Did the Qatar blockade work? Evidence from trade and consumer welfare three years after the blockade

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Abstract

This article examines the effects of the embargo (blockade) imposed on Qatar in June 2017 by four countries: Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain. Using highly disaggregated product-destination quarterly trade datasets provided by the Qatar General Authority of Customs, we find a significant decline in Qatar's aggregate imports and consumer welfare (with an increase in the prices of imported goods) in the short run, but not thereafter. Political relations with non-besieging countries seem to be associated with Qatar's bilateral trade after the blockade, particularly in the first quarter. Shortly after the blockade, countries opposing the blockade experienced a sizable growth in exports to Qatar. In the medium to long run, Qatar succeeded in mitigating the impact of the blockade by diversifying its import origins and adopting new reforms to stabilize the economy and enhance the country's food security and self-sufficiency.

In June 2017, the four countries of Saudi Arabia (KSA), the United Arab Emirates (UAE), Egypt, and Bahrain imposed a complete embargo (blockade) on Qatar, cutting all diplomatic and economic ties with Doha. These countries accused Doha of supporting "terrorism," maintaining close connections with Iran, and attempting to influence their internal affairs. As a precondition to lifting the siege, the besieging countries demanded that Qatar sever its political ties with Iran and "terrorist" groups. Qatar refused to submit to the demands of the besieging countries, describing the accusations as baseless and illegitimate. To date, little progress has been made toward resolving the ongoing political and economic crises among the five countries. This article examines the effects of the blockade on trade patterns in Qatar using detailed product-destination quarterly trade data.[1]

Economic sanctions, embargoes, blockades, and boycotts have been a regular part of trade policy throughout history.[2] Motivated by political conflicts, sanctions are usually employed to punish trade partners and influence the political behavior of the targeted economy.[3] By disrupting international trade networks, exports, imports, and the movement of capital and workers, sanctions and blockades tend to reduce economic welfare and growth in the besieged countries. Consequently, targeted governments are pressured to change their behavior to avoid the political and social upheaval that may be fueled by deteriorating economic conditions.[4]

[1] It is worth mentioning that, on January 5, 2021, Qatar and the besieging countries held an unexpected summit in the Saudi Arabian city of Al-Ula in which they agreed to put an end to the Qatar blockade (Al-Ula summit agreement). It is intriguing to investigate whether trade patterns return to the pre-blockade trends once the agreement is fully implemented and as post-blockade trade data become available. For now, this has to wait.

[2] See, e.g., Torbat (2010); Heilmann (2016); Felbermayr et al. (2019).

[3] Davis and Engerman (2003) and Kaempfer and Lowenberg (2007) provide an excellent survey of the literature on sanctions. Earlier theoretical studies of the economics of sanctions include Eaton and Engers (1992, 1999); Doxey (1980); Kaempfer and Lowenberg (1988); Martin (1993). Other important studies include Crawford and Klotz (2016); Drezner, (1999); Hufbauer et al. (2007); Joshi and Mahmud (2016); Levy (1999).

[4] For a theoretical treatment of the impact of sanctions on the behavior of regimes, see Naghavi and Pingataro (2015).

The embargo imposed on Qatar in June 2017 by Saudi Arabia, the United Arab Emirates, Egypt, and Bahrain saw a significant decline in Qatar's aggregate imports and consumer welfare in the short run, but not thereafter. In the first quarter, political relations with non-besieging countries offered short-term (if expensive) mitigations. In the medium to long run, Qatar succeeded in diversifying its import origins and adopting new reforms to stabilize the economy and enhance the country's food security and self-sufficiency. The trade and economic reforms that the Qatari government adopted to deal with the embargo, mitigated its long-term ramifications and paved the way for a more resilient economy.

