© Middle East Institute. This article is for personal research only and may not be copied or distributed in any form without the permission of The Middle East Journal.

Cities, Globalized Hubs, and Nationalism in the Persian Gulf

Mehran Kamrava

This article examines the three major cities of the Persian Gulf region — Doha, Abu Dhabi, and Dubai. At the regional level, all three cities have become transportation hubs, and Doha and Abu Dhabi have become educational and cultural centers. At the global level, however, only Dubai has succeeded in becoming a key node in international networks of finance, commerce, services, telecommunications, logistics, and transportation. The others' aspirations to become global cities are undermined by continued reliance on oil and gas revenues. On balance, while these cities are comparatively successful regional hubs, their long-term position as global cities is far from certain.

In October 2013, Emirati public intellectual Sultan Al Qassemi elicited sharp reactions when he wrote that "Abu Dhabi, its sister emirates of Dubai and Sharjah and the Qatari capital, Doha, have developed as the nerve center of the contemporary Arab world's culture, commerce, design, architecture, art and academia, attracting hundreds of thousands of Arab immigrants, including academics, businessmen, journalists, athletes, artists, entrepreneurs and medical professionals." These cities may not have the "political dynamism" of some of their Arab peers, Al Qassemi declared, but "in almost every other sense they have far outstripped their sister cities in North Africa and the Levant."

The reaction to Al Qassemi's article was fast and furious.² But the Emirati writer

Mehran Kamrava is Professor of Government at Georgetown University Qatar. Professor Kamrava's recent books include A Concise History of Revolution (Cambridge University Press, 2020), Inside the Arab State (Oxford University Press, 2018) and Troubled Waters: Insecurity in the Persian Gulf (Cornell University Press, 2018). Grateful acknowledgment goes to Neil Udassi for his research assistance with the data presented here and to Zahra Babar, Suzi Mirgani, and the Middle East Journal's reviewers for helpful comments on earlier drafts.

- 1. Sultan Sooud Al Qassemi, "Gulf Cities Emerge as New Centers of Arab World," *Al-Monitor*, October 8, 2013, http://almon.co/hx4.
- 2. The rebuttals to Al Qassemi's piece were too many to recount here. Some of the responses included those by M. Lynx Qualey, "Are Gulf Cities the New Capitals of Arabic Literature?" *ArabLit Quarterly*, October 10, 2013, https://arablit.org/2013/10/10/are-gulf-cities-the-new-capitals-of-arabic-literature/; Ursula Lindsey, "The New Arab Capitals," *Arabist*, October 25, 2013, https://arabist.net/blog/2013/10/25/the-new-arab-capitals. One of the sharpest came from political scientist As'ad AbuKhalil:

What contribution to Arab culture have those cities made, unless you are talking about sleaze, worship of the European, denigration of the Asians, promotion of singers purely based on breast sizes and lip thickness, prostitution mentality (literally and figuratively), gender segregation and repression, the culture of measuring humans by the size of their bank accounts, etc. Culture, what culture? Cairo and Beirut were known for hosting a culture that allowed (often despite desires of the ruling governments) various political and cultural trends to co-exist and to clash, and for the expression of divergent political viewpoints. Cairo and Beirut were cities that allowed artists and writers to seek refuge and to express themselves artistically and creatively, and there is none of that in the Gulf. Yes, academics and journalists are flocking to the Gulf but what have they produced there?

was simply reflecting what many in Qatar and the United Arab Emirates, especially Qatari and Emirati citizens, feel: that their cities are better, safer, newer, and more modern than others across the Middle East and are, therefore, the new centers of the Arab world. Given everything else that is going on in the Middle East, and given the look and buzz of the newer Gulf cities, Al Qassemi's hubris is perhaps understandable. The grand old capitals of the Arab world — Baghdad, Cairo, Damascus, etc. — are now all broken, ravaged by men determined to hang on to power no matter the consequence, up to the point of civil war. Flush with money, in contrast, Qatar and the UAE brim with self-confidence. Doha, Abu Dhabi, and Dubai have emerged as new destinations for employment, lifestyles of choice, and even leisure.

Local citizens and residents are not the only ones caught up in the hubris. As political scientist Vali Nasr stated in his aptly named book *Meccanomics*, "Dubai has become the preferred imagined future — the dreamland — of the Muslim world, the most talked about and most favored destination for Muslim tourists and businessmen, and where most Muslims claim they would like to live, other than their own country." Critically, however, Al Qassemi and others appear to have confused consumption with production. The ability to purchase something — whether it is expertise, an impressive building, skilled and unskilled labor, a well-stocked museum, or a top-tier university — does not necessarily translate into the ability to indigenize the requisite knowledge to produce it. Rampant consumerism and the deliberate construction of a market society, as development anthropologist Syed Ali and many others observed, also come with a dark underbelly of transnational criminal activity. Equally ominous are the deleterious effects of how all these urban transformations are financed — the curse of overreliance on natural resources — on meaningful, long-term social, political, and economic development.

Much has been written in recent years about the spectacular growth of cities in the Arabian Peninsula and the resulting changes to their demographics, architecture, social makeup, and cultural dynamics.⁶ But systematic analyses of these cities' relationships

[Continued from previous page]

What ideas? They go there and they work as assistants and propagandists in the entourage for this prince or that prince. If anything, the impact of that Gulf oil and gas culture has been quite corrosive on the entire Arab world and its culture.

For the full post, see "Gulf Cities as the New Centers of the Arab World?" *Angry Arab News Service*, October 9, 2013, https://angryarab.blogspot.com/2013/10/gulf-cities-as-new-centers-of-arab-world.html.

- 3. Vali Nasr, Meccanomics: The March of the New Muslim Middle Class (Oxford: Oneworld, 2009), 31.
 - 4. Syed Ali, Dubai: Gilded Cage (New Haven, CT: Yale University Press, 2010), 8-9.
- 5. For the consequences of resource curse in the region see, Mehran Kamrava (ed.), *The "Resource Curse" in the Persian Gulf* (London: Routledge, 2020).
- 6. A small sample of this burgeoning scholarship includes Gokçe Günel, Spaceship in the Desert: Energy, Climate Change, and Urban Design in Abu Dhabi (Durham, NC: Duke University Press, 2019); Calvert W. Jones, Bedouins into Bourgeois: Remaking Citizens for Globalization (Cambridge: Cambridge University Press, 2017); Natalie Koch, The Geopolitics of Spectacle: Space, Synecdoche, and the New Capitals of Asia (Ithaca, NY: Cornell University Press, 2018); Harvey Molotch and Davide Ponsini (eds.), The New Urban Arab: Gulf Cities of Wealth, Ambition, and Distress (New York: NYU Press, 2019); Benjamin Smith, Market Orientalism: Cultural Economy in the Arab Gulf States (Syracuse, NY: Syracuse University Press, 2015).

