THE ECONOMIC IMPACTS OF THE 1998 SANCTIONS ON INDIA AND PAKISTAN

by Daniel Morrow and Michael Carriere

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On May 11 and 13, 1998, India conducted a series of nuclear tests in the barren deserts of the Pokhran region. In response to these tests, neighboring Pakistan conducted its own round of nuclear explosions on May 28, 1998, in the Chagai Hills of Baluchistan. As required by law (under the Glenn Amendment), the United States immediately placed both nations under economic sanctions. According to Undersecretary of State Strobe Talbott, who has become the chief US interlocutor with the South Asian neighbors since their respective tests:

[The sanctions imposed on India and Pakistan] were necessary for several reasons. First, it’s the law. Second, sanctions create a disincentive for other states to exercise the nuclear option if they are contemplating it. And third, sanctions are part of our effort to keep faith with the much larger number of nations that have renounced nuclear weapons despite their capacity to develop them.1

Just six months after the sanctions were announced, however, the United States had lifted virtually all of them. The process of weakening the sanctions in place against India and Pakistan had actually begun in July 1998, when the Senate voted to exempt food exports from sanctions.2 On October 21, 1998, Congress passed the Brownback Amendment, which gave President Clinton the authority to waive certain economic sanctions in place against India and Pakistan and to resume trade financing and other assistance programs for up to 12 months.

President Clinton wasted little time in using this waiver authority. On November 6, 1998, the president’s declaration, officially titled the “India-Pakistan Relief Act,” waived the prohibitions in place against the activities of the United States Export-Import Bank, the Overseas Private Investment Corporation, and the Trade Development Agency in both India and Pakistan. Perhaps most importantly, the presidential waiver also authorized US officials to support loans to Pakistan from the International Monetary Fund (IMF) and the World Bank.3 On June 9, 1999, the
US Senate voted to extend the waiver authority created by the Brownback Amendment for another five years, in the form of an amendment attached to an approved defense appropriations bill.4

While the Brownback Amendment has, for the time being, rolled back almost all of the original sanctions placed on India and Pakistan, the Glenn Amendment—the legislation that required the imposition of the sanctions—remains on the books. Hence, the policy question remains: should the United States keep the Glenn Amendment—or similar automatic, unilateral sanctions against nuclear proliferators—in place?

It is therefore important to evaluate the impacts of the economic sanctions on India and Pakistan and consider, based on this assessment, whether or not such sanctions might constitute a meaningful disincentive to future nuclear proliferators in the decades ahead. The debate about the future utility of the Glenn Amendment needs to be grounded on a factual analysis. In this article, we seek to establish the facts about what official sanctions were imposed by the United States and others and what direct and indirect effects they had on the Indian and Pakistani economies.

We begin by outlining the official sanctions that were applied and their specific effects on US transactions with India and Pakistan. Then we consider the changes in capital flows—flows that have become increasingly important in this era of globalization—for each country after its decision to go nuclear, and to what extent these changes might be attributed to the sanctions. The concluding section of this article discusses the implications of our findings for the future utility of the Glenn Amendment.5

We hope that our assessment of the impact of the economic sanctions on India and Pakistan will contribute usefully to the ongoing debate concerning the efficacy of economic sanctions in general. Even before the South Asian nuclear tests, there was a growing consensus among many foreign policy analysts that the United States now relies too heavily on the use of economic sanctions, and that such sanctions have little effect on the behavior of targeted nations.6 Many argue that globalization has rendered sanctions ineffective because targeted countries can always find another source for sanctioned trade and finance opportunities. “Globalization multiplies choices of where to invest, produce, buy, sell and cheat in order to achieve national goals,” writes the Washington Post’s Stephen S. Rosenfeld. “A country blocked on one avenue simply tries another.”7

This notion of globalization weakening the possible impact of sanctions is echoed in a recent study by Richard N. Haass, director of foreign policy studies at the Brookings Institution. According to Haass:

At least in theory, this greater degree of globalization (and the somewhat reduced centrality of the nation-state) ought to have an adverse impact overall on the effectiveness of sanctions. A target state now has many more potential suppliers and markets—and a would-be sanctioner has many more entities to enlist before sanctions are likely to be effective.8

Our study of the impacts of sanctions on the economies of India and Pakistan will shed some light on whether or not globalization does indeed render sanctions ineffective.

We find the sanctions had a modest but measurable adverse effect on India’s economy and a sizeable negative impact on Pakistan’s economy. Moreover, globalization in some ways exacerbated the impact of sanctions, as investor expectations about sanctions indirectly led to reduced capital flows to India and Pakistan. This article does not seek to assess the impact of sanctions on policy, as the sanctions were eased too quickly to present a good test. However, our findings suggest that automatic sanctions such as the Glenn Amendment requires can have sufficient economic impact to be a disincentive to future proliferators, although that disincentive may not be sufficient to change policy in all cases.