Nonetheless, the extent to which sanctions and blockades impact economic and political outcomes in blockaded countries is still an open question. In practice, the effects of sanctions on international trade vary across time and space. They depend on the bilateral trade before the sanctions between the countries involved, international cooperation, political and economic institutions in the targeted countries, and the new political allegiances and economic partnerships that emerge after the sanctions. This renders the impact of sanctions an empirical question.[5] Recent studies have examined the effects of the Qatar blockade on stock markets and on management, as well as examining the responses of the people of Qatar and their leadership to the crises.[6] To the best of our knowledge, this article is the first study to carefully examine the impact of the blockade on international trade using disaggregated trade data.

The Qatar blockade was abruptly and unexpectedly announced overnight, effectively closing Qatar's only land borders with Saudi Arabia and some major sea and air trade routes. Thus, Qatar was forced to quickly find alternative trade partners and routes. This provides us with a unique opportunity to examine the impact of the blockade in a natural experiment setting. Our article is the first to utilize this exogenous shock to track and analyze the changes in the patterns of trade and import prices (representing consumer welfare) in Qatar before and after the blockade. We use highly disaggregated quarterly bilateral trade data to examine the impact of the blockade on aggregate trade and specific industries in the short, medium, and long run.

Trade theories suggest that the immediate effect of the blockade will have been large (i.e., in the first two quarters following the blockade), wearing off over the long term. To be precise, neoclassical theory postulates that, in equilibrium, a country will import a product from the cheapest producer (country).[7] Under incomplete information and costly searches, the choice of new import origins in response to the embargo may be suboptimal in the short run, slowly adjusting toward the least cost import origins.

The remainder of the article is organized as follows. In the next section we examine Qatar's patterns of trade before and after the blockade and the section investigates Qatar's trade relations with the besieging countries and the impact of the blockade on import diversification and prices. The final section presents some conclusions.

Aggregate trade, trade partners, and patterns of trade

Immediately after the blockade was announced on June 5, 2017. As Figure 1 shows, aggregate imports fell from QAR 28bn in the first quarter of 2017 to 24.5bn and 23.6bn, in the second and third quarters respectively. This decline in Qatar's imports was not driven simply by the potential overall slowdown in the economy, as total imports as a percentage of GDP fell from 14% in the first quarter of 2017 to 12.3% and 11.3% in the second and third quarters. Interestingly, total imports skyrocketed to QAR 32.6bn at the end of 2017. This led to an increase in imports as a percentage of GDP to 16% in Q4 2017, after which total imports started to decline and eventually reverted to the pre-blockade level by the end of 2019. We can think of few possible explanations for the observed spike in imports in

[5] See, for instance, McLean and Whang (2010); Whang (20100; Haidar (2017); Pape (1997), among others.
[6] Selmi and Bouoiyour (2020); Milton-Edwards (2020); Ulrichsen (2020). Our study is closely related to Al-Mal (2020) who employed a difference in difference model to show that the blockade has differential effects on the prices of imported goods based on HS 2-digit classification.
[7] See, for example, Eaton and Kortum (2002).

