4

Economic Variables

In this chapter, we examine the economic dimensions of a sanctions episode. Of course economics and politics are often blurred, but our focus is on variables that emphasize economic relations between senders and their targets.

Tables 4A.1 to 4A.5 at the end of the chapter summarize data for the economic variables that we document in each episode. As in chapter 3, we have grouped the cases in the tables according to the principal foreign policy objective sought. However, we have organized the discussion in this chapter according to the economic variables.

Size of Sender and Target Countries

In all but 16 cases, the economy of the sender country is larger than that of the target country, and in most cases it is far larger. The sender's GNP is more than 10 times greater than the target's GNP in 80 percent of cases, and in half the cases, the ratio is greater than 100. These lopsided ratios reflect, on the one hand, the prominence of the United States, the United Kingdom, the former Soviet Union, and recently the United Nations and the European Union as senders and, on the other hand, the small size of the countries they usually try to influence with economic sanctions.

Though sanctions episodes where the GNP ratio is below 10 are not common, success in these episodes is observed approximately one-third of the time, similar to the record observed in cases characterized by higher ratios. A few of the small-ratio success stories involved cases dating from the two World Wars, but in the second half of the 20th century some sender countries successfully exercised economic leverage against economies of comparable size through their control of strategic commodities or finance.

During the Suez crisis (Case 56-3), for example, the United States threatened to provoke a sterling crisis by denying the United Kingdom access to temporary credits from the International Monetary Fund (IMF), as well as dollar credits from US banks. In the 1973 oil embargo (Case 73-1), control by the Arab countries of vast oil supplies gave them leverage far out of proportion to their economic size, measured by GNP. In the 1990s, China succeeded in compelling France to cease arms sales to Taiwan (Case 92-10) despite being only one-third its economic size (at market exchange rates). To summarize, large countries are more likely to use sanctions against smaller economies, but size is not all that matters.

Trade Linkages

Since sender countries are generally very large economies (foremost the United States), it is not surprising that the target's import and export trade with the sender usually accounts for over 10 percent of the target's total external commerce. In cases we have scored as successes, the sender country accounts, on average, for almost one-third of the target country's total trade. Interruption of even a small portion of that trade could carry an important message to the target country: Change your policies or risk a larger disturbance. But obviously other factors matter as well, since the average trade linkage in failed cases was only a bit smaller, some 29 percent.

The trade ratios in cases involving modest policy goals vary greatly as they do in all categories. Some cases were successful when only a small amount of bilateral trade was involved: For example, in Case 98-3 Turkey accounted for only 2 percent of Italy's exports and less than 1 percent of its imports. Yet many cases were unsuccessful even when a high proportion of trade could have been at risk: Limited UN and US sanctions against the Taliban of Afghanistan (Case 99-1) could have threatened the vast majority of external trade if expanded, but the threat of escalation was not credible and the regime did not alter its position regarding the extradition of Osama bin Laden. In general, however, higher trade linkages are more closely associated with success episodes than with failures, though the difference is small (23 versus 18 percent).

In regime change and democratization cases, trade linkages are usually strong; the average for this goal is above 38 percent. Historically, strong trade linkages reflected the tendency of large senders to target their smaller neighbors. In the 1990s, the high linkages reflected the efforts of the United States and the European Union to promote democracy in smaller countries around the globe. In the vast majority of regime change cases—and in 34 of the 37 cases since 1985—the sender purchased more than 10 percent of the exports, and supplied over 10 percent of the imports, of the target country. Within this group of cases, the extent of trade linkage appears somewhat

greater for success cases (average of 43 percent) than for failure cases (average of 38 percent), though once again the difference is small.

However, linkage seems quite relevant in cases involving high policy goals.[1] In the military impairment category, successes exhibit an average trade linkage of almost 37 percent, while failures average 21 percent. One notable failure is the economic isolation of North Korea in recent years (second phase of Case 93-1): Even though the sender countries account for the bulk of North Korea's external commerce, the regime still had not definitively reversed its nuclear acquisition policy as of summer 2007.

Trade linkage also seems to be an influential variable in compelling favorable outcomes in other major policy changes. Successes in this category (table 4A.5) exhibit an average trade linkage of 34 percent, while failures average 24 percent. While greater trade linkage is, to varying degrees, associated with an increased likelihood of success in the four policy goal categories described above, it is associated with failure in cases of disrupting military adventures. This evidence serves as a reminder that high levels of bilateral trade do not ensure success, especially when the sanctions imposed are relatively minor, as exemplified by the aid sanctions imposed on Nigeria for the seizure of power by a military regime (Case 93-4).

Types of Sanctions

Success may depend, to some extent, on whether the sanctions hit a sensitive sector in the target country's economy. A $100 million cost may have quite different effects depending on whether it is imposed by way of export, import, or financial sanctions. When, as often happens, an authoritarian government controls the target country, the impact of sanctions will be blunted insofar as the elite can shift the burden to the general population. Officials in the US State Department and other foreign ministries spend long hours tailoring their punitive measures, both because they believe that the cut of a sanctions policy matters a great deal in the target country and because the specific measures will differentially affect home firms and communities.

Trade Sanctions

When sender countries impose only one type of trade sanction, either alone or in conjunction with financial restrictions, they more frequently

1. We use the term "high policy goals" to refer only to episodes involving military impairment and other major policy change. Some authors have used the same phrase to refer to cases involving destabilization and disruption of military adventure as well.

use export controls than import controls (50 uses compared with 16). One reason is that sender countries are more likely to enjoy a dominant market position as suppliers of key exports (especially military equipment but also sophisticated capital goods). By contrast, there may be many alternative purchasers of imports. Hence, for a given interruption of trade, sender countries may inflict greater pain by stopping $100 million of exports than by stopping the same amount of imports. The dominant position of the United States as a manufacturer of military hardware and high-technology equipment has particularly influenced US tactics.[2] However, global economic development and the spread of sophisticated technologies mean that unilateral export controls generally provide less leverage today than in the period shortly after World War II, even for very sophisticated items.

A second reason for the emphasis on export sanctions, and one peculiar to the United States, is that the Congress has given the president much greater flexibility to restrain exports than to interrupt imports. Exports may be stopped readily through the mechanisms of the Export Administration Act, whose authorities have been maintained by executive order issued under the International Emergency Economic Powers Act of 1977 (IEEPA).[3] Presidential authority also exists to curtail imports—for example, under the national security provision (section 232) of the Trade Expansion Act of 1962, under preexisting quota legislation that covers sugar, and under IEEPA. However, import measures may be constrained because import controls violate the spirit, if not the letter, of international trade obligations—unless the sender invokes the extremely broad national security exceptions permitted under the General Agreement on Tariffs and Trade (GATT) Article XXI (see box 4.1 and table 4.1).[4]

Nonetheless, as Carter (1988) has noted, Congress was prepared, in revising the Export Administration Act in 1985, to expand the president's authority to control imports for foreign policy reasons. However, President

2. However, as noted earlier, we do not evaluate cases where the overriding objective is simply to limit the export of dangerous items. Sender countries wish to control certain products or technologies—for example, nuclear materials and selected chemical and biological precursors—because the "toys" are too destructive.

