India's Trade Reform: Progress, Impact and Future Strategy

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1 Introduction

Among developing countries, India's growth experience during the past five decades has been unique. Unlike many of its East and Southeast Asian neighbors, India did not grow at the "miracle" rates that exceeded 6 percent and reached as high as 10 percent. At the same time, unlike Africa and Latin America, it did not suffer periods of prolonged stagnation or decline. For three of the five decades (1950-80), India steadily grew at the so-called "Hindu" rate of three and a half percent. During the remaining two decades, it grew at rates between 5 and 6 percent.

While the credit for steady growth without prolonged stagnation or decline goes to the macroeconomic stability and policy credibility that the government provided, the blame for the relatively low rate of growth, especially during 1950-80, must be assigned to the myriad microeconomic distortions and heavy state intervention that straitjacketed the entrepreneurs.[1] Through strict investment licensing, the government effectively stamped out domestic competition and through strict import licensing, it eliminated foreign competition. It was only during the second half of the 1980s that the government began to loosen its grip on investment and import licensing followed by more systematic and comprehensive opening up in the 1990s and beyond.

[1] Policy changes, whether good or bad, have been largely predictable in India. Consultations with the relevant parties, extensive discussions and special committee reports have usually precede all major policy actions.

In this paper, I discuss the external-sector policies of India focusing especially on the past two decades; the impact of these policies on trade flows, efficiency and growth; and the future direction trade policies must take. I begin with a discussion of the major developments in the area of trade policy in both goods and services in Section 2. In Section 3, I discuss the evolution of trade flows--their growth, composition and direction. In Section 4, I describe the impact of trade liberalization on efficiency and growth. In Section 5, I consider policy options available to India and the most appropriate course for it. In Section 6, I conclude the paper.

2 External-sector Reforms to-date

The post-independence history of India's external-sector policies can be divided into three phases: 1950 to 1975 when the trend was towards tightening controls culminating in virtual autarky by the end of the period; 1976 to 1991 when some liberalization took place, especially during the last five to seven years; and 1992 onward when deeper and more systematic liberalization was undertaken.

2.1 Rising Protectionism Culminating in Virtual Autarky (1950-1975)

Though the history of tariff protection in India goes farther back, physical import controls were introduced in May 1940 to conserve foreign exchange and shipping for the Second World War. But starting 1947, regulation of the balance of payments became the central concern and the government introduced explicit restrictions on the rate at which foreign exchange could be run down. From then on, India alternated between liberalization and tighter controls until the launch of the First Five Year Plan. But the

period covering the first plan, 1951-56, was one of progressive liberalization (Bhagwati and Desai 1970).

A balance-of-payments crisis in 1956-57 led to a major reversal of the liberalization process. India resorted comprehensive import controls, which remained in place until 1966. In June 1966, under pressure from the World Bank, it devalued the rupee from 4.7 rupees to 7.5 rupees per dollar and took steps toward liberalizing import licensing and lowering import duties and export subsidies. But intense domestic criticisms of the devaluation led to yet another reversal of the policy within a year and import controls were tightened once again. By mid-1970s, trade regime had become so repressive that the share of non-oil and non-cereals imports in the GDP fell from the already low level of 7 percent in 1957-58 to even lower level of 3 percent in 1975-76.

In the lat 1970s, two factors paved the way for yet another phase of liberalization. First, industrialists came to feel the adverse effect of the tight import restrictions on their profitability and began to lobby for liberalization of imports of the raw materials and machinery that did not have domestically produced substitutes. Second, improved export performance and remittances from overseas workers in the Middle East in the post-oil-crisis era led to the accumulation of a healthy foreign-exchange reserve raising the comfort level of policy makers with respect to the effect of liberalization on the balance of payments.

2.2 Ad hoc Liberalization (1976-1991)

The liberalization process was initiated in 1976 through the re-introduction of the so-called Open General Licensing (OGL) list that had been a part of the original wartime regime but had become defunct as controls were tightened in the wake of the 1966

devaluation. The OGL operated on a positive-list basis whereby the items placed on the OGL list no longer required a license from the Ministry of Commerce. This still did not necessarily mean that imports of the items on the list were free: the importer usually had to be the actual user and could be subject to clearance from the industrial-licensing authority in the case of machinery imports if the sector in which the machinery was to be employed was subject to industrial licensing.

Upon its introduction in 1976, the OGL list contained only 79 capital goods items. But by April 1988, it came to cover 1170 capital goods items and 949 intermediate inputs items. By April 1990, OGL imports came to account for approximately 30 percent of total imports (Pursell 1992). Though tariff rates were raised substantially during this period with items on OGL given large concessions on those rates through "exemptions," they did not significantly add to the restrictive effect of licensing. Mainly, they allowed the government to mop up the quota rents and, thus, helped relieve the pressure on the budget. The government also introduced several export incentives, especially after 1985, which partially neutralized the anti-trade bias of import controls. Above all, during 1985-90, effective nominal exchange rate was depreciated by a hefty 45 percent leading to a real depreciation of the rupee by 30 percent.

Alongside, by 1990, 31 sectors were freed from industrial licensing. This measure had a trade-liberalizing dimension as well since it freed machinery imports in these sectors from industrial licensing clearance. Import flows were also helped by improved agricultural performance and discovery of oil, which made expanded room for non-oil, non-food imports, mainly machinery and intermediate inputs. As Pursell (1992) notes, "The available data on imports and import licensing are incomplete, out of date,

and often inconsistent. Nevertheless, whichever way they are manipulated, they confirm very substantial and steady import liberalization that occurred after 1977–78 and during 1980s." During 1985–90, non-oil imports grew at the annual rate of 12.3 percent.

The liberalization complemented by expansionary fiscal policy raised the growth rate in India from the Hindu rate of approximately 3.5 percent during 1950-80 to 5.6 percent during 1981-91. The jump in the average annual growth rate was particularly significant during 1988-91 when it reached 7.6 percent. Nevertheless, the external and internal borrowing that supported the fiscal expansion was unsustainable and culminated in a balance-of-payments crisis in June 1991. But this time around the government turned the crisis into an opportunity and instead of reversing the course of liberalization, launched a truly comprehensive, systematic and systemic reform program that continues to be implemented till today.

2.3 Deeper and Systematic Liberalization (1992- to-date)

The Soviet collapse, China's phenomenal economic rise following the adoption of outward-oriented policies, and India's own experience first with protectionist policies for three decades and then liberalization in the 1980s finally persuaded policy makers of the merits of the policy approach that pro-market and pro-free-trade economists, most notably Jagdish Bhagwati, had advocated for nearly two decades. Starting with the July 1991 Budget, there was a clear switch in favor of a move toward outward-oriented, market-based economy. The trade-liberalization program initiated in the Budget was comprehensive though there were hiccups subsequently and pace remained gradual. In the following, I divide the discussion into measures aimed at liberalizing trade in goods and those liberalizing trade in services.

2.3.1 Merchandise Trade Liberalization

The July 1991 reforms did away with import licensing on all but a handful of intermediate inputs and capital goods items. But consumer goods, accounting for approximately 30 percent of the tariff lines, remained under licensing. It was only after a successful challenge by India's trading partners in the Dispute Settlement Body of the World Trade Organization (WTO) that these goods were freed of licensing a decade later starting April 1, 2001. Today, except for a handful of goods disallowed on environmental, health and safety grounds and a few others including fertilizer, cereals, edible oils and petroleum products that are canalized (meaning they can be imported by government only), all goods can be imported without a license or other restrictions. As per the Uruguay Round (UR) Agreement on Agriculture, all border measures on agricultural goods have been replaced by tariffs.

As noted earlier, tariff rates in India had been raised substantially during 1980s to turn quota rents into tariff revenue. This is evidenced by the fact that tariff revenue as a proportion of imports went up from 20 percent in 1980-81 to 44 percent in 1989-90 (Government of India 1993). In 1990-91, the highest tariff rate stood at 355 percent, simple average of all tariff rates at 113 percent and the import-weighted average of tariff rates at 87 percent (WTO 1998). With the removal of licensing, these tariff rates became effective restrictions on imports. Therefore, a major task of the reforms in the 1990s and beyond has been to lower tariffs.

Tariff reductions have been confined to non-agricultural, industrial goods, however. Therefore, the liberalization described immediately below applies strictly to these goods. The reduction in tariffs has been accomplished through a gradual

compression of the top tariff rates with a simultaneous rationalization of the tariff structure through a reduction in the number of tariff bands. The top rate fell to 85 percent in 1993-94 and to 50 percent in 1995-96. Though there were some reversals along the way in the form of special duties and through unification of low and a high tariff rates to the latter, the general direction has been toward liberalization. The Finance Minister has recently announced to bring down the top tariff rate from 25 to 20 percent and also eliminate the Special Additional Duty (SAD) that could rise up to 4 percent. Thus, starting 2004-05, the top tariff rate on industrial goods will be 20 percent and there will be no other additional custom duties such as SAD on top of this rate.

There remain exceptions to this rule, however, as evidenced by Table 1, taken from World Trade Organization (WTO) (2002). The table gives details on the structure of tariffs in 2001-02 (as also 1997-98) when the top tariff rate was still 35 percent. According to the table, chemicals and photographic supplies were subject to tariff rates as high as 170 percent and transport equipment to those reaching 105 percent, well beyond the official "top" tariff rate applicable to industrial goods. Within the transport equipment category, automobiles constitute a major potential import and are currently subject to a 60 percent duty. In addition, there are numerous exemptions based on the end user or other criteria.

In agriculture, India took same essential approach as the OECD countries and chose excessively high tariff bindings ranging from 100 to 300 percent to replace border measures under the UR Agreement on Agriculture. For some agricultural products like skimmed milk powder, rice, corn, wheat and millets, India had traditionally zero or very low bound rates. These were renegotiated under GATT Article XXXVIII in December

1999 in return for concessions on other products.[2] As can be seen from Table 1, applied Most Favored Nation (MFN) tariff rates are lower than the bound rates though the gap declined between 1997-98 and 2001-02.

Traditionally, India had also restricted exports of several commodities. As a part of its liberalization policy, the government began to reduce the number of products subject to export controls in 1989-90. But prior to the July 1991 reforms, exports of 439 items were still subject to controls including (in declining order of severity) prohibition (185 items), licensing (55 items), quantitative ceilings (38 items), canalization (49 items) and pre-specified terms and conditions (112 items). The March 1992 Export-Import Policy reduced the number of items subject to controls to 296 with prohibited items reduced to 16. The process continued subsequently such that export prohibitions currently apply to a small number of items on health, environmental or moral grounds while export restrictions are maintained mainly on cattle, camels, fertilizers, cereals, groundnut oil, and pulses.

The lifting of exchange controls and elimination of overvaluation of the rupee that had served as additional barriers against the traded goods sector also accompanied the 1990s reforms. As a part of the 1991 reform, the government devalued the rupee by 22% against the dollar from 21.2 rupees to 25.8 rupees per dollar. In February 1992, a dual exchange rate system was introduced, which allowed exporters to sell 60% of their foreign exchange in the free market and 40% to the government at the lower official price. Importers were authorized to purchase foreign exchange in the open market at the higher price, effectively ending the exchange control. Within a year of establishing this market

[2] For example, in its negotiations with the United States, India gave market access in apples.

exchange rate, the official exchange rate was unified with it. Starting in February 1994, many current account transactions including all current business transactions, education, medical expenses and foreign travel were also permitted at the market exchange rate. These steps culminated in India accepting the IMF Article VIII obligations, which made the rupee officially convertible on the current account. In recent years, bolstered by the accumulation of more than $100 billion worth of foreign exchange reserves, India has freed up many capital-account transactions. Two provisions are of special significance: one, residents can remit up to $25,000 abroad every year; and two, firms can borrow freely abroad as long as the maturity of the loan is five years or more.

2.3.2 Liberalization of Trade in Services

Since 1991, India has also carried out a substantial liberalization of trade in services. Traditionally, services sectors have been subject to heavy government intervention. Public sector presence has been conspicuous in the key sectors of insurance, banking and telecommunications. Nevertheless, considerable progress has been made toward opening the door wider to private-sector participation including foreign investors.