THE OFFICIAL SANCTIONS BY THE UNITED STATES AND OTHERS

The United States, under the Glenn Amendment (section 102 of the larger Arms Export Control Act of 1994), was lawfully required to impose sanctions on India and Pakistan after their May 1998 nuclear tests.9 This legislation, authored by former Senator John Glenn (D-OH), stipulates that, when a non-nuclear weapon state detonates a nuclear explosive device, the US administration must impose an extensive set of sanctions on the offending country, as summarized in Box 1. Passed into law on April 30, 1994, the Glenn Amendment clarified and amplified previous nonproliferation legislation, i.e., the Glenn/Symington Amendments to the Foreign Assistance Act of 1977 and the Nuclear Non-Proliferation Act of 1978.10
Although the Glenn Amendment did allow the president to delay imposition of the sanctions for 30 days, it did not include any provisions for removing the sanctions once they are imposed and did not grant authority for waivers of any sort.11

The nuclear bomb tests by India on May 11 and 13, 1998, and then by Pakistan on May 28, 1998, triggered these provisions for the first time. Immediately in response to both countries’ tests, President Clinton announced and reported to Congress that the United States would impose the sanctions required by law. However, since they had never before been invoked, working out the details took some time, and the actual sanctions were rolled out over a period of weeks. On June 18, 1998, the US Department of State announced the details, along with the goals, of the sanctions, as summarized in Box 2.12

The US bilateral aid programs that were suspended were minuscule relative to India’s public sector budget.13 The termination of foreign assistance under the Foreign Assistance Act cost India $51.3 million in aid from the United States in 1998, including $12 million in economic development assistance and $9 million under the Housing Guarantee program. Another $6 million earmarked for a greenhouse gas program was suspended, as was funding for a reproductive health program. Plans for an Indian electrical testing laboratory, to be partially funded by the United States Agency for International Development (USAID) and designed to implement standards for energy consumption and efficiency, were postponed. Following the tests, the Trade Development Agency also announced that it would not be considering any new projects in the region.14

United States government lending institutions also severed their ties with India after the May explosions. The US Export-Import Bank estimated that the new prohibition on loans, loan guarantees, and credit insurance immediately affected approximately $500 million of US exports to India in pending transactions. Based on indications of interest received by the Bank, an additional $3.5 billion of exports might have been affected if the sanctions had remained in place. The Overseas Private Investment Corporation (OPIC) also announced that it too would cease approval of new projects in India. It is difficult to quantify the full impact of this decision: OPIC did not have a figure for the number of potential projects. We do know that India was one of OPIC’s top five countries receiving support, receiving an average of $300 million annually from the governmental organization.15

The Ex-Im Bank and OPIC sanctions affected several major projects in India. Enron Corporation, in a joint venture with GE Capital and Bechtel Enterprises, had started work on a $2.5 billion power plant south of Bombay with partial funding from both the Ex-Im Bank and OPIC. Following the imposition of sanctions, this project was delayed indefinitely. In the southern city of Bangalore, withdrawal of $350 million in funding from the Ex-Im Bank stalled the San Francisco-based Cogentrix Energy Company’s plan for a 1,000-MW power plant.16 The contract for a joint telecommunications venture between Hughes Network Systems and the Indian company Ipsat was voided. According to Hughes CEO Jack Shaw: “We
invoked the ‘force majeure [clause]’\(^\text{17}\) because the sanctions deprived the project of political risk insurance from the US Ex-Im Bank on $400 million offshore debt, thereby delaying the financial close indefinitely.\(^\text{18}\)

In the case of Pakistan, the loss of US bilateral assistance was not a factor following the May 1998 tests because Pakistan was already under US sanctions imposed by the 1985 Pressler Amendment. This law specified that US aid and government-to-government military sales to Pakistan would be cut off unless the president certified that Pakistan did “not possess a nuclear explosive device and that the proposed US assistance program will significantly reduce the risk that Pakistan will possess a nuclear explosive de-

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**Box 2. Summary of Fact Sheet “India and Pakistan Sanctions,”**

*Released by the Bureau of Economic and Agricultural Affairs,*  
*United States Department of State,*  
*June 18, 1998*

The United States imposed sanctions on India and Pakistan as a result of their nuclear tests in May. Imposing these sanctions, the United States sought:

- To send a strong message to would-be nuclear testers;
- To have maximum influence on Indian and Pakistani behavior;
- To target the governments, rather than the people; and
- To minimize the damage to other US interests.

The goals of the United States are that India and Pakistan:

- Halt further nuclear testing
- Sign the Comprehensive Test Ban Treaty (CTBT) immediately and without conditions;
- Not deploy or test missiles or nuclear weapons;
- Cut off fissile material production for nuclear weapons
- Cooperate in Fissile Material Cut-off Treaty (FMCT) negotiations in Geneva;
- Maintain and formalize restraints on sharing sensitive goods and technologies with other countries; and
- Reduce bilateral tensions, including Kashmir.

Accordingly, the United States:

- Terminated or suspended foreign assistance under the Foreign Assistance Act, with exceptions provided by law (e.g. humanitarian assistance, food, or other agricultural commodities).
- Terminated foreign military sales under the Arms Export Control Act, and revoked licenses for commercial sale of any item on the US munitions list.
- Halted any new commitments of USG [US government] credits and credit guarantees by USG entities (including EXIM and OPIC).
- Gained G-8 support to postpone consideration of non-basic human needs (BHN) loans for India and Pakistan by the International Financial Institutions (IFIs) to bolster the effect of the Glenn Amendment requirement that the United States oppose non-BHN IFI loans.
- Will issue Executive Order to prohibit US banks from extending loans or credits to the Governments of India and Pakistan.
- Will deny export of all dual-use items controlled for nuclear or missile reasons. Will presume denial for all other dual-use exports to entities involved in nuclear or missile programs.
The Glenn Amendment sanctions also had little effect on the relationship between Pakistan and US government lending institutions, as these associations were still in the formative process at the time of the tests. The Ex-Im Bank had opened for short- and medium-term programs for the public and private sectors in Pakistan in February 1998, and OPIC had only reopened in March 1998. Due to the relatively short amount of time that both institutions had been open for business in Pakistan, only a few projects were postponed by the sanctions.