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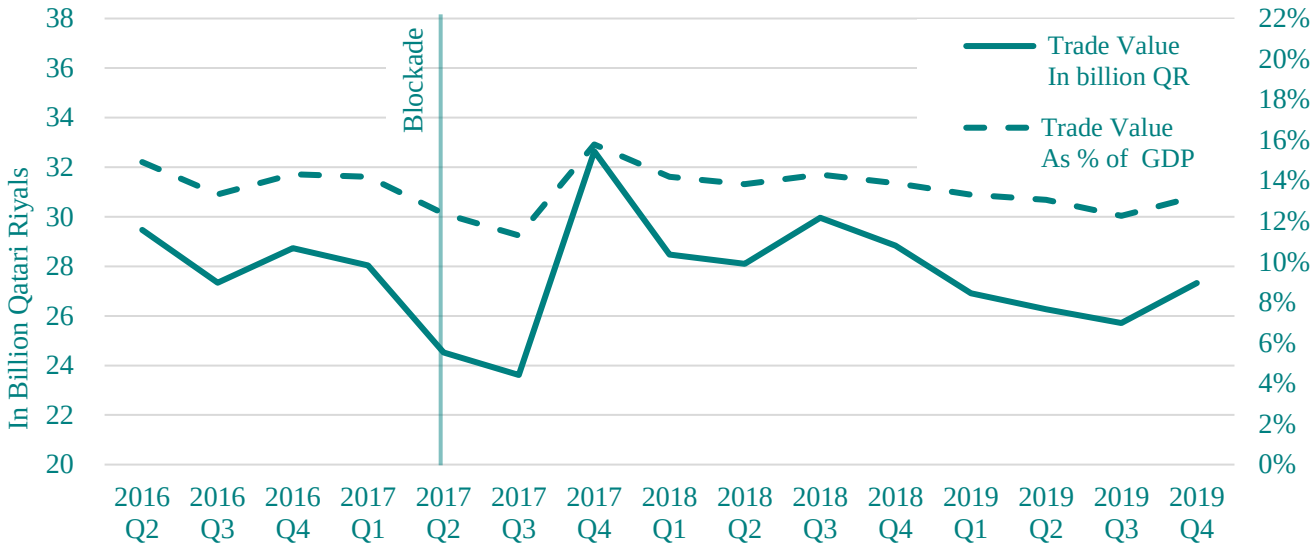

Figure 1: Aggregate imports.
Note: The vertical line indicates the beginning of the blockade. The solid line traces total imports in billions (left y-axis). The right y-axis and the dashed line represent total imports as a percentage of GDP.
Source: Qatar General Authority of Customs. https://www.psa.gov.qa/en/statistics1/ft/pages/default.aspx.

Q4 2017. The Qatari government reacted swiftly and quickly to stabilize the economy and boost consumer and investor confidence. First, it acted very quickly to find alternative and reliable trade partners along with new routes to regain access to international markets. An analysis of the top 15 exporters to Qatar in 2016 and 2018 indicates important changes in Qatar's trade partners. As expected, the KSA and the UAE disappeared from the list of top exporters in 2018 and new trade partners emerged (Iran and Oman). Imports from major world exporters (the U.S. and China) increased, pointing to a shift in Qatar's trade policy toward more stable international markets. Turkey became an important trade partner, advancing from 15th in 2016 to the 7th largest exporter to Qatar in 2018. Second, the opening of Hamad Port (three months after the blockade) may have helped Qatar mitigate the effects of the embargo and accelerate the process of searching for new trade partners in the wake of the blockade; increasing the country's capacity to obtain direct imports from international markets without relying on the UAE or the KSA. Finally, to ramp up domestic production and enhance food security and self-sufficiency, the government incentivized and supported domestic production, in particular that of the agriculture sector. This led to a large increase in imported cattle and the intermediate inputs necessary to build dairy plants and improve plantations. The trade data show a significant increase in agricultural imports in the fourth quarter of 2017 compared to the second quarter (around 25 precent). Nonetheless, imports of agricultural goods do not fully explain the overall spike in imports in the fourth quarter of 2017.

To gain more insight regarding the effect of the blockade, we trace imports by products at a very disaggregated level (HS 8-digit) over time. Analysis of the top 15 imported goods from Q1 2016 and Q4 2019 showed the patterns of trade to be relatively stable over time and unaffected by the embargo.[8] The top 15 imported commodities were almost identical two quarters before and after the blockade. This is not wholly surprising for two reasons. First, the

[8] Tables are not shown in the article. Additional tables and results are available upon request.