الملسل كفي للاستشارات

with the broader Middle East, and also with the rest of the world, are conspicuously absent. Even if what is happening in the region is dismissed as mere fixation with spectacular architecture or rampant consumerism, it would be difficult to deny that the cities of the Persian Gulf have emerged as hubs of some sort for the rest of the region.

This article posits that in the Arabian Peninsula, the cities of Doha, Dubai, and Abu Dhabi have distinguished themselves as regional hubs and as aspiring global cities. Other cities in the vicinity, most notably Manama and to a lesser extent Kuwait City, have recently also had their own shares of impressive architectural projects and marketing campaigns. But they have lacked the resources (in the case of Manama) or the official resolve (as Kuwait City) to become magnates for audiences and stakeholders beyond those residing within their country's borders. Backed by both state policy and by significant financial resources, it has been Doha, Dubai, and Abu Dhabi that have sought to play to audiences far and wide.

The initial impetus for hyper-growth and regional centrality came from a desire to carve out distinct national identities by leaders in what were newly independent, small states located in a decidedly rough neighborhood. The spectacular cityscapes that we see today in Qatar and the UAE are products of converging processes of institutional state-building and political consolidation by leaders that resorted to engaging the global environment as a means of giving expression to and deepening national identities and nationalist sentiments. Politics provided a powerful motive for building superlative cities. Before long, the process took on a life of its own, pushed forward by contractors and celebrity architects eager to line their pockets, migrant workers and expatriates in search of better job opportunities, and political leaders reveling in their image as forward-looking visionaries while enriching themselves off the construction boom around them.

Meanwhile, what was happening to each of these cities was having manifold consequences for the region and beyond. This emergence was anything but accidental, as these transformations were the result of the Qatari and Emirati leaderships' vision for both the cities and their countries in general. It was decades ago that the cities of Doha, Abu Dhabi, and especially Dubai began employing multipronged strategies of robust and expansive growth in maritime logistics, infrastructure development, and becoming central hubs for air transport in order to become truly global cities. In this they have largely succeeded. During this process, starting in the 1990s, the leaderships of both Qatar and the UAE also pointed to culture and education as key areas in which their countries lagged behind and began investing resources to become regional educational hubs as well.⁷ Dubai has concentrated on tourism in particular, and in addition to having become an undisputed regional logistics hub, it is today a popular destination for visitors and medical tourists from around the world.

At the global level, meanwhile, all three cities have sought to position themselves as critical nodes in global networks of finance, commerce, services, telecommunications, and logistics and transport. In seeking to become global cities, Dubai has been the most successful, although all three cities have made significant progress. While they

^{7.} More recently, Qatar and Abu Dhabi have embarked on ambitious plans to shift their economies away from hydrocarbons by 2030. For more, see State of Qatar, General Secretariat for Development Planning, "Qatar National Vision 2030" (Jul. 2008): 8; Government of Abu Dhabi, "The Abu Dhabi Economic Vision 2030" (Nov. 2008): 118.



may not yet meet the narrow criteria that scholarship has generally ascribed to "global cities," they have made important advances toward becoming centers of globally connected networks of commerce, trade, services, logistics, and transport.

REGIONAL HUBS

In certain specific areas, Doha, Dubai, and Abu Dhabi have emerged primarily as hubs for the rest of the region. Insofar as these three cities are concerned, the *region* extends beyond the Middle East to include the entire geographic area spanning from the Indian Subcontinent in the east to the Maghrib to the west and from Iran and Central Asia in the north to East and Central Africa in the south. This geographic span is in line with the local rulers' perceptions of their cities' reach and centrality. What makes these cities hubs is that they are central nodes in wider networks, without which there might be serious disruptions to patterns of exchange and movement. Doha, Dubai, and Abu Dhabi have built up the infrastructure to serve as hubs in the three broad areas — science and culture, logistics, and services. Being a hub of science and culture can be seen in terms of a concentration of medical facilities, universities, museums, libraries, and trade in arts; a logistics hub in terms of air transport, seaports, and the reexport of goods; and a services hub in terms of tourism, banking, and public relations and marketing.

Perhaps the biggest accomplishment of the three cities has been in the area of logistics and its various components, especially in air transport, seaport facilities, and reexport. In at least one or more of these component sectors, each of the cities has emerged as a critical regional hub. Dubai, Abu Dhabi, and Doha have used logistical infrastructure as a central component of their development strategies. Insofar as seaports are concerned, Dubai remains unrivaled both in its immediate vicinity and in the larger region, so much so that it was the innovator of "the concept of a logistics city, a space dedicated entirely to logistics." The city's Jebel Ali Port has a comparative advantage due to its early embrace of new technologies. Jebel Ali is also an important center for reexports, where much of the rest of the region receives its imported commodities from. Importantly for Dubai, "port infrastructure is a critical enabler of wider processes of capital formation," as it offers "an essential infrastructural 'glue'" to bind accumulation across real estate, trade, construction, and retail.

Looking at ports and other maritime logistical infrastructures within the six countries of the Gulf Cooperation Council (GCC), we see three factors at play: a large degree of duplication among the GCC states; a hierarchy among those that

^{12.} Ziadah, "Transport Infrastructure and Logistics in the Making of Dubai Inc.," 182.



^{8.} Roland Marchal, "Dubai: Global City and Transnational Hub," in *Transnational Connections and the Arab Gulf*, ed. Madawi Al-Rasheed (London: Routledge, 2005), 102.

^{9.} Rafeef Ziadah, "Constructing a Logistics Space: Perspectives from the Gulf Cooperation Council," *Society and Space* 36, no. 4 (2018): 671, https://doi.org/10.1177/0263775817742916.

^{10.} Rafeef Ziadah, "Transport Infrastructure and Logistics in the Making of Dubai Inc.," *International Journal of Urban and Regional Research* 42, no. 2 (Mar. 2018), 183, https://doi.org/10.1111/1468-2427.12570.

^{11.} As early as 2012, for example, Dubai had become the world's leading reexporter of tea. Emirates News Agency, "UAE Emerges World's Top Tea Re-Exporter," *Gulf News*, October 29, 2012, https://gn24.ae/870cbc8bace8000.

are resource-rich and those that are resource-poor; and competition among port operators to gain access to maritime port markets. In fact, this competition was one of the key factors in prompting the United Arab Emirates, along with Saudi Arabia and Bahrain, to cut ties and impose punishing embargoes on Qatar in June 2017.¹³ Up until then, Qatar was heavily dependent on Jebel Ali for its imports, especially of heavy machinery and construction equipment, while at the same time it worked on the expansion of Doha's own Hamad Port. In addition, Qatar has been able to rely on Oman's port cities of Salala and Sohar for its import needs during the blockade.¹⁴

Thanks to careful planning, phenomenal expansion, and aggressive marketing, Doha, Abu Dhabi, and Dubai have also emerged as important players in the world of aviation and as critical hubs in global networks of air transport. There is a direct linkage between the growth and position of each city and the airlines associated with it. Long-time journalist and energy policy expert Jim Krane's observation that "Dubai could never become the world's fastest growing city without one of the world's fastest growing airlines" (i.e., Emirates Airline) is just as valid for Doha and Abu Dhabi and their respective carriers, Qatar Airways and Etihad Airways. Travel and tourism's total contribution to the UAE's gross domestic product (GDP) was 12.1 percent in 2016, amounting to \$159.1 billion Emirati dirhams (AED), equivalent to \$43.3 billion. For the whole of the Middle East, the 2016 average stood at 9.1 percent and for the world at 10.2 percent. Even amid the spread of coronavirus disease 2019 (Covid-19), the UAE government anticipated that tourism revenues would grow by 5.1 percent per annum through 2027 to AED 264.5 billion (\$72 billion).