It was widely assumed in the United States that, as has been the case with many other economic sanctions, the United States was alone in this effort to punish the nuclear offenders. This was not the case. Fourteen countries, including Japan, Germany, Australia, Canada, Denmark, and Sweden, suspended bilateral aid programs as a sanction against India and Pakistan. Among these, however, only the Japanese sanctions involved significant amounts. Japan cancelled development loans worth $1.2 billion to India, as well as $30 million in grant aid. They also suspended all loans to Pakistan, which totaled $231 million in 1997-98, and cancelled grant aid of approximately $55 million.

The other bilateral programs that were suspended were very small. Germany called off bilateral aid talks with India and put a hold on new development aid worth $168 million. Denmark froze $28 million in aid, Sweden cancelled $119 million, and Canada suspended approximately $9.8 million of non-humanitarian aid, all originally intended for India. Australia, a relatively small lender to South Asia, cancelled all non-humanitarian aid to India, of $2.6 million. While all of its aid to Pakistan was classified as humanitarian and therefore not cancelled, Australia refrained from a planned increase in aid of $2.5 million.

More importantly, all of the G-7 countries, along with a number of non-G-7 nations, joined the United States in opposing new non-humanitarian lending by the IMF, the World Bank, and the Asian Development Bank to India and Pakistan. The common stance of the G-8 countries (the G-7, i.e., the United States, United Kingdom, France, Germany, Japan, Italy, and Canada, plus Russia) was announced at the G-8 summit in London on June 12, 1998. This was significant because the United States holds less than 18 percent of the voting shares in these international lending institutions. In fact, the G-7 countries together have only about 45 percent of the votes in the IMF and the World Bank. Others, such as the Nordic countries, are required in order to form a coalition commanding a majority of the voting shares in these two institutions.

The consequences of this coalition against non-humanitarian lending by the IMF and World Bank will be considered below.

**EFFECTS OF THE SANCTIONS ON INDIA’S CAPITAL FLOWS**

What effect, if any, did these official sanctions have on the economy of the world’s second most populous nation? The sanctions, if they had any effect at all, would most directly influence investments from foreign sources (either official, or private with official support, such as Ex-Im Bank financing). Therefore, the most practical approach to this question is to examine changes in India’s capital account, which records the flows of capital to and from the country, and then to consider to what extent any changes might have been caused by the sanctions. Among the types of capital flows, the sanctions could potentially have impacts through three distinct channels:

- changes in financial flows from bilateral creditors and agencies;
- changes in flows from the international financial institutions (IFIs), especially the IMF and the World Bank; and
- changes in private capital flows as a direct or indirect response to the presence of the official sanctions.

Before examining these three categories of flows, consider the aggregate behavior of India’s capital account. There was in fact a sharp decline in capital flows to India during the months following the nuclear tests in May. For April-June 1998, the net inflow was about $4.2 billion less than in the same quarter in 1997. This amount is modest but not insignificant relative to the whole Indian economy: it is equivalent to about one percent of GDP and four percent of gross domestic investment. Initially, this shrinkage in net capital inflows brought about a decline in India’s foreign exchange reserves, as shown in Figure 1.

This drop, however, did not induce any panic in the financial or foreign exchange markets, because India’s initial reserve position was very strong. At the end of April 1998, the foreign exchange reserves of $26 billion equaled about six months worth of imports, which is considered very healthy. Further-
more, India was able to compensate for this initial loss of capital inflows through the sale of the so-called Resurgent India Bonds to nonresident Indians. This bond issue brought in over $4 billion, and by October 1998 total reserves exceeded the April level.

Examining the composition of capital flows, we find that flows of official foreign aid changed very little. According to the balance of payments data of the Reserve Bank of India, gross disbursements of external assistance for the period April 1998 through September 1998 were $991 million, compared to $1.066 billion for the same period in the previous year. For the Indian fiscal year of April 1998 through March 1999, gross disbursements of $2.726 billion were only five percent below those of the year before.

This may seem surprising since these are the programs controlled most directly by foreign governments imposing sanctions. The explanation is that the sanctions affected new commitments, not disbursements of previously contracted loans. At present, official foreign aid to India is in the form of “project loans,” which normally disburse slowly over several years after commitment. For World Bank project loans, disbursements typically are spread over four to eight years. India, unlike Pakistan, has not been receiving quick-disbursing funds such as IMF financing and adjustment lending by the World Bank, which typically disburse within one to two years. So cutting new commitments of official aid to India would not significantly affect disbursements for several years. For example, World Bank disbursements to India during the six-month period of July-December 1998 were $539 million—about the same pace as previous years.

By contrast, there were notable declines in almost all categories of private flows. As shown in Figure 2, foreign investment in India fell sharply in May 1998 and remained well below the levels of 1997, and this involved declines in both direct investment and portfolio investments. Receipts from external commercial borrowing were also significantly lower after May 1998.
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Figure 2: Foreign Investment in India, April 1997-September 1998 (US$ millions)

Compiled based on data from the Centre for Monitoring the Indian Economy, Monthly Review of the Indian Economy, various volumes (Bombay, India).

Figure 3: India Stock Market Index vs. Asia (Except India and Pakistan) Index

Compiled based on data from Morgan Stanley Capital International.

