

Keskusteluaiheita - Discussion papers

No. 661

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FINLAND - INDIA

ECONOMIC RELATIONS

**A Twinning Study of
Trade and Investment Potential**

Working Paper presented at the Seminar 'Finnish-Indian Economic Relations: Trade and Investment Potential', organised by the Research Institute of the Finnish Economy (ETLA), Helsinki, December, 14, 1998.

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Mathur, Ajeet, FINLAND-INDIA ECONOMIC RELATIONS - A Twinning Study of Trade and Investment Potential, Helsinki, ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 1998, 123 p. (Keskusteluaiheita, Discussion Papers, ISSN, 0781-6847; no. 661).

ABSTRACT: This is a position paper on the state of Finland-India economic relations concerning mutual trade and investment potential. The work is focused on enterprises, researchers and policy makers. The trade potential and attractiveness of foreign direct investment are estimated based on current and projected demand in the growth sectors. Preferred forms of economic partnership at the enterprise level are considered to examine the feasibility of entrepreneurial initiatives and available alternatives. The paper concludes that structured interventions by firms, industry associations, business schools, chambers of commerce and governments of the two countries are feasible for vast, mutually beneficial synergies. Sectors where deepening research studies may be profitably pursued are indicated.

KEY WORDS: Asia, India, FDI, foreign trade, foreign investment

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TIIVISTELMÄ: Tässä työssä pyritään hahmottamaan Suomen ja Intian välisiä taloudellisia suhteita erityisesti keskinäisen kaupan ja investointien kehittämisen näkökulmasta. Tutkimuksen toivotaan palvelevan yritysten ohella myös tutkijoita ja talouspolitiikan tekijöitä. Kaupan potentiaalia ja suoria sijoituksia on arvioitu kasvusektorien nykyisen ja ennustetun kysynnän perusteella. Tutkimuksessa on pohdittu erilaisia yritystason yhteistyömuotoja tutkittaessa yritysten hankkeita ja mahdollisuuksia. Johtopäätöksenä on, että yritysten, teollisuusliittojen, korkeakoulujen, kauppakamarien ja valtioiden välinen yhteistyö loisi suuria molemmille osapuolille hyödyllisiä synergioita. Tutkimuksessa tuodaan esiin aihepiirit, joissa syventävät tutkimukset olisivat hyödyllisiä.

AVAINSANAT: Aasia, Intia, ulkomaankauppa, suorat sijoitukset

University of Tampere
School Of Business Administration

Working Paper

November 30, 1998

Version 5.3

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Executive Summary / Abstract

FINLAND-INDIA ECONOMIC RELATIONS

A Twinning Study of Trade and Investment Potential

Ajeet Mathur

This is a position paper on the state of Finland-India economic relations concerning mutual trade and investment potential. The work is presented with two sets of constituents in mind: firms-small and large, and researchers/policy makers.

After 1994, Finland's share in Indian imports rose sharply but trade volumes remained small, in a period characterised by notable expansion in Finland's share of Asian trade. India's worldwide trade trebled in the 1990s. The European Union is India's largest trading partner. However, India's exports to Finland stagnated and failed to diversify. Mutual investments remain insignificant, though growing and not so small as official statistics record.

The morphology of industrial structures in the two countries is related to the development of their international orientations. Data from the ITC (HS) international trade classification system is used to analyse strong production and traded sectors of the two countries. Industries identified are examined at the four-digit disaggregated data level for shares of the import market in the destination country with reference to EU-India trade. The whole universe of traded and tradeable items between Finland and India is considered in work done over three years, departing from the conventional research method of sampling. For each item,

specific EU countries with a disproportionately larger share of EU-India trade relative to the mutual synergies of Finland and India are identified. Significant aberrations are explained, by hypothesising, inter alia, structural, systemic, institutional, social, economic and cultural barriers. Gateways that could be designed with and without home and host government intervention are proposed.

The trade potential and attractiveness of foreign direct investment are estimated based on current and projected demand in the growth sectors. Preferred forms of economic partnership at enterprise level are considered to examine the feasibility of entrepreneurial initiatives and available alternatives.

Trade diversion partially accounts for the low level of economic contact at enterprise level. This, together with institutional barriers, explains the insufficiency of mutual entrepreneurial interest and exploration of untapped synergies that are identified. Bilateral internationalisation consistent with multilateral regimes may take different forms and paths for different sectors. For branded consumer durables and industrial intermediates, foreign direct investment constitutes a superior alternative to exporting for both countries.

The paper concludes that structured interventions by firms, industry associations, business schools, chambers of commerce and governments of the two countries are feasible for vast mutually beneficial synergies. Sectors where deepening research studies may be profitably pursued are indicated.

Preface

This paper is the first product of ongoing research on India-Nordic Economic Relations. Need for such studies was expressed by business and academia and also by economic research agencies. In 1994, in a bid to diversify its foreign economic relations, India considered an initiative to launch an India-Nordic Economic Relations Project. In the same year, Finland launched initiatives aimed at diversifying its international business portfolio to increase links with Asia.

This period coincided with my sabbatical leave with long spells in Finland on concurrent affiliation with the Helsinki School of Economics and Business Administration and the University of Tampere. The support of the School of Business Administration, University of Tampere and the Indian Institutes of Management enabled me undertake this research on Finland-India Economic Relations during the period 1995 to 1998. During 1997, a chance encounter with Pentti Vartia led to his expressing interest in studies on Finland-India Economic Relations at ETLA and his suggestion to write this paper.

Colleagues contributed their ideas generously and enabled me access information from diverse published and unpublished sources. I especially thank Risto Nuolimaa, Pertti Ahonen, Petri Laine, Ismo Vuorinen, Teemu Torvelainen, Rauha Annikki and Jacob Matthan, Minna Honka and Keith Silverang for their advice and support during this research. I am grateful to Amitava Bose and Subrata Ganguly for understanding my need to spend long periods away from the Indian Institute of Management Calcutta. I

acknowledge support of Indian Ambassador Ms Kamlesh Kumar and Finnish Ambassadors Ms Marjatta Rasi and Mr Benjamin Bassin who enthusiastically provided me their perspectives and ready access to data available with them.

I thank ETLA for its interest and support to a part of the expenses incurred on this research. In particular, I thank Pentti Vartia and Paavo Suni for their patient encouragement to this initiative. The paper was delayed because of unscheduled elections in India in May 1998 and consequential delays in planning and financial cycles. With the passing of the Finance Bill in the Indian Parliament and the Finnish Budget proposals before the Finnish Parliament since September 1998 on schedule, the paper has now taken into consideration relevant data upto this day.

For me, this has been a labour of love. It has given me joy to complete this work in my own time as a small contribution to the cause of Finland-India economic relations. I dedicate this work to my son, Arne, who as a school-going child used to ask me why we cannot find 'neem' toothpaste to brush our teeth when in Finland and why we cannot find 'teippiharja' adhesive rolls to brush our coats when in India and whether he and his friend Vekka could start a small business around that.

Tampere

November 30, 1998

Ajeet Mathur

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1.0 Introduction

This position paper is an exploratory first study of Finland-India Economic Relations. A critique of the comparative morphology of industrial structures and markets based on macroeconomics of industry and trade is linked to their microeconomic effects in Section 2. This is related to patterns of trade and investment tracing the evolution of international orientation and composition of Finnish and Indian trade flows with reference to Euro-India trade in Section 3. Facilitating and constraining aspects of home and host government intervention are discussed in Section 4. Entry criteria are discussed with reference to preferred forms of entry modes by Finnish firms in India in Section 5. The scope of foreign investments and partnerships by Indian firms is presented in Section 6. Barriers and gateways to economic collaborations are mapped in Section 7. The country-specific and company-specific revealed comparative advantages are discussed together with identification of productive avenues of further research studies envisaged in Section 8. Concluding observations draw inferences confirming certain apprehensions and dispelling other myths.

Research studies extrapolating trends in international trade based on existing patterns obscure choices not exercised or not visualised. Each country evolves its pattern of trade based on historical circumstances based on decisions of a unique set of actors that define the

prospective and favoured international arena for its investments and trade in goods and services. A closer look at the decision-makers in Finland and India reveals that the number of such decision-makers has been small in both countries. Both countries are outstanding examples of state supported investments in technologies, industrialisation and trade where investment and trade flows occurred along paths of least effort. It is open to question whether these paths represented the best choices in terms of private and social rates of return, and if they did, whether they continue to do so but that is beyond the scope of this work. This study considers the present situation without extrapolating past trends with the conviction that identification of mutual synergies may enable actors to define new horizons of traverse. Aid is specifically excluded from the scope of this paper because its volume is too small to form a basis for trade or investment leveraging.

This work departs from previous publications on India as an export market for Finland (for example, Korhonen & Tulkki, 1996; Kauppi, 1996; and Salminen, 1998, which catalogue opinion surveys) in four distinct ways:

* Potential trade and investment are identified by building a model and analysing the actual trade (exports and imports) and investment data fully instead of sampling.

* It is assumed that the foreign economic policies of the countries in question are not inflexible.

* The presentation is not motivated to reflect either an Indian or a Finnish point of view; it details the present position and interprets the analysis to search for potential synergies pinpointing unavailed opportunities.

* The work is not produced to reflect particular interests of any lobby or industrial group or association or government of either country; rather, to develop methodologies for doing this between a pair involving any two countries adopting a modified version of a methodology previously developed for a twinning study involving Belgium and India (Veuglers and Mathur, 1993).

2.0 Industrial Structures and Markets: Comparative Morphology of Finland and India

2.1 Unlikely Twins ?

Finland and India provide a glaring contrast on three dimensions viz, in the size of their economies, degree of external dependency and per capita income. We first consider whether this poses a structurally embedded mismatch or presents visible and invisible complementarities.

As a small open economy, Finland adopts export-oriented economic policies that aim to sustain a high proportion of Trade to Gross Domestic Product (GDP) ratio, while preserving the relatively high and egalitarian guaranteed minimum consumption standards of its small population of five million. India, with a population of nearly a billion people, and extreme social and economic disparities is a large semi-open economy adopting policies that aim to sustain high growth under conditions of classical economic dualism with development needs for a third of its population below the poverty line. India aims at a healthy trade balance, trade diversification and a modestly increasing Trade to GDP proportion (presently, 20 % in 1997-98) which is less than Finland and comparable to China.

The sectoral distribution of income and employment of Finland in the 1950s is comparable to the sectoral distribution of India in the 1990s. The path taken by Finland in the past fifty years resulted in a ten-fold real GDP increase associated with sectoral shares rising to 30% of GDP in manufacturing and to over 60 % in services. Manufacturing industries of Finland were the engine of growth when industrial production grew 50 % faster than aggregate output until the end of the 1980s. This is no longer happening despite the nascent recovery of 1997 as new investments in manufacturing have slowed down.

In India, in a supply-constrained scenario, manufacturing industries continue growing at a rapid pace with very high profitability in a large and growing domestic market. It is pertinent to note that less than 5 % of Indian manufacturing output is targeted to export markets although about 75 % of India's exports in volume and value are manufactured goods.

The difference between the 1998 Indian situation and the 1950 Finnish situation lies in the model of growth too. The development and industrialisation process is being telescoped in India over the seventy year period 1950-2020. In pursuing self-reliance to the point of mistaking self-reliance with self-sufficiency, industrialisation of the Indian economy covers a wide range of industry with a presence in every sector. The new economic policies introduced since 1991 involved significant departures from protectionism. Yet, India did not abandon public planning for development of infrastructure, energy, transportation, telecom, and urbanisation. Significant public outlays from national finances are annually allocated for investments in these sectors. This demand translates into investment opportunities. Since 1991, these opportunities are also open to the domestic and foreign private sector.

Finnish models of industrial structures and markets are typically constructed (by policy makers, firms and researchers) on the assumption of vertical clustering with

assumed linkage effects (that occur with a lag) engineered through subsidies and linkage incentives brokered between the clusters through "liitot" (state-supported associations) and Finnish banks and financial institutions. In such a model, pioneering technologies may at times fail to be exploited timely in international markets because in a small open economy the wait for market signals can be long and uncertain. For example, radio isotopical research was commercialised in Wallac in 1950 but X-Ray apparatuses using the same technology developed only in the 1960s and the first X ray apparatus to India was exported in 1997. Another example: Investments in telecom technologies between 1950 and 1980 could be reaped only after bundling all the public investments and proprietary technologies of Televa and Salora and others into the flagship, Nokia in the 1980s invoking a 1939-law that placed restrictions on Ericsson and Siemens in Finland and protected Nokia from international competition until 1994, giving it the breathing space (Ahonen, 1995).

The initial success of products in international markets also inhibits waves of development that might follow from declining techno-commercial feasibilities raising alarm early enough. The success of Wärtsilä Diesel with small captive generators became their achilles' heel when rising energy capacity scale and declining energy costs per unit of investments in large public systems in developing economies made marketing of existing products difficult.

The experience of developed economies in post-industrial societies suggests that while the Porter model of transition from factor-driven to investment-driven to innovation-driven to wealth driven does portray the first phase of the transition to a post-industrial society accurately, the resulting overheating in the wealth phase (as in Finland of the 1980s) is cyclic rather than a one-time event. It is usually punctuated and transformed through a changed pattern of investments in knowledge where knowledge pushes the economy into another cycle of factor-driven investments where knowledge itself becomes a factor.

The experience of developing economies (for instance, China, Brazil, India) indicates that it is not necessary for a whole economy to become wealth-driven before knowledge intensity investments re-drive a new factor-driven phase (Porter had not considered these countries in his analysis). It is unclear from our state of knowledge whether this occurs because inefficient firms are crowded out, or simply because knowledge investments and their diffusion have become more ubiquitous and linkable thanks to telematics. Indeed, the persisting unemployment in Europe is partly the result of an insufficient number of competitive firms and their density distribution among the EU-15 does not augur well for countries where knowledge investments do not correspond to private and social rates of return on these investments. Knowledge investments and size of accessible markets thus become closely related.

The success of Finnish firms has been built on business-to-business deals in niche spectra of industrial products in forestry, metals, energy and techno-electronics. The small size of the economy resulted in high degrees of concentration in consumer markets with few entrenched players and little incentive to develop international brands.

The success of Indian firms, initially in insular and protected markets under the licensing system, is now based on access to a large and growing domestic consumer market and exports. There is fierce competition among brands. In the historically sheltered industrial product market in India, open to domestic and foreign competition since 1991 enterprise profitability corresponds to development and diffusion of technologies for identified segments of growth sectors in national plans. Further, it is based on investments made for a very wide range of industrial goods and intermediate inputs that sustain the consumer products manufacturing. Limits to technology development and diffusion translate into severe capital and capacity constraints, inhibiting infrastructure development and leading to reduced economic growth and social progress. The enormity of the development agenda, the size of market and technology diffusion and development are all closely related.

Thus, resource bases and opportunity horizons in the two

countries differ in stark contrast to the point of potential complementarity. For an understanding of the economic incentives propelling the actors in the Finnish and Indian economies, we review the state of their domestic economies and linkages to external dimensions.

2.2 The Indian Economy in 1998

During the 1990s, India became the world's fifth largest economy in purchasing power parity (PPP) terms after USA, China, Japan and Germany. Its national income (measured as Gross National Product or GNP) estimated in 1997 at \$ 1587 billion, exceeds that of France and the UK and is about three times larger than Russia or Korea or Spain (World Bank, 1998).

