aviation-and-transport/2016/02/06/Freed-from-sanctions-Iran-s-airlines-go-on-a-spending-spreed.html>)

Appendix A: Iran's Aviation Industry

The following two-page chart lists the companies that make up Iran's aviation sector including scheduled carriers, passenger charters, and cargo carriers currently active or starting up, as well as Iran's aircraft manufacturing firm. The data was collected from aviation industry databases, company websites, and OFAC's list of Specially Designated Nationals.

Name of Airline	Airline Type	Year Founded	Number of Planes	Avg. Age of Fleet (years)	Ownership	U.S. Designation Status	Reason for Designation	Comments
Aban Air	cargo carrier	2006	2*		private	designated previously but delisted on 1/16/2016	NPWMD	under restarting status
Aria Air	passenger charter	2001			private	not designated		under restarting status
Arvand Airlines	scheduled carrier	1998			private	not designated		under restarting status
ATA Airlines	scheduled carrier	2009	11	22.4	private	not designated		
Atrak Air	scheduled carrier	2013	3	23.8	unclear	not designated		
AWA Airways	scheduled carrier	2016	1	26	government	not designated		startup airline
Caspian Airlines	scheduled carrier	1993	12	26.2	private	currently designated	SDGT	
Eram Air	passenger charter	2005		25.6	unclear	not designated		under restarting status
HESA Iran Aircraft Manufacturing Industries	government - manufacturer	1976	1	28.2	government	currently designated	NPWMD	
Iran Air	scheduled carrier	1973	39	26	government	designated previously but delisted on 1/16/2016	NPWMD	
Iran Airtour Airlines	scheduled carrier	1992	6	22.9	private, previously owned by Iran Air	designated previously but delisted on 1/16/2016	NPWMD	
Iran Aseman Airlines	scheduled carrier	2001	34	24.5	government	not designated		
Islamic Republic of Iran Air Force	government - military	1979	15	42.2	government	currently designated	IRGC, NPWMD	

Name of Airline	Airline Type	Year Founded	Number of Planes	Avg. Age of Fleet (years)	Ownership	U.S. Designation Status	Reason for Designation	Comments
Kish Air	scheduled carrier	1991	13	23.1	private	not designated		
Mahan Air	scheduled carrier	1991	56	23.4	private	currently designated	SDGT	
Meraj Air	scheduled carrier	2010	10	24.6	unclear	currently designated	SDGT	
Naft Airline	scheduled carrier	2009	10	23.4	government, owned by National Iranian Oil Company (NIOC)	not designated, but NIOC was previously designated, but delisted on 1/16/2016		previously known as Iranian Air Transport; rebranded in 2009
Nasim Air	scheduled carrier	2015	1		private, owned by Mahan Air	not designated, but owned by a designated entity		startup airline
Pouya Air (formerly known as Yas Air)	cargo carrier	2008	2**	15.7	private	currently designated	IRGC, SDGT	
Qeshm Airlines	scheduled carrier	1993	21	21.1	private	not designated		
Saffatt Airlines	cargo carrier	1998	2	28.6	unclear	not designated		closed operations from 2000-2008
Sepahan Airlines	scheduled carrier	2014			government, owned by HESA	not designated, but owned by a designated entity		
Taban Air	scheduled carrier	2006	4***	19.5	private	not designated		
Taftan Airlines	scheduled carrier	2003	3	24.4	unclear	not designated		under restarting status
Tehran Airlines/ Air	scheduled carrier	2015	1	27.2	unclear	not designated		startup airline
Zagros Airlines	scheduled carrier	2006	19	24.1	private	not designated		

Chart data as of July 8, 2016.

“Number of Planes” data from ch-Aviation database except for *(Aban Air’s website), **(AirlineUpdate), and ***(FlightRadar24).

“Reason for Designation” indicates the sanctions program under which the U.S. Treasury Department designated the airline:

NPWMD: Non-Proliferation and Weapons of Mass Destruction authorities, Executive Order 13382

SDGT: Specially Designated Global Terrorists authorities, Executive Order 13224

IRGC: Islamic Revolutionary Guard Corps owned or controlled, or identified as an agent

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Photo credits

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