ON THE DETERMINANTS OF CURRENT ACCOUNT DEFICITS

A Comparative Analysis of India, China and South Korea

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This paper is a comparative study of India, China and South Korea, aimed at highlighting the factors lying behind the differential development of their current account deficits - over the last two decades. Presumably, one doesn't have to go to great pains to justify an interest in the developments in the external sectors of these countries. In recent times, there has been considerable discussion about India's debt burden; and, of course, the possibility of following an export-driven growth trajectory on the lines of what Korea has achieved, has always been a contested issue.

Now, in order to make some kind of tentative judgement about whether Korea's growth pattern lends itself to duplication, it would be necessary to specifically point out, and to quantify to the extent possible, the different factors that have shaped Korea's performance during different periods of time - and to see if the same factors can be operative for India in the immediate present. So what characterizes the present paper is that we try to break down the aggregate current account performance into as many factors as possible, such as diversification of exports, import substitution, various external influences etc, and do so quantitatively so that the relative strengths of these factors can be judged [1]

We have chosen to look at the current account, rather than exports as such, since in the analysis of foreign exchange constraints, the debt burden etc. it is the current account that figures importantly. Indeed, poor trade performance may be some times offset by transfers, such as transfers to India by Indian nationals working in the middle eastern countries. Hence we focus on the current account which is in itself interesting, and also encompasses both export and import performance.

We have included China also in the sample. Actually, a comparison between China and India is more appropriate, given the vast differences between India and South

Korea in size, political systems, the share of the tradeable sector in the aggregate economy etc. Still, South Korea seems indispensable for the sample as her success story is something to be compared against, at least to examine whether the specific factors that functioned for that country's growth are present elsewhere now.

We use a decomposition model to break up the development of the current account deficit into its different components. We have chosen to work with three time periods; 1974-1980, when Korea took off on her growth path; 1981-84, which is the period of hesitant liberalization in India and China, and the post 1984 period, which represents the period of active trade liberalization experiments in both India and China.

In the next section we develop the decomposition model, while the section 3 presents the empirical result and finally the concluding observations are presented.

The Model

The current account deficit of the balance of payments account is expressed as:

$$(1) \quad CD = P_m * m - P_x * x + D * r - T$$

where CD, M and X are the current account deficit, value of imports and exports, respectively, in domestic currency. (the subscript t representing time period is omitted for convenience) P_m and P_x represent import and export unit value indices, and "r" is the average interest rate on debt. D is the stock of external debt (obtained as the stock in dollar terms times the exchange rate 'e') and T is net transfers, inclusive of investment income, in domestic currency. Table 1 provides a complete list and explanation of all the symbols used in the paper. All the variables listed in the table are in domestic currency units unless otherwise stated, and the qualification 'constant prices ' refers to 1980 prices.

It will be useful to express the current account deficit as a percentage of GDP, since comparisons between entities of varying sizes and currency units are being undertaken.

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Rewriting (1),

$$(2) \quad \frac{CD}{Y} = P_{my} * \frac{m}{y} - P_{xy} * \frac{X}{y} + \frac{D}{Y} * r - \frac{T}{Y}$$

where, $P_{my} = P_m/P_y$ and $P_{xy} = P_x/P_y$, P_y being the GDP deflator.
Y represents nominal GDP while y is GDP in real terms.

Equation (2) provides some useful information about the current account deficit at any point in time; for instance, about the relative roles of the trade deficit and debt service payments in bringing about a certain level of the current account deficit. However, to reveal the underlying forces driving the development of the deficit over time, we have to work with changes rather than levels.

Differentiating (2)

$$(3) \quad d(\frac{CD}{Y}) = \left[\frac{m}{y} d(P_{my}) - \frac{X}{y} d(P_{xy}) \right] + P_{my} d(\frac{m}{y})$$
$$- P_{xy} d(\frac{X}{v}) + (\frac{D}{v}) \cdot dr + r d(\frac{D}{v}) - d(\frac{T}{v}).$$

In (3), the first term (within square brackets) represents terms of trade effect. The fourth and fifth terms represent the effects of a change in the interest rate on external debt and of a change in the debt stock respectively, while the last term accounts for changes in net transfers from abroad. The terms representing changes in real exports and imports can be further usefully disaggregated. For the purpose of clarity of exposition it will be convenient to work initially in 'difference' terms, though it is not necessary for the derivation of the disaggregated expressions. The change in the export ratio between two periods t(= 1) and t+1 (=2) can be written as

$$(4) \quad \frac{X_2}{y_2} - \frac{X_1}{y_1} = (\frac{\dot{X}_{j2}}{y_2} - \frac{X_{j1}}{y_1}) + (\frac{X_{j2}}{y_2} - \frac{\dot{X}_{j2}}{y_2})$$
$$+ \left[(\frac{X_2}{y_2} - \frac{X_{j2}}{y_2}) - (\frac{X_1}{y_1} - \frac{X_{j1}}{y_1}) \right]$$

where X_{j2} is actual exports of traditional exports (j) in period 2. $X_{j2}^{\bullet}$ is the export volume