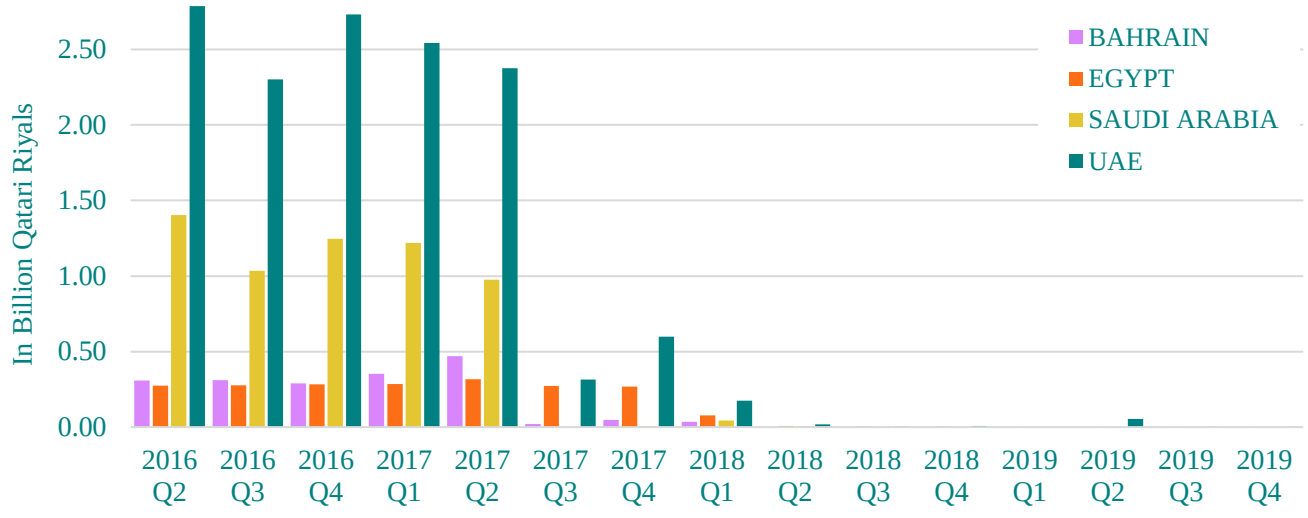

Figure 2: Imports from besieging countries.
Source: Qatar General Authority of Customs. https://www.psa.gov.qa/en/statistics1/ft/pages/default.aspx.

trade routes for the top imported goods were not disrupted by the blockade, since the countries of origin for those goods were usually advanced industrialized countries or China. Second, Qatar was able to utilize its large foreign reserves to stabilize the economy and currency, ensuring the continuation of its imports and access to international markets.

Trade with the besieging countries

Ultimately, the effect of the blockade depended largely on Qatar's economic ties with the four besieging countries prior to June 2017. Figure 2 shows the bilateral trade between Qatar and each besieging country from Q2 2016 to the end of 2019. It is evident that Qatar's imports from the besieging countries plummeted in the third quarter of 2017, immediately after the embargo was announced, but remained positive for the first two quarters of 2018. Imports from Bahrain completely stopped from Q2 2018 onward. Exports from the remainder of the besieging countries remained positive but were very limited, registering zero exports in some quarters. Among the four countries, the UAE and the KSA are of particular interest due to their large bilateral trade with Qatar prior to the blockade. To put things into perspective, exports from the UAE to Qatar fell from QAR 2.5bn in Q1 2017 to QAR 141m in Q4 2019. Likewise, Qatar imported about QAR 1.2bn from the KSA in Q1 2017 and less than QAR 56m in Q4 2019.

This decline in imports from the besieging countries was offset by the increasing bilateral trade from other trade partners. As discussed above, new countries joined the list of the top 15 exporters to Qatar after the blockade, taking the place of the UAE and the KSA. Between 2016 and 2018, imports from Turkey and Oman increased by more than 150% after the blockade. India, the U.K., and the U.S. also experienced an increase in exports to Qatar ranging from 25-75%. The countries with the biggest increase in exports to Qatar after the blockade, in particular Turkey, Oman, and Iran, were also those that publicly condemned the blockade and offered help to Qatar, suggesting an association between political ties and bilateral trade.