Until recently, insurance was a state monopoly. On December 7, 1999, the Indian Parliament passed the Insurance Regulatory and Development Authority (IRDA) Bill, which established an Insurance Regulatory and Development Authority and opened the door to private entry including foreign investors. Up to 26 percent foreign investment, subject to obtaining license from the Insurance Regulatory & Development Authority, is permitted.

Though public sector dominates in the banking sector, private banks are permitted to operate in it. Foreign direct investment (FDI) up to 74 percent in the private banks is permitted under the automatic route. In addition, foreign banks are allowed to open a specified number of new branches every year. More than 25 foreign banks with full banking licenses and approximately 150 foreign bank branches are in operation presently. Under the 1997 WTO Financial Services Agreement, India committed to permitting 12 foreign bank branches annually.

Telecommunications sector has experienced much greater opening to the private sector including foreign investors. Until early 1990s, the sector was a state monopoly. The 1994 National Telecommunications Policy provided for opening cellular as well as basic and value-added telephone services to the private sector with foreign investors granted entry. Rapid changes in technology led to the adoption of the New Telecom Policy in 1999, which provides the current policy framework. Accordingly, in basic, cellular mobile, paging and value added service, and global mobile personnel communications by satellite, foreign direct investment (FDI) is limited to 49% subject to grant of license from the Department of Telecommunications. Foreign direct investment (FDI) up to 100 per cent is allowed with some conditions for Internet service providers not providing gateways (both for satellite & submarine cables), Infrastructure Providers providing dark fiber, Electronic Mail, and Voice Mail. Additionally, subject to licensing and security requirements and the restriction that proposals with FDI beyond 49 per cent must be approved by the Government, up to 74 percent foreign investment is permitted for Internet services providers with gateways, radio paging and end-to-end bandwidth.

FDI up to 100 percent is permitted in e-commerce. Automatic approval is available for foreign equity in software and almost all areas of electronics. 100% foreign investment is permitted in information technology units set up exclusively for exports. These units can be set up under several schemes including Export Oriented Units Export Processing Zones, Special Economic Zones, Software Technology Parks and Electronics Hardware Technology Parks.

Infrastructure sector has also been opened to foreign investment. FDI up to 100% under automatic route is permitted in projects for construction and maintenance of roads, highways, vehicular bridges, toll roads, vehicular tunnels, ports and harbors. In construction and maintenance of ports and harbors, automatic approval for foreign equity up to 100% is available. In projects providing supporting services to water transport, such as operation and maintenance of piers, loading and discharging of vehicles, no approval is required for foreign equity up to 51%. FDI up to 100 per cent is permitted in airports, with FDI above 74 per cent requiring prior approval of the Government. Foreign equity up to 40 percent and investment by non-resident Indians up to 100 percent is permitted in domestic air-transport services. Only railways remain off limits to private entry.

Since 1991, several attempts have been made to bring private sector, including FDI, into power sector but without perceptible success. The most recent attempt is the Electricity Bill 2003, which replaces the three existing power legislations dated 1910, 1948 and 1998. The bill offers a comprehensive framework for restructuring the power sector and builds on the experience in the telecommunications sector. It attempts to

introduce competition through private sector entry side by side with public-sector entities in generation, transmission and distribution.

The bill fully de-licenses generation and freely permits captive generation. Only hydro projects would henceforth require clearance from the Central Electricity Authority. Distribution licensees would be free to undertake generation and generating companies would be free to take up distribution businesses. Trading has been recognized as a distinct activity with the Regulatory Commissions authorized to fix ceilings on trading margins, if necessary. FDI is permitted in all three activities.

3 Impact on Trade Flows

The above policy changes have brought with them important changes in the trade flows. These latter can be discussed under three headings: growth in trade, its composition and direction. Consider each in turn.

3.1 Growth in Trade

India's share in world exports, which had declined from 2 percent at Independence to 0.5 percent in the mid-1980s, bounced back to 0.8 per cent in 2002. Thus, since mid-1980s, India's exports have grown faster than the world exports. Table 2 offers an overview of the evolution of India's external sector during the 1980s and 1990s in relation to China. The table leaves little doubt that the impact of the more significant liberalization in the 1990s than 1980s on trade has also been more significant. While one can still complain that trade has performed less spectacularly in India than China, the claim by some that 1990s did not see a perceptible shift in the growth of exports and imports is simply wrong.

From Table 2, exports of goods and services grew 7.4 percent in 1980s but 10.7 percent during 1990s. The pace also picked up on the imports side with the growth rate rising from 5.9 percent in 1980s to 9.2 percent in 1990s. Thus, we have a shift of 3.3 percentage points in the growth rate of both exports and imports. Nevertheless, these growth rates are substantially lower than those experienced by China since that country opened up to the world economy. China's Exports of goods and services grew at 12.9 percent during 1980s and 15.2 percent during 1990s (see lower half of Table 2). Likewise, imports grew at 10.3 percent during 1980s and 16.3 percent during 1990s. These higher growth rates are reflected in the higher degree of openness achieved by China in terms of trade-to-GDP ratio.

According to Table 3, the ratio of total exports of goods and services to GDP in India nearly doubled between 1990 and 2000 rising from 7.3 percent to 14 percent. The rise was less dramatic on the import side but still significant: from 9.9 percent in 1990 to 16.6 percent in 2000. Within ten years, the ratio of total goods and services trade to GDP has risen from 17.2 percent to 30.6 percent. Though this is substantially lower than the corresponding ratio of 49.3 percent for China in 2000 (see lower half of Table 3), it is comparable to the latter's ratio 12 years after its opening up which stood at 34 percent in 1990.

3.2 Composition of Trade

Tables 4 and 5 summarize the broad composition of merchandise exports and imports respectively in the years 1987-88, 1992-93 and 2001-02 while Tables 6a and 7 provide details on the composition of invisibles for years 1980-81, 1990-91 and 2001-

02.[3] Table 6b provides additional details on invisible receipts for years 2001-02 and 2002-03 not available for other years. Five important conclusions emerge from these tables together with Table 2.

First, services exports have grown more rapidly than merchandise trade. Based on Table 2, the share of services in the total exports of goods and services rose from 19.6 percent in 1990 to 29.6 percent in 2000. More recent data from the World Development Indicators (2003) show that this ratio went up to 33.1 percent in 2001. Prasad (Business Line, August 27, 2003) places India's share in world services exports in 2002 at 1.3 percent.

Second, at the relatively *broad* level of aggregation shown in Table 4, the commodity composition has shown only modest evolution.[4] During 1992-02, the share of manufactures in total commodity exports remained unchanged at approximately 75 percent. Within manufactures, sectors that have grown more rapidly than the average of all merchandise exports are the capital- or skilled-labor-intensive sectors including chemicals and allied products and engineering goods. Within the former product category, drugs, pharmaceutical and fine chemicals have done especially well while within the latter, lately, automobiles and auto parts have shown an impressive growth. Key unskilled-labor-intensive sectors have grown at most at the average of all merchandise exports. Specifically, leather manufactures have grown at rates well below

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[3] Changes in the classification system do not allow us to go farther back than 1987-88 on a comparable basis. Year 1992-93 has been chosen instead of 1991-92 to represent the baseline at the beginning of the reform because the latter year was off the trend due to the June 1991 crisis.

[4] We will see in the next section that once we go down to more finely disaggregated data, changes in the composition of both exports and imports are quite dramatic. Products with no or very low trade initially grow very rapidly.

the average while readymade garments and textiles, yarn, fabrics and made-ups have grown approximately at the average rate of all merchandise exports.

Third, on the import side, perhaps the most remarkable feature is that the share of capital goods imports has declined drastically during 1990s (Table 5). From 29.5 percent in 1987-88, this share fell to 18.1 percent in 2001-02. In part, the decline reflects the bias in liberalization in the 1980s in favor of capital goods over intermediate inputs whereas in the 1990s both capital and intermediate goods were freed from licensing (though not consumer goods). But the decline also reflects the general slowdown in the private investment activity during the 1990s relative to the late 1980s.

Fourth, on the invisibles account, two key items that have shown very rapid growth are remittances from overseas Indians and software exports. The former are reported under category "private transfers" in Table 6. The latter are subsumed within the category labeled "miscellaneous" in Table 6a but have been reported separately for the last two years in Table 6b. The large part of the growth in the "miscellaneous" category during 1990s is accounted for by software exports (including Business Process Outsourcing or BPO). According to Table 6b, software exports have gone up from $7.6 billion in 2001-02 to $9.6 billion in 2002-03. Interestingly, a substantial part of the growth in remittances has also come from software industry since they partially represent the repatriation of earnings by temporary Indian workers in the United States (mainly H1B visa holders). This component has gone up from $2.1 billion in 1990-91 to $12.2 billion in 2001-02.

Finally, it stands to reason that India is substantially below its potential in tourism. Having reached $3.2 billion in 2000-01, tourism receipts have fallen to $2.9

billion in 2001-02 in the wake of the 9/11 tragedy and recovered only slightly to $3.0 billion in 2002-03. Given India's attractiveness as a tourist attraction and low costs, this level of tourism is well below the country's potential.

3.3 Direction of Trade

Table 8 summarizes the direction of India's merchandise trade for years 1987-88, 1992-93 and 2001-02. On the export side, the major shift has been away from Russia and Japan toward developing Asia. The share of Japan declined from 10.3 percent in 1987-88 percent to 3.4 percent in 2001-02. The share of Russia declined from 12.5 percent to a paltry 1.8 percent over the same period. The share of developing countries as a whole grew from 14.2 to 30.9 percent with each region--Asia, Africa and Latin America--absorbing a larger share of India's total exports. The share of developing Asia rose from 11.9 to 23.6 percent. The United States has remained a steady trading partner of India accounting for approximately one fifth of India's merchandise exports throughout the period.

On the import side, the major shift has been away from OECD and Russia to OPEC and developing countries. India's imports from EU declined from 33.3 percent of the total imports in 1987-88 to 22.1 percent in 199-00.[5] The decline in the U.S. share over the same years was from 9 to 7.2 percent and that in the Japanese share from 9.6 to 5.1 percent. Russia also lost share with imports from that country declining from 7.5 to 1.3 percent of India's total imports. Regions to gain were OPEC and developing

[5] The available direction-of-trade data on imports for years 2000-01 and beyond are not consistent with those for the earlier years.

countries. The share of imports coming from OPEC rose from 13.3 to 25.9 percent and that from developing countries went up from 17.3 to 29.2 percent.

An interesting ongoing development is the rapid expansion of India's trade with China. From just $18 million in 1990-91, India's exports to China rose to approximately $2 billion in 2002-03. Its imports from China similarly expanded from $35 million to $2.8 billion over the same period. India's exports to China have consisted of medium-to-high technology products. In 2002-03, three product groups--engineering goods, iron ore, and chemicals-- accounted for more than 70 per cent of India's exports to China. As regards imports from China, electronic goods; chemicals; and textiles, yarn, fabric and made-up articles together accounted for approximately half of the total value.

4 Impact on Efficiency and Growth

Benefits of liberalization may be measured in terms of static efficiency gains and growth.[6] In this section, I discuss each of these approaches briefly.

4.1 Static Efficiency

Measurements of efficiency gains inevitably rely on simulations using partial or general-equilibrium models (Panagariya 2002). The dominant current approach is to construct a general-equilibrium model and parameterize it such that it reproduces the equilibrium in the base year with the existing policy distortion in place. The model is then subject to comparative statics exercise by removing specific distortions and solved for the changes in various endogenous variables including consumption, output net

[6] In view of the space constraints, I do not look at the effects on poverty reduction.

imports of various goods and real income. As Panagariya and Duttagupta (2002) demonstrate in the context of the computable general equilibrium models of preferential trading, the results of these exercises critically depend on the specific choice of the model, functional forms and parameter values. Moreover, as Kehoe (2003) documents, the effects on sectoral consumption, output and trade predicted by these models do a very poor job of tracking the actual outcomes. For these reasons, the estimates based on these studies must be taken with a grain of salt.