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Table 1

List of Variables used in the Model

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CD - Current Account deficit in current prices
Y   - GDP, Current prices
m   - Total imports, constant (1980) prices
x   - Total exports, constant prices
y   - GDP, Constant prices
P_m - Import unit value index
P_x - Export unit value index
P_y - GDP Deflator
P_{my} - P_m/P_y
P_{xy} - P_x/P_y
D   - Total stock of external debt, current prices
r   - Average interest rate on 'D'
T   - Net Transfers from abroad (including investment income)
       current prices
X_j - Exports of traditional export commodities 'j', constant
       prices
WD - World demand for (total world exports of) 'j', constant
       prices
X_n - Exports of non-traditional export commodities, 'n', constant
       prices
m_k - Imports of manufactured goods 'k', constant prices'
Y_n - GDP originating in non-agricultural sectors, constant prices
m_p - Imports of primary commodities, 'p' constant prices
m_f - Imports of fuel, 'f', constant prices.

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Notes: All the variables are in domestic currency units unless otherwise stated. The first subscript refers to a commodity, and the second to a period i.e., X_{n2} represents exports of commodity 'n' in period 2.

for traditional commodities that would have been attained in period 2, if the country's share in the total world import demand for these goods had remained unchanged between the two periods. i.e.,

$$(4a) \quad x_{j2}^{\bullet} = (\frac{x_{j1}}{WD_1}) WD_2$$

WD_2 is the world demand for the commodity j in period 2.[2]

Using (4a), (4) can be rewritten as

$$(5) \quad \frac{x_2}{y_2} - \frac{x_1}{y_1} = \frac{x_{j1}}{WD_1} \left(\frac{WD_2}{y_2} - \frac{WD_1}{y_1} \right) + \frac{WD_2}{y_2} \left(\frac{x_{j2}}{WD_2} - \frac{x_{j1}}{WD_1} \right) + \left(\frac{x_{n2}}{y_2} - \frac{x_{n1}}{y_1} \right)$$

where,

$Xn_2 = X_2 - X_{j2}$ is the export of non-traditional commodities in period 2. **Taking limits as t -> 0 and writing in differential form**[3],

$$(6) \quad d\left(\frac{x}{y} \right) = \frac{x_j}{WD} d\left(\frac{WD}{y} \right) + \frac{WD}{y} d\left(\frac{x_j}{WD} \right) + d\left(\frac{x_n}{y} \right)$$

In (6), the growth in real exports is decomposed into
(i) that due to the growth in world demand,
(ii) that due to policy success in gaining market share in the **exports of traditional** commodities,
(iii) and that due to diversification, i.e., promoting exports of non-traditional commodities.

Similarly, the change in total real imports between the periods 1 and 2 can be written as,

$$(7) \quad \frac{m_2}{y_2} - \frac{m_1}{y_1} = \left(\frac{\overset{\bullet}{m_{k2}}}{y_2} - \frac{m_{k1}}{y_1} \right) + \left(\frac{m_{k2}}{y_2} - \frac{\overset{\bullet}{m_{k2}}}{y_2} \right) + \left[\left(\frac{m_2}{y_2} - \frac{m_{k2}}{y_2} - \frac{m_{f2}}{y_2} \right) - \left(\frac{m_1}{y_1} - \frac{m_{k1}}{y_1} - \frac{m_{f1}}{y_1} \right) \right] + \left(\frac{m_{f2}}{y_2} - \frac{m_{f1}}{y_1} \right)$$

Where M_{k2} and M_{f2} are imports of manufactured goods (k) and fuel (f) respectively in period 2. M_2 is total imports, and hence $(M_2 - M_{k2} - M_{f2})$ represents imports of primary products (other than fuel) in period 2. $M_{k2}^{\bullet}$ has been defined as

$$(7a) \quad m_{k2}^{\bullet} = \left(\frac{m_{k1}}{y_{n1}} \right) y_{n2}$$

where y_{n2} is GDP originating in the non-agricultural sectors of the economy. (7a) states

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that M_{k2}^{*} is the level of imports of manufactures that would have been observed in period 2, had the import-intensity of manufactures per unit of non-agricultural GDP had been maintained at the same level as in period 1.

(7) can now be rewritten, using (7a), as

$$(8) \quad \frac{m_2}{y_2} - \frac{m_1}{y_1} = (\frac{m_{k1}}{y_{n1}})(\frac{y_{n2}}{y_2} - \frac{y_{n1}}{y_1}) + (\frac{y_{n2}}{y_2})(\frac{m_{k2}}{y_{n2}} - \frac{m_{k1}}{y_{n1}})$$
$$+ (\frac{m_{p2}}{y_2} - \frac{m_{p1}}{y_1}) + (\frac{m_{f2}}{y_2} - \frac{m_{f1}}{y_1})$$

where M_{p2} is the import of primary products in period 2.