In addition to revenue generation and branding, there are a number of other advantages to being an airport hub city. These advantages include a comparatively high frequency of flights; much greater accessibility and variety of destinations, chosen on the basis of attractiveness to residents as well as market considerations; more opportunities for quick return flights; greater capacity for package and cargo delivery on scheduled passenger services; and, critically, greater opportunities for residents and companies to develop links with other hubs. A study of airport hub cities in the US also found that they tend to both attract high-grade employment and create additional employment opportunities.¹⁸

With close to a billion people living within a five-hour flight of the three cities, they have emerged as undisputed hubs. Not surprisingly, the three Gulf hubs have experienced massive growth in recent years. Since the 2000s, connections and city pairs have consistently grown among the three cities at a significant rate while growth among

^{13.} Ziadah, "Constructing a Logistics Space," 678.

^{14.} Ibrahim Mohamed Rafi, "Oman Now 'a Trans-Shipment Hub for Qatar," *Gulf Times*, September 20, 2017, www.gulf-times.com/story/564485.

^{15.} Jim Krane, City of Gold: Dubai and the Dream of Capitalism (New York: Picador, 2010), 109.

^{16.} World Travel and Tourism Council, "Travel and Tourism Economic Impact 2017: United Arab Emirates" (Mar. 2017): 1, 8.

^{17.} UAE, Government Portal, "Travel and Tourism," https://u.ae/en/information-and-services/visiting-and-exploring-the-uae/travel-and-tourism (last updated November 8, 2020).

^{18.} Kenneth Button and Somik Lall, "The Economics of Being an Airport Hub City," *Research in Transportation Economics* 5 (1999): 82, 101, https://doi.org/10.1016/S0739-8859(99)80005-5.

European hubs has only been modest.¹⁹ Between 2011 and 2016, the number of international transfer travelers out of Middle Eastern hubs grew by 79 percent, and the three Gulf airlines provided about twice the level of connectivity as compared to the major European carriers.²⁰ According to a 2012 article in the *Flight International* trade magazine, "in Europe and Asia, legacy carriers will struggle to compete with the sheer convenience of one-stop travel by the Gulf's 'big three' carriers . . . The Gulf is simply too well located to be ignored."²¹ Together, the three Gulf airlines are "changing the dynamics of international aviation" and are "quickly emerging as new global challengers."²² Their core strengths lie in the effectiveness of their hub-and-spoke operations; Britain–India connections; the ability to connect Africa, Europe, and Australia to the rest of the world; competitive cost structures; and the strength of their brand names.²³

As Figure I indicates (see Appendix for charts), Doha's Hamad International Airport and the Dubai International Airport rank among the world's busiest and fastest growing airports in terms of traffic. In fact, Dubai handles significantly more passengers than the main international airports in Singapore, Frankfurt, Istanbul, or London. Hamad International also registered healthy growths up until mid-2017, when its numbers declined slightly as a result of its dispute with the UAE, Saudi Arabia, and Bahrain. Still, Qatar Airways was able to add new destinations in both 2017 and 2018. Together, the three main Gulf carriers have numbers of total international destinations that are comparable to other major global airlines (see Figure II). Not surprisingly, the three Gulf carriers tend to have large and growing fleets (see Figure III).

Equally undisputed is the emergence of the three cities as financial and banking hubs within the Middle East, though Manama is not far behind.²⁴ By the mid-2000s, Doha and Dubai had already emerged as financial powerhouses and as regional finance and banking hubs.²⁵ What banking competition there is within the Middle East and North Africa takes place among the three cities themselves rather than from elsewhere. Even though the Dubai International Financial Center houses no less than 900 different financial institutions out of a total of more than 1,800 companies, it faces stiff competition from Doha and Abu Dhabi. This competition is only likely to intensify in the coming years. The Qatari government, for example, intends to spend \$150 billion on infrastructural projects by 2023, making itself only more attractive for international investors and financial institutions.²⁶

^{19.} Tobias Grosche, Richard Klophaus, and Adam Seredyński, "Competition for Long-Haul Connecting Traffic among Airports in Europe and the Middle East," *Journal of Air Transport Management* 64, part A (Sept. 2017), 13, https://doi.org/10.1016/j.jairtraman.2017.06.019.

^{20.} John F. O'Connell and Oriol Escofet Bueno, "A Study into the Hub Performance Emirates, Etihad Airways and Qatar Airways and Their Competitive Position against the Major European Hubbing Airlines," *Journal of Air Transport Management* 69 (Jun. 2018): 257, https://doi.org/10.1016/j.jairtraman.2016.11.006.

^{21. &}quot;Hub Power Has Spoken," Flight International, September 11–17, 2012, p. 7.

^{22.} John F. O'Connell, "The Rise of the Arabian Gulf Carriers: An Insight into the Business Model of Emirates Airline," *Journal of Air Transport Management* 17, no. 6 (Nov. 2011), 339, https://doi.org/10.1016/j.jairtraman.2011.02.003.

^{23.} O'Connell, "The Rise of the Arabian Gulf Carriers," 341-345.

^{24.} Marchal, "Dubai," 101.

^{25.} Chip Cummins and Alistair MacDonald, "Gulf States Vie to Become the Next Financial Hubs," Wall Street Journal, June 19, 2008, p. 1.

^{26.} Melissa Song Loong, "Dubai feels the heat of competition," *Middle East Economic Digest*, May 3, 2013, pp. 20–21.

