

**INDIA'S EXPORTS TO THE GCC AND THE MIGRATION-
TRADE LINK**

INDIA'S EXPORTS TO THE GCC AND THE MIGRATION- TRADE LINK

*Dissertation submitted in partial fulfillment of the requirements for the
degree of Master of Philosophy in Applied Economics of the Jawaharlal
Nehru University*

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June, 2003

*I hereby affirm that the work for the dissertation, **India's Exports to the GCC and the Migration-Trade Link**, being submitted as part of the requirements of the M.Phil Programme in Applied Economics of the Jawaharlal Nehru University, was carried out entirely by myself. I also affirm that it was not part of any other programme of study and has not been submitted to any other University for the award of any Degree.*

June 30, 2003




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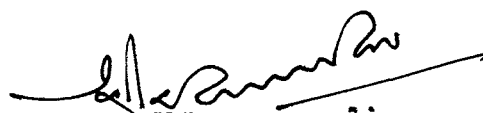
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Abstract of the Dissertation

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The study examines India's exports to the Gulf Co-operation Council (GCC) countries with a special focus on the influence of migration. An analysis of the trends in India-GCC exports shows a structural break in the beginning of the 90s and acceleration since then. The trade intensity indices show overrepresentation of the two in each other's markets, despite the fluctuations. Further, all the bilateral trade orientation ratios have been increasing systematically over the period of the study. Still, the export orientation of India towards GCC seems to have lower growth compared to the import orientation, at the aggregate level as well as at the level of individual countries. Among the GCC countries, the export intensity index of India with UAE shows the lowest growth, despite its comparatively higher level throughout the period. As an explanation for the growing orientation of India's exports towards the Gulf countries, we examine the demand pattern of these countries, as revealed by the import structure of GCC. This is particularly important in the context of the influence of Indian migrants on the GCC imports, probably leading to preference similarity.

The commodity composition of India-GCC exports examined in the light of India's aggregate export structure as well as the GCC import structure, reveals significant scope for improving India's export performance to the GCC countries. The overall import structure of the Gulf countries shows noticeable representation of the dominant items of India-Gulf exports like Rice, Vegetable products, Meat, Fish, Coffee, Tea, Textiles, Jewellery, etc., which are mostly demanded by the migrant workers. Though the structure gives indications of the influence of Gulf migrants from India, the hypothesis of migration-trade link has been verified using a longitudinal gravity-type model. The econometric evidence also shows the strong immigrant preference effect for their home country products. In the model, the coefficients of the parameters for GDP and per capita GDP, representing the size of the GCC countries as well as the wealth effect respectively, are not statistically significant. The insignificance of these variables is also in a way pointing towards the importance of the nexus between migration and trade. Moreover, preference similarity mechanism is seen to work in the India-GCC context despite the violation of its crucial assumption of income similarity. Thus, the study brings out the importance of migrant population as a major source of advantage for India's exports to the region.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The present study is on the bilateral trade relations between India and the countries of the Gulf Co-operation Council (hereafter GCC)¹. An examination of India-GCC trade relations assumes importance on account of several reasons. First, of course, is the growing importance of South-South trade in the network of world trade. Over the past few decades, there has been a slow but steady decline in the dominance of North-South and North-North trade. The developing countries are beginning to diversify trade by orienting themselves more and more towards Southern destinations and sources. India-GCC trade happens to be an important subset of the growing South-South trade. Second reason for taking up the present study is the growing importance of the GCC market. Needless to say that GCC is one of the leading sources of imports of India, due to the oil imports. India's dependence on GCC for oil imports is likely to continue for long. In view of the growing imports and the consequent trade deficits, it is important that India promotes its exports to the GCC countries. Further, the GCC has also the potential to be a dynamic and growing market for India's exports. Therefore, to begin with, in the following section, we examine the growing importance of South-South trade in the network of world trade, as a background for the study. This is followed by the section on the significance of the present study. In section 1.4, we outline the specific objectives of the study. Section 1.5 discusses the theoretical background and Section 1.6 presents the data sources and the period of analysis. Section 1.7 provides the chapter scheme.

1.2 South-South Trade in the Network of World Trade

This section provides a detailed look at the significance of the recent trends and structure of South-South trade, of which the present study comes out to be an important case. It has now long been recognized that intra-South trade needs to be promoted for the right kind of

¹ The Gulf Co-operation Council is the largest formal economic grouping in the Middle East, with its headquarters at Riyadh, Saudi Arabia. According to its constitution, the organisation aims at co-operation and integrity in economic, social and cultural affairs, among its member states. Recently, GCC has been declared as a customs union.

development in the Southern economies, which are almost analogously encumbered by the former colonial system as well as the obstinate world economic system existing currently. A recent upholder of this perception is the South Commission, a group of experts and politicians from various Third World countries, set up in the early 1990s. The need for Southern unanimity appears much more imperative in the context of growing regionalism among the developed countries. Unfortunately, most of the Southern countries are unaware of the high developmental costs involved in their non-cooperation. According to Wadhwa and Asher (1985), the increased South-South trade can expand the world trade as the resultant increase in the real incomes of the Third World is likely to entice the North as well.

It was the colonial pattern of economic specialisation² that made South-South trade the smallest and weakest segment of world trade, and the North to dominate the international trading system. This pattern did not change much upto the Second World War (Folke, et. al., 1993). After 1945, though the world trade expanded rapidly, it was mainly due to the growth in North-North trade. The growth of industrialization in the Third World in the 1950s, however, provided an opening for the expansion of trade among the developing countries (Lall, 1985). Still until mid-60s, South-South trade constituted a relatively small portion of world trade and it was only after 1970 that their share in world trade grew substantially. However, the growth of South-South trade had never been either quantitatively or qualitatively impressive when compared to their trade with the North. Therefore, the former can be considered most often as a complementary rather than a competitive development strategy for the South (Moen, 1993). Also, there exist a lot of economic and political constraints for its fuller development. Most of the constraints (historical, commercial, infrastructural, and informational) were set up long back going to the colonial times. The small size of the South-South trade despite its slow but steady growth is the product of all such constraints.

According to Thomas (1988), in the 1970s, while the volume of world trade expanded by about 5 per cent annually and that of developing countries by about 6 per cent, that among developing countries grew at around 12 per cent. But in a development context it is more interesting that South-South trade in manufactures expanded rapidly during the decade. The production of manufactures, leading to the technological dynamism in the economy, had till

² Colonisation resulted in the 'so-called' classical international division of labour, in which the South became the exporter of raw materials to the North in exchange for manufactures.

recently been monopolised by the North. According to Folke, et al. (1993), the growing importance of South-South trade in manufactures has come about despite the increased internationalisation of internal markets in the North; and international recession and debt crisis in the South in the 1980s. In this context, Lall (1985) points out that in the face of continuing stagnation in demand by the North, with widespread protectionist pressures against manufactures of major export interest in the South, self-sustaining growth in the South needs to be based increasingly on South-South trade. Such a trend could also result in newer tendencies in the international division of labour. Similar arguments along with the rising share of South-South trade, especially in manufactures, which would be shown by the subsequent analyses, underline the importance of South-South trade.

Table 1.1
Share of North and South in World Trade (1970-1995)

Year	World Trade		World Export		World Import	
	DMECs	DCs	DMECs	DCs	DMECs	DCs
1970	70.7	18.5	71.4	18.1	69.9	18.9
1975	65.4	24.1	65.7	24.6	65.1	23.5
1980	64.8	27.3	62.9	29.3	66.8	25.2
1985	65.7	23.4	65.4	24.0	66.1	22.8
1990	70.9	23.4	71.3	23.5	70.6	23.4
1995	67.1	28.5	68.3	28.1	65.9	28.9

Note: East European countries are excluded.

DMECs: Developed Market Economy Countries.

DCs: Developing Countries and Territories.

Source: Calculated from UNCTAD Trade and Development Statistics, 1987 and 1997.

To start with, Table 1.1 provides a broad idea of the distribution of world trade between developed and developing countries since 1970. The analysis is confined to the period since 1970, because during this time there were some major changes in world trade in favour of the South. The two important events, as pointed out by many, were: 1) the formation of OPEC, which started claiming a good proportion of world trade thereafter; and 2) the emergence of the group of Newly Industrializing Countries (NICs), which tended to dominate exports of manufactures to the North as well as the South. As seen from the above table, though the developed countries themselves are dominating the world trade, the developing countries' share has clearly risen from 18.5 per cent to 28.5 per cent over the period, despite a dip seen in 1985 and 1990. The trends are almost similar even when we look at the shares in export and import separately. The decline since 1980 might be due to the growing protectionism in

the North following the recession, which, as many authors (Ventura Dias, 1989; Folke, et.al, 1993,etc.) have mentioned, had considerably affected exports from the South, in particular, manufactured exports. But in 1995, the developing countries seem to have well revived their share in world trade. Whereas, the DMECs, who still account for a prominent share in world trade, show a fluctuating trend and even a sign of decline in the year 1995.

Table 1.2 brings out the relative importance of South-South exports much more clearly. To restate, the share of North-North exports seems to dominate world exports, despite a recent slow-down. One striking point is that South-North exports had reached a maximum in the year 1980, which is also higher than ever registered by North-South exports. One important reason for the sudden increase in the South-North exports between 1970 and 1980 was the spurt in exports of manufactured goods (textiles, clothing, electronics, etc.) to the North as well as the South by the NICs. The South-South exports are seen to have grown uninterruptedly since 1970, without being remarkably affected even by the 80's crisis³. Therefore, the fluctuating share of South in world export (as seen in Table 1.1) is mainly due to the South-North exports rather than its South-South counterpart, which is exhibiting a clearly rising trend, while the former shows a drop since 1980. Nevertheless, as Ventura Dias (1989) points out, the developing countries that are the main exporters in the intra-South trade tend also to be major exporters to the industrial countries. This shows the prospects of improving international competitiveness of the South over time, through the rising share of intra-South exports in world exports.

Table 1.2
Network of World Exports (1970-1995) (Percentage Share)

Year	North-North		North-South		South-South
	North-South	South-North	South-North	Total	
1970	54.5	13.7	12.9	26.7	3.6
1975	45.4	16.3	17.0	33.3	5.7
1980	44.6	15.8	20.1	35.9	7.7
1985	48.4	13.3	14.9	28.1	7.2
1990	54.9	13.9	13.9	27.9	8.0
1995	48.6	16.5	15.4	31.9	11.7

Note: East European countries are excluded.

Source: Calculated from UNCTAD Trade and Development Statistics, 1987 and 1997.

³ As per the UNCTAD statistics (1997), over 1980-1995, while the North-North export grew by 6.9 per cent, South-South exports grew by 9.2 per cent.

Structure of South-South Trade

The marked increase in the growth of South-South trade prompts enquiries into its composition as well, which again shows some favourable trends with the importance of manufactures in it. As Folke, et.al. (1993) points out, before the early 1970s, South-South

Table 1.3

**Structure of South-South Exports by Major Commodity Groups
(Percentage Share)**

Commodity Groups	1970	1975	1980	1985	1990	1995
All Food items	20.2	14.7	12.7	11.7	11.3	9.6
Agricultural Raw materials	10.9	4.7	4.9	3.6	3.8	3.5
Ores and Metals	6.6	3.7	2.6	4.9	3.3	3.6
Fuels	33.7	53.8	50.2	46.3	22.5	12.6
Manufactured Goods	27.9	22.8	28.8	30.0	58.3	69.3

Source: Calculated from UNCTAD Trade and Development Statistics, 1987 and 1997.

trade was dominated by the traditional trade in raw materials, including fuels. In the 1970s, with an increase in the value of South-South trade in fuels, there was a decline in the share of other product categories, except that of machinery and transport equipment. From the composition of South-South trade since 1970, by major product categories, as has been given in Table 1.3, it is noticeable that there is a steady decline in the share of food items over the period. Even in the case of fuels, which was a prominent item in the Southern exports even before the oil price hike, a drop is noticed, especially since the mid-70s. For agricultural raw materials and ores and metals, the share is somewhat fluctuating, though the general pattern is that of a decline. At the same time, the share of manufactured items showed a consistent increase during this period. Between 1985 and 1995, their share had more than doubled.

On the whole, it is striking that the share of manufactured goods showed a continuous increase, when all the other product categories showed a declining trend. This shows that the developing countries, as a group, may be a potential market for the Southern production of manufactures. Moreover, such a trend towards an increasing share of manufactured goods in South-South trade can be the reflection of a more general one in the trade of developing countries, that is trade with the industrialized countries as well, which shows the developing countries' growing international competitiveness over time (Parsan, 1993). Over and above, out of developing country manufactures, capital goods exports have tended at all times to go

to other developing countries only (Havrylyshyn and Wolf, 1983). This helps self-sustaining growth in the South, getting access to more “appropriate” technologies and products than the normal sources of supply in the North. Also the local development of capital goods sector in the process, acts as a generator and transmitter of technological change and this might be best promoted by expanding South-South trade (Lall, 1985). All such considerations augment the case for broadening South-South trade.

1.3 Significance of India-GCC Trade

Coming to the significance of the present study, since the structure of India’s trade had also been shaped by her colonial links with Britain, the developed countries used to and continue to dominate India’s trade (Mukherjee and Mukherjee, 1988). But, the changes at the global level, especially the growing prominence of South-South trade in the geography of world trade, appears to have started influencing the direction of India’s trade as well. India’s dependence on Northern developed markets has tended to decline, though only marginally, over time. Correspondingly the share of developing countries has been increasing in India’s external trade.

Table 1.4
Share of Major Trade Partners in India’s Exports (US \$ Million and Percentage)

Year	World	US	GCC	UK	Germany	Japan	Hongkong	Belgium	Italy	France	Bangladesh
1981	8483.8	11.0	7.2	5.9	5.8	8.9	2.1	2.1	2.3	2.1	1.1
1982	8702.2	11.9	7.9	5.4	4.5	9.0	1.7	2.1	2.0	1.9	0.8
1983	9103.8	10.5	7.2	4.8	3.9	9.5	1.99	2.4	1.6	1.6	0.5
1984	9449.4	14.9	6.4	5.0	4.1	8.5	1.9	2.2	1.7	1.6	0.6
1985	9876.9	14.9	6.4	5.2	4.1	8.7	1.5	1.6	1.8	1.6	0.9
1986	8900.8	18.1	6.7	4.8	4.7	10.7	1.9	2.0	1.9	1.8	1.1
1987	9743.3	18.7	5.5	5.6	5.9	10.7	3.3	2.7	2.5	2.2	1.3
1988	12084.5	18.6	5.3	6.4	6.7	10.3	2.8	3.1	3.2	2.4	1.1
1989	13972.0	18.4	5.1	5.7	6.1	10.6	4.0	4.4	2.7	2.1	1.2
1990	16611.7	16.2	5.6	5.8	6.4	9.9	3.2	4.3	2.7	2.2	1.6
1991	18148.1	14.7	4.5	6.5	7.8	9.3	3.3	3.8	3.1	2.3	1.6
1992	17998.3	16.3	7.2	6.4	7.1	9.2	3.4	3.7	3.2	2.3	0.2
1993	18538.8	18.9	6.0	6.5	7.7	7.8	4.1	3.6	3.4	2.5	1.9
1994	22213.8	17.9	8.8	6.2	6.9	7.8	5.6	3.8	2.7	2.2	1.9
1995	26337.7	19.0	7.6	6.4	6.7	7.7	5.8	3.7	3.3	2.2	2.4
1996	31842.3	17.4	7.1	6.3	6.2	6.9	5.7	3.5	3.2	2.3	3.3
1997	33497.9	19.6	7.2	6.1	5.6	5.9	5.5	3.2	2.8	0.2	2.6
1998	35048.7	19.4	7.9	6.1	5.5	5.4	5.5	3.4	3.2	2.1	2.2
1999	33211.3	21.6	9.1	5.6	5.6	4.9	5.6	3.8	3.2	2.4	3.0
2000	36867.2	22.8	8.7	5.5	4.7	4.6	6.8	3.6	3.0	2.4	1.7

Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues

The observed increase in the share of developing countries in India's trade can partly be attributed to the rise of OPEC⁴ since early 1970s. In fact, one of the reasons for the substantial growth of South-South trade in the 70s was the emergence of the OPEC, which claimed a good portion of world trade thereafter. India's trade and cultural ties with these neighbouring countries, especially the Gulf States, are very old. Recently, growing oil trade and substantial remittances from the Indians living there have made India and the Arab⁵ States in the Middle East even more economically intertwined. These Oil-rich countries are acutely conscious of the fact that the oil-reserves are a depleting asset and therefore would like to utilize their export revenues for diversifying their economies. Almost all the countries in the Middle East have laid out diversification as an important part of their development plans (Wilson, 1995). Therefore, India can supply to these countries not only manufactured consumer goods, but also capital goods for the diversification of their economies. Here, compared to the other more advanced countries, India enjoys advantages of nearness as well as more 'appropriate' technologies (Lall, 1985) suitable to these countries. Besides, most of the potential advantages of South-South trade are valid in this particular case also. Hence, the Oil-rich Middle East countries seems to constitute a vast potential export market for India.

A look at the comparative share of the Gulf countries in India's direction of trade in recent years might help us affirm the relevance of the present study. For facilitating comparison we have selected a group of important trade partners of India. As seen from Table 1.4, the share of important developed countries, except US, has been either declining or remaining stagnant, over the period. This observation is particularly true in the case of UK, Germany and Japan. The share of GCC in India's exports has declined during the eighties, but the trend has got reversed in the next decade.

In the case of imports (Table.1.5), GCC seems to be the biggest source of imports of India. GCC's share in India's imports is much higher than its share in India's exports, signifying huge balance of trade deficit. Moreover, it is noticeable that the share of GCC in India's imports has been increasing almost steadily over time. This underlines the need for promoting India's exports to the region. Now, in examining the significance of India's trade

⁴ As per the Economic Survey, 2001-2002, the broad trends of the decreasing share in total exports for OECD and East European regions and increasing shares for OPEC and other developing countries have been continued.

⁵ Though the terms OPEC, Middle East, Gulf and Arab are used almost interchangeably, this study intends to cover the six members of the Gulf Co-operation Council for the Arab States of the Gulf.

with the Gulf countries, it would be useful to have a look at its commodity composition as well.

Table 1.5

Shares of Major Trade Partners in India's Imports (US \$ Million and Percentage)

Year	World	GCC	US	Belgium	Singapore	Japan	UK	Malaysia	Germany	Korea	Russia
1981	15864.9	10.5	12.1	2.2	3.2	5.9	5.8	2.0	5.5	1.0	7.8
1982	15170.1	10.7	10.4	4.0	3.1	6.5	6	2.1	6.9	1.3	9.2
1983	14780.5	16.1	9.9	5.4	3.0	7.6	6.4	1.8	5.8	1.9	12.0
1984	15310.9	10.9	11.6	4.7	2.8	9.1	7.3	2.6	7.1	1.2	11.9
1985	14410.6	14.9	9.9	5.7	3.7	7.2	5.5	3.8	7.5	1.2	12.8
1986	16060.2	11.9	10.5	5.7	2.0	9.0	6.4	2.4	7.9	1.6	10.1
1987	15724.4	9.0	9.4	5.8	1.8	13	8.3	2.9	9.6	1.8	5.3
1988	17150.1	9.8	8.9	6.5	2.0	9.6	8.2	4.0	9.7	1.5	7.6
1989	19499.5	12.7	11.5	8.2	2.4	9.3	8.5	3.1	8.7	1.8	5.0
1990	21218.2	12.4	12.1	9.8	3.2	7.9	8.4	2.3	8.3	2.0	7.4
1991	24076.3	13.3	12.1	7.8	4.1	7.5	6.7	2.8	8.0	1.8	7.3
1992	19554.9	17.6	—	2.3	0.2	—	6.1	10.9	8.0	9.4	2.6
1993	21883.5	18.6	9.8	7.0	0.7	6.5	6.4	11.0	7.5	8.2	2.9
1994	23280.6	18.7	11.6	10.3	3.4	0.7	6.6	1.3	7.7	3.1	1.4
1995	28662.2	18.9	10.1	2.3	3.4	7.1	5.4	1.8	7.6	4.5	1.9
1996	36730.0	17.9	10.5	4.9	3.1	6.7	5.2	2.6	8.6	2.3	2.4
1997	39165.4	20.3	9.4	6.5	3.0	5.6	5.5	3.2	7.2	2.5	1.8
1998	41534.6	17.7	8.9	7.1	3.2	5.2	5.9	3.1	6.0	2.6	1.8
1999	42379.2	13.3	8.5	8.0	3.8	5.8	6.2	4.5	5.0	3.9	1.5
2000	41204.2	19.2	8.7	10.4	4.3	6.2	6.6	5.7	4.5	3.6	1.7

Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues.

Table 1.6 shows the structure of India's export⁶ to two important trade partners in GCC as compared to the other dominant world trade partners. As is evident from Table 1.6, U.S.A. and Japan dominate India's export destinations in all the major commodity groups. Here a noticeable trend is a prominent shift from agricultural and allied products to manufactured goods in India's export to the Middle East countries. This has got special significance as it indicates the possible technological dynamism of India's exports to the GCC.

⁶ As the imports from the Gulf region are increasingly constituted by oil, we focus on the export structure.

Table 1.6
Shares in India's Exports by Countries and Commodities

Countries	1995			2001		
	Agr.&Allied	Ores&Minerals	Mfd. Goods	Agr&Allied	Ores&Minerals	Mfd. Goods
U.S.A.	11.45	6.82	21.71	13.01	11.00	23.81
Japan	14.29	30.36	5.41	10.88	14.67	2.69
U.A.E.	7.11	2.25	4.56	6.33	3.06	6.05
S.Arabia	5.79	0.23	0.91	6.20	0.86	1.21
U.K.	5.83	0.90	6.94	5.20	1.91	5.52
Russia	5.72	5.47	2.47	4.02	1.94	1.78
Germany	4.06	2.34	7.53	2.72	2.45	4.83
Singapore	3.54	2.05	2.72	2.53	1.03	1.96
South Korea	1.16	5.19	1.10	1.50	3.60	0.88
China	1.26	9.49	0.51	2.68	18.93	1.28
Italy	2.85	8.62	3.15	1.64	6.86	3.19

Source: CMIE, 2001.

