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Chapter 9

Liberalization and Export Performance

The effect of the June 1966 liberalization package on export performance should have reflected the interaction of the following factors:

1. The offsetting of the devaluation by export duties for several traditional exports implied that there was negligible "net" devaluation for these exports; hence there was no reason to expect that their export performance should improve.

2. The devaluation was neutralized largely on the "new" exports where the export subsidies were removed; while there were differential effects as between different industries within this group, the net devaluation was far less than the gross devaluation. Thus, on balance, *ceteris paribus,* only a modest (and possibly negligible) increase in exports might have been expected (on the assumption that price elasticities of demand abroad were favorable).

3. However, export performance might have improved yet further because of the boost that the June 1966 policy package would give to still newer exports, hitherto escaping the net of the earlier export promotion schemes which the devaluation was replacing, just as the "new" exports had themselves responded to the price incentives afforded by the earlier export subsidies.

4. Since, however, the devaluation implied a net increase in import parity that outweighed the net increase in the export parity when the changes in duties and subsidies were also taken into account (as shown in Chapter 6), the net effect of this difference could have been to inhibit exports by industries using imported inputs. This effect was, however, moderated by the strong probability that the parity on imports of intermediates did not rise quite as much as indicated by the *average* import parity increase discussed in Chapter 6.[1]

5. The scrapping of the export subsidies should have reduced significantly the incentive to over-invoice exports and might therefore have been expected to result in a net decline in the *recorded* export performance.[2]

6. Finally, the increased availability of imports under the import-liberalization program, given the excess capacity in several of the new import-dependent industries, implied an outward shift in the export supply schedule favorable to improved export performance in this non-primary-goods sector. On the other hand, this impact should have been slowed owing to delay in announcing the new import policy. We should also note the possible delays imposed by donor countries such as the United States because of their administrative procedures under which, for example, a contract generally could not be made for aid-financed imports except after a six-week public notice in the interest of small American sellers.[3]

Thus, the net effects of the devaluation plus the attendant changes in trade taxes and subsidies and the intended import liberalization, constituting the total liberalization package, could be expected to consist of a negligible impact on the exports of traditional primary products and, on balance, a mild, net improvement in the non-primary, new exports.

In addition to these direct effects of the policy package, we may consider one additional, indirect impact which must have influenced the outcome:

7. The suspension of the major pre-devaluation export subsidies (the import entitlements) was very soon replaced by cash subsidies and import replenishment schemes, as we have seen in Chapter 7; this should have been a major additional factor, leading to improved export performance in the non-traditional export sector. Thus, this major new factor reinforced the expectation of an improvement in the export performance of the non-traditional sectors but itself implied no change in the performance of the traditional exports.[4]

These expectations were indeed to be fulfilled in the case of non-traditional exports, especially iron and steel, engineering goods and chemicals. Thus, as compared with $53.9 million in 1964–65 and $71.6 million in 1965–66, the exports in these three groups grew to $76.8 million in 1966–67 and $128.6 million in 1967–68.

On the other hand, the traditional exports actually declined. In fact, the juxtaposition in Table 9–1 of major traditional export earnings (from jute and cotton textiles, tea, coir, tobacco, raw cotton, oilcakes and vegetable oils) against the major non-traditional export earnings (from engineering goods, iron and steel and chemicals) shows clearly that the major reverses on the former front were significantly offset by gains on the latter front in the post-devaluation period. Thus, if we take the 1965–66 and the average 1966–69 export values, the increment in the earnings from the non-traditional exports in Table 9–1 was $67.2 million. On the other hand, the decline in earnings

TABLE 9-1

Selected Indian Exports, 1964-65 to 1971-72

(U.S. $ millions)

| Year | Jute Manu-factures | Tea | Selected Traditional Goods | | | | | | | Vegetable Oils—Nonessential and Essential |
| | | | Cotton Fabrics | | | Coir Yarn and Manu-factures | Oil-cakes | Tobacco | Raw Cotton | |
			Mill-made	Hand-loom	Total					
1964-65	353.3	261.8	100.9	20.2	121.1	23.7	83.5	51.0	22.2	21.7
1965-66	383.9	241.1	99.0	17.5	116.1	22.5	72.8	44.4	20.4	13.5
1966-67	332.6	211.1	75.0	9.9	84.9	19.9	66.7	30.0	15.7	8.8
1967-68	312.1	240.2	79.4	7.7	87.1	17.1	60.7	47.5	19.7	10.3
1968-69	290.8	208.6	87.3	6.7	94.0	18.5	66.0	45.1	14.8	21.5
1969-70	275.5	166.0	83.2	9.7	92.9	17.9	55.3	44.5	19.6	12.3
1970-71	253.9	197.7	90.0	10.4	100.4	17.3	73.9	43.5	18.7	14.4
1971-72	356.1	210.0	89.7	13.4	103.1	18.0	54.1	60.4	22.3	15.0

(continued)

TABLE 9–1 (concluded)

	Selected Non-Traditional Goods			
Year	Engineering Goods	Iron and Steel	Chemicals and Allied Products	Grand Total
1964–65	30.1	9.2	14.6	1714.2
1965–66	34.9	17.5	19.2	1691.8
1966–67	30.7	31.6	14.5	1541.6
1967–68	43.5	69.2	15.9	1598.0
1968–69	89.8	99.3	23.3	1810.0
1969–70	119.3	102.9	29.6	1884.4
1970–71	173.9	89.6	39.2	2046.9
1971–72	158.9	34.2	37.1	2160.7

SOURCE: *Economic Survey,* annual issues since 1967–68, Government of India, Ministry of Finance, Department of Economic Affairs, New Delhi.

from (1) jute manufactures, tea and cotton manufactures was $120.7 million, and (2) these plus coir, oil cakes, tobacco, raw cotton and vegetable oils was $136.7 million. Thus, the increase in non-traditional export earnings was practically half of the decline in the traditional export earnings in Table 9–1.