An area in which the three cities do not have an early starters' advantage is in science and education, though that has not stopped them from trying to become regional hubs for universities, museums, and the art trade. Dubai, for example, views itself as being ideally and uniquely positioned to become "the center of the innovation hub" for the rest of the Middle East and South Asia.²⁷ Not surprisingly, the number of universities in both the UAE and Qatar has grown substantially over the last two decades. For the two countries, the imperatives of becoming regional educational hubs are fairly similar. For Qatar, the drive to become an education hub is motivated by three primary reasons: human capital is seen by the country's leaders as an essential element of a knowledge-based economy; Qatari leaders see educational quality across the region as problematic; and, relatedly, the country's leadership assumes that knowledge and education are key to fostering dialogue and mutual understanding.²⁸ For the UAE's leaders, becoming an education hub enables the country to improve the educational credentials of its workforce, better prepare the labor market for a knowledge economy, and, in the process, attract more high tech investments to both Dubai and Abu Dhabi.²⁹ Moreover, the ever-entrepreneurial policy-makers in Dubai realized sometime in the mid-2000s that, as with the arts, there is marketing and brand value in higher education. They therefore made a concerted effort to import brand-name universities.³⁰

In Dubai, of the 56 colleges and universities currently in operation, only 2 were established in the 1980s, another 11 in the 1990s, and the rest in the 2000s. Doha is home to 16 universities, only one of which, the University of Qatar (established in 1973), dates to before the late 1990s, when the Qatar Foundation invited American, French, and British universities to establish branch campuses in the country. Similarly, of Abu Dhabi's 11 universities, the United Arab Emirates University (est. 1976) is the oldest, with one dating back to the 1980s (Higher College of Technology, est. 1988), two to the 1990s (Emirates College of Technology, est. 1993, and Zayed University, est. 1998), and the rest in the 2000s. Given the demographics of the three cities, with very few exceptions (e.g., Qatar University, Al Falah University in Dubai, and Higher College of Technology in Abu Dhabi), the majority of university students in the two countries are made-up of nonnationals, though the percentage of international stu-

^{27.} Dubai International Financial Centre, "Dubai Set to Serve as Regional Digital Financial Inclusion Hub for the Middle East, Africa and South Asia," July 2, 2018, www.difc.ae/newsroom/pressreleases/dubai-set-serve-regional-digital-financial-inclusion-hub-middle-east-africa-and-south-asia.

^{28.} Arwa Ibnouf, Lois Dou, and Jane Knight, "The Evolution of Qatar as an Education Hub: Moving to a Knowledge-Based Economy," in *International Education Hubs: Students: Talent, Knowledge-Innovation Model*, ed. Jane Knight (London: Springer, 2013), 47.

^{29.} Warren Halsey Fox and Sabha Al Shamisi, "United Arab Emirates' Education Hub: A Decade of Development," in *International Education Hubs*, ed. Jane Knight, 66.

^{30.} Ali, Dubai, 75.

^{31.} All data in this paragraph are collected from the universities' websites or annual reports.

^{32.} For example, of the 64 students who graduated from Georgetown University Qatar in 2019, only 31 were Qatari nationals, see "Georgetown University Celebrates 11th Commencement Ceremony," May 12, 2019, www.qatar.georgetown.edu/georgetown-university-celebrates-11th-commencement-ceremony-qatar/. Similarly, in 2018, Northwestern University Qatar announced that 60 percent of its incoming students were nonnationals coming from Africa, Asia, Europe, and the Americas. "NU-Q Welcomes Its Largest and Most Diverse Freshman Class," September 2, 2018, www.qatar. northwestern.edu/news/articles/2018/08-class-of-2022.html.

dents as compared to foreign local residents is impossible to determine. What is clear, nonetheless, is that since the early 2000s all three cities have emerged as important regional educational hubs.

Each city hosts branches of some of the most prominent and prestigious names in higher education, such as New York University in Abu Dhabi, Georgetown University in Doha, and London Business School in Dubai. In both countries, the biggest challenge faced by foreign branch campuses, and also by their local patrons and principal funders, is financial sustainability.³³ Despite both countries' long-standing policy of transforming their cities into education hubs, the UAE's commitment to research has been particularly sparse. As such, it has ceded advantage in that area to Qatar and its robust Qatar National Research Fund (QNRF).³⁴ Likewise, the UAE's restrictions on academic freedom, especially in the social sciences, have also been a hindrance that most institutions in Qatar have so far avoided.³⁵

While all three cities house branch campuses of highly renowned universities, it is Dubai that has emerged as an undisputed regional hub for medical tourism. This is largely the result of a concerted, and mostly successful, effort by the Emirate of Dubai to appeal to potential medical tourists from across the world. One such initiative has been the creation of a portal by the Dubai Health Authority called the Dubai Health Experience (DHX), the first of its kind in the region, which allows tourists to book their entire "medical holiday" from procedure to flights and hotel, online.³⁶

These and other similar initiatives have paid off. In 2020 Dubai ranked first in the Middle East in the Medical Tourism Index and sixth globally.³⁷ Medical tourism has been "one of the fastest growing and lucrative segments of tourism industry" in the city. The number of medical tourists to Dubai grew from 107,000 in 2012 to 337,000 in 2018. The trend is expected to continue. Between 2015 and 2020, Dubai authorities expected the number of medical tourists to the country to grow by 12 to 15 percent a year, reaching half a million patients a year and an estimated annual revenue of \$700 million.³⁸ The UAE's medical tourism sales went from

الكالكال للاستشارات

^{33.} Ibnouf, Dou, and Knight, "The Evolution of Qatar as an Education Hub," 56.

^{34.} Kevin Dunseath, "The UAE's Fast-Track Path to Becoming a Global Education Hub;" *Gulf Business*, February 24, 2018, https://gulfbusiness.com/uaes-fast-track-path-becoming-global-education-hub/; State of Qatar, Ministry of Development Planning and Statistics, "Findings of Research and Development Survey of Qatar 2015" (Apr. 2017), www.mdps.gov.qa/en/statistics/Statistical%20 Releases/Social/RAndD/2015/RD_Qatar_2015_En.pdf.

^{35.} Philippa Hall, "The Global Education Market, Criticality, and the University Curriculum in the Overseas Campuses of Qatar and the United Arab Emirates," *International Journal of Critical Pedagogy* 9, no. 1 (2018): 81–82.

^{36.} Hallow Al-Talabani, "Advancing Medical Tourism in the United Arab Emirates: Toward a Sustainable Health Care System," *Sustainability* 11, no. 1 (2019), 231, https://doi.org/10.3390/su11010230.

^{37.} Medical Tourism Association "Dubai," 2020–2021 Medical Tourism Index, /www.medicaltourismindex.com/destination/dubai/. In the same index, Abu Dhabi was ranked second in the Middle East and ninth globally, see www.medicaltourism.com/destinations/abu-dhabi.

^{38.} Anita Medhekar and Farooq Haq, "Medical Tourism Development in Dubai: Managing Challenges and Opportunities," *Global Journal of Business and Social Science Review* 4, no. 4 (Dec. 2016), 20, 23; Marc Fetscherin and Renee-Marie Stephano, "The Medical Tourism Index: Scale Development and Validation," *Tourism Management* 52 (Feb. 2016), 539–56. https://doi.org/10.1016/j.tourman.2015.08.010.