5/14/98: First day of market activity after India’s second round of nuclear tests.
6/18/98: Details of US sanctions officially announced.
7/9/98: US Senate votes to allow agricultural export credits.
7/15/98: US Senate votes to adopt Brownback Amendment.
9/24/98: India indicates readiness to sign CTBT.
10/21/98: President is granted waiver authority.
11/6/98: President lifts majority of sanctions on India and Pakistan.
The key question is how much of the change in private capital inflows was due to the sanctions themselves. In addition to the sanctions, three other potentially powerful factors could cause such declines in private capital inflows:

- a decline in international investor appetite for portfolio investments in emerging markets generally following the Asian financial crisis that begin with the Thai baht devaluation in July 1997;
- fear of possible military conflict in the subcontinent; and
- economic policy announcements by the Indian government that created concerns about a weakening fiscal policy, a possible reversal of liberalization policies, and a generally less favorable climate for foreign investment.

It is impossible to fully untangle these various influences, but some evidence about the relative importance of the sanctions can be gathered from the movements of the markets for publicly traded Indian stocks. Declines in these stock market indices indicate outflow of portfolio investments. We find that the timing of stock market movements and the explanations of those movements by stock market participants indicate that the sanctions themselves were a relevant, although not dominant, factor.

Nevertheless, during June and July, there were some significant market moves that were apparently driven by the sanctions. Looking through both the Indian and global financial press throughout this period, it is striking that traders paid a lot of attention to the latest news about the scope and potential duration of the sanctions. Immediately following India’s tests, as the Bombay Stock Exchange fell six percent relative to other Asian markets in three days, there were widespread reports that the movements were due primarily to the impending US sanctions. Agence France Presse, in a piece titled “Indian shares down amid fears of sanctions after nuclear tests,” quoted Indian stockbroker Gaurav Sanghvi: “The fear of sanctions and its impact on the domestic economy is affecting share prices.”

This sentiment was backed up by the Xinhua News Agency, which reported that the market was falling “in the wake of reports that the US was likely to impose sweeping sanctions on India for carrying out nuclear tests.”

Just after the United States announced the details of its sanctions on June 18, the Indian market fell almost 10 percent relative to the rest of Asia. On July 10, 1998, following the US Senate vote of 98-0 to weaken the sanctions by permitting agricultural export credits, the Indian market rose about 12 percent relative to the international market.

On July 16, 1998, the day after the Senate approved the Brownback Amendment—legislation that gave the president the authority to waive sanctions—the Indian stock market rose 3.7 percent, and the Times of India headline read “Shares Sparkle on Sanction Waiver Hopes.” “Share prices shrugged off a cautious start to rally sharply at close on Thursday as investors absorbed news of the US Senate’s vote to allow President Bill Clinton to stall implementation of economic sanctions against India and Pakistan,” read the corresponding article. According to one dealer at an Indian foreign brokerage house: “It [the vote] was the major trigger to boost the market.”

Another interesting barometer measures specifically foreign investor sentiment toward Indian stocks. This is the market for Global Depository Receipts—called GDRs—which are traded in London. Figure 4 shows the movements of the GDR premium. This is the average difference between the GDR price of a...
stock and the price of that stock in the Indian market. According to active participants in this market, the equilibrium difference is about plus 10 percent—reflecting tax and transaction cost advantages of the GDRs. On May 8, 1998, just three days before India’s first test, the GDR premium stood at 10.49 percent. In the two weeks following the tests, the GDR premium fell to about zero—reflecting a loss of foreign investor interest in Indian stocks. In mid-June, when the United States clarified the sanctions, the premium fell sharply again to about minus 10 percent—but recovered quickly to zero after the Senate voted to allow agricultural export credits. After the sanctions were relaxed, the GDR premium returned to above five percent.

There were, of course, other factors affecting market sentiment. In particular, changes in India’s credit rating by external agencies caused stock market movements—but these rating changes were to some extent due to the sanctions. On June 19, 1998, Moody’s announced its downgrade of the Indian credit rating. While Moody’s made it clear that their decision was based primarily on India’s long-term lack of economic reform, they did state that the presence of sanctions played a role in their judgment. According to Moody’s:

Finally, following India’s test explosions of nuclear weapons devices last month, the trade and credit sanctions imposed by the US and other countries are likely to hamper efforts to overcome severe infrastructural constraints. Overall, these circumstances exacerbate concerns about whether growth of the economy and of exports can be sufficiently stimulated to reverse the recent weak performances of the external sector and government finances.33

Moody’s was not the only credit rating company to downgrade India. On May 22, 1998, Standard and Poor’s changed the outlook on India’s long-term and local currency issuer credit rating from “stable” to “negative.” What led them to this decision? “The change in the outlook reflects the erosion of India’s external financial position following the imposition of sanctions by the United States and other countries in response to nuclear tests carried out by India last week.”34 Duff and
Phelps made a similar downgrade on August 10, 1998. According to Duff and Phelps, the “decision by the United States to impose economic sanctions on India following India’s underground nuclear weapons tests could…negatively affect India’s balance of payments…and result in lower capital inflows in the coming years.”35 Furthermore, Duff and Phelps cited the fact that the sanctions will force the Indian government to rely on “more costly avenues of borrowing” that may increase the debt burden over time.36

The Indian press, along with traders and others familiar with the financial markets of India, also connected the Moody’s downgrade with the imposition of the US sanctions. The Economic Times, the Times of India, the Economist Intelligence Unit, and Asiaweek all reported that the sanctions had played a significant role in the Moody’s decision.37 Business Today wrote that “the international credit rating agency, Moody’s Investor Services, responded to the sanctions, and downgraded India.”38

This evidence from the stock market and from the statements by the credit rating agencies suggests that the sanctions—although not the most important driver of market sentiment—were a significant factor. The sanctions contributed indirectly to the observed declines in portfolio investments and in external commercial borrowing in large part through their impacts on the attitudes of agents in the global capital markets. If sustained over time, such reduced capital flows would result in lower economic growth.