In the following analysis, we examine the performance of several of the major traditional and the non-traditional exports since the June 1966 policy changes.

NON-TRADITIONAL EXPORTS

Three of the major groups of non-traditional exports are engineering goods, iron and steel and chemicals. Ideally, one would have analyzed the quantitative significance of export subsidies, availability of imported inputs, domestic demand and foreign demand on the exports of these groups. However, this ideal, like most ideals, is unattainable.

As we saw in Chapter 7, there were several export subsidization schemes including cash subsidy, import replenishment, freedom to import inputs from preferred sources, tax credits, easier access to investment licensing, and so on. Further, the quantitative significance of each subsidy varied from commodity to commodity and, in some cases such as the premia on import replenishments, only a broad range rather than the precise rates of subsidy could be established. Thus, while we have shown that in the later post-devaluation period the non-traditional exports got the benefit of parity change as well as

subsidies, we have not been able to quantify the net, total benefit beyond the broad range indicated in Table 7–3.

Given this situation, in our regression analysis we have contented ourselves with distinguishing the pre- and post-devaluation periods by a dummy variable, D_t, which takes the value 0 for the years prior to the devaluation and the value 1 for the years after. The coefficient of this dummy variable, if significant and positive, is construed to mean that the devaluation-cum-subsidy schemes were effective in increasing exports.[5] In our analysis, one of the explanatory variables in the regression relation for exports is the domestic output of the same group of commodities—our hope is that this variable reflects also the availability of imported inputs into production; more or less appropriate proxies have been used to reflect domestic demand.[6]

We now turn to the export performance of each of the three groups.

Engineering Goods.

We ran regressions with E_t, the exports of engineering goods in millions of U.S. dollars, as the dependent variable and tried to explain its behavior as a function of domestic production, domestic demand (for which we took as proxy the domestic gross real investment); and we also introduced the dummy variable D_t to capture the effect of the devaluation.

Our results have turned out to be somewhat sensitive to the data on gross investment that we use. Our best results turn up for the investment figures as of June 1972, which further extended only as far as 1969–70. Using these estimates for gross real investment, I_t, in units of rupees 10 million at 1960–61 prices, we had the estimated regression equation as:

$$E_t = 47.0178 + 0.3619Q_{1t} + 1.0339Q_{2t} - 0.0707I_t \qquad (9\text{--}1)$$
$$(2.79) \quad (3.48) \qquad (4.80) \qquad (-4.10)$$
$$+ 26.3309D_t$$
$$(2.62)$$

$\overline{R}^2 = 0.83$; D.W. $= 1.41$; Period 1951–52 to 1969–70

where we had two output variables since the base of the index of output changed in 1960–61, so that Q_{1t} equals the index of output of engineering goods (with base 1951–52 = 100) up to 1955–56 and zero thereafter whereas Q_{2t} is the index of output of engineering goods (with base 1960–61 = 100) with value zero up to 1955–56 in the regression. The results are just what we would expect.

The coefficients of all the explanatory variables are statistically significant and of the expected sign. In particular, the post-devaluation increase in exports of engineering goods is seen to result from both the increased incen-

tives due to parity change and reintroduction of subsidies *and* the easing of domestic demand pressure owing to the fall in real investment.

However, if we use the latest and revised data, just made available as this analysis is completed in October 1973, and also extend our observations to include 1970–71, the regression changes to:

$$E_t = 45.2699 + 0.3600Q_{1t} + 1.0094Q_{2t} - 0.0631I_t \qquad (9\text{--}2)$$
$$(1.37) \quad (2.07) \qquad (2.77) \qquad (-2.19)$$
$$+ 20.0628Dt$$
$$(0.96)$$

$$\bar{R}^2 = 0.7076; \text{ D.W.} = 0.82; \text{ Period } 1951\text{--}52 \text{ to } 1970\text{--}71$$

and the dummy, while of the right sign, is not significant.[7] This is also the case if we use gross *fixed* real investment and if we use shorter periods for our analysis:

$$E_t = 73.3257 + 0.5487Q_{1t} + 1.5318Q_{2t} - 0.1129FI_t \qquad (9\text{--}3)$$
$$(6.77) \quad (3.04) \qquad (3.61) \qquad (-3.12)$$
$$+ 5.6000D_t$$
$$(0.28)$$

$$\bar{R}^2 = 0.7536; \text{ D.W.} = 1.01; \text{ Period } 1951\text{--}52 \text{ to } 1970\text{--}71$$

$$E_t = 63.2478 + 1.1866Q_{2t} - 0.0795I_t + 14.2443D_t \qquad (9\text{--}4)$$
$$(1.35) \quad (2.55) \qquad (-2.03) \qquad (0.58)$$

$$\bar{R}^2 = 0.6683; \text{ D.W.} = 0.88; \text{ Period } 1956\text{--}57 \text{ to } 1970\text{--}71$$

where FI_t is the gross *fixed* real investment.