With this caveat, let me note that the only comprehensive study that quantitatively measures the impact of India's liberalization on welfare is Chadha, Deardorff, Pohit and Stern (1998). Using the Michigan computable general equilibrium model, this study concludes that trade liberalization corresponding approximately to what has been done to-date had the potential to raise GDP permanently by approximately 2 percent. If the same liberalization were done after a competitive regime replaces the existing regime, however, the gain from trade liberalization would rise up to 5 percent of GDP.

The model employed by Chadha, Deardorff, Pohit and Stern (1998) does not capture some key sources of gains from liberalization: specialization in production that eliminates certain sectors entirely and gives rise to new ones; reduced costs due to the availability of higher-quality inputs; and the availability of new and higher-quality products to consumers.[7] Consider each of these sources of gains in turn.

When the production structure is excessively diversified due to a policy of wholesale, indiscriminate import substitution, as was the case in India, opening to trade is

[7] Chadha et al (1998) do allow for economies scale and are thus able to capture some of the pro-competitive effects of reduced protection on production costs. But as far as I am able to discern, they hold the number of home and foreign products fixed.

likely to lead to the disappearance of certain activities and sectors altogether. Likewise, the availability of new inputs and higher-quality substitutes for domestically-produced, low-quality inputs will likely give rise to new products and sectors capable of competing in the world markets. Benefits from these changes can potentially give rise to much larger gains than the traditional triangular efficiency gains from the expansion or contraction of the existing activities that are relatively small.

Even in the case of products that are previously produced and continue to be produced, the availability of newer and higher-quality inputs is likely to yield large cost savings. India prohibited the imports of machinery and intermediate inputs whenever domestic substitutes were available even if the latter were of dubious quality. This fact resulted in low efficiency as well as poor quality of the final product. Kelkar (1999) makes this point forcefully:

> "In the manufacturing sector we opted for an across-the-board import substitution strategy where we sought to produce everything in a production chain whether the product was a commercial vehicle or a steel mill. And by this, the weakest link decided the fate of the strength of the whole production chain. We entered into production of a number of activities in which we just did not possess the competitive edge. It resulted in a loss of efficiency for the entire industry. For instance, forcing the Indian fertilizer industry to use only Indian designed catalyst, the entire fertilizer industry's productivity suffered. Same was the case for electronics sector where our software industry took time to take off because of the insistence on the use of domestic computer hardware."

Pursell (1992, pp. 433–4) expresses a similar sentiment while describing India's trade regime until mid 1970s:

> "During this period, import-substitution policies were followed with little or no regard to costs. They resulted in an extremely diverse industrial structure and high degree of self-sufficiency, but many industries had high production costs. In addition, there was a general problem of poor quality and technological backwardness, which beset even low-cost sectors with comparative advantage such as the textiles, garment, leather goods, many light industries, and primary industries such as cotton."

A final source of static welfare gains not readily captured by the computable general equilibrium models is the availability of new and perhaps higher-quality variants of existing products. As Roemer (1994) has emphasized using an elegant analytic model, when new products become available, benefits are not limited to merely traditional welfare triangles but the entire area under the demand curve. For many years, India either prohibited the imports of consumer goods or allowed them under very stringent conditions. As a result, products that were readily available elsewhere carried a very large premium in India. In addition, the quality of domestically produced counterparts of foreign goods was often extremely poor.[8] This situation has changed drastically after the

[8] Jagdish Bhagwati, who, upon his return from study abroad in the early 1960s, initially shared in the intellectual attitudes that helped India turn inward but quickly changed his mind in light of the realities on the ground, tells an anecdote that aptly captures the deleterious impact protectionist policies had on the quality of the Indian products. In one of the letters to Harry Johnson, written during his tenure at the Indian Statistical Institute in the early 1960s, Bhagwati happened to complain about the craze he observed in India for everything foreign. Harry Johnson promptly responded in his reply that if the quality of the paper on which Bhagwati wrote his letter was any indication of the quality of homemade products, the craze for the foreign seemed perfectly rational to him!

liberalization of consumer goods imports done initially through easing up the baggage rules and issuance of tradable Special Import Licenses for specified consumer goods and subsequently, in April 2001, through an end to all licensing. The availability of high-quality products has not only contributed directly to the welfare of the consumer but also indirectly by making the consumer more discriminating and therefore forcing domestic manufacturers to upgrade the quality of their products.

Two sectors in which the impact of opening up on quality and availability of new products is highly visible are automobiles and telecommunications. Indian consumers had long suffered the 1950s models sold by Ambassador and Fiat and even then they had to wait in the queues that were several years long. Today, virtually all of the world's major car manufacturers are in the Indian market and the consumer has immediate access to a wide variety of models. Continued high tariffs on automobile imports notwithstanding, consumers have been able to reap large benefits because auto manufacturers have been able to enter the market through tariff-jumping investments.

In the same vein, not too long ago, telephone was considered a luxury even among the upper middle class Indians in urban areas and they had to wait in long queues to obtain it. The few "lucky" ones who did manage to get a phone usually found that half the time they could not get the dial tone and the other half they got the wrong number.[9]

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[9] Prompted by his unhappy experience with the Indian telephone system, Bhagwati once quipped in the 1980s that the difference between developed and developing countries was that in the former you got tired *receiving* phone calls while in the latter you went crazy *making* them! Tharoor (1998, p. 167) offers a more direct indictment of the telecommunications sector in India in the early 1980s and the government's attitude towards it: "The government's indifferent attitude to the needs to improve India's communications infrastructure was epitomized by Prime Minister Indira Gandhi's communications minister, C. M. Stephens, who declared in Parliament, in response to questions decrying the rampant telephone breakdowns in the country, that telephones were a luxury, not a right, and that any Indian who was not satisfied with his

In contrast, today, phone service, whether it be fixed line or cellular, is available on demand in most regions and the absence of the dial tone and connection to the number dialed is no longer an issue. India has made full use of the rapid advances in technology in this sector with benefits to the consumer that many now take for granted. Without freeing the imports of information technology products (and other reforms in the telecommunications sector, of course), India could not have taken advantage of these advances.

But the benefits of new imported input and products are not limited to these obvious, highly visible examples. In her on-going work on doctoral thesis, my student Purba Mukerji analyzes the changes in trade flows during the 1990s at a highly disaggregated level. She finds that at five-digit SITC classification the total number of products imported jumped from 2120 in 1991 to 2611 in 1991 and that of exports from 2273 to 2549 over the same period. These changes represent a 23 percent jump in the number of products imported and 12 percent jump in the number of products exported.

More importantly, following Kehoe and Ruhl (2002) Mukerji studies the change in the share of new goods in total merchandise imports and exports using the SITC five-digit data. Contrary to the impression of relatively minor changes in the composition of imports and exports conveyed by the aggregate data above, she finds movements in the composition of imports and exports that could not be more dramatic. The available data span the years 1988 to 1999. Mukerji first lines up the products in the ascending order of the value of their imports. She then divides them into 10 categories with each category

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telephone service could return his phone--since there was an eight-year waiting list of he people seeking this supposedly inadequate product."

accounting for 10 percent of the total imports in the year 1988. Therefore, the first category consists of products that individually contribute zero or tiny volume of imports in 1988 and therefore contains the largest number of products. By the same token, the last category contains products that individually contribute the largest volume of imports in 1988 and hence contains the smallest number of products.[10] Mukerji then fixes the categories and computes the change in the share of each category in the following years. She does a similar exercise for exports.

Mukerji's results for imports are reproduced in Table 9a. Because so many products were not imported or allowed to be imported only in tiny quantities in 1988, as many as 2313 out of 2742 importable items accounted for 10 percent of the imports in the first category. That is to say, the residual 429 products or just 15.6 percent of the total number of importable items accounted for the remaining 90 percent of India's merchandise imports. In the following years, especially after the major liberalization in July 1991, the proportions shifted dramatically. By 1999, products in the first category had increased their share in the total imports from 10 to 35 percent with products in most other categories experiencing a declining trend.

A similar if slightly less dramatic story emerges on the exports side. According to Table 9b, in 1988, only 8.4 percent of all products accounted for 90 percent of India's exports with the 91.6 percent of the products accounting for the remaining 10 percent of the total exports. By 1999, the share of the products in the latter category had climbed up to 27 percent. Again, the pattern is that products with zero or tiny shares initially are the

[10] The last category contains 20 percent of the imports initially to overcome a problem posed by a switch in classification in 1992.

ones that grow fastest. Only the first two categories in Table 9b, which contain products with smallest shares, show gains with the rest experiencing either a decline or no change in 1999.

4.2 Growth and Productivity

The bulk of the benefits from liberalization evidently come from faster growth. Though India has seen a clear shift in its growth rate during the last two decades, its connection to liberalization has been questioned. DeLong (2001) argues that since the shift in the growth rate took place during 1980s while the reforms began in 1991, reforms cannot be credited with the shift. Rodrik (2001) joins DeLong and endorses his view asserting that "the change in official attitudes in the 1980s, towards encouraging rather than discouraging entrepreneurial activities and integration into the world economy, and a belief that the rules of the economic game had changed for good may have had a bigger impact on growth than any specific policy reforms."

In Panagariya (2004), I have subjected this view to a systematic critique, offering four counter arguments. First, growth during the 1980s was fragile, exhibiting significantly higher variance than in the 1990s. It was the super high growth rate of 7.6 percent per annum during the last three years of 1980s that makes the overall growth in the 1980s look comparable to that in the 1990s. Second, growth in the 1980s took place in the presence of significant liberalization of both investment and import licensing, especially during the second half of the decade. Third, growth during the 1980s was also fueled by fiscal expansion. As such it was unsustainable, with the result that the economy crash-landed in 1991. Finally, even if DeLong were right about the changes in attitudes rather than policies leading to the shift in the growth rate in the 1980s, without

further liberalization, growth would not have been sustained. It is on the strength of continued liberalization that India sustained the 6 percent growth rate from 1992-93 onwards. It is also because of the 1990s liberalization that it has been able to build a foreign exchange reserve of more than $100 billion and remains beyond the immediate reach of another macroeconomic crisis despite fiscal deficits that are currently as large as those in the late 1980s.[11]

In assessing the contribution of liberalization to growth more directly, we may ask whether liberalization was accompanied by increased growth in the total factor productivity (TFP). Before I review the evidence from India in this area, however, it is important to recall that the literature on productivity has been in general controversial and inconclusive on the role of policies in stimulating growth. In the context of East Asia, Young (1992, 1995) set off a major debate with his conclusion that the super-high growth rates of the Asian miracle economies were almost entirely due to capital accumulation and that policies--whether outward-oriented and pro-market or inward-oriented and interventionist--played no role. The findings by Kim and Lau (1994), Collins and Bosworth (1996) and Nadiri and Son (1998) have reinforced Young's conclusions with Krugman (1994) colorfully describing the East Asian growth experience as soviet-style perspiration rather than policy-induced inspiration.

Bhagwati (1999) argues forcefully, however, that the traditional measures of TFP fail to capture the effect that policies have on capital accumulation itself. Good policies can raise the savings rate and therefore investment. Coming from the productivity

[11] I hasten to add that the deficits are not sustainable in the long run and also impose a short-term cost by crowding out private investment.

perspective, Hulten (1975) has long argued that increased productivity due to innovation raises the return to capital and induces greater capital accumulation. The conventional productivity measures do not incorporate this innovation-induced accumulation into account. For example, Hulten and Nishimizu (1980) study the direct and indirect effect of innovation on growth for nine industrialized countries for the period 1960-73 and find that the conventional TFP measure accounts for 45 percent of the output growth but when the innovation-induced capital accumulation is taken into account, the contribution of innovation jumps to 84 percent.

Empirical studies aimed at measuring TFP in India focus exclusively on manufacturing and the sample period of the majority of them ends in the 1980s or early 1990s. The only study that explicitly attempts to relate trade liberalization to TFP growth is the one by Chand and Sen (2002). These authors use 3-digit industry data covering 30 industries that account for 53 percent of gross value added and 45 percent of employment in manufacturing over the period under study, 1973–88. The industries divide approximately equally among consumer, intermediate and capital goods. Chand and Sen measure protection by the proportionate wedge between the Indian and U.S. price and estimate TFP growth in the three industry groups averaged over three non-overlapping periods: 1974–78, 1979–83 and 1984–88. They then relate this productivity growth to liberalization.