3. The Export Administration Act of 1979 expired on August 20, 1994, but the law has been effectively extended by presidential adoption of its provisions under the authority of the IEEPA.

4. In 1983, after the United States imposed a total embargo, Nicaragua brought a GATT case: "[a] Panel was established in this case but the terms of reference of this Panel stated that the Panel could not examine or judge the validity or motivation for the invocation of Article XXI by the United States" (Van den Bossche 2005). Moreover, "[t]he panel report of 13 October 1986 was not adopted by the GATT Council which, in its meeting in April 1990, only took note of the removal of the US measures affecting Nicaragua" (Petersmann 1997). The World Trade Organization (WTO) dispute settlement system has yet to adjudicate a case involving Article XXI, as the European Union and the United States bilaterally resolved their conflict over the Helms-Burton Act (see Case 60-3).

Box 4.1 GATT Article XXI

The international trade rules contain numerous exceptions that permit countries to impose trade restraints in specified circumstances, including in support of national security objectives. The General Agreement on Tariffs and Trade (GATT) Article XXI allows countries to take any action that they themselves deem necessary "for the protection of [their] essential security interests" in three broad areas:

- fissionable materials;
- traffic in arms and "such traffic in other goods and materials as is carried on directly or indirectly for the purpose of supplying a military establishment"; and
- during wartime or other international emergencies.

In addition, Article XXI specifically condones trade sanctions imposed pursuant to UN obligations "for the maintenance of international peace and security."

Article XXI provides an exceedingly broad exception from the international trading rules in cases in which a country decides that its security interests are at stake. The first area, fissionable materials, accommodates antiproliferation controls that have been in force since 1950. The second area opens a much bigger loophole: GATT/WTO member countries can impose economic sanctions theoretically against any good or service that could impair military capability or potential. The third area provides the biggest exception of all, since countries can justify action in response to any nonwar international emergency.

Sanctions imposed pursuant to Article XXI do not require preclearance by other GATT/WTO members. Indeed, the rules do not even require that the actions be notified to the other member countries (much less that they be justified as serving the above noted security interests). Moreover, unlike other GATT exceptions provided in Article XX for health, safety, and other reasons, the actions taken under Article XXI are not required to meet a "least trade restrictive" measure test. Recognizing the potential for abuse of these GATT exceptions, the GATT Contracting Parties agreed in November 1982 to add a hortatory notification requirement to Article XXI, urging countries to inform other GATT members "to the fullest extent possible of trade measures taken under Article XXI" as long as such disclosure is not considered "contrary to its essential security interests."

Table 4.1 documents nine instances in which Article XXI was invoked or referenced in conjunction with the application of national security trade sanctions by GATT member countries. Because of the absence of a notification requirement, many sanctions have not been justified under Article XXI and have proceeded without official approval, censure, or comment in the GATT. Indeed, the more ob-

(box continues next page)

Box 4.1 GATT Article XXI *(continued)*

vious the security rationale (e.g., CoCom controls), the less likely the imposition of the sanction will be raised or challenged in the GATT.

The nine sanctions episodes cited in table 4.1 demonstrate the wide latitude of trade actions that countries have taken in defense of their "essential security interests." The rationales range from the direct to the sublime to the ridiculous. The most clear cut use of Article XXI was by the European Community to justify its trade embargo with Argentina during the Falklands war. More subtle, albeit ingenious, was Ghana's import embargo of Portuguese goods because of concerns that Portugal's colonial repression in Angola created instability and threatened the peace in Africa. Finally, in a variant of the adage that an army marches on its stomach, Sweden justified import quotas on footwear to protect domestic industry and ensure that its army would never be without shoes! The United States has invoked Article XXI three times in defense of trade restrictions against Czechoslovakia (and other communist states), Cuba, and Nicaragua.

Ronald Reagan did not want this new authority for fear it would be later misused for protectionist purposes. Reagan's concerns were in a sense borne out by the nature of import controls later imposed by Congress against South African goods (Case 85-1): These controls were applied selectively to textiles and apparel, iron and steel, agricultural products, and a few other items, but important minerals were exempted from coverage.[5] Several years later, when import controls were imposed on the Sudan for harboring terrorists (Case 93-5), similar selectivity came into play: Imports of gum arabic, a key ingredient in candy, soft drinks, and cosmetics, were excluded from coverage out of congressional concern for the cost to a few US companies. But these cases are exceptions, not the rule.

Financial Sanctions

Financial sanctions, in the sense of delaying or denying credit or grants, were used alone, without trade controls, in 53 of our 204 observations. Export and/or import sanctions, unaccompanied by financial measures, were used in 40 instances. Financial sanctions in combination with trade controls were deployed in 100 of our 204 observations,[6] and in 62 of these 100 instances all three types of sanctions were imposed, though not necessarily comprehensively. The United States, which was a sender in 140

5. William Kaempfer and Anton Lowenberg (1988, 1989) examine this case in depth.

6. In the remaining 11 cases, not subject to trade and/or financial sanctions, sanctions were threatened but not imposed (see below).

Table 4.1 GATT Article XXI exemptions

Year	Invoking member	Target	Trade restriction	Result
1949	United States	Czechoslovakia et al.	US export licensing restrictions	Contracting parties denied Czech claim that US action was illegal under GATT
1954	Peru	Centrally planned economies	Import embargo	Peru justified restrictions under Article XXI
1961	Ghana	Portugal	Import embargo of Portuguese goods	Ghana argued that Angola was "a constant threat to the peace of the African continent and that any action which, by bringing pressure to bear on the Portuguese Government, might lead to a lessening of this danger, was therefore justified in the essential security interests of Ghana." GATT DPC. SR. 19/12 at 196 (1961)
1962	United States	Cuba	Trade embargo	Cuba notified the GATT of new US nontariff barriers. In 1986, the United States invoked Article XXI to justify the initial trade embargo and subsequent legislation to block transshipment of Cuban sugar via third countries
1970	United Arab Republic	Israel	Arab League boycott	The United Arab Republic invoked the national security rationale during negotiation of its protocol of accession to justify its boycott of Israel ("an enemy country") and of firms doing business with Israel. BISD 17S/33 (1970)
1975	Sweden	Footwear exporters	Global import quotas on footwear (1975–77)	Sweden claimed that restrictions were needed for "the maintenance of a minimum domestic production capacity in vital industries"
1982	European Community	Argentina	Trade embargo	European Community invoked Article XXI to justify trade restrictions during the Falklands war
1985	United States	Nicaragua	Trade embargo	Citing nontrade policy reasons, United States cut sugar imports from Nicaragua in 1983 but did not invoke Article XXI. US trade embargo imposed in May 1985 was justified under Article XXI
1991	European Community	Yugoslavia	Trade sanctions	Panel deliberations to review European Community invocation of Article XXI were suspended when Yugoslavia was disqualified from membership following the creation of the new Balkan States. BISD 39S/7 (1993)

observations overall, has played an even more dominant role in the use of financial sanctions, employing them in about 80 percent of the cases in which finance was used without accompanying trade controls (see tables 4A.1 to 4A.5).