India is a case of late industrialisation due to colonisation during the period 1757-1947 when only three port economies of Bombay (also referred as Mumbai), Chennai (previously known as Madras) and Calcutta developed. These flourished mainly on trade with classical port-hinterland economics. In a capital-scarce environment, India concentrated initial post-independence public investments in agricultural self-sufficiency, heavy industry, financial institutions and infrastructure. These were marked by an anti-trade rhetoric of self-sufficiency and self-reliance with xenophobic sentiments dictating industrial, trade and investment policies upto 1991. This accounts for the large protected domestic sector that was opened to competition of

the rest of the world for the first time in the 1990s.

Production, investment and trade grew rapidly since then and confirmed the appropriateness of the policy change decision. Only few domestic businesses collapsed confirming the competitive strength of the domestic industrial base. Growth of the Indian economy accelerated from 6 % per annum during 1985-90 to 6.8 % during the five year period 1992-97 reaching a high of 7.5 % per annum during the period 1994-95 to 1996-97. The drop to 5 % annual growth in 1997-98 is mainly due to a bad year in agriculture (with -2% change over the previous year, including high drama over an onion shortage - an important ingredient of Indian cuisine in September 1998) and some slow-down in a few sectors of industry such as mining. India's 5 % annual growth rate (in 1998 and also the realistic estimate despite a 6% growth forecast for 1999) represents the highest growth rate in the world economy of the present times.

The fifty years since independence brought many changes. Poverty ratios continuously declined though the number of the poor remained the same due to population increases. During the period 1973-98, the poverty ratio declined from 55 % to under 33 %, an indicator of rising distributive shares in private consumption. On current trends, poverty ratios are estimated to reach near zero sometime after 2010 depending on the growth rate (World Bank, 1998).

India's consumer base is highly diverse. About 587 million of its population belongs to the economically active age-group of which about 40 million are considered involuntarily unemployed on the basis of registration. A daily wage of INR 80 per day (the minimum wage) corresponds to a basket of consumption of FIM 2400 per month in Finland (approximately equal to the minimum income support for one person in Finland). India's price level (for equivalent quality) is generally lower for food and beverages and clothing and transportation but higher than Finland for industrial goods, consumer durables and housing. The differences in post-tax salary incomes are 100:1 between the highest paid and the least paid salary earners. Currently just under 350 million in its billion population consumes to the average European consumption standards. However, representing as this figure does, the same size as the EU market, the effort required in planning to access this market may appear a complex endeavour to small overseas firms. Indicative of growth conditions in domestic consumer durables is the production of consumer electronics (production of television sets growing annually at 25 %, watches and cameras by 20 %, VCRs and washing machines by 8 %) and the growth in education, health, construction, tourism and telematics is indicative of the expansion in services where private rates of return exceed those in manufacturing.

Spatially dispersed industrialisation has witnessed the growth of 35 major urban centres and thousands of industrial sites because the planning model spaced diffusion of technology and public investments across the country. State Governments reinforce (through their elected legislatures) industrial policies concurrently with the Central Government as well as autonomously.

Comprising a mix of public and private investment, the industrial structure reflects a production base that is large, growing and comprehensive. Competition policies and performance criteria reinforced after revoking the industrial licensing system in 1991 successfully limited losses of public enterprises whose profits in 1997 and 1998 exceed expectations. After weeding out sick public sector enterprises (PSEs), all except seven of these firms make profits under conditions of competition from the private sector. The nine best ones are colloquially referred as 'navratnas' (nine jewels). This is a different situation from countries where wholesale privatisation is regarded the only solution to an ailing public sector. Public enterprises will continue in India (with revenue-raising equity divestments to reduce government participation to under 49 %). No new investments are being made to promote public enterprises in any industry where private investment is adequate from a development and consumer perspective.

During 1997-98, textiles, chemicals, fertilisers, tractors

and machine tools contributed to the aggregate industrial growth rate (4.2 %) while automobiles, electrical machinery and steel were a drag on it. Sectors like electricity continued growing at 6.8 % after some slowdown. The growth rate of services (comprising transport, communication, financial services, business and public administration) accelerated to 8.9 % in 1997-98. Total gross domestic savings reached an all-time high of 26.1 %. The Gross Domestic Capital Formation rate surged ahead of the savings rate to 27.4 % and real gross fixed capital formation in the private sector rose to above 17 % of GDP. The growth of capital goods during the period April-September 1998 registered 7.8 % (same as the corresponding period in 1997).

The annual rate of inflation having fallen to an eleven year low of 3.4 % in 1997 returned in 1998 to the lower spectrum of its normal range between 7 % and 12 % per annum associated with growth in money supply (M3) from part monetisation of the central government's budget deficit. The balance of payments situation continued to be healthy and the current account deficit in 1997-98 fell to an annual figure of 1.2 % of GDP while net capital inflows rose to 2.2 % of GDP. Portfolio equity flows to India in 1996 (\$ million 4398) were higher than Malaysia (\$ million 4353), Brazil (\$ million 3981), China (\$ million 3466), Indonesia (\$ million 3099), Thailand (\$ million 1551) and Philippines (\$ million 1333) but its absorption did not

cause ripples as in some other countries (World Bank, 1998 b). The exchange rate of the Indian Rupee came only under mild pressure due to the contagion effect of the East Asian crisis and remains stable at about INR 42 to the U.S. Dollar. External Debt to GDP ratio declined to 18 % in 1998. The ratio of short-term debt to total debt in this is lower than the corresponding figures for China, Brazil, Mexico, Indonesia, Argentina and Thailand.

Although India is largely unaffected by recent developments in Asia, output and export growth is constrained by infrastructure bottlenecks and incomplete reforms in the domestic economy and export setbacks of about 20 % in trade volumes due to the East Asian crisis and currency devaluations among India's export competitors. The stimulation of domestic demand implies that fiscal deficits may remain at about 6% of GDP in 1998-99 while the GDP growth rate remains high at 5 % and industrial growth rates remain double-digit for many industries. Foreign exchange reserves at 26.5 billion USD are equivalent to about six months of imports. The Foreign Exchange Regulation Act will be abolished in 1999 in anticipation of which \$ 3 billion in foreign investment flows was recorded in the year to date upto March 1998 of which 60 % represents investments in the high growth sectors.

The high growth sectors are energy, transportation, infrastructure, chemicals, construction and machine-

building. In the 1990s, exports and imports as a proportion of GDP both doubled from the 1980s. The value of exports trebled in the 1990s while the value of imports more than doubled. Electronics, Iron and Steel, metal manufactures, textile manufacturing and handicrafts are the five fastest growing export sectors. The creation of the Infrastructure Development Finance Company in 1997 as a non-government company with equity participation by nine foreign investors commenced operations in 1998.

The allocation of public resources to energy, transport and communications has been increased in the current annual budget by 35 % to an all time high of INR 611 billion (eqv FIM 76 billion). The stock market is a major source of funds for industrial capital with 9100 companies listed on 35 stock exchanges. The Bombay Stock Exchange (BSE) sensitive index SENSEX has remained above 2950 throughout 1998. Financial institutions (like Unit Trust of India (UTI), Industrial Development Bank of India, Industrial Finance Corporation of India) combine features of widely held mutual funds with merchant banking and as sources of venture capital. A speculative run on UTI in 1998 in the wake of the Asian crisis demonstrated the resilience of this institution when it absorbed a loss of INR 101.48 billion in the year ended June 1998, remained profitable and paid higher dividends to its investors.

The commercial vehicle sector and the petro-chemical sector

in India are usually a good indicator of industrial growth in times of uncertainty because of linkage effects. Both have shown a sharp uptrend in production in October 1998. Steel, cement, hotels and paper industries also indicate a distinct growth upsurge. The real estate market is buoyant and the construction industry is booming. An export slowdown is expected partly because of slowdown in the world economy and also because the accelerated growth rates in Indian trade and investment following euphoria over economic liberalisation policies of the 1990s is settling down to reflect a more mature phase towards full capital account convertibility of a currency that has been made convertible on current account transactions.

The strain on public finances to sustain rural development and the capacity of the financial sector to keep pace with internationalisation remains unclear though no Indian bank has ever collapsed (the statutory capital adequacy ratio in India is 2 % higher than the Basle international norm) and no foreign debt obligation has ever required to be renegotiated. The expansion of trade and technology diffusion in a market driven mode remains important as India balances the needs of its poor with the aspirations of the growing middle class and the imperatives of internationalisation. Despite a 26 % decline in oil imports in 1998-99, imports exceed exports. During the period April to October 1998, imports rose to \$21.2 billion and exports fell to \$18.87 billion widening the trade deficit.

2.3 The Finnish Economy in 1998

Finland has grown steadily since mid-1993, the turning point of its deepest economic crisis this Century. A part of the growth is recovery from an output decline of about 24 %. Economic activity was strong in 1997 and 1998 and associated with expansion of retail trade and construction volumes. Inflation has risen and could increase further to between 3 % and 4 % in 1999 but wage demands remain contained. An EU member since March 1995 and an ERM member since October 1996, Finland achieved the required criteria for EMU membership. Net external debt remains high at 28 % of GDP but is declining and the export performance has raised the external current account surplus to a record of 5.5 %. Fiscal compression (involving FIM 22 billion of Government expenditure cuts amounting to 4 % of GDP) was successfully accomplished to reduce the deficit and the tax burden with a sum total of FIM 57 billion of permanent cuts by end-1999 (equivalent to 10% of the 1996 GDP). Most of these cuts are in education, health and social welfare putting to rest the debate on how to reconcile the welfare state with EU accession (Ahlo & Widgren, 1994; Kasvio, 1995; Tiilikainen, 1996; Yu-An, 1996). It remains unclear whether public finances are prepared for the sizable demographic shock in the years ahead, the risk of overheating, the required flexibility in fiscal policy and in the labour market to offset the loss of competitive devaluation as an instrument to promote exports (IMF, 1998a; Torvi, 1997).

Finland's industrial structure radically changed in the 1990s. The development of high-tech firms, a process associated with the growth phase of the 1980s intensified. Manufacturing capacity is undergoing considerable restructuring with growth in telecom, electronics, metals and chemicals and a shrinkage in paper and pulp, wood and wood-based industries. The number of annual patents filed by non-residents exceeds residents by a factor of 10:1 (compared to 3:1 in India). Gross Domestic Investment during 1990-97 was negative with an annual average of - 5.7 % corresponding to an average annual increase of 1.1 % in GDP (both figures according to World Development Report 1998). The export of goods and services grew in the corresponding period by an annual average of 9.3 %. Private consumption demand as a proportion of GDP remained at the same level in the 1990s as in the 1980s i.e. at 53 % of GDP. Trade in goods and services now accounts for about 73 % of Finnish GDP.

The size of the Finnish economy was estimated to be 123.8 billion USD in 1997 in absolute terms and 97.6 billion USD in PPP terms. 60 % of its population (about 3 million) belongs to the economically active age-group. The stock market capitalisation at 63 billion dollars is a trifle misleading because it also includes value of houses and other buildings as assets held by stock issue. There are 71 firms listed on the Helsinki Stock Exchange (fewer are actively traded). The preponderance of firms partially

reflects the enormous spread of 40 % between the highest marginal individual tax rate and the corporate tax rate.

Finland's export growth slowed down in the second half of 1998. This cannot be attributed to the East Asian crisis because Asia does not account for a high proportion of Finnish exports and Finnish exports to China and Hong Kong have grown by over 60 % in 1998, more than compensating for the combined losses from export slowdowns in trade with Malaysia, South Korea, Philippines, Thailand and Indonesia. Finnish exports within the EU and to USA are adversely affected due to competitive pressures. Growth in technological industries remains buoyant in double-digit figures (29 % in electronics and 50 % in telecom) and housing construction activity in the Greater Helsinki area has shown remarkable upturn with modest growth annualised at 3 % in wood and paper and chemicals but GDP contribution of the aggregate of all other sectors is not expected to be more than 1 % in 1998. Estimates of GDP growth in 1998 and 1999 are now being revised downwards (ETLA, 1998) as more layoffs and slowdowns are reported by firms that will be reflected only in the performance of the last quarter. The paradoxical situation of good half-yearly performance reports (with exports 14 % higher than the corresponding period last year) and a claimed reduction in unemployment rate to 10 % (the EUROSTAT harmonised figure for Finland after excluding 'active labour market schemes' is 24 %) with slowed growth in the second half has produced

confusing signals in the stock market. Finland's imports are now growing faster than its exports. The weakening of exports restrains industrial production and GDP growth forecasts for 1999 have been scaled downwards from estimates of 6 % (made in Spring 1998) to a range between 2 % and 3.5 % (ETLA, 1998).

Export prices also came under pressure. Metal and machinery exports are adversely affected. Sales in telecom equipment are growing but the price level is crumbling. Export growth in wood and paper is slower than before and pulp prices remain under pressure. Services exports and product-service linkages partially compensate for the adverse conditions in the export of food and textiles.

Finland's challenges comprise stimulating the domestic economy, developing trade and designing profitable returns on foreign direct investment (FDI) to provide incentives against capital flight and out-migration of talent. The regional spread of economic growth is also linked to international specialisation with eight relevant urban infrastructure zones: Helsinki-Tampere, Southern Coastal Areas, Karelian development corridor (Salpausselkä zone) extending to the harbour in Hanko, Turku, Naantali, the Kokemäenjoki river valley linking the West Coast harbours Pori and Rauma to industrial centres in central Finland by rail-road networks, the Kymijoki river valley important for the forest industry, the Perämeri coastal zone (Raahe-Oulu-

Kemi-Torni), central Finland and Merenkurkku linking Vaasa to Kokkola. The northern and Eastern dimensions are considered as important for Finland's economy as the EU dimension (Robert, 1996).

3.0 Patterns of Trade and Investment

3.1 International Orientation of Indian firms

Indian firms initially developed their international orientation from trading in primary commodities (minerals, spices, tea, rubber etc) and in manufactured textiles and chemicals, slowly diversifying into a range of manufactured goods. The main motive was the earning of foreign exchange to finance firm-specific imports under an exchange control regime. It was not unusual for a light engineering firm to be exporting tea or shrimps or bras as a side-business. European and American multinationals-some of which had a presence predating independence (like Unilever, Colgate, BAT) were mainly in consumer products marketing supported by international brands and limited manufacturing. They thrived under the licensing system because equal treatment of incorporated entities also afforded them protection from competition. Engineering firms like Larsen & Toubro, Siemens, Andrew Yule represented foreign investments in industrial products also protected like their public sector competitors.

The duty drawback facilities, tax exemptions, foreign trips

and easier access to rationed foreign exchange weighed prominently among the motives for international business among Indian entrepreneurs. Asian cities like Bangkok, Singapore and Hong Kong and English speaking East Africa were the mainstay of Indian traders. Trade with UK, Germany, France, Netherlands, Sweden, USA was the province of large Indian firms (business houses like the TATAS and BIRLAS) and multinational subsidiaries and joint ventures.

The direction of trade as well as its composition did not change much until the 1970s when the construction boom in the middle east diversified into trade in construction equipment and services and the Indo-Soviet Treaty expanded trade under rupee-rouble arrangements. The software boom of the 1980s increased the proportion of services trade with the North American region. Increased contact with Japan during the mid-eighties led to expansion of electronics trade and trade in automobile ancillaries and engineering with South East Asia and East Asia. Bilateral initiatives increased EU-India trade in the direction of Germany and France which sought to challenge UK's special position with respect to historical ties and Germany became India's largest trading partner in the 1990s. The South Americas and Nordic Europe remained neglected and India's large and growing sheltered domestic market provided no incentives to search for new export markets until 1991. The stock-market expansion, first in the 1970s on the back of mandated Foreign Exchange Regulation Act (FERA) dilutions and in the

1980s with expansion of sectors like petro-chemicals and a whole range of consumer durables called "white goods" did not require firms to seek capital abroad. The first EURO bonds and Global Depository Receipts (GDRs) were raised in 1992-93. Euro-issues by Indian companies are miniscule and estimated at about ECU 2 billion. About 400 additional foreign companies from the EU register in India every year and each is involved in an average of five collaborations.