Table 10 presents the findings of Chand and Sen (2002, Table 3). Consistent with the discussion in the previous subsection, according to their measure also, protection declines over the sample period in intermediate and capital goods sectors but not consumer goods sector. Moreover, there is a significant improvement in the TFP growth

in all three sectors in 1984–88 compared with the two earlier periods. Thus, the jump in TFP growth coincides with the liberalization in capital and intermediate goods.

Chand and Sen (2002) do some further tests by pooling their sample and employing fixed-effects estimator to allow for intrinsic differences across industries with respect to the rate of technological progress. Their estimates show that on average one percentage point reduction in the price wedge leads to 0.1 percent rise in the total factor productivity. For the intermediate goods sector, the effect is twice as large. The impact of the liberalization of the intermediate goods sector on productivity turns out to be statistically significant in all of their regressions.

TFP studies prior to Chand and Sen (2002) offer more mixed evidence, however. Ahluwalia (1991) measures productivity growth during the period 1959-60 to 1985-86.[12] While she finds no net TFP growth during the entire period, she obtains a mildly accelerating pattern of productivity growth after liberalization began in the late 1970s. Balakrishnan and Pushpangandan (1994) and Rao (1996) reject this finding, however, on the ground that Ahluwalia used a "single-deflation" procedure that assumes that the prices of output and intermediate inputs grow at the same rate. They use a "double-deflation" method with a separate estimate of the intermediate-goods price and find the opposite pattern of TFP growth with TFP growth collapsing during 1985-92.

Hulten and Srinivasan (1999) take yet another fresh look at the data relating to years 1973-92. They begin by first offering the following thoughtful critique of Balakrishnan-Pushpangandan-Rao estimates:

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[12] Bhagwati and Srinivasan (1975) discuss prior contributions to the study of productivity in India.

"The alternative Balakrishnan-Pushpangandan-Rao (BPR) price indexes are theoretically superior, but the associated estimates of TFP shown in Figure 1 reveal an improbably large decline in manufacturing productivity after 1983. The estimate of TFP increases rapidly and peeks at 196.0 in 1982-83, remains near that level for two years, and then plummets to 127.1 by the end of the sample period. Taken at face value, this last result means that the average Indian factory became very much less efficient after 1985: if the labor and capital in the typical Indian factory could produce 100 widgets in 1982-83, it could only produce 65 widgets from the same quantities of labor and capital ten years later.

"The decline in the level of TFP is too abrupt to be attributed to convergence, which implies that TFP growth should gradually slow over time, not turn steeply negative…The implausibility of strongly negative TFP growth rates over an extended period points to either the omission of an important variable or a mismeasured data series. In this light, the skepticism of Ahluwalia (1994) and Dholakia and Dholakia (1994) about the Balakrishnan-Pushpangandan-Rao double-deflation method seems not unjustified. Indeed, a reading of the literature reveals that different procedures and weighting schemes have produced so much variation in outcomes that it is dangerous to conclude that TFP growth has either decreased or increased."

Rather than leave the matter there, Hulten and Srinivasan (1999) recalculate productivity growth applying different and, in their view, superior methods of measurement of price indices of output and intermediate inputs. These indices lead to the same results as in Balakrishnan-Pushpangandan-Rao papers for the entire sample period

(1973-92) but yield major differences for the sub-periods 1973-82 and 1983-92. In particular, while the output price index used by Rao (1996) accelerates from the first half of the sample period to the second half, the output price index used by Hulten and Srinivasan decelerates. In the same vein, the Hulten and Srinivasan input price index shows a less rapid deceleration between the two decadal sub-periods than the Rao index.

These differences in price indices lead to different productivity outcomes in the two sub-periods. They smooth out the TFP path and the sudden collapse found in Balakrishnan-Pushpangandan-Rao papers disappears. At the same time, no pick-up in THP growth in the second period is found with growth rates being 2.2 and 2.1 percent in the two sub-periods respectively.

Hulten and Srinivasan (1999) argue, however, that the lack of pick up in TFP growth does not necessarily invalidate the assimilation view. The surge in investment in the second sub-period may reflect improved investment climate due to reforms. Therefore, they proceed to make the process of capital accumulation itself endogenous and calculate the total growth in productivity (direct plus that through productivity-induced capital accumulation). This leads to estimates of 5.0 and 5.7 percent growth in productivity in the two sub-periods respectively indicating at least a small pick up in productivity growth.

Finally, there are two studies that explicitly study the relative productivity growth rates before and after the 1991 liberalization. Krishna and Mitra (1998) employ an imperfect competition framework and find substantial jumps in the growth rate of productivity in three of the four industries they study while Das (2003), who employs the conventional framework, finds a decline in the growth rate of productivity in the 1990s

relative to 1980s. Das finds that TFP growth accounts for 7% of the manufacturing growth during the 1980s and almost none of that in the 1990s.[13]

The estimates of productivity growth are, thus, highly sensitive to the underlying methodology. Therefore, any temptation to draw strong conclusions from them must be resisted. But it is worth making three points before I conclude this section. First, for reasons I will discuss briefly in the next section, the Indian industry has not been a stellar performer during either 1980s or 1990s despite the reforms. Average annual rate of growth in this sector was only 6.8 percent during 1981–91 and 6.4 percent during 1991–2001. Therefore, irrespective of how one wants to tell the productivity story, the bigger puzzle to solve is why industry has grown relatively slowly regardless of the sources of this growth.

Second, to a considerable degree, fast growth during the 1990s has been driven by services, which account for approximately half of India's GDP currently. In aggregate, services grew at 6.9 percent during 1981–91 and 8.1 percent during 1991–2001. But due to the lack of data availability, there are no studies on productivity growth in this important sector. But the record of some of the services sectors looks clearly sparkling. According to Gordon and Gupta (2003), the faster growth in services during 1990s over 1980s has been driven mainly by fast growth in communication services, financial services, business services (which include the information technology sector) and

[13] Bosworth and Collins (2003) calculate the contribution of productivity growth for the GDP (rather than just industry that has been the focus of all other studies) for the South Asia region as a whole by decades during 1960-2000. They report productivity growth rates of -.02, 2.2 and 1.2 percent during 1970s, 1980s and 1990s, respectively.

community services. Trade liberalization has played a direct role in the growth of at least some of these sectors, namely, telecommunications and business services.

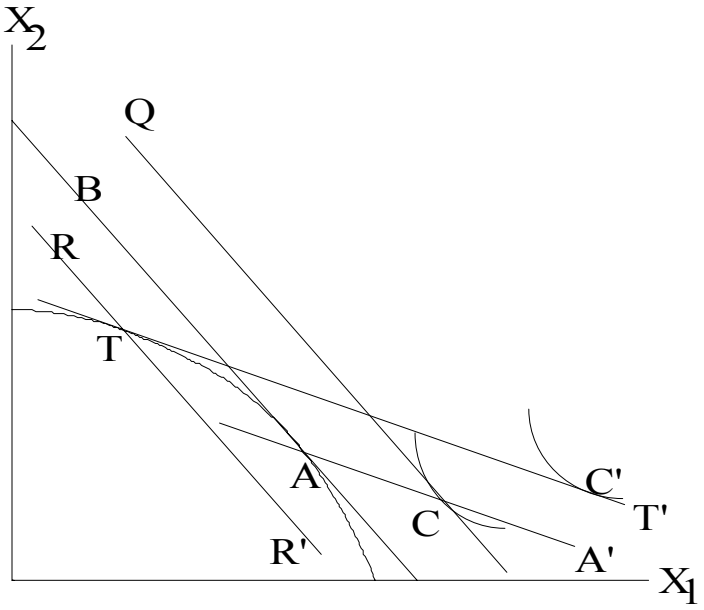

Figure 1: GDP at Domestic and World Prices

Finally, in so far as output is measured at the pre-reform domestic relative prices, it is likely to be undervalued in a liberalizing environment. The point is readily made with the help of Figure 1, which shows the production possibilities frontier between goods 1 and 2 with good 1 imported. Lines AA 'and TT' give the world price. Initially, a tariff keeps the domestic price at AB with production and consumption taking place at A and C, respectively. Elimination of the tariff changes the domestic price to TT' and moves the output and consumption points to T and C'. If we measure output at pre-reform domestic prices, however, the income is given by line RR' suggesting a *decline* in income. In so far as a movement towards the exportable and away from the importable accompanies the growth process, this under valuation of output will be observed with changing level of capital stock as well.

5 Future Policy

While this paper focuses only on trade policy, the discussion cannot be totally divorced from some key domestic-policy issues that necessarily impinge on trade flows and the patterns of specialization. Therefore, I divide this section into four parts. In Section 5.1, I discuss key domestic-policy reforms necessary to allow the economy to specialize towards sectors of its comparative advantage. In Section 5.2, I take up the issue of national or autonomous trade policy reform--sometimes called unilateral trade reform--, arguing in favor of the adoption of a uniform tariff regime and lowering the single tariff rate to below 10 percent in the next three years. In Section 5.3, I take up the issue of bilateral trade arrangements and in Section 5.4, the state of the play in the ongoing multilateral trade negotiations under the auspices of the Doha Round.

5.1 Domestic-Policy Reforms

Two important related facts emerge from our review of trade flows and growth experience from the viewpoint of domestic-policy reform: overall response of trade to the opening up has been weaker than in countries such as China and the economy has failed to move rapidly into the manufacturing of labor-intensive products. Both facts point towards the need for some key domestic-policy reforms.

The response of trade to liberalization has been an order of magnitude weaker in India than China. Exports of goods and services grew at annual rates of 12.9 and 15.2 percent during 1980s and 1990s respectively in China. Imports exhibited a similar performance. Consequently, China's total trade to GDP ratio rose from 18.9 percent in 1980 to 34 percent in 1990 and to 49.3 percent in 2000.

Though foreign investment is not the subject of this paper, in the present context, it may be noted that the differences between India and China on this front are even starker. FDI into China has risen from $.06 billion in 1980 to $3.49 billion in 1990 and then to a whopping $42.10 billion in 2000. China was slower to open its market to portfolio investment but once it did, inflows quickly surpassed those into India, reaching $7.8 billion in 2000. Even if we allow for an upward bias in the figures as suggested by some China specialists and downward bias in the figures for India, there is little doubt that foreign investment flows into China are several times those into India.

While some differences between the performances of India and China can be attributed to the Chinese entrepreneurs in Hong Kong and Taiwan, who have been eager to escape rising wages in their respective home economies by moving to China, a more central explanation lies in the differences between the compositions of GDPs in the two countries and asymmetric responses of the industry to the opening up. Among developing countries, India is unique in having a very large share of its GDP in the mostly informal part of the services sector. Whereas in other countries, a decline in the share of agriculture in GDP has been accompanied by a substantial expansion of the industry in the early stages of development, in India this has not happened. For example, in 1980, while the proportion of GDP originating in the industry was already 48.5 percent in China, in India it was only 24.2. Services, on the other hand, contributed only 21.4 percent to GDP in China but as much as 37.2 percent in India.

In the following twenty years, despite considerable growth, the share of industry did not rise in India. Instead, the entire decline in the share of agriculture was absorbed by services. In China, the share of industry started out very high at 48.5 percent in 1980.

It fell to 41.6 percent in 1990 but went back up to 50.9 percent in 2000. Correspondingly, services gained from the low level of 21.4 percent in 1980 to 31.3 percent in 1980 and just 33.2 percent in 2000. The key point is that industry had a large share in 1980 and what it lost during the 1980s it more than recovered in the 1990s.[14]

Why does this matter? Because under liberal trade policies, developing countries are much more likely to be able to expand exports and imports if a large proportion of their output originates in the industry. Not only is the scope for expanding labor-intensive manufactures greater in a highly labor-abundant country, a larger industrial sector also requires imported inputs thereby offering greater scope for the expansion of imports. In India, not only have the exports failed to grow rapidly, the response of imports has been just as muted. Consequently, the Reserve Bank of India has had to purchase huge amounts of foreign exchange to keep the rupee from appreciating in recent years. And even then, it was unsuccessful and had to let the currency appreciate recently by 5 to 7 percent in nominal terms. Given the poor performance of the industry, imports have simply failed to absorb the foreign exchange generated by remittances and relatively modest foreign investment flows.