AED 8 billion in 2014 (\$29.4 billion) to AED 13 billion in 2019 (\$47.7 billion) and are estimated to reach AED 19 billion in 2023.³⁹ Dubai alone expected to attract 500,000 medical tourists in 2020.⁴⁰

Doha, Dubai, and Abu Dhabi each have emerged as hubs for a variety of areas insofar as their wider region is concerned. While in some areas there has been a mismatch between aspirations and abilities, as in tourism and the development of medical facilities that would serve as regional centers in Doha and Abu Dhabi, in other areas, as in air transport and finance and banking, the three Gulf cities' success has been mostly unrivaled. Nevertheless, even in areas where the cities have not been quite as successful, the compound effect has been to turn the Persian Gulf region into a hub for countries and areas within a few hours' flight. By and large, the three cities can be considered as regional hubs and centers.

ASPIRING GLOBAL CITIES

In addition to positioning themselves as regional hubs for commerce, logistics, and arts and science, Doha, Dubai, and Abu Dhabi aspire to go even further and become *global cities* (in the technical sense). In this effort, there are few areas in which they have succeeded, and this success has not been even. All three cities have become critical to global aviation for travel from East and South Asia to Europe, North America, the rest of the Middle East, and Africa. Moreover, all three have become central to the mobility of labor, both skilled and especially unskilled and semiskilled labor. Vali Nasr pointed also to the "growing significance of the Persian Gulf to the emerging global economy" through the role that regional sovereign wealth funds and private investment pools play in the United States, Europe, and across Asia. Of the three cities, however, only Dubai has so far emerged as a consequential participant in and a producer of global services. For all three cities the aspiration to become global cities is clearly there, and each is making slow progress toward this objective. But so far only Dubai has managed to position itself as a service and commercial center that is consequential beyond the broader region.

It is worth visiting different academic definitions of *global cities* before proceeding further. One 2007 article about labor flows to Persian Gulf urban centers used the concept of *world cities* to mean "headquarters of global capitalism and centers of business, advance producer services, trade and banking — sites of economic and social interaction that can be arranged hierarchically based on the levels of global investment and economic power they have attracted."⁴² Instead I prefer to use Saskia Sassen's term. She defined *global cities* as:

^{39. &}quot;Medical Tourism in the UAE," Economic Bulletin 10, no. 182, (Aug. 2019): 2.

^{40.} Umendra Narayan Shukla and Sharad Kumar Kulshreshtha, "United Arab Emirates as a Global Medical Tourism Destination: An Explorative Study," in *Global Developments in Healthcare and Medical Tourism*, ed. Sudip Paul and Sharad Kumar Kulshreshtha (Hershey, PA: IGI Global, 2020), 279.

^{41.} As Nasr put it: "Chimerica' now has a Persian Gulf detour." See Meccanomics, 37.

^{42.} Edward J. Malecki and Michael C. Ewers, "Labor Migration to World Cities: With a Research Agenda for the Arab Gulf," *Progress in Human Geography* 31, no. 4 (2007), 467, https://doi.org/10.1177/0309132507079501.

(1) command points in the organization of the global economy, (2) key locations and market places for the leading industries of the current period — finance and specialized services for firms, and (3) major sites of *production*, including the production of innovations, for these industries as their products are not simply a function of talent but are made.⁴³

As centers for servicing and financing international trade, investment, and operational headquarters, global cities are "strategic production sites for today's leading economic sectors."

Cities do not become "global" on their own, Sassen argued, but rather become "strategic node[s]" in a wider network.⁴⁵ In the process, they house locally based and integrated organizations through which the spatially dispersed global economy takes place.⁴⁶ Global cities therefore feature "a superlative number of high-order functions such as cultural amenities and corporate headquarters."⁴⁷

Architects Ashraf Salama and Florian Wiedmann maintained that Doha, Abu Dhabi, and Dubai (as well as Manama) already meet the criteria for being classified as global cities. For them, Dubai is "an exemplar of a global city" whose "vision and progressive practices" the other regional cities are trying to emulate. 48 By and large, they argued, the other cities have succeeded in attaining Dubai's status as a global city. Over the last two decades, we have seen global flows of people, labor, capital, information, and knowledge in Doha, Dubai, and Abu Dhabi, making them global cities and in turn facilitating the rise of "vibrant new and emerging urban landscapes." Architecture and urbanism play key roles in these cities being "global," as they house high-tech industries, international services, knowledge economies, and transnational higher education institutions. 50

Salama and Wiedmann's assertion needs to be qualified. The extent to which Doha and Abu Dhabi have been meaningfully integrated into global networks of commerce, finance, and other services is debatable. Global cities are more than just impressive buildings and segregated and fragmented workforces. Salama and Wiedmann contended that a *global city* represents "a complex space where multiple economies and work cultures come together to produce the complex organizational and management infrastructure necessary to handle the running of global operations." Global cities are not simply locations for corporate branch offices. They are key com-

- 43. Saskia Sassen, Cities in a World Economy, fourth edition (London: Sage, 2012), 7.
- 44. Saskia Sassen, "The Global City," in *A Companion to the Anthropology of Politics*, ed. David Nugent and Joan Wilson (Malden, MA: Blackwell, 2007), 171.
 - 45. Sassen, Cities in a World Economy, 7.
 - 46. Marchal, "Dubai," 95.
- 47. Thomas J. Sigler, "Relational Cities: Doha, Panama City, and Dubai as 21st Century Entrepôts," *Urban Geography* 34, no. 5 (2013): 614, https://doi.org/10.1080/02723638.2013.778572.
- 48. Ashraf M. Salama and Florian Wiedmann, *Demystifying Doha: On Architecture and Urbanism in an Emerging City* (London: Routledge, 2013), p. 43.
- 49. Ashraf M. Salama, "The Emerging Urban Landscape in the Southern Persian Gulf," in *Gateways to the World: Port Cities in the Persian Gulf*, ed. Mehran Kamrava (New York: Oxford University Press, 2016), 122–23.
 - 50. Salama and Wiedmann, Demystifying Doha, 43.
 - 51. Salama and Wiedmann, Demystifying Doha, 6.



ponents and nodes in global networks without which there would be serious disruptions to flows of services, capital, trade, or information. Of the Gulf cities, Abu Dhabi and Doha are central to flows of oil and liquefied natural gas to global markets, respectively. But a credible argument can be made that only Dubai is similarly significant for global financial markets, logistics, and services. Only Dubai is also an exporter of services, mostly architecture, while the other two cities are mostly only consumers of services.⁵²

Undeniably, the three Gulf cities are all recipients of great attention from their rulers, and, at least within the region, they are also centers of diplomatic activity, commerce, art, and industry.⁵³ Moreover, several additional developments in the Persian Gulf region make Doha and Abu Dhabi resemble global cities. These include economic globalization and international migration, the emergence of specialized services (such as finance), new types of inequality, new politics of identity and culture, new politically and ideologically polarizing and radicalizing dynamics, and the politics of space in terms of claiming rights to the city.⁵⁴ Global cities invariably experience large-scale migration and therefore cultural and demographic heterogeneity.⁵⁵ They have diverse economic landscapes that are comprised of workforces of immigrant and non-Arab workers who fill the various echelons of the employed, from top professionals all the way down to their secretaries, janitors, truck drivers, and the like.⁵⁶ Equally importantly, similar to other global cities, in the Persian Gulf we see spatial concentration and territorial centralization of both highly professionalized jobs as well as less-skilled tasks.