Thus, while there is some evidence that the devaluation may have favorably affected the performance of engineering goods exports, it is relatively weak.[8]

Iron and Steel.

Here the dependent variable, E_t, namely, exports, is measured in millions of U.S. dollars. The domestic output, Q_t, is that of finished steel in units of thousand tons. The domestic demand proxy is the same as in the case of engineering goods: FI_t, the gross fixed real investment at 1960–61 prices. The estimated equation is:

$$E_t = 19.1990 + 0.0185Q_t - 0.0201FI_t + 71.2445D_t \qquad (9\text{--}5)$$
$$(1.46) \quad (2.27) \quad (-2.02) \qquad (7.32)$$

$$\bar{R}^2 = 0.85; \text{ D.W.} = 1.65; \text{ Period } 1951\text{--}52 \text{ to } 1970\text{--}71$$

The domestic demand variable, FI_t, the dummy, and the domestic supply variable, Q_t, have significant coefficients with the expected sign.

We should note, however, that if we use the later, revised data on fixed real investment, we get the following regression:

$$E_t = 1.0810 + 0.0040Q_t - 0.0020FI_t + 70.2371D_t \qquad (9\text{--}6)$$
$$\quad (0.0643) \quad (0.296) \quad (-0.102) \quad (6.296)$$

$$\bar{R}^2 = 0.82; \text{D.W.} = 1.44; \text{Period } 1951\text{--}52 \text{ to } 1970\text{--}71$$

The only significant variable continues to be the dummy, fortunately with the right sign. Again, the results indicate that the devaluation was probably helpful to exports in this sector; but the results are sensitive to the precise estimates we choose for feeding into our programs so that the evidence, while encouraging, is not as firm as one would wish.

Chemicals.

The chemicals sector (whose export performance is not sought to be explained in terms of domestic investment) yields a regression that has variables with significant and right-signed coefficients. E_t, the exports of chemicals, are measured in millions of U.S. dollars. The output variable is an index relating to chemicals in the index of industrial production. As in the case of engineering goods, there are two such variables, Q_{1t} and Q_{2t}, reflecting the change of base in 1960. The domestic demand proxy is the index of industrial production itself, again in terms of two series, R_{1t} and R_{2t}, reflecting the change of base of the index in 1960. The estimated equation is:

$$E_t = 11.6537 - 0.1254Q_{1t} + 0.4443Q_{2t} + 0.1216R_{1t} \qquad (9\text{--}7)$$
$$\quad (1.43) \quad (-0.56) \quad (2.68) \quad (0.46)$$
$$- 0.4605R_{2t} + 3.5488D_t$$
$$(-2.41) \quad (0.81)$$

$$\bar{R}^2 = 0.53; \text{D.W.} = 1.25; \text{Period } 1951\text{--}52 \text{ to } 1969\text{--}70$$

Both the domestic supply, Q_{1t}, and the demand, R_{1t}, in the pre-1961 period have coefficients with the wrong sign, but fortunately these are not statistically significant. For the later period, all variables have significant coefficients with the expected signs, except for the devaluation dummy which has the right sign but an insignificant coefficient.

To sum up, we have some evidence that devaluation and export subsidies altered the export performance of engineering goods and of iron and steel for the better. But domestic supply and demand conditions, reflecting mainly the fact of the recession, were also of some importance here and for chemicals.

TRADITIONAL EXPORTS

India's major traditional exports are jute textiles, tea and cotton textiles. Together they accounted for nearly 44 percent of total export earnings in 1965–66 and only 27 percent in 1970–71, registering both an absolute and a relative decline.

As we showed in Chapter 6, export duties were imposed after devaluation on a number of traditional exports, including jute textiles and tea, thereby reducing net devaluation considerably. Net devaluation on jute varied from −77.3 percent in the case of jute waste to 13.3 percent on carpet backing. Net devaluation on tea was only 17.8 percent and on cotton textiles a negligible 0.5 percent. These export duties were to be reduced substantially in later budgets following devaluation (Table 9–2), but these reductions came too late to have any perceptible influence on the export performance of traditional exports during the period studied. Let us now turn to the export performance of each of these groups.

Jute Textiles.

