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Are Export Sanctions Effective?

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In a nutshell

- *Different countries impose export sanctions.*
- *Whether these sanctions are effective depends on their goal. This policy brief highlights that, if the goal of export sanctions is to reduce total exports of the targeted country, export sanctions may be less effective as exporters can redirect their exports from one export destination to another.*
- *However, if the goal of export sanctions is to put pressure on exporters in the targeted country, then export sanctions can be effective as exporters incur welfare losses while deflecting exports to new destinations.*

Milton Friedman said "all in all, economic sanctions are not an effective weapon of political warfare."[1] This statement is not necessarily always true. When assessing the effectiveness of economic (i.e., export, import, financial, and banking) sanctions, it is important to distinguish between their different types. Economic sanctions are heterogeneous by definition, and their impacts should not be stereotyped. In this policy brief, which is based on a new research paper (Haidar, forthcoming), I highlight effects of a specific type of sanctions: export sanctions.

Export sanctions continue to be used by countries while attempting to change the behavior of other governments. And, they still surface at the center of current policy debates when it comes to Iran. However, we still lack complete understanding about the impact and effectiveness of export sanctions.[2]

Figure 1 shows the evolution of non-oil exports between January 2006 and June 2011. 31 countries imposed export sanctions against Iranian non-oil

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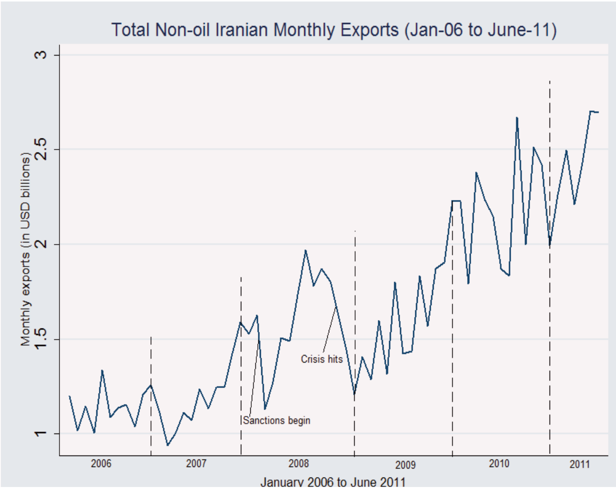
[1] "Economic Sanctions," Newsweek, 21 January 1980, p. 76.
[2] See Hufbauer et al. (2007) and related works of Davis and Engerman (2003), Eaton and Engers (1992), and Levy (1999).

Figure 1: Evolution of Iranian Non-oil Exports



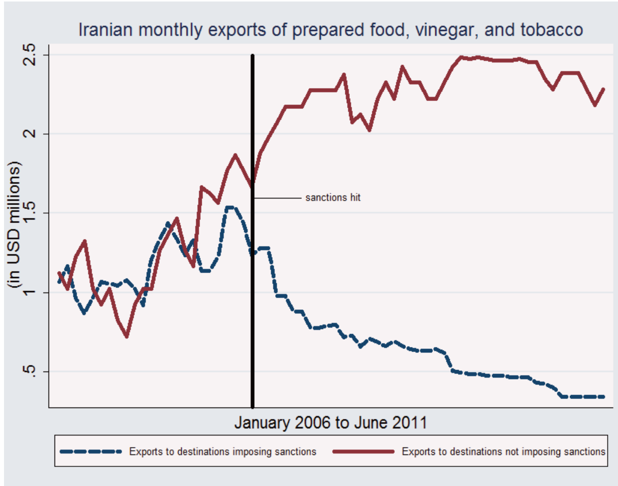
Source: Haidar (forthcoming)

exporters in March 2008. Thus, the unexpected increasing trend following export sanctions triggers various policy concerns.