The future of India's policies on investment liberalisation is predicated on the effects of foreign investment on domestic and export growth. Opponents of India's internationalisation (there still exist critics who prefer self-reliance) point to the absence of systematic empirical support for the notion that a higher level of foreign ownership is associated with a higher ratio of export sales. Firm-level data from 1000 firms listed on the Bombay Stock Exchange was analysed in a recent study. It was found that foreign firms that invested at levels that gave them control performed better than other firms (Majumdar and Chhibber, 1998).

The new economic policies of 1991 increased the number of foreign collaborations and foreign trade when 51% foreign ownership as the general rule with automatic approval in 35 sectors and 100% foreign ownership in some sectors (for example, for establishing asset management companies) was allowed. Between 1970 and 1990, the twenty year period saw

a mere 4,196 foreign collaborations, the corresponding figure during 1991-96 was 9,885 and 1991-to-date is 16,112. Foreign Direct Investment (FDI) inflows have been the largest in telecom, electrical machinery, energy and chemicals which account for just over half of the FDI inflows. Other sectors which have been considered attractive by foreign investors are oil exploration and refining, power generation, transport equipment, chemicals, basic metals, non-electrical machinery, packaged foods and beverages, textiles, construction and leather.

EU firms have been the biggest investors. Home countries most strongly represented from the EU are, in order of magnitude of investment, UK, Germany, Netherlands, France, Italy and Sweden. The liberalisation of the financial sector drew 23 foreign banks into India, of which 8 are from the EU and the privatisation of the insurance sector just announced, is likely to draw insurance firms as well. Over 75 % of all the foreign investment went to Maharashtra, Andhra Pradesh, West Bengal, Tamil Nadu, Delhi, Gujarat, Orissa, and Karnataka. The pace of implementation was fastest in Andhra Pradesh, Madhya Pradesh, Tamil Nadu and Haryana and slowest in Karnataka.

India's traditional trade with the EU suffered after the inclusion of Turkey into the EU Customs Union. It suffered again in the aftermath of devaluations in East and South East Asia. China, Turkey and USA have larger shares of the

EU's import market for textiles. In leather and leather goods, India remains the leader but faces competition from China, Brazil, Pakistan and USA. In gems and jewellery, Israel, Switzerland and Thailand have the same shares as India. In marine products, India's share is smaller than Norway, Iceland, USA, Argentina and Thailand. In engineering products India's share remains under 1 %. In electronics, Singapore, Taiwan, Malaysia and South Korea have larger shares. The most unimpressive of Indian export sectors is chemicals where Indian industry is strong and where China's share of the EU market is four times India's. In carpets, Iran and Nepal have emerged as major competitors to India for the EU market.

The level of preparedness among Indian firms for doing business in and with European firms varies widely. The Star Trading Houses appear to be content with modest volumes and participation in European fairs and exhibitions. Bilateral initiatives are strong in trade and investment links with Germany, France, UK and Sweden.

3.2 International Orientation of Finnish Firms

Finnish firms developed their international orientation from two sources, trade in wood and paper and pulp products as commodities and from trade with Russia as a follow-through of the customs union in the Grand Duchy days and the war reparation period after 1955. The diffusion of German technology and Swedish and Swedish-speaking Finnish

private investment was supplemented by state initiatives in mining and manufacturing and also in the development of technologies with the gradual emergence of indigenous Finnish entrepreneurship since the late nineteenth century.

The category of Finland's highest valued exports is machinery and transport equipment. Of this, 57 % of the exports are to other EU countries and 60 % of all Finnish imports are also sourced from within the EU, the comparative figure for India being 25 %. However, during the 1990s the Finnish share of exports to other EU countries shrank.

Germany replaced the Soviet Union as Finland's largest trading partner in the 1990s with \$ 8.6 billion of trade equally balanced between exports and imports. UK and Sweden are the next in importance for the direction of Finnish trade. U.S.A ranks fourth in value of Finnish trade. Finnish exports exceed Finnish imports to all these countries. In Asia, the main direction of Finnish exports as well as imports is China, Korea, Indonesia, Singapore and Thailand. Chinese imports into Finland at \$ 647 million are exceeded by Finnish exports to China by a factor of 2:1. Trade with China in terms of both exports and imports is presently seven times larger than the Finnish trade with India.

In FDI inflows of Finland, UK, rather than Germany, is the

main source country for Finland, followed by Germany, Sweden and U.S.A. However, Finnish firms, in the net, exported capital to Sweden and Germany during 1996-98. It is beyond the scope of this paper to consider whether the acquisition of Finnish equity abroad by conversion of debt to equity really involved any capital inflow at all. This doubt arises because inflows from the UK are acknowledged by the Central Bank of Finland as associated with change of ownership of some chemical companies in Finland (Suomen Pankki, 1998). Finnish outward FDI is mainly directed to Sweden, Switzerland, Germany and France.

The forest cluster is widely regarded as the mainstay of Finnish prosperity. Commodity exports of MFIM 36,703 in 1994 from this cluster accounted for 40% of total national exports, with Finland being the largest exporter of paper and paperboard in the world. About 20% of this is exported to Asia. Despite modest sales growth, Finland's share of the world market in paper and paperboard is shrinking. With the creation of domestic capacity in other countries, with Germany and England as competing locations in Europe for new capacity, with profitability of the industry out of national control through competitive devaluation because of Economic and Monetary Union (EMU), with more but fewer-sized orders outside EU and with fibre shortage, particularly of hardwood, volume leaders like UPM-Kymmene, ENSO (in a state of merger with STORA approved by the European Commission in November 1998) and METSÄ-SERLA are

known to be dismantling capacity in Finland while creating new capacity elsewhere.

Internationalisation was associated with increased levels of outward foreign direct investment in all nordic countries during the 1980s and the 1990s. It is now generally agreed that this has affected industrial structures in a way that the concept of Finnish internationalisation is itself undergoing change. Home countries have reaped the benefits of specialisation but it is being debated whether the growth and employment effects for the domestic economies are positive, neutral or negative. For Finnish firms, in a study at the level of the firm, the impact was found to be positive or neutral except for manufacture of furniture, textiles and some other labour-intensive industries (Braunerhjelm et. al, 1996).

There are fewer than 40 significant buyers in the whole of Europe for paper and paperboard machinery and fibre processing machinery. This points to the growing interest of firms like Ahlström and Valmet to link fresh investments abroad. The steel manufacturers like Rautaruukki, Imatra, Fundia and Outokumpu having specialised in high-grade steels have an incentive to invest in finishing lines (for construction structurals and automotive steels) closer to the customer too. Energy firms like IVO-NESTE and ancilliary units connected to them also find their markets saturated in the neighbourhood and must look further to

where their technology investments and electrical manufacturing expertise is in demand. The core investments in Finland require to be supported by growing market access. This is also true of firms in environmental technologies whose growth has been linked to industries in forestry, energy, chemicals and metals and which now engineer solutions and systems closer to customers abroad. The higher logistics costs of transportation equipment firms further point to the need to locate their services and infrastructure closer to ports and mines in the world's growing areas. There are no raw material advantages in Finland for the chemical industry. When linkage effects with forestry weaken, chemical firms also have an incentive to relocate. Kemira is an exception having developed speciality pigments and chemicals and gained worldwide recognition. Kone and Partek in construction industry were early internationalisers in recognition of the cyclical nature of the industry.

Another noticeable trend in Finland is consolidation of firms through hectic merger and acquisition activity in all of the identifiable clusters regarded as the backbone of the economy. Since the industrial and financial sectors have been closely linked, and for other reasons too, the financial sector is scrambling to consolidate and many banks and insurance companies have already done so.

In pharmaceuticals, the introduction of the new patent regime has reduced the number of Finnish players from

right-scaled new investments.

In category glass and glassware (70), there is an acute shortage of capacity (thereby, also of domestic supply) in the Indian market of sheet glass, float glass, safety glass, insulating glass, vacuum glass, electrical glass, ophthalmic glass, laboratory glass, glass cubes and mouldings and preservation glass, 75 % of which is imported from the EU. The trade value of imports in this category is INR 3500 million (eqv. FIM 437.50 million). Finland is a major EU-exporter in all of these and does not yet have any share of the Indian market. Finnish exports to India in this category are currently limited to glass fibres, glass wool and rear-view mirrors.

In category iron and steel products (72 and 73), Finland's exports to India of stainless steel billets (7218), speciality nails (7317) and flat rolled products (7208) correspond to expectations. The trade value of imports in this category is INR 76.53 billion (eqv. FIM billion 9.56). Finnish firms have not yet tried to penetrate the Indian market in machinery belt fasteners, heavy guage products, powders, alloys, railway rails and have less than 0.01 % share in medical springs, pins and needles, nuts, screws and bolts and steel angles. It is noteworthy that Norway, Sweden, and Denmark have higher shares than Finland here. In category copper and articles of copper, except Greece and Finland, every EU country exports copper alloy foils

Finnish joint venture may commence in 1999. Under ship, boat and floating structures (89), Finland's comparative advantage lies in floating structures that require to be broken up and a 2 % market share quite accurately reflects the static nature of this trade.

A promising category is medical, measuring, optical and other instruments (90). The trade value of imports in this category is INR 26.75 billion (eqv. FIM billion 3.35). Finland has a particular advantage with medical apparatuses (9018) and X-ray machines (9022) which do not yet account for significant shares. The demand for medical and surgical instruments and laboratory and scientific instruments and industrial valves more than doubled between 1991 and 1998 and is set to double again from its 1998 level by 2002. FDI-led investments here are also augmenting domestic capacity and competing with exports.

Furniture (94) is another category where Finland does not yet export to India and where Finland has distinct advantages.

3.5 India's exports to EU and Nordic Countries

The destination of India's exports to Nordic countries and to the EU-15 is summarised in Table 4. The value of EU trade accounted for 25% of Indian exports.

Table 4 INDIAN EXPORTS TO NORDIC COUNTRIES AND EU

	1996-97			1997-98		
	in INR million	in FIM million	in \$ mlns	in INR million	in FIM million	in \$ mlns
Part A						
Denmark	5,280	704	132	6,384	760	152
Finland	1,934	258	48	3,024	360	72
Iceland	109	15	3	220	25	5
Norway	2,693	359	67	2,730	325	65
Sweden	5,330	711	133	6,552	780	156
Total	15,346	2,047	383	18,910	2,250	450
Part B						
Belgium	38,399	5,120	960	45,654	5,435	1,087
France	25,405	3,387	635	30,324	3,610	722
Germany	67,038	8,938	1,676	74,844	8,910	1,782
Greece	3,321	443	83	3,570	425	85
Ireland	2,107	281	53	2,478	295	59
Italy	33,137	4,418	828	40,698	4,845	969
Luxembourg	114	15	3	110	15	3
Neth	30,224	4,030	756	31,962	3,805	761
Portugal	3,119	416	78	4,410	525	105
Spain	15,087	2,012	377	18,522	2,205	441
UK	72,508	9,668	1,813	84,000	10,000	2000
EU-15	316,891	39,058	7,324	340,006	40,480	8096

NOTE:

(1) The total of EU-15 includes figures of Denmark and excludes Norway and Iceland from Part A

(2) Figures have been rounded to whole numbers.

(3) Netherlands has been abbreviated to Neth

At 360 million FIM, India's exports to Finland are small at 0.88 % of its exports to the EU-15 and a miniscule 0.02 % of Finland's aggregate imports of 192.6 Billion FIM. The growth of Finland's raw material and consumer goods imports

(ETLA forecast: 9% for 1999) would be of interest to Indian exporters given the composition of India's exports to Finland/EU. The export potential of Indian products is examined in the following section.

3.6 India's Exports to Finland

A corresponding but modified methodology was adopted to analyse Indian exports to Finland. The reason for this is that Indian production and export base is highly diversified with respect to the EU-15. It has failed to grow to substantial volumes or diversify with Finland although the sharp increase in 1997-98 points to the possibilities. India has had an adverse trade balance with Finland for years and this itself poses some constraints to exports and imports.

The strongest export sectors of India were analysed with respect to the aggregate of exports to Nordic countries and the aggregate of exports to the EU by identifying all articles of traded value above FIM 1 million where an EU-15 country or at least two out of Sweden, Denmark and Norway are involved as destination provided the item belongs to Finland's import list. This analysis is presented in Annexure II. The composition of India's exports is summarised in Table 5 (this is based on disaggregated figures available for 1997):

Table 5 COMPOSITION OF INDIA'S EXPORTS

	Value in INR billion	Value in FIM billion
01-05 Animal products	49.63	6.21
06-14 Vegetable products	115.30	14.42
15-17 Fats and Oils	6.90	0.87
18-24 Foods & Beverages	62.24	7.78
25-27 Mineral products	50.17	6.28
28-38 Chemical and allied industries	101.52	12.70
39-40 Plastics and Rubber	26.23	3.28
41-43 Furs and Skins, Leather	38.66	4.84
44-46 Wood and woodwork	1.52	0.19
47-49 Paper and paperboard	5.14	0.65
50-63 Textiles	325.17	40.65
64-67 Footwear and Headgear	20.93	2.62
68-70 Stone, ceramic and glass materials	11.56	1.45
71 Precious/semi-precious stones	168.37	21.46
72-83 Metals and manufactures	69.19	8.65
84-85 Machinery	67.56	8.45
86-89 Transport Equipment	34.29	4.28
90-92 Instruments, Apparatuses	5.16	0.64
93 Arms and Ammunitions	0.035	0.004
94-96 Miscellaneous incl toys, furniture etc	6.29	0.79
97 Arts and antiques	0.005	0.0006
98-99 Project goods	19.80	2.48
TOTAL	1185.88	148.24

Items on Finland's import list that India exports to the EU and where EU shares of Indian exports are significant are identified first. Many of India's exports are consumer goods, and the concentration of wholesale trade in Finland poses an institutional impediment.

Among animal products, significant Indian exports to Finland are boneless bovine meat (0202) and feathers and skins (0505). The only other product in this category imported into Finland from India in a very small quantity is live fish. Finland's neighbours Sweden and Norway also import all of these. Additionally, they import pomfret fish, mackerels, cod, lobsters, shrimps, molluscs, oysters, and mussels which Finland in turn imports from Sweden and Norway. Natural honey is a major Indian product exported to France, Germany, UK, Italy, Netherlands but not to any of the nordic countries.

Among vegetable products and processed foods, 65 % of Indian exports of flower bulbs and flowering plants and 75 % of cut flowers is to EU including Netherlands but exports to Finland have not yet occurred. A small quantity of teas and coffees, frozen vegetable mixes, cashew nuts, natural gums and resins are exported to Finland. Processed mangoes and instant coffee are two items where Finnish shares of Indian exports to the EU is significant. Although EU shares of Indian exports of walnuts is 75 %, bananas 22 %, seeds and spices 55 % fruit juices 26 %, other fruit preparations

57 %, Finland's share in EU imports from India in all these categories is zero.

In mineral products Indian exports to Finland exist with Emery and Garnets being the most important items. Other potential items like marble and calcined coke where EU's share is over 75 % of India's worldwide exports (and both are imported by Finland), Indian exports to Finland are zero. Trade in slate, cut granite and mica powder exists but Indian share of Finnish imports of these are small and it is rumoured that this is controlled by import cartels.