The regression relation that satisfactorily explained the performance of jute exports was the following:

$$E_t = 191.73 + 0.7395Q_t - 0.8028R_{1t} - 1.7764R_{2t} \qquad (9\text{--}8)$$
$$(1.74) \quad\ (8.10) \qquad (-1.59) \qquad\ (-3.81)$$

$$\bar{R}^2 = 0.80; \text{D.W.} = 2.55; \text{Period 1951–52 to 1969–70}$$

where E_t is exports (thousand tons), Q_t is domestic output of jute textiles (thousand tons), R_{1t} is the index of industrial production with base 1951 up to 1959 and zero thereafter; R_{2t}, zero up to 1960 and after 1960, is the index of industrial production with base 1960. (Time trend as a proxy for external market conditions, and a devaluation dummy to reflect progressive withdrawal of export duties, were added but their coefficients were not statistically significant. These variables were therefore omitted.) In the above relationship, the coefficients of the domestic supply variable, Q_t, and the domestic demand proxies, R_{1t} and R_{2t}, have the expected sign though only two of them are statistically significant. This implies also that, *ceteris paribus,* had the droughts of 1965–66 and 1966–67 not reduced the output of raw jute and hence that of jute textiles, exports would have been higher in those years.[9]

Tea.

The marketing of this commodity is done by international companies which act very often as exporters from India as well as importers into the

United Kingdom. Also, the very same company has a share in the production of tea in a number of producing countries. Further, exports to Eastern Europe under rupee trade have been of increasing importance in recent years. All these factors make it difficult to build a simple and meaningful model of the tea economy.

A number of models were estimated including some simultaneous equation models where the domestic and export markets were treated as parts of the same system. The results were not very encouraging. It appears that the proportion of output exported is influenced more by domestic demand pull than by relative realization from sales in export markets compared with domestic sales. This is seen from the following regression relating Log E_t (logarithm of export share in output) to Log Y_t (logarithm of real income Y_t) and Log P_t (logarithm of the ratio of price per unit realized at auctions for domestic consumption and that realized at auctions for exports):

$$\text{Log } E_t = 2.9541 - 0.5462 \text{ Log } Y_t + 0.0177 \text{ Log } P_t \qquad (9\text{--}9)$$
$$(10.05) \quad (-3.36) \qquad\qquad (0.06)$$

$$\bar{R}^2 = 0.54; \text{D.W.} = 2.27; \text{Period 1952--53 to 1969--70}$$

The income variable has a significant negative coefficient and the price variable has a coefficient with the right signs but it is not statistically significant.

Two further regression equations were estimated, both relating to the U.K. market. In the first, the ratio n_t of North Indian (and generally superior) tea exports to the United Kindom to the sum of North Indian and Ceylonese tea was related to the corresponding price ratio p_{nt} in London auctions and time, t. The estimated equation was:

$$n_t = 0.7522 - 0.0550 p_{nt} - 0.0074t \qquad (9\text{--}10)$$
$$(8.61) \quad (-0.60) \quad (-2.85)$$

$$\bar{R}^2 = 0.34; \text{D.W.} = 1.59; \text{Period 1951--69}$$

The fit is rather poor and the price variable has an insignificant coefficient with the right sign, but the time variable has a significant negative coefficient indicating a secular decline in the share of North Indian tea in the U.K. market. The second equation related the share, s_t, of South Indian (and generally inferior) tea exports to the U.K. in the sum of South Indian and African tea exports to the U.K. to the corresponding price ratio p_{st} and time. The estimated equation was:

$$s_t = 0.7411 - 0.0504 p_{st} - 0.0249t \qquad (9\text{--}11)$$
$$(2.72) \quad (-0.24) \quad (-4.86)$$

$$\bar{R}^2 = 0.67; \text{D.W.} = 1.51; \text{Period 1951--69}$$

The fit is much better than in the case of North Indian tea, but the price ratio variable has again an insignificant coefficient with the right sign. The

TABLE 9–2
Export Duties: Changes since June 1966

	As of June 6, 1966	As of Nov. 1, 1968	As of April 1, 1969	As of March 1, 1970
Jute Manufactures				
(a) Hessians other than carpet backing and jute specialties (per metric ton)	Rs. 900	Rs. 500	Rs. 200	Rs. 200
(b) Carpet backing (per metric ton)	900	600	600	300
(c) Jute canvas, jute webbings, jute tarpaulin cloth and manufactures thereof (per metric ton)	900	500	500	200
(d) Jute specialties	900	nil	nil	nil
(e) Sacking (cloth, bags, twist yarn, rope and twine) (per metric ton)	600	250	150	150
(f) Cotton bagging (per metric ton)	600	200	nil	nil
(g) All other descriptions of jute manufactures falling under sub-item (iii) to item 2 to the Second Schedule to the Indian Tariff Act, 1934 (per metric ton)	600	250	150	150
Tea				
(a) Tea other than package tea covered by (b) and (c) below	Rs. 2 per kg.	20% reduced by 35 paise per kg. or Rs. 2.65 per kg., whichever is less	15% reduced by 55 paise per kg., or Rs. 1.70 per kg., whichever is less	nil
(b) Tea in consumer pack, packed in metal container, the aggregate weight not exceeding 1 kilo	Rs. 2 per kg.	10% or Rs. 2.76 per kilo, whichever is less	nil	nil