One policy concern is whether export sanctions lead exporters to redirect their exports. To rest this concern, one can analyze the case of Iran. Iran serves as a suitable country for this study for various reasons. First, the export sanctions against Iran in March 2008 are similar to the export sanctions that are typically imposed. Second, the export sanctions that Iranian exporters faced are unique as they involved many countries. Third, the ability to access highly disaggregated data of Iranian export flows makes Iran an outstanding case for this research.

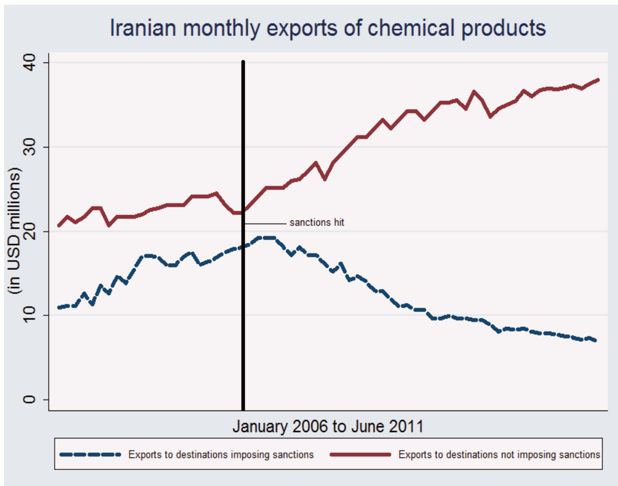
Using disaggregated Iranian Customs data, in Haidar (forthcoming), I looked at whether exporters exited export markets or shifted to new destinations following sanctions. Without such data one cannot know whether exporters stop exporting following export sanctions or whether they just reduce their exports to destinations imposing these sanctions. Also, one cannot know whether and how (some or all) exporters redirect their exports to new destinations following export sanctions.

Figure 2a: Evolution of Iranian Non-oil Exports



Source: Haidar (forthcoming)

Figure 2b: Evolution of Iranian Non-oil Exports



Source: Haidar (forthcoming)

Figures 2a and 2b show an example of Iranian exports of selected products between January 2006 and June 2011 to destinations imposing sanctions and to destinations not imposing sanctions. They sketch examples of how, following the imposition of export sanctions, non-oil Iranian monthly exports decreased sharply to destinations imposing sanctions and increased significantly during the same period to destinations not imposing sanctions.

Sanctions are usually not imposed as complete cessation of all trade relationships. Rather, they are imposed using regulations, which make trade more expensive or cumbersome. The dramatic fall in exports to destinations imposing sanctions (export destruction) was associated with a substantial increase in exports of same products to destinations not imposing sanctions (export redirection).

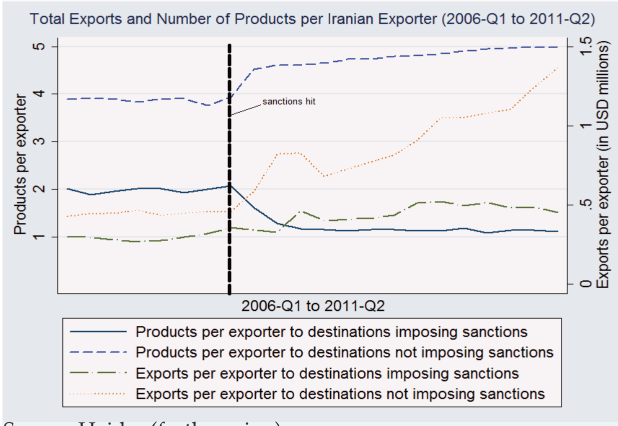
Figure 3a shows total non-oil Iranian monthly export value per exporter and number of products per exporter between January 2006 and June 2011. Following sanctions, the number of exported products per exporter decreased to destinations imposing sanctions but increased to destinations not imposing sanctions. However, export values per exporter increased to both groups of destinations, suggesting that smaller exporters exited.

Figures 3b and 3c look at the entry and exit rates of Iranian exporters and exported products. While entry rates of exporters and products decreased in destinations imposing sanctions, they increased in destinations not imposing sanctions. Also, while exit rates of exporters and products increased in destinations imposing sanctions, they decreased in destinations not imposing sanctions.