Among chemical and allied industries Finland's imports of Sodium and Sodium products (like Silicates) from India are significant. With the exception of parachloroanilene (2921) Finland's share of EU imports from India (75 % of Indian worldwide exports in this category) at 0.04 % could be larger. In pharmaceuticals, with the exception of trimethprim and amoxycilline, India's exports of medicines to Finland has not developed although EU accounts for 28 % of India's exports of medicines. Finland imports chloramphenicol, cephalixin and eyedrops from many countries but the quantity of Indian imports is small. Another area is latex sponges where the average annual order has been just 280 kg - too small to ascertain sustainable profitable trade. Micro-organism cultures in demand in Germany, Sweden, Italy, Netherlands and Portugal are not exported to Finland at all. Finland is

under-represented in EU shares of Indian exports of polyester film, perfumery, plastic kitchenware and table ware (3924), hospital sheeting (4005), rubber forms (4008) and hoses (4009). Surgical gloves (4015) is an item of Indian exports to all EU countries except Finland. The only significant Indian exports to Finland in the category of rubber and rubber products are synthetic rubber (4002) and conveyer belting (4010).

Conventional Indian exports of leather and leather goods where EU import shares are very high include processed leather, leather cases and bags, jackets, gloves and other leather manufactured goods. Finland's imports from India in this category is less than 0.001 % of EU imports with the exception of leather bags.

Among paper and paper products, Finland's shares from India of handmade paper, greeting cards and stationery are growing. These are the only items where there appear any prospects in this category because Finland is itself a major exporter in all sub-categories of this classification.

In fabrics, with the exception of yarn, only silk, wool and cotton fabrics are India's potential exports to Finland and current shares are very small. The targeting of Finland as an export market for carpets, textile floor coverings, braids, embroidered silk and cotton lace has not yet been

done. Finland imports small quantities from India of these articles and EU countries including Norway account for about 65 % of the Indian exports in this category. Finland is also a growing market for manufactured textiles, knitted fabrics, cotton ensembles, trousers and shorts, shirts, blouses, underpants, panties, bathrobes, t-shirts, jerseys, babies garments, track suits, hosiery, shawls, coats, men's suits, women's suits, skisuits, scarves, bedlinen, table linen, bedspreads, towels, ties and cravats. All these are already exported from India to Finland but the volume of exports is very small compared to other countries of the EU including Sweden, Norway and Denmark. Items currently exported from India to Finland in high volumes are bras, corsets and stockings. Items conspicuously missing are blankets, boatsails, raincoats and swimwear which Indian firms are yet to begin exporting to Finland although EU shares of India's worldwide exports of these are 75 % for blankets, 40 % for boatsails, 55 % for raincoats and 20 % for swimwear. In all these categories, Swedish imports are eight times the value of Finnish imports although the differences in the size of the market are not so acute.

Indian footwear is a major export item to the EU. EU accounts for Indian export shares of 80 % for leather footwear, 50 % for rubber footwear and 30 % for waterproof footwear but Indian firms have failed to establish any significant shares of the Finnish market. In hats, Indian firms have done better but Finnish imports from the Baltics

compete aggressively for market shares in this category.

In gems and jewellery, India does not export any pearls or silver filigree to Finland although both are imported into Finland from Russia which itself imports these from India. Precious and semi-precious stones (7103) and non-industrial diamonds (7102), imitation jewellery (7117) and articles of precious and semi-precious stones (7116) are routed from India to Finland through Russia and the UK and do not feature significantly in bilateral trade statistics.

Metals and Metal Manufactures are another underdeveloped trade category with a strong presence in both countries. Finnish imports from India comprise tubes and pipe fittings, bars, rods, angles, transmission belting, needles, stainless steel articles, non-malleable cast-iron articles, and leaf springs and these exports could grow quite fast because product standards are well established from India's exports of these items to every EU country. Significant omissions here are roller chains, threaded bolts and nuts, screws, washers, zips and the quantities of Finnish imports from India of cutlery, tungsten carbide tips, steel wires hand tools, saw blades, wrenches, hoists and escalator parts have remained small. Extruding Dies, centre lathes, lightning arrestors and builder's hardware are the fastest growing Indian exports to Finland in this category.

Other manufactured goods where Indian exports to Finland exist and could grow are computer accesories, connectors, chemical plant machinery, industrial valves, loudspeakers, electro-magnets, software, insulated cables, diodes and transistors, scooters and bicycles, musical instruments, stuffed toys, footballs, golf balls, fish hooks, gymnastic and athletic equipment and handicrafts.

From the foregoing analysis, it may be noted that there exists considerable scope because the trade potential itself is presently largely untapped. Trade-replacing FDI is another alternative that merits examination. The case for this is stronger for Finnish firms because of India's large market size, differences in product cost structures and a higher income elasticity of demand in India compared to Finland. Capital goods industries growing at 8 % per annum in 1998-99 provide affirmative evidence that when Indian manufacturing and mining growth fluctuates, there are other compensatory features. For example, among industry groups, paper and paper products are growing at 14.9 %, metal products (except basic metals and alloys) at 21.9 %, transport equipment at 18.3 %. For Indian firms, Finland represents an untapped market with established and predictable patterns of continuing imports. As a point of entry into the Nordic and Baltic region, Finland could also attract FDI from large Indian firms with needs to sustain links in the EU and on its fringes to the East and to Norway.

4.0 Home and Host Government Intervention in India and Finland

Government policies at the national level remain important because much of what is depicted as globalisation is actually international. This is particularly true of technological competitiveness in an international arena (Howells and Michie, 1998).

The first trade agreement between Finland and India was made in 1967 and followed up with the establishment of an India-Finland Joint Commission in 1974. There were ten meetings in 24 years and not much was achieved. The governments succeeded in identifying forest based industries, environmental industries, energy, ports, electronics and software, packaging, cold-chain systems for food-processing, power generation and transmission including coal and biomass gasification based power and mini-hydel power as areas of potential collaboration. According to the Indian government statistics, Finnish investment in India during 1991-96 was INR 385 million but the 57 ventures in which it is claimed to have been made never existed and it is possible that this number has been confused with representative offices.

Since Finland is a member of the EU, EU-India relations require mention. When UK joined the EC in 1973, India did not acquire the "associated" status like French and Belgian

ex-colonies and was considered a major independent country like Brazil and China. India was the first Asian country to sign a co-operation agreement with the EC but when EC-ASEAN and the EC-Gulf Co-operation Council agreements were made, despite an exhortation from the European Parliament for an EC-SAARC agreement, nothing happened because EC preferred to develop an India policy rather than a policy for the entire South Asian region on grounds that SAARC was not a viable economic grouping and that the Union of India comprising States shared many characteristics and problems with a uniting Europe.

The most significant government policy changes in India occurred in 1991 when industrial licensing was abolished, public sector reservations were removed, tariffs were reduced, the capital market was opened to foreign investors and India became a member of the Multilateral Investment Guarantee Agency. The adoption of a long term fiscal policy accompanied by financial sector reforms and bilateral investment promotion agreements with 46 countries (which include nordic countries but Finland got left out) together with a package of investment incentives for foreign investors. India's package of incentives is unusual because it includes land subsidies, tax-holidays, duty-free imports for exporting industries, zero-tax on export earnings, and equal treatment of foreign companies.

An important area of resource-allocation predictability in

Indian growth lies in the planning of public expenditure outlays for planned infrastructure development. Opportunities for firms-domestic and foreign to provide the goods and services for which resources are allocated are transparently known from the host government's declared intentions in the Ninth Five Year Plan 1997-2002. This neutralises any adverse impact in the pro-cyclicalities of foreign portfolio investments.

India's declared intent to develop resources in agro-climatic zones should be of particular interest to Finland because the worldwide fibre shortage (especially hard wood fibres) critical for the pulp and paper industry firms irrespective of where they manufacture can be solved in the sub-Himalayan regions which stretch from Himachal Pradesh through Uttar Pradesh, Bihar and West Bengal to the North Eastern States of Arunachal Pradesh, Assam, Meghalaya, Manipur and Tripura. Afforestation of Himachal Pradesh is a declared priority. Sweden's SWEDFOREST has pilot projects in five States.

The planned outlay for telecommunication is another area. The investments allocated to construction of new urban areas and to railways, ports, airports, roads, environment, forestry and wasteland development, power generation, biomass production, development of islands translate into numerous business opportunities. The planning framework covers all States and union territories. These

opportunities are available to firms-small and large-though the capacity to reap best advantage rests with large companies that typically diversify their involvement geographically to many locations achieving scale economies in management costs as well. The asset growth of the twenty largest firms reflects this. For example, the engineering giant Larsen & Toubro increased its asset base, with the help of projects to six times the size over the period 1990-98 and every single large firm of the top 20 increased its asset base at least fourfold. The average profit-after-tax of industrial units over the period 1980-98 has ranged between 12.6 % and 17.5 % except 1987-88 when it was 9.5 %.

Finland's export diversification to Asia occurred in the aftermath of a double devaluation, the sharp reduction in trade with the Soviet Union and the banking crisis, all during the period 1989-91. Hong Kong, Thailand and Singapore were the main target markets, partly because there was Finnish government support for these markets and because Finnish business people found it easier to visit and relate to Singapore, Bangkok and Hong Kong as cities. In the aftermath of the East Asian crisis much of the trade in these export markets collapsed and there has been a shift in interest to locations like Shanghai, Hanoi and the Indian cities of Hyderabad, and Madras.

The identified areas of economic and industrial growth in the two countries offer considerable scope for synergies

but this synergy requires to be developed and facilitated. With changes in the role of government, industrial and commercial activity is increasingly left to private initiatives in both countries. Firms need to consolidate their techno-commercial feasibility analysis on new projects through structures of support they require to build based on greater awareness of how macroeconomics of demand and supply interactions in the two countries have microeconomic underpinnings related to these synergies. For Indian firms to regard Finland as just another part of Europe would be as much an error as for Finnish firms to regard India as just another part of Asia. The motives and powerbases of host and home government with respect to industrial policies, FDI, markets and institutions need to be analysed for all the promising areas of identified synergy. To know what opportunities are feasible thus acquires more importance and could precede developing forms of business and the structuring of investments because pursuit of pre-conceived preferences may actually limited mutual trade and investment out of roadblocks and risk-averseness. Indeed, we shall examine in the following sections how perceptions differ in both countries from the reality of appropriate entry criteria.

5.0 Finnish Business in India: entry criteria and preferred forms

The performance and international competitiveness of Finnish firms is sensitive to debt gearing and high investment rates are frequently associated with low returns and high risk (Artto, 1995). This makes Finnish firms risk averse. Incrementalism has been the normative model (Luostarinen, 1994). Criteria-based discriminant analysis to distinguish successful firms from failure cases may enable us confirm or refute the normative value of the incrementalism model, but this has not been empirically tested. Typically, it involves a long phase, stretching to two or three decades before Finnish firms may establish representative agents. In the absence of critical minimum human resource size in the destination country that may be required to plan and execute trade and investments, many opportunities remain undeveloped. The Finnish model in practice also assumes that the direction of trade is signalled or determined by the willingness to allocate public resources by the Finnish State to subsidise and support Finnish foreign trade and investment based on opinion formation through lobbies by large firms and associations. While this delivers results in exports, it does not encourage knowledge-intensive specialisations to be cultivated with reference to structuring investments in other modes.

The industrial structure of Finland presented many

possibilities when the Soviet trade collapsed but firms were generally hesitant to go beyond Tallinn, St Petersburg, or Germany. A part of this hesitation may be attributed to the losses large firms like Enso, Huhtamäki, Valmet, Amer, Valio and Marimekko incurred in international business with the Americas-Canada, USA and Brazil in the 1980s and Nokia incurred in Europe because of management inadequacies until 1995. In turning to Asia, structuring investments required the willingness to analyse and tune into the economic logic of a very diverse set of circumstances within and across these countries. The novelty of relating to exotic cultures at a time when the East Asian economic miracle was being prematurely celebrated promoted much state subsidised tourism and contributed to some international business. The discovery of China and Vietnam as markets and Singapore as a location were among the positive developments from this phase of Finland's internationalisation.

Attention turned to India after a Presidential visit that failed to translate into economic opportunities simply because the associated business contacts it created were superficial and transitory and not founded on any preceding or succeeding studies of potential synergies at enterprise level that might have sustained interest and mutual exploration-a failure of the foreign offices of both countries as much as the failure of large firms at both ends. In August 1998, the Federation of Indian Chambers of

Commerce and Industry could not find among business leaders of India, a critical minimum number willing to travel to Finland to justify a trade delegation which had to be cancelled at the last minute. In this context the analysis of the characteristics of presence of Finnish firms in India (and potential Indian partners) merits mention.

A total of 55 Finnish firms officially have representative agents in India. The profile of Finnish representation is summarised in Table 6

Table 6 Finnish Firms Represented in India

Electronics	1
Marine Technology	2
Instruments	2
Mechanical equipment	9
Pulp & Paper	6
Paper machinery	2
Pharmaceuticals	2
Airline	1
Chemicals	4
Boilers	1
Bio-technology	1
Electrical equipment	6
Ammunition	1
Mining & Metallurgical equipment	6
Trading	1
Design	1
Dental equipment	1
Coatings	1
Construction equipment	1
Medical equipment	1
Generators	1
Plastics	1
Energy	2
Telecom	1
TOTAL	55

From this list, only two of the 55 Finnish firms (Nokia and Enso) have full time representation in India. In other cases, agents are generally engaged in their own businesses and as representative agents for other foreign firms (some of which are competitors of Finnish firms). About 60 % of this representation is located in New Delhi and not at industrial or commercial locations. The number of firms represented in Bangalore is 2, in Visakhapatnam, Baroda and Coimbatore 1 each, Calcutta and Madras 4 each and the number in the Greater Bombay region is 12. There are 98 traders (and trading houses) who function as links for Finnish business in India principally in the cities of Bombay, Chennai (Madras), Calcutta, Jaipur and Bangalore. These actually account for most of the trade. There is practically no Finnish representation in a number of important fast growing industrial centres such as Hyderabad, Lucknow, Indore, Kanpur, Dhanbad, Guwahati, Faridabad, Paradip, Marmagoa, Cochin and Calicut where the industrial sectors closely correspond to Finnish export-related industrialisation. Thus, the structure of Finnish representation is inefficiently profiled at an industry level and also at firm level and specificities related to firm profiles can strengthen the base and location of Finnish representation to impact buyer decisions in industrial product marketing.

The list of Finnish manufacturing joint ventures in India is small. It consists of Fiskars (with Godrej) for scissors

and knives, Huhtamäki (with E.I.D. Parry) for confectionaries, Kemira (with GNVC) for special grade fertilisers, Kymen Sukka (with Shiva) for socks, Nowo Development (with Charminar) in textile non-wovens, and Kone (lifts and escalators), Wärtsilä (diesel generators, Nirafon for electronics), KWH Pipe (HDPE pipes) through own subsidiaries. Technical collaborations exist in automatic data processing machines (ABB through own subsidiary), heat recovery (Ahlström with Emmas and Seppo Ralli through Ralli), synthetic fabrics (Metco with Swil), telecom cables (NK Cables with Vikas), floatation machines, copper technology, smelting (Outokumpu with McNeilly Bharat, Hindustan Copper and Indo-Gulf Fertilisers & Chemicals), and lactose (Valio Engineering with Lacto Protein). New collaborations include Ivo Power with Power Grid, Valmet with Mechano Paper, Eco technology with JVV and Diapek with Datamatics. The decision to enter the Indian market involves demand analysis of the existing product range and another demand analysis of the technologies that could foster new products. This is easily achieved by market research and through closer contact with identifiable sets of potential partners and customers especially in industrial technologies, processes and products. The four principal modes of entry for Finnish firms in India are exporting, exporting and importing, licensing technology and joint ventures. Finnish firms like Kone, Fiskars, Huhtamäki and Wärtsilä Diesel (successful Finnish firms in India) found it useful to consider many partners and

several alternative locations before making their choices. The preferred mode of the successful firm remains a manufacturing joint venture with at least 50 % participation in equity or a technical collaboration through licensing of know-how.