Therefore, the bottom line for the case of India is this: sanctions had a marginal—but not negligible—effect on the nation’s economy. The indirect effects via private capital flows were far more important than the direct effects of changes in official aid flows. The sanctions would have had greater effect if they had remained in place for several years and thereby affected significantly not just the commitments but also the disbursements of official creditors such as the World Bank.

**THE IMPACT ON PAKISTAN**

The story for Pakistan was very different, both in terms of the channels by which the sanctions had impact and the magnitude of the impact. In short, a decade of economic mismanagement had left Pakistan heavily dependent on the IMF. When the US-led coalition withheld IMF support, the resulting collapse of confidence created a balance of payments crisis and a significant decline in economic activity.

When the Glenn Amendment sanctions were imposed, the Pakistani economy was extremely vulnerable to the loss of support from the IMF and other IFIs. As stated by an Economist Intelligence Unit report: “Economic mismanagement, fiscal profligacy, rising bank defaults and high levels of corruption in the last ten years [before the bomb tests] have played havoc with Pakistan’s economy…. On the eve of Pakistan’s nuclear test, the economy was already only limping along.”39

In October 1997, the government of Nawaz Sharif reached agreement with the IMF on an economic reform program supported by an IMF credit of $1.56 billion, to be disbursed in three tranches, and by a World Bank adjustment loan. As of April 1998, $1.2 billion of the IMF funds remained undisbursed. These funds were very much needed to shore up Pakistan’s weak external position: in April 1998 its foreign exchange reserves of $1.4 billion equaled only about 90 days of imports, and it needed about $2 billion in net inflows in 1998 to avoid loss of reserves and/or reduced imports.

Following the nuclear tests, the United States and other shareholders in the IMF formed a coalition to block disbursement of the IMF credit and the parallel adjustment loan from the World Bank. The expectation that the sanctions would block this ongoing IMF support caused a collapse of market confidence, which affected the capital flows, the exchange rate, and aggregate GDP growth in Pakistan. New private inflows virtually stopped. Foreign exchange reserves fell to extremely low levels (see Figure 5). In early November, just before President Clinton waived a number of sanctions on Pakistan and India, Pakistan’s foreign exchange reserves stood at $458 million, a dangerously small amount.40 The open market (kerb) rate for the Pakistani rupee depreciated from Rs. 45 to the dollar in early May to Rs. 63 in mid-July—a 28 percent depreciation. By the end of 1998, when most of the sanctions had been lifted, it remained 16 percent below its pre-test value.41

Furthermore, the Pakistani government, which before the sanctions had predicted a GDP growth rate of six percent for the 1998-1999 financial year (July-June), had to revise this forecast to 3.1 percent. “We never expected to have that serious
Figure 5: Pakistan Foreign Currency Reserves (in US$ millions), 1998

Compiled based on data from the International Monetary Fund, International Financial Statistics, various volumes (Washington, DC).

Figure 6: Pakistan Stock Market Index vs. Asia (except India and Pakistan) Index, January-December 1998

Compiled based on data from the Centre for Monitoring the Indian Economy, Monthly Review of the Indian Economy, various volumes (Bombay, India).
impact of the sanctions against Pakistan,” explained Pakistani Finance Minister Ishaq Dar, “and that is why the GDP growth rate ended up at 3.1 percent in 1998-99.” Some believed that the Pakistani government’s GDP estimate was too optimistic. The Economist Intelligence Unit forecasted that the GDP growth rate in Pakistan would be just 1.6 percent for this period.43

This collapse in confidence was also apparent in the Karachi Stock Exchange (KSE). Figure 6 shows that it fell sharply after May 1998; by mid-July it had fallen 34 percent more than the rest of Asian stock markets. This mid-July point is important to note, as it was at this time that it became clear that the sanctions would cause the indefinite postponement of IMF funds. On July 10, the Pakistani daily newspaper The Nation ran a story that quoted IMF Middle East Director Paul Chabrier as saying that the G-8 countries had the last word on IMF funding to Pakistan. On that same day, the KSE reached a then all-time low of 777.26. Three days later, the Pakistani press was reporting that this postponement of IMF funding had led to “the blackest week” in the history of the KSE.44

As in the case of India, bad economic policy decisions also contributed significantly to the crisis of confidence and the loss of foreign exchange by Pakistan. In particular, on May 28, 1998, in an attempt to avoid a post-test run on its banks, the government froze all foreign currency accounts in Pakistan. This immediately halted remittances from Pakistanis overseas, which had been a major source of net inflows.45 However, the timing of stock market movements and the explanations by market participants indicate that, as in the case of India, the sanctions were a very relevant factor.