This same factor is also at work in explaining the relatively modest response of FDI to liberal policies. Investment into industry, whether domestic or foreign, has been sluggish. Foreign investors have been hesitant to invest in the industry for much the same reasons as the domestic investors. At the same time, the capacity of the formal services sector to absorb foreign investment is limited.

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[14] These data are taken from World Development Indicators (2002).

Therefore, the solution to both trade and FDI expansion in India lies in stimulating growth in industry. Here again, our review of the composition of trade flows gives some clear clues. On the export side, we found that labor-intensive sectors such as apparel and footwear have grown at no more than the average of total exports while it is the capital or skilled-labor intensive sectors that have shown above average growth. This pattern clearly points to bottlenecks facing labor-intensive sectors. On the import side, machinery imports have seen their share decline during the 1990s relative to the 1980s. Given the removal of trade barriers on both capital goods and intermediate inputs, this fact is also explained by a relatively sluggish growth in industry.

If industrial growth is to pick up, three key domestic reforms are essential. First, fiscal deficit must be brought down to release funds for investment in the private sector. A major jump in industrial growth will have to come from increased investment and that requires the availability of savings to the private sector. Because the productivity of private investment depends crucially on public investment in infrastructure, fiscal deficit cannot be contained at the expense of public investment. Therefore, the containment of the revenue deficit is the only choice. This means cutting and streamlining the current expenditure and raising more revenues.

Second, the large majority of the labor-intensive manufacturing products still remain on the small-scale-industries (SSI) reservation list. Without an end to this reservation, there is little hope for the industry to begin growing rapidly. Large multinationals that have driven the growth of labor-intensive industry from toys to apparel in China can hardly be expected to enter manufacturing on a small scale. Nor can India count on sustained rapid growth of industry on the back of the capital- and skilled-

labor-intensive sectors because the availability of skilled labor places an automatic limit on their potential growth.

Finally, the end to the SSI reservation by itself is also insufficient to ensure rapid industrial growth. Current labor laws that virtually prohibit even reassignment of workers let alone their retrenchment must be reformed as well. The virtual ban on the exit of firms with 100 or more workers is a major disincentive to the firms interested in entering the market on a large scale. The reliance on contract labor, which gets around the hiring and firing regulations, is often cited as a viable solution that has been deployed by many manufacturers. But this solution exacts a heavy toll in terms of low worker morale that results in low productivity and poor product quality.

The effect of the twin regulations--the SSI reservation and stringent labor laws--is best illustrated by a comparison of the apparel industry in India with that in China. According to the 2001 McKinsey Global Institute report entitled *Achieving India's Economic Growth Imperative*, India's share in apparel imports of top 10 non-MFA-quota countries at 1.6 per cent is less than its share of 3.2 per cent in the MFA-quota-constrained countries. The reverse holds true for the more competitive China: its share in apparel imports of top ten non-quota countries is 38.1 per cent and that of top quota-constrained countries is 11.3 per cent. This difference in the performance derives to a large degree from the vastly different organizations of apparel factories in the two countries. An average clothing plant in India employs 50 machines whereas an average Chinese plant employs 500 machines. Without the SSI and labor-law reforms, this organizational difference and the accompanying differences in the cost and quality of production cannot be eliminated.

5.2 Autonomous Trade Reform

Turning back to trade policy, India's autonomous trade-reform program must continue until all tariffs have fallen well below 10 percent. In addition, India must address the issue of the structure of tariffs. Despite very substantial tariff compression and rationalization, India's tariff structure remains complex.

Thus, ostensibly the peak tariff on non-agricultural goods is currently 20 percent. But nearly 10% non-agricultural tariff rates still remain outside this peak. In terms of the complexity of the tariff structure, the situation is even grimmer: there are approximately 20 tariff-bends in existence currently. As shown in Table 1, taken from the latest Trade Policy Review (TPR) of India by WTO (2002), tariff rates on chemicals and photographic supplies ranged from 0 to 170% and those on transport equipment from 3 to 105% in 2001-02. The situation is not much different today, with the multi-billion-dollar automobile industry receiving nominal protection at the ad valorem rate of 60 percent. With lower input tariff rates, the effective rate of protection is even higher.

In economic terms, there is little rationale for this tariff structure. It is the result of two sets of forces. One, some sectors such as chemicals and automobiles are politically powerful and have therefore managed to evade the tariff compression applied to other sectors during the past decade. And two, there remains the misconception among policy makers that somehow final goods must be protected at tariff rates higher than those applied to raw materials and intermediate inputs. This latter fact has meant that tariffs on final goods have been compressed less than those on inputs. The process has been somewhat arrested recently, however, with tariff reductions limited largely to products

subject to the "peak" tariff rate, which happen to be final goods, and some of the lower tariff rates applying to intermediate inputs raised as a part of the rationalization process.

As a part of further reform, it will be best for India to move to a single uniform tariff of 15 percent for non-agricultural goods starting the financial year 2005-06. This will involve an end to the plethora of exemptions and raising tariffs on approximately 5 percent tariff lines subject to tariffs below 15 percent currently. In the following year, 2006-07, the uniform tariff should be lowered to10 percent and 2 to 3 percent per year in the subsequent two years to achieve a 5 percent tariff rate by the beginning of 2008-09.

The adoption of a uniform tariff has the major advantage that it takes politics out of trade policy. When the government is willing to offer protection at different rates, industrial lobbies have a field day. Those politically more powerful such as the automobile and chemical sectors manage to lobby for sweetheart deals at the cost of the consumer. But once the rule is that all will receive equal degree of protection, the incentive for any single industry to lobby diminishes dramatically. Simultaneously, the government has a logical defense against the demands of specific industries for higher protection: because it must raise the tariff for all if it does for one, its hands are tied.[15]

The single tariff rate also has the advantage of transparency and administrative simplicity. It eliminates the prospect of a higher tariff through classification of one's product as finished rather than intermediate. It also does away with all kinds of

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[15] Panagariya and Rodrik (1993) provide a number of formal models that yield the uniform tariff rule as the optimal outcome. In on their models, tariffs are determined by lobbying. The adoption of a uniform tariff rule then creates a free rider problem in the lobbying activity since the protection granted to one industry is automatically granted to all industries. This feature of the uniform-tariff rule has a large dampening effect on incentives to lobby.

exemptions. According to WTO (2002), there are more than 100 kinds of exemptions in our tariff code currently, with each running into several pages. WTO concludes, "The use of such exemptions not only increases the complexity of the tariff, it also reduces transparency and hampers efficiency-increasing tools such as computerization of customs."

Critics of the uniform tariff idea may argue that it fails to minimize the distortion cost of raising revenue. In a strict sense, this is correct. The theory of optimal taxation tells us that under some technical assumptions, goods with inelastic import demand should be subject to higher tariffs than those with elastic demand. The problem with this criticism, however, is that the actual tariff structure has little relationship to this theoretical ideal. The relevant counterfactual is not the optimal tariff structure based on various elasticities on which we lack information but the one actually in place. Compared with that structure, the uniform tariff is a vastly superior alternative.

The single uniform tariff is also superior to the two-part structure with rates of 10 percent on inputs and 20 percent on final goods, proposed in a previous Budget by the government. A tariff structure that levies 10% tariff on inputs and 20% tariff on final goods grants excessively high effective protection to the latter. For example, suppose the free trade price of a cell phone is $100 while its components cost $80. The two-part tariff raises the prices of the cell phone and its components to $120 and $88, respectively. This allows domestic value added in cell phone assembly from $20 to $32 signifying an effective protection of 60%!

India can also achieve considerable compression in tariffs in agriculture through autonomous liberalization and benefit from it. India has export potential in agriculture that will remain unexploited fully without liberalization of its own regime. But persistent assertions by the heads and senior officials of multilateral institutions and influential NGOs in recent years that agricultural protection is a problem of the rich countries and that it is wrong to ask the poor countries to liberalize when rich countries maintain high protection have effectively tied the hands of Indian politicians in this area. They now routinely express the view that without an end to agricultural subsidies and considerable liberalization by the rich countries, India cannot risk liberalizing its agriculture, which employs 60 percent of its workforce. Given this state of the political play, liberalization in agriculture will have to be left to multilateral negotiations.

Fortunately, the politics is less of a constraint on the autonomous liberalization of services trade. India has the potential to become a major exporter of not just information technology related services but health and education and tourism as well. India's costs in these sectors are relatively low. But in so far as the education sector is concerned, considerable internal liberalization is required. Currently, India does not permit private universities and without that, it is not possible for the country to turn into an education hub of Asia. In the health and tourism sectors, it is essential to improve the country's infrastructure including air travel.

On the import side, India will benefit further through liberalization of direct foreign investment (DFI) rules. There still remain sectoral caps on DFI in areas such as telecommunications, banking and insurance, which effectively deny foreign investors the control of the firm. These caps should be simply abolished allowing foreign investors

100 percent ownership. There also seems little justification for the approval requirement by the Foreign Investment Promotion Board in many cases. Indeed, the Board should be simply disbanded.

5.3 Regional Arrangements

Recently, India has embarked upon an ambitious program of regional trade arrangements. It has signed free trade area (FTA) agreements with Sri Lanka and Thailand and is in the advance stages of negotiating a free trade area agreement with Singapore. India has also signed a framework agreement for a free trade area with the members of the Association of South East Asian Nations (ASEAN) and an agreement to create a South Asian Free Trade Area (SAFTA). Recently, it has also approached distant trading partners such as South Africa and Brazil to negotiate FTA arrangements.

A number of mutually reinforcing factors have contributed to this upsurge in the FTA activity on the part of India. First, the proliferation of regional trade arrangements around the world has made India feel that it is being left behind in this area. The pronouncement by the United States Trade Representative (USTR) in the wake of the failure to make progress in multilateral talks at Cancun that the United States will now aggressively move to free up trade preferentially with those countries willing to liberalize had the impact on Indian leaders of wanting to respond in kind. The framework agreement with the ASEAN members, SAFTA and the offers for FTA negotiations with Brazil and South Africa were all post-Cancun developments.

Second, having realized that India was able to adjust to very substantial trade liberalization over the last two decades relatively painlessly, Indian leaders have acquired

greater confidence in their own ability to withstand competition that may result from the complete elimination of trade barriers even against selected trading partners.

Third, rising economic strength of India has made other countries keen to gain preferential access to the potentially large Indian market. This was clearly a factor in the ASEAN members' decision to agree to the framework agreement that India had sought for some time.

Fourth, political factors have been clearly dominant in the decision by India and Pakistan--and perhaps other countries in the region--to sign the SAFTA agreement. Regardless of the economic implications, the leaders saw a major payoff to such an agreement in terms of easing up tensions between the two rivals.

Finally, currently India has an External Affairs Minister who was the Finance Minister until recently and has his heart in economic diplomacy more than in political diplomacy. In contrast to Jaswant Singh, his predecessor, Yashwant Sinha has shown much less interest in political diplomacy and much greater keenness in seeking trade agreements abroad.

The critical question we must address is whether this aggressive pursuit of FTAs is a good idea from the Indian perspective and if yes with which countries and of what kind. I first consider the downside of the arrangements and then the potential benefits. I then outline what may be the pragmatic strategy for India.

5.3.1 The Downside

At least three important factors weigh against India proceeding along the preferential route. First, given its own high external trade barriers, India faces the obvious risk of losses due to trade diversion that preferential liberalization brings with it.

Even though economists have long recognized and stressed this risk, it continues to be underestimated in policy discussions and is worth spelling out explicitly here.

To make the point most dramatically, consider the proposed India-Singapore FTA. The current tariff on steel imports in India is 20 percent. Assuming the world price of steel to be $500 per ton, the tariff-inclusive price in India would be $600 per ton. The FTA with Singapore would give that country's steel exporters tariff-free access to the Indian market allowing them to displace some of the steel previously imported from outside countries such as South Korea and Russia. Economists call this displacement trade diversion.