In terms of Dunning's model of FDI, the advantage of Finnish firms lies in proprietary intangible depreciable assets that may be exploited only in conjunction with other factor inputs. These are outbid from being constructed in the value chains of the domestic Finnish economy in the absence of scale economies implying access to markets a necessary pre-requisite. For instance, the average efficient size of a paper mill has increased to 200,000 tonnes per annum (tpa) and the minimum efficient size of a steel plant is 2 million tpa. When manufacturing capacities and markets are located closer, the logic of minimising transactions costs begs the question whether returns on technology investments can be efficiently negotiated and reaped from a distance. Technologies have also become like tradeable products and there usually exist multiple sources and many national and international mechanisms for bundling technology and capital together. In a study comparing Japan and Finland, it was found that Finnish research and development investments as a proportion of GDP (at 2.2%) has matched that of Japan for decades but the conversion ratio to techno-commercial exploitation is barely 1 % in Finland in contrast to about 50 % in Japan. Another study

on Finnish firms empirically demonstrated that the process of accumulating dynamic competencies as framed by Dosi and Marengo (Dosi and Marengo, 1994) in firm-specific modes would be beneficial only if the results could be used in markets (Leiponen, 1996).

A section of Indian entrepreneurs interviewed during this study lamented that technologies like wood-plastic combinations and furfural technologies could not be developed because of excessive emphasis on trade-links instead of knowledge links. They were also critical of what they perceived as inflexibilities of management systems of Finnish firms. The sauna market was cited as an example by Indian hoteliers. Here, the business went to a Swedish firm because the Finnish business representatives were not paid adequate day-money by their firm for visits to India (compared to visits to Brazil) and this posed a disincentive to business development.

Finnish entrepreneurs complained of the time taken to negotiate terms in India, of diffused decision-making, the unreliability of their Indian counterparts in keeping to datelines, and the stresses associated with infrastructural inadequacies and paperwork. Finnish Managers in joint ventures also complained that they were not sufficiently supported in planning and organising for themselves and their families in India in important aspects of life and work.

Technologies are considered proven when techno-commercially successful outside the country of origin. One of the reasons Finnish technologies are not sufficiently supported by investments is that many of them have not been proven outside Finland. The openness of the Indian business to new technologies and the low cost of experimentation presents opportunities to Finnish firms. Technologies implemented in India automatically qualify for funding under development finance such as World Bank's IDA loans for the developing world lowering the threshold costs of worldwide technology diffusion. The preservation and development of innovation capabilities of Finnish firms could thus be enhanced.

Discovery of new applications is also more likely in the Indian market due to its diversity. To take just a few examples:

- * Sensor technologies of JMK and KSV in Finland are presently limited to weight and ash sensors for the paper industry. The growth of fibre optics where India is a world leader in certain technologies provides opportunities for non-traditional applications in addition to electronics.

- * The eclectic nature of the Indian construction industry could lead to new applications for technologies in cements, floorings, adhesives and structural bondings.

* Anti-vibration technologies in metalastic products- another Finnish stronghold- has vast applications in the railways and in factory automation.

* Windpower is being developed along the coast of Orissa and solar energy technologies being diffused throughout India on an unprecedented scale. Swedish and Danish firms are already in the market.

* There are mega projects of major urban renewal in Indian cities funded by the World Bank to modernise the sewerage and waste treatment. Finnish firms like Nerox have opportunities here.

* Five new international airports at Hyderabad, Amritsar, Ahmedabad, Guwahati and Bangalore are being built with 74% to 100 % foreign equity participation allowed for the construction and management under Build-Operate-Transfer (BOT), Build-Operate-Lease-Transfer (BOLT), Build-Own-Operate (BOO) or Lease-Develop-Operate (LDO).

Studies could be carried out to identify for whole industries and for specific firms and locations, the gaps where synergies are strongest and where the structuring of investments is most profitable.

6.0 Foreign Business Partnerships by Indian firms

Multinational subsidiaries of foreign firms (mainly British, American, German, Swiss and Dutch) like Unilever, BAT, ICI, Proctor & Gamble, Nestle, Siemens constitute one set of "Indian" firms with foreign business partnerships made between their Indian subsidiaries and foreign firms including but not limited to their principals.

The second set consists of Indian Family Business Houses that diversified away from trading into manufacturing after independence and developed highly diversified portfolios. The exceptions were groups like TATAS, BIRLAS, DALMIAS, THAPARS that started manufacturing activities before 1947. Both these sets mainly made partnerships either for technical collaboration to source know-how or promoted joint ventures in India with foreign equity participation.

A third set consists of public enterprises created in the 1950s and 1960s to develop the basic industries involving imports of plant and machinery as well as technology which remain linked to foreign firms through technology licenses and import of equipment.

A fourth set emerged in the 1970s when firms like Bajaj Auto, Asian Paints, Reliance and Nirma-all representing indigenous first generation entrepreneurship geographically spread out beyond the shores of India to establish branches and companies (each one of them is a world market leader

for its brands) Additionally, there have always been trading houses and a growing number of non-resident Indians in Europe and elsewhere who made business investments.

Although the last category (estimated to be about 12 million) consists also of traders in textiles, gems and jewellery, minerals, metals, tea, coffee, spices, a growing number (about 1 million) have made industrial investments in incorporated entities for producing and marketing goods and services. There are also representative offices, branches, and subsidiaries of Indian companies of the four sets identified above all over the world, but mainly in U.S.A, Continental Europe, and South-East Asia. In Finland, there are 95 firms owned or co-owned by Indians or Indian or non-resident Indian corporate entities. These include Indian restaurants, consultancy firms, publishing houses, textile firms, design firms, trading agencies etc.

Firms in India have begun to defy the conventional logic that exports should be ventured only after local demand has been met. For example, the bi-axially oriented polypropylene-film company Polyplex exports 70 % of its manufacture, Arvind Mills exports 48 % of its textile production and Cosmo Ferrites exports 45 % of its metallurgical production in manganese and zinc ferrites. Ranbaxy exports 45% of its pharmaceutical output.

The profitable public sector contributes about 29 % to

India's GDP. 75 of its most profitable firms have the advantage of size, infrastructure, managerial acumen, financial muscle and global reach. They are most strongly represented in chemicals and petrochemicals, minerals and metallurgical, metals, fuels, electronics, aerospace, and heavy engineering. The export earnings of these companies exceeded INR 266 billion (eqv FIM 35.47 billion) in 1996-97. Their new projects for the period 1999-2002 include new fertiliser plants, investments in new mines, in petrochemicals, petroleum and natural gas exploration and refining, construction of ports and airports, thermal and hydel power plants etc. When FERA law is repealed in 1999, the management of foreign assets will be simplified and enable large and small firms to develop international business partnerships by investing overseas more easily.

7.0 Finland-India Economic Relations: Barriers and Gateways

There can be many types of barriers to trade and investment. For convenience, we consider economic, structural, systemic and institutional barriers in sections 7.1 to 7.6 and separate them from social and cultural barriers discussed in section 7.7 which relate to mind-sets and human processual constraints. Finally, in Section 7.8 we consider what gateways could be designed.

7.1 Business-Government Interface

7.1.1 The degree of business-government co-operation and

mutual consultations at the firm level is higher in Finland than in India. Domestic businesses have developed influence mechanisms in both countries but these differ. In India, firms, and competing chambers of commerce, competing industry associations and competing management associations develop industry-wide or region-wide proposals for consideration in which the media plays a part in informed debates reported daily with wide participation from those concerned which is usually a much larger segment than the protagonists because it includes people from all walks of life who have an opinion to express. In Finland, business-government discussions have defined fora in the form of state-sponsored associations and state-defined structures and closed-door discussions are the norm.

7.1.2 Finnish firms find it difficult to estimate entry costs for India. Unlike in Finland, the Central Government and State Governments in India cannot make decisions without being subject to judicial scrutiny demandable by even a single person in the public interest, without any requirement of *locus standi*. Further, the very active Indian Parliament enacts a considerable quantum of new laws every year. The Finnish Parliament is not so prolific in law making. Further, there is no scope of judicial scrutiny of executive decisions under writ jurisdiction in Finland so that commitments made by the Finnish Government and Finnish Local Authorities are usually implementable.

7.1.3 The bureaucratic maze of India is the major formidable barrier to trade and investment. State Governments eager to draw investment and promote employment and stimulate local economies help traders and investors (domestic and foreign) in taking some responsibility to facilitate matters from its worst features. Bureaucratic corruption exists but is neither so demanding nor so rampant as made out by intermediaries acting on behalf of foreign companies who often pocket the money they claim to pass on. The constitutional structure of India provides effective and speedy remedies. The degree of discretionary power of bureaucrats has been substantially dismantled and is increasingly subject to judicial scrutiny. Corruption scandals during the period 1995-98 were affirmations that the judiciary could take action and a free media reports such happenings making recurrence of deviations from norms less likely.

7.2 Legal systems, Transparency and Disclosure

7.2.1 The differences in the legal systems of the two countries pose numerous difficulties, which are surmountable. Finnish Law follows the code law justice system derived from Germanic-Roman origins with Swedish incorporations that are implemented in ways that are a fusion of Swedish legislative and Russian bureaucratic influences. India has a plurality of co-existing justice systems and Indian jurisprudence draws heavily from traditions of natural justice in the common law tradition

with admissibility of public interest litigation. India lacks a uniform civil code but the code of civil procedure is the same throughout the country. Finland lacks a constitution but has several constitutional acts (six) of equal status. The Finnish "loser pays" principle is not followed in India. Usually parties bear their own costs. There is no equivalent of the law of injunctions of India in Finland. The institution of the Ombudsman in Finland partially offsets the inadmissibility of public interest litigation but commercial cases would normally fall outside that purview.

7.2.2 Transparency of trading regimes is well established in Finland but not in India where discretionary authority vests in a plurality of concurrent jurisdictions. The transparency of investment regimes is well established in India (and enforceable by law against the Government) but not in Finland where such matters are interpreted politically, case to case. All laws and rules in India are available in English. However, Finnish Law (Suomen Laki I and II) is only available in Finnish and Swedish and the authorities are unwilling and unable to provide the laws of Finland in English. For instance, important basic laws such as tax law for firms (EVL 360) are inaccessible to foreign investors except in Finnish and Swedish or by sourcing the information from one of the Big Five consulting firms. The entry costs of a business investment in Finland thus become approximately ten times higher for foreign firms requiring

basic information for business investments than the corresponding entry costs for India. Access by foreign firms to publicly maintained data (for example, disaggregated census data) is freely possible in India and most data is transparently accessible. In Finland distributive trades are highly concentrated and secretive and it is prohibited by law to maintain lists of names and addresses except for approved purposes. Equality of national and foreign entities is part of the constitutional frame in India whereas inequality by exclusion from associative support structures and denial of equal treatment is still a feature protected by many Finnish laws that are slowly being modified to comply with EU laws and directives.

7.2.3 The Indian Companies Act is the most voluminous single law of any kind in the whole world and disclosure requirements to comply with standards of transparency are constitutionally governed. This eliminates the risk of information inadequacy on supply and demand for all investors in any market but it places a heavy burden of paperwork on companies comparable to China. Trade, though unhindered by any significant tariff barriers on either side, is still constrained by non-tariff barriers including bureaucratic paperwork at the India end to a degree inconsistent with Finnish business culture and the prevailing trust between Finnish businesses and Finnish government.

7.3 Business Practices and Commercial Laws

7.3.1 In the Finnish perception, there exist structural constraints to developing business in India. Small Finnish companies have many excellent technologies, processes and products but may not have the resources by way of knowledge and expertise to study business opportunities and to develop them. In large firms, decision-making is slow and knowledge about India also limited as evidenced by the nature of representation and business links made to date. Contract negotiations require an understanding of payment terms, interest costs, margins, logistics of delivery, local taxes and levies and liabilities which are very different in Finland and India.

7.3.2 In marketing industrial goods and services, the host governments and firms adopt policies based on supply constraints in India and demand constraints in Finland. Imports into Finland are severely restricted by three national laws even after the EU accession on grounds such as "apprehension of disorder of an economic sector" (ulkomaankauppalaki of 1994); under enabling provisions for import equalisation taxes, special taxes (for example, automobiles), inspection (for example, electronics), and prohibition of foreign labelling (Tullilaki of 1978); and the enabling provision to discriminate between Finnish standards, international standards and something called "Finnish international standards" (under laki kilpailunrajoituksista 480 of 1992 with

"STANDARDISOIMISLIITTO" setting up effective non-tariff barriers (Haapaniemi, 1998).

7.3.3 The home country policies in India provide incentives to "Swadeshi" (domestic value-addition by both foreign and local firms) on the back of a large domestic market whereas in Finland capital flows inwards and outwards are freer than in India. The Finnish Foreign Exchange Control Act is expected to be repealed latest by 1.1.99 and the Indian equivalent FERA is being replaced by the Foreign Exchange Management Act by 1.4.99. With the rupee having become convertible for all trade and current account transactions, capital injections still demand long term strategies that can sustain growth and profitability of FDI.

7.3.4 Foreign control of Finnish equity is restricted if the turnover of the firm grows beyond FIM 1 billion or employment size crosses 1000 employees. There is no such stipulation in India. In cases of bankruptcy, debt is subordinated to equity in Finland whereas in India, equity is subordinated to debt.

7.3.5 There are restrictions on foreign ownership of real estate in Finland but these are being removed to comply with EU. India removed such restrictions by enabling foreign investments in asset management companies.

7.3.6 Finland has not yet implemented the EC directives on

agency commissions and continues to have its own law (Kauppaedustajista Laki). There is no law to protect distributors except the archaic provisions of the 1929 Contract Act. Sole and exclusive distributor agreements are regarded valid in Finland though neighbouring Sweden invalidated them to comply with EU law (Gustafsson, 1998).

7.3.7 Unlike India's stock exchanges (35 in number) that are a ready source of capital to domestic and foreign companies, the Finnish stock-market is small and has not been a significant source for raising capital for new companies. Rather, the Finnish stock market serves as a market for facilitating mergers and acquisitions and bankruptcies. Its silent system of trading (HETI) is non-transparent.

7.3.8 Finnish laws impede competition in the domestic economy. To the extent that penal provisions exist for abuse of dominant position, the maximum fine is set at FIM 4 million, but the heaviest fine ever imposed was FIM 13,400 with the sole exception of a recent hefty fine on Valio in 1998. Vertical cartels are allowed under Finnish competition law and the European Commission has recently extended this privilege to all member countries defining a criteria for it. EC's approval to the merger of IVO with NESTE was made conditional to divestment in subsidiary GASUM which held a monopoly on sales of natural gas in Finland. Further, the duty structure on mineral oils was

found violative of Articles 8 (2) and 8 (3) of Directive 92/81/EEC.