On June 1, the first day the KSE was open after the nuclear test, the market crashed approximately 15 percent, its worst ever performance, while all other Asian markets experienced a 4.6 percent drop. According to AP reports, foreign investors were leaving the market due to the threat of forthcoming US sanctions.46 After the official June 18 announcement of the US sanctions, the KSE proceeded to fall another 13 percent over the next five days, while all other Asian markets fell 4.7 percent.47

The Pakistani markets also reacted positively to any news regarding the lifting of sanctions. On July 16, the day after the US Senate voted to adopt the Brownback Amendment, the Karachi Stock Exchange jumped up almost 7 percent. This upward trend continued until the end of the week, when the market closed 14.8 percent higher than it had started at the beginning of the week, compared to a 6.8 percent jump in all other Asian markets. The KSE also rallied during the two weeks leading up to the September 1998 UN General Assembly meetings. Among traders in the KSE there was the belief that the UN meetings would result in the easing of the economic sanctions. Based on this sense of optimism, the KSE “clawed back 9.5 percent” during the weeks before the UN meetings.48 Finally, in the wake of the November 7, 1998, waiver announcement that allowed IMF officials to begin to re-negotiate with the Pakistani government, the KSE “rocketed 10.5 per cent…the market’s sharpest single-day rise since India and Pakistan conducted nuclear tests in May, prompting the US and other western countries to impose economic sanctions.”49 Concluded Sikandar Khawaja, a representative of the London-based banking and financial services organization HSBC Group: “A positive climate has been created with the belief that the sanctions will be lifted. The sentiment has also been helped by the expectations of a deal with the IMF.”50

The delay on an IMF support package also thwarted Pakistan’s hope of receiving financial support from the Arab world. A $1.5 billion rescue package, consisting of funds from Arab private banks and financial institutions and arranged by the Islamic Development Bank (IDB), was continuously delayed throughout the summer and fall of 1998, as the IDB tied these funds to Pakistan’s need to straighten out its relationship with the United States and the IMF. By September 10, 1998, all the IDB was able to offer was $200 million of its own funds.51

In summary, because of its prior vulnerability, the Pakistani economy was severely affected by the withdrawal of IMF financing by the US-led coalition among IMF shareholder governments, and by the indirect effects of this withdrawal on other capital flows to Pakistan.

**IMPLICATIONS FOR THE FUTURE UTILITY OF THE GLENN AMENDMENT**

What does this experience with the economic impact of sanctions on India and Pakistan suggest about the future utility of the Glenn Amendment? Should this
legal requirement for broad and automatic sanctions remain in place?

The fact that the threat of the US sanctions failed to prevent the nuclear tests by India and Pakistan is certainly not sufficient reason to abandon the Glenn Amendment. Although the US threat ultimately failed in the case of India and Pakistan, it might be the case that the threat of sanctions delayed testing by many years for both nations. A sufficient rationale for executing the threat was, as Undersecretary of State Talbott said, to create a disincentive for other states to exercise the nuclear option if they are contemplating it.

As the millennium draws to a close, it is not obvious which nations might be tempted to go nuclear in the early decades of the next century. At present the states that seem interested in developing a nuclear capacity—in particular, North Korea, Iraq and, to a lesser extent, Iran—are already isolated from the global economy by their own policies and by existing sanctions. The presence of the Glenn Amendment is irrelevant to their incentives. However, further down the road there may be circumstances in which nations that are more fully engaged in the global economy and that have now pledged to remain non-nuclear are driven by domestic politics or regional pressures to reconsider.

The experience of the sanctions against India and Pakistan suggests that, under some circumstances, sanctions such as those required by the Glenn Amendment can impose economic costs on target nations. These costs might range from manageable—as in the case of India—to very severe—as happened to Pakistan. In many cases, these costs are likely to be serious enough to enter into the complex calculus of a state that contemplates going nuclear.

The experience of India is particularly relevant because it indicates that, for a country that participates in global capital markets, the indirect effects of sanctions, i.e., their impact on the attitudes and expectations of both domestic and foreign economic agents, can magnify the direct effects. For this reason, globalization cuts both ways. As Richard Haass and others have argued, it makes it easier for sanctioned countries to find substitutes for finance or trade that is denied by US unilateral sanctions. On the other hand, globalization also means that US unilateral sanctions can have echo effects throughout global financial markets. Writing in the aftermath of the South Asian explosions, New York Times foreign affairs analyst Thomas L. Friedman stated that the economic repercussions of the tests would illustrate a fundamental truth about globalization: Globalization does not end geopolitics. Nations, like India, will still defy international norms in pursuit of respect, or in response to real or imagined threats, no matter how integrated [into the global economy] they are. But what globalization will do is exact a whole new price for that sort of defiance.

Countries that are very dependent on international capital flows are, ceteris paribus, more vulnerable to these indirect effects. India in 1998 was not particularly dependent on international capital markets, and the indirect effects were correspondingly mild. But nations that might be contemplating the nuclear option a decade hence may be among those that are well-integrated into the global economy. The recent experience of India should serve to warn them that, in addition to the economic damage caused by increased fear of war, higher military expenditures, and direct US and other bilateral sanctions, there will be adverse repercussions in financial markets. The overall economic cost of these indirect effects of loss of confidence by global financial agents may far outweigh any direct costs of sanctions. But the sanctions are an important catalyst for such effects and therefore a relevant US policy threat.