Table 1 presents the top six imported commodities from the besieging countries before the blockade (in Q4 2016 and Q1 2017) using the disaggregated datasets. It shows that more than 98% of imported pebbles, gravel, and yogurt came from one or more of the four besieging countries before the blockade (along with more than 80% of copper and electric cables). Immediately after the blockade in Q3 and Q4 2017, Qatar continued to import some of those goods

Table 1: Top imported goods from besieging countries

	Sum of Q4 2016 and Q1 2017			*Sum of Q3 and Q4 2017*			*Sum of Q3 and Q4 2018*		
Product	***Total***	***Besieging***	***%***	***Total***	***Besieging***	***%***	***Total***	***Besieging***	***%***
Ethylene	209	162	77.30	148.8	0.00	0.00	144.60	0.00	0
Copper Wire etc.	609.96	535.96	87.87	428.78	140.36	32.73	612.80	0.00	0
Electric Cable, etc.	260.10	212.97	81.88	213.95	163.64	76.49	23.34	0.00	0
Iron Ores, etc.	1,380.62	292.00	21.15	1,297.74	0.00	0.00	1,161.55	0.00	0
Pebbles, Gravel, etc.	740.82	726.18	98.02	494.82	21.00	4.24	477.84	0.00	0
Yogurt, etc.	155.56	154.200	99.13	58.103	0.000	0.00	4.05	0.00	0

Notes: The column "Total" refers to total imports of the corresponding product, measured in QAR million. The column "Besieging" refers to the value of imports of the corresponding goods imported from the besieging countries in QAR million.

Source: Qatar General Authority of Customs. https://www.psa.gov.qa/en/statistics1/ft/pages/default.aspx.

from the besieging countries, albeit at much smaller amounts. For example, the percentage of imported copper and pebbles dropped to 32% and 4%, respectively. One year after the blockade, in Q3 and Q4 of 2018, Qatar imported all these goods from non-besieging countries. The embargo was abruptly and suddenly announced in June 2017, leaving little room for Qatar to adjust its trade policy and partners to face such a large shock. As Qatar relies heavily on international markets to meet its domestic consumption, some imports continued to flow from the besieging countries. Meanwhile, Qatar started searching for new trade partners and alternative trade routes to minimize the adverse effects of the blockade. One year later, it would seem that Qatar had succeeded in finding reliable and alternative trade partners and had ceased importing from the besieging countries.

An interesting example of the impact of the embargo, and the speed of adjustment, is the importing of yogurt. As Figure 3 shows, the countries of origin before the blockade, most of the imported yogurt came from the besieging countries, then in Q3 2017, more than 87% of imported yogurt was shipped from Turkey. However, in Q4 2017, Qatar imported yogurt from a more diversified group of countries including Morocco, Tunisia, Greece, Turkey, and the U.S., with Morocco having the highest share at around 35%. Imports of yogurt then became more diversified and less concentrated in terms of the number of import origins, with Greece, the U.K., and Algeria almost equally responsible for 75% of the total imports in Q4 2018. The patterns of import origins for other traded goods had a significant impact goods are similar to those for yogurt. This illustrates the manner in which search and adjustments of trade partners takes place. In the short run, immediately following the blockade, Qatar resorted to importing from Turkey to fulfill its domestic demand for yogurt. However, the choice of Turkey in the short run is not a coincidence. Turkey is one of the few countries that strongly opposed the blockade and rushed to help Qatar economically and militarily, thus facilitating trade flows to Qatar. As a result, importers in Qatar were able to quickly replace imported yogurt from the besieging countries with imports from Turkey. As time constraints became more relaxed, importers had greater opportunities to search international markets for the cheapest sources of yogurt, resulting in less import concentration in the following quarters.