India's Share in GCC Trade

Examining the representation of India in the GCC market seems to be equally important as that of GCC in India and therefore, an attempt has been made in this direction as well. India's share in GCC trade compared to the latter's share in world market, as can be made out from the table below, reveals the importance of the Gulf market as far as the Indian exports are concerned. The table also shows the significance of India as a trade partner for GCC. As seen from Table.1.7, India's share in GCC exports has been increasing, despite the fluctuations.

Table 1.7
India's Share in GCC's and GCC's share in World Trade

Year	India's Share in GCC Exports	India's Share in GCC Imports	India's Share in World Exports	GCC Share in World Exports	GCC Share in World Imports
1980	0.69	1.60	0.45	8.24	2.49
1982	2.07	1.33	0.57	6.75	3.55
1984	2.61	1.46	0.59	4.72	2.74
1986	2.58	1.86	0.46	2.38	1.70
1988	3.51	1.80	0.48	2.03	1.45
1990	3.21	2.14	0.53	2.53	1.28
1992	3.86	2.50	0.51	2.36	1.64
1994	4.57	3.56	0.57	2.02	1.32
1996	4.94	3.92	0.61	2.23	1.24
1998	6.66	3.83	0.67	1.71	1.31
2000	4.50	3.74	0.69	2.65	1.30
2001	5.11	3.21	0.73	2.62	1.56

Source: IMF, Direction of Trade Statistics Yearbook, various issues.

This shows nothing but the growing importance of oil imports in the India-GCC trade. The fluctuations and a slight decline in India's share in GCC imports probably testify that India is facing much competition in this market. However, India's share in GCC imports is higher than India's share in world exports, which had been less than one throughout the period. On the whole, it seems to be reinforced that India is represented more in the GCC exports than imports.

To end, despite the significance of Middle East in the world trade as also in India's trade, there are very limited studies on India's trade relations with this region. Particularly, in view of the recently growing interdependence of India and the Gulf countries, empirical attempts to look into its reflections on the bilateral trade are lamentably lacking. A notable feature of India-GCC relations is that the largest expatriate community in India is living in Gulf, mainly Saudi Arabia. The substantial remittances from this huge migrant population vis-à-vis the recently growing oil trade has made India and the Gulf States economically more intertwined. Migration can influence trade either through preference similarity or through the market information and therefore the reduction in transaction costs. Systematic empirical analysis of migration-trade link is almost lacking in literature, except a few published in the 90s, for e.g., Girma and Yu (2002), which shows that the link is not universal. Therefore, the present study would seek to analyse the pattern and potential of India's trade with this major trading power in the South. Such an attempt might have implications for the South-South trade in general as also for India's export policy, particularly in the context of the influence of migration. It is in these respects that the present study is emerging significant.

1.4 Objectives

To be specific, the present study would seek to attempt the following:

- ◆ examine the trends in bilateral trade between India and the GCC countries;
- ◆ evaluate the mutual orientation of trade between India and the GCC;
- ◆ analyse the changes in the structure of India's exports to the GCC; and
- ◆ identify the important factors influencing India-GCC exports, focussing on the effect of migration.

1.5 Trade Theories and Implications

In this section, we attempt a brief review of existing trade theories mainly from the point of view of growing importance of South-South trade. The purpose is to arrive at a theoretical basis for the present study on India-GCC trade, which is seen here as a sub-set of South-South trade. According to Adam Smith, in a two-country, two-good world, with only a single factor (labour) entering into production, mutually beneficial trade can take place if each country produces and exports the commodity in which it has an absolute advantage. However, in Ricardo's theory of comparative advantage, which can also be depicted in a two-good, two-country, one-factor model, a country with absolute advantage in the production of two commodities will export that commodity in which the absolute advantage is the greatest. At the same time, the country with absolute disadvantage in the production of both the commodities can export the commodity in which its absolute disadvantage is the least. In other words, what is important is comparative advantage. However, like Adam Smith, Ricardo also assumes that there is only one factor of production, that is, labour, and the relative costs of production and therefore capability to export, depend solely upon labour productivity. Haberler (1936) restated the classical theory in terms of the opportunity cost approach, where the main concern was not how many factors or how much of each factor entered into production, but how much of another good could be produced by the same factors. With this approach, Haberler was able to incorporate factors other than labour into the classical trade theory, adding to its realism. However, it was the development of a more general neo-classical theory of trade by Heckscher (1919) and Ohlin (1933) that provided a more comprehensive picture on the sources of comparative advantage.

The Heckscher-Ohlin theory is the most widely used theory to explain the international trade patterns and the theoretical debates on South-South trades are centered around the neo-classical theories of foreign trade. The basic proposition of the neo-classical theories, initially formulated by Heckscher and Ohlin and later modified by Samuelson (H-O-S) and others is that trade will be greatest between countries with most dissimilar factor endowments, and therefore the cost of production. Intuitively, such theories are well suited to explain the trade between the South and North, rather than South-South trade among countries with similar factor endowments (Folke, et al., 1993). Moreover, it is argued that H-O-S theory is ill suited

to explain the majority of world trade, that is, North-North trade⁷. Therefore, there have been many attempts to extend the basic two country- two factor-two goods H-O-S model either by relaxing its assumptions or by moving from two to many factors of production, goods or countries, in order to explain the actual world trade patterns. This led to the emergence of a number of alternative theories such as the vent for surplus model, the availability thesis, theory of economies of scale, technological theories, the theory of product cycle, preference similarity theory, etc. In fact, it was the disarray following the paradoxical results obtained from the original tests of Heckscher-Ohlin theory by Leontief (1953), that gave rise to the emergence of such alternatives to the Heckscher-Ohlin theory. These alternatives are also put to empirical verification to confirm their validity in determining the patterns of trade. According to Parsan (1993), with the exception of the simple version of the H-O theory, all its extensions provide useful insights into South-South trade.

Among the more 'modern' trade theories, differences in technological advancement among developing countries (neo-technology theory); scale economies and product differentiation (scale economy and monopolistic theories); and similarities in tastes (preference similarity theory) are the more important ones in the context of South-South trade. Under the neo-technology theory, there are two major models: the technology gap model (Posner, 1961) and the product cycle model (Vernon, 1966). Posner's model, developed in the context of explaining trade in manufactures among industrial countries says that leads and lags in technological innovation among countries determine the pattern of their specialization and trade composition. Accordingly, it is possible that the developing countries, which are more technologically advanced, could export technology intensive goods. The product cycle model was initially developed by Vernon (1966) to explain trade in manufactured goods on the basis of stages in a product's life. Nevertheless, both these models do not seem to have much implications for South-South trade because the industrial countries are the ones which stimulate technological change and they exchange among themselves products which are standardized, while trade between developing countries will be in comparatively less-technology intensive products (Parsan, 1993).

⁷ Despite the fact that the countries in the North are relatively similar in terms of factor endowments, they trade intensely with each other, and this trade has been growing fast since the Second World War (Folke, et.al., 1993).

Under the theories of scale economy and monopolistic competition, a basis exists for trade where countries are able to enjoy scale economies, either as a result of their large market size or because of long production runs. Dreze (1960) extended the scale economy thesis to include small nations. Thus the scale economy theory has direct implications for both large and small developing countries. Large developing countries such as South Korea, Brazil, India and China are likely to enjoy comparatively high productivity and cost advantages by producing for their large home markets. The benefits from large-scale production can allow them to export to other developing countries as well. At the same time, small developing countries can also benefit from specialization, although the largest potential exists for standardized goods. The non-availability trade hypothesis developed by Kravis, can also be interpreted in a rather straightforward manner in relation to trade among developing countries. Accordingly, differences in natural resource endowment and in the quantity of skilled manpower, as well as the existence of a technological gap between some countries and others in the development of certain industries, etc. imply that certain goods are produced in some developing countries, but not in others. Hence, trade among developing countries might well be stimulated by an exchange of such products.

However, the most widely quoted alternative suggested against the H-O-S trade theory, especially in the context of South-South trade⁸, is the one developed by Linder (1961), that is, the preference similarity theory, which, in contrast, provides a demand-side explanation. Linder hypothesized that similarities in tastes between nations are important in explaining the trade patterns. If, according to the theory, trade takes place due to similarity in tastes, then it is unlikely that South-North or North-South trade will develop. At the same time, the theory is capable of explaining the heavy weight of North-North trade in world trade (which is mainly intra-industry trade emerging out of similarity of demand structures) as well as the growing share of South-South trade. As Linder states, the more similar the demand structures of two countries, the more intensive potentially is the trade between the two. According to him, goods are first produced in response to domestic demand and since exports are an extension of the domestic market, exporter will look towards countries with similar demand patterns with which to develop trading links. Thus, developing countries with similar demand structures can engage in mutually beneficial trade by producing both capital and consumer goods that are appropriate to their income levels. That is, the Southern countries,

⁸ See Lall (1985), Folke, et.al. (1993), Parsan (1993), etc.

although they have substantially lower income levels, can encourage trade among themselves in products with low-income characteristics (Parsan, 1993). Therefore, Linder recommends the promotion of such trade among developing countries, which would improve static efficiency as a necessary condition for dynamic efficiency needed to enhance the growth potential. Furthermore, as Linder points out, such a trade with the developing countries can reduce the need to import certain items of lesser importance from industrial countries and thereby save foreign exchange to acquire more essential capital goods from advanced countries.

Compared to the other alternatives to the H-O-S models, which could mostly operate in the North, Linder's theory seems to be more directly applicable in explaining South-South trade. This demand-side explanation has been supported by many in the recent literature (Asad Alam (1995) and Lundback and Torstensson (1998)). Linder's theory is closely connected to the theories explaining intra-industry trade as well, that is, the theories of monopolistic competition and product differentiation. The works attempting to explain intra-industry trade include those of Dixit and Norman (1980); Krugman (1981); Helpman (1981) and Lancaster (1984). The research was motivated by large volumes of trade flow between economies with similar factor-endowments and significant trade overlap within industries. However, these theories generally explain the trade among the industrial countries, which are engaged in large-scale product differentiation. In developing countries, consumer varieties are comparatively limited. Over and over again, this notifies the special significance of Linder's preference similarity thesis in the context of South-South trade.

Nevertheless, empirical studies on Linder's hypothesis have produced mixed results. Empirical testing by Hanink (1990) suggested that Linder's thesis might be correct, but only for those limited number of countries with very high per capita GNP. Another by Greytak and Tuchinda (1990) using inter-state commodity flows within the U.S., with advantage over international trade data, generated a positive response making the Linder's hypothesis stand up more strongly. In course, they have also attempted an evaluation of the strength of the per capita income specification of the Linder determinant, making use of the direct measurement of consumption. However, some empirical attempts to verify Linder hypothesis have produced little support (Ellis, 1983; Kohllagen, 1977).

From the above review, it emerges that none of the theories/models may completely explain the complexity of actual trade patterns. Therefore, as pointed out by Leamer (1993), economists should abandon the idea that models are either true or false and accept that they are sometimes useful and sometimes misleading. In this context there emerges the need for repeated attempts at validating the theoretical innovations in different contexts. Thomas (1988), discussing many variants of H-O-S and other neo-classical theories of trade in the context of South-South trade, concludes that it would be most useful to have further observation and empirical analyses of this trade rather than hastily fitting its analysis into the straightjacket of textbook trade models. The above observation might be emerging from the realisation that the South is not a homogeneous group of countries.

Ideally the present study should have attempted to empirically test all the important models available in the literature. However, our endeavour here is more modest. Without ruling out the importance of the factors identified in different existing theories, the present study focuses mainly on the question of preference similarity. We hypothesise that preference similarity plays a major role in determining India's exports to the GCC. We advance the above hypothesis on account of two important reasons. First, the two regions are characterised by geographical proximity and long-standing social, economic and cultural links. Second and perhaps a more important reason is the big presence of the Indian Diaspora in the Gulf countries. There is some emerging literature on the influence of migrants on the bilateral trade. Accordingly, one of the mechanisms through which migration promotes trade is the preference similarity. Therefore, the preference similarity hypothesis seems to be more befitting in explaining the present case, which is distinctive in the sense that the largest expatriate community in India is living in the Gulf. More importantly, India being a country with one of the largest migrant population in the world⁹, it is very important to examine its possible implications for the country's trade flows.

1.6 Data Sources and Period of Analysis

Two important national publications providing data on India's trade flows are Directorate General of Commercial Intelligence and Statistics (DGCI&S) and Reserve Bank of India

⁹ Indians form the third largest Diaspora in the world, next only to the British and the Chinese. Over 20 million People of Indian Origin (PIOs) are spread over 70 countries (C.S. Bhat, K. Laxmi Narayan and Sadananda Sahoo, 2002).

(RBI), of which the former provides the most comprehensive data. While the data provided by the DGCI&S (Ministry of Commerce and Industry, Government of India, Kolkata) are based on customs clearance of merchandise transactions at major ports in the country, the RBI provides the exchange control data. Since the major purpose of the RBI data is to provide information on the balance of payment situation in the country, it is not available at desired levels of disaggregation, unlike the DGCI&S (Veeramani, 2001). Therefore, the DGCI&S data are used in the present study.

There are two publications of DGCI&S, that is, Monthly Statistics of the Foreign Trade of India (MSFTI), providing commodity-country details of trade, and Statistics of the Foreign Trade of India (SFTI), providing country-commodity details. While volume 1 gives export data, volume 2 gives import data, and it is the March issues of these publications those give annual data. Volume 1, that is, the export data of MSFTI has been split into two parts from April 1998 onwards, with part 1 containing (Harmonized System) chapters 1-49 and the remaining chapters in part 2. For SFTI export volume also, there are two parts with part 1 containing countries starting with English alphabet A to M and part 2 containing the rest, that is, N to Z. Detailed data are given in both quantity (net of packing) as well as value. The statistics relate to exports including re-exports as well as imports of merchandise through all the recognized sea-ports, air-ports, land customs stations, inland containers depots, etc. located all over India. Export statistics are based on Daily Trade Returns (DTRs) prepared from declarations made by exporters in Shipping Bills and the import statistics from the declarations made by the importers in Bills of Entry as subsequently checked by customs authority. For analyzing the aggregate export trends over 1981-2001, the present study has used volume 1 of the MSFTI, as the country-wise aggregate data are available from the first few pages of this publication. And for disaggregate analysis, SFTI, the first volume of which provides country-commodity details of India's exports, has been utilized.

The structural analysis has been limited to the period since 1987, because of the change in the commodity classification system employed by the DGCI&S into the Harmonized System (HS) from April, 1987 onwards, and thus, bringing it at par with the one used by GATT. The new classification consists of 99 Chapters represented by 2 digit codes, 1253 H.S. Headings represented by 4 digit codes, and 5062 H.S. sub-headings represented by 6 digit codes. The 8 digit codes of H.S. coming to nearly 11035 in number, have been derived by further subdivision of the 5062 H.S. sub-headings to capture data on national importance. The present

study has made use of the H.S. data upto 4-digit level. The DGCI&S data for the latest 3 financial years is available in an electronic database, viz., 'India Trades' furnished by the CMIE.

For the bilateral trading data, we have made use of the IMF Direction Trade Statistics Yearbook, the most relevant and widely used international trade database, prepared by the General Economy Division of the Bureau of Statistics. The yearbook gives 7 years of data for 161 countries¹⁰ along with world and area summaries. We have also made use of the electronic database of the same publication, supplied in December 2002. The other international publications on trade are: a) UNCTAD Trade and Development Statistics, renamed recently as UNCTAD Handbook, and b) International Trade Statistics Yearbook, published by the Department of Economic and Social Development Statistical Office. Both are UN publications, which seem to have the following limitations: 1) it does not report exports or imports for the commodities whose share in the total is less than 0.3%; and 2) considerable time lag is involved in making the data available. Nevertheless, occasionally, they have also been applied. All the international trading data are expressed in US dollars, while India's foreign trade data are reported in rupees. Finally, most of the non-trade information utilized, have been taken from the Middle East Economic Data Book, published by the Edwards Economic Research Unit, Canada.

Time Period

The time period selected for the study is 1981-2001. We begin with 1981 because it was in May 1981 that the GCC came into existence, as a regional grouping of the Arab states in the Gulf region. For the structural analysis we take the period since 1987 due to the new commodity classification system adopted by the DGCI&S since then and the possible mismatch with the former classification. The structure would be examined at 4-digit level. The period covered for analysing the determinants of India-GCC exports is, however, limited to 1990-2000, mainly due to the problem of availability of data on migration.

¹⁰ In case reported data are not yet available for a particular country, data derivable from the records of partner countries are used as estimates.

1.7 Chapter Scheme

The study is arranged into five chapters. The present chapter as already noted gives an idea of the background as well as the significance of the study. It also gives an account of the theoretical implications for the study as also its specific objectives and data sources. In the second chapter, we examine the trends and mutual orientation of India-GCC trade. Coming to the third chapter, India-GCC exports are examined at the disaggregate levels, where a comparison is also made with India's aggregate exports as also the GCC import structure. Both the second and the third chapters help in explicating the potential of the Gulf market, especially indicating the influence of migration. In the fourth chapter, we confirm the effect of migration on India-GCC export, while analysing its determinants. The fifth chapter presents the major findings and conclusions of the study.

CHAPTER II

TRENDS AND ORIENTATION IN INDIA-GCC TRADE

2.1. Introduction

In the introductory chapter we have highlighted the growing importance of the Middle East both in the network of international trade as well as in India's trade. In the present chapter we will examine India's trade with the GCC in detail. Here we will be focussing on the exports, because the imports from the Gulf¹ region are overwhelmingly constituted by oil. A detailed analysis of the exports assumes special significance in the context of the huge and widening trade deficit with these countries and therefore the necessity of having increased exports with the region to tackle the balance of payment situation. India-GCC trade being an important subset of South-South trade, which is a growing component in the network of world trade, the present study, as already mentioned, is expected to provide some useful insights on the dynamics of the South-South trade as well. Our analysis will be confined to the merchandise exports, leaving out the service exports, for which the data are not available with the DGCI&S.

We begin by examining the trends in India's exports to the Gulf Co-operation Council (GCC) countries, as given in the succeeding section (section.2.2). Since the GCC was formed in 1981, the period covered is 1981-2001, that is, a span of 21 years. Value of exports is considered in US dollars as rupee exhibits fluctuations in its value. As the early 90s witnessed a number of events in the domestic and international scenario with possible influence on India-GCC exports, we will be examining whether there had been any major shift in trend and patterns since then. Accordingly a test of structural change is done at the aggregate as well as the disaggregate levels. Also period-wise growth rates are calculated to show whether the growth had been higher or lower in the 90s compared to the 80s. In section 2.3, India's share in the GCC' trade which is as important as the GCC' share in India's trade has also been examined. The trade intensity indices (Wadhva and Asher, 1985), which reveals one country's representation in another's market relative to the latter's importance in

¹ The word 'Gulf' will be used synonymously with GCC henceforth.

the world market, have been made use of in section 2.4, to get a more meaningful picture of the mutual orientation in the two-way trade. Section 2.5 makes some concluding remarks.

2.2. Trends in India-Gulf Exports

The Gulf countries are considered to be a potential export market in the context of their consciousness about the depletion of oil reserves, on the export of which they are almost completely dependent today. A need for diversification of their economies reducing this dependency on oil seems to surface in recent times. Therefore the opportunity comes in the form of assisting their development endeavour, to be financed mainly from the revenues earned through their oil exports. In the case of India, the geographical proximity, the traditional cultural and trade ties are all favourable factors for furthering the trade linkages with them. India was greatly dependent on the Middle East for oil even before the Second World War. The end of World War opened up more trade opportunities for India as Japan and Germany were no longer the major trade partners of the Middle East countries (Paranjpe, 1950)². However, it was only since the onset of oil-boom, with which the Middle East became prominent in international trade, that India began to recognize the potential of these rich neighbours as an extensive export market. And here, in supplying the manufactured consumer goods as well as the capital goods for their diversification, India enjoys many advantages like those of nearness as well as more appropriate technologies (Lall, 1985), compared to some of the advanced countries. According to Varadachari (1973), although opportunities were opened up for India in the Arab countries, especially in the post-1973 period, they have been exploited only to a limited extent. The major items of export from India to the Gulf countries are meat, fruits and vegetables, rice, textile yarn, fabrics, made-up articles, tea, spices, tobacco and tobacco manufactures, animal feeds, machinery and transport equipment (Mehta, 1989). Oil being the principal import of India, which is mainly sourced from the Gulf countries³, India's trade deficits had almost been completely accounted for by these countries. As already mentioned, this emphasizes the importance of expanding exports to this region, to balance the trade account.

Mohan (1989) points out the growing potential of the Gulf market indicating a continuous increase in its imports, at a time when the world economy at large presented a gloomy picture

² During this time, the trade between India and Middle East, though not much significant in quantity terms, had qualitative importance on account of the essentiality of the commodities exchanged.

³ Especially from Saudi Arabia who constituted 96.5 per cent of India's aggregate trade deficit in 1993-1994.

in the 80s. During the 80s, the South-South exports also showed a continuous increase as against the other links in the world export network (Table 1.2.). Therefore the growing GCC imports during this time might have been sourced mainly from the Southern countries themselves, among which India occupies the prominent position⁴. From among the Gulf countries, the most important markets for Indian products are UAE, Saudi Arabia and Kuwait respectively, and they jointly absorbed 86 per cent of India-GCC exports in 1988-89 (Mohan, 1989). As against the existing literature, we analyse more recent trends in India-GCC exports as well as the mutual orientation of this two-way trade. The changes in the structure of exports at different levels of aggregation, the determinants of India-GCC exports with special focus on the influence of Indian Diaspora, etc., are the other important aspects studied, which are given in the subsequent chapters.

To start with, we may have a comparative look at the trends in India's exports to the GCC with India's aggregate exports (Table.2.1.). Though the subsequent analysis of India-GCC exports will be in US dollars to avoid the effect of fluctuations in the value of rupee, in Table.2.1 we present the trends in rupee terms, as a point of departure.