The most common type of financial sanction is the interruption of official development assistance. Although Export-Import Bank financing, multilateral development bank loans,[7] and other forms of official and private credit have been linked to political goals from time to time (such as the effort to stop the Three Gorges Dam construction in China), the majority of cases involve the manipulation of bilateral economic and military assistance to developing countries.

Asset Freezes

An unusual sanction is the freeze of assets the target country holds in the sender country. A broad freeze of assets not only stops financial flows but also impedes trade, though freezes are often imposed in conjunction with broad trade controls. Merchandise, accounts receivable, and bank accounts all qualify as assets (as does real property), so once a freeze is announced anything owned by the target country, its corporations, or residents is potentially vulnerable. In general, foreign government assets have been frozen only in times of war or exceptional hostility. In recent years, however, the seizure of assets linked to drug traffickers or to terrorists or their supporters has become a more common weapon in the US arsenal, while the United Nations has been studying the seizure of assets owned by individual regime leaders and their supporters as a means of putting pressure on "bad guys" in target countries and avoiding civilian costs.

In our judgment, 8 of the 21 cases involving asset freezes had a positive or successful outcome to which sanctions contributed modestly. The asset freezes imposed by the United States against Iran in 1979 (Case 79-1) and by the United Kingdom against Argentina in 1982 (Case 82-1) clearly contributed to the resolution of those conflicts by inhibiting the ability of the target countries to purchase weapons and ammunition.[8] Economic sanctions, including an asset freeze, also contributed to Egyptian President

7. The charters of the IMF, World Bank, and other international financial institutions (IFIs) prohibit them from using their funds for political purposes. The US Congress has from time to time passed amendments to appropriations bills requiring the US representatives to these institutions to vote no or to abstain from voting on loans to various countries. However, US actions usually have no effect since the Unites States no longer has veto power over loan decisions in the IFIs, and other members have not shared either US goals or its occasional disposition to politicize those institutions. Nevertheless, suspension of multilateral loans does appear as a sanction in some cases, usually involving expropriation or nationalization, because in certain circumstances the IFIs deem these issues an appropriate economic policy concern.

8. In the Iranian case, Tehran was inhibited in pursuing its war against Iraq.

Gamal Abdel Nasser's willingness to negotiate a compromise solution for governing the Suez Canal after he had nationalized the canal in the summer of 1956 (Case 56-2). The freeze of Kuwait's assets during the Gulf War helped keep them out of Iraq's hands, and the asset freezes imposed upon the former Yugoslavia (Cases 91-1 and 98-2) may have assisted in weakening violent troublemakers. But in general the freezing of assets made a limited contribution to cases involving the pursuit of major objectives, and in these cases sanctions were usually a small supplement to the use of military force.

Comparing Trade, Financial, and Asset Sanctions

The economic and political effects of trade, financial, and asset sanctions differ in several ways. Trade controls are usually selective, affecting one or a few goods: for example, Soviet imports of wool from Australia in 1954 (boycotted in the context of an espionage scandal; Case 54-1) or US exports of nuclear technology to various developing countries in the 1970s. In such cases, trade may only be diverted rather than cut off. Whether import prices paid by (or export prices received by) the target country increase (or decrease) after the sanctions depends on the market in question. Often the price effects are very modest.

In contrast, alternative financing may be harder to find and is likely to carry a higher price (i.e., a significantly higher interest rate) and require greater credit security because of the uncertainties that sanctions create. Official development assistance may be irreplaceable. In addition, financial sanctions, especially involving trade finance, may interrupt a wide range of trade flows even without the imposition of explicit trade sanctions.

The economic effects of financial sanctions may tilt the political balance even more sharply in the sender country's favor. The pain from trade sanctions, especially export controls, usually is diffused through the target country's population. Financial sanctions, on the other hand, are more likely to hit the pet projects or personal pockets of government officials who can influence policy. On the sender's side of the equation, an interruption of official aid or credit is unlikely to create the same political backlash from business firms and allies abroad as an interruption of private trade.

Historically, the United States was the dominant user of financial sanctions. It was the sole sender in 25 of the 31 observations where financial sanctions were used alone prior to 1990. In the 1990s, however, the United States was the sole sender in only 6 of 19 observations. The European Union emerged as a frequent sender or cosender in financial sanctions cases in the 1990s.

In contrast, trade sanctions have suffered from declining popularity. While used by a variety of senders in the past (the United States was the

principal sender in only 14 of the 40 observations in which trade controls alone are imposed), trade sanctions have been implemented as a stand-alone policy only five times since 1990.

Some 20 of the 21 asset freeze cases occurred during or just prior to a period of military conflict or were accompanied by some degree of military force. In all of these cases, asset freezes were also supplemented with trade controls, often in the form of a complete embargo. The United States was the principal sender in 17 cases, and the United Kingdom in 3 cases. The UN asset freeze against Libya is the lone case not involving military force (though the United States had earlier used limited military force in its anti-Gadhafi campaign).

The differing cast of characters and types of tools deployed create significant variations in relevant economic and political variables as between trade, finance, and asset freeze cases:

- The economic costs of sanctions as a percentage of target-country GNP were substantially higher on average when finance alone was interrupted (1.7 percent) by comparison with episodes where trade alone was interrupted (0.7 percent). Comprehensive sanctions featuring both financial and trade measures had more impact, costing the target 2.9 percent of GNP on average (this figure excludes the Iraq observations (Case 90-1); including Iraq would raise the average to 4.2 percent). Packages including asset freezes were even more costly (4.3 percent excluding the Case 90-1 observations).
- The cost to the sender of financial sanctions was, on average, negligible (not counting reputation and indirect costs, discussed later). By contrast, asset freeze episodes involved costs to the sender that averaged 2.5 on our 4-point scale. This measure reflects the broad trade controls that frequently accompanied asset freezes.
- Relations between sender and target were relatively close (average index of 2.4 on a 3-point scale) prior to the imposition of financial sanctions; by contrast, they were usually less warm (average index of 1.7) prior to asset freezes.
- The incidence of international cooperation with the sender country was relatively low in financial sanctions cases, usually because it was not needed; by contrast, in asset freeze cases international cooperation was common (average index of 2.8 on a 4-point scale).

Overall, a successful outcome was scored in 19 of the 53 finance-only cases (36 percent), 32 of the 101 combined trade-finance cases (32 percent), and 8 of the 21 asset freeze cases (38 percent). By contrast, a successful outcome was scored in only 10 of the 40 trade-only cases (25 percent).