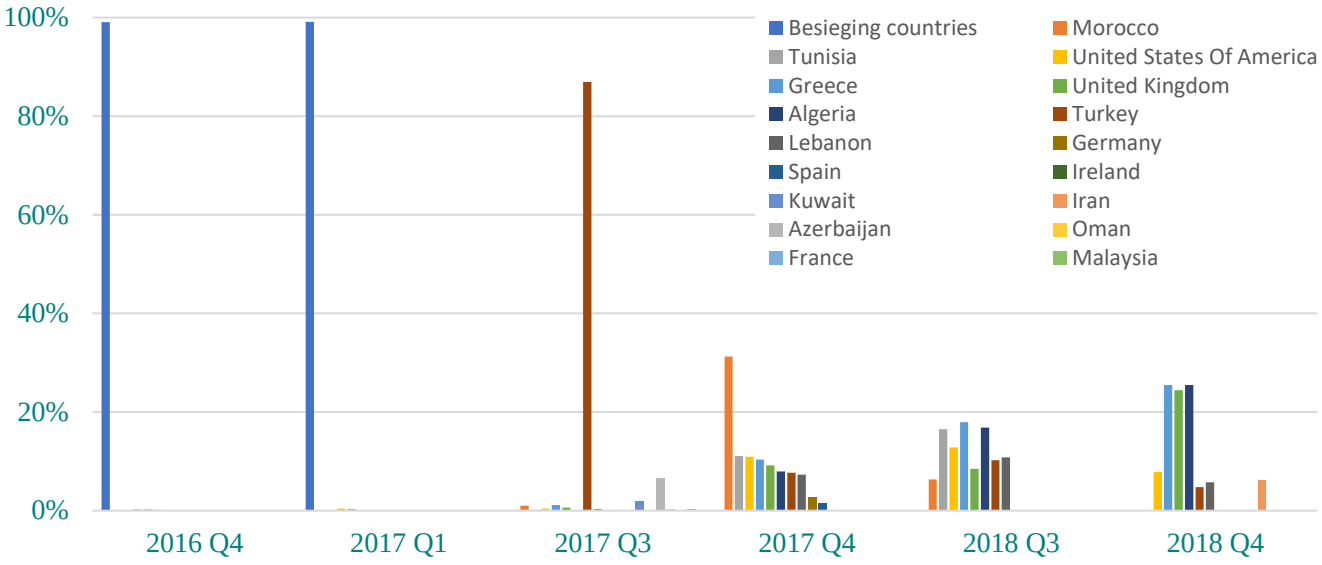

Figure 3: Yogurt Import origins over time.
Source: Qatar General Authority of Customs. https://www.psa.gov.qa/en/statistics1/ft/pages/default.aspx.

Evidence of this search for the cheapest sources is provided by considering the trajectory over time of the unit values (prices) of the pre-blockade top imported goods from the besieging countries. Our assumption is that Qatar was in a steady state equilibrium before the embargo, that is imported goods came from the cheapest country of origin (including transportation costs). Hence the observed patterns of trade, terms of trade, and trade partners were indeed welfare maximizing outcomes. At the outset of the embargo, Qatar was forced to replace its few existing import origins with new import markets. If the search for new import sources was costless and all the required information was readily available, Qatar would merely move to the second-best import sources. Nevertheless, under costly search and incomplete information, it would take some time for Qatar to identify the second-best imports sources. Under the first scenario, the set of import origins and the prices of imported goods would be relatively stable immediately after the blockade. In the second scenario (costly search), the set of importers and the prices of imported goods in the long run would significantly differ from the observed prices and importers shortly after the blockade. Figure 3 suggests there was indeed costly search, as the origins for yogurt changed dramatically after June 2017, particularly in the first two quarters after the blockade.

In Figure 4, we plot the unit value of yogurt, calculated as the total value of imports divided by the total imported quantity, over several quarters before and after the embargo. The unit value (price) of imported yogurt soared shortly after the blockade (Q3 and Q4 2017), then started to decline slowly, and eventually returned to the pre-blockade level by the end of 2018. Together, the data in Figures 3 and 4 suggest that the effects of the blockade was large in the short run and mild to negligible in the long run. While the analysis supports the presence of costly search and the moved quickly to identify reliable international incomplete information hypothesis, the speed at which Qatar adjusted its trade patterns was spectacular The country markets and diversify the origins of its imports, bringing the import prices down and improving consumer welfare.