Table.2.1
India's Exports-Aggregate and GCC (Million Rs. and Percentage Changes)

Year	Aggregate Exports	Percentage Change	Exports to GCC	Percentage Change
1981	67107.1	4.5	4814.1	1.5
1983	88033.6	12.8	6362.0	3.7
1985	117436.8	20.2	7475.9	19.7
1987	124519.5	14.3	6840.4	-5.9
1989	202315.0	29.1	10277.4	23.7
1991	325576.3	17.7	14736.7	-4.3
1993	536882.5	21.9	32237.7	2.0
1995	826741.1	18.5	63183.7	3.3
1997	1188170.8	11.7	85677.3	13.9
1999	1397531.4	7.4	127007.7	22.7
2001	2035710.1	27.6	178465.0	28.7
1981-1991*	149365.6	16.49	8533.5	12.0
1991-2001*	1037154.0	20.21	82854.3	29.0

Note: Re-exports have not been considered.

* Averages

Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues



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⁴ See Table.2. 5.

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As seen from the average figures of Table.2.1, while India's aggregate exports increased ten times in the 90s compared to the 80s, India-GCC exports have also registered a similar pace of growth. Such a similarity in the growth of India's aggregate exports as well as the exports to the GCC (seen from Chart.2.1 and 2.2 also) implies the significant contribution of the latter to the former. At the same time, comparison between the average annual percentage changes shows a noticeable growth of India-GCC exports in the nineties. In fact, the growth in India's exports to the GCC has more than doubled in the 90s compared to the 80s, while India's aggregate exports have shown only a marginal growth over this period. That is, the nineties have witnessed an appreciable growth in India-GCC exports, even as compared to India's aggregate exports.

Table.2.2

India's Exports, Imports and BoT with the GCC (US \$ Million and Shares in total)

Year	Export	Share	Import	Share	BoT	Share
1981	608.61	7.20	1661.53	10.50	-1052.92	14.30
1983	657.92	7.20	2383.06	16.10	-1725.14	30.40
1985	628.76	6.40	2141.85	14.90	-1513.08	33.40
1987	535.25	5.50	1418.67	9.00	-883.42	14.80
1989	709.77	5.10	2468.96	12.70	-1759.19	31.80
1991	821.45	4.50	3202.85	13.30	-2381.40	40.20
1993	1113.18	6.00	4085.85	18.70	-2972.66	88.90
1995	2012.86	7.60	5419.96	18.90	-3407.10	146.60
1997	2415.49	7.20	7967.03	20.30	-5551.54	98.00
1999	3018.24	9.10	5615.81	13.30	-2597.56	28.30
2001	3912.85	8.80	-	-	-	-
1981-1991*	673.58	6.16	2072.18	12.00	-1398.60	24.90
1991-2001*	2395.40	7.85	5861.8	18.00	-3635.00	102.00

Note: Re-exports have not been considered.

BoT implies Balance of Trade and _ denotes Not Available.

* Averages.

Source: Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues

In Table 2.2, again the India-GCC exports show a clearly rising trend in the 90s while the 80s show fluctuations. Comparison between the average figures for the two decades shows a growth by more than three times, as against that by ten times seen in rupee terms (Table.2.1), where the exchange rate fluctuations were not accounted for. This highlights the importance of analysing the growth trends in dollar terms. Nevertheless, just as seen in rupee terms, the average growth of India-GCC exports has more than doubled, while India's aggregate

exports has shown only a marginal growth in the 90s. That is, while India's aggregate exports registered a growth of 9.8 per cent in the 90s from 8.2 per cent in the 80s, India-GCC exports grew from 5.4 per cent to 16.5 per cent between the decades. Examining the shares of India-GCC exports in India's aggregate exports also show a better performance in the 90s, as against a continuous decline seen in the 80s. For the imports also, the 90s show an almost continuous growth than the 80s, in absolute terms as well as shares. However, the India-GCC imports, which is mainly constituted by oil, have been considerably higher than the exports throughout the period, resulting in a continuous negative balance of trade (BoT) with the Gulf region. In 1995, the share of GCC in India's aggregate BoT is seen to be 146 per cent, showing that the trade deficit with the Gulf countries has been higher than India's total trade deficit. On average, the share of GCC in India's total trade deficit has increased by five times over the period. To meet this trade gap, the promotion of exports seems to be a better option than controlling the imports, which is almost impossible due to the crucial demand for oil, a precious natural resource supplied universally by the Persian Gulf states. Thus, the trends in India's BoT with these countries show the growing necessity of having increased exports with the region. The present study, therefore, is confined to the analysis of the exports of India to the Gulf countries, as a more feasible option for meeting the trade gap.

The growth trends in India-GCC exports being the primary focus of our attention, Charts 2.2 also makes it clear that there has been a higher growth in the series starting from the early 90s. In spite of the more or less similar trends in Chart 2.1, the break in India-GCC exports in the early 90s is much clearly visible. As already mentioned, the absolute figures and the shares given in Table 2.2 also made this change evident. Therefore, we test whether there had been any major structural shift in the growth pattern in the early 90s. In fact, the early 90s has witnessed a series of events such as the burgeoning liberalization measures in India, devaluation of the currency, the Iraq-Kuwait war, establishment of the WTO, end of the cold war, etc., all of which could influence the export growth. This prompts us to look for a structural shift in the growth pattern of India-GCC exports in the early 1990s. But due to the ambiguity about the exact year of change, we test this statistically with 1992 as the year of break. Thus, we have calculated the pre and post 1992 growth rates for India- GCC exports at the aggregate as well as country levels. Before going to the details of the trend break, we may see the country composition of India-GCC trade, which helps to limit the analysis to the major trade partners.

Table.2.3

Composition of India-GCC Trade: Percentage shares in Aggregate India-GCC Trade

Year	Kuwait		Qatar		Saudi Arabia		UAE		Bahrain		Oman	
	Exp	Imp	Exp	Imp	Exp	Imp	Exp	Imp	Exp	Imp	Exp	Imp
1981	20.10	25.70	3.60	3.29	34.30	41.09	31.60	26.63	3.50	3.18	6.99	0.13
1983	18.80	12.00	3.50	1.21	35.70	64.91	31.30	15.65	3.80	6.07	6.90	0.04
1985	14.30	14.50	2.90	2.85	36.40	49.59	33.90	13.53	4.80	12.9	7.80	6.55
1987	13.50	16.00	2.60	1.81	31.20	47.56	41.80	20.31	4.10	5.26	6.80	9.05
1989	14.00	14.60	2.10	1.43	31.50	52.96	41.20	24.37	3.80	6.49	7.40	0.18
1991	5.00	6.30	2.10	0.84	28.40	50.46	53.40	33.07	4.30	8.05	6.90	1.27
1993	9.70	0.50	2.40	44.7	27.50	15.47	73.00	9.93	4.50	8.69	6.70	6.23
1995	6.70	27.30	1.50	2.12	21.70	28.97	62.90	28.29	2.90	12.8	4.40	0.50
1997	6.40	30.20	1.30	1.75	23.90	34.79	60.90	21.81	2.60	11.3	4.80	0.15
1999	5.50	26.70	1.30	1.25	25.60	32.61	61.80	30.64	1.90	8.38	3.90	0.40
2001	5.10	6.70	1.60	4.70	21.10	36.96	66.50	39.21	2.00	12.10	3.70	0.38
1981-1991*	15.20	15.00	2.79	1.90	32.06	47.9	38.30	25.20	4.26	6.20	7.44	3.30
1991-2001*	5.95	19.00	1.59	9.50	24.65	33.2	62.20	25.70	2.92	9.10	4.86	2.90

Note: Re-exports have not been considered.

* Averages.

Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues

Chart.2.1
India's Aggregate Exports

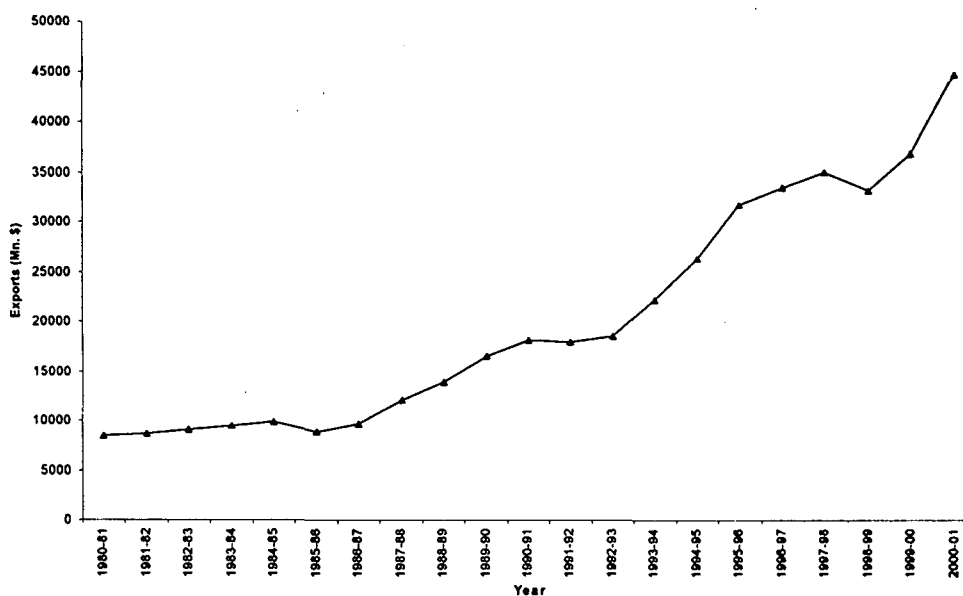


Chart.2.2
India's Exports to the GCC

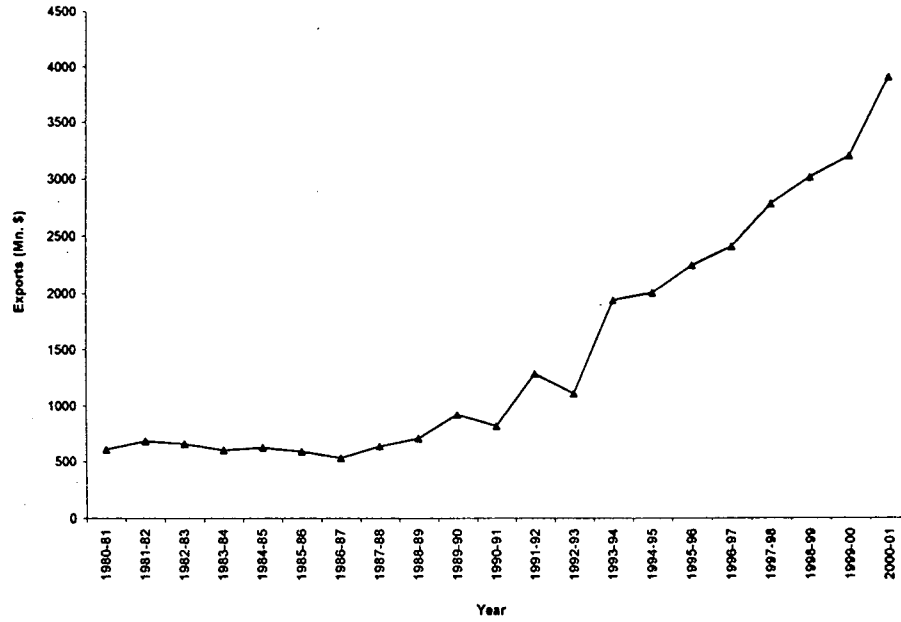
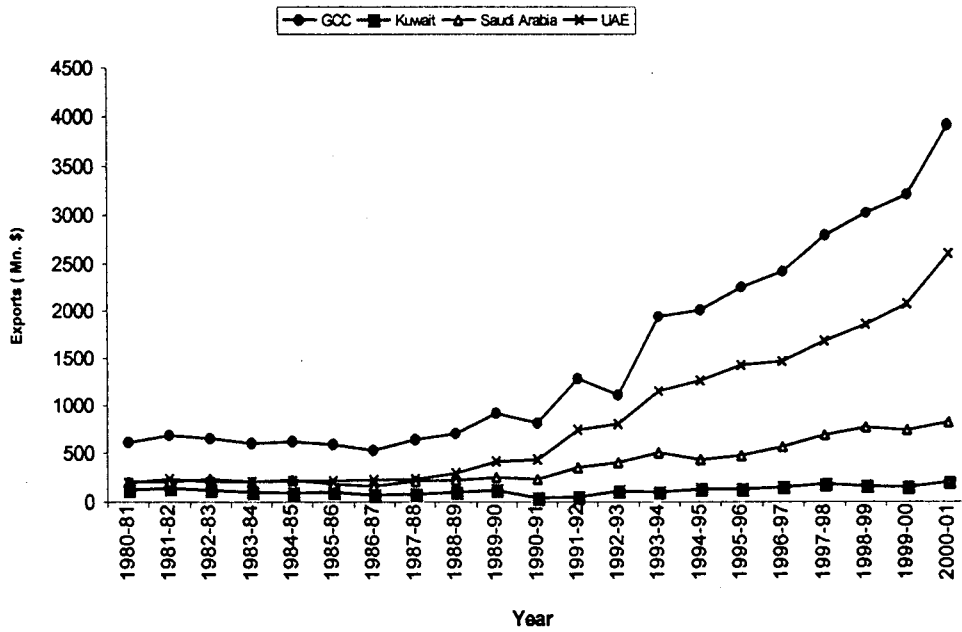


Chart.2.3
India-GCC Exports: Country-wise



As seen in Table.2.3, three members (that is, the United Arab Emirates, Saudi Arabia and Kuwait respectively according to their importance) constitute more than 80 percent of India's exports to the GCC and therefore, we can confine to them in the further analysis. Out of these, UAE seems to be the most important trade partner with whom India's exports as well as imports are flourishing comparatively well. The average share for the two decades show that only UAE has registered an increased share in India-GCC exports. Saudi Arabia, the second prominent trade partner, accounts for the largest share in India-GCC imports. However, its import share just like the export share is declining over time. Therefore the rising share of UAE in exports as well imports, indicating the consistently growing trade relations, is noticeable. Kuwait constituting the third largest share in India-GCC exports also registered a decline by more than half in the 90s. The other three trade partners contribute only very meager shares among which Oman has shown a declining share in both exports and imports while Bahrain and Qatar has shown a declining share in exports and a rising share in imports. On the whole, UAE seems to have more promising trade relations with India.

As evident from Chart.2.3, at the country level also there has been a leap in India-GCC exports in the early 90s and therefore the pre and post-1992 growth rates have been calculated for all the three prominent trade partners in the GCC. In testing the trend break the dummy variable method has been made use of, with which we can estimate the growth rates of two distinct growth periods, by running a single regression. The functional form⁵ used is given below:

$$\ln Y_i = \alpha_1 + \alpha_2 D_i + \beta_1 t_i + \beta_2 (D_i t_i) + u_i, \text{ where}$$

Y_i = India-GCC Exports over 1981-2001;
 D_i = the dummy with 1992 as the break, that is, $D_i = 0$ for $X_i \leq 1991$, otherwise $D_i = 1$.
 t_i = time for $i = 1-21$;
 $D_i t_i$ = dummy * time;
 α_1 = the constant;
 β_1 = growth in the first period;
 $\beta_1 + \beta_2$ = growth in the second period; and
 u_i = error term.

⁵ A semi-log form of equation has been used to calculate the growth rates. The growth rate estimation is very much dependent on the functional form used and the semi-log form is used mainly because of its convenience.

Table.2.4**Compound Annual Growth Rates: India-GCC Exports and its Constituents
(Percentage)**

Year	GCC	Kuwait	Saudi Arabia	UAE
1981-1992	2.6(2.141)*	-6.8(-3.005)	1.1 (1.024)**	7.4 (5.507)
1992-2001	13.3(5.263)	11.4(4.999)	9.8 (5.268)	13.7(2.856)

Note: ** shows no significance, * shows significance at 5 percent level, while all others are significant at 1 percent level as per the t- values given in brackets.

Source: DGCI&S, Monthly Statistics of Foreign Trade of India, Vol.1, March issues

From Table.2.4, it is evident that at the aggregate level, as expected, the second period is showing a higher as well as a more significant growth compared to the initial period. At the country level also, the 90s have witnessed a higher growth. UAE has shown the highest positive growth rate in the second period. The growth in India-Saudi Arabia exports, while insignificant in the 80s, had been the least among the growth rates during the 90s. In the case of Kuwait, growth in first period is negative as against the positive and significant growth in second period. Overall, UAE seems to be a consistent destination for Indian exports, with significant positive growth registered in the 80s also. This was evident from the earlier analyses as well, e.g., Chart.2.3, where the India-UAE exports continued to be the highest throughout the period. Thus, the trend break is proved at the aggregate as well as disaggregate levels, implying that India-GCC exports has been on a higher growth trajectory in the nineties compared to the eighties. It should however be noted that India's aggregate export has not registered any trend break during this time, perhaps indicating the importance of the bilateral rather than general factors in determining India's exports.

To conclude this section, similarity in the growth of India's aggregate exports as well as the exports to the GCC, as seen from Chart.2.1 and 2.2, indicates the significant contribution of the latter to the former. Nevertheless, the nineties seem to witness an appreciable acceleration in India-GCC exports, as compared to India's aggregate exports. The shares of India-GCC exports in India's aggregate exports also show a better performance in the 90s, as against a continuous decline seen in the 80s. For the imports also, the 90s show an almost continuous growth than the 80s, in absolute terms as well as shares. However, India's imports from GCC, mainly constituted by oil, have been considerably higher than the exports

throughout the period, resulting in a continuous trade deficit with the Gulf region. The share of GCC in India's total trade deficit has increased by five times over the period, which adds on to the importance of the buoyancy in India's exports to the GCC in 1990s shared by almost all the GCC members. We made an attempt to see whether there had been any major structural change in the growth pattern in the early 90s, which witnessed a series of events with possible influence on the export growth. Trend break could be seen at the aggregate level as well as at the level of individual GCC countries, exhibiting that India-GCC exports has been on a higher growth trajectory in the nineties compared to the eighties. At the disaggregate level, UAE seemed to be the most promising destination for Indian exports.

2.3. India's Role in GCC Trade

In this section, we examine the extent of India's representation in GCC trade, which is as important as the GCC's share in India's trade. As per the Middle East Economic Data Book (2001), India comes as the fourth important export partner for GCC after Japan, South Korea and USA and as a source for GCC imports India's position is eighth. Table 2.5 presents the important sources of GCC imports, which is more apropos for the present study to check out. It is noticeable that India has improved its position over 1996, reaching almost the top among the developing countries. At the level of individual member countries, India is largely a source for the imports of UAE, followed by those of Saudi Arabia and Kuwait respectively. In fact, UAE dominates as a destination for the Asian exporters as a whole, mainly due to the efforts by Dubai to diversify the sources of its imports in search for the low-cost suppliers (The Middle East Economic Data Book, 2001). The importance of UAE as the largest and growing⁶ market for Indian products is therefore noticeable due to the wide competition among countries for gaining this market with a highly liberal trading environment. As seen from Table.2.5, as a source for UAE imports, India has exceeded France, who precedes the former in the aggregate ranking. And in Kuwait, India has overtaken Korea, her main competitor from the South and Japan from the North. In the case of Saudi Arabia, India has to be more attentive, as China, who comes below India in aggregate ranking, has already gained an upper hand.

⁶ We have already seen from the trends in India-GCC exports at the level of individual countries that UAE is the most important export destination for India.

Table.2.5**Imports into the GCC, 1998 Estimates: Top 10 Countries of Origin (US \$ Million)**

Rank, 1998	Rank, 1996	Origin	GCC Total	Kuwait	Saudi Arabia	UAE
1	1	USA	15366	1661	10505	2172
2	3	Japan	10089	145	3980	3124
3	2	UK	9844	572	5069	2856
4	4	Germany	5745	592	2503	1952
5	5	Italy	4509	387	1692	1724
6	6	France	3683	307	1459	1235
7	7	Korea	3196	177	1172	1625
8	9	India	2856	279	767	1587
9	8	China, mainland	2634	104	951	1485
10	10	China:Hong Kong	1839	77	469	1211

Source: The Middle East Economic Data Book, 2001; Estimates by Edwards Economic Research Unit.

As calculated from Table 2.6, the compound growth of India's share in GCC export and import are 21.83 per cent (9.03) and 15.32 per cent (9.93)⁷ respectively, that is, positive and highly significant. On average, India's share in GCC exports and imports have risen to five and three per cent respectively in the 90s. In any case, the shares in exports seem to be higher, implying the weight of oil imports in India-GCC trade. This is despite the declining share of GCC in world exports, perhaps due to the new alternative sources of oil supply⁸. Fluctuating trends in India's share in GCC imports probably testify that India is facing much competition in this market. India's share in GCC imports is, however, higher than India's share in world exports, which had been less than one throughout the period and has nearly been stagnant over the decades. Further, even though GCC was losing its share in world imports, India has managed to increase her share in the GCC imports. While the GCC share in world imports declined from 2.2 percent to 1.4 percent during the last two decades, India's share in GCC imports increased from 1.7 percent to 3.3 percent.

Tables 2.7 and 2.8 give an account of India's representation in the Gulf trade at the level of two important trade partners (UAE and Saudi Arabia) in the region. As seen from Table 2.7, India's share in UAE's exports, prominently due to the unavoidable supply of oil, is more or less increasing. However, just as noticed at the aggregate level, the share of UAE in world exports has declined. One reason for this could be the shift in the development strategy of

⁷ Values given in brackets are t-values and the equation used for estimating growth rates is $Y=a+bt$.

⁸ To meet the short term shortages of energy supply, Russia, the Caspian area and Africa have emerged as the new alternatives (The Hindu, Sept. 15,2002).

UAE since 1985 when the contribution of oil to GDP was reduced from 85 per cent to 35-40 per cent⁹. India's share in UAE's imports, though rising, has been exhibiting a fluctuating pattern. This, as mentioned earlier, seems to indicate the competition existing in the UAE market, which has a highly liberal trading environment. The share of UAE in world imports, which is growing more or less continuously, however implies that UAE is a growing market. Meanwhile, as seen from Table 2.8, Saudi Arabia's share in world imports has slowed down in the 90s, perhaps implying its continuing efforts for domestic industrialisation. Such a trend in Saudi Arabia's global imports does not appear to be a welcome development as far as Indian exports are concerned. The decline in the share of world imports was noticed at the aggregate GCC level as well. Therefore, perhaps UAE is the principal and the most promising destination for India's exports in the GCC market.