A surprising point is that despite this "liberalization", as long as some steel continues to be imported from the outside countries, internal price of steel would remain unchanged at $600. Outside countries must continue to receive $500 per ton of steel and with the Indian customs authorities collecting $100 in duty buyers must pay $600. Since Singaporean steel is exempt from the duty, however, their exporters now receive extra $100 per ton in revenue. What used to be the tariff revenue collected by India now becomes extra revenue for Singaporean firms!

One might ask why the price of steel in India will not drop to $500 per ton as a result of the FTA. This could happen but only if Singapore produced enough steel to supply the entire quantity of steel imported by India at $500. But as long as even a small quantity of steel continues to be imported from non-members, it will have to be sold at $600 and no change in the price can take place.

One possibility around this outcome is that Singaporeans may buy steel from Koreans and Russians for $500 per ton and then resell it in India at the higher internal

Indian price. If enough Singaporean exporters do this, however, the price of steel in India would drop to $500. The outcome would be as if India removed duty on not just Singapore but all trading partners! But this type of transshipment is prohibited under FTA arrangement through what are called the "Rules of Origin". For example, to claim the duty-free status, Singaporean exporters will have to prove to the satisfaction of a commerce ministry bureaucrat that a minimum pre-specified percentage of value-added in each ton of steel being brought into India originated in Singapore. This regulation would eliminate transshipments.

It is tempting to conjecture that even though India might lose on good it imports from Singapore, the losses may be offset by tariff preferences receive on exports in Singapore. The catch, however, is that Singapore is already a free-trading country. The FTA gives Indian exporters no tariff preference whatsoever in the Singaporean market. More generally, in an FTA, a high-tariff member is likely to lose since it gives larger preference to its partner than it receives from the latter. The lesson is that it is best to have low external tariffs, as is the case with Singapore, if a country wants to benefit from FTAs.

The second risk of FTAs is their likely adverse effect on autonomous, non-discriminatory liberalization as illustrated by the experience of the countries in Latin America. These countries had been liberalizing their external trade barriers aggressively prior to the North American Free Trade Agreement (NAFTA). But following NAFTA, they all turned to FTAs with vengeance and the move toward non-discriminatory liberalization came to a standstill. The countries felt they had a better chance of forming

FTAs if they kept external tariffs so as to be able to exchange them for preferential access to partner country markets.

Finally, the move towards FTAs can also undermine the Doha negotiations aimed at multilateral liberalization. Because FTAs give exporters of a member country preferential access to the partner country market, they prefer them over multilateral liberalization. The incentive to push for multilateral liberalization on the part of this constituency declines even more once preferential agreements with major trading partners are in place. For example, Mexico, which has preferential access to the U.S. and EU markets, is unlikely to push hard for multilateral liberalization since such liberalization will result in the loss of its preferential access. In so far as India is concerned, it can scarcely afford to let the multilateral route close. Because of the numerous FTAs that already exist in the Americas and Europe, India faces considerable discrimination against its products in those markets. The only way to end this discrimination is to bring tariffs down to near zero on a multilateral basis under the Doha auspices.

5.3.2 Potential Benefits

On the benefits side of the equation, we may note two main factors. First, the strategic issue is paramount. To-date, FTAs have proliferated in the Americas and Europe and its neighbors. This development has led to increasing discrimination against the Asian goods. The countries in Asia have two options: they can either try to persuade these regions to put an end to the preferences through a multilateral bargain in the near future or form their own FTAs to create discrimination against the European and American goods and raise their bargaining power in a later, future negotiation. The first option is clearly the superior one but the second one can serve as insurance against failure

to end discrimination in the near future. It is also a good device to indicate to the Americas and Europe that discrimination is a two-way street.

Second, through FTAs, the United States is systematically creating an FTA template that makes the labor and environmental standards, WTO plus Intellectual property protection and even restrictions on the use of capital controls a part of the trade agreements. The eventual objective of such a template is to apply it to multilateral agreement. For countries such as India that oppose the inclusion of these non-trade issues into trade agreements, FTAs provide an opportunity to create an alternative template. Confronted by the U.S. assertions that the non-trade issues already exist in the bilateral trade agreements and therefore justify inclusion in the multilateral agreements, India and other developing countries can point to their own template that does not admit the inclusion of these subjects.

I may note that some analysts view FTAs as an additional instrument of promoting liberalization. The argument is that a country may find it politically difficult to eliminate tariffs against all trading partners as a part of its unilateral or autonomous liberalization program but may be able to do so against a handful of trading partners on a reciprocal basis. And once this is accomplished, it may find the pressure against liberalization against the rest of the partners muted. I have found this argument to be unpersuasive. Logically, the incentive for autonomous liberalization declines since the existing FTA partners see such liberalization as an assault on their preferences and the future FTA partners become reluctant when they see the potential preferences to be minimal. As noted above, the available evidence from Latin America points in the same direction.

5.3.3 The Pragmatic Course

Given the incentives and pressure governments face today, it is difficult for them to resist the move towards FTAs. If all the big players are chasing every FTA they see, how can smaller players hold the temptation? It is as though the option to opt out of the agreements no longer exists. Given this reality, the right question to ask is how should India approach the FTAs?

The first point to note is that if India stays course on its autonomous liberalization program, the risks of preferential liberalization will be considerably ameliorated. After some hiccups during the second half of the 1990s, India has been remarkably steady in bringing its external tariffs down recently. If this process is continued with the external tariff on industrial goods unified to a single rate and brought down to between 5 and 10 percent by 20007-8, India would be well positioned to take advantage of the regional approach to liberalization just as Singapore is positioned currently.

In addition, if India wishes to maximize the strategic advantage from FTAs, it must work towards the creation of an Asia wide FTA. At present, India and China both have separate framework agreement with the ASEAN members to forge FTAs with them. But if the strategic advantage vis-à-vis the Americas and Europe is to be maximized, India must eventually form an FTA with China thereby creating pressure for Japan, Korea and Taiwan join to create an Asia wide FTA.

In order to keep a clean FTA template, India should also be careful to keep non-trade issued, whatever they may be, outside of its FTA agreements. For example, the recent SAFTA agreement incorporates many trade-unrelated issues of mutual interest--infrastructure projects, rules for competition and the promotion of venture capital--into

the core agreement. This practice creates bad precedents by linking non-trade issues to trade. It also risks tying valuable projects of mutual benefit to trade negotiations and trade disputes. The appropriate forum for pursuing the non-trade subjects in South Asia is the South Asian Association for Regional Cooperation of which SAFTA should be a distinct part that focuses only on trade.

5.3.4 An India-U.S. FTA

Many including the Confederation of Indian Industry (CII) have proposed negotiations for an India-U.S. FTA. Given that India now faces considerable actual or potential discrimination in the North American market vis-à-vis Mexico, Canada, Chile, Central America, Australia and other countries, the positive side of the case for such a move from the Indian perspective is straightforward. I will argue, however, that in so far as an FTA in goods is concerned, the overall case for it is weak and, moreover, political impediments are insurmountable.

First, at the current levels of tariffs in industrial goods in India, there is considerable scope for trade diversion and the accompanying losses from it. Relative to the United States, tariffs in India are still very high so that India stands to lose on account of the tariff-revenue loss noted above in the context of the India-Singapore FTA. Of course, if India carries out the liberalization outlined above, this objection will lose its potency.

Second, in the area of agriculture, even though India stands to benefit from increased imports as well exports, political pressures preclude the inclusion of this sector into a potential India-U.S. FTA. On the import side, benefits arise simply because currently Indian imports from third countries are limited so that the scope for trade

diversion is limited. Moreover, the United States is a globally efficient producer of agricultural products so that opening to it will open India to the competition against the most efficient producers in many sectors. The difficulty, however, is that with large domestic and export subsidies in place in the United States, which cannot be negotiated within the FTA and require the multilateral context, any liberalization by India in agriculture is a pipedream. India's position on agriculture even in the multilateral context with possibilities of substantial reductions in export subsidies and some reductions in domestic subsidies by the rich countries has been squarely protectionist. The dominant view in the government is that with 600 plus million people living on farm income, India cannot afford to open its agriculture to foreign competition.

Finally, the U.S. FTA template that requires the inclusion of labor and environmental standards and WTO plus intellectual property rights in its agreements is yet another insurmountable barrier. The United States Congress insists on the inclusion of these provisions in the FTA agreements. India, on the other hand, is squarely opposed to them. Neither side is likely to compromise on these issues: the United States wants to establish as many precedents as possible so as to make the linkage acceptable in the multilateral WTO agreements whereas India has the diametrically opposite objective.

A limited case can be made, however, in favor of a mutually beneficial and politically acceptable FTA between the two countries in services though even here the recent acrimonious debate on outsourcing in the United States points to potentially serious political barriers. The General Agreement for Trade in Services (GATS) provides for such an agreement and there are now several precedents for it. While space

considerations preclude a detailed analysis, which is highly desirable to reach a well-informed judgment, three preliminary points favoring the proposal can be made.

First, looking at the issue from the Indian perspective, in so far as the barriers in services take the form of anti-competitive regulations that cannot be eliminated on a discriminatory basis, preferential liberalization effectively becomes nondiscriminatory. Moreover, in sectors where no external liberalization has yet taken place, there is no possibility of trade diversion. In many services, the United States may well be the most efficient supplier in which case preferential liberalization will mimic multilateral liberalization.

Against these arguments we must consider the fact that trade diversion in at least two forms cannot be ruled out. In cases that liberalization has already taken place under the GATS agreements, trade from more efficient suppliers can be diverted. For example, India is committed to allowing 12 foreign bank branches annually as a part of its current GATS obligations. To the extent that the U.S. banks decide to open extra branches in India as a result of FTA, India would consider its GATS obligations fulfilled. In the limit, if the U.S. banks open 12 or more branches per year, other countries will be effectively barred from entry into the Indian market altogether even if they happen to be more efficient. Trade diversion may also happen in the potential sense in sectors that start with initial autarky. If an FTA precedes multilateral liberalization, the U.S. firms will acquire the incumbency advantage. This will give rise to a different and inferior

outcome when multilateral liberalization takes place relative to the one that would obtain if the FTA had not preceded multilateral liberalization.[16]

Second, within these qualifications, there are several sectors in which the United States and India can benefit from an FTA in services. The U.S. comparative advantage in sectors such as telecommunications, banking and insurance is well known. The Indian industry in these sectors still remains inefficient so that it will benefit from competition from the U.S. firms. The FTA may also spur further reforms including privatization and lifting of sectoral caps on direct foreign investment on a non-discriminatory basis.

But there are other less obvious sectors in which the U.S. suppliers may benefit from market access in India. One such sector is the "hospitality" sector of tourism industry. On one hand, India is beginning to emerge as a major tourist attraction for foreign tourists while on the other, rapidly rising incomes are expanding the demand for tourism by local population. This market can be potentially lucrative for the U.S. suppliers of tourist services. For example, member of the Asian American Hotel Owners Association (AAHOA), which predominantly consist of Americans of Indian origin, own 20,000 U.S. hotels with one million rooms accounting for 37 percent of all hotel properties. The market value of these hotels is placed at $40 billion. These Indian-American hoteliers could benefit greatly from setting up mid-tier motels along the national highways being constructed to link the four metropolitan cities.[17]

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[16] Mattoo and Fink (2003) offer a detailed thoughtful discussion of potential benefits and cost of preferential trade liberalization in services and how they differ from preferential liberalization in goods.

[17] News India-Times, (January 23, 2004, p. 16): "Indian-American hotel owners see prospects in hospitality industry."

In the same vein, there may be potential for U.S. hospital and education sectors to benefit from market access in India. India can offer relatively cheap nursing and mid-level medical services while Americans can bring excellent hospital management and top-tier medical skills. Similarly, there may be scope for cooperation in higher education if the FTA can serve to open up the Indian market to the entry of private universities.

On its part, India would benefit not only from imports in the areas just described but also stands to benefit from exports. Outsourcing has emerged as a major export of India. A services FTA may be a useful instrument of cementing the market access in this important area. India can also benefit from increased share in the temporary worker visas in the United States. At present, India is losing its share due to the fact that the United States is using the fixed number of H1B visas permitted by the Congress to first make good on its commitments to countries such as Mexico and Chile that have services FTAs with it. Apart from workers in information technology sector, India can offer professional workers in such sectors as nursing and hospitality industry.