The case of Pakistan also holds an important lesson. It is easy to imagine that a potential proliferator will be a country in a fragile economic position—with high debt, low foreign exchange reserves, and considerable dependence on official assistance. In that event, sanctions by the United States would constitute a powerful disincentive—but only if the United States can successfully create a strong coalition among the shareholders of the international financial institutions. When the targeted country has an acute need for quick-disbursing, policy-based lending from the IFIs, sanctions imposed by such a coalition will have very strong and immediate effects that the potential proliferator would undoubtedly have to take into serious account. It may be easier to build a coalition for IFI sanctions than for bilateral sanctions because a priori no one knows whose direct commercial interests are sacrificed by withholding IFI funds. On the other hand, the potential leverage of IFI sanctions could in some situations be un-
dermined by a counterthreat from the targeted nation to withhold repayment of previous obligations to the IFIs.

For US sanctions to create any disincentives, there must be a very strong expectation that they will be enforced. Potential proliferators understand that enforcing unilateral economic sanctions also imposes economic costs on the United States and that, once the threat has failed to deter, the US government faces strong domestic pressures not to carry through with the sanctions. Hence, the credibility of the threat—and its potential to deter—depends on maximizing the likelihood that it will be implemented. As Thomas C. Schelling, one of the earliest economists to apply game theory to international politics, has written:

As a rule, one must threaten that he will act, not that he may act, if the threat fails…. To say only that one may carry out the threat, not that one certainly will, is to invite the opponent to guess whether one will prefer to punish himself and his opponent or to pass up the occasion…. The key to these threats is that … the final decision is not altogether under the threatener’s control.25

Based on this reasoning, we believe that maintaining the automaticity of the Glenn Amendment—and allowing waivers, if at all, only via an additional act of Congress rather than at the ex ante discretion of the administration—is critically important. From this perspective, the recent proposal to extend the waiver for India and Pakistan for five years—thereby giving the President broad authority to forgo sanctions against the South Asian neighbors—severely undermines the credibility of the US threat to future would-be proliferators. This argues strongly for keeping the Glenn Amendment in place.

Such automaticity and difficulty in obtaining waivers would also affect the expectations of private economic agents and thereby increase the speed and magnitude of the indirect effects of sanctions. As we have seen in the case of India and Pakistan, markets reacted to the expectations about the sanctions: stock markets fell before the details of the sanctions were known, and they rose whenever expectations of a waiver were created.

The economic sanctions of the Glenn Amendment—unless matched by equivalent sanctions by most major countries—will not likely be an overwhelming threat that would certainly prevent future nuclear proliferation. But the experience of the sanctions in the cases of India and Pakistan indicates that the Glenn Amendment does constitute a credible threat in some circumstances and thus does have some disincentive effect against would-be proliferators. Such a threat is likely to be a useful complement to other means by which the United States can seek to limit the number of nations with nuclear weapons. It is better than no economic threat, better than deciding on economic sanctions only after the fact of proliferation, and better than being forced to rely solely on military action against a proliferator.

4 “US Senate Votes for 5 Yr Suspension of India/Pak Sanctions,” Asia Pulse News Service, June 10, 1999. As of mid-September, this defense appropriations bill still needed to be approved by the House of Representatives and President Clinton before it becomes law. Under the original Brownback Amendment the president was given the authority only to waive the sanctions against India and Pakistan for up to one year—the sanctions legislation itself remains law.
5 Our findings relate solely to the efficacy of the Glenn Amendment. We do not wish to make any blanket statements regarding the efficacy of economic sanctions—sanctions policy should be studied by a case-by-case approach. Too many recent studies on sanctions wish to reach sweeping conclusions about their effectiveness (or, as the current trend seems to be, ineffectiveness). See, for example, Douglas Johnston, Jr., and Sidney Weintraub, Altering U.S. Sanctions Policy: Final Report of the CSIS Project on Unilateral Economic Sanctions (Washington, DC: Center for Strategic and International Studies Press, 1999). Such an approach, while often citing some type of need for sanctions policy, fails to highlight crucial differences between country cases in its quest to portray sanctions as highly flawed policy, and frequently ends up undermining the effectiveness of all sanctions efforts.
6 See, for example, Gary Hufbauer’s “The Snake Oil of Democracy: When Tensions Rise, the U.S. Peddles Sanctions,” Washington Post, July 12, 1998, p. C1. The US business community has played a predominant role in helping this perspective gain credence in the recent debate surrounding the efficacy of sanctions. Organizations such as USA Engage, a coalition of over 600 US-based companies, have launched a powerful public relations campaign to convince lawmakers that there are “more effective ways of reacting to objectionable actions and policies of foreign governments other than by imposing unilateral sanctions,” <http://www.usaengage.org>. American commercial interests, in fact, were the driving force behind the July 9, 1998, legislation to exempt food exports from the sanctions on India and Pakistan. For coverage of anti-sanctions organizations and their impact on the sanctions...


5 This automaticity was not based on some general notion about assuring the credibility of the sanctions and thereby strengthening their deterrence effect. Leonard Weiss, who was the senior staff person for Senator Glenn, has explained that, when the initial version of the Glenn Amendment was approved in 1981, “...because the Reagan Administration appeared so hell-bent to fight a proxy war with the Soviets using the mujahadin, there was concern whether a nuclear test by Pakistan would result in a US sanction while the Afghanistan war was being pursued. So Ronald Reagan was given no waiver to exercise in the event of a nuclear test by Pakistan.” Remarks by Leonard Weiss, “The Current Debate over Sanctions and Non-proliferation,” Seventh Carnegie International Non-Proliferation Conference, Washington, DC, January 12, 1999.