Table.2.6

India's Share in GCC's and GCC's Share in World Trade

Year	India's Share in GCC Exports	India's Share in GCC Imports	India's Share in World Exports	GCC Share in World Exports	GCC Share in World Imports
1981	1.06	1.41	0.37	8.90	2.90
1983	2.27	1.29	0.58	5.41	3.39
1985	2.86	1.77	0.46	3.50	2.15
1987	3.05	1.91	0.46	2.32	1.48
1989	3.47	2.36	0.53	2.27	1.36
1991	3.31	1.78	0.59	2.61	1.67
1993	4.19	3.16	0.56	2.25	1.60
1995	3.32	3.71	0.60	1.99	1.22
1997	5.57	3.74	0.60	2.28	1.21
1999	5.64	3.41	0.68	1.92	1.33
2001	5.11	3.21	0.73	2.62	1.56
1981-1991*	2.73	1.74	0.50	3.95	2.15
1991-2001*	4.70	3.32	0.60	2.24	1.40

*Average.

Source: Calculations based on IMF, Direction of Trade Statistics Yearbook, various issues.

Nevertheless, it is noticeable that India's share in Saudi Arabia's imports, though lower compared to the share in UAE's imports, shows an almost continuous rise. Also, compared to the more or less stagnating share of India in world exports, India's share in Saudi Arabia's imports is far better. India's share in Saudi Arabia's exports is also rising almost continuously, implying that India is a dominant importer of oil from the country. This strengthens the significance of India's recently growing exports to Saudi Arabia, as noted in the previous section. The growth in India-Saudi Arabia exports since 90s, even despite Saudi Arabia's

⁹ The Hindu, Oct. 4, 2002.

decreasing share in world imports, may sometimes be the reflection of India's strengthened political relations¹⁰ with Saudi Arabia in 1990s. In fact, India-Saudi Arabia relations have started earlier compared to India's links with UAE.

Table.2.7

India's Share in UAE's and UAE's share in World Trade

Year	India's Share in UAE's Exports	India's Share in UAE Imports	India's Share in World Exports	UAE's Share in World Exports	UAE's Share in World Imports
1981	2.86	2.52	0.37	1.15	0.50
1983	1.72	2.70	0.58	1.12	0.48
1985	2.29	3.47	0.46	0.77	0.34
1987	3.38	3.23	0.46	0.60	0.29
1989	4.10	4.16	0.53	0.60	0.32
1991	3.87	3.17	0.59	0.70	0.45
1993	2.81	5.57	0.56	0.57	0.51
1995	6.01	6.15	0.60	0.47	0.41
1997	4.90	5.51	0.60	0.57	0.41
1999	5.85	3.75	0.68	0.49	0.60
2001	5.42	3.78	0.73	0.65	0.67
1981-1991*	2.92	3.20	0.51	0.80	0.39
1991-2001*	4.90	4.90	0.60	0.57	0.50

*Average.

Source: Calculations based on IMF, Direction of Trade Statistics Yearbook, various issues.

For India, Saudi Arabia is a neighbour with considerable economic and political relevance, a major source of energy requirements as well as a destination for about 2,00,000 pilgrims from India every year. All the more, the largest expatriate community in India, that is, 1.5 million Indians, is residing in Saudi Arabia. At the same time, as far as Saudi Arabia is concerned, India is an important market for oil as also a stable source of meeting its demand

¹⁰ Although there were some disagreements on the issue of Afghanistan during the 80s, the unity was regained by the middle of the 90s and strengthened by the late 90s when there was unanimity on the issue of terrorism.

for necessities and technology¹¹. Still, India is more represented in trade with UAE rather than Saudi Arabia, which might be due to the liberal trading environment with the importance attached to trade and distribution in UAE, while the importance of developing the manufacturing base in the case of Saudi Arabia. The India-UAE relations are getting more strengthened recently¹². For the promotion of India's trade relations with UAE, an important step has been the inclusion of the UAE in the Indian Ocean Association of Economic Co-operation (Khaleej Times, special report, Aug 15, 2001).

Table.2.8
India's Share in Saudi Arabia's and Saudi Arabia's Share in World Trade

Year	India's Share in Saudi Export	India's Share in Saudi's Import	India's Share in World Exports	Saudi's Share in World Exports	Saudi's Share in World Imports
1981	0.56	0.77	0.37	6.11	1.83
1983	2.57	0.71	0.58	2.96	2.26
1985	3.09	1.06	0.46	1.52	1.25
1987	2.07	1.14	0.46	0.96	0.83
1989	2.47	1.28	0.53	0.95	0.70
1991	2.01	0.83	0.59	1.50	0.97
1993	3.13	1.83	0.56	1.14	0.74
1995	3.12	1.86	0.6	0.98	0.53
1997	4.07	2.42	0.6	1.10	0.51
1999	3.35	2.64	0.68	0.85	0.48
2001	3.06	2.11	0.73	1.15	0.62
1981-1991*	2.21	0.97	0.51	2.25	1.30
1991-2001*	3.20	2.03	0.60	1.10	0.61

*Average.

Source: Calculations based on IMF, Direction of Trade Statistics Yearbook, various issues.

To conclude, India seems to be reasonably represented in the Gulf trade, reaching almost the top among the developing countries as a source for their imports. At the level of member countries also, the picture is the same with UAE seen as the most important and potential market. That is, only UAE has been showing an increase in her global imports. Furthermore,

¹¹ Recently, Saudi Arabia desires to have closer bilateral ties with India and they have already made agreements for economic co-operation in areas like Information Technology, energy, investment, joint ventures, pharmaceuticals, telecom, etc.

¹² The SAIF (Sharjah Airport International Free Trade Zone), situated at the middle of UAE, has come forward for extending further services and infrastructural facilities to the Indian investors who constitute 50-60% of the total investors in this zone. Investments from Europe in this zone are only second to those from India. The important Indian companies operating in this zone are Infosys, Ashok Leyland, Zee telefilm, India Today, Godrej Boyce, ACCEL ICIM and Parikh platinum. SAIF doesn't have quota for apparels and therefore best suited for garment industry (The Hindu, Oct. 4, 2002).

India's share in Saudi Arabia's imports, though lower compared to the share in UAE's imports, shows an almost continuous rise. The fluctuating but increasing share of India in GCC imports is notable in the context of the more or less stagnating share of India in global exports. Despite the falling share of GCC in world exports, which might be due to their diversification away from oil or emergence of new sources of oil, India's share in GCC exports is rising. This hints at the importance of the oil market in India as far as the Gulf countries are concerned and therefore also at the growing importance of bilateral relations. The trade orientation ratios (TORs), as explored in the next section, evidence the depth of the two-way trade, showing how far the potential of the two markets have been exploited each other.

2.4. Bilateral Trade Orientation between India and GCC

So far we have seen various dimensions of the importance of the bilateral trade. But the question addressed in this section is how far the countries are oriented towards each other, exploiting each other's markets to the maximum potential possible. Trade orientation ratios give a picture of the adequacy of the representation of a country in another's market, relative to the latter's importance in the world market. In this way, they depict the intensity of the bilateral trade, which seems to be explained rather by the bilateral factors than the general ones influencing the trade flows. For e.g., the increase in India's aggregate exports due to the factors like competitiveness of India in the international market may not orient India's exports specifically towards UAE, which therefore needs a purely bilateral explanation. The most commonly used tools to analyse the trade orientation between two countries are the trade intensity indices, popularized by Kojima (Wadhva and Asher, 1985).

Here, the export intensity index (x_{ij}) is defined as:

$$x_{ij} = (X_{ij}/X_i)/(M_j/(M_w - M_i)), \text{ where,}$$

x_{ij} = Export Intensity Index of trade of country i with country j.

X_{ij} = Exports of country i to trading partner j.

X_i = Total Exports of country i.

M_j = Total Imports of country j.

M_w = Total world imports.

M_i = Total imports of country i.

Similarly, the import intensity index (m_{ij}) is given by:

$$m_{ij} = (M_{ij}/M_i)/(X_j/(X_w - X_i)), \text{ where,}$$

m_{ij} = Import Intensity Index of trade of country i with country j.

M_{ij} = Imports of country i from trading partner j.

M_i = Total imports of country i.

X_j = Total exports of country j.

X_w = Total world exports.

X_i = Total exports of country i.

A value of these indices greater than unity would imply over-representation of country j in country i's exports/imports, while a value less than one would imply under-representation. These indices can capture the influence of several factors like the historical patterns of trade, geographical proximity, political relationships among nations, degree of competitiveness and/or complementarities in the trade and economic structures of the partner countries, trade barriers, brand loyalties, and so forth.

As India-GCC trade is having many bilateral advantages like very old trade ties, geographical nearness, etc., all the indices are greater than one, showing over-representation in each other's markets (Table.2.9). Nevertheless, a comparison between the growth of different indices is also important. Here, the import intensity index of GCC with India as well as its mirror image of the export intensity index of India with GCC are having a lower growth compared to the export intensity index of GCC with India and the import intensity index of India with GCC. Among all the indices the highest growth shown by the import intensity index of India with GCC shows nothing but the growing importance of the Indian market for the oil exports of GCC. The lowest growth shown by the import intensity index of GCC with India implies that India has still more potential to export to the GCC. Although all the indices are showing highly significant positive growth rates over the period, the matter of concern is the higher growth in India's import orientation compared to the export orientation towards GCC. The pattern of change in the indices also shows the vulnerability of India-GCC exports compared to all the other indices.

Table. 2.9
Trade Orientation between India and GCC

Year	Import Intensity Index of GCC with India	Import Intensity Index of India with GCC	Export Intensity Index of GCC with India#	Export Intensity Index of India with GCC
1981	3.5	1.4	1.4	2.9
1983	2.1	2.3	2.4	2.1
1985	3.8	3.4	4.4	3.4
1987	4.1	4.3	4.3	3.9
1989	4.4	5.6	5.3	5.0
1991	5.6	8.2	8.3	4.8
1993	5.5	8.3	7.4	4.3
1995	6.0	9.1	4.9	5.5
1997	6.1	8.6	7.9	6.0
1999	4.9	7.4	6.8	4.9
2001	4.3	6.6	6.2	4.6
1981-2001*	4.2(5.291)	7.9(6.869)	6.6(6.054)	4.5(6.466)

Note: The equation fitted is $\ln Y = a + bt$, where 't' is the time and 'Y' the trade intensity index.

denotes interpolated for 1985 and 1991; while only for 1991 in the other 3 columns.

*implies growth rates over the period. The values given in brackets are t-values.

Source: Calculations based on IMF, Direction of Trade Statistics Yearbook, various issues.

At the level¹³ of individual countries also we can mostly see over-representation of India in the Gulf markets and vice versa (Table. 2.10). Here also, India's import intensity indices are showing higher growth rates compared to the export intensity indices with both UAE and Saudi Arabia. Nevertheless, both the growth rates (export and import) are higher for UAE. But, it should be noted that in the case of India's export intensity index with UAE, the growth rate is significant only at 10 percent level, while all the other indices show significance at 1 percent level. Looking at the pattern of change also, we can see a slow-down and stagnation in this series by the late 90s. However, it is noticeable that the level of export intensity of India with UAE is the highest throughout the period. Thus, despite the highest and consistent growth shown by India-UAE exports as also India's share in UAE imports, as seen from section.2.2 and 2.3, the intensity of India's exports with UAE seems to have declined towards the end of the period.

In short, though both India and Gulf are relatively better represented in each other's markets, the export orientation of India towards GCC seems to have lower growth compared to the import orientation, at the aggregate level as well as at the level of individual countries. The lower growth of the import intensity index of GCC with India underlines the need as well as scope for increasing India's exports to the region. At the disaggregate level, the export intensity index of India with UAE shows the lowest growth, despite its comparatively higher

¹³ Here again only UAE and Saudi Arabia are considered as they have been recognised as India's prominent trade partners in the Gulf.

level throughout the period. This implies that India has to be more intent on exploiting this market, which is a highly competitive one.

Table.2.10

Trade Intensity Indices of India with Saudi Arabia and UAE

Year	Export Intensity Index	Import Intensity Index	Export Intensity Index	Import Intensity Index
	India with Saudi Arabia	India with Saudi Arabia	India with UAE	India with UAE
1981	1.4	0.8	5.5	3.6
1983	1.1	3.1	4.3	0.3
1985	1.9	3.4	7.6	3.8
1987	2.3	3.7	7.8	5.2
1989	3.1	4.9	8.8	6.8
1991	1.4	4.2	5.4	5.6
1993	3.0	6.6	6.7	5.4
1995	2.6	5.4	10.4	9.7
1997	3.7	6.3	10.6	7.6
1999	3.6	4.5	5.6	7.6
2001	3.0	3.9	5.6	7.0
1981-2001 [#]	13.24(7.51)	16.1(3.79)	13.34(1.74)*	43.9(5.68)

Note: (i) [#] shows the growth rate for the period 1981-2001
(ii) Figures in the parenthesis show t value
(ii) * significant at 10% level.

Source: Calculations based on IMF, Direction of Trade Statistics Yearbook, various issues.

2.5. Conclusion

India's export to GCC was seen to follow almost the same trend as India's aggregate exports, perhaps showing its significant contribution to the latter. Nevertheless, the nineties seem to witness an appreciable acceleration in India-GCC exports, even as compared to India's aggregate exports. The share of India-GCC exports in India's aggregate exports also show a better performance in the 90s, as against fluctuations and decline seen in the 80s. At the level of individual GCC members also there is higher growth, starting from the early 90s. We tested for a trend break in the series in the early 90s, which witnessed a number of events with possible influence on India-GCC exports. Accordingly, in the year 1992, we could see a trend break in India-GCC exports, which seemed to grow at an accelerated pace since then. At the level of GCC members, UAE seemed to show much consistent growth through out the period.

India's representation in Gulf trade, which was examined subsequently, was also seen to be much favourable. In fact, from among the developing countries, India's position is almost on the top as a source of GCC imports. At the level of individual GCC members also, the picture is the same with UAE emerging as the most important market. The UAE has been highly potential with increasing share in global imports. Furthermore, India's share in Saudi

Arabia's imports, though lower compared to the share in UAE's imports, shows an almost continuous rise. We did also examine the trends in the trade orientation ratios, to see as to how far the bilateral partners are mutually represented in each other's markets. These indices, showed relatively high representation of India and GCC in each other's markets. Mutual orientation of trade between India and GCC is of a higher order, and if anything, the bilateral trade orientation has been increasing over time. GCC's share in India's exports and imports is higher than what is warranted by the GCC's relative importance in world trade. Conversely, India's share in GCC exports and imports is higher than what is warranted by India's relative importance in world exports and imports. The relatively high and growing level of bilateral orientation of trade can be attributed to a variety of factors, such as geographical proximity, historical ties, trade policy discrimination in favour of each other, etc. An equally important and related factor could be the similarity between the commodity composition of exports and imports of the bilateral partners. This factor assumes special importance in the context of the presence of the Indian Diaspora in the Gulf region. It is to an analysis of such structural factors that we turn to in the forthcoming chapters.

CHAPTER III

COMMODITY COMPOSITION AND TRADE ORIENTATION

3.1. Introduction

The present chapter focuses on the structure of India's exports to the GCC, and the changes in the same over time. An analysis of the structure would help us explain the pattern of orientation of India's exports to the GCC. As we have seen in the previous chapter, India's exports to the GCC had tended to grow at a faster rate than that of her aggregate exports, particularly in the 1990s. Apparently, the tendency is of increasing orientation of exports to the Gulf market. The same pattern was observed with respect to the bilateral trade orientation ratios as well. If we go by the trade intensity indices, both the partners are more or less adequately represented in each other's markets. For instance, GCC's share in India's exports has generally been higher than the GCC's share in world imports, resulting in overrepresentation of GCC in India's exports. Further, the trade intensity indices have been increasing over time. Obviously, as gravity models show geographical proximity must be playing an important role in keeping the Indian exports more oriented towards the Gulf partners. Another important reason could be the correspondence between the structure of GCC imports and the structure of India's exports. It is to the latter aspect that we turn now in the present chapter. In the following section, we analyse the structure of India-GCC exports at various levels of disaggregation to identify the prominent exports as well as the changes in their composition over time. In section 3.3, we compare the structure of India-GCC exports with that of India's aggregate exports as well as that of GCC imports. Section 3.4 concludes the discussion.

3.2. Structure of India's Exports to the GCC

The Gulf society, being an affluent one and at the same time with a huge immigrant population from the less developed South Asian economies, can have a segmentation of the consumer market. While the former feature of the society may show the importance of high-value added items or luxuries in its imports, the latter can result in the representation of less sophisticated items, demanded typically by lower income groups. According to Mehta (1989), the major items of India's exports to the Gulf countries are meat, fruits and vegetables, rice, textile yarn, fabrics, made-up articles, tea, spices, tobacco and tobacco

manufactures, animal feeds, machinery and transport equipment, most of which seem to show the influence of Asian immigrants. Our analysis of the commodity composition of India's exports to the GCC is expected to provide a more reliable picture, especially with respect to the more recent period.

The period covered in our analysis here is 1988-2002. As we have already noted, we have decided to confine our analysis to the post-1988 period on account of the change in the system of Indian Trade Classification to the Harmonised System (HS) from April 1987 onwards. For our purpose we have taken data for the years 1988, 1990, 1994, 1996, 2000, and 2002. The analysis of structure is fraught with difficulties, the most important among them being year to year fluctuations in the share of individual commodities. In fact, the commodity composition of India's exports to the GCC is also characterised by sharp year to year fluctuations. In order to overcome this difficulty we have clubbed the years together. Clubbing the years together help us smoothen the fluctuations, but in the process we miss the dimension of change in the commodity composition. In order to capture the process of change in the structure we have resorted to a comparison between first three years and the last three years. To start with, we may look at the structure at 1-digit level, which is referred to as Sections under the Harmonised System of commodity classification. We have examined the structure by taking all the 21 Sections. However, at the disaggregate levels, we have had to confine our analysis to important 2-digit (Chapters) and 4-digit (Headings) commodities¹.

As seen from Table.3.1, Textiles and textile articles, that is Section 11, alone accounts for nearly 27 per cent of India's exports to the GCC. Notably, the Textiles group has also been gaining in importance over time. Thus, Textiles constitute the most important and dynamic Section of India's exports to the GCC. Nevertheless, it may be noted that Vegetable products was the topmost Section in the beginning of the period, which dropped to the second place in the later years. Another important Section of export has been Pearls and precious stones, whose position has also been improving over the period. The growing importance of manufactures like Base metals and articles, Machinery and electrical equipment, and Chemical and allied products, most of which are non-traditional in nature, is noticeable.

¹ Chapters above one per cent and Headings above 0.5 per cent share have been selected. The selected Chapters cover a percentage share of 60,65, and 60 respectively for the 3 groups (Total, first 3 and last 3 years) and Headings cover 60, 62 and 60 percentages respectively.

Table.3.1
Composition of India's Exports to the GCC at 1 and 2-digit levels
(Percentage Share)

Sections and Chapters	Description	Total	1988,1990 and 1994	1996,2000 and 2002
Section1	Live Animals and products	5	5	5
Chapter 2	Meat and edible meat...	2	3	2
Chapter 3	Fish and crustaceans....	2	2	2
Section2	Vegetable products	20	27	18
Chapter 8	Edible Fruit and nuts....	2	3	2
Chapter 9	Coffee, tea, mate and spices	3	5	3
Chapter 10	Cereals	12	17	11
Section3 (15)	Animal/ veg. Fats and oils....	0	0	0
Section4	Foodstuffs, bvrgrs, Tobco....	3	6	2
Chapter23	Food Residues and animal fodder	1	3	1
Section5	Mineral Products	1	2	1
Section6	Chemical and allied products	6	5	6
Section7	Articles of plastics and rubber	4	4	4
Chapter39	Plastics and articles thereof	2	3	2
Section8	Raw Hides, Leather Articles....	1	1	1
Section9	Wood and articles of wood...	0	1	0
Section10	Pulp of wood, Paper...	1	1	1
Section11	Textiles and textile articles	27	24	28
Chapter52	Cotton	3	4	3
Chapter54	Man-made Filaments	5	5	5
Chapter55	Man-made staple fibres	2	2	3
Chapter61	Apparel and clothing, knitted.	4	4	4
Chapter62	Apparel and clothing, not knitted..	10	5	11
Section12	Footwear, Umbrellas, etc.	1	1	0
Section13	Articles of stone, cement...	2	1	2
Section14 (71)	Pearls, precious stones...	10	6	11
Section15	Base metals and Articles...	9	7	10
Chapter72	Iron and Steel	2	1	2
Chapter73	Articles of Iron or Steel	4	3	4
Section16	Machinery, Electr. Equipmt...	6	5	6
Chapter84	Nuclear reactors, boilers...	3	3	3
Chapter85	Electr. Machinery and equip...	2	2	2
Section17	Vehicles, Aircraft...	1	1	1
Section18	Optical and photo. Instruments....	1	1	1
Section19 (93)	Arms and ammunition...	0	0	0
Section20	Misc. Manfd. Articles	1	1	1
Section21	Works of Art and antique...	2	1	2

Note: For Section 3, 14 and 19, the corresponding Chapters are given in the brackets, implying that those Sections contain only one Chapter so that the amount for both remains the same.

Source: Various Issues of the Statistics of Foreign Trade of India, volume 1.

The level of and growth in the share of these Sections needs special mention as they can invoke technological development in the economy. They constitute nearly 22 per cent of India's exports to the region and represent dynamic areas of India's exports to the GCC. Despite its importance, however, the Section, Foodstuffs, beverages, etc., has shown a sharp decline in its share over the period. Broadly, at this aggregate level, the growing importance

of manufactures along with a somewhat declining share of food items, seems to coincide with the general trends in South-South exports with its implications of technological dynamism and development prospects.