Taking limits as t-> 0 (period 2 = 1+t) and writing in differential form,

$$(9) \quad d(\frac{m}{y}) = \frac{m_k}{y_n}d(\frac{y_n}{y}) + \frac{y_n}{y}d(\frac{m_k}{y_n}) + d(\frac{m_p}{y}) + d(\frac{m_f}{y})$$

So the growth in real imports is disaggregated into that in manufactured goods, primary goods and fuel. In the case of manufactured goods, the manufacturing and the tertiary sectors being - almost exclusively - the importing sectors, the growth of imports is split into a scale effect arising from the expansion of these non-agricultural sectors, and an import-substitution effect that reduces the import - intensity (imports per unit output) in these sectors.

The final decomposed form for the change in the current account deficit is obtained by substituting (6) and (9) into (3):

$$(10) \quad d(\frac{CD}{Y}) = \left[\frac{m}{y}d(p_{my}) - \frac{x}{y}d(p_{xy})\right] + \left[P_{my}\frac{m_k}{y_n}d(\frac{y_n}{y})\right]$$
$$+ \left[P_{my}\frac{y_n}{Y}d(\frac{m_k}{y_n})\right] + \left[P_{my}d(\frac{m_p}{y})\right] + \left[P_{my}d(\frac{m_f}{y})\right]$$
$$- \left[P_{xy}\frac{x_j}{WD}d(\frac{WD}{y})\right] - \left[P_{xy}\frac{WD}{y}d(\frac{x_j}{WD})\right]$$
$$- \left[P_{xy}d(\frac{x_n}{y})\right] + \left[\frac{D}{Y}dr\right] + \left[rd(\frac{D}{Y})\right] - \left[d(\frac{T}{Y})\right]$$

It should be of interest to separate out the external influences from domestic policy effects in (10). The external influences entering in (10) are:

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(i) a terms of trade effect (the first term)

(ii) a world demand effect on traditional exports (the sixth   term)

(iii) an interest rate effect - of the change in the interest rate on external debt (the ninth term) and,

(iv) the effect of a change in net transfers (the last term).

The domestic policy influenced terms in (10), in turn, are:

(i) a scale effect of the growth of manufacturing and tertiary sectors on the demand for manufactured imports (the second term),

(ii) an import-substitution effect on the demand for manufactured imports (the third term),

(iii) changes in imports of primary products and fuel (the fourth and the fifth terms)

(iv) a market share augmentation effect on traditional exports (the seventh term),

(v) a structural change or composition effect, of increased exports of non-traditional export commodities (the eighth term), and

(vi) a debt-service effect of the change in the stock of external debt.

A couple of comments may be appropriate on the choices implicit in the disaggregation(s) adopted. Successful trade performance has usually involved - as in the case of Korea - a shift in export patterns, from primary to manufactured goods, and also opening up of the economy to the import of capital (manufactured) goods.   The disaggregation of the growth of exports and imports has been done keeping in mind the importance of these considerations in international comparisons.

.   Alternatively, the decomposition could have stressed the direction of trade; but it was felt that the shifts in commodity composition are more important, representative as they are of the process of modernisation of the economy. As regards the debt-servicing effect, it may be observed that we work at a high level of aggregation; while the interest rate on debt varies according to the type of lender (multilateral institutions, commercial banks etc), we derive and work with an average interest rate for the entire stock of external debt.

Empirical Results

In this section we present the results of the estimation of the model specified in section 1 to decompose the current account deficit (CD) into various components, for each country. The time period covered is from 1974 to 1987. The data for estimation was collected mostly from the World Tables published by the World Bank. The entire period 1974-1987 has been split into three sub periods for analytical purposes; 1974-1980, which pre-dates active liberalization efforts in China and India, but was the take-off period for the Korean economy; 1980-1984, which may be considered to be a period when both China and India initiated steps towards trade liberalization; and the post 1984 period, which has been a period of active liberalization of the Chinese as well as the Indian economy.

Let us first take a look at the development of the current account deficit of the three countries during these time periods: Table 2 gives the current account deficit as a percentage of GDP and also the changes therein, as averages for each period. While for all the three countries, the current account deficit worsened during the first period, South Korea recorded a much improved performance in the next two periods. For China the current account deficit shrunk in the second period, followed by a worsening in the third, but for India the adverse trend kept on increasing. As will be seen shortly, these aggregate figures conceal a lot of inter-country variation; for instance, China's export performance in the third period was much superior to that of India.

So the first impression that may be gathered is that for countries that have undertaken broadly similar - at least in terminology - trade policy experiments, the impact on trade performance and the current account have not been the same. The decomposition model that we use, may help to throw some light on why the impacts have been varied. Table 3 presents the results in an aggregated form, giving the break-down of CD into its broad components; tables 4 onwards present the detailed disaggregation results.