6 However, on June 18, it was not at all clear how to implement the provision that US private banks could not make loans to the Indian and Pakistani governments. The interpretation of this provision was debated throughout the summer and the US Treasury eventually found a way to interpret the law that exempted US banks from this requirement. Harvard University’s Devesh Kapur notes that such a development actually underlined the bite of the sanctions. See Kapur’s “The Domestic Consequences of India’s Nuclear Tests,” paper delivered to “South Asia’s Nuclear Dilemmas” conference, Weatherhead Center for International Affairs, Harvard University, Cambridge, MA, February 1999.

7 In the text we present details of the economic sanctions. The Glenn Amendment also required termination of various military aid programs. Jane’s Defence Weekly reported that the first test flight of the Indian Air Force’s Light Combat Aircraft (LCA) has been postponed indefinitely, due primarily to sanctions imposed on the craft’s American-made engines and flight-control system. India’s newly established Badmaldar Ordnance Factory, created to produce ammunition for a 155-mm towed howitzer using US equipment, has been forced to shut down. There have also been reports that the sanctions postponed the Indian development of the Advanced Light Helicopter (ALH), as the ALH was designed with a US-made turboshift engine in mind. However, as the French and Russian defense industries are reportedly eager to step in, it is likely that these disruptions to the Indian military will be only short-term. See Rahul Bedi, “Sanctions stall first flight of Indian LCA,” Jane’s Defence Weekly, July 8, 1998, p. 15; Rahul Bedi, “US sanctions hit India’s ordnance manufacturers,” Jane’s Defence Weekly, August 26, 1998, p. 6.


11 Such a clause is meant to cover unexpected circumstances, like adverse weather or labor strikes, that prevent the parties from fulfilling the terms of a contract, and may allow parties to suspend their contractual obligations until the conditions improve.


14 Ibid, p. 132.


18 The very strong tradition in these institutions is to avoid voting within their Boards of Executive Directors. Instead, if the management determines through consultations that shareholders with a majority of voting shares oppose a loan, that loan is not presented to the Executive Directors for approval.

19 It is not feasible to approach this question by considering changes in GDP or other measures of aggregate economic activity. The sanctions, if they had any effects at all, impacted primarily on investment activities, and there are substantial lags between changes in investment and changes in GDP.

20 The index used here is the Morgan Stanley Asian Index. The published index is based on a set of stocks including those from India and Pakistan. We have constructed an adjusted index that eliminates the Indian and Pakistani components of the overall index so that we can compare movements of these two markets against the rest of the Asian markets.

21 According to a 1998 United States Trade Information Center report on India, “the Southeast-Asian crisis will only have an indirect and relatively limited effect on the Indian economy. India is seen as a related but separate market, and Southeast Asia’s problems are not likely to be replicated in India.” Taken from the Trade Information Center’s website, <http://infosev2.ita.doc.gov/tic.nsf>.

22 It should be noted that the failure of the Indian government to adequately address the potential costs of the sanctions in their June 1998 budget played a predominant role in criticisms of the plan.


27 Moody’s Investors Service, “Global Credit Research Report,” June 19, 1998. Similar downgrades, along with similar market movements, occurred in post-nuclear Pakistan. Once again, the sanctions played a significant role in the decision to downgrade. See, for example, Standard and Poor’s, “Pakistan Downgraded as Concern Over Ability to Service Debt,” Standard and Poor’s CreditWeek, October 21, 1998.


29 Duff and Phelps, Press Release, August 10,
1998, “DCR Downgrades Sovereign Ratings on Republic of India.”

36 Ibid.
41 All rupee data has been culled from the Pakistani-based publication Business Recorder. The aftermath of the nuclear tests also led the government of Pakistan to devalue the official currency rate by 4.2 percent on June 28, 1999. See Daniel Dombey, “Pakistan devalues as Asian turmoil spreads,” Financial Times, June 29, 1998, p. 1. For the connection between the sanctions and the depreciation of the rupee, see “Pakistan Economy: Traders face somber future in wake of sanctions,” Economist Intelligence Unit, June 4, 1998.
42 “Pak economic performance remains dismal,” Xinhua News Agency, June 11, 1999. The GDP growth rate for 1997-98 was 5.3 percent.
43 Economist Intelligence Unit, Country Report on Pakistan, June 1, 1999.
45 It is important to note that this economically unsound act of freezing foreign currency took place mere hours after Pakistan’s nuclear tests. The Pakistani press has reported that the Sharif government undertook this process in response to the belief that the blasts, along with the sanctions that would follow, would cause massive investor flight. Other reports indicate that Sharif froze all currency accounts in an attempt to counter the negative financial effects of the sanctions, by keeping as much currency in Pakistan as possible. See Dr. Mohammad Uzair, “Continuous depreciation of Pak rupee,” Dawn (Pakistan), August 24, 1998.
46 “Panic selling as Pakistan stock market reopens,” Agence France Presse, June 1, 1998.
50 Ibid.
52 Rydell writes that calculations among Indian officials about international reactions played a crucial role in discouraging India from testing nuclear weapons on more than one occasion. According to Former Indian President Venkataraman, “All preparations for an underground nuclear test at Pokran had been completed in 1983 when I was the defence minister. It was shelved because of international pressure and the same thing happened in 1995.” Rydell, “Giving Nonproliferation Norms Teeth,” p. 10.
53 Talbott, “US Diplomacy in South Asia.”