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(c) Tea in consumer pack, packed in container other than of metal, the aggregate weight not exceeding 1 kilo	Rs. 2 per kg.	15% or Rs. 2.76 per kg, whichever is less	5% or Rs. 1.70 per kg, which-ever is less	nil
Coffee	50 paise per kg.	50 paise[a] per kg.	50 paise per kg.	50 paise per kg.
Black pepper				
(a) Light black pepper	Rs. 1.25 per kg.	90 paise per kg.	nil	nil
(b) Pinhead black pepper	Rs. 1.25 per kg.	50 paise per kg.	nil	nil
(c) Others	Rs. 1.25 per kg.	Rs. 1.25 per kg.	Rs. 1.25 per kg.	Rs. 1.25 per kg.
Tobacco (unmanufactured)	75 paise per kg. / 20% per kg.[b]	20% per kg.	20% per kg.	20% per kg.
Raw wool	Rs. 1 per kg.	10%	nil	nil
Raw cotton				
(a) Bengal Deshi (per metric ton)	Rs. 1,000	Rs. 700	Rs. 700	Rs. 700
(b) Linters	Rs. 1,000	25%	25%	25%
(c) Assam Comilla/yellow pickings/ zoda cotton pickings and sweepings (per metric ton)	Rs. 1,000 / Rs. 750[b]	Rs. 550	Rs. 550	Rs. 550
Cotton waste				
(a) Cotton waste other than soft cotton waste	30 paise per kg. / 40%[b]	40%	40%	40%
(b) Soft cotton waste	30 paise per kg. / 40%[b]	25%	25%	25%
Mica (except micanite)	50 paise per kg. / 40%[b]	40%	40%	40%
Mica, loose splittings	50 paise per kg.	20%	20%	20%

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(continued)

TABLE 9-2 (concluded)

	As of June 6, 1966	As of Nov. 1, 1968	As of April 1, 1969	As of March 1, 1970
Processed mica	50 paise per kg.	20%	20%	20%
Hides, skins and leather, tanned and untanned, all sorts, but not including snake skins and manufactures of leather	10%	10%	10%	10%
Snake skins	10%	25%	25%	25%
Coirs and coir manufactures				
(a) Coir yarn	10%	15%	15%	15%[c]
(b) Coir manufactures	10%	nil	nil	nil
Groundnut oil cake and groundnut meal (both deoiled) (per metric ton)	Rs. 125	Rs. 125	Rs. 125	Rs. 125
Manganese ore				
(a) More than 48% of manganese (per metric ton)	Rs. 20[d]	Rs. 20	Rs. 20	Rs. 20
(b) 10% or more and up to 48% of manganese (per metric ton)	Rs. 20[d]	Rs. 12.50	Rs. 12.50	Rs. 12.50
(c) Less than 10% of manganese (per metric ton)	Rs. 10[d]	Rs. 7	Rs. 7	Rs. 7
Manganese dioxide	20%[d]	20%	20%	20%
Lumpy iron ore				
(a) 63% iron content and above (per metric ton)	Rs. 10[d]	Rs. 10.50	Rs. 10.50	Rs. 10.50
(b) 60–63% iron content (per metric ton)	Rs. 10[d]	Rs. 6	Rs. 6	Rs. 6
(c) 58–60% iron content (per metric ton)	Rs. 10[d]	Rs. 5	Rs. 5	Rs. 5
(d) Less than 58% iron content (per metric ton)	Rs. 10[d]	Rs. 4	Rs. 4	Rs. 4
Iron ore (fines)				
(a) More than 62% iron content (per metric ton)	Rs. 5[d]	Rs. 4	Rs. 4	Rs. 4
(b) Other (per metric ton)	Rs. 5[d]	Rs. 3	Rs. 3	Rs. 3
Sillimanite	20%[d]	20%	20%	20%
Steatite (talc)	20%[d]	20%	20%	20%
Kyanite (per metric ton)	Rs. 40[d]	Rs. 40	Rs. 40	Rs. 40
Chrome concentrates (per metric ton)	Rs. 15[d]	Rs. 15	Rs. 15	Rs. 15

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NOTE: Some of the duties were quite frequently readjusted between June 1966 and the present. The rates prevailing in November 1968 are given here because the government has calculated the rough *ad valorem* incidence of the schedule effective on that date. These are as follows:

Hessians other than carpet backing and jute specialties (per metric ton)	22.2%
Carpet backing (per metric ton)	15.5%
Sacking (cloth, bags, twist yarn, rope and twine) (per metric ton)	14.2%
Cotton bagging (per metric ton)	16.0%
Tea, other than package tea	15.8%
Coffee	7.9%
Black pepper: Light black pepper/Pinhead black pepper/Others	31.9%
Raw cotton: Bengal Deshi (per metric ton)	22.2%
Assam Comilla/yellow pickings/zoda cotton pickings and sweepings	11.9%
Manganese ore: More than 48% of manganese	11.0%
27% or more and up to 48% of manganese	8–20%
Lumpy iron ore: 63–65% iron content	14.6%
66–67% iron content	13.7%

a. 100 paise = 1 rupee
b. Subsequently revised rate effective retroactively from June 6, 1966.
c. Abolished since July 30, 1970.
d. Effective from August 2, 1966.

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time variable has again a significant negative coefficient indicating a secular decline in India's share in the market for inferior tea as well.