Table 2

Trend in the Current Account Deficit and Yearly Changes

Year	India		South Korea		China	
	CD/Y	d(CD/Y)	CD/Y	d(CD/Y)	CD/Y	d(CD/Y)
1973	0.59		3.45		-0.48	
1974	-0.86	-1.45	11.54	8.08	0.43	0.91
1975	0.53	1.39	10.09	-1.45	0.02	-0.41
1976	-1.43	-1.96	1.80	-8.29	-0.40	-0.42
1977	-1.29	0.14	0.37	-1.43	-0.45	-0.05
1978	0.52	1.81	3.93	3.56	0.34	0.79
1979	1.44	0.93	9.06	5.13	0.79	0.46
1980	2.35	0.91	8.63	-0.43	0.95	0.16
Period Average	0.23	0.25	6.11	0.74	0.15	0.20
1981	2.32	-0.03	6.26	-2.37	-0.56	-1.51
1982	1.91	-0.41	3.16	-3.10	-2.40	-1.83
1983	1.57	-0.34	1.27	-1.88	-1.64	0.75
1984	1.85	0.28	0.32	-0.95	-0.67	0.97
Period Average	1.91	-0.12	2.75	-2.08	-1.32	-0.40
1985	3.04	1.19	-0.62	-0.94	4.49	5.16
1986	2.20	-0.84	-7.10	-6.49	2.92	-1.56
1987	1.95	-0.25	-10.02	-2.92	0.41	-2.52
Period Average	2.40	0.03	- 5.91	-3.45	2.61	0.36

When looking at table 3, and the following tables, it must be kept in mind that the numbers follow directly from the estimation of equation (10) for the change in the current account deficit. Hence positive figures indicate an increase in the current account deficit (example: a rise in imports), and negative figures a fall in the current account deficit (example: a rise in exports). Also, all changes refer to aggregates expressed as a ratio of GDP.

From table 3, it may be noted that the contribution of the trade account (exports - imports) has been, in general least (i.e., most negative) in the case of India, and most (positive) in the Korean case.

Table 3

The Broad Components of the Change in (CD/Y)

Country	Effect due to change in						Total
	x/y	m/y	T.O.T	r	D/Y	NT/Y	d(CD/Y)
1974-80							
India	-0.17	0.20	0.49	-0.01	-0.01	0.25	0.25
Korea	-4.62	4.42	0.72	-0.04	0.14	-0.11	0.74
China	0.00	0.17	0.03	0.00	0.00	0.00	0.20
1980-84							
India	-0.50	0.79	-0.59	0.01	0.03	-0.14	-0.12
Korea	-2.82	1.82	-1.06	-0.11	0.10	-0.02	-2.09
China	-0.94	0.52	0.06	-0.05	0.04	0.03	-0.40
1984-87							
India	-0.47	0.40	-0.05	0.06	0.02	-0.08	-0.03
Korea	-3.77	0.44	0.07	0.24	-0.30	0.13	-3.45
China	-1.77	1.45	0.56	-0.00	0.12	0.02	0.36

Notes: 1) The figures are averages for the respective periods
2) Negative entries indicate a positive effect on the
current account.

Table 4 provides the break-down of the total change in the volume of exports into various causative factors. Export performance in India improved substantially in the second period - as compared to the first period (see col 5 Table 4). But during the third phase, despite the liberal incentive systems for exports, there was actually a marginal decline as compared to the second period. On the other hand, China recorded a sustained improvement in export performance over the entire period studied. In the case of Korea, there seems to have been a slowing down in export acceleration in the second period after the phenomenal first phase, but a regaining of momentum in the third. Of the three countries, China seems to have improved her export record the most in the final period, even relative to Korea.

Let us now see what factors lie behind these aggregate export performance figures. In equation (10), and as also seen in table 4, the overall export performance has

been broken down into three components: that due to (a) change in world demand for the country's traditional exports, (b) increasing market share of traditional exports, and (c) diversification into non-traditional (manufactured) exports. Of these three factors, the world demand effect is clearly an external factor, while the other two factors may be considered to be policy-influenced. The three columns for each country in table 4 represent these effects, while the fourth column gives the total change in the export GDP ratio, to which the first three add up.

For India, the relative contribution of the internal factors remained more or less the same in the first two periods. The enhanced export performance in the second period can be then attributed to the improved external environment, represented by the world demand factor in the model. On the other hand, domestic factors contribute more in the third period, and yet, there is a marginal deterioration in export performance. This may be also explained in terms of changes in the external environment, the world demand factor being more unfavourable in the third phase. On the whole, it appears that India's export performance is shaped more by external factors.