7.3.9 There is no Finnish statute on mergers and acquisitions (M & A) like other nordic countries. The Companies Act of 1997 is the enabling law on procedures for M & A and the Securities Trading Act has flagging requirements. These correspond to the equivalent provisions under The Companies Act and the Securities and Exchange Board of India (SEBI) law in India.

7.3.10 Intellectual property rights protection is weaker in Finland than in India. Both countries are members of the World Trade Organisation (WTO) and signatories to the Berne Convention but Finland has limited the applicability of international law for foreign copyright holders. Disseminated work is reproducible in Finland without copyright protection and Finnish state sponsored organisations like *Teosto* and *Gramex* are authorised to reproduce authors they do not represent. Finland is not a member of the European Patent Convention and has its own patent law (*patenttilaki* of 1967). Under this law a product once marketed in the EU cannot be patented in Finland. The law also enables foreign pharmaceutical patents to be ignored. This has obvious implications for a wide range of Indian pharmaceutical patents. In drugs and pharmaceuticals and agro-chemicals, India recognises process patents and trademarks, but not product patents and a bill to remedy

this is pending in Parliament.

7.3.11 In Finland, consumer protection laws exclude industrial consumption and no product liability accrues as long as the manufacturer has complied with rules of Finnish public authorities. In India, the statute on consumer protection covers all categories of consumers and the definition of product liability is expansive.

7.3.12 Under Finnish law, the jurisdiction of a dispute arises where the seller is located whereas under Indian law it arises where the cause of action has arisen. Arbitration clauses would also require to be structured for the eventuality of disputes because Finland and India are not "reciprocating territories" for implementation of court judgements. The present practice is to opt for Stockholm or London or Paris for arbitration.

7.4 Taxation

7.4.1 Finland has high Value Added Tax (VAT) rates - the highest in the European Union. In addition, there are other indirect taxes. Low company tax rates (lowest in the world except for tax-free havens) co-exist with high individual marginal rates. Individual taxation is higher in Finland than in India at peak rates as well as progressive rates. This has a bearing on the taxation of Finnish managers posted in India and Indian managers posted in Finland. Company taxation in Finland (28 %) is lower than in India

(35%). There exists a Finland-India Double-Taxation Treaty so that neither Finnish nor Indian tax law would apply; only the Treaty provisions would need to be followed but the Finnish authorities believe that Finnish national tax laws supersede the Treaty and make assessments on that basis. The Indian tax authorities also used to contend that Indian national tax laws supersede double taxation treaties but this problem was resolved in a landmark judgement by an Indian Court in November 1998 involving a German Director of an Indian Company where it was decided that Double Taxation Treaties supersede national laws and foreign directors of Indian companies are not taxable in India.

7.4.2 The peak marginal tax rate for individuals corresponds closely to the Corporate tax rate in India and both have been lowered in recent years. There is a huge spread between the Finnish company tax rate and the highest individual marginal rate and convergence is expected to occur in the years to come. The peak tariff rate in India has been lowered to 40 % and the effective tariff rates are under 20 % for many categories (including all capital goods) and have been totally eliminated in some cases.

7.4.3 Domestic corporate bodies are exempt from wealth tax in Finland but not in India. In India, the effective tax on royalties and technical services fee was reduced this year from 50 % to 20 %. The tax rate on income of branches of foreign firms is 48 %. Two ways to lower the tax burden are

adherence to bilateral treaty or by incorporation. Tax holidays upto 2003 have been announced for investments in power generation, ports, refineries, waterways development and for backward areas. These benefits are available to incorporated entities, not to licensors of know-how. Additionally, there are tax-free zones adjacent to ports and airports for export-oriented manufacturing units.

7.5 Inadequacies with regard to EU harmonisation

The European Commission has issued 32 notices to Finland during 1997-98 under Article 169 of the Maastricht Treaty for infringements with EU Law. These include, among others, the failure to implement EC's personal data protection directive. The India-EC dispute over non-tariff barriers is resolved but confusion remains over Indian negative lists from wrong and old information in EU databases (for instance, [http: //mkacddb.eu.int/mkdb/chksel.pl](http://mkacddb.eu.int/mkdb/chksel.pl)).

7.6 Investment incentives and disincentives

Investment incentives to foreign investors in India include all the incentives available to domestic investors plus many more available only to foreign investors. Investment incentives in Finland are attractive but it is not clear whether these can be availed by foreign investors. These include cash grants, equity investments, cheap loans, tax benefits, funds for development in identified regions called development areas and structural adjustment areas, employee training and export subsidies for 50 % of marketing costs. Indigenous entrepreneurship is

weak and so there is enormous potential for synergies here. However, in the light of Section 7.5 above, there is some doubt regarding the continuity of Finnish incentives violative of the EU accession Treaty obligations. The European Commission has opened proceedings against Finland for its subsidies to steel, transport, mining, ship-building, synthetic fibres, motor-vehicles, fisheries and agricultural produce on July 29, 1998.

7.7 Social and Cultural Barriers

The extent of cultural contact between Finland and India has been limited. Mental distance rather than geographical distance accounts for it. India is viewed as an overpopulated country with many poor people, frequent natural disasters like floods, droughts, earthquakes and man-made disasters like boat capsizes and train accidents. Industrial India or Business India is practically unknown in Finland just as hi-tech Finland is hardly known in India except to the cognoscenti. Nokia, until recently was perceived as a Japanese firm and most people going up and down Kone lifts still have no idea that they are partaking of a Finnish product. Companies like ITC, Bajaj, Nirma, Reliance have not been heard of in Finland. The Finnish media usually confirms stereo-types by its reporting as does the Indian media that reports a land of ice and snow, forest logging, brown bears mauling trekkers, drunks drowning at mid-summer (Juhannus), rail disasters at Riihimäki, and Santa Claus and his reindeer herds. India

also scores poorly on infrastructure, environmental degradation, urban sanitation and public hygiene, traffic, air and water pollution and visible poverty.

Beneath the veneer of obvious social and cultural differences that arise from differences in demography, nature, urban habitations, economic development, lifestyles etc. there are important social and cultural differences that reflect differences in life views and world views and reinforce mind-sets of those in pursuit of business opportunities more significantly. Relating to India for Finns requires tolerating ambiguity and diversity on many dimensions (including organisation structures, management systems, business practices and operating styles) to the extent that any generalisations made are likely to be fundamentally flawed or misleading and where the boundaries of private, personal, social and official overlap. Relating to Finland for Indians requires cultivating a degree of goal specificity and tolerance for uniformity and standards borne out of entitlements created by systems and definitive norms around work cultures where the personal and the private domains are designed to be excluded from the social and the social from the official. The most important implication is for decision-making where inclusive practices are the norm in India and exclusive practices the norm in Finland.

Entitlements are determined around citizenship, employment

and membership of a household in India whereas in Finland these are determined around the individual entitlements created by the State which may be operated through 'liitot' (associations) and employers in some cases. This has implications for organising marketing (for example, for analysing consumer choices), for organising employment in an industry (for example for designing a compensation system) and for negotiating private and public contracts.

It would be beyond the scope of this paper to undertake the detailed analysis that is merited into social and cultural differences. In citing the above, we merely observe that scanty and superficial inferences from differences in cuisine or faith or language or sports or music do not do justice to the many dimensions of differences that people from the two countries would encounter in the other even in exploring business opportunities.

7.8 Designing Gateways

7.8.1 From Finland to India

There is no substitute to management education, by practice and through concept development in firms and institutions of higher education. In Finland, there are many universities, technology institutes, vocational training colleges and firms that offer export marketing courses and related courses. However, there is a need to develop comprehensive post-graduate management education institutions and in-house management development centres

for international business development.

The task of preparing Finnish managers for opportunities in India could begin by building knowledge resources about the Indian economy, maintaining data sources and data links and learning how to use Indian databases for specific Finnish industries, sectors, firms, technologies, products and services. The cost of doing this would be prohibitive for most single enterprises except the large ones and so the small ones require to be helped by the creation of a network under the auspices of a public institution.

Research support is another solution. For example, if Eco-S Oy with its price tag of \$20-\$ 60 million for a mini paper mill with a capacity of 80,000 tonnes per annum which will employ 70 people is looking to develop Indian business, data in this monograph could serve as a starting point. From Annexure I, the entrepreneur knows straightaway the range of products in his product category (48) that are feasible. All he needs to do is to consider the techno-commercial feasibility by adding some more information. In this case, the plant can be based on straw and agro fibres or requires an urban area of one million to use recycled fibres according to his calculations. He would need to redo his calculations of fibre recovery in a lower paper per capita country such as India and would also need to estimate how many such plants might be needed so that the initial planning and execution builds a stream of orders

executable every year. From an observable shortfall of 40 % indicated elsewhere in this work, he can calculate that there is an immediate need for twelve such plants and this demand would grow. If he limited his attention to the State with the speediest implementation, he would choose Andhra Pradesh or Madhya Pradesh. To avail of a five year tax-holiday, he would create a joint venture for manufacturing under Build-Operate-Transfer arrangements with a local partner in a backward agricultural area within reach of an urban habitation of 2 million such as Jagdalpur, Itarsi or Indore (in Madhya Pradesh) or Vijaywada, Hyderabad or Vishakapatnam (in Andhra Pradesh). He could repeat the process by building a second plant before he transfers the first enterprise to his Indian collaborator on pre-agreed terms. If he preferred, he could make newsprint and handle the marketing through a marketing company or directly with large customers by building his marketing organisation with a profit to networth of 26 % for his troubles. The initial capital could be raised on the Indian stock market to augment promoters' capital. In the event of oversubscription (a likely scenario), the promoters' capital would be saved. This opportunity may never arise if he depended on selling the plant from Finland through an agent in India.

Similarly, opportunities can be developed for a wide range of Finnish technologies, processes and products. Sectors where identified end-users exist are easiest because

sectoral demand and supply shortfalls are known and can be forecast accurately.

Firms making buyer decisions and star trading houses involved with imports can be directly targeted as can a range of producers who have an incentive to license know-how to expand existing product ranges with readymade marketing networks.

At a more sophisticated level, new products (and processes and technologies behind them) could be test marketed in urban centres like Ahmedabad, Bangalore, Hyderabad and Cochin before being offered to Indian partners.

7.8.2 From India to Finland

The main constituents are traders who have something to export or industrial firms that already market products and require to source capital goods or know-how or find a destination for their exports. Firms need to establish business to business links. Annexures I and II provide ready data on which to act. For example, category 7415 Threaded Bolts and Nuts where 50 % of Indian export is to EU and export to Finland is zero though exports to Sweden exist, an Indian firm could now identify industrial customers in Finland and provide samples and quotations knowing that the odds are very favourable. A more detailed analysis of industries and firms could pinpoint specific firms also. If India's Triveni Sheet Glass wants to expand

into production of floatglass and automotive glass which it presently imports from Japan, Annexure II enables it to identify Finland as a source country and to reach Tamglass in the Kyyro Group with some simple trade enquiries.

The process of developing the mutual synergies may be accelerated by investing in knowledge and management development. Since both countries have a number of institutions and large firms, chambers of commerce, management and industry associations, business schools, technology institutes and economic research agencies-public and private, any and all of these could do this without Government intervention. The role of the two governments in promoting their institutions into investments for such mutually beneficial synergies could help both countries greatly and should not be excluded. The EU-India Economic Cross Cultural Programme is another new bridge that now exists.

8.0 Further Research Envisaged

8.1 Further research requires to be undertaken in all the identified sectors either at the firm level or sector level for a group of industries or technologies in both countries to make an inventory of existing capacity and know-how to examine cost and profit streams of different linkable alternatives including an examination of trade versus other forms of collaboration.

8.2 Cost-benefit analysis to examine techno-commercial feasibilities of alternative forms of structuring investments are also required to determine what technologies, processes, products match best with different forms of investment structuring in Finland-India value chains, and the extent to which third country firms may be involved.

8.3 Trading systems and investment location analysis for specific projects at enterprise level can help identify preferred locations and methods of project management to bundle technology and organisation together in socio-technical systems in a scientific manner since almost everything can be changed about a manufacturing investment except its location.

8.4 For the high growth sectors identified such as infrastructure development, forestry, engineering, transport, energy and environment, potential participation in the value chain ought to be mapped to precisely determine what opportunities are likely to arise and where and when.

8.5 The viability of a simplified system of trade between the two countries with databanks accessible from either end ought to be examined.

Conclusions

This twinning study finds affirmative evidence for vast trade potential between Finland and India in a number of sectors and in many product categories of such sectors.

Both countries are found mutually under-represented in EU-India trade with respect to their revealed comparative advantages. A small fraction of potential trade is found actualised.

Trade diversion via Germany, Russia, Sweden, UK and Norway partially accounts for the low level of economic contact at enterprise level.

The investment linkages noticed from trade analysis require to be studied more deeply before they can be confirmed. In a number of industries, foreign direct investment appears a more appropriate form of structuring investments than exporting.

Investment potential awaiting entrepreneurial interest and exploration is identifiable in several growth sectors. These investments could translate into microeconomic opportunities for the actors directly involved in profiting from them and confer indirect benefits through their employment and income streams for many others with multiplier effects.

Apprehensions regarding vast differences on social, institutional and cultural dimensions are valid . However, many myths about improbabilty of micro-economic linkages are actively dispelled.

Opportunities identified could be systematically pursued by deepening studies through scientific analysis of techno-commercial and socio-technical feasibilities at the sectoral level for specific technologies, processes and products.

The bundling of product-service linkages and trade in services and knowledge-based investments merits an in-depth follow-up research study.

The knowledge-intensity of demand-constrained Finnish capacity and the supply-constrained pace of Indian growth to address the enormity of India's development agenda and market potential present unusual synergies.