It would appear, therefore, that the Indian share in the world tea market has been declining secularly over time; and this may well be due to the British policy of pulling out from India to other producing centers (such as East Africa) which the oligopolistic tea firms have been widely considered to be doing. The price effect *is* of the right sign, but not significant: it appears unlikely, therefore, that the neutralization of the devaluation by means of increased export duty could have had an adverse effect. The effect of the drought on tea output does not appear to have been serious either; on the other hand, if equation (9–5) is taken seriously, there might have been a mildly improving effect on the share of production exported owing to reduced incomes which should have neutralized the adverse effect, if any, of the reduced output on export performance. On balance, therefore, the reduction in tea exports through the post-devaluation period seems to have been a product of trend factors that were not seriously connected with the June 1966 policies.

Cotton Textiles.

India's exports of cotton textiles have been declining through most of 1960–70. Indeed, as Table 9–1 shows, the decline in cotton fabrics exports was particularly steep during the years after the devaluation and the average 1970–72 level of exports had not recovered to the average 1964–66 level, being below it by nearly 20 percent. But this decline merely continued a trend in the decline of mill-made cloth which had been evident at least since 1960–61.

While we have not been able to fit any regressions successfully to explain this decline, it is widely considered to be a result of increasing uncompetitiveness of Indian textiles in world markets, resulting even in the lack of fulfillment of the assigned quotas by India in the export markets as evidenced by the statistics on quota utilization in the United Kingdom market since 1965 and in the United States market since 1969 in particular (Table 9–3). Qualitative analysis seems to support this conclusion.

Thus, in a detailed analysis of the Indian cotton textiles exports, where he has examined the growth of world exports, regional exports, Indian labor, capital and raw material costs, and domestic demand pressure as well as the exchange rate policy, Nayyar concludes that the slow growth in world demand for textiles during the 1960s is probably not a factor in the stagnation (and even decline) in Indian cotton textile export earnings.[10] In fact, several rivals such as Taiwan, Pakistan and Hong Kong managed to increase their exports and shares quite dramatically during this period. The domestic rises

TABLE 9–3

Indian Utilization of United Kingdom and United States
Textile Quotas, 1963 to 1973

Licensing Period (1)	Quota Level (2)	Quota Utilization (3)	Shortfall (−) Excess (+) (4)	Percent Utilization (5)
UK: Cloth (million square yds.)				
12/1/62 to 11/30/63	195.00	212.17	+17.17	108.81
12/1/63 to 11/30/64	199.15	242.64	+43.49	121.84
12/1/64 to 11/30/65	206.08	172.05	−34.03	83.49
12/1/65 to 11/30/66	195.00	172.05	−34.03	88.23
12/1/66 to 11/30/67	196.95	182.18	−14.77	92.50
12/1/67 to 11/30/68	198.19	204.12	+4.93	102.99
12/1/68 to 11/30/69	195.71	101.92[a]	n.a.	n.a.
12/1/69 to 11/30/70	202.92	81.95	−120.97	40.39
12/1/70 to 12/31/71	222.03	145.62	−76.41	65.59
1/1/71 to 12/21/72	207.00	139.99	−67.31	67.63
UK: Yarn (million lbs.)				
12/1/62 to 11/30/63	11.5	9.04	−2.46	78.61
12/1/63 to 11/30/64	13.96[b]	13.00	−0.96	93.12
12/1/64 to 11/30/65	11.5	7.28	−4.22	63.30
12/1/65 to 11/30/66	11.5	7.91	−3.59	68.78
12/1/66 to 11/30/67	11.62	9.21	−2.41	79.26
12/1/67 to 11/30/68	11.73	8.92	−2.81	76.04
12/1/68 to 11/30/69	11.85	11.13[a]	n.a.	n.a.
12/1/69 to 11/30/70	11.97	10.27	−1.70	85.7
12/1/70 to 12/31/71	13.09	7.40	−5.69	56.5
1/1/71 to 12/31/72	12.21	8.80	−3.41	72.1
US: Cloth (million square yds.)				
1/17/63 to 4/16/64	37.50	38.94	+1.44	103.84
4/1/64 to 3/31/65	37.69	38.20	+0.51	101.35
4/1/65 to 3/31/66	38.87	41.18	+2.31	105.94
4/1/66 to 9/30/66	19.91	27.11	+7.20	136.16
10/1/66 to 9/30/67	79.00	69.70	−9.30	88.23
10/1/67 to 9/30/68	88.20	65.06	−23.14	73.76
10/1/68 to 9/30/69	92.61	97.49	+4.88	105.27
10/1/69 to 9/30/70	97.25	86.04	−11.21	88.47
10/1/70 to 9/30/71	110.00	88.39	−21.61	80.35
10/1/71 to 9/30/72	115.50	119.58	+4.08	103.53
10/1/72 to 9/30/73	121.28	73.72	−47.56	60.78

SOURCE: Compiled by K. M. Raipuria, Perspective Planning Division, Planning Commission, New Delhi, 1972.

a. The data cover 12/1/68 to 8/31/69.

b. Including the previous year's shortfall of 2.46 million lbs. allowed to be carried forward.

in costs plus lack of modernization plus domestic absorption seem to have been the major factors, according to Nayyar's analysis (though his conclusions are not supported by econometric analysis, in this instance). In particular, he notes that the 1966 devaluation almost certainly left the cotton textile industry with its *net* EER (effective exchange rate) more or less where it was prior to the devaluation (because of offsetting declines in export subsidization) and the domestic inflation is certain to have meant thereafter a decline in the PLDEER and also PPPEER to this industry. Thus the continuing decline in the export performance of the cotton textile exports is likely to have been a result, not of the devaluation as such, but rather of the further decline in export profitability as the PLDEER moved down in this sector.