Turning to the Chinese experience, it is interesting to note that the factors shaping the Chinese export performance are not the ones dominant in the Indian case. The world demand factor has become progressively more positive for China. But the major source of Chinese export expansion seems to have been the diversification into non-traditional (manufactured) exports. For 1984-87 the average improvement in the X/y ratio was 1.77 per cent (about twice that in the second period, in contrast to the Indian case, where the increase in export - GDP ratio in the third period was slightly less than in the second

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Table 4

Decomposition of the Growth of Total Export Volume

(figures are for changes in ratio to GDP)

Year	India				South Korea				China			
	World Demand	Competitiveness of Primary commodities	Diversification Factor	Total Export	World Demand	Competitiveness of Primary commodities	Diversification factor	Total Export	World Demand	Competitiveness of primary Commodities	Diversification Factor	Total Export
1974	0.44	0.21	-0.79	-0.14	-0.11	1.36	-0.94	-0.31	-0.82	1.02	-0.31	-0.11
1975	0.27	-0.81	-0.31	-0.85	-0.20	-2.32	-4.40	-6.92	-0.20	0.32	-0.38	-0.26
1976	-0.15	-0.21	-1.57	-1.93	0.62	0.21	-6.12	-7.29	-0.26	0.31	0.05	0.30
1977	0.51	0.01	0.20	0.72	0.47	-2.26	-4.21	-6.00	-0.11	0.23	0.48	0.60
1978	0.48	0.19	0.02	0.69	0.83	-0.01	-1.58	-0.76	-0.07	0.39	-0.28	0.04
1979	-0.05	-0.10	-0.54	-0.69	0.14	0.37	2.31	2.82	-0.37	0.52	-0.47	-0.32
1980	0.64	0.03	0.38	1.05	-0.13	-0.34	-14.01	-13.54	0.16	-0.60	0.23	-0.21
Period Average	**0.30**	**-0.10**	**-0.37**	**-0.17**	**0.23**	**-0.43**	**-4.42**	**-4.62**	**-0.24**	**0.34**	**-0.10**	**-0.00**
1981	-0.10	0.33	-0.12	0.11	-0.37	0.05	-8.45	-8.77	-0.01	0.05	-2.07	-2.03
1982	-0.15	-0.48	0.01	-0.62	-0.36	0.49	-3.54	-3.41	-0.10	0.26	-0.65	-0.49
1983	0.05	0.12	-0.51	-0.34	-0.21	0.16	-4.29	-4.34	-0.08	0.28	-0.14	0.06
1984	0.01	-0.36	-0.80	-1.15	-0.04	0.03	-2.03	-2.04	-0.10	0.04	-1.25	-1.31
Period Average	**-0.05**	**-0.09**	**-0.36**	**-0.50**	**-0.19**	**0.18**	**-2.82**	**-2.82**	**-0.07**	**0.16**	**-1.03**	**-0.94**
1985	0.17	0.04	-0.26	-0.05	-0.13	0.06	-1.43	-1.50	-1.00	0.01	-1.25	-2.24
1986	0.30	-0.64	-0.31	-0.65	0.25	-0.81	-6.78	-7.34	0.08	0.08	-1.59	-1.43
1987	0.35	-0.21	-0.88	-0.74	0.59	-0.52	-2.53	-2.46	-0.90	0.98	-1.72	-1.64
Period Average	**0.28**	**-0.27**	**-0.48**	**-0.47**	**0.23**	**-0.42**	**-3.58**	**-3.77**	**-0.61**	**0.35**	**-1.52**	**-1.77**

period), of which diversification into manufactured exports answered for 1.52 per cent. In the earlier period. 1980-84, the diversification factor improved the X/Y ratio by 1.03 per cent.

In contrast, India seems to have been improving the competitiveness of her primary commodity exports. From table 4, the increase in the ratio of non traditional exports to GDP for India was the same for the first and the second periods and it was only about one third higher in the third- where as for China , the increase in the ratio in the third period was about 50 per cent higher than in the second period.

For South Korea, as with China, the diversification factor has been the key source of export growth. In the first period, non-traditional exports as a ratio of GDP rose by a factor of 4.42 per cent, in the second period by a factor of 2.82 per cent, and in the third by 3.58 per cent. Though these figures are larger than that for China, when the acceleration of growth in this ratio between the periods is considered, China seems to have performed even better than South Korea. However, Korea has been able to improve the competitiveness of her primary exports also, unlike China.

To sum up this discussion, it looks as if the key determinant of Korean export growth are of domestic origin, i.e., increasing diversification, and - to a much lesser extent - increasing competitiveness of primary exports, while for India, external factors have played the key role. The world demand factor is important for China also; but in her case, diversification into manufactured exports, a domestic policy-influenced source of export growth, has been the dominant factor.