Economic Health and Political Stability of Target Countries

In addition to the choice of policy tool, conditions in the target country shape sanctions outcomes. Generally, we would expect economically weak and politically unstable targets to be more vulnerable to sanctions than strong and stable states. While other political variables are discussed in chapter 3, we discuss political stability here, along with the economic health of the target, because the evidence suggests that the overall political economy environment in the country matters. We note, however, that the results on this set of variables are mixed and weaker than expected, and we believe that this area would benefit from further research.

In the first two editions of this book, we used a qualitative index combining our assessments of the economic health and political stability in the target country at the time sanctions were imposed, ranging from distressed (score of 1) to strong and stable (score of 3). In this edition, we collected data on several additional variables: the average annual rate of GDP growth over the previous five years and the annual rate of inflation over the previous three years, both as measures of economic health, and data from the Polity IV database to construct measures of political stability prior to and during the sanctions period. Our first measure of political stability takes the number of regime changes in a country, as measured by the Polity IV database, over the 10 years prior to the sanctions and divides by 10 to produce an indicator ranging from 0 (very stable) to 1 (very unstable). Our second measure is similar except that it records political stability during the period sanctions are in place.

Overall, lower growth and higher inflation are associated with more successful outcomes, as we expected, but that pattern holds for only two of the five goal categories: modest and other major goals (table 4.2). Perhaps not surprisingly, given the nature of the targets in the military impairment category, successes are associated with higher growth and lower inflation in the target country, and results are mixed for regime change and disruption of military adventures. On average the results for the political stability variables based on the Polity IV database were the opposite of what we expected in four of the five goal categories. In fact, successful sanctions are associated with relatively more politically stable targets (table 4.2), perhaps because weak regimes are unable to respond or because they perceive the costs of complying with the sender's demands as being higher than do more stable regimes.

The data also suggest, however, that a combination of weak economic and political conditions makes targets more vulnerable to the effects of sanctions. There is no correlation in the data between either economic growth or inflation and our Polity IV measures of pre-episode political

Table 4.2 Economic health and political stability, by policy goal

Policy goal	Political stability prior[a]		Political stability during[b]		Annual GDP growth rate (percent)		Annual inflation rate (percent)[c]	
	Success cases	Failure cases	Success cases	Failure cases	Success cases	Failure cases	Success cases	Failure cases
Modest policy changes	0.12	0.16	0.05	0.14	1.5	4.0	326.1	22.4
Regime change and democratization	0.12	0.19	0.12	0.15	3.5	2.6	185.9	32.5
Disruption of military adventures	0.33	0.18	0.00	0.00	2.6	5.9	16.8	131.8
Military impairment	0.04	0.21	0.00	0.03	4.1	3.7	23.0	92.3
Other major policy changes	0.11	0.09	0.06	0.04	1.1	3.8	31.9	14.9
All cases	0.12	0.17	0.07	0.10	2.5	3.5	184.4	45.3

a. *Political stability prior* tracks the number of regime changes in the target in the 10 years prior to the imposition of sanctions (average per year). Values are calculated by dividing the number of observed changes by 10.

b. *Political stability during* measures the number of regime changes while sanctions were in place (average per year). Values are calculated by dividing the number of observed regime changes by years sanctions were in place.

c. Average annual inflation rates greater than 100 percent reflect severe dislocation or economic mismanagement. The calculated values ignore targets that experienced annual inflation rates greater than 500 percent (Cases 91-8, 92-1, 92-11, 93-6, 93-7, and 94-1).

stability. But there is a positive correlation between economic growth and our qualitative index of economic health and political stability (correlation of 0.22). There is also a correlation between the Polity IV measure of political stability and our qualitative index (simple correlation of 0.34). Our judgmental health and stability index is modestly significant in a few of the regressions summarized in appendix A, whereas the other economic and political stability variables are not.

While we recognize the weaknesses of subjective measures, we believe that our index combining economic health and political stability captures information that economic and political conditions measured separately cannot and that it is a better measure of weakness in the target country. For that reason, we report the results on the other variables here, but we rely on the health and stability index in the tabular analysis in chapter 6 and the multivariate analysis in appendix A. Those results suggest that weaker states are more vulnerable, though the relationship is not particularly strong.

A final pattern worth noting in the data is that target countries appear on average to be more politically stable after sanctions have been imposed than before. This result could be skewed by some of the very long-lasting cases, since one might expect that stability would be relatively greater when measured over longer than shorter periods. It might also be interpreted as supporting the hypothesis that sanctions lead to "rally-round-the-flag" effects that strengthen rather than weaken target regimes.

Cost of Sanctions to Targets

Sanctions are supposed to impose economic penalties, or carry a credible threat of penalties, in order to coerce the target country to alter its policies. If sanctions impose no costs, or if the threat is not credible, the measures are unlikely to change foreign behavior. Sanctions also carry costs for the sender. These costs demonstrate the sender's resolve, but they also create domestic constituencies that oppose sanctions. In short, economic costs (actual or threatened, both to the target and the sender) help determine the success or failure of a sanctions episode.

Economists have constructed elaborate theoretical models to suggest how the conditions of supply and demand for the sanctioned commodity might affect the level of costs incurred by the sender and imposed on the target, and how the balance of costs might affect the outcome of a sanctions episode. Unfortunately, the more elaborate the model, the less likely that it is tarnished by economic data. In fact, few studies go beyond anecdotal accounts of the costs that economic sanctions impose on target countries. We have therefore developed a very simple analytical construct to guide our own efforts to estimate the costs imposed on the target country. Our methodology is detailed in appendix C.

To calculate the cost of sanctions to the target country in each episode, we have estimated the initial deprivation of markets, supplies, or finance, expressed on an annualized basis in current US dollars. To calculate the welfare loss to the target's economy, we then used our own judgment to estimate the "sanctions coefficient" that should be applied in the context of the particular episode. Some types of sanctions affect the target country more than others for a given interruption of trade or finance. The welfare loss caused by reductions in aid may be 100 percent of the value of the aid; on the other hand, trade controls may cause far less harm than the value of the shipments affected because of the availability of other markets or substitution of other goods.

Isaac Newton's third law of motion—for every action there is an equal and opposite reaction—seems to play a role in the course of a sanctions episode. The helping hand of another major power may partially or totally offset the impact of sanctions on the target country. In several instances in the Cold War era, the target actually became better off, in economic terms,

as a result of the sanctions. Soviet attempts to pressure Yugoslavia in 1948 (Case 48-4) failed miserably from Moscow's perspective but yielded Marshal Tito an abundant harvest of Western aid and trade credits. Similarly, American efforts to sway Ethiopian policy on human rights and compensation issues (Case 77-8) helped push Colonel Haile-Mariam Mengistu into the waiting and generous arms of the Soviets. In our cost estimates we attempt to reflect these offsetting benefits. A brief survey of four cases may help illustrate our calculations of economic costs.