In order to provide a summary picture of structural change, we may make a three-fold division of the HS Sections in India's exports to the GCC. Sections 1 to 5, that is, Live Animals and Products; Vegetable Products; Animal/ Vegetable fats and oils; Foodstuffs, Beverages, and Mineral Products, continue to maintain a dominant share in India's exports to the GCC. They account for around 30 per cent of India's exports. But, their relative importance has been declining over time. The second group, in which we include Section 11 (Textiles and textile articles) and Section 14 (Pearls and Precious Stones), contribute around 37 per cent of the export earnings. They have also been registering remarkable growth over time, and increasing their relative contribution. The rest of the Sections, which include many modern manufactures, also have a significant presence in India's export basket to the GCC. On an average they contribute around 34 per cent of India's exports. More significantly, leading Sections among them, such as Section 6 (Chemicals), Section 15 (Base Metals) and Section 16 (Machinery, Electrical Equipment) have also been increasing their relative importance. In short, Sections 6, 11, 14, 15 and 16 represent the most dynamic areas of India's exports to the GCC.

Analysis of exports at the level of Chapters and Headings would give a more reliable picture of the commodity composition. At the two-digit level, it is interesting to notice that Cereals, coming under the Section, Vegetable products, constitute the most important Chapter. Another major Chapter from this Section is Coffee, tea, mates, spices, etc. However, after Cereals, the Chapters of Pearls, precious stones, jewellery, etc. and the Textile items come in importance. The prominent Chapters of Textile items are Apparel and clothing not knitted, Man-made filaments, Apparel and clothing knitted, Cotton and Man-made staple fibers. Their shares have either remained constant or have increased over time, except in the case of Cotton. Another important Chapter is the Nuclear reactors, boilers, etc. coming under the sophisticated manufactures and it is noticeable that they have been maintaining their share. Meanwhile, the Articles of iron or steel have growing importance in India's exports to the GCC. Generally, here also, the food items (Cereals; Coffee, tea, spices, mate, etc.; Meat; Fruits and nuts; and Food residues) have had a prominent position in the early period

compared to the later years. Therefore, despite some minor changes in the order of the importance of the items, at large, the picture of structure remains the same as at the aggregate level. Textiles and Pearls and precious stones are continuing to be the dynamic areas as seen at the aggregate level. The importance of modern manufactured items also persists and it demands special attention due to its developmental implications. The only divergent trend is the continuing significance of Cereals, coming under the Section of Vegetable products that showed a declining relevance. The prominence of Cereals almost directly indicates the influence of Indian Diaspora and therefore deserves special mention.

Turning to a much more disaggregated 4-digit level (Table 3.2) it becomes clear that under the Chapter of Cereals, Rice comes as the topmost Heading. It maintains pre-eminent position in the total, despite a decline in its share in the later years. Rice being one of the staple food items for the Arabs, represents the demand from the natives as well, besides the migrants. There are mainly two types of rice, that is, the Basmathi and Motta, imported in the Gulf region. Motta is imported mostly from India alone and consumed by Keralites only, who constitute more than half of the Indian migrants. But, in the case of Basmathi, which is used by other Indians, SAARC country people and also Arabs, India has a tight competition from countries like Pakistan. Biryani, made with Basmati, is one of the Arabs' main food items (learned from our interviews with migrants). The other prominent food items are Tea and Fish frozen. Excluding these, however, all the other food items like Meat of sheep; Onions and other vegetables; and Dates, mangoes and pineapples account for a very meagre as well as a sharply declining share. Diamonds and the Articles of jewellery, precious metals, etc. are the other principal Headings, among which the Diamonds came to prominence only in the later years. While both these Headings are increasing in importance, the share of Diamonds has registered a very remarkable growth.

Just as seen at the 2-digit level, the Textile items are appearing after the Articles of jewellery and precious stones. In the case of the Textile items, some changes have seemingly taken place in their composition. While the items like Men's/ boys' shirts; Shawls and scarves; Handicrafts; etc. declined in importance, some other items like Men's/boys' suits; Women's/girls' suits; Other woven fabrics of synthetic staple fibre; T-shirts and other vests; etc. strongly made their presence in the late 90s. The Men's/boys' suit was, to note, a new item in the later years of the reference period. And, the most important textile item exported is Woven-fabrics of synthetic filament yarn coming under the Chapter of Man-made filaments, which was well less important compared to the Chapter of Apparels at the 2-digit level.

Table.3.2
Composition of India-GCC Exports at 4-digit level
(Percentage Share)

Heading No.(4-digit Codes)	Description	Total	1988,1990 and 1994	1996,2000 and 2002
0202	Meat of Bovine Animals, frozen	1.4	1.5	1.3
0204	Meat of sheep or goats, fresh....	0.6	1.3	0.4
0303	Fish, frozen...	1.4	1.2	1.4
0306	Crustaceans, in shell or not...	0.7	0.7	0.7
0703	Onions, garlic, other vegetables...	0.5	1.0	0.4
0713	Dried leguminous vegetables...	0.5	0.7	0.5
0801	Coconuts, cashew nuts...	0.7	0.7	0.8
0804	Dates, pineapples, mangoes...	0.4	1.0	0.3
0812	Preserved fruit & nuts...	0.6	0.6	0.6
0901	Coffee, roasted...	0.4	0.5	0.4
0902	Tea	1.9	2.9	1.7
0910	Ginger, saffron...	0.4	0.6	0.4
1001	Wheat and Meslin	0.5	0	0.7
1006	Rice	11.3	16.8	10.1
2304	Oil-cake and other solid residues...	1.1	3.0	0.7
2403	Other Mfd. Tobacco...	0.4	0.7	0.3
2523	Portland Cement, Alumin.cement	0.4	0.6	0.3
2601	Iron ores and concentrates...	0.1	0.5	0.0
2843	Precious metals, organic/inorg...	0.4	0	0.5
3004	Medicaments...	0.5	0.5	0.5
3815	Reaction Initiators, accelerators...	0.4	0	0.5
3923	Articles of Plastics...	0.3	0.5	0.2
3926	Other Articles of Plastics & oth...	0.6	1.0	0.5
4011	New Pneumatic Tyres of Rubber	1.0	1.0	1.0
4412	Plywood and similar Laminated...	0.2	0.5	0.1
5007	Woven Fabrics of Silk...	0.5	0.8	0.4
5205	Cotton Yarn,.....	0.6	0.1	0.7
5208	Woven Fabrics of Cotton...	1.5	2.7	1.3
5209	Woven Fabrics of Cotton...	0.6	0.9	0.6
5407	Wov.Fab. of Synth.Filam.Yarn...	4.1	3.6	4.2
5408	Wov.Fab.ofArtif.Fil.Yarn...	0.3	0.8	0.2
5513	Wov.Fab. of Synth.Stap.Fibres..	0.4	0.5	0.4
5515	Other Wov.Fab.ofSyn.Stap.Fib.	1.1	0.7	1.2
6105	Men's or Boys' shirts...	0.9	2.0	0.7
6109	T-shirts, other vests...	1.1	0.5	1.2
6203	Men's or Boys' suits, Jackets.	1.4	0.3	1.6
6204	Women's or Girls' suits...	3.1	0.9	3.5
6205	Men's or boys' shirts	2.6	1.5	2.8
6206	Women's or girls' blouses...	0.7	0.5	0.8
6208	Women's or Girls' singlets...	0.7	0.1	0.8
6214	Shawls, scarves, mufflers...	0.8	1.2	0.7
6802	Worked Monument/Build Stone..	0.6	0.4	0.6
7102	Diamonds...	4.8	0.8	5.7
7113	Articles of Jewelry, prec.metals....	4.9	4.5	5.0
7210	Flat rolled pdts. Of Iron/steel...	0.6	0.2	0.7
7323	Household Articles of Iron/steel.	1.3	0.6	1.4
9991	Handicrafts	0.7	1.3	0.6
9993	Special Transactions and comdts.	0.6	0.1	0.7

Source: Various Issues of the Statistics of Foreign Trade of India, volume 1.

Under the manufactured commodities, while the New pneumatic tyres of rubber remained stagnant in their importance, the Household articles of iron/steel² became more prominent in the later years, replacing the Articles of plastics that was existing in the early years. Therefore, though the inferences remain almost the same, at more disaggregated levels we get a clearer picture of the export items and their changing structure. Nonetheless, the continuing importance of Precious metals throughout the analysis with the emergence of Diamonds as a marked item in the late 90s is noticeable, especially because the Indians themselves constitute an important market for these items³.

The commodity composition of India-GCC exports at the country level is given in appendix 3.3⁴, where the newer variants of textiles⁵ continue to constitute predominant shares. The notable exceptions to the aggregate trends are the decline in the share of Jewellery in India's exports to Saudi Arabia and the continuously falling share of Rice⁶ in exports to UAE. Conversely, Rice continues to be the topmost item in India's exports to Saudi Arabia⁷ and Articles of jewellery and Diamonds to UAE⁸. For UAE, the shares are much more spread among the commodities without concentrating in a few items. India's exports are more diversified to this market compared to Saudi Arabia and as mentioned earlier, the domination of UAE as a destination for Asian exports is mainly due to the efforts by Dubai to diversify the sources of its imports in search for the low-cost suppliers.

To conclude, as mostly seen in the literature, the food items are an important item of India's export to the Gulf, and Rice continued to be our principal export to the region over 1988-2002. The other items, which continued to be prominent in our exports, are the Articles of jewellery as well as the Woven fabrics. In fact, the Gulf markets are called as the most potential markets for the Articles of jewellery, including gold as well as silver. A comparison between the two time periods shows the emergence of some new export items like Diamonds and newer variants of

² There is a dominance of Asian suppliers in the housewares, home furnishings and other consumer products in the GCC market (The Middle East Economic Data Book, 2001).

³ India being a topmost market for gold in the world, in Gulf also Indians are the main customers for gold, diamonds and precious stones. Blue sapphire and yellow sapphire are the main stones exported by India. Indian diamonds are very cheap in the Gulf Market and the Indians themselves are the main consumers. Arabs and Europeans buy costly diamonds coming from Belgium or Italy (learned from our interviews with migrants).

⁴ Commodities with a share of more than 2 per cent have been taken at the 4-digit level.

⁵ In cotton piece goods, Saudi Arabia is the largest importer among the Arab countries followed by Dubai (Sharma, G.D, 1979).

⁶ We already mentioned about the competition in the market for Basmati rice, where the reference was mainly to UAE.

⁷ The existing literature also shows that the most important item of India's export to Saudi Arabia is Basmati rice followed by cotton garments and accessories, non-basmati rice and man-made yarns and fabrics/made-ups. In 1992-93, the main imports of Saudi Arabia were machinery and equipment, chemicals, foodstuffs, motor vehicles and textiles (Abdel Karim, 1999), all of which are, interestingly, the notable items of India-GCC exports as well.

⁸ UAE with its highly liberal trading environment, that is, with the lowest customs duty and all, especially Dubai constitutes a very important market for Indian jewellery (Sharma, G.D, 1979).

textiles as top ones replacing some others. Overall, the Textiles, Articles of jewellery and the modern manufactures seem to constitute the most dynamic areas of India-GCC exports. The disappearance of the construction items as against what was prevalent in the 70s⁹, may be because of the almost exhausting level of construction activities in these countries. Finally, as a case study in the context of South-South trade, the structure of India-GCC export seems to follow similar trends, with the declining share of food items as well as the rising importance of manufactures in it.

Admittedly, our analysis of the structure of India's exports to the GCC does not provide much direct evidence regarding the influence of the migrant population in the Middle East. In fact, a more disaggregate level analysis will be needed to assess the influence of migrants on the structure of GCC demand. However, there are many indirect indications regarding the influence of the migrant population. The migrant workers must be contributing significantly to the GCC demand for India's exports such as Rice, Vegetable products, Meat, Fish, Coffee, Tea, Textiles, Jewellery, etc. In fact, if what we gathered from our interviews with some Indians working in the Middle East can be relied upon, migrants from India, and generally from Asia, are the main customers of the shops selling Indian products. This is said to be true even in the case of the Indian Jewellery shops. Another possible line of argument that can be used to establish the migration-trade link is the correspondence between the structure of GCC imports and the structure of India's exports. This aspect is examined in the coming section, where the structure of India-GCC exports are compared with India's aggregate exports as well as the GCC imports, in an attempt to explain the intensity of India-GCC trade.

3.3. Structural Change: A Comparative Analysis

A comparison of India-GCC exports with India's aggregate exports¹⁰ as well as GCC imports may help explain the level and movement of trade intensity ratios noted in the previous chapter. At the Section-level, the structure of India's aggregate exports shows Textiles and textile articles, Pearls and precious stones, Vegetable products, Mineral products; and

⁹ During the 70s, the important items of India's export to the Gulf countries were engineering goods, building materials and accessories, structural requirements, construction machines and equipments, food items and beverages, consultancy and project exports (Sharma, G.D, 1979).

¹⁰ For the structural analysis of India's aggregate exports, the same procedure as followed in the case of India-GCC exports has been applied, with 1988, 1989, 1990, 1998, 1999 and 2000 as the years covered. Selecting the Chapters above one percent, we have been able to cover 89, 87, and 87percentages respectively for the 3 groups (Total, first three and last three years).

Chemical and allied products respectively as the top ones. This is quite similar to the structure of India-GCC exports at the aggregate level (Table.3.1 and Table.3.3). The Vegetable products, however, have a deteriorating position, which might be responsible for its declining importance in India-GCC exports as well. Nonetheless, the Sections like Base metals and articles; and Machinery and electrical equipments are showing comparatively higher representation in India-GCC exports compared to India's aggregate exports.

A three-fold division of the HS Sections in India's aggregate exports, as done in the case of exports to the GCC, shows that the first group, that is, Sections 1 to 5, Live Animals and Products; Vegetable Products; Animal/ Vegetable fats and oils; Foodstuffs, Beverages, and Mineral Products, constitutes a good share as in India's exports to the GCC. However, as against 30 per cent of India-GCC exports, they account for only 21 per cent of India's aggregate exports. But, their share has been either increased or almost maintained, whereas they had a declining relative importance in India-GCC exports. The second group, in which we include Section 11 (Textiles and textile articles) and Section 14 (Pearls and Precious Stones), contributes around 44 per cent of India's aggregate export earnings as against 37 per cent seen in the case of exports to the GCC. However, they have only maintained their share in India's aggregate exports while their share registered remarkable growth in India-GCC exports. Contributing around 32 per cent, the rest of the Sections including many modern manufactures show significant presence in India's aggregate exports as in India's export basket to the GCC. The leading Sections among them are Section 6 (Chemicals), Section 15 (Base Metals), Section 16 (Machinery, Electrical Equipment) and Section 17 (Vehicles, aircraft, etc.).

At the 2-digit level, it becomes clear that Iron and steel and Articles of iron and steel, coming under the Section, Base metals and articles have a higher share in India-GCC exports, compared to their position in India's aggregate exports. The sophisticated manufactured items like Nuclear reactors and boilers also seem to have more significance in India-GCC exports than in the aggregate exports of India. Further, Chapter 85, that is, Electrical machinery and equipments, which is negligible in India's aggregate exports, seems to be a pretty important Chapter in the exports to the GCC.

Table.3.3
Composition of India's Aggregate Exports at 1 and 2-digit levels
(Percentage Share)

Sections and Chapters	Description	Total	1988,1989, and 1990	1998, 1999 and 2000
Section1	Live Animals and Pdts.	4.0	3.7	4.1
Chapter 3	Fish and crustaceans....	3.2	2.9	3.2
Section2	Vegetable products	10.4	12.1	10.2
Chapter 8	Edible Fruit and nuts....	1.7	2.0	1.6
Chapter 9	Coffee, tea, mate and spices	3.5	6.0	3.1
Chapter 10	Cereals	2.8	1.8	3.0
Section3 (15)	Animal/Veg. Fats and oils....	0.5	0.2	0.6
Section4	Foodstuffs, beverages, Tobacco...	3.1	3.2	3.1
Chapter23	Food Residues and animal fodder	1.7	2.0	1.7
Section5	Mineral Products	3.4	8.1	2.7
Chapter25	Salt; plastering materials...	0.8	1.1	0.8
Chapter26	Ores, slag and ash	1.6	3.9	1.3
Chapter27	Mineral fuel, oils and products...	0.9	3.0	0.6
Section6	Chemical and allied products	9.3	7.1	9.6
Chapter28	Inorg.chemicals, precious metals,..	0.6	1.0	0.5
Chapter29	Organic Chemicals	3.3	1.2	3.6
Chapter30	Pharmaceutical products	2.2	2.0	2.3
Chapter32	Dyeing, colouring...	1.3	1.3	1.3
Chapter38	Miscellaneous chemical products	0.9	0.4	1.0
Section7	Articles of plastics & rubber	1.9	1.0	2.0
Chapter39	Plastics and articles thereof	1.0	0.3	1.1
Section8	Raw Hides, Leather Articles.	3.6	5.3	3.3
Chapter41	Raw hides and skins, leather...	1.1	3.2	0.8
Chapter42	Articles of leather...	2.4	2.1	2.5
Section9	Wood and articles of wood...	0.1	0.1	0.1
Section10	Pulp of wood, Paper...	0.4	0.2	0.4
Section11	Textiles and textile articles	27.3	24.6	27.6
Chapter52	Cotton	6.3	5.2	6.5
Chapter54	Man-made Filaments	1.0	0.7	1.0
Chapter55	Man-made staple fibres	1.0	0.4	1.0
Chapter57	Carpets and other textile floor.	2.0	2.9	1.8
Chapter61	Apparel and clothing, knitted.	3.6	2.9	3.7
Chapter62	Apparel and clothing, not knitted.	8.7	8.4	8.8
Chapter63	Other made up textile articles.	2.3	1.7	2.4
Section12	Footwear, Umbrellas, etc.	1.9	2.7	1.8
Chapter64	Footwear and parts...	1.8	2.6	1.7
Section13	Articles of stone, cement...	0.9	0.4	1.0
Section14 (71)	Pearls, precious stones...	18.2	19.4	18.1
Section15	Base metals and Articles...	5.8	3.6	6.1
Chapter72	Iron and Steel	2.2	0.9	2.4
Chapter73	Articles of Iron or Steel	1.8	1.3	1.9
Chapter83	Misc. Articles of Base Metal	3.0	3.3	2.9
Section16	Machinery and Electrical Eqp...	5.5	5.3	5.5
Chapter84	Nuclear reactors, boilers...	2.4	1.9	2.4
Section17	Vehicles, Aircraft...	2.4	1.8	2.4
Chapter86	Railway/, tramway Locomotives..	2.0	1.6	2.1
Section18	Optical and photo. Instruments..	0.6	0.7	0.6
Section19 (93)	Arms and ammunition...	0.0	0.0	0.0
Section20	Misc., Manfd. Articles	0.5	0.3	0.5
Section21	Works of Art and antique...	0.0	0.0	0.0
Chapter98	Project Goods; Special Uses	1.9	1.6	2.0

Note: For Section 3, 14 and 19, the corresponding Chapters are given in the brackets, implying that those Sections contain only one Chapter so that the amount for both remains the same.

Source: Various Issues of the Monthly Statistics of Foreign Trade of India, Vol. 1.

Moreover, despite the decline seen in the case of Vegetable products in India-GCC exports, the Chapters coming under it are showing higher representation compared to those under India's aggregate exports. In this context, the performance of Cereals invites special attention, as it seems to be a highly remarkable Chapter of India-Gulf exports. Overall, almost all the items in India's aggregate exports have a similar or added exposition in the exports to the GCC.

The observed similarity between the structure of India's exports to the GCC and that of India's aggregate exports raises some questions regarding relative performance of India's exports to the GCC vis-a-vis her exports to the rest of the world. If commodity composition of exports is similar, what explains higher and growing orientation of India's exports to the GCC market? If commodity composition is not responsible for the higher and growing orientation of India's exports to the GCC, we may have to seek an explanation in the pattern of GCC demand, as reflected in the structure of GCC imports. This is particularly important in the context of the influence of Indian migrants on the GCC imports, probably leading to preference similarity. In this context, we examine the structure of GCC imports as well, to spell out the role played by the demand factor.

However, as we have seen in chapter 1, one of the main factors behind preference similarity among Southern countries is that they all typically have low ranges of percapita income. But, in the case of GCC the situation is significantly different. When the income prospects are considered, the GCC countries are expected to have a similar import structure as that of the developed countries, with the possible demand for high-value added items, leading to a mismatch with India's exports. Incidentally, as many studies have shown, an important reason for the stagnation of India's manufactured exports to the developed countries has been its failure to cater to the latter's demand for sophisticated manufactures (Lall, 1999, Harilal, 1999). Table.3.4 discloses the widening income difference between India and the affluent Gulf society and it seems quite amazing that the average per capita GDP for the GCC is more than 20 times higher than that of India. This shows the strong possibility of a structural mismatch between the GCC imports and India's exports to the region, as against the possible affinity mentioned in the context of the migrant influence.

Table. 3.4
Widening Difference in Per Capita GDP between India and GCC (US \$)

Countries	1989	1999
Bahrain	6755	8710
Kuwait	11440	11590
Oman	5795	6354
Qatar	18317	29159
Saudi Arabia	5593	6669
UAE	17695	18874
GCC	7422	8482
India	326	461

Source: UNCTAD Handbook, 1991 and 2001.

For examining the import structure¹¹ of the GCC countries, the data has been taken from the UN publication, 'International Trade Statistics Yearbook'¹², which gives the commodity composition of world trade in Standard International Trade Classification (SITC), Rev.2. This publication has two volumes, the first volume is titled as 'Trade by Country' and the second as 'Trade by Commodity', of which the former has been used for the present purpose. Despite the limitations in comparing the GCC import structure under SITC with the India-GCC export structure under the new HS classification, it helps us analysing the broad patterns. Table.3.5 and Table.3.6 give the GCC import structure at 1 and 3 digit levels of SITC Rev.2. At the 3-digit level, we have reported only those commodities that are significantly represented in India's exports to the region. It is noticeable that these commodities cover almost 30 per cent of the GCC imports.