The results indicate that the policy package followed by India has been relatively less successful[4]. The results may partly reflect the fact that the third period does not extend to the last couple of years when liberalization really gained momentum in India. Still, it seems that India has not been able to emulate successfully either the system of price and fiscal incentives that has been operative in South Korea, or the special economic zones-based production for exports, often in collaboration with foreign partners,

that has mushroomed in China[5]

Now let us look at the factors shaping the change in imports. The decomposition model specified in section 2 divides them into a structural change or scale factor, an import substitution factor and the change in primary and fuel imports. Since the import terms enter with a positive sign in (10), a positive entry in table 5 indicates an increase in imports.

The most interesting column in table 5 is the one depicting import substitution. Perhaps, it ought to be pointed out that a positive entry in this column indicates negative import substitution, or an increase in import liberalization. For India, there was positive import substitution in the first period, which worked to reduce the current account deficit in the short run, dynamic effects not being captured in the model. In the next two periods, the model results point to import liberalization, which is clearly representative of actual developments, since India started on a path of trade liberalisation in the early eighties. In South Korea, on the other hand, while there was considerable step up in import liberalisation in the second period, there was a reversal in this regard in the third period.

In China also, imports of manufactured goods have been progressively liberalized from the first to the third period, a great leap in this regard being made in the third period. In contrast, there seems to have been a slackening of the liberalisation process in the third period. So there seems to be differences in the degree to which China and India have persevered in their import liberalisation programmes, and it is a matter of conjecture whether the lack of continued access to imports have affected the growth of India's manufactured exports adversely.

Table 5

Decomposition of Aggregate Imports

Year	India					South Korea					China				
	Scale Factor	Import substitution	Primary commodity imports	Fuel Imports	Total Imports	Scale Factor	Import substitution	Primary commodity imports	Fuel Imports	Total Imports	Scale Factor	Import substitution	Primary commodity imports	Fuel Imports	Total Imports
1974	0.05	-0.65	-0.89	0.58	-0.91	0.07	-1.02	0.33	2.82	2.22	-0.04	0.67	0.25	0.03	0.91
1975	-0.06	0.61	-0.31	-0.13	0.11	0.10	3.99	1.26	3.14	8.49	0.11	0.33	-0.96	-0.00	-0.52
1976	0.18	-0.64	0.86	0.04	0.44	0.14	1.45	0.58	0.63	2.80	-0.14	-0.14	-0.28	-0.02	-0.58
1977	-0.06	0.10	-0.27	-0.06	-0.29	0.44	0.15	1.28	0.35	2.22	0.19	-0.76	0.17	0.03	0.22
1978	0.06	0.34	0.81	0.02	1.23	1.00	3.24	3.24	-0.60	6.88	0.10	0.83	-0.58	-0.00	0.35
1979	0.21	-0.05	0.17	1.02	1.35	-0.02	-0.43	0.42	0.98	0.95	-0.09	0.87	-0.05	-0.03	0.70
1980	-0.11	-0.51	-0.63	0.74	-0.51	0.81	-2.20	5.41	5.98	10.00	0.23	-0.28	0.73	0.07	0.75
Period Average	0.04	-0.12	-0.04	0.31	0.20	0.36	0.74	1.42	1.90	4.42	0.05	0.21	-0.10	0.01	0.17
1981	0.01	0.88	-0.87	0.22	0.24	-0.49	4.22	1.01	2.51	2.23	-0.05	-0.07	0.86	-0.03	0.71
1982	0.12	0.71	0.47	-0.60	0.70	0.07	1.48	-0.51	0.85	1.89	-0.04	-0.66	-0.38	0.03	-1.05
1983	-0.07	0.56	0.09	0.02	0.60	0.12	3.11	0.73	-1.12	2.84	0.05	0.99	-0.95	-0.03	0.06
1984	0.13	0.72	0.56	0.22	1.63	0.36	3.96	-2.40	0.04	1.96	0.05	1.08	1.21	0.00	2.34
Period Average	0.05	0.72	0.07	-0.03	0.79	0.02	3.19	-1.19	0.10	1.82	0.00	0.34	-0.19	-0.01	0.52
1985	0.11	1.32	-0.16	-0.26	1.01	0.04	2.50	-2.61	0.65	0.58	0.23	7.63	-1.00	0.03	6.89
1986	0.19	0.87	0.25	-1.26	0.05	0.31	1.57	4.57	-3.24	3.21	0.21	-1.84	-0.24	0.08	-1.79
1987	0.26	-0.38	0.15	0.12	0.15	0.57	-2.31	-0.23	-0.51	-2.48	0.13	0.90	-1.87	0.09	-0.75
Period Average	0.18	0.60	0.08	-0.47	0.40	0.31	0.59	0.58	-1.03	0.44	0.19	2.23	-1.03	0.07	1.45

In fact, in India's import liberalisation programme, reduction in tariffs does not seemed to have received much priority. As regards China, her average tariff levels in 1987 was surprisingly low by developing country standards: 19.3 per cent for consumer as well as capital goods, 11.3 per cent for iron, metal and chemicals.[6]

As regards primary imports, in India, where imports of these (for instance edible oil) are often undertaken with a view to contain domestic prices, not much headway seems to have been made in containing them; rather, they have continued unabated as may be seen from table 5. China, on the other hand, seems to have been cutting down sharply on primary imports, affecting the current account balance favourably. South Korea seems to have fared better at substituting against fuel imports - an area where India has also done fairly well.