Conclusion

This article has examined the impact of the 2017 blockade, in which four countries imposed a sudden and unexpected embargo on Qatar, cutting all diplomatic and economic relationships. Our analysis suggests that the trade policies

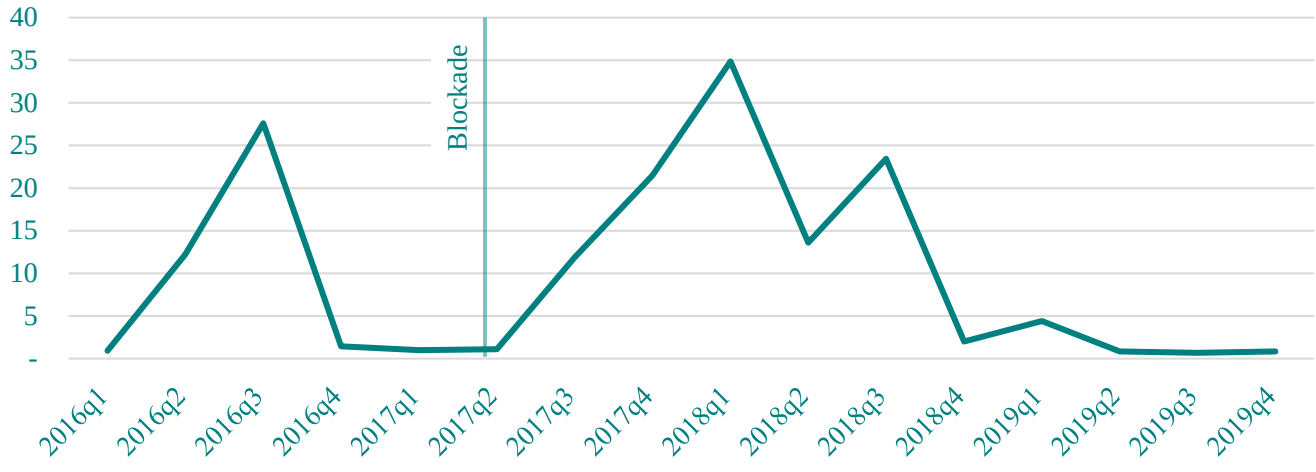

Figure 4: Unit value for imported Yogurt.
Notes: The unit value in y-axis (QAR thousands) is given by the total value of imports over the total imported quantity measured in tons. Yogurt includes products that may or may not be concentrated and may or may not contain: added sugar, flavorings, fruit, or cocoa.
Source: Qatar General Authority of Customs. https://www.psa.gov.qa/en/statistics1/ft/pages/default.aspx.

and economic reforms adopted by the Qatari government following the blockade mitigated the event's adverse consequences. Qatar's imports fell significantly in the short term after the commencement of the blockade, but quickly recovered. In addition, evidence suggests that countries that opposed the blockade increased their exports to Qatar, particularly in the first few quarters following the blockade.

This case study shows that the effect of a blockade can best be understood by exploiting the potential differential impact of the embargo across industries and sectors. The blockade on Qatar had a significant impact on trade in the short run, but a limited effect in the medium and long run. The prices of imported goods increased shortly after the blockade, only to fall again a few quarters later. In addition, Qatar's imports seem to have become increasingly diversified in terms of the countries of origin compared to the pre-blockade period. Our analyses suggest that the adverse effects of the blockade were short-lived. We argue that the trade and economic reforms that the Qatari government adopted to deal with blockade-related challenges mitigated the ramifications of the embargo in the long run and paved the way for a more resilient economy.

Our article illustrates the information available and points to the potential for future research to identify the causal effects of political relations on bilateral trade and quantify the consequences of the blockade.

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