Case 35-1: United Kingdom and League of Nations v. Italy (1935–36: Abyssinia)

In a belated attempt to coerce Italy into withdrawing its troops from Abyssinia, the League of Nations agreed in late 1935 to a limited trade embargo and to restrictions on loans and credits to Italy. The sanctions did not include key commodities, particularly oil, nor were they universally applied by League and non-League members (the most important nonmember, the United States, did not apply sanctions). Nonetheless, trade was sharply reduced from the presanction period. The sanctions (and the cost of the war) also affected financial conditions in Italy: The lira was devalued by 25 percent in November 1935, and Italy was forced to sell about $94 million in gold between November 1935 and June 1936 to bolster its dwindling foreign exchange reserves.

The sanctions caused a decline in both exports and imports. During the six months when sanctions were in effect, exports dropped by $56 million and imports by $72 million from the previous year's levels. Yet in analyzing this period, M. J. Bonn (1937, 360) noted that "stocks on hand, the practice of economies, the development of substitutes, and the purchase of goods with gold, foreign securities, emigrants' remittances and tourists' disbursements kept the country going without too severe a strain." Elasticities of substitution were undoubtedly high. Accordingly, we estimated the welfare loss to the Italian economy at 30 percent of the value of interrupted trade or $34 million and $43 million, respectively, for exports and imports, when calculated on an annualized basis. In addition, we estimated that Italy incurred a financial loss of $9 million because of forced gold sales, which we estimated to have been made at a 10 percent discount. In sum, we estimate that the sanctions led to an $86 million loss in welfare to the Italian economy, equal to 1.7 percent of GNP.

Case 48-4: USSR v. Yugoslavia (1948–55: Nationalism)

Soviet leader Josef Stalin used economic pressure and threats of military intervention in an attempt to force Marshal Tito's Yugoslavia back into the

Soviet fold. Almost all economic ties between Yugoslavia and the Soviet bloc were suspended by mid-1949. The sanctions led Yugoslavia to expand its trade and to seek military and economic aid from the West. Total trade flows were not reduced, but the direction of trade shifted dramatically: In 1948, over 50 percent of Yugoslav trade was with the Soviet Union and Eastern Europe; by 1954, over 80 percent of trade was with the United States and Western Europe.

Yugoslavia claimed it lost $400 million between 1948 and 1954 as a result of the Soviet sanctions. Our calculations are in the same ball park. We took the amount of Soviet credits offered to Yugoslavia at the end of the sanctions episode—some $289 million in 1955—as a surrogate for the reduction in aid from the Council for Mutual Economic Assistance (Comecon) countries. Spreading the credits over a six-year period and estimating the welfare loss at 75 percent of the value of the aid results in an annualized cost of $36 million. The suspension of debt payments by Comecon countries also cost the Yugoslavs about $300 million over 1948–54, which, when valued at 70 percent of the lost revenues, led to a further loss of $35 million per year. The confrontation with the Soviet bloc also sharply increased military expenditures, which accounted for 22 percent of national income during 1950–54 (Farrell 1956, 27–30). The increase in the military budget was directly attributable to the heightened tensions caused by the Soviet sanctions; accordingly, we also took account of increases in the Yugoslav military budget over the sanctions period. Annual military expenditures in 1950–54 ran about $162 million above the 1948 level; we estimated the annual welfare loss at 25 percent of the additional expenditures, or $40.5 million a year.

These various costs amounted to 3.6 percent of Yugoslav GNP in 1952. However, the costs were more than offset by compensating aid flows from the United States and Europe, coupled with loans from the World Bank. From 1950 to 1954, Yugoslavia received about $1 billion in military and economic aid from the West. Clearly, such funds would not have been forthcoming in the absence of a breach in the Soviet bloc. We estimated Yugoslavia's welfare gain as 75 percent of the transfers, or $187.5 million a year. As a result, there was an annual net welfare gain to the Yugoslav economy during this period of $76 million, equal to 2.5 percent of GNP.

Case 60-1: United States v. Dominican Republic (1960–62: Trujillo)

The notorious abuses committed by Rafael Trujillo prompted the United States in 1960 to impose a limited trade embargo to destabilize the Trujillo regime. The embargo covered arms, petroleum products, trucks, and spare parts. In addition, the United States imposed a special entry fee of 2 cents a pound for sugar imported from the Dominican Republic in ex-

cess of the established quota. Although nominally multilateral, for all practical purposes the sanctions were imposed only by the United States.

The most costly measure was the US sugar fee. It has been estimated elsewhere (Brown-John 1975, 229) that this fee cost the Dominican Republic about $12.5 million per year. Imports of the sanctioned petroleum products fell by 25 percent, but limited product coverage and alternative sourcing in Europe softened the impact on the Dominican Republic economy. Accordingly, we estimated the annual welfare loss due to the petroleum embargo at 30 percent of the trade affected by the sanctions, or only $0.7 million on an annual basis. Imports of trucks, buses, and parts were so small that the losses caused by the sanctions had a negligible impact. Nonetheless, in total the sanctions put the squeeze on an already shaky economy and contributed both to a drop in per capita GNP from $293 in 1960 to $267 in 1961 and to a decline of $28 million in gold and foreign-exchange reserves. We estimated that the drop in reserves resulted in a welfare loss of $2.8 million (10 percent of the actual decline). Overall, then, the sanctions cost the Dominican Republic some $16 million, equal to 1.9 percent of GNP in 1960.

Case 92-2: EC/EU, France, and Germany v. Togo (1992– : Democracy, Human Rights)

In response to the repeated resort to violence by the government of longtime dictator and President General Gnassingbe Eyadema against prodemocracy opposition members, the European Community, France, Germany, and the United States suspended various forms of assistance to Togo. In 1990 and 1991 military cooperation was suspended multiple times. In 1992, the European Community suspended financing of new projects, and the United States froze aid to Togo. In 1993 France suspended nonhumanitarian assistance to the country, and Germany and Japan also froze aid projects.

In 1994, amidst the Rwandan crisis, France resumed some aid to Togo. The European Union announced that it would "gradually resume" some cooperation with the Eyadema regime, conditioned upon democratic progress. However, opposition parties boycotted Togolese elections in 1996, 1999, and 2002, and most donors did not resume aid to the country.

We measure the decrease in aid Togo received from France, Germany, Japan, and the United States by subtracting the average aid disbursements during the sanctions period (1993–2004) from the average level of assistance prior to sanctions (1991–92). This aid loss, a drop of $63 million annually—from $117 million to $54 million—is then multiplied by the sanctions coefficient of 90 percent. The result, about $57 million, is the average annual cost of the sanctions to Togo, equal to more than 3 percent of its GDP at the start of the episode.