Having examined the factors influencing real exports and imports, let us now look at the impact of changes in the terms of trade on the current account of these countries. This effect is captured by the first term of equation (10), and the results of the estimation are presented in table 6. The Indian and the Korean experiences in this regard seems to be fairly similar. The terms of trade factor affected their current accounts negatively in the first period, but for the next two periods, the effect was favourable. For China, the development of the terms of trade was unfavourable throughout. Perhaps part of the reason for China's outstanding export performance lies in the way its terms of trade moved in the eighties.

We are now left with three more factors affecting the current account deficit, viz., the change in the interest rate on foreign loans, changes in the stock of debt, and changes in net transfers. These are represented by the ninth, tenth and the last term, respectively, in (10). Given the fact that these countries are heavily indebted the analysis of the changes in the above factors is of particular importance. (However, due to the lack of data, the analysis of Chinese experience is confined to the second and third period).

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Table 6

The Terms of Trade Effect on CD/Y
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Year   India   S. Korea   China

Year	India	S. Korea	China
1974	2.18	5.98	0.13
1975	-0.01	-3.42	0.36
1976	0.01	-3.69	-0.14
1977	-0.18	1.58	-0.28
1978	0.01	0.29	0.41
1979	0.49	1.03	0.08
1980	0.89	3.32	-0.39
Period			
Average	0.49	0.72	0.03
1981	-0.67	-1.40	-0.29
1982	-0.63	-1.76	-0.05
1983	-0.71	-0.05	0.66
1984	-0.34	-1.02	-0.08
Period			
Average	-0.59	-1.06	0.06
1985	0.00	-0.10	0.32
1986	-0.52	-1.86	1.69
1987	0.35	2.17	-0.34
Period			
Average	-0.05	0.07	0.56

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To begin with it may be noted that in China, during the short period for which data is available the adverse impact of the increase in the stock of debt on CD/Y has almost doubled (see table 7). For South Korea, on the other hand, the adverse impact did not extend beyond the first period. But the adverse impact of the increase in the interest rate was more in the last period. For India, the negative effect on the current account of the increase in interest rates was more than that for China, but the impact of the increase in the debt stock was less. The interest rate effect in the last period for India, was about six times than that in the second period, indicating that the terms of lending had hardened much more than that for China. The effect of net transfers was, as may be expected from the presence of a large expatriate Indian population in the middle east, more favourable for India than for China or South Korea.

To understand these trends, one needs to look at the growth and composition of external borrowing in these countries. In China, during the late seventies, net invisible and

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Table 7
Effects of changes in interest rate, debt stock and net transfers on CD/Y.

	India			South korea			China		
Year	δ(r) effect	Debt stock	δ(TT/Y)	δ(r) effect	Debt stock	δ(TT/Y)	δ(r)	Debt	δ(TT/Y)
1974	-0.05	0.00	2.53	-0.62	-0.12	-0.36	0.00	-0.00	-0.00
1975	-0.02	0.04	-2.13	0.23	0.14	-0.05	0.00	-0.00	-0.00
1976	-0.00	0.00	0.50	0.13	-0.09	0.14	0.00	0.00	0.00
1977	-0.00	-0.02	0.09	-0.53	0.60	-0.69	0.00	-0.00	-0.00
1978	0.04	-0.02	0.14	0.27	-0.14	0.43	0.00	-0.00	-0.00
1979	0.02	-0.03	0.22	0.04	0.04	-0.24	0.00	-0.00	-0.00
1980	-0.05	-0.04	0.42	0.22	0.53	0.02	0.00	0.00	-0.00
Period Average	-0.01	-0.01	0.25	-0.04	0.14	-0.11	0.00	0.00	0.00
1981	-0.00	0.01	-0.28	0.51	0.03	0.00	0.05	0.05	-0.00
1982	-0.01	0.04	-0.10	-0.10	0.25	-0.02	-0.15	0.10	0.19
1983	0.03	0.01	-0.07	-0.32	0.02	0.04	-0.05	0.01	-0.01
1984	0.00	0.04	-0.09	0.15	-0.14	-0.12	-0.05	0.01	-0.05
Period Average	0.01	0.03	-0.14	-0.11	0.10	-0.02	-0.05	0.04	0.03
1985	0.06	0.02	-0.14	-0.20	0.28	0.00	0.03	0.11	0.05
1986	0.07	0.02	-0.17	0.26	-0.35	0.41	-0.03	0.05	0.03
1987	0.05	0.02	0.07	0.66	-0.81	0.01	-0.01	0.19	-0.03
Period Average	0.06	0.02	-0.08	0.24	-0.30	0.13	-0.00	0.12	0.02

transfer payments, mostly earnings from shipping, tourism and remittances, financed one half to three-fourths of the trade deficit, thereby reducing the current account deficit to manageable proportions which, in turn, was financed largely by short term borrowing. During the eighties, China began to resort to long term borrowing at concessional rates which meant a smaller adverse impact on the current account.