Finally, in a services FTA, it may be possible to set aside the divisive issue of labor standards. In goods trade, the United States faces the prospect of increased competition in unskilled-labor-intensive sectors such as footwear and apparel. In the context of opening up these sectors, the "fair-trade" argument for linking market access to labor standards has greater political salience than in skilled-labor-intensive activities likely to be opened up to Indian suppliers in the U.S. market.

5.4 Multilateral Negotiations

This section and, indeed, the paper will be incomplete without some reference to multilateral trade negotiations. Perhaps the single most important act for India in the

trade area is to bring the Doha negotiations to a conclusion. It would be unrealistic to expect the round to close by the end of this year as originally planned but a conclusion by the end of 2006 is both feasible and in India's interest.

After the failure to make progress in Cancun, the United States has revised its position in favor of a narrower round. India can readily make common cause with the United States around this position. Thus, in a letter written recently to trade ministers of WTO member countries, the United States Trade Representative Robert Zoellick has expressed willingness to drop all Singapore issues from the agenda except trade facilitation. India has been willing to negotiate on trade facilitation so that there is no more disagreement with the United States in this area. Moreover, it considerably narrows down the scope of the round, focusing it on trade liberalization just as India had sought originally. And India surely stands to benefit from liberalization in all areas: industry, agriculture and services.

5.4.1 Industrial Tariffs

In the letter to trade ministers, Zoellick has renewed his proposal to achieve zero tariffs in the area of industrial goods by the year 2015. Given India's own autonomous trade liberalization program, this is a feasible goal for India. But if India wants some more cushion, it can surely ask for a more extended implementation time period for developing countries until 2020 or even 2025. Benefits to India from accepting this proposal in the original or this modified form are quite unambiguous.

India has long sought to eliminate tariff peaks against labour-intensive products in developed countries. Though top World Bank officials and many NGOs have recently raised hopes that repeated public exhortations to the effect that developed country

barriers cost developing countries more than what they give the latter in aid might shame them into dismantling these barriers unilaterally, last 40 years of experience leads to a different conclusion. UNCTAD, developing country leaders, trade and development experts and even World Bank reports have condemned the barriers against developing country exports for decades. As early as 1965, developing countries had successfully deployed moral suasion to add Part IV to the General Agreement on Tariffs and Trade which explicitly committed developed countries to "accord high priority to the reduction and elimination of barriers to products currently or potentially of particular export interest to less developed contracting parties" and to "refrain from introducing, or increasing the incidence of customs duties or non-tariff barriers on products currently or potentially of particular export interest" to them.

Yet, since developing countries insisted on one-way concessions, little progress was actually made. On the contrary, textiles and apparel imports into developed countries came under severe restrictions through 3,000 bilateral treaties as a part of the MFA. Likewise, footwear and steel were frequently subject to "Orderly Market Arrangements" by the US while tariff peaks systematically discriminated against developing country exports. The only "concession" developing countries received was the Generalized System of Preferences, which now even NGO Oxfam (correctly) cites as evidence against the US sincerity to open its markets to developing countries.

The main substantive break developing countries got in achieving improved market access for themselves in the last 40 years was the agreement to end the MFA. And that came through reciprocal bargaining as a part of the UR Agreement. India will be

deluding itself by hanging on to the notion that hardcore developed country barriers can be eliminated without reciprocity and just through moral suasion.

India also gains a tactical advantage through the proposed initiative. In one stroke, it will knock down its image as "obstructionist" in the negotiations and announce its emergence as a truly confident player on the world economic stage as it has already done on the world political stage. Indeed, it would have put the US on the defensive since, according to some, the latter put forward the zero-tariff proposal despite immense political pressure against it from domestic lobbies precisely in the hope that developing countries will refuse to go along with it. India can call this bluff and turn the US tactical advantage into its own.

There are two more reasons why India stands to benefit big from the proposed initiative. First, India's own liberalization, to which it will be committing as a part of the deal, benefits it. India have now fully recognized this fact in its economic reforms program with the Kelkar taskforce recommending that virtually all tariffs be brought down to 10% or less by 2006-07. All India will be doing under the proposed initiative is bind this liberalization with WTO and push it to its logical conclusion of zero tariffs by 2025. Second, as noted above, with NAFTA, EU and numerous preferential trade areas between EU and its neighbors and within Latin America, Africa and even East Asia in existence, India's products face discrimination in virtually every major market. Through the zero-tariff option, in one stroke, India would have eliminated this discrimination.

5.4.2 Agriculture

Effectively admitting his mistake in trying to make a common cause with the European Union on agriculture at Cancun, in the letter to trade ministers, Zoellick has made the elimination of agricultural export subsidies a priority. This is something India has sought as well. Nevertheless, India remains defensive in this area. India's amin concern is that 600 million or more Indians live on farm income and it cannot afford to open its agriculture.

While agriculture is a politically charged issue in India, the story is not altogether different in other parts of the world. Therefore, if India seeks agricultural liberalization including substantial cuts in subsidies by rich countries, it has to be willing to place its own liberalization on the table. This is not a particularly risky course for two reasons. First, like many rich countries, India also bound its agricultural tariffs at very high levels ranging from 100 to 300 percent. Bringing these bindings down to even 50 percent will lead to minimal effective opening up. All India will be doing is to eliminate the existing water in tariffs. But in return, if India can get extra market access in the rich country markets, it can only help boost agricultural incomes in India. Second, according to available studies, once subsidies are substantially reduced, Indian agriculture is competitive in the large majority of commodities. As such, any loss of market at home will be substantially made up by the market access achieved in the partner countries.

5.4.3 Services

Services negotiations have been relatively less controversial. The discussion of the services FTA between India and the United States illustrates possible benefits to India from negotiating actively in this area. One priority for India ought to be to seek binding

commitments from trading partners, especially the United States, in business services that cover Business Process Outsourcing (BPO). But it can also benefit from negotiations in areas such as health and accounting services, in which it can offer low-cost services. In return, India can offer binding commitments in areas such as banking, insurance and telecommunications. Many of India's liberalizing steps in services are unbound and therefore can be used as bargaining chips.

6 Conclusions

Table 1: Tariff Structure and Average Tariffs

		MFN 1997/1998			MFN 2001/02		
	No. of lines	Average (%)	Range (%)	Coefficient of variation	Average (%)	Range (%)	Coefficient of variation
Total	5,113	35.3	0-260	0.4	32.3	0-210	0.4
By WTO definition							
Agricultural products	676	35.1	0-260	0.9	40.7	0-210	0.7
Live animals and products thereof	81	25.4	15-45	0.6	39.8	35-100	0.4
Dairy products	20	31.5	0-35	0.3	38.0	35-60	0.2
Coffee and tea, cocoa, sugar, etc.	128	37.6	15-192	0.4	39.6	35-170	0.4
Cut flowers and plants	34	25.1	10-45	0.6	29.9	10-35	0.3
Fruit and vegetables	150	32.7	0-127	0.5	36.6	25-115	0.3
Grains	16	0.0	0-0	-	49.4	0-100	0.8
Oils seeds, fats, oil and their products	71	38.9	15-45	0.2	56.2	15-100	0.5
Beverages and spirits	31	114.8	15-260	0.8	96.9	35-210	0.8
Tobacco	9	45.0	45-45	-	35.0	35-35	-
Other agricultural products, n.e.s.	136	27.8	0-45	0.5	28.1	0-50	0.4
Non-agricultural products (excl. petroleum)	4,435	35.4	0-192	0.3	31.1	0-170	0.3
Fish and fishery products	108	20.3	0-65	0.6	35.0	35-35	-
Mineral products, precious stones, etc.	335	37.5	0-45	0.3	30.6	0-55	0.3
Metals	588	32.5	10-45	0.2	32.0	5-35	0.2
Chemicals and photographic supplies	840	34.6	0-192	0.2	33.8	0-170	0.2
Leather, rubber, footwear, travel goods	146	39.8	0-45	0.3	32.1	0-35	0.2
Wood, pulp, paper and furniture	248	30.1	0-45	0.4	29.3	0-35	0.4
Textiles and clothing	830	43.7	25-55	0.1	31.3	15-35	0.2
Transport equipment	122	41.7	3-45	0.2	40.5	3-105	0.6
Non-electric machinery	525	27.1	10-45	0.2	25.9	0-35	0.2
Electric machinery	257	34.7	15-45	0.3	26.8	0-35	0.4
Non-agricultural products, n.e.s.	436	37.1	0-55	0.2	30.0	0-35	0.2
Petroleum	2	31.0	37-35	0.2	25.0	15-35	0.6
By Sector*							
Agriculture and fisheries	289	26.5	0-45	0.6	33.1	0-100	0.4
Mining	105	26.2	0-45	0.5	21.9	5-55	0.5

		MFN 1997/1998			MFN 2001/02		
	No. of lines	Average (%)	Range (%)	Coefficient of variation	Average (%)	Range (%)	Coefficient of variation
Manufacturing	4,718	36.1	0-260	0.4	32.5	0-210	0.4
By stage of processing							
First stage of processing	628	25.7	0-127	0.6	29.4	0-115	0.5
Semi-processed products	1,673	35.7	0-192	0.2	32.3	0-170	0.2
Fully-processed products	2,812	37.3	0-260	0.4	33.0	0-210	0.5

*ISIC (Rev.2) classification. Electricity, gas and water are excluded (1 tariff line).

Source: World Trade Organization (2002) [WTO Secretariat calculations, based on data provided by the Indian authorities]

Table 2: Exports and Imports of India and China (1980-200)

	US$ Billion			Annual Growth Rates (%)	
	1980	1990	2000	1980-90	1990-00
India					
Total exports (fob)	8.5	18.5	44.9	8.1	9.3
Manufactures	5.1	13.0	34.5	9.8	10.3
Total imports (cif)	15.9	27.9	59.3	5.8	7.8
Capital goods imports	2.4	5.8	8.8	9.2	4.2
Fuel and energy	6.7	6.0	15.7	-1.0	10.0
Exports of goods and services	11.2	23.0	63.8	7.4	10.7
Imports of goods and services	17.8	31.5	75.7	5.9	9.2
China					
Total exports (fob)	18.27	62.09	249.21	13.0	14.9
Manufactures	9.01	46.21	223.75	17.8	17.1
Total imports (cif)	20.02	53.35	225.10	10.3	15.5
Capital goods	5.12	16.85	91.93	12.6	18.5
Fuel and energy	0.20	1.27	26.04	20.1	35.2
Exports of goods and services	20.17	67.97	279.56	12.9	15.2
Imports of goods and services	20.86	55.54	250.69	10.3	16.3

Source: World Development Indicators, 2002

Table 3: Indicators of Trade Openness for India and China

Indicators (Percent)	1980	1990	2000
India			
Exports/GDP	4.6	5.8	9.8
Imports/GDP	8.7	8.8	13.0
Exports of Goods and Services/GDP	6.2	7.3	14.0
Imports of Goods and Services/GDP	9.7	9.9	16.6
China			
Exports/GDP	8.5	17.1	23.1
Imports/GDP	4.2	12.7	20.8
Exports of Goods and Services/GDP	9.3	18.7	26.0
Imports of Goods and Services/GDP	9.6	15.3	23.3