Table. 3.5
Import Structure of GCC at 1 digit Level in 1992

SITC1digit	Description	Imports (US Million \$)	Percentage Share
0	Food and Live Animals	6248	9.9
1	Beverages and Tobacco	408	0.6
2	Crude Materials, Excl Fuels	1021	1.6
3	Mineral Fuels Etc.	1877	3.0
4	Animal, Veg Oil, Fat	267	0.4
5	Chemicals, Related Prod Nes	1689	2.7
6	Basic Manufactures	12490	19.7
7	Machines, Transport Equip	26349	41.6
8	Misc. Mfd. Goods	8226	13.0
9	Goods Not Classified by Kind	1948	3.1

Source: International Trade Statistics Yearbook, Vol.1: Trade by Country, 1994.

¹¹ We could have only a static look at the import structure due to the data availability problem. The year 1992 has been taken to examine the structure.

¹² In this publication, only items with a share of more than 0.3 percent have been accounted. In the present case, commodities at 1-digit level constitute 96 per cent and those at 3-digit level constitute 87 per cent.

The GCC import structure, as already mentioned, looks very much like that of an advanced country. An important indicator in the present context is the overwhelming importance of SITC 7, that is, Machines and transport equipment. SITC 7 alone accounts for around 42 per cent of the GCC imports. SITCs 0,6,7 and 8 (Food and Live animals, Basic Manufactures, Machinery and transport equipments, and Miscellaneous Manufactured goods) together accounts for nearly 90 per cent of the GCC imports.

Thus, the overall structure of the GCC imports would not support the preference similarity hypothesis. The overall import structure of GCC appears as disadvantageous to India as the import structure of developed countries. It is here, in our opinion, the presence and influence of Asian migrants, especially Indian Diaspora assumes importance. Their percapita income levels, tastes and preferences, etc., generally match the Indian interests. The import demand of the migrants may not, however, be significant enough to influence the overall structure of GCC imports when considered at the aggregate level.

But, what is important is their influence on GCC demand for India's exports. The demand pattern of Asian migrants in the GCC region, especially tastes and preferences of the Indian Diaspora, might be an important source of demand for Indian goods. Even though the above factor is unlikely to get reflected in the structure of GCC imports, their structure at more disaggregate level could prove useful (See Table.3.6).

Table. 3.6
Import Structure of GCC at 3 digit Level in 1992

SITC 3-Digit Commodities	Percentage Share
Live Animals, Meat Fresh Chilled, Edible Products(001,011,098)	2.5
Cereals (041,042,043,044,048)	2.5
Fruits and Vegetables (054,056,057,058)	1.9
Tobacco, Mfd. (122)	0.6
*Medicinal, Pharm Product (541)	1.8
Rubber Tyres, Tubes, Etc. (625)	1.1
Textile Articles and Fabrics (651,652,653,654,655,656,658)	4.5
Floor Coverings, Etc. (659)	0.7
Lime, cement, Bldg., Prods (661)	0.6
Iron and Steel, articles (672,673,674,678)	3.6
Household Equipments (697,775)	2.5
Garments and Clothing (842,843,844,845,846,847)	3.0
Articles of Plastic Nes (893)	0.6
Gold and jewelry (897,971)	3.9

Note: Figures in parentheses are SITC 3-digit commodity codes.

Source: International Trade Statistics Yearbook, Vol.1: Trade by Country, 1994.

At the 3-digit level, as already mentioned, about 30 per cent items of GCC imports are seen to be the items of India's exports to the region. Out of this, Live Animals, Meat, Cereals, Fruits and Vegetables together constitute about 7 per cent. The Textiles and textile articles constitute 7.5 per cent. Other manufactured items like Rubber tyres, Articles of Iron and Steel, Household equipments and Articles of Plastic contribute 7.8 per cent. The share of Gold and jewellery is 3.9 per cent and Medicinal Products, 1.8 per cent. That is, most of the prominent items of India-Gulf exports have noticeable demand in the Gulf market.

Those who demand and consume these Indian exports are likely to be the Asian migrants, and the Indian Diaspora. Some of these commodities may not be of much relevance in the aggregate imports of GCC, but must be exerting major influence on India's exports to GCC. Nonetheless, marked demand for Textiles, Gold and jewellery and Cereals is of special mention. In the context of India-Gulf exports, we mentioned that these commodities are highly demanded by the migrant workers. Notable representation of these commodities in the GCC imports adds to this claim. Because, the migrant population even exceeding the native population in some of the GCC states, might be contributing to the obvious demand for such items in the GCC import structure. Still, as mentioned in the context of the export structure, we lack clear evidence on the influence of migration for which much more disaggregated analysis would be needed. In fact, the Woven man-made fabrics and items of Gold emerge as the top 3-digit items just after the commodities under Machinery and Transport equipments, which are maintaining their significance¹³. Such indications of structural affinity, suggesting the influence of migrants, underscore the importance of the Gulf market. To substantiate the role of migrants, therefore, we turn to an econometric analysis in the next chapter.

To end, the structure of India-GCC exports seems to resemble India's aggregate exports. India's aggregate exports could, however, register only a marginal growth compared to India-Gulf exports in the 90s. This shows that the commodity composition (supply-side factors) is insufficient to explain the high orientation of India's exports towards GCC. Therefore, we examined the demand factor by analysing the import structure of GCC, especially in the context of the Asian migrants residing in the region. Due to high-income levels, the import structure of GCC seems to be similar with that of an advanced country, mismatching with

¹³ Of course, the advanced nature of the Gulf society makes it to import more of the sophisticated manufactured items.

India's exports. Still, at disaggregated level, about 30 per cent of GCC imports are seen to be the items of India's exports to the region. Further more, most of the prominent items of India-Gulf exports like Textiles, Gold and Cereals have notable demand in the GCC market. Although our interviews with migrants reveal that the demand for these Indian products comes mostly from the migrant workers themselves, we lack concrete evidence on the impact of migration. In the next chapter, therefore, we make an econometric analysis of the influence of migration on India-Gulf exports.

3.4. Conclusion

The present chapter has been an attempt to explain the intensity of India-GCC exports, through the analysis of its commodity composition. Besides geographical proximity, an important reason for the increasing orientation of India's exports towards GCC could be the correspondence between the structure of India's exports and that of GCC imports. Such a similarity is expected mainly in the context of the influence of demand from the huge migrant population in the region. At the aggregate level, the structure of India-GCC exports shows Section 6 (Chemicals), section 11 (Textiles and textile articles), section 14 (Pearls and Precious Stones), Section 15 (Base Metals) and Section 16 (Machinery, Electrical Equipment) as the most dynamic areas. Though the food items and minerals as a group contribute 30 percent of India-GCC exports, their relative share has been declining over time. Broadly, the growing importance of non-traditional manufactures along with a somewhat declining share of food items, seems to coincide with the general trends in South-South exports with its implications for technological dynamism and development prospects. At disaggregated levels also, the picture of structure remains almost the same despite some minor changes in the order of the importance of the items. Although the dominant commodities of India-GCC exports such as Rice, Vegetable products, Meat, Fish, Coffee, Tea, Textiles, Jewellery, etc. indirectly indicate the influence of demand from the migrant workers, more disaggregate level analysis would be needed for much clear evidence on the influence of the migrant population.

Migration seems to be influential in orienting India's exports towards GCC in two important contexts. One is the more or less declining share of GCC in world imports and the other is the possible preference similarity of the high-income Gulf society with that of the advanced countries, with demand for the high-value added items. The observed similarity between the

structure of India-GCC exports and that of India's aggregate exports reveals that the supply-side factors are not responsible for the higher and growing orientation of India's exports towards GCC. Therefore, we seek an explanation in the pattern of GCC demand, as reflected in the structure of GCC imports. As expected, the overall structure of the GCC imports appears as disadvantageous to India as the import structure of developed countries. At disaggregate level, however, there is evidence to show the influence of migration on India's exports to the region. Most of the dominant items in India-Gulf exports, indirectly indicating the influence of migrants, have noticeable demand in the GCC market. Although our interviews with migrants reveal that the demand for these Indian products comes mostly from the migrant workers themselves, we need to confirm the role of migration. In the next chapter, therefore, we turn to an econometric analysis of the influence of migration on India-Gulf exports.

Appendix 3.1
Description for Commodities Selected at 1 and 2 digit levels

Section1 Live Animals; Animal Products
Chapter 2 Meat and edible meat offal
Chapter 3 Fish and crustaceans, molluscs and other aquatic invertebrates.
Section2 Vegetable Products
Chapter 8 Edible fruit and nuts; peel or citrus fruit or melons.
Chapter 9 Coffee, tea, mates & spices
Chapter 10 Cereals
Section3 (15) Animal or Vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes.
Section4 Prepared foodstuffs; beverages, spirits and vinegar; tobacco and manufactured tobacco substitutes.
Chapter23 Residues and waste from the food industries; prepare animal fodder.
Section5 Mineral Products
Chapter25 Salt; sulphur; earths and stone; plastering materials, lime & cement.
Chapter26 Ores, slag & ash.
Chapter27 Minerals fuels, mineral oils & products of their distillation; bituminous substances; minerals waxes.
Section6 Products of the Chemical or allied industries
Chapter28 Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, or radioactive elements or of isotopes.
Chapter29 Organic chemicals
Chapter30 Pharmaceuticals products
Chapter32 Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks.
Chapter38 Miscellaneous chemical products.
Section7 Plastics and articles thereof; Rubber and articles thereof.
Chapter39 Plastics and articles thereof.
Section8 Raw hides and skins, Leather, Furskins and Articles Thereof; Saddlery and Harness; Travel Goods, Handbags and Similar Containers; Articles of Animal Gut (other than Silk-worm Gut)
Chapter41 Raw hides and skins (other than furskins) & leather
Chapter42 Article of leather, saddlery & harness: travel goods, handbags and similar containers, articles of animal gut (other than silkworm gut).
Section9 Wood and Articles of Wood; Wood Charcoal; Cork and articles of Cork; Manufactures of Straw, of Esparto or of other plaiting materials; Basketware and Wickerwork

Cont.....

Section10 Pulp of Wood or of other fibrous cellulosic Material; Waste and Scrap of Paper or Paperboard; Paper and Paperboard and Articles thereof.
Section11 Textiles and Textile Articles
Chapter52 Cotton
Chapter54 Man-made filaments
Chapter55 Man-made staple fibres
Chapter57 Carpets and other textile floor covering.
Chapter61 Articles of apparel and clothing accessories, knitted or crocheted.
Chapter62 Articles of apparel and clothing accessories, not knitted or crocheted.
Chapter63 Other made-up textile articles; sets; worn clothing and worn textile articles; rags.
Section12 Footwear, Headgear, Umbrellas, Sun-umbrellas, Walking sticks, Seat-sticks, Whips, Riding-crops and Parts Thereof; Prepared Feathers and Articles made therewith; Artificial Flowers; Articles of Human Hair.
Chapter64 Footwear, gaiters and the like; parts of such articles.
Section13 Articles of Stone, Plaster, Cement, Asbestos, Mica or Similar Materials; Ceramic Products; Glass and Glassware.
Section14 (Chapter 71) Natural or Cultured Pearls, Precious or Semi-precious Stones, Precious Metals, Metals clad with Precious Metal and Articles Thereof; Imitation Jewellery; Coin.
Section15 Base Metals and Articles of Base Metal
Chapter83 Miscellaneous articles of base metal.
Chapter72 Iron and Steel
Chapter73 Articles of Iron or Steel
Section16 Machinery and Mechanical Appliances; Electrical Equipment; Parts Thereof; Sound Recorders and Reproducers, Television Image and Sound Recorders and Reproducers, and Parts and Accessories of Such Articles.
Chapter84 Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof.
Chapter85 Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles.
Section17 Vehicles, Aircraft, Vessels and Associated Transport Equipment.
Chapter86 Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling equipments of all kinds.
Section18 Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical or Surgical Instruments and Apparatus; Clocks and Watches; Musical Instruments; Parts and Accessories Thereof.
Section19 (Chapter 93) Arms and Ammunition; Parts and Accessories Thereof.
Section20 Miscellaneous Manufactured Articles
Section21 Works of Art, Collectors' Pieces and Antiques.
Chapter98 Project goods; some special uses.

Appendix 3.2

Description for Commodities Selected at 4-digit level

0202 Meat of Bovine Animals, frozen
0204 Meat of sheep or goats, fresh, chilled or frozen
0303 Fish, frozen, excluding fish fillets and other fish meat of heading No. 0304.
0306 Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine; crustaceans, in shell, cooked by steaming or by boiling in water, whether or not chilled, frozen, dried, salted, or in brine.
0703 Onions, shallots, garlic, leeks and other alliaceous vegetables, fresh or chilled.
0713 Dried leguminous vegetables, shelled, whether or not skinned or split.
0801 Coconuts, Brazil nuts and cashew nuts, fresh or dried, whether or not shelled or peeled.
0804 Dates, figs, pineapples, avocados, guavas, mangoes, and mangosteens, fresh or dried.
0812 Fruit & nuts provisionally preserved (for example, by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions), but unsuitable in that state for immediate consumption.
0901 Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes containing coffee in any proportion.
0902 Tea
0910 Ginger, saffron, turmeric (curcuma), thyme, bay leaves, curry and other spices.
1001 Wheat and Meslin
1006 Rice
2304 Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya-bean oil.
2403 Other manufactured tobacco and manufactured tobacco substitutes; "homogenised" or "reconstituted" tobacco; tobacco extracts and essences.
2523 Portland cement, aluminous cement ("ciment fondu"), slag cement, supersulphate cement and similar hydraulic cements, whether or not coloured or in the form of clinkers.
2601 Iron ores & concentrates, including roasted iron pyrites.
2843 Colloidal precious metals; inorganic organic compounds of precious metals, whether or not chemically defined; amalgams of precious metals.
3004 Medicaments (excluding goods of heading No. 3002, 3005 or 3006) consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses or in forms or packings for retail sale.
3815 Réaction initiators, reaction accelerators and catalytic preparations, not elsewhere specified or included.
3923 Articles for the conveyance or packing of goods, of plastics; stoppers, lids, caps and other closures, of plastics.
3926 Other articles of plastics and articles of other materials of headings No.s 3901 to 3914.
4011 New pneumatic tyres, of rubber.

Cont.....

4412 Plywood, veneered panels and similar laminated wood.
5007 Woven fabrics of silk or of silk waste.
5205 Cotton yarn (other than sewing thread), containing 85% or more by weight of cotton, not put up for retail sale.
5208 Woven fabrics of cotton, containing 85% or more by weight of cotton, weighing not more than 200 g/m ² .
5209 Woven fabrics of cotton, containing 85% or more by weight of cotton, weighing more than 200 g/m ² .
5407 Woven fabrics of synthetic filament yarn, including woven fabrics obtained from materials of heading No. 5404.
5408 Woven fabrics of artificial filament yarn, including woven fabrics obtained from materials of heading No. 5405.
5513 Woven fabrics of synthetic staple fibres, containing less than 85% by weight of such fibres, mixed mainly or solely with cotton, of a weight not exceeding 170 g/m ² .
5515 Other woven fabrics of synthetic staple fibres
6105 Men's or boys' shirts, knitted or crocheted.
6109 T-shirts, singlets and other vests, knitted or crocheted.
6203 Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear).
6204 Women's or girls' suits, ensembles, jackets, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear).
6205 Men's or boys' shirts.
6206 Women's or girls' blouses, shirts and shirt-blouses.
6208 Women's or girls' singlets and other vests, slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles.
6214 Shawls, scarves, mufflers, mantillas, veils and the like.
6802 Worked monumental or building stone (except slate) and articles thereof, other than goods of heading No. 6801; mosaic cubes and the like, of natural stone (including slate), whether or not on a backing; artificially coloured granules, chippings and powder, of natural stone (including slate).
7102 Diamonds, whether or not worked, but not mounted or set.
7113 Articles of Jewellery and parts thereof, of precious metal or of metal clad with precious metal.
7210 Flat-rolled products of iron or non-alloy steel, of a width of 600mm or more, clad, plated or coated.
7323 Table, kitchen or other household articles and parts thereof, of iron or steel; iron or steel wool; pot scourers and scouring or polishing pads, gloves and the like, of iron or steel.
9991 Handicrafts
9993 Special transactions and commodities not classified according to kind.

Appendix 3.3
Commodity Composition at Country Level

Trends in India's Principal Exports to Saudi Arabia

Commodity Codes	1988	1990	1994	1996	2000	2002
0902	10.4	7.5	1.7	1.5	4.3	1.1
2304	19.5	12.5	13.7	8.1	0.0	0.0
5208	4.1	2.7	2.3	3.3	2.8	1.4
1006*	60.8	73.2	77.7	73.4	79.8	77.0
5407*	1.8	2.2	2.4	6.7	2.6	5.2
7113*	1.7	0.5	0.1	0.8	0.3	0.2
6204	0.5	0.7	0.9	2.0	6.6	10.1
6205	0.2	0.4	0.9	2.3	2.6	4.7
7102	1.0	0.4	0.3	1.8	0.8	0.5

Note: shares in total exports for the year.

*commodities which continued to be important through out the period.

Source: Statistics of Foreign trade of India, March issues.

Trends in India's Principal Exports to UAE

Commodity Codes	1988	1990	1994	1996	2000	2002
0902	16.7	9	12	10.5	5.7	5.5
2304	3.2	3	2	1.8	1.0	0.8
5208	14.7	15	12	9.0	3.7	2.3
1006*	25.4	13	15	14.7	4.9	1.9
5407*	7.9	13	21	27.6	11.4	14.9
7113*	24.0	28	22	21.4	16.5	23.4
6204	2.0	7	3	5.5	18.5	8.7
6205	2.6	6	9	6.8	18.1	6.4
7102	3.5	6	4	2.7	20.1	36.1

Note: shares in total exports for the year.

*commodities which continued to be important through out the period.

Source: Statistics of Foreign trade of India, March issues.

Appendix 3.4

Description for Commodities Selected at 3-digit level

001 Live animals chiefly for food
011 Meat and edible meat offals, fresh, chilled or frozen (except meat and meat offals unfit or unsuitable for human consumption)
098 Edible products and preparations n.e.s.
041 Wheat (including spelt) and meslin, unmilled
042 Rice
043 Barley, unmilled
044 Maize (corn), unmilled
048 Cereal preparations and preparations of flour or starch of fruits or vegetables
054 vegetables, fresh, chilled, frozen or simply preserved (including dried leguminous vegetables); roots, tubers and other edible vegetable products n.e.s., fresh or dried
056 Vegetables, roots and tubers, prepared or preserved, n.e.s.
057 Fruit and nuts (not including oil nuts), fresh or dried
058 Fruit, preserved and fruit preparations
122 Tobacco, manufactured
541 *Medicinal and pharmaceutical products
625 Rubber tyres case, interchangeable tyre treads, inner tubes and tyre flaps, for wheels of all kinds
651 Textile yarn
652 Cotton fabrics woven (not including narrow or special fabrics)
653 Fabrics woven of man-made fibres (not including narrow or special fabrics)
654 Textile fabrics, woven, other than of cotton or man-made fibres
655 Knitted or crocheted fabrics (including tubular knit fabrics pile fabrics and open work fabrics)
656 Tulle lace, embroidery, ribbons, trimmings and other small wares
658 Made-up articles wholly or chiefly of textile materials, n.e.s.
659 Floor coverings, etc.
661 Lime, cement and fabricated construction materials (except glass and clay materials)
672 Ingots and other primary forms, of iron or steel
673 Iron and steel bars, rods, angles, shapes and sections (including sheet piling)
674 Universal, plates and sheets of iron or steel.
678 Tubes, pipes and fittings, of iron or steel
697 Household equipment of base metals, n.e.s.
775 Household type electrical and non-electrical equipment, n.e.s.
842 Outer garments men's and boy's of textile fabrics (other than knitted or crocheted goods)
843 Outer garments, women's girls' and infants' of textile fabrics (other than knitted or crocheted goods)
844 Under garments of textile fabrics (other than knitted or crocheted goods)

Cont.....

845 Outer garments and other articles knitted or crocheted not elastic not rubberised
846 Under garments knitted or crocheted
847 Clothing accessories of textile fabrics
893 Articles, n.e.s. of materials of the kinds described in division 58.
897 Jewellery, goldsmiths, and silversmiths wares and other articles of precious or semi-precious materials, n.e.s.
971 Gold, non-monetary (excluding gold ores and concentrates)

CHAPTER IV

INDIA-GCC EXPORTS: ROLE OF MIGRATION

4.1. Introduction

An examination of the structure of India-GCC exports, made in the last chapter, has given us some indications on the influence of preference similarity, and, of course, of the impact of migration. We have also emphasized the relatively higher importance of bilateral factors, migration being the most important among them, in explaining the trends in bilateral orientation of trade. In this chapter, we delineate the nature of their relationship with exports in the backdrop of the existing literature. We start, however, with an overview of the general determinants of India's aggregate exports. We proceed with an empirical analysis of the determinants of India-Gulf exports, with special focus on the influence of migration. In this analysis, we make use of the gravity model that has long been used successfully for analyzing bilateral trade flows.

As in Dunlevy and Hutchinson (1999) and some other recent studies on the migration-trade link, we hypothesize a positive link between migration and India-GCC exports through the mechanism of preference similarity, which was evident to some extent from the examination of the commodity structure of India-GCC exports. Particularly, GCC with such a huge migrant population, even exceeding the native population of some of the states, and with the abundance of Indian migrants seems to be an appropriate context for testing the migration-trade link. This chapter is organized as follows. Section 4.2 presents a summary of the general performance as well as determinants of India's aggregate exports, which is however concluded by citing the significance of bilateral factors in explaining the two-way trade flows. Section 4.3 examines the economic importance of migration focussing on its nexus with trade. Section 4.4 discusses the literature on gravity models and delineates the variables to be used in the present exercise. Section 4.5 gives a note on the data. Section 4.6 explains the modeling framework along with the estimation results and section 4.7 concludes.

4.2. Determinants of India's Export Performance

There is a perceived two-way dependency between economic growth and foreign trade performance in an economy. That is, the export and import volumes depend upon the general

performance of the economy, which in turn is dependent upon the export promotion and import substitution strategies. Although export promotion and import substitution are like two sides of the same coin, there is, of course, an increasing importance of the former, especially in the context of India's balance of payments (BoP) problem. For managing the BoT, export promotion is considered to be a better option than import substitution because a direct curb on imports can adversely affect investment, output and therefore economic growth in the long run. However, there is of course the need for effective import substitution, for which the cost and efficiency considerations are to be taken into account.