Annexure I EU/Finland's Exports to India

	Finland's share of Indian imports	Other EU exporting countries
28 Inorganic chemicals		
2805 Rare Earth Metals	0.03 %	Germany, Belgium, UK, Sweden
2809 Phosphoric Acid	0.01 %	Germany, UK
2817 Zinc oxide	0	G e r m a n y , Netherlands
2822 Cobalt Oxide	17.3 %	Germany, Belgium
2823 Titanium Oxides	0	Germany, Belgium, UK
2829 Chlorates & Bromates	29.7 %	Germany, France, Sweden, UK
2833 Sulphates	14.5 %	Germany, UK
2842 Silicates	0.07 %	G e r m a n y , Netherlands
2850 Hydrids	13.1 %	Germany, UK, Belgium
Nitrides	0	G e r m a n y , Netherlands
Silicides	7.5 %	G e r m a n y , Netherlands, UK
29 Organic Chemicals	0.01 %	G e r m a n y , Netherlands, UK, Belgium, Sweden, France,
2902 Oxylene	0.01 %	" "
2906 Industrial Alcohol	0.01 %	" "
2912 Anisic Aldehyde	4.3 %	" "
2914 Acetone	0.05 %	" "
2915 Formic Acid	12.5 %	" "
2918 Halides	0.01 %	" "
2922 Amino compounds	0.005 %	" "
2923 Phosphoaminolipids	4 %	" "
2927 Betamethasone	0.01 %	" "
2940 Alkaloids	0.005 %	" "
2942 Other organic compounds	0.001 %	" "

	Finland's share of Indian imports	Other EU exporting countries
30 Pharmaceutical products		
3002 Anti-bacterial serums	0.01 %	Germany, France, Denmark, Sweden
3005 Bandages	0.001 %	Germany, UK, France, Sweden
31 Fertilisers	0	B e l g i u m , Netherlands Germany, France, UK
32 Pigments		
3212 Other pigments	6 %	France, Germany, Belgium
35 Albuminoidal substances, starches, glues, enzymes		
3506 Resins	0	Germany, Sweden, Denmark, UK Netherlands
3507 Industrial Enzymes	6.5 %	Germany, Denmark, France, UK Netherlands
37 Photographic and cinematographic goods	0	Germany, Sweden, UK, Italy, Spain, France, Belgium
38 Miscellaneous chemical products		
3809 Paper industry preps	0.01 %	France, Italy, UK
3815 Platinum catalysts	0.01 %	Italy, Germany, UK
3822 Pregnancy confirmation kits	43 %	Germany
3823 Industrial Monocarboxyls	0.01 %	Germany, UK, Belgium, Netherlands
39 Plastics		
3901 LDPE	1 %	Germany, Belgium, UK, Sweden, Netherlands, Italy

	Finland's share of Indian imports	Other EU exporting countries
3902 Polypropylene	2 %	Germany, Norway, UK, Sweden, Austria, Spain
3906 Other polymers	0.01 %	Belgium, France, Germany, Italy, Spain, UK
3907 Epoxy Resins	0.02 %	Germany, Sweden, Belgium, France, Italy, Netherlands
3919 Thermocol	0.05 %	Germany, Austria, Sweden, Denmark, UK
3920 Polymers of propylene	7 %	Germany, Belgium, Netherlands, Italy, Austria,
3921 Vinyl Chloride polymers	1 %	Germany, Belgium, Sweden, UK
3926 HDPE	0.05 %	Germany, Sweden, Norway, Denmark, Ireland, Austria, Belgium
44 Wood and articles of wood		
4412 Plywood	9 %	G e r m a n y , Netherlands, UK
47 Pulp		
4701 Mechanical wood pulp	0.08 %	Germany, Sweden, Italy, UK Netherlands
4702 Chemical wood pulp - dissolving	0	Germany, Norway, Sweden, Italy
4703 Chemical wood pulp - non-dissolving	2.5 %	Germany, Sweden, Spain
48 Paper and Paperboard		
4801 Newsprint	20 %	Germany, Sweden, Norway, Belgium, UK, Italy, Spain
4802 Tissue Paper	0.05 %	Germany, France, UK, Italy

	Finland's share of Indian imports	Other EU exporting countries
Currency note paper	0	UK
Dyed printing paper	44 %	UK, France, Belgium, Germany
Writing paper	17 %	Germany, Sweden, Norway, Belgium, Spain, UK
4803 Sanitary paper	0	Sweden, UK, Italy, Germany, Belgium
4804 Kraft Paper		
48042900 Sack Kraft Paper	0.01 %	Sweden, Italy, UK
48043100 Unbleached Paperboard < 150 gsm	5.7 %	Sweden, Germany, France
48043900 Other Paperboard < 150 gsm	16.4 %	Sweden, Germany, Austria, France, Netherlands, UK
48043900 Unbleached 48043100 Paperboard 150-224 gsm	17.74 %	Sweden
48044900 Other Kraft Paper and Paperboard 150-224 gsm	0.03 %	Sweden, Norway, Germany, UK
48045100 Unbleached paperboard 225 gsm	0.003 %	Sweden, Austria
48045900 Other paperboard 225 gsm	0.001 %	Sweden, Germany, Denmark, UK
48052901 Cardboard	4.8 %	Germany, Sweden, Denmark, Austria, Italy, UK, Netherlands

	Finland's share of Indian imports	Other EU exporting countries
48054001 Filter papers	0	Sweden, Germany, UK, Italy, Netherlands, Spain
48055000 Felt papers	0	Germany, Sweden, France, Italy, UK, Spain
48057003 Cable and condensor paper	0	Sweden, Belgium, France, UK
48058009 Other papers	0.001 %	Sweden, Germany, Italy, Spain, UK, Netherlands
48101101 Imitation Art paper < 150 gsm	2.56 %	Sweden, Germany, Austria
48101102 Art Paper < 150 gsm	20 %	Sweden, Denmark, Germany, Austria, Belgium, Italy
48101109 Other coated papers < 150 gsm	6.1 %	Sweden, Germany, UK, Belgium, Netherlands, Norway
48101201 Art Board > 150 gsm	2.2 %	Sweden, Germany, Italy, Netherlands, UK
48101202 Press Board	4.1 %	Sweden, Germany, UK, Austria, Netherlands
48101209 Other Boards	30.6 %	Sweden, Germany, Belgium, Italy, UK
48102100 Light weight graphic paper	26.2 %	Sweden, Belgium
48102900 Mechanically processed writing paper	32 %	Sweden, UK, Germany, Italy
48103901 Insulating Paper	0	Sweden, Germany, Italy, UK

	Finland's share of Indian imports	Other EU exporting countries
48109900 Other Coated Paperboard	4 %	Sweden, Norway, Germany, Austria, UK
48111000 Bituminised Paper	30 %	Germany, Sweden, UK
48112101 Large roll adhesive paper	15.6 %	Germany, UK, Belgium, Italy
48112109 Other adhesive papers	4.4 %	G e r m a n y , Netherlands, UK
48113100 Impregnated papers	62.8 %	UK, Italy
48113909 Plastic laminated papers	0.02 %	Sweden, Denmark, UK, France, Italy, Germany
48119008 Leather board paper	7.5 %	Germany, UK
48173009 Stationery paper	0	UK
48182000 Facial Tissues	0	Sweden, France
48184000 Sanitary napkins	0	Belgium, UK
48191001 Corrugated board	0	Germany, Austria, France, Italy, UK

	Finland's share of Indian imports	Other EU exporting countries
48191009 Corrugated board cartons	0.01%	Germany, Sweden, UK, Belgium, France
48194000 Cones	0.04 %	Germany, Austria, France, UK, Belgium
48209000 Paperboard stationery	0	Germany, Austria, Netherlands
48211009 Printed papers & board	0	Germany, Sweden, France, UK, Italy, Netherlands, Belgium, Spain
48231900 Adhesive paper in strip rolls	8 %	Germany, Sweden, Netherlands, UK
4823200 Filter paper & paperboard	0.001 %	Sweden, Germany, France, UK
49 Printing products		
4901 Printed brochures	0.01 %	All other EU-14 + Norway
4902 Newspapers, journals	0.01 %	Germany, France, Italy, UK
4905 Maps and Globes	1 %	Sweden, Denmark, Germany, France, UK
4911 Printed calendars calendar blocks	0.8 %	Germany, UK
4919 Other printed materials	0.06 %	All other EU-14 + Norway
70 Glass and Glassware		
7004 Sheet glass	0	Germany, France, UK
7005 Float glass	0	France
7007 Safety glass	0	Sweden, Germany, France, Italy, UK, Denmark
7008 Insulating glass	0	Germany

	Finland's share of Indian imports	Other EU exporting countries
7009 Rear view mirrors	0.01 %	Germany, France, Italy, UK
7010 Preservation glass	0	Germany, France, Italy, UK, Belgium, Netherlands, Spain
7011 Glass for electrical	0	Sweden, Germany, UK, Belgium, France
7012 Glass for vacuum vessels	0	Sweden, Germany, UK
7013 Decorative glass	0	Germany, France, Belgium, Sweden
7014 Signaling glassware	0	Austria
7015 Ophthalmic glass	0	Germany, France, UK, Belgium, Italy
7016 Glass cubes and mouldings	0	Germany, France, Italy, UK
7017 Laboratory glass	0	Germany, Belgium, UK, Austria, France, Italy, Sweden, Netherlands
7018 Glass instruments	0	Germany, Austria, Italy, UK
7019 Glass fibres & glass wool	0.002 %	Belgium, France, UK Sweden, Denmark, Italy, Netherlands
7020 Other glass	0.001 %	Germany, Sweden, Denmark, Italy, Netherlands, Spain, UK
72 Iron and Steel		
7202 Ferro-silico alloys	0	Germany, Sweden, Norway, Belgium
7203 Ferrous products	0	G e r m a n y , Netherlands
7204 Steel scrap	0	Spain, UK, Sweden,

	Finland's share of Indian imports	Other EU exporting countries
7205 Powders of Steels and Alloys	0	France, Italy, Norway Portugal, Denmark,
7208 Flat Rolled products	0.05 %	
7209 Heavy guage " "	0	
7218 Stainless steel billets	19 %	Germany, Sweden, UK, Italy, Spain
7228 Hollow drill bars and rods	0.05 %	Germany, France, Sweden, UK, Italy, Austria
73 Articles of Iron and Steel		
7301 Steel Angles	0.01 %	Germany, France, UK
7302 Railway rails	0	UK, Belgium, France
7303 Crane rails	0	Germany, Belgium, UK
7306 Steel Pipes and tubes	0.01 %	S w e d e n , Netherlands, UK
7307 Stainless steel flanges	0.01 %	Germany, Sweden, Denmark, UK
7310 Containers	0.01 %	Germany, Belgium, UK , Spain , Netherlands, Italy
7317 Speciality nails	22 %	Italy, UK
7318 Nuts, screws and bolts	0.01 %	All EU-14 + Norway
7319 Pins and needles	0.01 %	All EU-14 + Norway
7320 Medical springs	0.01 %	Germany, Denmark, UK, France, Italy, Netherlands , Austria
7326 Machinery belt fasteners	0	All EU-14

	Finland's share of Indian imports	Other EU exporting countries
74 Copper and Articles of Copper		
7404 Copper waste and scrap	0.01 %	All EU-14 + Norway
7409 Refined plates, sheets	0.06 %	All EU-14 except Greece
7410 Copper alloy foils	0	All EU-14 except Greece
7411 Copper tubes and pipes	0.02 %	All EU-14 except Greece
7412 Copper fittings	0	All EU-14 except Greece
7413 Copper wire	0.02 %	Germany, France, Belgium, Netherlands
7419 Other copper worked articles	0.005 %	All EU-14 except Greece
76 Aluminium		
7601 Unalloyed aluminium	0.005 %	All EU-14 except Greece
7607 Aluminium foils	2 %	All EU-14 except Greece
79 Zinc and articles of Zinc		
7901 Unwrought zinc	1 %	All EU-14 except Portugal and Greece
7904 Zinc wire	12 %	Germany, Belgium, Italy, UK, Spain
81 Tungsten		
8101 Bars and rods	3 %	Germany, Austria, Belgium, Denmark, Netherlands
8105 Cobalt alloys	27 %	Germany, France, Belgium, Spain Netherlands, UK

	Finland's share of Indian imports	Other EU exporting countries
8108 Titanium articles	0.01 %	Germany, Belgium, Denmark, UK, Italy Netherlands
84 Reactors, boilers and mechanical appliances		
8402 Water boilers	2 %	Belgium, Germany, Italy
8403 Central Heating boilers	0.02 %	Germany, UK, Netherlands, Italy
8405 Gas Generators	0.08 %	France, Germany, Sweden, UK, Italy
8408 Diesel Engines	1.8 %	Germany, Sweden, UK
8409 Piston rings and engine parts	7 %	Germany, France, Italy, UK, Spain
8412 Hydraulic jet engines and pneumatic motors	2.1 %	Germany, Italy, Belgium, Netherlands, Spain, Sweden, UK
8413 Liquid Pumps	2.5 %	Germany, France, Sweden, Spain Netherlands, UK, Belgium, Austria
8414 Vacuum pumps & industrial blowers	2.3 %	Germany, Sweden, France, Ireland, Spain, Austria, Netherlands, UK
8416 Furnaces	0.01 %	All EU-14 (except Greece)
8417 "		+ Norway
8419 Oil refining equipment	37 %	Germany, Italy
8420 Calendaring and rolling machines	0.01 %	Germany, Sweden, Norway, UK, France, Spain

	Finland's share of Indian imports	Other EU exporting countries
8421 Centrifuges	9.1 %	Sweden, UK, Germany, Spain, Austria, Belgium, Denmark, France, Italy
8428 Hoists and Elevators	0	UK, Germany, Spain, France
8429 Bulldozers	0	UK, Germany, France, Italy
8430 Snow ploughs and blowers	0	NO EU EXPORT !
8431 Work-trucks escalators excavators	4 %	Germany, UK, Sweden, Italy, Belgium, France, Netherlands, Spain
8432 Forest machinery	0	Germany, Austria, Italy, UK, Netherlands, Denmark
8433 Harvestors	0	Germany, Sweden, Italy, France
8434 Dairy Machinery	0	Germany, Sweden, Italy, France, Netherlands
8439 Fibre cellulose pulp machinery	0.007 %	Sweden, Belgium, Austria, France, Italy, Germany
8441 Paper machinery	9.8 %	Germany, Sweden, France, Austria, UK, Denmark, Italy, Spain
8456-65 Machine Tools	0	All EU-14 + Norway
8466 Tool holders	0.01 %	All EU-14 + Norway
8471 Digital DP machines	0.04 %	All EU-14 (except Greece and Ireland) + Norway
8474 Construction machinery	0.01 %	All EU-14 (except Greece and Ireland) + Norway

	Finland's share of Indian imports	Other EU exporting countries
8477 Injection moulding	0.01 %	Germany, UK, Austria, France, Netherlands, Spain
8479 Indvol Appliances	4 %	All EU-14 (except Greece and Ireland) + Norway
8481 Pressure valves	7.5 %	All EU-14 (except Greece and Ireland) + Norway
8482 Ball & Roller bearings	1.25 %	All EU-14 (except Greece and Ireland)
8483 Transmission bearings	0.02 %	All EU-14 (except Greece
Fluid couplings	38 %	and Ireland) + Norway
8485 Other machinery	5 %	All EU-14 (except Greece and Ireland) + Norway
85 Electrical machinery		
8501 Motors	0.02 %	All EU-14 (except Greece Portugal and Ireland)
8502 Electricity Generating sets		
>375 KVA and < 1001 KVA	4.6 %	Germany, Denmark, France, UK
1001 to 2000 KVA	52.7 %	Germany, Italy, UK
> 2000 and < 5000 KVA	34.9 %	Germany
> 5000 and < 10,000 KVA	0	Germany
> 10000 KVA	24.6 %	Germany, France
Other IC spark ignition engines	8 %	Germany, Denmark, Belgium, UK
N.E.S. Gen sets	17 %	Germany, Belgium, UK, Austria, Denmark, France
8503 Generator parts	25 %	Germany, Belgium, UK, Austria, Denmark, France Sweden, Italy

	Finland's share of Indian imports	Other EU exporting countries
8504 Electrical transformers	0.02 %	Germany, Sweden, UK, Denmark, Italy, Belgium, France
8517 Telecom equipment	2 %	All EU-14 (except Greece, Portugal and Ireland) + Norway
8525 Telecom transmission apparatuses	0.6 %	Sweden, Germany, UK, Denmark
Cellular phones	6 %	Sweden, Germany, UK, Denmark
8529 Aerial reflectors	7 %	Sweden, Germany, UK, Denmark, Italy, France, Spain
8534 Printed circuits	3.6 %	Germany, France, Denmark, Austria, Netherlands, Norway, Sweden, Spain, Belgium
86 Locomotives		
8605 Containers cargo	5 %	Germany, UK, Netherlands, France, Belgium, Denmark, Italy
87 Road Vehicles and Parts		
8701 Tractors	4 %	Germany, Italy, UK
8714 Bicycle parts	0.01 %	Germany, France, Italy, Netherlands, UK
89 Ship, boat and floating structures		
8908 Floating structures for breaking up	2 %	Germany, Italy, Sweden, Spain
90 Optical, measuring, medical and other instruments	0.01 %	All EU-15 except Greece