Source: World Development Indicators, 2002

Table 4: Composition of Merchandise Exports

Commodity		1987-88	1992-93	2001-02
I.	**Primary Products**	**26.1**	**20.9**	**16.1**
	A. Agriculture and Allied Products	21.2	16.9	13.4
	1. Tea	3.8	1.8	0.8
	2. Coffee	1.7	0.7	0.5
	3. Rice	2.2	1.8	1.5
	4. Cotton Raw including Waste	0.7	0.3	0.0
	5. Tobacco	0.9	0.9	0.4
	6. Cashew including Cashew Nut Shell Liquid	2.0	1.4	0.9
	7. Spices	2.1	0.7	0.7
	8. Oil Meals	1.4	2.9	1.1
	9. Fruits and Vegetables	0.8	0.6	0.5
	10. Processed Fruits, Juices, misc. Processed Items	1.1	0.4	0.7
	11. Marine Products	3.4	3.2	2.8
	12. Sugar and Mollases	0.1	0.7	0.9
	13. Meat and Meat Preparations	0.6	0.5	0.6
	14. Others	0.5	1.0	2.1
	B. Ores and Minerals	5.0	4.0	2.8
	1. Iron Ore	3.5	2.1	0.9
	2. Mica	0.1	0.0	0.0
	3. Others	1.3	1.9	1.8
II.	**Manufactured Goods**	**67.8**	**75.7**	**75.6**
	1. Leather and Manufactures	8.0	6.9	4.3
	2. Chemicals and Allied Products	4.7	6.6	9.2
	a) Drugs, Pharmaceutical and Fine Chemicals	2.1	2.9	4.7
	b) Others	2.6	3.8	4.6
	3. Plastic and Linoleum Products	0.4	0.8	2.2

	4. Rubber, Glass, Paints, Enamels and Products	1.4	2.1	2.2
	5. Engineering Goods	9.5	13.4	15.7
	6. Readymade Garments	11.6	12.9	11.4
	7. Textile Yarn, Fabrics, Made-ups, etc.,	9.0	10.3	10.1
	a) Cotton Yarn, Fabrics, Made-ups, etc.,	7.3	7.3	6.9
	b) Natural Silk Yarn, Fabrics, Made-ups, etc.,	0.9	0.7	0.6
	c) Others	0.8	2.2	2.5
	8. Jute Manufactures	1.5	0.7	0.3
	9. Coir and Manufactures	0.2	0.2	0.1
	10. Handicrafts	20.2	20.4	18.8
	a) Gems and Jewellery	16.7	16.6	16.7
	b) Carpets (Handmade excl. Silk)	2.1	2.3	0.8
	c) Works of Art (Excl. Floor Coverings)	1.4	1.5	1.3
	11. Sports Goods	0.4	0.2	0.2
	12. Others	0.9	1.3	1.1
III.	**Petroleum Products**	**4.1**	**2.6**	**4.8**
IV.	**Others**	**1.9**	**0.8**	**3.5**
Total Exports ($ billion)		12.1	18.5	43.8

Source: Author's calculations using data from the RBI Statistical Yearbook, 2002 (Table 124). (Original Source: Directorate General of Commercial Intelligence and Statistics)

Table 5: Composition of Merchandise Imports

Commodity		1987-88	1992-93	2001-02P
I.	Bulk Imports	40.9	44.9	39.4
	A. Petroleum, Crude and Products	18.2	27.9	27.2
	B. Bulk Consumption Goods	6.6	2.3	4.0
	1. Cereals and Cereal Preparations	0.3	1.5	0.0
	2. Edible Oils	4.4	0.3	2.6
	3. Pulses	1.1	0.5	1.3
	4. Sugar	0.9	0.0	0.0
	C. Other Bulk Items	16.1	14.7	8.2
	1. Fertilizers	2.3	4.5	1.3
	a) Crude	0.6	0.7	0.3
	b) Sulphur and Unroasted Iron Pyrites	0.8	0.6	0.1
	c) Manufactured	0.8	3.2	0.9
	2. Non Ferrous Metals	2.9	1.8	1.3
	3. Paper, Paperboards, Mgfs. including News	1.2	0.8	0.9
	4. Crude Rubber, including Synthetic and	0.5	0.4	0.3
	5. Pulp and Waste Paper	1.1	0.6	0.6
	6. Metalliferrous Ores, Metal Scrap, etc.	2.2	3.0	2.2
	7. Iron and Steel	5.9	3.6	1.6
II.	Non-Bulk Imports	59.1	55.1	60.6
	A. Capital Goods	**29.5**	**20.7**	**18.1**
	1. Manufactures of Metals	0.7	0.7	0.8
	2. Machine Tools	1.0	0.8	0.4
	3. Machinery except Electrical and Electronic	11.8	7.6	5.8
	4. Electrical Machinery except Electronic	4.9	3.8	1.2
	5. Electronic Goods			7.3
	6. Computer Goods			0.4

7. Transport Equipment	3.4	2.1	1.2
8. Project Goods	7.8	5.8	1.1
B. Mainly Export Related Items	15.1	19.0	16.0
1. Pearls, Precious and Semi-Precious Stones	9.1	11.2	9.0
2. Organic and Inorganic Chemicals	4.9	6.5	5.4
3. Textile Yarn, Fabrics, Made-ups, etc.	0.8	0.7	1.4
4. Cashew Nuts	0.3	0.6	0.2
C. Others	14.5	15.4	26.5
1. Artificial Resins and Plastic Materials, etc.	2.5	1.9	1.3
2. Professional, Scientific Controlling Instruments, Photographic Optical Goods	2.2	2.3	2.0
3. Coal, Coke and Briquittes, etc.	1.0	2.2	2.2
4. Medicinal and Pharmaceutical Products	0.8	1.3	0.8
5. Chemical Materials and Products	0.9	0.8	0.9
6. Non-Metallic Mineral Manufactures	0.5	0.4	0.8
7. Others	6.6	6.5	18.4
Total Imports ($ billion)	17.2	19.4	51.4

Source: Author's calculations using data from the RBI Statistical Yearbook, 2002 (Table 126). (Original Source: Directorate General of Commercial Intelligence and Statistics)

Table 6a: Invisibles Receipts (as % of the total)

Items		1980–81	1990-91	2001-02
I.	Non–Factor Services	39.0	61.0	57.0
i)	Travel	17.0	19.5	8.2
ii)	Transportation	6.4	13.2	5.5
iii)	Insurance	0.9	1.5	0.7
iv)	GNIE	1.5	0.2	1.3
v)	Miscellaneous	13.2	26.6	41.2
II.	Investment Income	12.8	4.9	7.7
III.	Private Transfers	37.7	27.9	34.2
IV.	Official Transfers	10.5	6.2	1.1
	Total ($ billion)	**7.2**	**7.5**	**35.6**

Source: Author's calculations based on RBI Statistics Handbook 2002 (Table 137)

Table 6b: Composition of Invisibles Receipts (Last Two Years)

	2001-02 (percent)	2002-03 (percent)
Transfers	34.3	35.4
Software Services	20.6	22.3
Non-software	20.4	21.2
Travel	7.9	7
Transportation	5.4	5.9
Income	9.4	6.6
Insurance and GNIE	2	1.6
Total Receipts (US $	**36.7**	**43**

Source: RBI Annual Report 2002-03, Chapter VI Table 6.4

Table 7: Invisibles Payments (as percent of the total)

Items		1980–	1990-91	2001-02
I.	Non–Factor Services	71.2	46.3	74.6
i)	Travel	5.4	5.1	10.6
ii)	Transportation	21.2	14.2	11.0
iii)	Insurance	2.0	1.1	1.2
iv)	G.n.i.e.	2.8	2.2	1.3
v)	Miscellaneous	39.7	23.7	50.5
II.	Investment Income	28.0	53.5	25.1
III.	Private Transfers	0.7	0.2	0.3
IV.	Official Transfers	0.2	0.0	0.0
	Total Payments ($ billion)	**2.1**	**7.7**	**21.6**

Source: Author's calculations based on RBI Statistics Handbook 2002 (Table 137)

Table 8: Direction of Trade

Group / Country	1987-88		1992-93		2001-02	1999-00
	Exports	Imports	Exports	Imports	Exports	Imports
1	2	3	4	5	6	8
I. O E C D Countries	58.9	59.8	60.5	56.1	49.3	43.0
A. E U	25.1	33.3	28.3	30.2	22.5	22.1
Of which:						
1 Germany	6.8	9.7	7.7	7.6	4.1	3.7
2 U K	6.5	8.2	6.5	6.5	4.9	5.4
B. North America	19.7	10.3	20.0	11.7	20.8	7.9
1 Canada	1.1	1.3	1.0	1.9	1.3	0.8
2 U S A	18.6	9.0	19.0	9.8	19.4	7.2
C. Asia and Oceania	11.6	12.0	9.1	10.6	4.5	7.5
Of which:						
1 Australia	1.1	2.3	1.2	3.8	1.0	2.2
2 Japan	10.3	9.6	7.7	6.5	3.4	5.1
D. Other O E C D Countries	2.5	4.2	3.0	3.6	1.6	5.5
Of which:						
1 Switzerland	1.3	1.1	1.1	1.7	0.9	5.2
II. O P E C	6.1	13.3	9.6	21.8	11.9	25.9
Of which:						
1 U A E	2.0	3.4	4.4	5.1	5.7	4.7
III. Eastern Europe	16.5	9.6	4.4	2.5	2.9	2.0
Of which:						
1 Russia	12.5	7.2	3.3	1.2	1.8	1.3
IV. Developing Countries	14.2	17.3	22.9	19.6	30.9	29.2
Of which:						

A.	Asia		11.9	12.1	18.8	14.6	23.6	20.0
	a)	S A A R C	2.6	0.4	4.0	0.8	4.6	0.8
	b)	Other Asian Developing Countries	9.3	11.7	14.8	13.8	19.0	19.2
		Of which:						
		1. Hong Kong	2.8	0.5	4.1	0.8	5.4	1.6
		2. South Korea	0.9	1.5	0.9	1.6	1.1	2.6
		3. Malaysia	0.6	3.8	1.0	1.9	1.8	4.1
		4. Singapore	1.7	1.9	3.2	2.9	2.2	3.1
		5. Thailand	0.5	0.3	1.4	0.3	1.4	0.7
B.	Africa		2.0	2.9	3.1	3.5	5.2	7.3
C.	Latin American Countries		0.3	2.3	1.0	1.5	2.1	1.9
V.	Others		0.0	0.0	0.1	0.0	0.2	0.0
Total Trade ($Billion)			12.1	17.2	18.5	21.9	43.8	49.7

* The available direction-of-trade data on imports for years 2000-01 and beyond are not consistent with those for the earlier years.

Source: Author's calculations from the RBI Statistics Handbook 2002 (Table 130)

Table 9a: Composition of Imports According to New versus Old Products*

Number of Products	88	89	90	91	92	93	94	95	96	97	98	99
2312	10	13	15	15	17	20	28	26	28	32	38	35
211	10	10	11	9	9	11	11	11	11	11	9	10
97	10	10	11	10	11	13	13	14	12	11	10	8
49	10	9	9	8	8	7	7	7	6	5	5	4
29	10	8	9	9	8	8	9	9	8	7	6	6
19	10	9	9	8	7	6	5	5	4	5	3	2
13	10	8	7	6	5	5	7	8	8	7	8	8
8	10	12	11	10	9	6	6	6	5	5	3	6
3	20	21	18	25	26	24	14	14	18	17	18	21

*The last category contains 20 percent of the imports initially to overcome a problem posed by a switch in classification in 1992.

Table 9b: Composition of Exports According to New versus Old Products

Number of Products	88	89	90	91	92	93	94	95	96	97	98	99
2533	10	13	14	18	20	22	23	24	26	27	25	27
132	10	10	11	10	10	11	11	12	12	12	12	11
52	10	11	10	11	11	8	9	7	8	8	7	8
23	10	10	11	10	8	7	7	7	7	7	7	7
11	10	10	10	11	10	11	11	11	12	12	11	10
7	10	11	11	10	11	10	9	8	9	8	8	7
5	11	9	10	11	10	10	11	12	10	10	11	8
1	3	3	3	2	2	1	1	1	1	1	1	1
1	26	23	20	17	18	20	18	18	15	15	18	21

Source: Purba Mukerji (Ongoing Doctoral Research)

Table 10: Changes in Protection and Total Factor Productivity Growth (TFPG) by Industry Classification (unweighted averages)

Industry Classification	Consumer Goods	Intermediate Goods	Capital Goods
Protection: (percent change)			
1974–78	4.5	0.4	-1.8
1979–83	-1.1	1.4	1.7
1984–88	-0.4	-5.4	-4.3
TFPG (percent)			
1974–78	-0.5	-1.2	-1.6
1979–83	-1.2	-3.1	-1.5
1984–88	5.1	4.8	3.7

Source: Chand and Sen (2002).

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