Syed Ali was convinced that Dubai was already a global city by 2010, not because of manufacturing and production but because of its successes in branding and its superlative cityscape. "What was until quite recently a regional trading port has morphed into a proper global city," he emphatically stated. "Dubai's rulers have purposely branded it through iconic construction and as the pre-eminent tourist destination of the region." But in the sense discussed here, for a city to be *global* it needs to be more than just a recipient of goods and services, and certainly more than a site for spectacular architecture. It needs to provide services of its own to others within the larger network of which it is a part. As I previously observed, "while global networks may be increasing and expanding across the [Gulf Cooperation Council's] gleaming port cities, for now the flow of services and products within them remains overwhelmingly one-way, keeping these cities as *aspiring* rather than actual global cities." A prime example includes the many "science" areas proliferating in the three cities — as in Dubai's Internet City, Abu Dhabi's Masdar City, or Doha's Science and Technology

^{52.} Ali Tawfik Al Sadik, "Macroeconomic Overview," in *The Economy of Dubai*, ed. Abdulrazak Al Faris and Raimundo Soto (Oxford: Oxford University Press), 46; Hugo Le Picard, "The Gulf Economies and the Energy Transition: The Dawn of a Post-Oil Era?" *Politique Étrangère* no. 1 (Jan. 2020): 19–31. https://doi.org/10.3917/pe.201.0019.

^{53.} Mehran Kamrava, "Contemporary Port Cities in the Persian Gulf: Local Gateways and Global Networks," in *Gateways to the Gulf*, ed. Kamrava, 44.

^{54.} Sassen, Cities in a World Economy, 12.

^{55.} Marchal, "Dubai," 100.

^{56.} Sassen, "The Global City," 171.

^{57.} Ali, *Dubai*, 79–80.

^{58.} Kamrava, "Contemporary Port Cities in the Persian Gulf," 46. Emphasis added.

Park — all of which suffer from a fundamental weakness in that they feature little or no research and development.⁵⁹ In fact, there is little technology transfer, and there is equally sparse indigenization of science and knowledge. This is because most of the professional classes are imported from abroad, and their skills are seldom transferred by the time their work contracts and residencies are over.⁶⁰

In Doha, Abu Dhabi, and Dubai, urban megaprojects are being used to create "a global city image that will place them at the international scene with other competitive world cities." Architecture has become a major factor in marketing Gulf cities as global. But frantic efforts to become global hubs through architecture have, in many respects, turned Gulf cities into "vacuous non-places." Architect Yasser Elsheshtawy rightly observed that

cities such as Abu Dhabi may adopt the forms of a global city — exclusive mixed use development, international museums and centers of learning, world class airports etc. — but in the end one could argue that they are merely recycling ideas, or serving global capital — without adding a substantive, alternative discourse to urban development.⁶³

Anthropologist Ahmed Kanna was similarly harsh in his judgement of Dubai. He invited us to "scratch below the surface," to look beyond the city as either "a beacon for the Arab world, or, alternatively, a laboratory of capitalist phantasmagoria." What we would find, he argued, is the persistence of national boundaries and their intersection with exploitation and class.⁶⁴

Such indictments notwithstanding, all three cities are trying to emerge, albeit with varying degrees of success, as central hubs between developed economies in the West and the rising economies of the East.⁶⁵ Dubai may have succeeded in positioning itself as "a leading global maritime hub," with Jebel Ali ranked among the top 10 ports in the world.⁶⁶ But that distinction appears to have waned somewhat after June 2017, when the United Arab Emirates joined Saudi Arabia and Bahrain

- 59. Krane, City of Gold, 130.
- 60. Haytham Abduljawad, "Challenges in Cultivating Knowledge in University-Industry-Government Partnerships Qatar as a Case Study," *The Muslim World* 105, no. 1 (Jan. 2015): 58–77. https://doi.org/10.1111/muwo.12080.
- 61. Oula Aoun and Jacques Teller, "Planning Urban Megaprojects in the Gulf: The International Consultancy Firms in Urban Planning between Global and Contingent," *Frontiers of Architectural Research* 5, no. 2 (Jun. 2016), 256, https://doi.org/10.1016/j.foar.2016.01.003.
 - 62. Salama, "The Emerging Urban Landscape in the Southern Persian Gulf," 138.
- 63. Yasser Elsheshtawy, "Cities of Sand and Fog: Abu Dhabi's Global Ambitions," in *The Evolving Arab City: Tradition, Modernity and Urban Development*, ed. Yasser Elsheshtawy (London: Routledge, 2008), 297.
 - 64. Ahmed Kanna, "Dubai in a Jagged World," Middle East Report no. 243 (Summer 2007): 22–29.
- 65. Ashraf M. Salama et al., "Knowledge Economy as an Initiator of Sustainable Urbanism in Emerging Metropolises: The Case of Doha, Qatar," *International Journal of Architectural Research* 10, no. 1 (Mar. 2016): 274.
- 66. Dubai Maritime City Authority, "Marine Projects and Dubai Maritime Sector Strategy to Reinforce Dubai's Efforts to Become Leading Global Maritime Hub," April 29, 2015, www.zawya.com/mena/en/press-releases/story/Marine_projects_and_Dubai_maritime_sector_strategy_to_reinforce_Dubais_efforts_to_become_leading_global_maritime_hub-ZAWYA20150429115739/.



in boycotting Qatar and closed the Jebel Ali port to goods to and from Doha. Some observers have claimed that the GCC countries have emerged as central nodes in the worldwide circulation of commodities.⁶⁷ But the GCC's own internal squabbles, its bitter acrimony having in fact pushed the region to the brink of war in the summer of 2017, have seriously undermined the three cities' global aspirations. Open borders are not prerequisites for attaining global status; network interconnectedness is. Since 2017, that interconnectedness among the three cities has been significantly reduced.

Ultimately, Doha and Abu Dhabi, and in many respects Dubai as well, remain at best aspiring global cities. Compared to many of the other similar regional cities — such as Riyadh, Jidda, and Manama — they are much better positioned to attract large-scale investments, create domestic environments for the production and export of services, establish synergetic relationships with other parts of the world, and become critical nodes in global networks and flows of goods, services, finance, and information. And they certainly have the buildings and the infrastructure, as well as the financial resources, necessary to undertake the steps needed toward becoming a global city. Nevertheless, at least for Doha and Abu Dhabi, becoming a global city remains more of an aspiration rather than a reality.