In India, exports constitute only 5-8% of GNP and therefore there is less possibility of export-led growth than growth-led exports. Thus, in India, exports in most sectors could either create employment or develop skills or improve competitiveness rather than playing an overall-leading role in economic growth (Hussein Committee Report, 1984). In fact, India's export performance since independence, has not been much commentable either in the domestic context or in the international context. Over 50s and 60s, a phenomenal increase in world trade led to a steady decline in India's share in world exports. In 70s, though there was much better growth of India's exports, it was inadequate either with reference to the growth in world trade or with respect to the country's needs (Nayyar, 1988). In fact, compared to the Newly Industrializing Countries (NICs), India's export share continued to decrease, despite a higher export growth. The export performance was inadequate even from the point of view of self-reliance of the economy as the imports financed by exports decreased sharply (Hussein Committee, 1984). Even since the mid-80s, when there was a relatively rapid growth of India's exports, she seems to have failed not only in gaining competitiveness in new commodities but even in maintaining her market share in the traditional items (Srinivasan, 1998). In view of such an absence of new tradables and existence of fewer export items, which may explain India's unsustainable export growth behaviour, what is needed is a rapid transformation of India's export basket (Sinha Roy, 2001).

The trade policies play an important role in determining the pace of growth-led exports in India. It was since the mid-80s that external reforms relating to tradables started taking place in the country. But, they were mainly aimed to reduce the relative price and cost distortions in the export sector. The export promotion policies followed were mainly in the nature of compensations rather than incentives. Trade policy changes were not followed up by changes

in industrial and macro economic policies. Singh (1964) emphasized the importance of openness to foreign trade for rapid growth, especially in the context of the success of the East Asian economies. Hussein committee felt it imperative to re-formulate the economic policies evolved over time, influencing the nature of industrialization. The studies on India's exports carried out during the 1980s have generally argued for policies that are less biased towards exports (Singh (1964, Wolf, 1982 and Nayyar, 1988). There are both external (foreign demand) and internal (domestic supply) factors affecting India's export performance and it is extremely important to delineate their relative importance (Hussein Committee, 1984 and Nayyar, 1988). Foreign demand is affected by commercial policies abroad including tariff and non-tariff barriers, while supply hinges on domestic production and domestic consumption of exportables, as also the domestic policies towards exportables, which influence the relative profitability of exports.

Srinivasan (1998), using a non-structural eclectic model of India's exports, points out an inverse relationship of exports with real effective exchange rate (as a proxy for the exchange rate policy used to increase the price competitiveness of Indian exports) and a direct relationship with increase in world exports and real GDP (as proxy for domestic supply capacity). At the same time, domestic demand pressure is said to have a negative impact on the export performance (Beladi and Biswas, 1978, Hussein Committee, 1984, and Goldar, 1989). Among the supply-side factors, both price as well as non-price competitiveness tend to influence India's exports. In fact, a number of studies¹ have highlighted the importance of factors other than the Real Effective Exchange Rate (REER), which had always been over-emphasized earlier, in determining the trends in India's export growth. For Sinharoy (2001), the REER is effective in promoting the export growth only in situations of growing world demand. Further, an increase in the import demand of the destination countries implies only potential for increased exports from India. But, India's ability to make use of the potential would depend on structural and institutional factors. India should be able to adapt the commodity composition of her exports according to the changes in world demand. But, structural rigidity, that is, the inability to adapt to the changes in world demand, has been a major hurdle for India's exports (Harilal, 1995). In this context, as pointed out by Lall (1999), the structure of India's manufactured exports is not suited for sustained growth.

¹ See Singh (1964), Nayyar (1988), Srinivasan (1998), Sinharoy (2001), etc.

Thus, different studies stress on different factors as determinants of India's export performance.

Our attempt here is not to involve in the debate on the determinants of India's aggregate exports. Our aim rather is more towards explaining the higher order of orientation of India's exports to the GCC. The bilateral trade orientation ratios are defined in such a way that their level or movements of change cannot be explained in terms of general factors affecting India's overall exports or GCC's overall imports. Therefore, we need to focus on factors specific to bilateral trade flows. For instance it is important in the context of present study to focus on factors orienting India's exports to the GCC. Such orientation factors could be operating both on supply and demand side of India's exports to the GCC. The gravity models are particularly suited to analyse bilateral trade flows. Our idea here is to adapt the framework of gravity models to factor-in the role of the migrant population in the GCC. The presence of migrant population in the GCC region is hypothesized as an important factor in orienting India's exports more to the GCC countries. The coming section discusses the economic role of migration in detail.

4.3. Economic Importance of Migration: Link with Trade

The migration of Indians to the Gulf started only recently, that is, with the oil-boom in the 70s, when these countries were in demand for manpower to carry on the expanding construction activities in the region initiated as part of their developmental programmes. India also benefited due to the large remittances from the migrant population, which helped to compensate for the huge oil-bills. Virtually, it is a pipeline between India and Gulf, flowing labour and oil to and fro². A peculiar feature of the Gulf region (excluding Saudi Arabia), compared to the other migrant destinations like US/Australia/Canada is that two-third of its labour force is constituted by the migrants, who therefore tend to exceed the local population. Moreover, in contrast to the unskilled migrants seen in other parts of the world, the Gulf migrants are skilled as well, again overrunning their local counterparts (Weiner, 1982). Among the Gulf migrants, South Asians constitute the single largest group, and the Indians³ the most skilled segment. As in Zachariah, et al. (2002), Indian emigrant population in the Arab region is 30.7 lakh, of which Saudi Arabia and UAE alone account for about 72

² The labour flows to the Gulf countries, however, seem to decline when the oil prices fall as happened in the early 80s (Chandra Mowli, 1992).

³ Out of the Indian migrants, Keralites constitute the majority (Prakash C Jain, 2003).

per cent. However, the development planning in India did not pay much attention to the vast potential of such a huge migrant population in strengthening the bilateral economic linkages (Ashokan, 1994). We have already seen the importance of the Middle East market and the natural advantages that India has with this region like the cultural and geographical proximity. Here it is noteworthy that the development programmes of the Gulf countries, which are capital-rich and labour-scarce in nature, are aiming at evolving a social structure with consumption-oriented native population and productivity-oriented migrant population (Weiner, 1982). Such an evolving consumption-oriented nature of the native population seems to be an added advantage as far as Indian exports are concerned.

Perhaps, migration can be influential in reducing the global inequalities by leading to the socio-economic development of the highly-populated migrating countries which are prone to problems like unemployment, poverty, etc. For e.g., a major factor, often cited, contributing to the recent boom in the Chinese economy is the huge flow of investments from the overseas Chinese entrepreneurs. While China made use of this basic feature (over-population) of their economy as a path to development, India remained almost inert⁴. The representation in world trade shows that China enjoys a share of 3.4 per cent, while India is supposed to reach only 1 per cent in 2007 (Sahoo, 2002). The Diaspora community therefore can play a very important role in the overall development of a country. The attempt here is to bring out how far India has been able to make use of this possibility to promote our exports, utilizing the market potentials provided by the Indian Diaspora in the Gulf region. In fact, as pointed out by Reddy (2001), integrating the Diaspora community with the development programmes of the home country seems to benefit the host country as well. Nevertheless, in the present case, we are concerned only about the migrants' influence on the home country's export promotion and therefore economic growth.

Though there are studies linking migration with its labour market implications, those linking with trade are rare. However, some recent studies on the migration-trade link have proved the

⁴ The low level of participation of the highly potential Diaspora community in India's development programmes is mainly due to the inadequate incentives provided for the same in the home country. The self-motivated political parties, the tough bureaucratic procedures, high level of corruption, and inadequate infrastructural facilities are all making the Indian Diaspora hesitant to invest in the home country. At the same time, China has always been keeping links with her expatriate community, providing them with a lot of stimuli to participate in the nation building activities (Sahoo, 2002).

same empirically. According to Girma and Yu (2002), this link is said to come either through preference similarity or through the market information brought in by the migrants. The latter mechanism may even broaden the size of the foreign market as the demand for the home products can extend to the foreign natives as well. That is, apart from the demand from the migrants, the demand of the native Arabs might also get influenced towards such ethnic products with the bridging of information gaps and therefore leading to increased exports. According to Martin (2001), if we compromise the standard assumptions of the conventional trade model, migration can even be complementary with trade, that is, increased migration can lead to increased trade between countries.

Two interesting studies on the link between migration and trade are Gould (1994) and Girma and Yu (2002). The former has made use of the US bilateral trade flows, while the latter has used the UK trading data. Both view the issue from the immigrant's⁵ point of view, concentrating on the mechanism of reduction in information gap through the immigrants for promoting the bilateral trade, rather than the preference similarity aspect of the immigrant links with the home country. According to Gould (1994), the immigrant ties with their home countries foster the bilateral trade linkages through knowledge of home-country markets, language, preferences, and business contacts, all of which can reduce the trading transaction costs. Most recently, Girma and Yu (2002) taking the case of UK, tried to distinguish between the type of information availed through migrants. According to them, it is the new/additional information rather than the old personal contacts that leads to increased trade. Nonetheless, the preference similarity aspect has not been touched upon, which has been accepted in the literature as capable of increasing the imports of the host country. According to Gould (1994), while the reduction in information gap results in the promotion of exports as well as imports, the similarity of preferences will have an impact only on the imports of the host country. We will be focussing mostly on the second mechanism, where migration is likely to have implications for the export strategy of the home country. All the studies on migration-trade link have applied the gravity equation, which has long been used in the trade literature for analysing the determinants of aggregate trade flows.

⁵ For evidence on immigrant links to the home country, see Light (1985), Light and Bonacich (1988), and Razin (1990). Also, in a survey of Korean immigrants in Los Angeles, Min (1990) found that most of these Korean immigrants were engaged in trading activities (mainly trade in fashion items) with Korea.

4.4. The Gravity Model and its Estimation

The gravity model is widely used for analyzing the trade flows, usually with cross sectional and at times with panel data. Though the model has provided insights for analysing the trade flows, doubts have been raised on its backing in the economic theory and therefore the predictive power (Anderson, 1979). However, there were attempts⁶ to provide a reasonable theoretical basis for the model. Typically, the equation will be in log linear form with a normally distributed error term. It seeks to explain a flow from a particular origin to a particular destination, using the economic forces at the flow's origin /destination or using the forces either inhibiting/promoting the flow between the two (Bergstrand, 1985). In the case of trade flows, usually the explained variable is the dollar value of the trade from one country to another, while the explanatory variables used are the incomes (deflated), the populations as also the distance between the two countries⁷. The typical estimates of the model give a direct relation of the first two regressors with the trends in trade, while the latter shows an inverse one. The specification with the above-mentioned variables and properties has been used in a number of studies⁸. However, the gravity model is widely applicable only in those cases where there is a kind of preference similarity between two countries (Anderson, 1979).

Following Mathur (1999), who made use of cross-section data, the common specification of the gravity model may be written as follows:

$$X_{ji} = \beta_0 Y_j^{\beta_1} Y_i^{\beta_2} D_{ji}^{\beta_3} e^{u_{ji}}, \text{ where}$$

X_{ji} = the value of exports from j to i.

Y_j = the GDP of country j (exporting country).

Y_i = the GDP of country i (importing country)

D_{ji} = distance between j and i.

In log-linear form, the above equation is written as,

$$\log X_{ji} = \log \beta_0 + \beta_1 \log Y_j + \beta_2 \log Y_i + \beta_3 \log D_{ji} + u_{ji}.$$

⁶ See Leamer and Stern (1970), Anderson (1979) and Bergstrand (1985). Bergstrand made use of a general equilibrium world trade model, from which the typical gravity model was derived with certain assumptions.

⁷ The other variables having significant effect on the trade flows are the price/exchange rate variables (Bergstrand, 1985).

⁸ See Tinbergen (1962), Poyhonen (1963a, 1963b), Pulliainen (1963), Prewo (1978), and Abrams (1980).

The distance between ports/capital cities of two countries is an important variable used in the gravity models. This shows nothing but the transportation cost that is negatively related with the trade flows. In Mathur (1999), distance emerges as a very important determinant of bilateral trade, suggesting the importance of furthering trade ties with the adjacent regional groups like the GCC, SAARC and ASEAN. According to him, as the purpose is to incorporate the effect of a trade-inhibiting factor, some other proxies for trade costs can also meet the purpose. In this context, migration providing information about the foreign markets and reducing the transaction costs, may also help in enhancing the bilateral trade at competitive costs.

In fact, the gravity model has been applied in the studies showing the link between immigration and trade as well (Gould, 1994 and Girma and Yu, 2002), where panel data has been used as in the present case. As in Mathur (1999), Gould (1993) also finds a positive effect of the income in the importing country on the bilateral trade, and migration as a variable reducing the transaction costs. Here, the GDP serves as a proxy for country size. In Mathur (1999), the corresponding co-efficient is almost zero for food and moderately positive for manufactures and raw materials. At the same time, the importing country's per capita GDP, showing the consumer preference for variety, showed a significant positive relation, however, with the exports of food items rather than manufactures. In Sharma (1984), while the importing country's GDP seemed to be highly significant, the per capita GDP, though positive, is less significant, again depending on the character of the imported item. According to Girma and Yu (2002), the host country's per capita GDP can be taken to represent not only the variety of taste/preference due to the wealth effect, but also the openness to international trade.

Now, the GDP of the exporting country, as given in Mathur (1999), shows a positive relation with her exports, because higher the national output, higher will be the scope for exports. However, the corresponding co-efficient was found significant in the case of manufactures rather than the food items. The per capita GDP of the exporting country shows the capital intensity of exports, which, in Mathur (1999), was not significant, India being a country with more of labour-intensive exports.

In the present application of the gravity model, since the country of origin/the exporting country and therefore the supply-side determinants⁹ remain the same across the export partners, we consider only the GDP and per capita GDP of the importing countries. However, for capturing the effects of economy-wide factors including policy changes, as in Girma and Yu (2002), we have made use of a time dummy variable. The time dummy may capture a group of macro economic factors including trade policy changes. Since we focus on the preference similarity mechanism of migration-trade link, the present exercise might also help us comment on the importance of Linder's hypothesis as an explanation for South-South exports, of which India-GCC export is an important case.

Thus, we have employed a gravity model with longitudinal data on India GCC exports over 11 years and across 6 GCC members. Ma'tya's (1998), referring to the practical problem of imposing restrictions on the general specification according to the context and making swift conclusions on the regional dummy variables, points out that using the panel data the results can be unbiased as no restrictions are imposed on the general model. Moreover, the panel data model applied in the present exercise being in log-linear form with a purely normally distributed error term adheres to the properties of a typical gravity equation. According to Gould (1994), in addition to the variables generally used in theoretical models, there could be a number of country-specific effects like distance and language. These variables, however, are not included in his model to avoid the problem of perfect multi-collinearity. Instead Gould (1994) has incorporated the country-specific dummy variables¹⁰. However, in the present case as the destination consists of the members of a homogeneous regional grouping, the problem of country-specific effects seems to be insignificant. For e.g., distance as a country-specific effect does not change considerably across the GCC members. In the next section we present a note on the data used in the regression exercise.

⁹ Moreover, the similarity of the structure of India-GCC exports with that of India's aggregate exports observed in the third chapter, has already indicated the inadequacy of the supply-side factors in explaining the high orientation of India's exports towards the GCC.

¹⁰ The gravity model is used mainly for analyzing the effect of trading blocs and therefore for making policy prescriptions. Polak (1996) criticized the use of regional dummy variable(s) to capture the trading bloc effects and suggested alternative for capturing it, some others like Ma'tya's (1998) criticized the econometric specification used for capturing it, leading to the incorrect interpretation of these dummy variables. According to Ma'tya's (1998), the alternative specification of the model should include the fixed target country, local country and time specific effects.

4.4.1. The Data

The variables used in the present exercise are the GDP, per capita GDP as well as the number of migrants in the importing country. A time dummy is also used, except which all the other variables will be in real terms. The data for the exercise is drawn from a number of sources. India's exports to the 6 GCC members, which is the dependent variable, have been taken from the Monthly statistics of foreign trade of India, published by the DGCI&S, Government of India, Calcutta, with all exports measured as f.o.b¹¹. The data for all the independent variables have been taken from the 'The Middle East Economic Data Book' (2001), published by the Edwards Economic Research Unit, Canada. For the number of migrants from India to the Gulf, the most important among the regressors, time series data was not available and therefore we have to be content with the data for the total foreign population in the Gulf, as available from the 'Data Book'. In fact, as we have already mentioned, the South Asian population constitutes the single largest group of migrants in the region out of which Indians comprise almost half. Therefore, we take the total foreign population as a proxy for the Indian migrant population, who themselves cover an overwhelming portion of the Gulf migrants. Moreover, the South Asians constituting majority of Gulf migrants, seem to have almost similar preferences as Indians and therefore highly representative of the latter. The period of the analysis was limited to 11 years, that is, 1990-2000, only because of the problem of data availability on migration. For enabling comparability, the GDP figures have been taken at constant prices and all the variables are in dollars and in units of thousands.

4.6. The Modeling framework

a) Panel data analysis: -

As we are making use of a panel data model, this subsection discusses some particulars of the panel data technique. By "Panel data", we mean the pooled observations on a cross section of units like countries, firms, etc. over several time periods. That is, as different from a time series or cross sectional data, it will have a double subscript on its variables, implying both time series as well as cross sectional dimensions. In its simple form, a panel equation is given by:

$$Y_{it} = \alpha + X_{it}\beta + \epsilon_{it}, \quad i = 1, \dots, N; \quad t = 1, \dots, T,$$

¹¹ See chapter 1 for a detailed note on data sources.

where the 'i' subscript denotes the cross section dimension, that is, the countries, firms, etc. and t denotes the time series dimension. If we consider the present case, in the above equation, Y_{it} is the dependent variable, that is, India's exports to different GCC members over time; α is the regression constant; X_{it} is the group of independent variables, that is, income of the GCC members, etc.; and ε_{it} is the error term with the usual properties.

In panel data models, the error term will usually have two components, that is,

$$\varepsilon_{it} = u_i + \omega_{it}$$

Here u_i is called as the unobservable individual or unit specific effect, affixing to the cross sectional unit, that is, India's exports to a particular GCC country in the present case. u_i is time invariant and may be either purely random or a fixed constant. Meanwhile the remainder disturbance ω_{it} is the standard error term, that is, purely random and it varies with individuals and time. That is, ω_{it} always remain stochastic, with IID¹² $(0, \sigma^2\omega)$ and the X_{it} are assumed independent of the ω_{it} for all i and t. If the u_i is also purely random, it is also assumed to be uncorrelated with the X_{it} and then the model is called a random effect (RE) model, where the GLS technique is used. But the significant probability to reject the null hypothesis that there is no systematic difference in the co-efficients of RE from another variant of the panel regression model, that is, the fixed effect (FE) model, as shown by the Hausman chi-square statistic, leads to the correlation of u_i with X_{it} . In that case, we get inconsistent estimates of β by running random effect model, and then the proper model is the fixed effect (within) model¹³ where the u_i itself gets eliminated by taking deviation from the group mean of the model and the sample size also becomes smaller. In fact, here an arbitrary restriction of $u_i = 0$ for all i is imposed on the dummy variable co efficient to avoid the dummy variables trap or perfect multi-collinearity.

The FE model is said to be an appropriate specification in case the focus is on such a specific group of firms or countries, the inference on which may not be generalized. At the same time, the observed group might also be such that the inferences drawn could be generalized,

¹² Independent and Identically Distributed.

¹³ Using the OLS regression technique, we get consistent estimates from the within model.

where the RE model turns out to be the proper specification (Baltagi, 1995). Therefore, for the present exercise as well, where the results might be generalized, RE would be the appropriate specification. Interestingly, as per the specification tests (Hausman and Breusch-Pagan Tests, which will be explained later), RE model showed proper fit to the data at hand. In the RE model, $u_i \sim \text{IID}(0, \sigma_u^2)$, $\omega_{it} \sim \text{IID}(0, \sigma_\omega^2)$ and the u_i are independent of the ω_{it} . In addition, the X_{it} are independent of the u_i , and ω_{it} for all i and t . We have satisfied the condition under the RE model that care has to be taken in designing the “panel” which has to be sufficiently representative of the population.

RE assumes that the regression disturbances are homoscedastic with the same variances across time and individuals. This, however, may not be the case in real life examples, where the cross sectional units can be differing in their size and therefore in variation. Even in the presence of such heteroscedastic disturbances, we may get consistent estimates of the regression parameters, but they cannot be efficient. In this case, we will have to obtain robust standard errors of the estimates, by running OLS on the transformed model (feasible GLS) that makes correction for the possible presence of heteroscedasticity. Another possible problem confronted with the “panel” technique is that of auto-correlation or serial correlation, which is not accounted for in a simple error component model. Serial correlation is nothing, but the possibility for the unobserved shock of an economic relationship to affect itself for the next few periods, which is something quite expected in concrete economic situations. Here again we get consistent, but inefficient estimates and biased standard errors unless auto-correlation is not accounted for when it is present. Therefore the serial correlation may be introduced in the regression equation by assuming an auto-regressive process of order one, that is, an AR (1) process in the error term. In the present case, however, the panel used being small compared to the usual big panels, the very purpose of which is to capture the huge variations in the data most successfully, these problems seem to be less significant and therefore have not been attended.