The extensive liberalization of economic policy in India in the eighties, led to a worsening of its trade balance, and she entered the commercial loan market in earnest in the early years of the decade (Notably, she had not participated in the rush for commercial loans by many less developed countries in the 1970s), and was faced with a drastic decline in the share of loans on concessional terms; its share in debt disbursed and outstanding fell from 94 percent in 1975 to 68 percent in 1987. Average interest rates rose sharply: from 2 percent in 1970 to 5.4 percent in 1987, for official loans[7] with commercial rates reaching close to 8 percent by 1988. In the case of South Korea, the

stock of external debt increased more than ten fold during 1973-1985, from $ 4.5 billion in 1973 to $ 45 billion in 1985, making it the fourth largest debtor nation among the developing countries, after Brazil, Argentina and Mexico. Nearly 20 percent of the total debt was in the form of short term borrowing. The share of concessional debt, however, declined from 44 per cent in 1986 to 31 per cent in 1987 with its adverse implications on the current account balance[8]. Rapid export growth during the 80's especially after 1985, however, enabled Korea to quickly service a considerable proportion of its debt. The increase in the adverse impact on the current account of the change in the interest rate, has to be, perhaps, seen in the overall context of the debt management - and even trade development - strategy.

Conclusion

In this paper an attempt has been made towards highlighting the factors lying behind the differential trends in the current account deficit in India, China and South Korea, for the period 1974-87. The analysis was carried out in an additive decomposition framework. The model identified a number of factors, both internal and external, the relative effects of which varied across these countries.

Both in India and China, the short run impact of the deviation from their long-pursued path of import-substitution has been detrimental to the current account. In India, import-substitution was very much in evidence during the first period, exerting a positive effect on the current account. In the 1980s, this trend was reversed, especially the post-1984 period being a period of active import liberalization, as seen from the import substitution factor in the estimated model. In China, the adverse static impact of declining import substitution was offset to a certain extent by the sustained decline in primary commodity imports, But in India, primary commodity imports continued almost unabated. Curiously enough, South Korea seemed to be having second thoughts on import liberalization in the post-1984 period, and this, together with a drastic reduction in the import of fuel, has had favourable impacts on the Korean current account.

Another interesting comparison between China and India relates to the effects on

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the current account deficit of the changes in the external debt stock and the interest on that stock. For China, the debt stock effect has been the more harmful of these two effects. India, on the other hand, seems to have run up against much harder terms of borrowing than China, partly, perhaps, on account of the shift in the structure of borrowing towards greater dependence on commercial borrowing. It may, however, be noted that terms of borrowing have been becoming unfavourable for India, even on official loans. It may also be the case that the terms of lending reflects also the quality of debt management by the country concerned, and the international creditor community's analysis of her economic development prospects.

On the whole, external factors seem to have been more important for India, relative to China, in the determination of the current account. This was particularly true as regards export growth; whereas Chinese development was founded on diversification into exports of manufactured goods, as well as on improving the competitiveness of primary exports, for India, changes in world demand seems to have been the crucial factor. For South Korea also, domestic policy factors have been crucial for exports; though the total external effects on the current account deficit have been, more or less, as large for Korea as they have been for India, they have been smaller relative to the aggregate of the internal effects.

End Notes

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1.Earlier work on these lines involved the disaggregation of either the export or the import performance. See for example Kavoussi R. M.(1985).

2. In actual estimation, since WD was not available in real terms, $X_{j2}^{\bullet}$ was estimated in nominal terms and then divided by the export price index to get it in real terms.

3. Writing WD as WD_j * x_j and differentiating the right hand

$$\frac{-}{y} \quad \frac{----}{x_j} \quad \frac{--}{y}$$

side of (6) gives the left hand side. Hence (6) could have been set down directly without going through (4) and (5). But these intermediate steps help to explain the additive decomposition model used.

4. China in the eighties, India very recently, and south Korea in the seventies, have all depreciated their currencies substantially - but not always to the extent that inflation differentials relative to their trading partners have called for - during their take offs or attempted take offs. However, these moves have been only a part of the policy package, and inter country differences have been pronounced with regard to the rest of the overall policy package.

5. On China's special economic zones, see Oborne (1985) and Wong and Chu (1985).

6. These are, however, supplemented by the import regulatory tax which averaged 47 per cent ad valorem, see Sekiguchi (1990).

7. See Varghese (1989)

8. See Lakshmi Pati Rao, 1989

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