If, as Sassen maintained, cities are the primary sites of globalization, where multiple forms of global interactions and interconnectedness take place, then global cities are spaces for highly intense processes of globalization.⁶⁸ It is no accident that — compared to North Africa, Central Asia, South Asia, and the rest of West Asia the Persian Gulf region is considered much more globalized.⁶⁹ Significantly, globalization has many dark underbellies, and one of the more deleterious consequences of its localization is the growth of the need for low-skilled and semiskilled labor. Thus, alongside high paying service sector jobs, there is an abundance of cleaners, drivers, and construction and service workers who all earn low wages. All global cities, and those aspiring to become global, tend to valorize capital and under-valorize labor.⁷⁰ For the three cities being examined here, the march toward becoming global can only be made possible through the employment of armies of low-wage, low-skilled labor, in these cases labor imports from abroad. And, not unlike other cities in a similar predicament, of which Singapore is a prime example, the futuristic-looking cities of the Persian Gulf are lined around the margins with labor camps and other forms of low-income housing.71

^{67.} Ziadah, "Constructing a Logistics Space," 670.

^{68.} Sassen, "The Global City," 169.

^{69.} Anoushiravan Ehteshami, *Dynamics of Change in the Persian Gulf: Political Economy, War and Revolution* (London: Routledge, 2013), 68–70.

^{70.} Globalization is far from a uniform, linear process. It is, as Sassen reminded us, "a contradictory space; it is characterized by contestation, internal differentiation, [and] continuous border crossings. The global city is emblematic of this condition. Global cities concentrate a disproportionate share of global corporate power and are one of the key sites for its over-valorization. But they also concentrate a disproportionate share of the disadvantaged and are one of the key sites for their devalorization." See "The Global City," 172.

^{71.} Mehran Kamrava and Zahra Babar, "Situating Migrant Labor in the Persian Gulf," *Migrant Labor in the Persian Gulf*, ed. Mehran Kamrava and Zahra Babar (London: Hurst, 2012), 7–11.

CITIES, NATIONALISM, AND GLOBALIZATION

In looking at Doha, Abu Dhabi, and Dubai, we see the emergence of a number of reinforcing developments. Specifically, the three cities' hyper-growth is a component of state-building processes that, at the same time as consolidating political institutions, are meant to also shape and mold feelings of nationalism and national pride. In the Persian Gulf monarchies, this nationalism is being channeled through and reinforced by engagement with the outside world. Globalization is used by the state as a facilitator for processes of state- and even nation-building, making one contingent on the success of the other.

For Qatar and the United Arab Emirates, not only is state-building closely tied to globalization but it also helps reconcile globalization with nationalism, a phenomenon that is pervasive in most other parts of the Middle East. Nationalism often finds itself at odds with globalization, each supposedly undermining the other. In the Middle East, history, politics, and patterns of economic (under)development have all too frequently combined to make nationalism take on xenophobic, anti-foreign manifestations. In its economic variant, at least in the Middle East and North Africa, nationalism often expresses itself as populist anger directed at symbols of foreign domination of the economy.⁷² But this is not the case in the oil monarchies of the Persian Gulf. In these small countries, in addition to the state's institutional penetration of society, state-building has by necessity also entailed the protection of national sovereignty through proactive engagement with powers and economies near and far. The best protection against potential existential threats such as Iraq, Iran, and Saudi Arabia, local policy-makers figured, was to become economic powerhouses. And the best means of doing so was, and remains, engagement with globalization to the extent that is economically possible and politically prudent.

Playing to bigger and wider audiences by becoming regional hubs and aspiring global cities, therefore, is motivated by more than pursuing vanity projects. There is, no doubt, a fair amount of vanity involved. But the bigger imperative has been national survival. Qatar and the UAE's survival strategies have invariably necessitated engagement with globalization, forcing a reconciliation of nationalism and globalization in order to reinforce and sustain each other. Not surprisingly, the "father of the nation" — Emir Shaykh Zayid bin Sultan Al Nahyan in Abu Dhabi, Emir Hamad bin Khalifa Al Thani in Qatar, and Shaykh Muhammad bin Rashid Al Maktum in Dubai — is often officially portrayed as having led the country into the community of "modern" (read: Western) nations. That this global engagement has also entailed much of the darker side effects of privileging global capital at the expense of labor — e.g., low-skilled labor living in substandard conditions, smuggling, and various illicit activities — is often considered by local policy-makers to be a relatively small and manageable price to pay for political stability.

It is within this context, as innately political projects designed as much for purposes of political legitimacy and stability as for their bling value, that the spectacular cities of the Persian Gulf should be viewed. In this respect, Doha, Abu Dhabi, and

^{72.} Adeed Dawisha, *Arab Nationalism in the Twentieth Century: From Triumph to Despair* (Princeton, NJ: Princeton University Press, 2003), 311.

Dubai stand in a league of their own, although Manama and Kuwait City are not too far behind. This article has assessed the three former cities at the regional and global levels. As regional hubs, the cities' records appear highly successful. Urban and infrastructural hyper-growth, inordinate wealth, intense competition with one another, and rulers' desire to leave immediate and lasting legacies have all combined to bring to Doha, Dubai, and Abu Dhabi concentrations of world class museums, renowned universities, luxury hotels and resorts, world-class airlines and expansive passenger flows, brand recognition, and banks and other financial institutions. But such effort has been less than uniformly successful. Dubai has also succeeded in becoming a hub for medical tourism, arts trade, seaport logistics and reexport, and public relations and marketing services. Doha and Abu Dhabi have both managed to position themselves as museums and university hubs, and the former can also boast about having a world-class national library.

Doha's, Dubai's, and Abu Dhabi's efforts at becoming global cities have been decidedly less successful. Global cities are not just on the receiving end of global flows but are active participants in shaping and influencing them. For now, only Dubai, with its service-oriented economy, has been able to accomplish such a feat. Like its two nearby competitors, it has attracted huge inflows of foreign direct investment and has become a favorite destination for what urbanist Richard Florida called "the creative class." But largely because Dubai's economy does not have the comforting cushion of oil revenues, it has been forced to take the further step of becoming an active participant in the global economy and a center from which consequential decisions are made about global trade and finance, logistics and the movement of goods, and trends in PR and marketing. Doha and Abu Dhabi have some ways to go in this regard. They have the drive and the ambition, and much of the necessary infrastructure of global cities. But only time will tell whether their aspirations can translate into reality.