Now, we may have a brief look at the benefits as well as limitations of using panel data, as pointed out by Baltagi (1995) and Hsiao (1998). One of its benefits is that it controls for individual heterogeneity of countries, firms, etc., while the time series and cross section

studies do not control for the same and run the risk of obtaining biased results¹⁴. For e.g., in the present case where India-GCC export is modeled as a function of GDP, per capita GDP and migration in the GCC countries, all these variables are varying with countries and time, which is effectively controlled for by using the panel data technique. In addition, there may be a lot of state/time invariant variables affecting exports, some of which are difficult to measure or even hard to obtain so that they can be included in the equation. Omission of such variables (like distance as time-invariant and language as state-invariant indicating the transaction costs in the present case) leads to bias in the resulting estimates. Panel data are able to control for these state and time invariant variables whereas a time series or cross section study cannot. Secondly, panel data is more informative with more variability, less collinearity among the variables, more degrees of freedom and efficiency, while time series studies are wretched with multi-collinearity. For e.g., there can be a high collinearity between GDP and per capita GDP in a time series data, while less likely with a panel which has a cross sectional dimension as well adding a lot of variability and providing more informative data on these variables. In fact, the panel data variations can be decomposed into variation between countries of different sizes and features and variation within countries, where the former is usually bigger. With such an additional and more informative panel data the parameter estimates obtained can be more reliable as well. Third, panel data are better able to study the dynamics of adjustment. Panels can relate the individual's experiences and behaviour at one time point to other experiences and behaviour at another point in time. That is, panel data are better able to identify and measure effects that are simply not detectable in pure cross sections or pure time series data. Cross sectional distributions, though seem to be relatively stable, conceal a lot of variations. Moreover, as noted by Hsiao (1986), on a distributed lag model panels impose fewer restrictions than a purely time series study. Also, panel data models allow us to construct and test more complicated behavioural models (e.g., technical efficiency) than with purely cross section or time series data. Most of the limitations of panel data are related with the use of primary data and the one connected with secondary data is its short time series dimension. Typical panels, however, involve annual data covering a short span of time for each individual. This means that the arguments drawn rely crucially on the number of individuals or cross section units.

¹⁴ E.g., See Moulton, 1986.

b) The Results: Migrant Link

In this subsection, we explain the specific estimation model applied and the results obtained. Before going to the details of regression, let's examine the growth in the regression variables, at aggregate as well as cross section levels (Table 4.1) and the correlation co-efficients among the variables (Table 4.2), which might a priori suggest some of the expected links. In Table 4.1, we can see that among the explanatory variables, migration is having the highest growth rate for almost all the GCC countries. At the level of aggregate GCC, the growth in migration is the same as that in GDP. However, the percapita GDP has shown negative growth rates. Such a noticeable positive growth in migration and negative growth in per capita GDP themselves seem to suggest their possible positive and negative influences on the regressand, that is, India-GCC exports, which is seen to register a very high comparative growth.

Table 4.1
The Growth^a of Regression Variables: Country-wise (1990-2000)

GCC Countries	Export	GDP	Percapita GDP	Migration
Bahrain	1.26	3.87	0.88	3.40
Qatar	7.35	3.57	-1.44	7.39
Kuwait	2.64	3.27	4.78	-3.00
Saudi Arabia	11.18	2.10	-0.15	3.73
Oman	9.48	1.96	-1.47	7.10
UAE	17.21	3.68	-1.18	7.06
Total GCC	13.20	3.77	-0.09	3.80

Note: ^aThe compound growth rates are given in percentages.

Source: Monthly Statistics of Foreign Trade of India, vol.1, various issues and the Middle East Economic Data Book, 2001.

Supporting the perceptions, Table 4.2 proceeds to show the importance of migration as the variable with the highest positive correlation (.82) with exports. Therefore the present study might emerge as an additional evidence for the pro-trade impact of migration. From among the other 2 regressors, while the GDP (as proxy for country size) is showing a conventional positive correlation, the per capita GDP is showing a negative correlation perhaps supporting the hypothesis in Mathur (1999) that its influence depends on the nature of the commodity imported. The influence of ethnic goods in India-GCC exports was already seen while examining the structure of exports. Such commodities are demanded more by the huge migrant population from India as indicated by the high positive correlation co-efficient for migration; and not by the native Arabs as purported by the negative correlation co-efficient

of the per capita GDP. We may interpret the negative correlation for per capita GDP¹⁵ as the result of the wealthier nature of the GCC countries who may not demand the abundant less value-added items constituting Indian exports.

Table. 4.2
Correlation Coefficients among the Variables

	Export	Migration	GDP	Percapita GDP
Export	1.0000			
Migration	0.8225	1.0000		
GDP	0.6932	0.8020	1.0000	
Percapita GDP	-0.0387	-0.1649	0.0515	1.0000

Now, though less important to be considered, the negative correlation of migration with per capita GDP and the positive correlation with GDP indicates that migration depends rather on the size of the economy than the affluence. In Table.4.2, we can also see that the correlation between GDP and per capita GDP is not much high and therefore the decline in the per capita GDP, as seen in Table.4.1, can be more of a result of increasing population, while the GDP was seen to grow comparatively well. Now, before proceeding to the regression results, only where we get a concrete picture of the influence of the regressors on India-GCC exports, let's explicitly specify the functional form used for regression as well as the panel estimation procedures applied. The specific functional form that is used in the present study, almost in tune with the earlier empirical models in the migration-trade literature, is as follows:

$$X_{it} = \alpha + \beta_1 G_{it} + \beta_2 PG_{it} + \beta_3 M_{it} + D_t + u_{it}, \text{ where,}$$

X_{it} = India's exports to country i at time t,

G_{it} = GDP of country i at time t,

PG_{it} = per capita GDP of country i at time t,

M_{it} = annual stock of Indian/Asian migrants in country i at time t, and

D_t = time dummy for the period of analysis, that is, 1990-2000.

¹⁵ The negative correlation shown by per capita GDP may also be because of the negative growth seen in this variable.

In the equation, i denotes the 6 GCC members and t denotes the time period of the study, that is, 1990-2000. Therefore, the data used in the exercise is a small¹⁶ balanced panel. All the variables, except the dummy variable, are in real terms and measured in natural logarithms. The time dummy is used to capture a bunch of macro economic factors, including the trade policy measures that are difficult to incorporate, affecting the exports over the 11-year period. Table 4.3 reports the estimated regression co-efficients, where it is seen that we have a clear evidence of a positive link between migration and exports.

Before examining the implications of the regression results, let's see the estimation procedure as well as the diagnostic tests undergone in the process of panel regression. The RE model, called as the default model¹⁷ turned out to be the proper model fitting for the data, as per the Hausman specification test as well as the Breusch-Pagan test. The specification test (chi2) devised by Hausman (1978) denotes whether the co-efficients of the fixed and random estimators are systematically different or not. If it is, as has already been mentioned, we go for the fixed effect estimation rather than the default RE model because of the possibility of the regressors getting correlated with the error term. In the present case, however, the co-efficients of the fixed and random estimators did not turn out to be significantly different. As per the Breusch and Pagan Lagrangian Multiplier test also, which is a further test for RE model testing whether the variance of the individual error component is significantly different from zero or not, RE turned out to be the proper specification. That is, the variance seemed to significantly differ from zero, as per the assumption of the RE model where $u_i \sim \text{IID} (0, \sigma_u^2)$ ¹⁸. The details of the specification tests are given in the box below:

Hausman specification test:
 Test: Ho: difference in coefficients not systematic
 Prob>chi2 = 0.2927
Breusch and Pagan Lagrangian multiplier test for random effects:
 Exp.[code,t] = Xb + u[code] + e[code,t]
 Test: Var (u) = 0
 Prob > chi2 = 0.0000

¹⁶ Usually, the panels are small and wide in nature. In the present case, we admit that the wideness is not much ensured.

¹⁷ It is also called the mixed model because it is the weighted average of within and between models, other two variants of panel estimation.

¹⁸ Independent and identically distributed with mean zero and variance σ_u^2 .

As for the diagnostic tests, autocorrelation and heteroscedasticity are the two possible problems that might emerge. This is mainly due to the large samples used in the typical panel studies. In the present case, however, as noted earlier the sample size being small which is a possible limitation of the exercise, such diagnostic tests are not emerging much critical.

Table. 4. 3
The Impact of Migration on India-Gulf Exports

Regression Co-efficients		
Migration	.512 (2.59)	
GDP	-.034 (-0.72)	
Per capita GDP	-.104 (-0.58)	
Time Dummy	.083 (5.53)	
R ² (%)	RE	FE
Overall	63.55	35.5
Between	67.46	51.7
Within	73.21	73.95

Note: The t-values for the significance of regressors are given in brackets.

Now, coming to the regression results, the econometric evidence seems to provide robustness to the existing idea of migration-trade link. That is, as was mostly seen from the literature, the imports of the host countries are likely to be subjected to strong immigrants' preference effect for their home country products. A 10 per cent increase in immigrant stock has the effect of increasing India's exports by a half of this increment, that is, 5.1 per cent, which is high and noteworthy. The overall goodness of fit of the RE estimation (63.5 per cent) compared to FE (35.5 per cent) is considerably high. In the model, anyway, the co-efficients of the parameters for GDP and per capita GDP, representing the size of the GCC countries as well as the wealth effect respectively, are not statistically significant. The insignificance of these variables are also in a way pointing towards the significance of migration itself and this will be revealed in what follows.

The GDP (denoting the country size), with a high positive correlation with India-Gulf exports, was expected to show a significant positive co-efficient. But it turned out to be insignificant. In a way, this might be indicating that rather than the size of the Gulf countries and therefore the demand from the native population, the demand for India-Gulf exports are

mainly coming from the migrants. Therefore, more than the size of these countries, their immigration policies and therefore the number of migrants can be more influential. In addition, the rising importer GDP may also have an import substitution effect¹⁹, especially for food items. However, the insignificance of the parameter in the present case rules out this possibility. As mentioned earlier, the possibility for the import demand to get extended to the native Arabs²⁰ also can not be ignored. With a meagre agricultural base in most of the GCC countries, they have been less successful in implementing any rapid and effective import substitution programmes despite their growing income and continuing efforts in this direction. This explains the insignificance of the parameter for GDP when it denotes the import substitution possibility for Indian imports, which is abundantly constituted by the food items. However, the insignificance of import substitution possibility can also be due to the influence of migrants and therefore the nature of imported items, which are mainly ethnic and therefore more costly and less likely to be produced domestically. Especially since the Indian migrants are highly skilled in nature, the possibility of the Rybczynski effect, that is, import substitution through the large unskilled migrants themselves, as mentioned in Girma and Yu (2002), is also less.

Therefore, the influence of migration itself comes to the limelight through the co-efficients for the other variables as well. Taking the case of per capita GDP, which implies the wealth effect as also the trade openness of the GCC countries²¹, again the co-efficient did not emerge significant. According to Mathur (1999), the wealth effect depends on the nature of the commodity imported. That is, the insignificance of per capita GDP shows that the wealthier nature of the GCC countries may not lead to the demand for the less-value added items dominating India-Gulf exports. But, as we could see, India's exports to GCC grow despite the growing affluence of the region. This reflects the influence of migration only, which through the preference similarity hypothesis, leads to increased imports of home country products. That is, the present case denotes the heterogeneity in the South with the developed nature of the developing GCC countries where the retention of Linder's preference similarity thesis despite its own proposition of income similarity is only because

¹⁹ See Mathur (1999).

²⁰ The mechanism of bridging the information gap through migrants can even lead to the widening of market, with the preferences of the natives also getting affected.

²¹ See section 4.4 for details on the implications of the variables.

of the influence of migration. The effect of the time dummy that is supposed to capture a whole lot of macro economic changes, is significant. That is, a 10 per cent increase in this variable leads to a 0.8 per cent increase in exports. This suggests that apart from the delineated bilateral factors there are some general factors as well working alongside in determining India-GCC exports. Such general factors determining India's exports can be the various trade policy measures in India²² like the exchange rate manipulations and the tariff level changes and, as mentioned earlier, the rise in the GDP/per capita GDP of the country, etc.

4.7. Conclusion

To sum up, the results estimated are almost consistent with the earlier studies on migration-trade link. The effect of stock of migrants on India's exports/GCC imports is positive as found in Gould (1994), Head and Ries (1998), and Dunlevy and Hutchinson (1999). A 10 per cent increase in immigrant stock has the effect of increasing India's exports by a half of this increment, that is, 5.1 per cent, which is really high and noteworthy. Even the other variables in the present exercise have been indirectly showing the effect of migration, therefore making the result more robust. Here, we have focussed on the preference similarity mechanism of migration-trade link, which has implications for the exports of the home country. As noted in chapter 1, preference similarity explains South-South trade because of their similar low-income levels. The present case of Southern trade partners is, however, characterized by widening income differences, as was seen in the previous chapter. Still, there is growing trade between India and GCC. This shows nothing but the influence of Indian Diaspora, leading to the preference similarity effect.

²² As mentioned earlier, the time dummy is used to capture the effect of supply-side factors, which has not been considered in the analysis, as the country of origin does not change.

CHAPTER V

SUMMARY AND CONCLUSIONS

This chapter presents major findings and conclusions of the study. The present study on India-GCC trade relations was set out, it being an important case in the context of South-South trade, with an examination of the recently growing significance of the latter in the world trade network. The South-South trade or the trade among the developing countries, although the weakest segment of the world trade network, started to grow substantially since the 1970s, when there were some major changes in world trade in favour of the South. Its composition also showed signs of growing Southern competitiveness with a consistent increase in the share of manufactured goods and a steady decline in the share of food items. The changes at the global level got reflected in India's direction of trade also, which witnessed a similar shift away from the North and towards the South, particularly OPEC. One of the reasons for the substantial growth of South-South trade in the 70s was the emergence of OPEC, claiming a good portion of world trade thereafter. India's trade and cultural ties with these neighbouring countries, especially the Gulf States, are very old. Despite the significance of Middle East in world trade as also in India's trade, there are very limited studies on India's trade relations with this region.

A notable feature of India-GCC relations is that the largest expatriate Indian community is living in the Gulf. In view of the emerging literature on the positive link between migration and trade, the present study sought to examine the nexus between migration and trade in the concrete context of India-GCC trade. India-GCC trade being a major subset of the network of South-South trade, conclusions of the present study would be of some relevance for the South-South trade in general as also for India's export policy, particularly in the context of the influence of migration. Interestingly enough, as our results clearly show, the presence of the Indian Diaspora is an important source of demand and hence growth of India's exports to the GCC.

The preliminary analyses themselves showed the importance of the GCC in India's trade, as also its potential as a destination of exports in the years to come. Our review of literature in chapter 1 highlighted the growing importance of South-South trade and the role of preference similarity in the same. Linder's preference similarity theory is considered to be appropriate in explaining South-South trade on account of the similarity in the level of

income and hence preferences in the countries of the South. The big and growing gap in the per capita income levels of GCC and India violates the income similarity assumption. However, we hypothesised that migration would compensate for the income gap and generate preference similarity.

In the second chapter, we made a fairly detailed examination of the trends and mutual orientation of India-GCC trade. Since the GCC, consisting of six members, was formed in 1981, the period covered is 1981-2001, that is, a span of 21 years. We focused on the export side because exports have special significance in the context of India's huge and widening trade deficit with the GCC countries. India's exports to GCC was seen to follow almost the same trend as India's aggregate exports, perhaps showing its significant contribution to the latter. As it was seen to be growing well even compared to India's trade with the rest of the world especially in the 90s, we tested for a trend break in the series in the early 90s, when a series of events with possible influence on India-GCC exports took place. Accordingly, in the year 1992, we could see a trend break in India-GCC exports, which seemed to grow at an accelerated pace since then. At the level of GCC members, UAE seemed to show much consistent growth throughout the period. On the whole, the growth of India-GCC exports has been remarkably high in the 90s, despite the overall fluctuations diverging from the general trends in South-South exports.

India's representation in the Gulf trade, which was examined subsequently, was also seen to be much favourable. In fact, from among the developing countries, India's position is almost on the top as a source of GCC imports. At the level of individual GCC members, the UAE showed the highest representation for Indian imports. However, there is intense competition, especially among the Asian exporters for winning the UAE market due to its liberal trading environment. The fluctuating share of India in the UAE imports seems to indicate the competition existing in the UAE market. Nevertheless, UAE seems to be a growing market as the share of UAE in world imports has been rising more or less continuously. India's share in Saudi Arabia's import, though less than that of UAE, also seemed to grow in the 90s.

We did also examine the trends in the trade orientation ratios, which are the tools giving much clearer picture of the intensity of the bilateral trade. Though both India and Gulf seemed relatively better oriented to each other's markets, the export orientation of India towards GCC seems to have lower growth compared to the import orientation, at the

aggregate level as well as at the level of individual countries. The lower growth of the import intensity index of GCC with India underlines the need as well as scope for increasing India's exports to the region. At the level of individual countries, the export intensity index of India with UAE shows the lowest growth, despite its comparatively higher level throughout the period. This implies that India has to be more planned in her efforts to use this market, which is a highly competitive one. Besides factors like geographical proximity and historical ties, an important reason for the high and growing level of orientation of India's exports towards GCC could be the correspondence between the structure of India's exports and that of GCC imports. This factor assumes special importance in the context of the presence of the huge Indian Diaspora in the Gulf region.

The structural factors were taken up for analysis in chapter 3. In the structure of India-GCC exports, food items constitute a major portion, out of which Rice continued to be a principal export throughout the period of analysis. The other items of importance are Articles of Jewellery and Woven Fabrics. Our analysis of changes in the commodity structure shows the emergence of some new export items like Diamonds and newer variants of Textiles as top ones replacing some others. At the aggregate level, Chemicals, Textiles and textile articles, Pearls and precious stones, Base metals and Machinery and electrical equipment are seen as the most dynamic areas of India's exports to the GCC. Most of the prominent exports, especially the food items, despite the decline seen in some of them, were presumed to indicate the influence of Indian Diaspora in the region. The growing importance of non-traditional manufactures along with a somewhat declining share of food items, which is seen as a common feature of South-South trade in general, seems to imply the technological dynamism and therefore the development prospects of India's exports to the Gulf region.

Though the inferences remain almost the same, at more disaggregated levels we get a clearer picture of the export items and their changing structure. The importance of Vegetable Products with consistent demand for Cereals, which almost directly indicates the influence of migration, deserves special mention. The growing importance of Precious Metals, with the emergence of Diamonds as a potential export item in the late 90s is also noticeable, especially because the Indians themselves constitute an important market for them. The commodity composition of India-GCC exports at the country level shows the emergence of new Textiles items. Further, India's exports to UAE appear to be more diversified compared to other GCC countries.

The observed similarity between the structure of India-GCC exports and that of India's aggregate exports reveals that the supply-side factors, perhaps, play a less important role in the high and growing orientation of India's exports to the GCC. Therefore, we seek an explanation for the same in the pattern of GCC demand, as reflected in the structure of GCC imports. Being highly affluent, the overall structure of the GCC imports appears as disadvantageous to India as the import structure of developed countries. At disaggregate level, however, there is evidence to suggest the influence of the Indian Diaspora. Most of the dominant items in India-Gulf exports like Rice, Vegetable products, Meat, Fish, Coffee, Tea, Textiles, Jewellery, etc., indirectly indicating the influence of migrants, have significant representation in the GCC import structure. Our interviews with migrants reveal that the demand for these Indian products comes mostly from the migrant workers themselves. Thus, the preference similarity hypothesis appears to have been working in the context of India-GCC trade. But as we have already noted this is not so much due to similarity in income as it is on account of the influence of the migrant labourers.

In the fourth chapter, we confirm the effect of migration on India-GCC export, by way of an analysis of determinants of India's exports to the GCC. Our aim being more towards explaining the higher order of orientation of India's exports to the GCC, we focused on factors specific to bilateral trade flows. The main idea has been to factor-in the role of migrant population in the GCC region, which is hypothesized as an important factor in orienting India's exports to the GCC countries. The gravity models are particularly suited to analyse the trade flows between pairs of countries. In the present application of gravity equation, we do not include factors on the side of source country, as they remain the same across the export partners. However, following Girma and Yu (2002), we use a time dummy to capture the effect of economy-wide factors in India, such as trade policy changes. The data used in the exercise is a small balanced panel for the time period of 1990-2000. All the variables (GDP, per capita GDP and number of migrants in the GCC countries), except the dummy variable, are in real terms and measured in natural logarithms. As per the model specification tests under the panel technique, that is, Hausman specification test as well as the Breusch-Pagan test, the Random Effect (RE) model, called as the default model turned out to be the proper model fitting the data set.

GCC with such a huge migrant population, even exceeding the native population of some of these states, and with the abundance of Indian migrants, seems to be a unique context for testing the migration-trade link. As in Dunlevy and Hutchinson (1999) and some other recent

studies on the migration-trade link, we also hypothesize a positive link between migration and India-GCC exports through the mechanism of preference similarity, which was evident to some extent from the examination of the commodity structure of India-GCC exports. There are two mechanisms of the migration-trade link; while the reduction in information gap results in the promotion of exports as well as imports, the similarity of preferences will have an impact only on the imports of the host country.

Coming to the regression results, the econometric evidence seems to support the existing idea of migration-trade link. As was mostly seen from the literature, the imports of the host countries are likely to be subjected to strong immigrants' preference effect for their home country products. In our case, it is seen that a 10 per cent increase in immigrant stock has the effect of increasing India's exports by a half of this increment, that is, 5.1 per cent, which is really high and noteworthy. The overall goodness of fit of the RE estimation (63.5 per cent) compared to FE (35.5 per cent) is considerably high. In the model, the co-efficients of the parameters for GDP and per capita GDP, representing the size of the GCC countries as well as the wealth effect respectively, are not statistically significant. The insignificance of these variables is also in a way pointing towards the importance of migration, making the result look more robust. Moreover, preference similarity mechanism is seen to work in the India-GCC context despite the violation of its crucial assumption of income similarity.

The present study has been an attempt to make a contribution to the existing literature on the migration-trade nexus. Even though the empirical evidence provided by the study support the idea of migration-trade link, it leaves many dimensions of the question unanswered. It is, for instance, important to find out the mechanisms through which the two-way relationship between migration and trade operate. In the present case, although we identify the link mainly in the context of demand for the ethnic type of commodities, the modern manufactures are also increasingly exported to the region. This might be because of the mechanism of transaction cost reduction than that of preference similarity, brought in by the migrants. In short, for unravelling the mechanisms behind the link, we may need much more disaggregate level analysis, examining the dimensions of preference similarity and transaction costs in more detail. The reconciliation of the complementarity between migration and trade with the conventional trade theories seems to be a further area of research.

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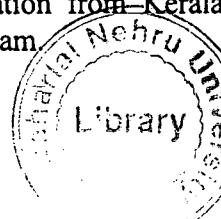
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