Summing Up the Cost to Targets

As these examples show, we tried to err on the side of overestimating the economic impact of sanctions on target countries. Nevertheless, we uncovered few cases in which sanctions inflicted a heavy cost relative to national income—only 14 episodes involved costs that reached double digits as a share of GNP. The costs of sanctions (expressed on an annualized basis) exceeded 2 percent of the target country's GNP in a little more than one in four observations. Of course, government officials fight very hard for policy changes that might increase GNP by 2 percent, and elections are won or lost and coups staged with the expenditure of far less money. Still, the numbers seem small. The big exception is Iraq (Case 90-1). Almost all countries joined in the embargo against Iraq, making it the most extensive array of trade and financial restrictions since World War II.

By far the biggest cost to Iraq came from the oil embargo, which was most severe during the period from 1990 to 1992 (after that, expanded Oil for Food schemes came into play). We estimated welfare costs at 90 percent of the value of lost oil sales. These were calculated using as a base Iraq's average oil exports between 1988 and 1989 and applying the average 1990–96 Dubai Fateh prices. The calculated decline in Iraqi welfare works out to $13.6 billion annually. In addition, Iraq suffered from the loss of imports. Based on the value of Iraqi imports in 1988, we calculated the annual costs of the import embargo at $4.6 billion. The suspension of US agricultural export credits and the freeze of Iraqi assets inflicted additional costs on Iraq, of about $250 million and $370 million, respectively. Increased aid from Libya ($5 million annually) minimally offset the impact of the UN embargo. In later years, UN humanitarian assistance, private relief donations, and the Oil for Food Program lessened the costs of the embargo for the Iraqi economy. But the size of the economy was also much smaller, and we estimate that the UN embargo, over the 1990s, equaled roughly half of Iraq's average annual output.

On a per case basis, the economic damage done by sanctions has increased significantly since the first edition of this book, published in 1985. Observations prior to 1985 had an average cost to target of 1.4 percent of GNP. Cases initiated since 1985 had an average impact of 5 percent of GNP (3.3 percent if observations from Iraq Case 90-1 are excluded). The higher impact likely reflects the increased use of sanctions by major powers against small countries and a declining willingness to sanction significant countries: The median sender-to-target GNP ratio was 45 before 1985 and was 453 in the last 15 years of the 20th century.

Considering the median GNP ratio just cited, costs to target countries averaging merely 3 percent of GNP may seem small. Why don't sanctions generally impose a heavier cost on the target country? In many cases, the sender chooses to impose limited sanctions, either because its goals are limited or because the sender is more interested in responding to domestic

political demands than in making the sanctions effective. In other cases, sender countries may encounter difficulty in extending the scope of sanctions to cover a broad range of economic activity and a large number of trading partners. Even when allied governments embark on a joint sanctions effort, the obstacles are formidable. Sanctions create powerful incentives for evasion. It could be said that a sieve leaks like a sanction. Ingenious new trading relationships, devised by domestic and third-country firms, flower because it is difficult to trace the origin and destination of traded goods (particularly commodities like oil and grains). In the 1980s Iran and Argentina obtained spare military parts, and Libya marketed its oil in Europe (albeit at some cost and delay) thanks to triangular trade arrangements. Moreover, transshipments can be routed through friendly (or at least not antagonistic) countries: In the 1960s, the lifeline for Rhodesia was its continuing trade with South Africa, Zambia, and Mozambique. In the 1990s the National Union for the Total Independence of Angola (UNITA) faction in Angola routed its exports and imports through friendly Congo and Zambia.

Despite the many leakages, sanctions can be made to impose tangible costs, and when they do, success is possible. On average, the costs to the target as a share of GNP are twice as high in successful episodes as in failures (excluding the three Iraqi cases as outliers). Not surprisingly, the highest costs come when goals are ambitious: Successful cases in the other major goals category average 5.5 percent of GNP versus under 1 percent in the failures. The only category where higher costs are not associated with a higher probability of success is disruption of military adventures, and that result may be skewed because two of the four successes are threats, with no measured target costs.

Threat Cases

Threat cases differ from other sanctions episodes in that they entail no interruption of commercial relations; hence, no measurable cost is imposed on the target country. Our population of 174 cases includes 11 involving threats, with no sanctions ever imposed. These episodes are not covered in the multivariate analysis in appendix A since, by definition, the cases do not have data on the cost to target and certain other variables. Nevertheless, it is useful to comment on this group, using the simple statistical counts applied elsewhere in these chapters.

None of the 11 threat cases lasted more than one year. In terms of objectives, these 11 episodes show wide variation: four cases (Cases 62-3, 65-1, 87-3, and 98-3) sought modest changes in policy; two (Cases 96-5 and 00-1) sought regime change; two (Cases 21-1 and 25-1) worked to disrupt military adventures; two (Cases 75-1 and 93-1) tried to impair military potential; and one (Case 61-3) sought another major policy change.

Table 4.3 Characteristics of threat cases compared with all others
(percent of cases in category or average value)

Characteristic	Threat cases	All others
Companion policies (percent)	18	33
International cooperation (index)	2.6	2.1
Cooperating international organization (percent)	45	21
Offsetting assistance (percent)	9	20
Health and stability (index)	2.1	2.0
Prior relations (index)	2.4	2.1
Trade linkage (percent of two-way trade)	38	30
Regime type (index)	2.0	1.8

Among the 11 cases, nine were evaluated as successes and two as failures. This result represents a much higher success ratio than the experience of all cases taken together, reflecting a self-selection effect: If the threat succeeded, there was no need for the sender to apply sanctions. Indeed, these were the "easy victories" against targets that were probably predisposed to altering their policies.

Table 4.3 summarizes the differences between these cases and all the others. Not surprisingly companion policies are seldom used, but the involvement of international organizations is markedly higher. Offsetting assistance is also rare, but Soviet support for East Germany was a factor in the failure to deter the building of the Berlin Wall (discussed below). Relations prior to the imposition of sanctions are relatively warmer in the threat cases than in others, but trade linkages are only modestly higher. Target stability and regime are little different in the two samples, though both targets in the two failed threat cases were autocratic.

An early success in the threat category was Case 25-1 (League of Nations v. Greece). In 1925 the League of Nations warned of a possible naval blockade and economic sanctions unless Greece desisted from border skirmishes with Bulgaria. Greece ultimately agreed, and the case represents a successful example of League diplomacy. In Case 96-5 (Mercosur, US v. Paraguay), Paraguayan army commander General Cesar Oviedo and 5,000 troops set up barracks on the edge of the Paraguayan capital, demanding that President Juan Carlos Wasmosy reverse his decision to remove General Oviedo as army commander. To prevent the overthrow of President Wasmosy's democratic government, members of Mercosur warned of possible sanctions, including the ejection of Paraguay from Mercosur. The United States also expressed serious concern. In the wake of these threats, President Wasmosy gained public approval, General Oviedo lost the support of his fellow officers, and the coup attempt collapsed.