The statistical evidence would thus seem to indicate that the drought did indeed cut significantly into jute textile exports and that the decline in tea earnings was largely the reflection of a secular adverse trend explained by growing domestic demand resulting from income expansion. The continuing sorry performance of cotton textiles exports since 1966 is probably also to be explained in terms of the relative unprofitability of export sales at the export price realization that existed *prior to* June 1966 and was accentuated by subsequent increases in the domestic price level. It is thus extremely probable that the June 1966 policy package, which left the EER on these traditional exports largely untouched, did little to affect their export performance in the post-1966 years, and that this export performance is largely to be accounted for in terms of the trend income and production factors (for jute and tea) and competitive factors (in the case of cotton textiles). On the other hand, one *can* make the rather different criticism of the policy package: that it should have permitted rather greater net increment in the EERs on these exports by leaving more subsidy element intact for cotton textiles and by not fully offsetting the devaluation of 1966 on tea and jute by countervailing export duties. Of course, we have seen that the export duties were later reduced (though perhaps this should have been done more quickly); and it is arguable that this was a policy more likely to meet with acceptance from rival suppliers in these oligopolistic markets than an outright increase in competitiveness resulting from what looked like a large devaluation. In any case, recall that we have not been able to detect any significant direct response of exports to price competitiveness in our regression analysis for tea and jute textiles; and the only possible response perhaps would have been through the longer-run effect on improving production if overall profitability of production increased through higher EERs. In the case of cotton textiles, the argument seems to be more directly in support of the contentions that the policy package should have left more improvement in the EER for textiles exports. We base this assertion on Nayyar's qualitative analysis, on the undoubted success that a number of other countries have had in improving their export sales through

competitive pricing of their textiles, and on the fact that India is in much less of an oligopolistic position in this world market than is the case in tea and jute textiles.

CONCLUSIONS

It would thus appear that the effect of the "liberalization package" on export performance was a complex one. And this affected the assessments of the success of the devaluation as well.

To the superficial critic, the policy changes initiated in June 1966 were a failure. The most naive critics looked at the few months *immediately* following the devaluation, and this inattention to time-lags, combined with the industrial, aid and trade policy chaos in the six months prior to the devaluation, meant that devaluation was blamed for the stagnation of exports. The less naive critics looked at the lagged picture but saw only that the *overall* exports were relatively stagnant in the eighteen months subsequent to the devaluation and hastened to condemn the policy changes without adjusting for the exogenous impact of the agricultural drought on traditional-export performance as well as for exogenous secular trends.

When we take a more careful view of the impact of the June 1966 policy package on export performance, it looks significantly better. Allowing for the effects of the revived export subsidies, the performance is even more attractive. Clearly, the fear that export supplies would be inelastic was vastly exaggerated. The presence of excess capacity, admittedly aided by the jolt from the domestic recession, led to increased export sales as the relative profitability of the foreign market improved.

The Indian devaluation experience, therefore, underlines the fact that the view generally held by large LDCs that the price inelasticity of export supply and/or demand will make devaluations a necessarily harmful policy is not empirically sustainable. It also underlines the view that LDCs which rely on agricultural and agricultural-based exports should try to avoid devaluations *prior to a harvest:* naive criticism (and, as with Gresham's Law, invalid criticisms seem to drive out considered analysis in public debate) proceeds on the basis of *post hoc ergo propter hoc* and devaluation-cum-liberalization tends to be blamed for bad export performance whereas a smart policy-maker could use the improvement in export performance thanks to a good harvest to advantage by crediting the devaluation with this success!

Other lessons of significance relate to the fact that the distinctions between gross and net devaluation and between "rationalization" and change in the weighted average parity for export and/or import transactions are little understood. The fact that the improvement in non-traditional export perfor-

mance should *not* be expected to have been *dramatic* because the net change in their parity was significantly below that implied by the devaluation itself was often lost sight of in the assessments of the failure of the change in policy in June 1966.

Furthermore, it must be remembered that the devaluation, insofar as it replaced the earlier, *ad hoc* and selective subsidies on exports, was aimed at rationalizing the indiscriminate and uneconomic way of subsidizing exports. Hence, it was to be expected that some of the *uneconomic* exports would *decline*. However, such declines were treated as evidence of "failure" rather than of success of the policy package, thus underlining the difficulty attendant on making a transition from policies of *de facto* to *de jure* devaluation.

Appendix:

Excess Capacity
and Export Performance

We have shown in the text that the recession (through its impact on demand), as well as the improved export incentives, had a favorable impact on export performance of the non-traditionals. It is also possible, in principle, to argue that this impact should have been stronger for firms with excess capacity, for the simple reason that the marginal cost of exportation for them would be the variable cost of production and not the (higher) opportunity cost of domestic sale—particularly, given the increased availability of raw material imports.