	Finland's share of Indian imports	Other EU exporting countries
9018 Medical apparatuses	1.4 %	Germany, Sweden, Norway,
9022 X-Ray machines	1.5 %	Belgium, Austria, Denmark, Italy, Netherlands, UK
94 Furniture	0	All EU except Ireland, Portugal and Greece

Annexure II India's Exports to Finland/EU

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
0201 Bovine Meat	5.5 %	France, Netherlands Italy, UK, Belgium, Greece	0
0202 Boneless Bovine Meat	0.4 %	" " "	8 %
0203 Swine Meat	25 %	Germany	0
0301 Live Fish	28 %	France, Neth, Norway Sweden, Spain, UK	0.01 %
0303 Cod Pomfret Mackerels	27 %	Denmark, Germany, Greece Portugal	0
0306 Lobsters, Shrimps	8.6 %	France, Germany, Greece, Italy, Norway, Spain, UK	0
0307 Molluscs, Oysters, Mussels	35 %	All EU + Norway	0
0408 Egg yolk	34 %	Belgium, Germany, Austria, Netherlands, Norway, France, Greece	0
0409 Natural Honey	8 %	France, Germany, Italy, UK, Netherlands	0
0505 Feathers & Skins	39 %	Denmark, France, Germany, Italy, Lux, Neth, Norway, Sweden, UK, Finland	8 %
0601 Flowering Bulbs, tubers	60 %	Netherlands, Belgium, Germany, Italy, UK, France	0
0602 Flowering plants	65 %	" " "	0

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
0603 Cut flowers for bouquets	75 %	Netherlands, Belgium, Germany, Italy, UK, France	0
0604 Ornamental foliage	55 %	" " + Spain	0
0703 Vegetables	23 %	All EU	0
0710 Frozen veg mixes	11 %	" "	0.5 %
0712 Dried veg	52 %	" "	0
0801 Cashew nuts	25 %	" "	0.02 %
0802 Walnuts	75 %	" "	0
0803 Bananas	22 %	Germany, UK	0
0804 Mangoes, dates, figs, avocados, guavas	26 %	All EU	0
0810 Other fresh fruits	21 %	" "	0
0812 Processed mangoes	15 %	" "	3.2 %
0901 Coffee	50 %	" "	0.04 %
0902 Teas	75 %	" "	0.01 %
0904 Peppers	40 %	" "	0
0908 Cardamoms	9 %	" "	0
0909 Corianders & Cummins	4 %	" "	0
0910 Other Spices	29 %	" "	0
1006 Basmati Rice	18 %	" "	0

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
1101 Wheat flour	14 %	All EU	0
1202 Ground nuts	14 %	" "	0
1207 Oil seeds	45 %	" "	0
1211 Pharma seeds	55 %	" "	0.01 %
1301 Natural gums and resins	30 %	" "	0.01 %
1302 Veg extracts	12 %	" "	0
1515 Castor Oil Derivatives	10 %	" "	0
1703 Molasses	20%	Germany, Spain, UK, Italy France	0
2001 Pickles	8 %		0.001%
2009 Fruit juices	26 %	All EU	0
2101 Instant Coffee	10 %	All EU	75 %
2106 Other food preparations	57 %	All EU except Sweden	0
2401 Tobaccos	14 %	All EU	0
2513 Emery & Garnets	10 %	Denmark, Sweden, UK Germany, Netherlands	22 %
2514 Slate	24 %	Netherlands, Austria, Belgium, Denmark, France, Germany, Italy, Norway, Spain, UK	0.5 %
2515 Marble	80 %	" "	0
2516 Cut Granite	95 %	" "	0.01 %
2525 Mica Powder	95 %	" "	6 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
2526 Steatite	7 %	Austria, Neth, UK, Germany	0.007 %
2713 Calcined Petroleum coke	75 %	France, Netherlands, UK	0
2805 Sodium	90 %	Belgium	72 %
2809 Phosphoric acid	32 %	Italy, UK, Greece	0
2810 Boric Acid	10 %	Germany	0
2811 Other Inorganic acids	75 %	Spain, UK, Germany Belgium, Italy	0
2812 Halides	30 %	Belgium, Italy, Spain, UK, Germany, Netherlands, Denmark	0
2815 Sodium Hydroxide	5 %	Italy, UK, Belgium, Germany	0
2820 Manganese Oxides	15 %	UK, Neth, Spain, Italy, Germany, Belgium	3 %
2827 Chlorides	25%	France, Germany, Italy, Neth, Spain, UK	0
2832 Sodium Hydrosulphites	38 %	Belgium, France, Germany, Neth, UK	3 %
2839 Sodium Silicates	7%	Denmark	45 %
2851 Other inorganic compounds	9 %	Germany, Italy, Neth, Spain UK	41 %
2904 Sulphanated, Nitrated Hydrocabons	35 %	Belgium, France, Germany Denmark, Italy, Spain, UK	0
2917 Maleic Anhydride	50%	ALL EU + Norway	0.04 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
2921 Parachloro- aniline	80 %	Germany, Italy, Neth, Spain, UK	10 %
2931 Other organo inorganic compounds	75 %	All EU	0.04 %
2935 Trimethprim	20 %	Spain, Belgium, UK, France, Neth	0.01 %
2941 Amoxycilline	30 %	ALL EU except Greece	0.01 %
2942 Other bulk pharmaceuticals	28%	ALL EU	0.001 %
3003 Ayurvedic homeopathic and Unani medicines	20 %	Sweden, Germany, Neth, Denmark	0.01 %
3004 Antibiotics	25 %	ALL EU	0.01 %
3005 Dressings	20 %	All EU	0
3204 Pigments	40%	All EU	0.05 %
3207 Perfumery	30 %	ALL EU	0.001 %
3821 Micro-organism cultures	50%	Germany, Sweden, Netherlands, Portugal, Italy	0.001 %
3920 Packaging polyester film	26 %	ALL EU	0.001 %
3923 Plastic articles	20 %	All EU except Portugal and Ireland	1.5 %
3924 Plastic kitchenware and table ware	62 %	ALL EU + Norway	1 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
4002 Synthetic rubber	67 %	France	30 %
4005 Hospital Sheeting	85 %	Germany, Italy, Spain, UK	0.3 %
4008 Rubber forms	25%	Germany, UK, Neth, Italy	0.01 %
4009 Hoses	20 %	ALL EU	0.1 %
4010 Conveyer belting	9 %	Belgium, France, Germany, Italy, UK	18 %
4015 Surgical gloves	55 %	ALL EU	0
4104 Leather	45 %	ALL EU	< 0.001 %
4105 Finished leather			
4106 Kid leather			
4202 Leather cases and bags	75 %	All EU	1.2 %
4203 Leather jackets and jerseys	62 %	ALL EU + Norway	0.05 %
4204 Industrial articles of leather eg gloves	70 %	All EU + Norway	0.02 %
4205 Leather manufactures	62 %	All EU + Norway	0.01 %
4802 Hand made paper	5 %	ALL EU + Norway	5 %
4817 Stationery			
4909 Greeting cards	25 %	All EU + Norway	8 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
5007 Silk fabrics	40 %	All EU + Norway	0.75 %
5111 Woollen fabrics	35 %	France, Germany, UK, Italy, Sweden, Denmark, Neth	0.005 %
5204 Threads	15 %	All EU + Norway	0
5205 Dyed yarn	12 %	" " "	2 %
5206 Cotton yarn	50 %	" " "	5 %
5208 Powerloom	50 %	" " "	0.02 %
5209 Cotton fabrics	30 %	" " "	0.001 %
5210			
5701 Carpets	60 %	All EU + Norway	0.75 %
5702 Textile Floor Coverings, Coir Mats			
5703 Handloom carpets	58 %	All EU + Norway	1 %
5705 Textile floorings	65 %	" " "	1.25 %
5804 Cotton lace	25 %	" " "	4 %
5808 Braids	31 %	" " "	0.01 %
5810 Embroidered Silk	40 %	" " "	0.01 %
5903 Imitation leather cloth	30 %	" " "	0.01 %
6002 Knitted Fabrics	10 %	" " "	1 %
6103 Cotton ensembles	75 %	" " "	2 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
6104 Trousers and shorts	80 %	" "	0.05 %
6105 Shirts	70 %	" "	0.01 %
6106 Blouses			
6107 Underpants	48 %	" "	1 %
6108 Panties Bathrobes	25 %	" "	2 %
6109 T-shirts	68 %	" "	0.05 %
6110 Jerseys	30 %	" "	0.01 %
6111 Babies' Garments	90 %	" " "	0.03 %
6112 Track suits	80 %	" " "	0.02 %
6114 Cotton garments	80 %	" " "	1 %
6115 Hosiery			
6116 Gloves	50 %	" " "	0
6117 Shawls	50 %	" " "	0.01 %
6201 Millmade clothing	50 %	Sweden, Denmark, Germany, France, Neth, Portugal, Italy, Spain, UK	0.1 %
Raincoats and Overcoats			0
6202 Coats	55 %	All EU + Norway	0.001 %
6203 Men's suits	60 %	" " "	0.001 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
6204 Women's suits	50 %	All EU + Norway	0.001 %
6205 Woollen shirts	60 %	" " "	0.001 %
6206 Silk blouses	70 %	" " "	0.01 %
6207 Vests, Pyjamas, Bathrobes, gowns	67 %	" " "	1 %
6208 Slips and petticoats	50 %	" "	0.07 %
6209 Babies Woollen Garments	62 %	" " "	0.1 %
6210 Fabric garments	60 %	" " "	0.1 %
6211 Swimwear	20 %	" " "	0
Skisuits	80 %	" " "	4 %
6212 Bras, Corsets	50 %	Germany, Spain, UK, Norway	48 %
6213 Handkerchiefs	75 %	All EU + Norway	0.05 %
6214 Scarves and shawls woollen	70 %	" " "	0.001 %
6215 Ties and cravats	50 %	" " "	0.001 %
6216 Gloves and mittens Stockings	50 %	" " "	15 %
6301 Blankets	75 %	All EU + Norway	0
6302 Bedlinen Table linen Toilet linen	70 %	" "	2 %
6303 Curtains	80 %	" "	5 %
6304 Bedspreads towels	80 %	" "	0.02 %
6305 Cotton sacks and bags	75 %	" "	0.01 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
6306 Boat sails	40 %	All EU + Norway	0
6307 Cleaning cloths	50 %	" " "	0
Dress Materials	50 %	" " "	0
6401 Waterproof footwear	30 %	Germany, Neth, UK, Norway	0
6403 Leather footwear	80 %	All EU + Norway	0.7 %
6404 Rubber footwear	50 %	" "	0.2 %
6406 Leather uppers	60 %	" "	0.001 %
6502 Hat shapes	40 %	" "	2 %
6505 Headgear	60 %	" "	0.2 %
6701 Bird feathers	45 %	" "	2 %
6802 Stones	40 %	" "	0.5%
6803 Slate	20 %	" "	0
7101 Pearls	25 %	" "	0
7102 Non-industrial diamonds	33 %	" "	0.001%
7103 precious and semi-precious stones	33 %	" "	0.0001%
7113 silver filigree work	40 %	All EU except Ireland	0
7116 Articles of precious and semi-precious stones	40 %	All EU + Norway	0.01 %
7117 Imitation jewellery	30 %	" "	0.01 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
7207 Iron and Steel semi-finished	30 %	Germany, UK, Italy	0
7210 Steel Plates, rolled alloys	25 %	Sweden, Denmark, Germany, UK, France	0
7222 Bars, Rods, Angles	30 %	Belgium, Denmark, France, Germany, Ireland, Italy, Neth, Spain, UK	1.5 %
7307 Tubes and pipes fittings	20 %	All EU + Norway	0.6 %
7312 Transmission belting	50 %	Belgium, Denmark, Germany UK	4 %
7315 Roller chains	70 %	All EU + Norway	0.001%
7318 Nuts, Bolts, Screws, Washers	60 %	All EU + Norway	0
7319 Needles	20 %	" "	5 %
7320 Leaf springs	28 %	" " "	2 %
7321 Cookers and Stoves	50 %	" " "	0
7323 Household Stainless steel articles	35 %	" " "	2.8 %
7325 Non-malleable cast iron articles	30 %	UK, Spain, Portugal Belgium, Denmark, France, Greece, Ireland, Italy	1.2 %
7326 Iron or Steel Wire and manufactured SS	25 %	All EU	0.1 %
7415 Threaded bolts and nuts	50 %	Germany, Denmark, Sweden Italy, Neth, UK	0

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
7418 E.P.N.S ware	67 %	All EU + Norway	1 %
7616 Aluminium articles	45 %	" "	0.02 %
8202 Saw blades	10 %	Germany, Italy, Neth Sweden, UK	0.01 %
8203 Metal Tools	50 %	All EU + Norway	0.2 %
8204 Hand operated wrenches	40 %	All EU + Norway	0.001 %
8205 Hand Tools	40 %	" " "	0.01 %
8205 Extruding Dies	50 %	" " "	40 %
8209 Tungsten Carbide Tips	50 %	" "	0.1 %
8214 Cutlery	20 %	" "	0.1 %
8302 Builder's hardware	20 %	" "	1.2 %
8408 Piston engines	30 %	" "	0
8431 Hoists and escalator parts	25 %	France, Germany, Spain, UK Neth	0.1 %
8448 Textile Machinery	20 %	All EU	0.01 %
8458 Centre lathes	20 %	Germany, Denmark, UK, Norway	10 %
8471 PCs and LPTs	10 %	Denmark, Germany, UK	0
8473 Parts and accessories of computing machines connectors	10 %	All EU	1 %
8479 Chemical plant machinery	20 %	All EU	0.1 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
8481 Industrial valves	20 %	All EU	0.001 %
8505 Electro-magnets	20 %	All EU	0.001 %
8512 Lighting and signalling equipment	30 %	All EU	0.5 %
8518 Loudspeakers	40 %	UK, Sweden, France, Denmark, Belgium, Germany	1 %
8524 FD Software	50 %	All EU	0.7 %
8534 Printed circuits	60 %	All EU	0.002 %
8535 Lightning arrestors	10 %	UK, Denmark, France, Germany, Spain	50 %
8541 Diodes and transistors	10 %	All EU	0.05 %
8544 Insulated cables and conductors	15 %	Belgium, France, Italy, Germany, UK	0.1 %
8547 Electrical connectors	9 %	All EU	6 %
8711 Scooters	30 %	All EU + Norway	1 %
8712 Bicycles	50 %	All EU	20 %
8714 Bicycle parts	50 %	All EU	7%
9018 UV apparatuses Other med instruments	20 %	Sweden, Germany, France Italy, Neth, Spain, UK	0
9102 Watches	30 %	All EU	0
9202 Musical Instruments	18 %	All EU	0.1 %

	EU share of Indian Export	Destination Countries	Finland's share of EU exports from India
9503 Stuffed toys	70 %	All EU + Norway	0.8 %
9506 Footballs other inflatables	80 %	" "	0.2 %
Golf balls	60 %	Belgium, UK	0
Gymnastic/athletic	50 %	All EU	0.2 %
9507 Fish-hooks	25 %	All EU + Norway	0.1 %
9603 Toothbrushes	48 %	" "	0
9607 Zips	32 %	All EU	0
9608 Pens	54 %	All EU + Norway	1 %
9609 Pencils	45 %	" " "	0
9610 Slate boards	9 %	" "	0
9617 Vacuum containers	18 %	" " "	0
9801 Project goods	15 %	" " "	0
9991 Handicrafts	40 %	" "	0
Stonework	30 %	" "	0.1 %
Sandalwood work	25%	" "	0
Aluminium artware paper mache and leather wallhangings	25 %	" "	0.1 %

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