The failure cases, both involving the Soviet Union, tell different but interesting stories. In Case 61-3, the Western allies threatened sanctions against East Germany following construction of the Berlin Wall, but the threat was never carried out and the wall remained in place for three decades, until the Soviet Union itself collapsed. In 1962 a dispute erupted between the Soviet Union and Romania over development strategy (Case 62-3). The Romanian leader of the day, Gheorghe Gheorghiu-Dej, sought economic ties with the capitalist camp. In response, the USSR signaled the possibility of economic sanctions, with a collateral but unspoken goal of tightening the alliance among Comecon member nations. Romania, however, pursued its own economic and diplomatic course, and sanctions were never imposed.

Costs of Sanctions to Senders

Foreign policy measures generally entail domestic costs, and sanctions episodes are no exception. Domestic firms pay an immediate price when trade, aid, or financial flows are disrupted. Moreover, sanctions increase the long-term uncertainty, and therefore the cost, of doing business abroad. All trading partners of the sender country, not just the target country, may be prompted to diversify their sources of supply and seek alternative partners for joint ventures and technologies not developed in the sender country. In cases involving a large number of economically significant countries or a strategic commodity, as with the US-UN embargo of Iraq and the 1973 Arab oil embargo of the United States and the Netherlands, sanctions may even have broad macroeconomic effects.

There is a limited exception to the general rule that sanctions entail costs for the sender country. If the sender seeks to coerce the target by cutting aid or official credits, the sender may enjoy an immediate economic gain due to a reduction in budget expenditures. But even in these instances, the corollary loss of trade contacts may entail an economic burden, in the form of lost sales and jobs, on the sender country.

It is often said that the sender country in a sanctions episode should seek to maximize its political gains and to minimize its economic costs. Sometimes this advice is translated into the recommendation that the sender country should seek to maximize the ratio of costs inflicted to costs incurred. High costs to domestic constituents could undermine support for the sanctions and make them difficult to maintain over time. At the same time, if minimizing costs appears to take precedence over making the sanctions effective, then this could send a signal of weak resolve and encourage the target to hold out.

In practice, the domestic costs of a sanctions episode are rarely calculated, and almost never in advance, for two reasons. First, it is just plain hard to quantify the costs to the sender country. Too many intangible

factors are at play. If congressional legislation compelled the green eyeshade staff of the Office of Management and Budget to calculate the costs of imposing sanctions, the desk officers would be economically challenged. Hard data rarely exist. Some costs might appear only years later in the form of lost sales opportunities for domestic firms—if they are branded with the tag of "unreliable supplier." Though such legislation has been proposed, it has never passed.[9]

Second, for large countries, the overall impact on the sender's economy may be regarded as trivial. In more than two-thirds of the cases we have examined, the cost to the target is less than 2 percent of its GNP, and in more than half, it is less than 1 percent. The costs borne by the sender country, as a percentage of its GNP, will be much less, since as a rule the sender has by far the larger economy. From the lofty perspective of the White House or 10 Downing Street, the costs may seem entirely affordable.

However, the US grain embargo and pipeline sanctions cases of the early 1980s (Cases 80-1 and 81-3) focused attention on the very different perspective of individual firms and communities. Sanctions are paid for by the industries whose trade is most deeply affected. In contrast, most other foreign and defense policies are financed out of general treasury revenues.[10]

Sanctions can amount to a discriminatory, sector-specific, and therefore unfair tax to finance foreign policy. In many instances, sanctions restrict the sale of goods that are available from competitors in foreign countries, or require the cancellation of existing contracts, or both. The impact of sanctions may fall most heavily on those few firms that suffer lost sales and damaged reputations. Such lopsided burden-sharing can quickly arouse political opposition to the methods of the sender government and sometimes to the goals.

Reflecting these concerns, the US Export Administration Act of 1979 contained safeguards to guard against its overzealous use and the consequent damage to US export interests.[11] However, the grain embargo and pipeline cases quickly revealed these safeguards to be ineffective. The Export Administration Act was therefore eventually extended as the Export Administration Amendments Act of 1985 (1985 EAAA), which put additional limits on presidential power. The most important new limitations were a time limit on agricultural embargoes, a provision limiting the president's power to impose controls on exports subject to existing contracts, and stricter criteria for the imposition of controls, taking the availability of foreign substitutes into account.

9. "Enhancement of Trade, Security, and Human Rights through Sanctions Reform Act," HR 2708, introduced on 23 October 1997. See http://usaengage.org/archives/legislative/hr2708.html. The Senate version (S 1413) is available at http://usaengage.org/archives/legislative/S1413.html.

10. To be sure, the deployment of military forces often inflicts extreme costs on individual soldiers.

11. This discussion of the Export Administration Act is drawn from Hufbauer (1990).

Limitations on Agriculture

In light of the harsh domestic political backlash against the 1980 grain embargo imposed by President Jimmy Carter against the Soviet Union, Congress inserted, in the 1985 EAAA, a sunset provision that limited the duration of embargos on agricultural goods to 60 days, unless Congress agreed by joint resolution to extend the sanctions for a maximum of one year. Nevertheless, all agricultural exports could be blocked as part of a generalized export embargo. The question of a grain embargo resurfaced in the sanctions cases against India and Pakistan following their nuclear tests in 1998. To discourage nuclear proliferation, the 1994 Glenn Amendment to the Arms Export Control Act required the president to cut off financial assistance and to restrict exports, including farm products, to countries that conduct nuclear tests. The prospective cancellation of large grain shipments to Pakistan, at a time when prices were already soft, prompted new legislation that gave the president discretion to waive the Glenn Amendment for one year.

Contract Sanctity Rules

The 1985 amendments also protected existing contracts for export or reexport: Section 108(1) provides that the president can break those contracts only when a "breach of peace" threatens the strategic interests of the United States, and after Congress has been consulted. The contract sanctity issue cuts in two directions. On the one hand, sanctions are more likely to be effective when they are imposed abruptly and with maximum force. To do so, a sender would want to cancel existing contracts in spite of the inevitable domestic dissatisfaction. On the other hand, if existing contracts are honored, domestic costs will be reduced, and so will domestic opposition. But the initial impact on the target country will also be lessened, providing time for the target country to adjust and to attract compensating foreign assistance. The "breach of peace" threshold represented Congress' attempt to resolve this dilemma.

Foreign Availability

Finally, the 1985 EAAA required the president to dismantle national security and foreign policy controls when the goods in question are available from foreign sources.[12] Unlike national security export controls, whose

12. Section 2405(h)(3) of the act states that if the secretary of commerce "affirmatively determines that a good or technology . . . is available in sufficient quantity and comparable quality from sources outside the United States . . . so that denial of an export license would be ineffective in accomplishing the purpose of the controls . . . then he must provide an export license."

success depends on the prohibition of access to controlled goods (a modern form of contraband), the success of foreign policy sanctions does not entirely depend on restricting access to goods from other countries. However, the availability of goods from other sources lessens the impact of the sanctions, raises the level of international cooperation required to implement the sanctions, and increases the domestic political costs of maintaining the controls. It is clearly preferable to impose sanctions on goods not readily obtainable in foreign markets.