Export sanctions by a given destination on Iranian exporters are expected to be associated with export destruction: a reduction in Iranian exporter-level exports growth to that destination. Also, export sanctions by a given destination on Iranian exporters are expected to lead to exports redirection: surges in Iranian exporter-level exports to destinations not imposing sanctions. In simple terms, export redirection is a change in the destination of exports in response to an increase in a trade barrier in another market, as when a rise in a tariff on an export from A to B causes the exports to be sold instead to C.

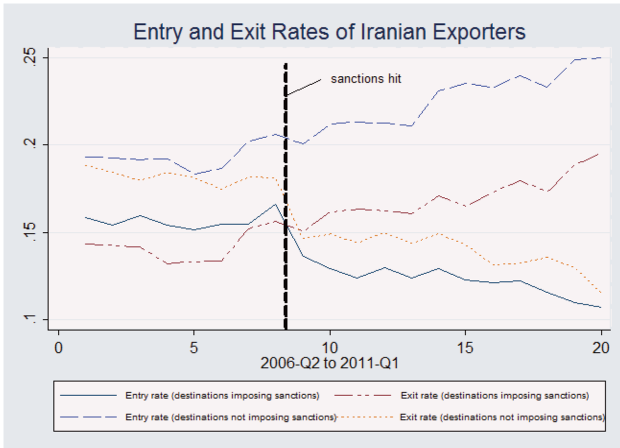
In Haidar (forthcoming) I studied whether export sanctions cause export deflection. Using exporter-level data, I showed how two-thirds of Iranian exports were deflected to non-sanctioning countries, and at what cost. I show that aggregate Iranian

Figure 3a: Exports Trends



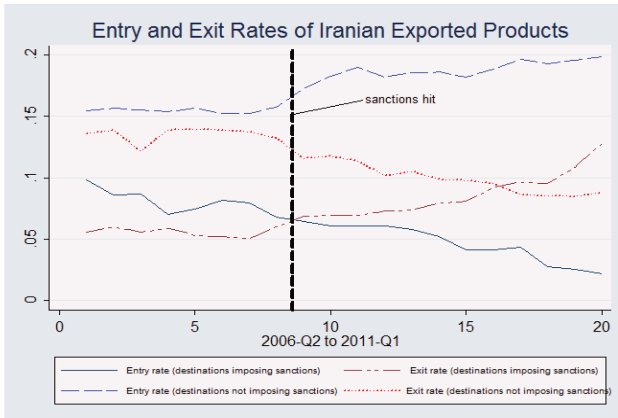
Source: Haidar (forthcoming)

Figure 3b: Exports Trends



Source: Haidar (forthcoming)

Figure 3c: Exports Trends



Source: Haidar (forthcoming)

exports actually increased after sanctions. Even though sanctions did not reduce Iranian exports, they exercised pressure on Iranian exporters, who incurred welfare losses as they had to reduce prices and increase quantities while exporting to a new destination.

Policy makers also need to be aware of who is affected more by export sanctions and how exports redirection typically happens following export sanctions. This new research also informs that:

- Small exporters were more affected by sanctions than large exporters.
- Larger and more experienced exporters had a higher probability to redirect more of their exports than smaller exporters.
- The decision to redirect exports is not random at the exporter-level; exporters exercised product selection while redirecting exports. Precisely, they tended to redirect their core-competence products as well as products that are easier to find consumers for – homogeneous products compared to differentiated products.
- Exporters reduced product prices when they redirected exports to new markets.
- Exporters redirected exports to destinations that they already existed in before sanctions.
- As well as to destinations that are "politically-friendly" to Iran.

In a nutshell, if the goal is to reduce total exports, export sanctions may be less effective in achieving this goal as exporters can redirect their exports from one export destination to another. The idea that one country can impose trade sanctions on another may not necessarily prove effective in this case unless the exporters of the targeted country do not have or cannot find compensating alternatives and new trading partners.

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