Unfortunately, the DGTD data on excess capacity, as we have seen earlier, are unreliable and hence unsuited to a direct test of this proposition. However, Frankena has shown persuasively, for the engineering industry, that excess capacity did help in improved export performance.[11]

His procedure was to use "information from interviews, company and trade association reports, and industry studies" to classify his twenty-six engineering industries into three groups: "Group I, those with substantial excess capacity due to inadequate domestic demand (industries 1 through 15); Group II, those without excess capacity (industries 16 through 20, and 26); and Group III, those for which capacity utilization could not be determined or for which it varied significantly between products in the industry (industries 21 through 25).[12]

Frankena's analysis, based on Groups I and II, is of interest because the export share of these industries was as high as 82 percent of the total engineering, iron and steel and tire exports in 1968–69.

Table 9A–1 contains Frankena's principal results on these two groups. It

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TABLE 9A–1

**Exports by Industries with and without Excess Capacity due to
Insufficient Domestic Demand after 1966: 1964–65 to 1969–70**

Industries	1964–65	1965–66	1966–67	1967–68	1968–69	1969–70
Group I: Excess capacity						
Industries (1)—(15)						
Value (U.S. $ millions)	12.98	23.40	42.46	96.11	157.74	181.83
Percent of total[a]	29	41	59	74	75	73
Industries (2)—(15)[b]						
Value (U.S. $ millions)	7.06	11.77	16.45	24.80	65.34	80.88
Percent of total	16	21	23	19	31	32
Group II: No excess capacity						
Industries (16)—(20),						
Industries (26)						
Value (U.S. $ millions)	8.21	10.99	9.75	10.69	14.46	17.50
Percent of total	18	20	14	8	7	7

SOURCE: Frankena, *"Export,"* p. 135.

a. Total exports of iron and steel, engineering goods and tires.

b. Industry (1) is iron and steel.

is interesting to note that Group I has an export performance since 1966–67 which clearly dominates that of Group II, indicating that excess capacity was linked strongly to export performance, as one would expect. Frankena has concluded: "In interviews and in their annual reports the firms involved confirmed that excess capacity played an important role in the decision to export and in determining export prices . . . even after allowing for export promotion schemes a significant share of exports of engineering goods appears to have taken place at realizations which did not cover long-run average costs (and probably did not cover long-run marginal costs) or match realizations in the domestic market, particularly (i) before preferential maintenance import licensing for exporters began in 1968–69, (ii) in the case of firms which did not export enough to qualify for these preferences, and (iii) on the margin for firms which exported beyond the level necessary to qualify for these preferences. It can be concluded that excess capacity was critical for export by a number of industries in cases (i)–(iii), given the implicit exchange rate on export."[13]

While, as Frankena himself has noted, the non-exporting industries were excluded so that some major industries such as metallurgical, mining equipment and heavy electricals with severe excess capacity and which did not export at all were counted out, the evidence presented above on Groups I

and II *is* extremely suggestive and consistent with the view that excess-capacity industries generally were the better exporters during this period.

NOTES

1. We use the words "strong probability," rather than "fact," because our information is based on the judgments of officials and traders rather than on a scientific sample survey.

2. This is an *a priori* statement, partially corroborated by interviews with art silk producers. We have not been able to use meaningfully any of the statistical techniques available for detecting faked invoicing: those techniques are generally "weak" and are not up to the task of detecting first differences in such faking. For a discussion of these techniques, see Bhagwati, ed., *Illegal Transactions.*

3. As noted in the preceding chapter, the recession took hold by the time these delays had worked out, reducing the demand for imports.

4. In addition, the recession was to ease the domestic demand situation sufficiently in the new industries to improve their export performance still further. This improvement, like the recession, was exogenous of the June 1966 policies, however. An additional exogenous factor which affected the non-traditional exports as well was the closure of the Suez Canal after the Six Day War.

5. The PLDEER for exports declined in the post-1966 period relative to EER for exports, owing to (exogenously caused) inflation, as per our estimates in Chapter 2. Hence we do not expect the coefficient of this dummy variable to be as large as would be the case if this inflation were explicitly taken into account.

6. Foreign demand was introduced through a time-trend variable, but in all cases this variable did not have a statistically significant coefficient and has been omitted.

7. Given the relative weakness of the investment data in India, we feel that it is useful to report on regressions using alternative investment estimates.

8. In this connection, recall that the PLDEER for exports after the devaluation was less favorable than the EER for exports. The net improvement in the real incentive for exports of engineering goods after devaluation is thus likely to have been significantly reduced owing to domestic inflation.

9. Although we could not incorporate successfully any price terms into our regressions, it is probably worth noting that the invention of propylene to substitute for jute in carpet backing is an important new development that should make India's (and Pakistan's) export performance in jute rather more dependent on maintenance of competitive prices. This may, in fact, have been an important argument for quickly dismantling the export duties levied with the devaluation.

10. Deepak Nayyar, "An Analysis of the Stagnation in India's Cotton Textile Exports During the Sixties," *Bulletin of the Oxford University Institute of Economics and Statistics* (February 1973).

11. Frankena, "Export," pp. 131–138.

12. *Ibid.,* p. 132.

13. *Ibid.,* p. 136–137.