Our estimates of the costs of economic sanctions to the sender countries are very small, though not surprising given the typical GDP ratio of sender and target. On our qualitative scale, ranging from 1 for a net gain when the sender restricts aid flows to 4 for cases affecting large volumes of trade, the average in both success and failure cases is 2, signifying a "trivial dislocation" for the sender economy as a whole.

In more than a quarter of the cases involving modest policy goals, listed in table 4A.1, the sender country enjoyed a net gain (usually quite small) as a result of withholding aid and official credits. The only episode in the modest policy goals category in which significant trade diversion occurred, with consequent losses to the affected firms in the sender country, was the case involving US efforts to release hostages held by Iran (Case 79-1).

Although some of the regime change and military disruption cases involved modest costs for the sender country, the average cost in these cases was trivial, and it differed little between successes and failures. The only policy goal for which this does not hold true is military impairment, where average costs are higher and successes tend to cost more. But these cases also involve national security, where the costs are easier to justify. Only in the category of other major policy changes is failure associated with noticeably higher costs to senders.

Gravity Model Analysis

The intent of trade sanctions is of course to reduce trade—exports or imports or both. Financial sanctions and asset freezes also reduce trade by denying investment, foreign exchange, or credit to the target country or by raising the cost of credit. Together with Dean DeRosa, we adapted a gravity model devised by Andrew Rose to assess the impact of sanctions, at different levels of severity, on bilateral merchandise trade. We analyzed the impact of 28 US-inspired economic sanctions in place in 1999. The goal was to measure indirect as well as direct effects—for example, the chill that limited sanctions may create on trade of unrelated goods or the "unreliable supplier" reputation for exporters of capital goods. The methodology and results of our gravity model study are described in detail in appendix B.

To briefly summarize the key results, we find that the typical impact of US sanctions is to significantly reduce bilateral trade between the sender

and target and mildly reduce the target country's trade with all partners. However, the latter finding is fragile, and we show that sanctions of greater intensity and broader scope are, surprisingly, correlated with larger predicted total trade flows. Thus, the impact of sanctions on bilateral trade is in line with policymakers' expectations, but there is little evidence that the effect on total trade is powerful. Moreover, when we estimate trade losses by comparing trade flows with a counterfactual estimate in which US-inspired sanctions are absent, we find the trade losses to be very modest.

Summing Up the Cost to Senders

The costs of economic sanctions are not confined to the economic realm. A failed episode can impose heavy political costs on the sender country, particularly if the episode precipitates a public outcry. US sanctions against the Soviet Union over the Yamal gas pipeline project and Soviet support of repression in Poland (Case 81-3) badly disturbed the North Atlantic Treaty Organization (NATO) alliance. The Reagan administration was derided by its domestic political opponents for the failure of its sanctions policies against Nicaragua and Panama (Cases 81-1 and 87-1, respectively). Earlier celebrated episodes in which failure exacted large political costs for the governments of the sender countries include Case 35-1: UK and League of Nations v. Italy, and Case 40-1: US v. Japan. The most recent example in this category is the US Helms-Burton law against Cuba, which has antagonized friends and allies from Spain to Canada.

Even successful sanctions episodes can impose political costs on the sender country. Examples include the US response to the Franco-British Suez invasion (Case 56-3), which left a bitter taste in Europe for many years; the destabilization campaign and eventual overthrow of Chile's Salvador Allende (Case 70-1: US v. Chile), which gave the United States a reputation for being willing to use the Central Intelligence Agency (CIA) to do "dirty tricks"; and Case 77-4: Canada v. Japan and EC, in which Canadian insistence on nuclear safeguards (prompted by the "peaceful" Indian nuclear explosion) irked Canada's trading partners and allies.

We have not attempted to systematically assess the political cost of each episode to the sender country. All diplomacy has its political costs; some episodes are dear, and others are cheap. The political costs of economic sanctions may be lower or higher than the political costs of achieving the same diplomatic ends by different means. We leave these matters for other scholars to explore.[13]

13. David Baldwin (1985) was a pioneer in comparing the costs of sanctions with other forms of diplomacy and coercion.

Appendix 4A

Table 4A.1 Cases involving modest changes in target-country policies: Economic variables

Case[a]	Sender	Target	Success score[b]	Cost to target[c]	Cost as percent of GNP[d]	Cost per capita[e]	Trade linkage[f]	GNP ratio[g]	Health and stability[h]	Sanction type[i]	Cost to sender[j]	GDP growth rate[k]	Inflation rate[l]
33-1	United Kingdom	USSR	12	4	0.02	0.02	13	1	2	M	2	2.4	—
38-1	United States, United Kingdom	Mexico	9	2	0.2	0.11	6.5	75	3	F,M	2	7.4	2.1
54-1	USSR	Australia	2	50	0.5	5.56	2.65	18	3	M	2	4.4	13.8
56-2	United States, United Kingdom, France	Egypt	9	138	3.4	5.87	22.5	160	2	F,X	2	1.8	–3.8
61-1	United States	Ceylon	16	9	0.6	0.86	6	375	2	F	1	2.0	0.3
62-3	USSR	Romania	2	—	—	—	40.5	24	3	—	2	4.7	—
64-1	France	Tunisia	6	12	1.5	2.67	47.5	106	2	F,M	2	5.9	0.9
65-1	United States	Chile	9	—	—	—	37	98	2	—	2	4.5	34.7
65-2	United States	India	16	41	0.08	0.08	24	13	2	F	1	5.2	6.6
68-1	United States	Peru	1	35	0.7	2.60	9.5	186	2	F	1	5.5	11.7
68-2	United States	Peru	12	35	0.7	2.72	9.5	186	2	F	1	5.5	11.7
71-2	United Kingdom	Malta	6	11	4.4	38.00	38.5	546	3	F	2	9.4	2.7
75-2	United States	USSR	8	102	0.01	0.40	3.5	2	3	F,M	2	4.4	—
75-5*	United States	Chile	12	54	0.7	5.29	18	224	1	F,X	1	2.1	114.6
77-4 (1)	Canada	European Community	9	40	0.002	0.15	1	0.1	3	X	2	3.3	13.7
77-4 (2)	Canada	Japan	9	75	0.01	0.66	3	0.3	3	X	2	4.5	14.8
78-1	China	Albania	2	43	3.3	16.54	34	249	3	F,X,M	2	3.4	—
78-5	United States	USSR	2	51	0.003	0.19	3	2	3	X	2	3.7	—
79-1	United States	Iran	12	3,349	3.8	90.51	13	28	1	F,X,M	3	2.6	16.8

(table continues next page)