Singapore Changi (SIN)

APPENDIX

8		• ′	`	,
Airport	2015	2016	2017	2018
Dubai International (DXB)	-	83.6	88.2	89.1
Frankfurt am Main (FRA)	61.0	60.8	64.5	69.5
Hamad International (DOH)	30.9	38.2*	34.2*	_
Istanbul Atatürk (ISL)	61.3	60.4	63.7	_
London Heathrow (LHR)	75.0	75.7	78.0	80.1

Figure I. Traffic at International Airports, 2015–18 (in millions)

^{*} refers to the fiscal year beginning in the listed year

Carrier	2015	2016	2017	2018	International Destinations (Total #)
Air India	-	_	_	_	30+
British Airways	_	_	_	_	200
Emirates Airline	-	_	3	_	161
Etihad Airways	5	_	2	_	100+
Lufthansa	-	_	_	_	193
Qatar Airways	8	14	11	12	160+
Singapore Airlines	-	_	_	_	62
Turkish Airlines	23	11	5	_	269

Figure II. New Destinations Added, 2015-18

55.0

58.7

62.2

65.6

Figure I sources: Dubai Airports, Corporate Media Centre, "Fact Sheet: Dubai Airports," available on the Internet Archive Wayback Machine at https://web.archive.org/web/20190704054554/https://www.dubaiairports.ae/corporate/media-centre/factsheets-list/detail/dubai-airports (July 4, 2019); Fraport AG, "Traffic Figures," www.fraport.com/en/investors/traffic-figures.html;. 1. Hamad International Airport, press release, May 16, 2016, https://dohahamadairport.com/media/hamad-international-airport-achieves-record-passenger-numbers-first-quarter-2016; Qatar Airways Group, "Annual Report, Fiscal 2017," www.qatarairways.com/content/dam/documents/annual-reports/2017_Annual_Report_ENGLISH-WEB.pdf; Dominic Dudley, "Qatar Airways Slumps into the Red with \$69M Loss, as Impact of Boycott Becomes Clear," Forbes, September 19, 2018, www.forbes.com/sites/dominicdudley/2018/09/19/qatar-airways-slumps-to-loss; "Monthly Number of Passengers Utilizing Istanbul Ataturk Each Month from January 2015 to July 2018," Statista Research Department, www.statista.com/statistics/434099; Heathrow Airport Limited, Investor Centre, "Traffic Statistics," www.heathrow.com/company/investor-centre/reports/traffic-statistics; Changi Airport Group, "Air Traffic Statistics," www.changiairport.com/corporate/our-expertise/air-hub/traffic-statistics.html.

Figure II sources: Air India, "Time Table," updated December 1, 2017, www.airindia.in/Images/pdf/TimeTable.pdf; "Air India's International Network World Map," updated November 11, 2013, www.airindia.in/international-network.htm; "British Airways Factsheet," October 10, 2019, available on the Internet Archive Wayback Machine at https://web.archive.org/web/20200403222808/

[Continued on next page]

Carrier	2014	2015	2016	2017	2018
Air India	-	_	_	-	128
British Airways	_	_	_	_	280+
Emirates Airline	217	239	251	259	268
Etihad Airways	110	121	119	115	113
Lufthansa	_	-	_	357	298
Qatar Airways*	_	150	196	213	222
Singapore Airlines*	105	102	106	107	121
Turkish Airlines	261	299	334	_	344

Figure III. Airline Fleet Size, 2014–18

[continued from previous page]

https://mediacentre.britishairways.com/factsheets/details/86/Factsheets-3/33 (April 3, 2020); "Emirates Group Announces Half-Year Perfomance for 2018–19," www.emirates.com/media-centre/emirates-group-announces-half-year-performance-for-2018-19; Etihad Airways, "Flights: Destinations to Country/Region," https://flights.etihad.com/en/sitemap/destinations-to-countryregion/page-1; Lufthansa, "Offers and Destinations: Worldwide Flights," www.lufthansa.com/us/en/flights; Qatar Airways, "Going Places Together: Fly to One of Our Remarkable Destinations," www.qatarairways.com/en/destinations.html; Cyrill Luchsinger, "Singapore Airlines: Klassenbeste in einer hochkompetitiven Branche" ["Singapore Airlines: The classiest in a highly competitive industry"], *LinkedIn Pulse*, May 26, 2018, www.linkedin.com/pulse/viele-millionen-moments-truth-machen-singapore-zur-1-luchsinger-1; Singapore Airlines, "Where We Fly," www.singaporeair.com/en_UK/us/plan-travel/destinations/where-we-fly/; Turkish Airlines, "4Q'18 Results Summary," https://investor.turkishairlines.com/documents/ThyInvestorRelations/IR_PRESEN-TATION_2018.pdf; Turkish Airlines, "Our Destinations," www.turkishairlines.com/en-int/flights/.

Figure III sources: Air India, "Fleet Details," updated June 18, 2019, www.airindia.in/fleet-details. htm; "British Airways Factsheet," Oct. 2019; Emirates Group, "On Course: Annual Report, 2017-18," https://cdn.ek.aero/downloads/ek/pdfs/report/annual_report_2018.pdf; Airfleets.net, "Etihad Airways Fleet Details," www.airfleets.net/flottecie/Etihad Airways.htm; Planespotters.net, "Etihad Airways Fleet Details and History," www.planespotters.net/airline/Etihad-Airways; Etihad Airway, "Our Fleet: Fast Facts and Figures," www.etihadcargo.com/content/dam/eag/egcmc/shared/visuals/ homepage/ourfleet/documents/Etihad Airways Our Fleet 2018.pdf; Airfleets.net, "Lufthansa Fleet Details," www.airfleets.net/flottecie/Lufthansa.htm; Statista, "Number of Aircraft in the Lufthansa Group Fleet in 2019, by Airline," www.statista.com/statistics/753543/number-of-aircraft-in-the-lufthansa-group-fleet-by-airline/; Lufthansa Group Fleet website on Google, https://sites.google.com/ site/lhgroupfleet/lufthansa; Airfleets.net, "Qatar Airways Fleet Details," www.airfleets.net/ageflotte/ Qatar Airways.htm; Qatar Airways Group, "Annual Report, Fiscal 2017," www.qatarairways.com/ content/dam/documents/annual-reports/2017_Annual_Report_ENGLISH-WEB.pdf; Qatar Airways Group, "Annual Report, Fiscal 2018," www.qatarairways.com/content/dam/documents/annualreports/2018/19630-Annual-Report-2018-EN-Digital.pdf; CAPA Centre for Aviation, "Singapore Airlines Fleet: Growth Resumes as 787-10s, A350ULRs Arrive," May 31, 2018, https://centreforaviation.com/analysis/reports/singapore-airlines-fleet-growth-resumes-as-787-10s-a350ulrs-arrive-418875; Singapore Airlines, "Annual Report FY2018/19," www.singaporeair.com/saar5/pdf/Investor-Relations/Annual-Report/annualreport1819.pdf; Turkish Airlines, "Investor Relations: Fleet," https://investor.turkishairlines.com/en/financial-and-operational/fleet.



^{*} data for these airlines refer to the fiscal year beginning in the listed year

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.

